



WORKING WITH WIND CHILL

TOOLBOX TALK SERIES – COLD WEATHER

November 2022

We have all seen the weather forecasts when it comes to wind chill. However, do you know what wind chill really means? Do you know what it means when it comes to the workplace?

What is Wind Chill? Why is it important?

In an already cold environment, wind can increase the cooling effect on the body. As an example, if it is 10 degrees Fahrenheit, it can easily feel like -9 degrees Fahrenheit with a 10 MPH wind.

Below is a chart produced by the American Conference of Governmental Industrial Hygienists. This chart provides useful information when determining the proper actions to take at certain wind chills. To combat cold stress it's important to dress warm and to take warming breaks as needed. This chart will help determine how often to take warming breaks.

**Equivalent Chill Temperature Chart
 (Work/Warm-up Schedule for Four-Hour Shifts)**

		Actual Temperature Reading (Degrees Fahrenheit)													
		50	40	30	20	10	0	-10	-20	-30	-40	-50	-60		
Estimated Wind Speed (in mph)		Equivalent Chill Temperature (Degrees Fahrenheit)													
	Calm	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60		
	5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68		
	10	40	28	16	4	-9	-24	-33	-46	-58	-70	-83	-95		
	15	36	22	9	-5	-18	-32	-45	-58	-72	-85	-99	-112		
	20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-121		
	25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133		
	30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140		
	35	27	11	-4	-20	-35	-51	-67	-82	-98	-113	-129	-145		
	40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-148		
PERSONAL APPAREL NEEDED		EXTREME WEATHER CONDITIONS – PROTECTIVE OUTERWEAR REQUIRED													
(wind speeds greater than 40 mph have little additional effect.)		LITTLE DANGER Potential for a false sense of security.				INCREASING DANGER Danger of freezing of exposed flesh within one minute.				GREAT DANGER Flesh may freeze within 30 seconds.					
		Work/Warm-up Schedule for a Four-Hour Shift													
		55 min work		10 min rest		55 min work		10 min rest		55 min work		10 min rest		55 min work	
		30 min work		10 min rest		30 min work		10 min rest		30 min work		10 min rest		30 min work	
		Non-emergency work should cease													

NOTE: An employee experiencing any of the initial symptoms of frostbite or hypothermia must immediately move to a warm location and notify her or his supervisor.

*Extrapolated from the ACGIH's Threshold Limit Values and Biological Exposure Indices