U.S. Department of Labor

Occupational Safety and Health Administration
Eau Claire Area Office
1310 West Clairemont Ave
Eau Claire, WI 54701

August 11, 2023

SENT VIA EMAIL ONLY

Amy Notermann
U.S. Postal Service
100 S 1st Street
Minneapolis, MN 55401
[redacted]

RE: OSHA Inspection Number 1681951

Dear Amy Notermann:

An inspection of the Stillwater, MN Post Office (216 Myrtle Street West) and the Oak Park Heights, MN Carrier Annex (5520 Memorial Ave North) was conducted under the National Emphasis Program – Outdoor and Indoor Heat-Related Hazards on July 10, 2023.

The focus of the inspection was the Oak Park Heights Carrier Annex as that is where the rural and city carriers operate out of. The inspection indicated the facilities had some varied elements in place to address heat stress as described below in each section. OSHA recommendations are included in each section as well.

General Controls: General recommended controls to address heat stress among employees 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.

1. Training

Recommendations include the following per training on heat-related illness and first-aid, but are not limited to:

a. Train all employees regarding the Heat Stress Program, the health effects associated with heat stress and recognizing the signs, symptoms and methods of the prevention of heat-induced illnesses.

b. Designate and train a knowledgeable person onsite who is well informed about heat related illnesses and authorized to modify work activities and the work/rest schedule.

c. Develop specific procedures to be followed for emergencies and procedures for first aid to be administered immediately to employees displaying symptoms of a heat related illness.

d. Verify that adequate medical services and supplies are available.

e. Advise workers that certain medications and medical conditions can increase the risk of heat-related illness. These include:

1. Amphetamines – sometimes prescribed for narcolepsy or attention deficit hyperactivity disorder (ADHD),
2. Diuretics - water pills,
3. Antihypertensives - blood pressure medication,
4. Anticholinergics - for treatment of chronic obstructive pulmonary disease (COPD),
5. Antihistamines - allergy medications,
6. 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), and
7. 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.

The Postal Service had a Heat Illness Prevention Program (HIPP) which outlined the required facility postings and safety talks; as well as methods of compliance, training, monitoring signs and symptoms, emergency planning and response, and engineering and administrative controls.

The inspection indicated the post office was providing training on heat stress related items. Information on heat stress was noted to be distributed in-house through posters and standup talks with postal workers. Additional information on heat stress was mailed to employees; sent to them on their scanners daily; provided in their vehicles and on their badges; and provided through on-line training. Medications of concern were noted as discussed. Information provided through the document request indicated employees were trained on the following in 2023 "FY23 Heat Stress Recognition and Prevention" and the "HIPP Safety Talk 2068", as well as the Heat Illness Prevention Program.

During the inspection, the OSHA-NIOSH Heat Safety Tool (smartphone app) was recommended. This App is an additional useful training resource that can be utilized by employees to visually monitor the heat index throughout the day. It includes precautions they should be taking as far as water consumption rates, breaks, etc. The App provides current and projected heat indices for the day at the employee's current location; and indicates the hazard levels as: Caution (less than 80°F HI), Warning (80°F – 94°F HI), Danger (95°F HI or higher), and offers recommended actions to protect workers.

2. Personal Protective Clothing and Equipment

Recommendations include the following, but are not limited to:

a. Hats for work outdoors in the sun.

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. Employees should be trained on their use and potential limitations. Additionally, the type of cooling vest, the cooling medium, weight of the vest, and cooling effectiveness need to be considered.

The inspection indicated cooling towels have been provided in the past; however, they were noted as satisfactory and not super effective, as they did not last very long in the field. Cooling caps were also noted as provided.

The use of cooling vests was discussed with management and employees as a means to reduce core body temperature. Several studies have shown cooling vests to be effective such as, but not limited to, the following scholarly articles:

- Effectiveness of a Light-Weight Ice-Vest for Body Cooling While Wearing Fire Fighter's Protective Clothing in the Heat. Juhani Smolander, Kalev Kuklane, Désirée Gavhed, Håkan Nilsson & Ingvar Holmér: January 8, 2015. International Journal of Occupational Safety and Ergonomics, 10:2, 111-117.

- Physiological Evaluation of Personal Protective Ensembles Recommended for Use in West Africa. Tyler Quinn, MS, Jung-Hyun Kim, PhD, Amanda Strauch, MS, Tianzhou Wu, MS, Jeffery Powell, MS, Raymond Roberge, MD, MPH, Ronald Shaffer, PhD, Aitor Coca, PhD: October 2017. Disaster Med Public Health Prep. 2017 October ; 11(5): 573–579.

- Efficacy of Cooling Vests Based on Different Heat-Extraction Concepts: The Heat-Shield Project. Urˇsa Ciuha *, Tamara Valenˇciˇc, Leonidas G. Ioannou, Igor B. Mekjavic: January 24, 2023. Journal of Thermal Biology 112 (2023) 103442, page 1-10.

- Cooling Vests Alleviate Perceptual Heat Strain Perceived by COVID-19 Nurses. Johannus Q. de Korte, Coen C. W. G. Bongers, Milène Catoire, Boris R. M. Kingma & Thijs M. H. Eijsvogels: January 20, 2021. Temperature, 9:1, 103-113.

- Comfort and Performance Improvement Through the Use of Cooling Vests for Construction Workers. Paul Roelofsen and Kaspar Jansen: June 15, 2022. Department of Industrial Design Engineering, Delft University of Technology, Delft, The Netherlands. International Journal of Clothing Science and Technology: Volume 35 Issue 1.

- Evaluating the Effectiveness of Cooling Vests in a Hot and Humid Environment. Wen Yi, Yijie Zhao* and Albert P. C. Chan: January 24, 2017. Department of Building and Real Estate, Hong Kong Polytechnic University: Annals of Work Exposures and Health, 2017, Vol. 61, No. 4, 481–494.

3. **Engineering Practice Controls**

Recommendations include the following, but are not limited to:

a. Use air conditioning
b. Increase general ventilation
c. Provide cooling fans

The inspection indicated the Long Life Vehicles (LLV) do not have air conditioning; however, some of the other route vehicles do have air conditioning. The postal service noted they are working on getting newer vehicles; however, this location stated they had not heard anything definitive. It was noted that the newer vehicles would be rolling out to the southern states first, and the other states with newer older vehicles will rotate vehicles, to help decommission the oldest vehicles.

It was noted that the LLVs run hot and the ventilation fans within the vehicles provide little relief, blowing hot air from the engine and outside into the vehicle. Carriers stated they can open their windows on the vehicles; however, this was not always possible when the mail truck is full. Plus, the windows must stay up for security reasons during all stops. It was noted that thermometer readings in the vehicles have read temperatures of 100 F and higher. Additionally, the LLVs were noted to breakdown on a regular basis, in which items that needed to be fixed were not always addressed, or addressed in an untimely manner.

There was also a difference in flexibility between the rural and city carriers per vehicle use. Rural carriers stated they have more flexibility and can use their own vehicles that may have a/c vs using the LLVs. Rural carriers can also leave and come back to get more packages; whereas the city carriers must wait until the clerks process all their mail, and they typically do not return until their route is done.

4. **Administrative and Work Practice Controls**

Recommendations include the following, but are not limited to:

a. Schedule hot jobs for cooler parts of the workday; schedule routine maintenance and repair work during cooler seasons of the year when possible.

b. Use relief workers to help reduce physical demands of the job, especially for unacclimatized workers and those returning to work from an illness or long absence.

c. Use work/rest schedules.

d. Provide adequate, cool drinking water on the worksite that is easily accessible and permit employees to take frequent rest and water breaks.

The inspection indicated staff shortages in all areas. The increased volume of packages and late start times were problems not only per heat stress, but also per burn out of the employees.

Rural carriers started at 7 a.m. and city carriers started at 8 a.m. The rural carriers had more flexibility in their scheduling vs. the city carriers. City carriers indicated their start time recently changed from 7:30 a.m. to 8 a.m., and noted they typically did not get on the road until 9 a.m. or 10 a.m. due to mail processing timeframes. The clerks were noted to come in at various times of the day to process the mail as needed. Variances and requests for earlier start times were noted as reviewed on a case-by-case basis, with most requests currently being denied. During the inspection, earlier start times were addressed with management and were recommended as advantageous in reducing employees' exposure to heat stress; however, management indicated later start times were not feasible based on the flow of mail coming into the facility.

Staffing shortages and the volume of mail was indicated as a huge factor in not being able to provide relief to carriers; carriers were working 6 days per week, 10-12 hours, with one day off per week. In the past, it was noted that the post office has done emergency hiring, but there has also been a shortage of applicants. Supervisors, the Postmaster, and carriers that finish their route early stated they would help other carriers on their routes as needed; however, this was difficult because they were short staffed. Carriers indicated they inadvertently used the buddy system by checking in on each other throughout the day to help out.

Carriers could take breaks as needed; however, it was noted the scanner tracks how long employees are stopped, so for some this may be a deterrent to taking additional breaks if they are behind on their route, or have been reprimanded prior for taking too many breaks. Management indicated they tell their carriers to take breaks and to not skip them, but some do because they

want to get their route done and go home. Management stated employees are not reprimanded for taking additional breaks due to the heat if needed.

Carriers indicated if they did not feel well, they could come back to the office and go home; however, some stated it was frowned upon if they did not finish their route, as others would have to fill in to finish the route. Plus, supervisors were asked about numbers and completion of routes daily. It was stated that it is a priority to get the mail delivered, with the human element lost in the machine of delivery.

Per accessibility to drinking water, findings from the inspection indicated employees can bring a cooler of drinking water with them on their route and many carriers stated they do so. In the past, it was noted that pallets of water were provided; however, this year, pallets of water were not allowed to be purchased. The facilities did have potable water in which employees could fill up water bottles. There were also vending machines with water and Gatorade for employees. Management noted electrolyte packets have been provided in the past to add to water. Managers have also gone out in the field to check on carriers, providing additional water and Gatorade as needed.

5. **Health Screening and Acclimatization:**

Recommendations include the following, but are not limited to:

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. Develop a written schedule for acclimatizing employees beginning work in a hot environment or those returning from an absence of a week or more.

c. Establish specific break schedules during high-temperature conditions that differ from regular break schedules. Ensure that these break schedules are followed.

d. Physiologically monitor workers by establishing a routine to periodically check workers for physical signs such as body temperature, heart rate and body water loss.

e. Consider the use of dermal patches for monitoring core temperature to better identify when workers need to be removed from the work area.

f. Consider the use of heart rate monitoring to better identify when workers need to be removed from the work area. Both sustained (180 bpm minus age) and recovery (120 bpm after a peak work effort) heart rates are recommended guidelines for limiting heat strain.

An evaluation of the OSHA recordkeeping logs were reviewed for the locations listed above from 2020 to 2023. One heat illness related case was noted on June 4, 2021, case number 1219203. The inspection also indicated some staff had went home early, this summer, due to heat stress symptoms, but were not treated at a medical facility.

Management indicated acclimatization of employees was not possible for the rural and city carriers as they bid on specific routes and those routes were specific to those employees. Employees on certain routes could receive help from the Postmaster, supervisors, and other employees as needed, as resources allowed per staffing.

Job rotation was also noted as not an option, as there were union contracts for job positions. It was noted that a carrier may be able to switch to an easier route; however, they could not switch to being a clerk for a short time as a job transfer. For instance, a carrier could not do a job transfer for short while if coming back from an illness, they would have to take days away, and come back when they were cleared for duty.

Management stated there is no heat index prescribed in which employees would stop work; or additional messages sent out on the scanners, later in the day, if the heat index is getting high. It was up to the employee's discretion to stop work per their individual symptoms.

In summary, the use of cooling vests, earlier start times, employees bringing coolers with cold drinks, and checking the heat index with the OSHA-NIOSH app were recommended, among other measures.

You may voluntarily provide this Area Office with progress reports on your efforts to address these heat-related conditions in your workplace. OSHA may return to your worksite to further examine the conditions noted above.

Sincerely,

Mitzy Ruth Wright

Mitzy Ruth Wright
Area Director

Additional Resources:

1. OSHA-NIOSH InfoSheet: Protecting Workers from Heat Illness, www.osha.gov/sites/default/files/publications/osha-niosh-heat-illness-infosheet.pdf.
2. Occupational Heat Exposure information available on the OSHA website https://www.osha.gov/heat-exposure/hazards
3. OSHA-NIOSH Heat Safety Tool App https://www.osha.gov/heat/heat-app
4. CDC Workplace Safety and Health Topics: Heat Stress, www.cdc.gov/niosh/topics/heatstress.
5. NIOSH Criteria Document: Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments, February 2016, www.cdc.gov/niosh/docs/2016-106/.
6. American Conference of Governmental Industrial Hygienists (ACGIH®) Action Limit (AL) for un-acclimatized workers and a Threshold Limit Value (TLV®) for acclimatized workers, *see* Heat Stress and Strain: TLV® Physical Agents 2022 or latest edition. *See* ACGIH® website at www.acgih.org/.
7. NOAA/NWS Heat Safety webpage, www.weather.gov/safety/heat.