Toolbox Talks

UNDERSTANDING WIND CHILL

The Wind Chill index is the temperature your body feels when the air temperature is combined with the wind speed. It is based on the rate of heat loss from exposed skin caused by the effects of wind and cold. As the speed of the wind increases, it can carry heat away from your body much more quickly, causing skin temperature to drop. When there are high winds, serious weather-related health problems are more likely, even when temperatures are only cool. These weather-related conditions become life threatening. Frostbite and hypothermia can develop in a very short time.

Wind Chill does not influence inanimate objects like car radiators and exposed water pipes, because these objects cannot cool below the actual air temperature.

The Wind Chill Chart below shows the difference between actual air temperature and perceived temperature, and the probability of frostbite occurring.

Wind Chill Chart

Wind Chill Index													
Wind (MPH)	**Temperature (Degrees Fahrenheit)**												
Calm	**35**	**30**	**25**	**20**	**15**	**10**	**5**	**0**	**-5**	**-10**	**-15**	**-20**	**-25**
5	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40
10	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47
15	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51
20	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55
25	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58
30	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60
35	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62
40	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64
45	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65

Low Frostbite Danger

Moderate Frostbite Danger

High Frostbite

Wind Chill Advisories will be issued by the National Weather Service (NWS) when the wind chill is expected to drop to between -10ºF and -24ºF**.** When the wind chill is expected to drop below -24ºF a **Wind Chill Warning** will be issued.

Toolbox Talks

Have Workers Been Trained? (Use the Safety Short, Cold Weather Conditions)

- Proper clothing and equipment.
- Safe work practices.
- Guidelines for eating and drinking.
- Risk factors that increase the health effects of cold exposure.
- How to recognize signs and symptoms of frostbite and hypothermia.
- Appropriate first aid treatment, including rewarming procedures.

Do You Plan Ahead?

- Prepare for extremely cold weather every winter. Take steps in advance for greater wintertime safety.
- Excess perspiration will increase heat loss, so remove extra layers of clothing and / or decrease activity whenever you feel too warm.
- Avoid getting gasoline or alcohol on your skin while de-icing and fueling your car or using a snow blower. These materials in contact with the skin greatly increase heat loss from the body.
- Do not ignore shivering. It's an important first sign that the body is losing heat. Persistent shivering is a signal to return indoors.
- Avoid Exertion. Cold weather puts extra strain on the heart. If you have heart disease or high blood pressure, follow your doctor's advice about shoveling snow or performing other hard work in the cold.
- If you must do heavy outdoor chores, dress warmly and work slowly. Remember, your body is already working hard just to stay warm, so don't overdo it.
- Have a change of clothing readily available.

Are You Dressed Properly?

- Wear several layers of loose clothing, making use of air trapped in the layers as an insulating factor. Wear synthetic fabrics next to the skin to wick away sweat.
- If the environment is wet and cold, ensure the outer layer of clothing is waterproof or water-resistant. **Don't wear a waterproof shell** if you're sweating. It won't let inner moisture evaporate. In the rain, wear a water repellent shell instead.
- Use hats or hoods to prevent heat loss from the head.
- Footwear should be large enough to allow the wearing of one or two pairs of socks. Wear **waterproof boots** (or rubber over boots) if it's both cold and wet.
- If workers get hot while working in a cold environment, they should open their jackets, but keep their hats and gloves on.
- Wear only **dry clothing**. Change clothes if they get wet or sweaty.
- Wear **mittens or gloves**. Below 0°F, mittens are better. Machine controls in cold areas should be a type you can use with mittens on.