Managing Extreme Temperatures in a School Bus in Maine

In today's changing climate, summer heat is becoming more intense, frequent, and prolonged—posing serious health risks and operational challenges for schools. Extreme temperatures can affect everyone, regardless of age or health status. This document provides essential guidelines and best practices for managing hot weather conditions to ensure the safety, health, and well-being of students, staff, and the broader school community. It also outlines the signs and symptoms of heat-related illnesses and includes first aid measures for prompt and effective treatment.

When temperatures exceed 90°F combined with high heat and humidity for two to three consecutive days, children, older adults, and people with certain illnesses and chronic conditions become more susceptible to heat-related illnesses. The body's ability to cool itself is challenged during hot and humid weather. When the body temperature rises faster than it can cool down, it can lead to serious health issues.

Extreme Temperature Guidelines for School Bus Operations

The guidelines below are effective approaches for managing school bus operations during extreme temperatures to ensure student safety and vehicle reliability.

In Extreme Heat

Pre-Trip Inspection

- Verify that windows open and close properly to allow for airflow.
- Ensure that the bus's cooling system is maintained and that coolant levels are adequate.

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During Operation

- Ensure that bus drivers and students have access to water and are encouraged to stay hydrated.
- Monitor the interior temperature to maintain a comfortable environment. Keep windows open for good airflow.

Emergency Preparedness

- Keep a supply of water and basic first-aid supplies on the bus.
- Recognize signs of heat exhaustion and heatstroke.
- Seek shade and cool environments if the bus breaks down, and contact dispatch immediately.

Types of Heat Illnesses

Heat Cramps

Heat cramps may be the **first sign** of heat-related illness and can lead to heat exhaustion or heat stroke if untreated.

Symptoms:

- Painful muscle cramps and spasms (usually in the legs or abdomen)
- Heavy sweating

First Aid:

- Apply firm pressure on cramping muscles or gently massage to relieve spasms
- Give sips of water **unless the person complains of nausea**—then stop giving water
- Seek immediate medical attention **if cramps last longer than 1 hour**

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Heat Exhaustion

Symptoms:

- Heavy sweating
- Weakness or tiredness
- Cool, pale, clammy skin
- Fast, weak pulse
- Muscle cramps
- Dizziness
- Nausea or vomiting
- Headache
- Fainting

First Aid:

- Move the person to a cooler environment (preferably an air-conditioned room)
- Loosen clothing
- Apply cool, wet cloths

Heat Stroke

Symptoms:

- Throbbing headache
- Confusion
- Nausea
- Dizziness
- Body temperature above 103°F
- Hot, red, dry, or damp skin
- Rapid and strong pulse
- Fainting
- Loss of consciousness

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First Aid:

- **Call 911 immediately** or ensure the victim is taken to a hospital right away.
- Heat stroke is a **severe medical emergency**. Delay can be fatal.
- Move the victim to a cooler, preferably air-conditioned, environment.
- Reduce body temperature with a cool cloth or bath.
- Use a fan **only if** the heat index temperature is not extremely high (fans can make it worse at high temps).
- **Do NOT give fluids.**

Extreme Heat Terms

Heat Wave:
A prolonged period of excessive heat, often combined with excessive humidity.

Heat Index:
A number in degrees Fahrenheit (°F) that indicates how hot it feels when relative humidity is added to the air temperature.
Exposure to full sunshine can increase the heat index by 15°F.

Excessive Heat Watch:
Conditions are favorable for an excessive heat event to meet or exceed local **Excessive Heat Warning** criteria within the next 24 to 72 hours.

Excessive Heat Warning:
Heat index values are forecasted to meet or exceed locally defined warning criteria for at least **2 days**
(daytime highs = 105–110°F).

Heat Advisory:
Heat index values are forecasted to meet locally defined advisory criteria for **1 to 2 days**
(daytime highs = 100–105°F).

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