Annex H: Severe Weather.

THUNDERSTORMS, TORNADOS, WINTER WEATHER, AND EXTREME HEAT AND COLD

This document can be customized to your own facility/agency needs

Before, during, and after severe weather take these steps:

- Sign up for notifications: know how your community sends warnings like outdoor sirens, smart phone alerts. Check your county emergency management page.
- Listen to local news or weather radio.
- Review your Shelter in Place and Evacuation Plans
- Review your Communication Plan
    - Use social media tools if you have them to let families know your status.
- Assess the damage: after you are sure the severe weather threat has ended.

Heat and humidity

RAPID RESPONSE CHECKLIST – HEAT
Activate facility's Emergency Operations Plan (EOP) and appoint a Facility Incident Commander (IC) if warranted.
Assess residents for signs of distress and/or discomfort.
Call 9-1-1 if any resident appears to be suffering from heat-related illness such as heat cramps, heat exhaustion or heat stroke.
Consider re-locating residents to a cooler part of the facility.
If the outdoor temperature is cooler than the internal facility temperature, consider opening windows and using fans to bring cooler air into the building. If the outdoor temperature is not cooler, keep the windows closed and shades drawn. (Note: it may be necessary to increase security to accommodate open windows, etc.)
If the internal temperature of the facility remains high and potentially jeopardizes the safety and health of residents, consider evacuation to another facility.
Provide cool washcloths and cooling fans for air circulation.
Encourage residents to drink fluids to maintain hydration.
If considering the decision to evacuate the facility, see Appendix H Shelter in Place or the Appendix I Evacuation to aid in process.

Notify appropriate state survey agency to report an unusual occurrence and activation of facility's EOP.

Extreme heat

A heat wave is a period of abnormally hot weather generally lasting more than two days. Heat events have the possibility of impacting the infrastructure in the area. Extreme heat can impact vulnerable populations such as, pregnant women, children, the elderly, and people with chronic illnesses. For this type of severe weather, it's important to know the difference between a watch and a warning.

- **Excessive Heat Watch:** Issued when conditions are favorable for an excessive heat event in the next 24 to 72 hours. A watch is used when the risk of heat wave has increased but its occurrence and timing are still uncertain**.**
- **Excessive Heat Advisory:** issued within 12 hours of the onset of extremely dangerous heat conditions. The general rule of thumb is when the maximum heat index temperature is expected to be 100 degrees or higher for at least 2 days, and nighttime air temperatures will not drop below 75 degrees
- **Excessive Heat Warning:** Issued within 12 hours of the onset of extremely dangerous heat conditions. The general rule of thumb is when the maximum heat index is expected to be 105 degrees or higher.

Tips to keep cool:

- Keep the air circulating.
- Draw all shades, blinds and curtains in rooms when exposed to direct sunlight.
- Remove residents from areas that are exposed to direct sunlight.
- Keep outdoor activities to a minimum.
- Check to see that residents are appropriately dressed.
- Provide ample fluids and provide as many fluids as the resident will take.
- Increase the number of baths given.
- Relocated to a cooler part of a building (heat rises, so go to a lower level)

Relative Humidity (Percentage)	Temperature (Degrees Fahrenheit)												
	80	82	84	86	88	90	92	94	96	98	100	102	104
20	79	80	81	83	85	86	88	90	93	95	97	100	103
25	79	80	82	83	85	87	89	91	94	97	100	103	106
30	79	80	82	84	86	89	92	95	98	101	104	108	112
35	80	81	83	85	87	91	94	97	100	104	107	112	116
40	80	81	83	85	88	92	96	99	103	107	111	116	121
45	80	82	84	87	89	94	98	102	106	110	115	120	126
50	81	83	85	88	91	96	100	104	109	114	119	125	131
55	81	84	86	89	93	98	103	107	113	118	124	131	137
60	82	84	88	91	95	100	105	111	116	123	129	136	144
65	82	85	89	93	98	103	108	114	121	127	135	143	151
70	83	86	90	95	100	106	112	118	125	133	141	149	158
75	84	88	92	97	103	109	115	122	130	138	147	156	166
80	84	89	94	100	106	112	119	127	135	144	154	164	175
85	85	90	96	102	110	115	123	132	141	150	161	172	184
90	86	91	98	105	113	119	128	137	146	157	168	180	193

Heat Exhaustion: A disorder resulting from overexposure to heat or to the sun. Early symptoms are headache and a feeling of weakness and dizziness, usually accompanied by nausea and vomiting.

- There may also be cramps in the muscles of the arms, legs, or abdomen. The person turns pale and perspires profusely, skin is cool and moist, pulse and breathing are rapid.

- Body temperature remains at a normal level or slightly below or above. The person may seem confused and may find it difficult to coordinate body movements.

Heat Stroke: A profound disturbance of the body's heat-regulating mechanism, caused by prolonged exposure to excessive heat, particularly when there is little or no circulation of air.

- The first symptoms may be headache, dizziness, and weakness. Later symptoms are an extremely high fever and absence of perspiration. Heat stroke may cause convulsions and sudden loss of consciousness. In extreme cases it may be fatal.

See Extreme Heat - MN Dept. of Health (https://www.health.state.mn.us/communities/environment/climate/extremeheat.html) to get additional on extreme heat and humidity

Thunderstorms

Warm, humid conditions often create thunderstorms. They can be dangerous, especially when combined with lightning, strong winds, and hail. Flash flooding can also be caused by the heavy rainfall that severe thunderstorms produce. For this type of severe weather, it's important to know the difference between a watch and a warning.

- **Severe Thunderstorm Watch**: This is issued when severe thunderstorms may be in the area. When a watch goes into effect, it's recommended that individuals stay informed as the storm develops in case it turns into a warning.
- **Severe Thunderstorm Warning**: This is issued when a severe thunderstorm is observed and reported by individuals or a weather radar. It's recommended that individuals take protective action when a warning occurs.

Preparedness steps for severe thunderstorms

1. Postpone outdoor activities if thunderstorms are in the forecast.
2. Ensure all employees and residents are sheltered if a warning is issued.
3. Have employees and residents refrain from using plumbing.

Tornados

A tornado is often described as a narrow, violently rotating column of air. It occurs underneath thunderstorms and can extend to the ground. The rotating air becomes visible once the tornado has created condensation and has picked up enough dust and debris. While they can occur at any time during the year, most tornadoes tend to occur from May to July. For this type of severe weather, it's important to know the difference between a watch and a warning.

- **Tornado Watch**: A watch is issued when the weather in certain areas has the potential to form a tornado. These are usually conditions in which extremely violent thunderstorms are occurring or are expected to occur.
- **Tornado Warning**: A warning is issued when there has been a tornado spotted in an area. Individuals should seek shelter immediately.

Preparedness steps for tornados

1. Maintain outdoor areas by cutting down old, dying trees and removing any damaged limbs from newer trees. This will help minimize the number of branches that could be whisked away in strong winds, potentially hurting someone or damaging property.
2. Make sure all windows and doors are closed and secure.
3. If a warning has gone into effect, have staff and residents retreat to a safe space on the lowest floor with no/minimal windows. If this is not possible, have them go into a hallway at the center of the building.

Winter weather

From freezing rain to heavy snowstorms, severe winter weather can not only be a nuisance, but it can also pose a threat to the individuals within your facility. While ice increases the chances of individuals slipping and falling, extreme winter weather can produce anywhere from multiple inches to feet of snow, making it difficult for staff to arrive for work and leave your facility. Snowstorms also make it harder for emergency transportation to hospitals when needed.

Cold

RAPID RESPONSE CHECKLIST - COLD
Activate facility's EOP and appoint a Facility Incident Commander (IC) if warranted.
Assess residents for signs of distress and/or discomfort.
Initiate actions to safely increase resident comfort, e.g., utilize heating pads and electric blankets (be sure to carefully monitor the temperature of residents); offer warm liquids (keeping in mind relevant dietary modifications/restrictions), etc. Contact vendors for additional heating units if appropriate.
Do not leave residents unattended near a heat source.
If the internal temperature of the facility remains low and potentially jeopardizes the safety and health of residents, consider re-location to a warmer part of the facility or evacuation to another facility.
If the considering the decision to evacuate the facility, see Appendix H Shelter in Place Plan and Appendix I Evacuation Plan.
Notify appropriate state survey agency to report an unusual occurrence and activation of facility's EOP.

Winter Weather Terms:

- **Winter Storm Watch:** This is issued when there may be severe weather conditions in your area within the next 12 to 36 hours.

- **Winter Storm Warning**: A warning goes into effect when your area is expected to receive:
  - 4”+ of snow or sleet within the next 12 hours.
  - 6”+ of snow or sleet within the next 24 hours.
  - 1/4” of accumulated ice at any point in the next 12 to 24 hours.
- **Winter Storm Advisory**: An advisory is issued when upcoming severe winter weather may create inconvenient or hazardous conditions.
- **Blizzard Warning:** This warning indicates that the combination of snowfall and strong winds will create a blinding snow with very limited visibility. Snow drifts and extremely low wind chills may also be present.
- **Ice Storm Warning:** ¼” or more of ice accumulation.
- **Wind Chill Warning:** A wind chill warning is when dangerously cold wind chill values are expected or occurring. If you are in an area with a wind child warning, avoid going outside during the coldest parts of the day**.**
- **Wind Chill Watch:** A wind chill watch is when dangerously cold wind chill values are possible. As with a warning, adjust your plans to avoid being outside during the coldest parts of the day.
- **Wind Chill Advisory:** A wind chill advisory is when seasonably cold wind chill values, but not extremely cold values are expected or occurring. Be sure to dress appropriately and cover exposed skin when venturing outdoors.

Preparedness steps for winter weather

1. If weather conditions prevent staff from coming in to work or going home, have sleeping accommodations for them.
2. Have enough ice melt on hand to keep all walkways free of ice.
3. Ensure there are enough supplies (food, water, generators) available if the winter weather causes a power outage.

Tips to keep warm:

- Use extra clothing.
- Use extra blankets.
- Heating pads.
- Offer warm liquids if able.
- Contact vendors for additional heating units if appropriate.
- Move to warm area of facility if able.

Hypothermia: prolonged exposure to very cold temperatures, leading to an unusually low body temperature. A temperature below 95 degrees is an emergency.

- When exposed to cold temperatures, your body begins to lose heat faster than it is produced. Lengthy exposure will eventually use up your body’s stored energy, which leads to a lower body temperature.
- A body temperature that is too low affects the brain, making the victim unable to think clearly or move well. This makes hypothermia especially dangerous, because a

person may not know that they are experiencing hypothermia and may not do anything about it.

- While hypothermia is most likely at very cold temperatures, it can occur even at cool temperatures (above 40°F) if a person becomes chilled from rain, sweat, or submersion in cold water.

Frostbite: a type of injury caused by freezing.

- **Signs:** loss of feeling and color in the affected areas, usually extremities, such as the nose, ears, cheeks, chin, fingers, and toes.
- **Actions**: Go to a warm room. Soak in warm water. Use body heat to warm. Do not massage or use a heating pad.
- Frostbite can permanently damage the body, and in severe cases can lead to amputation (removing the affected body part).

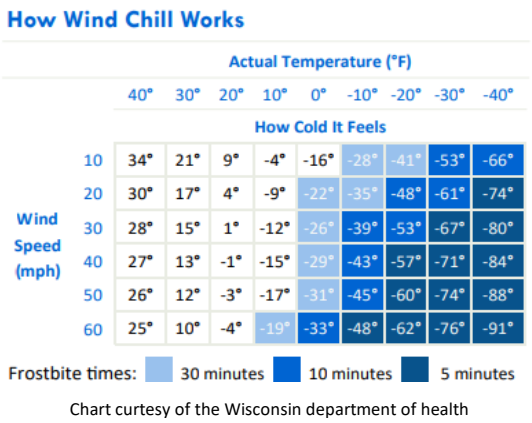

Chart curtesy of the Wisconsin department of health

Go to Winter Weather - MN Dept. of Health (https://www.health.state.mn.us/communities/environment/emergency/natural/cold.html) to get additional on extreme cold

Heating, Ventilation, and Air Conditioning (HVAC) Failure

1. Call HVAC Repair number, 24/7 number if needed (reference communications plan)
    a. In an emergency when you cannot get ahold of your main HVAC repair company, call additional HVAC companies near your location.
2. If repair can be done within a reasonable timeframe based on your facility and number of residents. Keep in mind temperature ranges identified in MN statute 4858.1415
    a. **2013 or new buildings:** 71-81 degrees regardless of season
    b. **Buildings older than 2013:** maintain a minimum of 71 during heating season and reasonable cool temperature during air season
3. Based on timeframe, determine if shelter in place or evacuation procedures need to be enacted.

See Appendix H for shelter in place and Appendix I for Evacuation

Source - https://www.seniorlivingu.com/severe-weather-safety-emergency-preparedness/