

ARKANSAS TECH UNIVERSITY  
HEALTH & SAFETY POLICY

## **Cold Stress Prevention Plan**

### **Purpose:**

To prevent cold-related illnesses and injuries (hypothermia, frostbite, trench foot, chilblains) by controlling exposure to cold environment and ensuring workers are prepared, protected, and trained.

### **Scope:**

Applies to all Arkansas Tech University Facilities Management employees exposed to cold, wet, windy, or winter conditions especially outdoor work or unheated indoor spaces.

### **Hazard Identification:**

Cold stress risk increases with:

- Low temperatures (especially below 40 degrees F/ 4 degrees C)
- Wind (wind chill)
- Wet conditions (rain, snow, sweat)
- Prolonged exposure
- Inadequate clothing
- Fatigue, dehydration, or poor nutrition

**Supervisors should monitor:**

- Temperature and wind chill
- Weather forecasts
- Work duration and intensity

**Engineering Controls:**

- Provide heated shelters, break rooms, Etc.

**Administrative Controls:**

- Schedule heavy work task during warmer parts of the day
- Rotate workers to limit cold exposure
- Enforce warm-up breaks (frequency increases as temperature drops)
- Implement a buddy system
- Allow gradual acclimatization for new or returning workers
- Suspend non-essential work during extreme cold

**Personal Protective Equipment (PPE)**

Workers must wear:

- Layered clothing (inner moisture-wicking, insulating middle, windproof/waterproof outer)
- Insulated, waterproof boots
- Warm socks (avoid cotton)
- Gloves or mittens suitable for the task
- Insulated hats to cover ears

- Face protection if wind chill is severe

Replace wet clothing immediately

### **Training and Awareness:**

Train workers and supervisors to recognize:

Early signs of cold stress

- Shivering
- Fatigue
- Numbness or tingling
- Clumsiness
- Pale or waxy skin

Severe symptoms

- Confusion
- Slurred speech
- Loss of coordination
- Blue or gray skin
- Uncontrollable shivering or no shivering at all

Training should include

- Proper clothing use
- Hydration and nutrition importance
- Emergency response procedures

## **Hydration and Nutrition:**

- Encourage frequent warm, non-caffeinated drinks
- Provide access to water year-round
- Promote regular meals and high-energy snacks
- Discourage alcoholic beverages

## **Emergency Response:**

If cold stress is suspected

- Move the person to a warm, dry area
- Remove wet clothing
- Warm gradually (blankets, warm drinks if conscious)
- Do not rub frostbitten areas
- Seek medical attention immediately for severe symptoms

## **Responsibilities:**

Management

- Provide equipment, training, and shelter
- Monitor conditions and enforce controls

Supervisors

- Watch for symptoms
- Adjust work practices
- Ensure compliance

Workers

- Wear required PPE
- Report symptoms immediately

- Look out for coworkers