

Heat Stress Policy (Hot Weather Work) and Heat Plan



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Scope:

All Bernard Rochefort Ltd. employees and management, regardless of employment status, who are exposed to high temperatures and humidity while performing their duties.

The Law:

25(2) (h) of the Occupational Health and Safety Act states that employers must take every precaution reasonable in the circumstances for the protection of a worker. This includes the development of hot environment policies and procedures to protect workers in hot environments due to hot processes or hot weather. The Ontario Ministry of Labour recommends the Threshold Limit Values (TLV's) for Heat Stress and Heat Strain for compliance purposes. These are published by the ACGIH (American Conference of Governmental Industrial Hygienists).

Policy:

Bernard Rochefort Ltd. recognizes that construction operations involving heavy physical work in hot humid environments combined with hot working materials can place workers at risk for heat stress related illnesses. As such, as part of the company's ongoing efforts to reduce and control unsafe conditions and acts in the workplace and to take every precaution reasonable for the protection of our workers, Bernard Rochefort Ltd. has implemented this heat stress policy (working in Hot Weather Conditions) which is intended to protect workers from the potential adverse effects of overexposure to heat. Bernard Rochefort Ltd. is committed to ensuring the effectiveness of this program by allowing for careful monitoring of temperature and humidex factors on those days where the temperatures reach 25 degrees Celsius and by ensuring that all workers are familiar with the Processes noted below to understand the risks of hot weather work and to recognize the symptoms of heat stress.

Employer Responsibility:

The employer is responsible for ensuring that an effective policy and Hot Weather Plan is in place during the months of May to September where risk is highest and, in particular, once temperatures are consistently at the 25-degree mark or higher. The employer is responsible for ensuring that an initial refresher course on recognizing the signs of heat stress is delivered prior to the hot weather season. The employer is responsible for ensuring that a hot weather plan is implemented and adhered to by supervision, management and workers.

Accountability:

The employer is accountable to the Bernard Rochefort Ltd. Occupational Health and Safety Policy, their employees and the Ministry of Labour in this regard.

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Supervisor Responsibility:

Supervisors are expected to exercise due diligence for personal safety when assigning work in extreme heat, and shall ensure that all employees are familiar with first aid procedures for illnesses. Any worker on any site who has been recently hired must have had the orientation process, particularly for hot weather work prior to commencing work at a site. The supervisor is responsible for making sure there is an adequate fresh drinking water supply and for ensuring that time is allotted to “buddy up” prior to the days’ work to allow workers to be paired to monitor each other for signs and symptoms of heat stress.

Accountability:

The supervisor is accountable to the Bernard Rochefort Ltd. Occupational Health and Safety Policy, the employer and the Ministry of Labour in this regard as well as the OH&S coordinator who will periodically monitor random locations during hot weather work to ensure the program is in effect.

Worker Responsibility:

Workers are expected to comply with the processes noted below and to report immediately to their supervisor or first aide staff on scene if they recognize any symptoms in themselves or a co-worker. Workers are expected to refrain from excessive caffeine intake during hot weather work as this reduces the body’s ability to cool. Workers are expected to follow the hot weather plan and to observe their “buddy” as well as themselves on a vigilant basis for signs and symptoms of heat related illness.

Accountability:

The worker is accountable to the OH&S Policy, their supervisor and ultimately the employer as well as the Ministry of Labour.

Occupational Health & Safety Coordinator Responsibility:

The coordinator is responsible for ensuring that the hot weather plan is in effect on those days where temperature exceeds 25 Celsius.

Accountability:

The coordinator is accountable to the President.

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Approval & Acknowledgement:

A handwritten signature in blue ink, consisting of a large, loopy initial 'R' followed by a long horizontal stroke.

Rhéaume Rochefort

Feb 1st, 2018

Date:

Hot Weather Plan

This plan is to be used during those periods that the Hot Weather Policy is in effect. It is expected that an awareness of hot weather-related heat illness is considered during the period of May 1st to September 30th of any calendar year, so the plan is in effect for that time frame.

Using guidelines from the Ministry of Labour, the Construction Safety Association and the Occupational Health Clinic for Ontario Workers, Bernard Rochefort Ltd. has developed this Hot Weather Plan to protect workers from potential adverse effects from overexposure to heat/hot weather.

Bernard Rochefort Ltd. has determined that a schedule of recording temperatures will take place once the temperature reaches 25 degrees Celsius. These temperatures will be recorded on a Temperature Log and will be collected by the Health and Safety Representative and/or Health and Safety Coordinator during the monthly inspections to check for compliance.

Attention must be paid to not only temperature readings but humidex forecasts as well. Bernard Rochefort Ltd. will cease operations on those dates where the humidity reaches 40 degrees and alternate work will be considered or the scheduled work will be deferred until the level is reduced below 40. It is understood that, while a humidex reading of 45 may be tolerable according to TLV standards, the radiant heat from hot equipment can directly impact temperature readings on site to a greater level than those provided by Environment Canada.

Prior to the commencement of the summer season, Bernard Rochefort Ltd. will commit to refresher training sessions for all workers on recognizing the signs and symptoms of heat stress. While this is covered as part of the first aid training, Bernard Rochefort Ltd. recognizes that this health issue is serious enough to warrant specific instruction. Any worker who has not had the benefit of this heat stress training at the start of the season (i.e. late or mid-season hires) will receive instruction on recognizing the signs and symptoms as part of the orientation process from the Health and Safety Coordinator.

NOTE: THE CSAO provides guides for determining work class categories. Bernard Rochefort Ltd. has devised a work rest schedule that includes a combined element of both moderate and heavy types of work. During summer work the main PPE are reflective vests or T-shirts, hats and, on occasion, work

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gloves. It is not expected that these PPE will restrict the body's ability for sweat evaporation and heat removal.

Acclimatization: Most Bernard Rochefort Ltd. workers are outdoor workers and so are naturally acclimatized. In periods of extreme hot weather, however, if a new hire is made, this worker should not be placed on a schedule until he has had a period of acclimatization whereby he commences work (following work rest schedule) on a graduated basis (2 hours first day, 4 hours second day, 6 hours third day and 8 hours fourth and fifth day with no overtime till acclimated)

Plan

Employer Responsibility:

The employer is responsible for ensuring that all staff is trained to recognize the signs and symptoms of heat stress in themselves and other workers. This will be accomplished via specific training provided by a health care or first aid professional prior to season start. This is to be scheduled by the Health and Safety Coordinator in conjunction with the Supervisor/foreman. The H&S Coordinator will deliver a session on those signs and symptoms for those hired mid/late season who would not have had the benefit of such a training course.

The employer will ensure that there is a drug/alcohol policy in place to reduce the risk of increased exposure that these factors play in relation to heat stress.

The employer will ensure that the heat stress policy and hot weather plan are incorporated into the orientation process for all new hires and existing staff. As part of the new hire orientation and review of existing staff, workers will be asked to provide brief details on any medical condition or drug/medication requirement that may place them at higher risk of suffering adverse effects from heat exposure.

The employer will ensure that there is a first aid trained worker at each job site.

The employer will assign the task of monitoring daily temperatures to the foreman/lead hand on each site where outdoor work is being conducted. The employer is responsible for ensuring that the foreman/lead hand is a competent person.

The employer will reinforce with the Supervisor/lead hand the requirement for all workers to be in a buddy system during extreme hot weather temperatures.

The employer will ensure that there is an adequate supply of fresh drinking water at each outdoor work location.

Supervisor Responsibility:

The supervisor must take daily temperature readings at each site at 9:00 a.m., 12:00 and 3:00 p.m. and, on those days where work exceeds usually working hours, at 6:00 p.m. These temperatures are to be recorded and retained in the foreman's truck with all other inspection forms. These logs will be collected monthly by the Health and Safety Coordinator. These temperatures will be recorded on dates where temperatures reach 25 degrees Celsius or higher.

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The supervisor is required to monitor humidex readings from Environment Canada. These will be obtained by calling Environment Canada at 677-7928 (located at the Sudbury airport) and will be done at the same time that the daily temperature readings are recorded.

Once readings are taken, the supervisor is to ensure and enforce rest breaks as per the work/rest schedule noted that follows.

Guidelines for Work Rest Schedule

Based on USEPA (US Environmental Protection Agency) guidelines for heat stress in agriculture and the ACGIH WGBT-TLV (American Conference of Governmental Industrial Hygienists wet bulb globe test – threshold limit values), clothed in light weight pants and shirt, adequate water consumption and perceptible air movement.

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Occupational Health Clinics for Ontario Workers Inc.

June 2017

Limitations: this table is based on work with little or no radiant heat, assuming wearing regular summer clothing; if your specific working conditions vary from these assumptions, see the steps 1-5 listed below to make adjustments

Humidex Heat Stress Response Plan

Temp (in °C)	Relative Humidity (in %)																														
	100%	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	45%	40%	35%	30%	25%	20%	15%	10%												
49																		50													
48	NEVER IGNORE ANYONE'S SYMPTOMS DESPITE YOUR MEASUREMENTS!!!																	49													
47	Moderate Unacclimatized & Heavy Acclimatized							Moderate Acclimatized & Light Unacclimatized												50	47										
46																				49	46										
45																				50	47	45									
44		Action																		49	46	43									
43	45+		only medically supervised work						50+*													49	47	45	42						
42	42-44		work with 45 min/hr relief						47-49*													50	48	46	43	41					
41	40-41		work with 30 min/hr relief						45-46*													48	46	44	42	40					
40	38-39		work with 15 min/hr relief						43-44													49	47	45	43	41	39				
39	34-37		warn for symptoms & extra water						40-42													49	47	45	43	41	39	37			
38	30-33		alert for symptoms & extra water						36-39													49	47	45	43	42	40	38	36		
37	25-29		water as needed						32-35													49	47	45	44	42	40	38	37	35	
36	*for Humidex 45+, heat stress should be managed as per the ACGIH TLV*																	50	49	47	45	44	42	40	39	37	35	34			
35																		50	48	47	45	43	42	40	39	37	36	34	33		
34																		49	48	46	45	43	42	40	39	37	36	34	33	31	
33																		50	48	46	44	43	41	40	39	37	36	34	33	32	30
32	50		49	48	46	45	44	42	41	40	38	37	36	34	33	32	30	29	28	27											
31	50	49	48	47	45	44	43	42	40	39	38	37	35	34	33	32	30	29	28	27											
30	48	47	46	44	43	42	41	40	39	37	36	35	34	33	31	30	29	28	27	26											
29	46	45	43	42	41	40	39	38	37	36	35	33	32	31	30	29	28	27	26	25											
28	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24											
27	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22											
26	39	38	37	36	35	34	33	33	32	31	30	29	28	27	26	25	24	23	22	21											
25	37	36	35	34	33	33	32	31	30	29	28	27	26	26	25	24	23	22	21	20											
24	35	34	33	33	32	31	30	29	28	28	27	26	25	24	23	22	21	20	19	18											
23	33	32	31	31	30	29	28	28	27	26	25	24	23	22	21	20	19	18	17	16											
22	31	30	30	29	28	27	27	26	25	24	23	22	21	20	19	18	17	16	15	14											
21	29	29	28	27	26	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12											
	100%	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	45%	40%	35%	30%	25%	20%	15%	10%												

South Central 848 Main Street E., Hamilton, L8M 1L9 905-549-2552	South Western 171 Kendall Street, Sarnia, N7V 4G6 519-337-4627	Central 3129 Marentette Ave., Unit #1 Windsor, N8X 4G1 519-973-4800	Central 970 Lawrence Ave. W., Suite #110 Toronto, M6A 3B6 416-449-0009	Northern 84 Cedar Street, 2nd Floor Sudbury, P3E 1A5 705-523-2330	North Western 1151 Barton Street, Suite 103B Thunder Bay, P7B 5N3 807-623-3566	Eastern 1545 Carling Ave., Suite 101 Ottawa, K1Z 8P9 613-725-6999
OHCOW TOLL FREE 1-877-817-0336						

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The supervisor must allow, prior to job start, each worker to pair up with a coworker. This buddy system will help provide additional monitoring for symptoms of heat stress. For new workers hired after May 1 who have not had the benefit of the training with either the health care provider or first aider at season start, it will be expected that the supervisor will pair these workers with a worker who has already been trained to recognize the signs and symptoms of heat stress. The Health and Safety Coordinator will go over the signs and symptoms with this new hire at point of orientation.

- All employees are expected to be constantly vigilant and aware of all signs of heat stress and to look for these symptoms in workers during the course of hot weather work.
- Supervisors must allow workers who are reporting heat stress symptoms the opportunity to obtain relief immediately. The symptoms and treatment guidelines are noted in the following chart.
- Supervisors can also the following chart as a quick reference to ensure that workers are safe and not exposed to heat hazards without proper safe guards in place.

Definitions, Symptoms and First Aid for Heat Stress Hazards				
Term	Definition	Cause/Symptom	First Aid	Prevention
Heat Rash	Rash, also known as prickly heat	Red bumpy rash and prickly sensation	Rinse with cool shower and dry well	Wash frequently, keep skin clean and dry
Heat Cramps	Spasms in the larger muscles, usually the arms, back and legs. Cramping creates hard painful lumps within the muscles.	Under extreme conditions, excessive sweating can drain a person’s body of salt. Symptoms include painful cramps that occur suddenly at work or later at home. Heat cramps are serious and can be a warning of more serious problems.	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. If possible, workers should work on a buddy system so that workers can more readily spot the signs or symptoms of heat stress in others to prevent heat stroke.
Heat Exhaustion	This occurs when the body can no longer keep blood flowing to supply vital organs and at the same time send blood to the skin to reduce body temperature.	Heavy sweating; cool moist skin; weakness; headache; breathlessness; nausea or vomiting; weak pulse, normal or low blood pressure; fatigue; thirst; panting or breathing rapidly; possibly blurred vision; fainting	SEEK MEDICAL AID IMMEDIATELY Those suffering from heat exhaustion usually respond quickly to first aid, however heat exhaustion can lead to heat stroke which is a medical emergency. Move person to a cool or shaded area, loosen	Drink fluids regularly and reduce heat exposure and/or activity levels. Ensure that, on days of extreme heat and humidity, workers are not left alone but rather work on a buddy system to spot

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			or remove excessive clothing, fan and spray with cool water and offer sips of cool water to drink until medical aid can be provided. Medical aid must be summoned or worker transported to medical care.	symptoms as they appear.
HEAT STROKE (sometimes called sunstroke)	The result of the body's inability to cool itself and body temperature rises to critical levels	Causes are as per the definition: lack of fluid and extreme over heating Symptoms are: confusion, irrational behavior, loss of consciousness, convulsions, lack of sweating, hot dry skin, abnormally high body temperature, rapid or weak pulse, rapid, shallow breathing	CALL 911 IMMEDIATELY. This condition can cause death quickly. Move person to cooler place. If possible, quickly cool the body by wrapping wet sheets around it and fan rapidly. If you have ice or cold packs, place them on the victim's wrists and ankles, in the armpits and on the neck to cool the large blood vessels. Immerse victim in tub of cool water or place in a cool shower or spray with cool water from a hose. Watch for breathing problems and keep the airways clear. Keep the person lying down. Do not give anything by mouth to an unconscious victim	Reduce activity levels and exposure on extreme hot or humid days, drink fluids regularly, work in a buddy system, seek shade in non productive periods
Fainting	A person will lose consciousness as a result of fainting	Cool moist skin, weak pulse, sudden loss of consciousness	Get medical attention and assess need for CPR	Reduce activity levels and drink fluids regularly; work in buddy system

NOTE: HEAT STROKE CAN BE FATAL, EVEN AFTER FIRST AID IS GIVEN. ANYONE SUSPECTED OF SUFFERING FROM HEAT STROKE SHOULD NOT BE SENT HOME OR LEFT UNATTENDED UNLESS THAT ACTION HAS BEEN APPROVED BY A PHYSICIAN.

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IF THERE IS ANY DOUBT AS TO WHICH TYPES OF HEAT DISORDER THE WORKER IS SUFFERING FROM, CALL FOR IMMEDIATE MEDICAL ASSISTANCE. BERNARD ROCHEFORT LTD. WOULD RATHER REACT IN A PROACTIVE MANNER IN THIS SITUATION THAN TO HAVE SOMEONE SUFFER UNDUE HARM FROM UNCERTAINTY.

Worker Responsibilities:

Workers are responsible for ensuring that they are not reporting to work with the effects of alcohol or drugs in their system. These elements increase the risk of adverse effects from heat stress. Everyone is reminded that there will be strict enforcement of the drug and alcohol policy at Bernard Rochefort Ltd..

Workers are responsible for ensuring that they consume a reasonable amount of water, at a minimum, as per the guidelines found in this plan.

Workers are responsible for working in the “Buddy System” on those days where heat stress is a risk. As part of the buddy system, workers are responsible for observing their “buddy” for signs of heat stress and reporting these to the foreman/lead hand on site.

As noted previously in this plan, workers are encouraged to report any of those health factors/conditions that may put them at a greater risk of adverse affect due to heat stress (for example; diabetic conditions, certain medications, extreme fatigue, high blood pressure, cardiac conditions, etc.).

Workers are encouraged to decrease caffeine intake during hot weather periods and to consume water as an alternative.

Approval and Authority:

A handwritten signature in blue ink, consisting of a large, stylized 'R' followed by a horizontal line extending to the right.

Rhéaume Rochefort

Feb 1st, 2018

Date:

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