

State of Vermont  
Department of Labor  
5 Green Mountain Drive  
P.O. Box 488  
Montpelier, VT 05601  
labor.vermont.gov

[phone] 800-287-2765

July 24, 2024

Michaela Merrill, Superintendent  
Southern State Correctional Facility  
AHS - Department of Corrections  
280 State Drive  
Waterbury, VT 05671

Dear Superintendent Merrill,

As a result of a formal complaint received by the Department of Labor's Vermont Occupational Safety and Health Administration (VOSHA), a workplace safety inspection was conducted at Southern State Correctional Facility (SSCF) on June 10, 2024, by a VOSHA Compliance Safety and Health Officer. The complaint received was for "dangerous and excessive heat levels" affecting corrections officers at the facility located at 700 Charleston Road, in Springfield, VT. A follow up inspection was also conducted at SSCF on June 19, 2024.

Southern State Correctional Facility, a Central Level male facility with 370 beds, has a current allotment of 146 state employee positions and employs contracted staff who provide medical, mental health, dental, and other program services to their site. As part of the inspection, multiple SSCF corrections officers were interviewed by VOSHA and the following heat-related issues were identified.

- On May 22, 2024, the initial employee (Employee One) was sent to the hospital for an examination due to heat-related concerns had been working on the Infirmary Unit which is the only unit on site that has air conditioning. Employee One stated that the air conditioner on this particular day was temporarily out of service and as a result was unable to be utilized. This resulted in the temperature on the Unit increasing and Employee One presenting with a visual disturbance and overall disorientation. Employee One reported that a loss of consciousness eventually occurred leading to a transfer to the hospital. Ultimately, the medical staff determined that minor heatstroke was the contributing factor. Employee One also reported that prior to this medical episode a podium fan and a pedestal fan on the Unit were being used, and liquids were being consumed to ensure hydration.
- On June 21, 2024, an additional report of a corrections officer (Employee Two) presenting with heat exhaustion and dehydration was received. Employee Two stated that while working on the Gulf Unit, on this particular day, they experienced symptoms of lightheadedness, blurred vision, and dizziness accompanied by extreme fatigue. Employee Two reported "passing out" as a result and being taken to the hospital because of heat exhaustion and dehydration. Leading up to this medical episode Employee Two reported the "it felt like the heat was running on high and the fans were just moving hot air throughout the unit making things worse."



**Findings**

During the follow up inspection conducted on June 19, 2024, a QUESTemp 34 Wet Bulb Globe Temperature (WBGT) was utilized to measure the effects of ambient air temperature, humidity, air flow, and radiant heat from external sources. Prior to obtaining Heat Index measurements indoors, the outside Heat Index was obtained at 12:11 PM, and noted to be 96 degrees Fahrenheit. The inside Heat Index measurements were then obtained between 12:33 PM - 1:30 PM and recorded in order as follows:

- Infirmary Unit-86 degrees Fahrenheit
- Fox Unit, 90 degrees Fahrenheit
- Delta Unit 93 degrees Fahrenheit
- Charlie Unit 91 degrees Fahrenheit
- Bravo Unit 88 degrees Fahrenheit

Please note the WBGT was on each unit for ten (10) complete minutes to enable environmental acclimation prior to obtaining the recordable results. The Heat Index readings for your facility establish a *heat health hazard* that can, and has, affected your workers adversely.

**Corrective Action**

Under Vermont's workplace safety guidelines, and in the interest of workplace safety and health, Southern State Correctional Facility must establish a written heat injury and illness prevention program or enforce and train on the current policy. The written program goes into effect whenever the National Weather Service has announced a heat warning or advisory for the local area, or when the indoor/outdoor Heat Index is 80 degrees Fahrenheit or higher. The program should include, to the best of the facility's ability, the following General Controls:

General controls include training, personal protective equipment (PPE), engineering, work practice, and administrative controls, health screening, and heat alert programs, (see also NIOSH Criteria Document, *Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments*, February 2016, page 7), available at: [www.cdc.gov/niosh/docs/2016-106](http://www.cdc.gov/niosh/docs/2016-106).

1. **Training** – Inform workers of the following:
  - a. Hazards of heat-related illnesses.
  - b. How to avoid heat-related illnesses by recognizing and avoiding situations that can lead to heat-related illnesses.
  - c. Recognition of signs and symptoms of heat-related illnesses.
  - d. First aid procedures.
  - e. Employer communication should be provided internally to ensure all staff members are aware of the established program to address heat-related illnesses.
  
2. **Personal Protective Clothing and Equipment:**
  - a. Short-sleeved uniform shirts should be encouraged, and potentially lighter weight shirts should be considered for use during the hotter months.
  - b. Cooling vests and water-cooled/dampened garments may be effective under high temperature and low humidity conditions. However, be aware that cooling vests can



become an insulator when they reach the body's temperature. Frequent cooling vest changes should be encouraged.

- c. Consider the use of dermal patches for monitoring core temperature to better identify when workers need to be removed from the work area.
- d. Consider the use of heart rate monitoring to better identify when workers need to be removed from the work area.

**3. Engineering Practice Controls:**

- a. Utilize cooling rooms with air conditioning for breaks.
- b. Ensure cooling rooms are always available for corrections staff use.
- c. Use multiple oscillating pedestal fans on all units.
- d. Open doors on units where possible to promote increased air flow for additional relief.
- e. Ensure employees are provided frequent breaks with consideration to additional breaks when working extended hours (up to 16-hour mandatory overtime at present).
- f. Place inmates that require 15 min checks on ground level to eliminate excessive use of stairs during shift to decrease exertion.

**4. Administrative and Work Practice Controls:**

- a. Provide adequate, cool drinking water on the worksite that is easily accessible and permit employees to take frequent rest and water breaks.
- b. Provide variable staff coverage to allow for increased restroom breaks as necessary due to increased hydration.
- c. Ensure availability of relief workers for assistance as needed.
- d. Ensure frequent work/rest schedules.

**5. Health Screening and Acclimatization:**

- a. Allow new workers to get used to hot working environments by using a staggered approach over 7-14 days. For example, new workers should begin work with 20% of the normal workload and time spent in the hot environment, and then gradually increase the time over a 7-14-day period. The same should be done for workers returning from an absence of three or more days, starting with 50% of the normal workload and time spent in the hot environment, then staging acclimatization over three consecutive days.
- b. Advise workers that certain medications can increase the risk of heat stress. Including:
  - 1. Amphetamines
  - 2. Diuretics - water pills
  - 3. Antihypertensives - blood pressure medication
  - 4. Anticholinergics - for treatment of chronic obstructive pulmonary disease (COPD)
  - 5. Antihistamines - allergy medications
- c. In addition, alert workers to the dangers of using illegal drugs and alcohol in hot work environments. Illegal amphetamines, such as methamphetamine, are particularly hazardous when heat stress is present.
- d. Some conditions, such as pregnancy, fever, gastrointestinal illness, heart disease, and obesity, may increase the risk of heat-related illness. Advise workers to check with their doctors if they have any questions. (Please note: the employer is NOT entitled to know



whether workers have these conditions, but only whether workers have any health conditions that limit their ability to perform their job duties. In some instances, workers with chronic conditions may need extra time to become acclimatized or may need other accommodations, such as more frequent breaks or restricted work.)

- e. Encourage workers to consult a doctor or pharmacist if they have questions about whether they are at increased risk for heat-related illness because of health conditions they have and/or medications they take.

Within thirty (30) days from the date of this letter, SSCF should notify VOSHA in writing whether it intends to implement a "heat injury and illness prevention program" or "enforce and train" under the current policy. Should SSCF choose to implement a heat injury and illness prevention program, please provide a written outline of the program to VOSHA within 120-days from the date of this letter. VOSHA will review the outline to ensure that the program complies with current safety standards.

VOSHA may conduct a follow-up safety inspection at SSCF within one year. Over the course of the next 12-months, SSCF may voluntarily provide VOSHA with progress reports on your efforts to address these heat-related conditions in your workplace.

Any questions or written responses can be directed to Compliance Safety and Health Officer Tricia O'Connor at [tricia.oconnor@vermont.gov](mailto:tricia.oconnor@vermont.gov).

Sincerely,



Dan Whipple  
VOSHA Program Manager

- c. Dirk Anderson, VDOL Workers' Compensation and Safety Director  
Nicholas Deml, Commissioner of Corrections  
Kevin Jenkins, SSCF Assistant Superintendent

