

CFMEU OHS ALERT

JULY 2022

BRRRR... WORKING IN THE COLD!

Working in the extreme cold can cause many adverse health effects. Here are just some of the issues you should be aware of, as well as some tips to help keep you safe and healthy if you do experience extreme cold climatic conditions at your workplace.

There are a number of factors that contribute to cold stress:

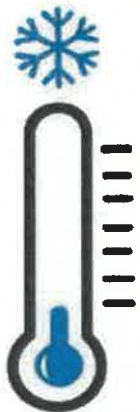
- cold temperatures
- high or cold winds
- ice and frost
- dampness
- cold water

The most serious health concern is the risk of hypothermia or the dangerous overcooling of the body. When your body core temperature drops below 35 degrees Celsius, you are at risk of being afflicted with mild hypothermia (one symptom of this is uncontrolled shivering). At a core body temperature of 33 degrees and below—moderate hypothermia can set in (symptoms may include violent shivering, slurred speech and loss of fine motor coordination). At a core body temperature of 30 degrees and below - severe hypothermia can set in – (symptoms

may include shivering in waves, difficulty in standing and walking, and difficulty in breathing).

Wind chill is another factor that needs to be considered. Wind chill is a combination of air temperature and wind speed and is a significant risk - even if the air temperature is above freezing point. Wind chill is based on the rate of heat loss from exposed skin caused by wind and cold. As the wind increases, it draws heat from the body, driving down skin temperature and eventually the internal body temperature. Therefore the wind makes you feel much colder. To calculate the wind chill factor, a temperature reading should be taken on site and the average wind speed for your area, needs to be obtained – the Bureau of Metrology web site: www.bom.gov.au will assist with this.

<http://www.princeton.edu/~oa/safety/hypocold.shtml>
<http://www.unh.edu/ehs/occsafety/cold-conditions-guidelines.html>



Using this information, you can then calculate the wind chill factor for your site using a range of apps and links available on your smart phone. An example of one of these can be found at <https://www.calculator.net>

Work should cease if the wind chill factor is found to be minus (-) 10 or below.

Frostbite is another serious effect of extreme cold especially to exposed extremities of the body such as fingers, toes, nose and ear lobes. Frostbite can occur without hypothermia. Frostbite occurs when the fluids around the body's tissues freeze. Symptoms of frostbite include coldness and tingling in the affected part, followed by numbness and changes in skin color – often to a lighter or greyish tone.

HOW WORKERS CAN BE PROTECTED:

- THE FIRST STEP IS FOR BOTH EMPLOYERS AND WORKERS AND THEIR OHS REPS TO RECOGNIZE AND ACKNOWLEDGE THAT THE WORKPLACE AND THE ENVIRONMENT (I.E. TEMPERATURE, WIND, ICE, MUD, WATER, SLOPING AND/OR SLIPPERY AND/OR UNSTABLE SURFACES) MAY MAKE THE WORKPLACE HAZARDOUS. MAKE AND KEEP ALL WORK AREAS AND ACCESS WAYS SECURE, CLEAR AND NON-SLIPPERY.
- WEAR WARM PROTECTIVE CLOTHING IN LAYERS (PRESERVING AIR SPACE BETWEEN THE BODY AND THE OUTER LAYER OF CLOTHING WILL HELP RETAIN BODY HEAT). WARM CLOTHING OVER AND ABOVE THE ANARD/EBA PROVISIONS SHOULD BE SUPPLIED TO ALLOW WORK TO BE DONE SAFELY. GLOVES, BEANIES AND/OR BALACLAVAS (UNDER HARDHATS), THICK WOOLEN SOCKS, AND INSULATED WORK BOOTS WILL ALL ASSIST IN KEEPING YOUR EXTREMITIES WARM. ALL EMPLOYERS HAVE A LEGAL OBLIGATION TO PROVIDE ALL THEIR WORKERS ALL THEIR PPE TO ENSURE THEY HAVE AND MAINTAIN A "SAFE SYSTEM OF WORK" (SECTION 21 OHS ACT 2004).
- KEEP DRY AND DON'T GET WET - WETNESS GREATLY INCREASES THE CHANCES OF COLD STRESS.
- TAKE FREQUENT SHORT BREAKS IN WARM, DRY SHELTERS/SHEDS. SHEDS MUST BE ABLE TO BE HEATED AND KEPT AT A CONSTANT WARM TEMPERATURE
- ROTATE OR SHARE WORK IN COLD CONDITIONS TO LIMIT THE EXPOSURE OF INDIVIDUAL WORKERS. ORGANIZE WORK- REST REGIMES.
- AND NEVER WORK ALONE - AT A MINIMUM, WORK IN PAIRS SO THAT ONE WORKER CAN ALWAYS RECOGNIZE DANGER SIGNS. LOOK OUT FOR EACH OTHER - THE EFFECTS OF COLD STRESS MAY NOT BE APPARENT TO ITS VICTIMS.

KEEP ALL OF THE ABOVE IN MIND IF AND WHEN YOU ARE ASKED TO WORK IN EXTREME COLD ENVIRONMENTS. IF YOU ARE IN ANY DOUBT CALL YOUR ORGANIZER, TALK TO YOUR CFMEU OHS REP OR CALL THE CFMEU DIRECT FOR FURTHER ASSISTANCE.

CONTACT THE CFMEU ON 93413444

CFMEU
VICTORIA

Wind-Chill: Table for measuring the cooling effect of wind on exposed (Siple-Passell formula)

	6	8	10	12	14	16	18	20	22	24	26	28	30	32	Knots
Temp. C	11	15	18	22	26	30	33	37	41	44	48	52	56	59	Kph
16	11	10	9	8	7	6	6	5	4	4	4	3	3	3	
15	10	9	7	6	5	5	4	3	3	2	2	2	1	1	
14	9	7	6	5	4	3	2	2	1	1	0	0	0	-1	
13	8	6	4	3	2	1	1	0	-1	-1	1	-2	-2	-2	
12	6	4	3	2	1	0	-1	-2	-2	-3	-3	-4	-4	-4	
11	5	3	2	0	-1	-2	-3	-3	-4	-4	-5	-5	-6	-6	
10	4	2	0	-1	-2	-3	-4	-5	-6	-6	-7	-7	-7	-8	
9	2	0	-1	-3	-4	-5	-6	-7	-7	-8	-8	-9	-9	-10	
8	1	-1	-3	-4	-5	-7	-7	-8	-9	-10	-10	-11	-11	-11	
7	0	-2	-4	-6	-7	-8	-9	-10	-11	-11	-12	-12	-13	-13	
6	-1	-4	-6	-7	-9	-10	-11	-12	-12	-13	-14	-14	-14	-15	
5	-3	-5	-7	-9	-10	-11	-12	-13	-14	-15	-15	-16	-16	-17	
4	-4	-6	-8	-10	-12	-13	-14	-15	-16	-16	-17	-17	-18	-18	
3	-5	-8	-10	-12	-13	-14	-16	-16	-17	-18	-19	-19	-20	-20	
2	-6	-9	-11	-13	-15	-16	-17	-18	-19	-20	-20	-21	-21	-22	
1	-8	-11	-13	-15	-16	-18	-19	-20	-21	-21	-22	-23	-23	-24	
0	-9	-12	-14	-16	-18	-19	-20	-21	-22	-23	-24	-24	-25	-25	
-1	-10	-13	-16	-18	-19	-21	-22	-23	-24	-25	-26	-26	-27	-27	
-2	-12	-15	-17	-19	-21	-22	-24	-25	-26	-27	-27	-28	-29	-29	
-3	-13	-16	-18	-21	-22	-24	-25	-26	-27	-28	-29	-30	-30	-31	
-4	-14	-17	-20	-22	-24	-25	-27	-28	-29	-30	-31	-31	-32	-33	
-5	-15	-19	-21	-24	-25	-27	-28	-30	-31	-32	-32	-33	-34	-34	