

United States of America
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
1120 20th Street, N.W., Ninth Floor
Washington, DC 20036-3457

Secretary of Labor,
Complainant

v.

United States Postal Service,
Respondent,

and

National Association of Letter Carriers
(NALC),

Authorized Employee Representative,

And

National Rural Letter Carriers' Association
(NRLCA)

Authorized Employee Representative.

OSHRC Docket No.: **17-0279**

Appearances:

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Office of the Solicitor, U.S. Department of Labor, Philadelphia, Pennsylvania
For Complainant

Gina MacNeill, Esq., USPS, Philadelphia, Pennsylvania and Eric Goulian, Esq., USPS,
Washington, D.C.
For Respondent

Michael J. Gan, Esq. and Mark Gisler, Esq., Washington, D.C.
For NRLCA

BEFORE: Administrative Law Judge Sharon D. Calhoun

DECISION AND ORDER

I. INTRODUCTION

On the afternoon of August 13, 2016, a rural letter carrier for the United States Postal Service began to feel dizzy and nauseated as she drove and delivered mail on her route in Martinsburg, West Virginia. She was sweating profusely and then stopped sweating altogether. Alarmed, she drove to a house on her route belonging to a couple with whom she had become

friendly over the years. The couple brought her inside to rest and called the Martinsburg Post Office to alert her supervisor of the situation. Her supervisor eventually arrived at the house and drove the rural carrier to a hospital, where she was admitted.

The Martinsburg Post Office notified the Occupational Safety and Health Administration of the incident. OSHA opened an inspection of the post office on August 17, 2016. As a result of the inspection, the Secretary issued a one-item Citation and Notification of Penalty to the United States Postal Service (referred to in this proceeding as the Postal Service or USPS) on January 19, 2017. The Citation alleges a repeat violation of § 5(a)(1), the general duty clause (§ 654(a)(1)), of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 651-678 (Act).

The Citation alleges the Postal Service exposed its employees “to recognized hazards of working outside during periods of excessive heat.” The Secretary proposes a penalty of \$69,713 for the alleged violation and seeks enterprise-wide implementation of specified abatement measures. This case is one of five pending before the Court in which the Secretary alleges the Postal Service exposed its employees to excessive heat as they delivered the mail. The National Association of Letter Carriers (NALC) and the National Rural Letter Carriers’ Association (NRLCA), authorized employee representatives, elected party status in the proceedings. NALC did not send a representative to attend the hearing (Tr. 13-14). Counsel for the NRLCA attended the hearing, presented an opening statement to the Court, and cross-examined two witnesses. Neither union submitted a post-hearing brief (Tr. 51, 252, 520). The five cases were consolidated early in the proceedings for settlement purposes, but the parties were unable to resolve the issues. On January 26, 2018, Judge Heather Joys, the settlement judge, severed the cases for hearing, and they were reassigned to the Court, who heard the five cases sequentially in October and November of 2018.¹

The parties agreed the Court would hold a separate hearing (referred to as the national hearing) to present expert witnesses and witnesses addressing issues common to the five cases. The Court held the 12-day national hearing in Washington, D.C., from February 25 to March 12, 2019. The testimony and exhibits in the national hearing are part of the records in the five cases,

¹ The five cases arose from incidents in Benton, Arkansas (No. 16-1872); San Antonio, Texas (No. 16-1713); Houston, Texas (No. 17-0023); Martinsburg, West Virginia (the present case) (No. 17-0279); and Des Moines, Iowa (No. 16-1813).

unless otherwise noted. The records of the individual cases were not admitted in the other actions, unless noted.²

This is the fourth of the five Postal Service cases heard by the Court. It was held from November 5 to November 7, 2018, in Martinsburg, West Virginia. The parties submitted briefs for all five cases on September 17, 2019. For the reasons that follow, the Court finds the Secretary did not establish a condition or activity in the workplace presented an excessive heat hazard to Martinsburg's carriers on August 13, 2016. The Court also finds the Secretary failed to show an economically feasible means existed to materially reduce the alleged hazard of excessive heat. The Citation is vacated.

II. JURISDICTION AND COVERAGE

The Postal Service timely contested the Citation on February 13, 2017. The parties stipulate the Commission has jurisdiction over this action, and the Postal Service is a covered employer under the Act (Exh. J-1, ¶¶ 1-2).³ Based on the stipulations and the record evidence, the Court finds the Commission has jurisdiction over this proceeding under § 10(c) of the Act, and the Postal Service is a covered employer under § 3(5) of the Act.

III. EXECUTIVE ORDER NO. 13892

The parties filed post-hearing briefs on September 17, 2019, in the five Postal Service cases. On October 15, 2019, President Trump issued Executive Order No. 13892, *Promoting the Rule of Law Through Transparency and Fairness in Civil Administrative Enforcement and Adjudication*, 84 Fed. Reg. 55239 (October 15, 2019) (E.O. 13892). Section 4 of E.O. 13892 provides:

Sec. 4. Fairness and Notice in Administrative Enforcement Actions and Adjudications. When an agency takes an administrative enforcement action, engages in adjudication, or otherwise makes a determination that has legal consequence for a person, it may apply only standards of conduct that have been publicly stated in a manner that would not cause unfair surprise. An agency must avoid unfair surprise not only when it imposes penalties but also whenever it adjudges past conduct to have violated the law.

² References in this decision to testimony and exhibits from the national hearing are indicated by *NH* followed by the transcript page(s) or exhibit number(s).

³ Paragraph 2 of Exhibit J-1 provides: "By virtue of the Postal Employees Safety Enhancement Act of 1970, the OSH Act became applicable to Respondent in the same manner as any other employer. Pub. No. 105-241, 112 Stat. 1572-1575 (1998); see also 29 USC Section 652(5)."

On November 6, 2019, the Postal Service submitted a letter to the Court with a copy of E.O. 13892 attached “as supplemental authority.” The Postal Service states:

[E.O. 13892] is relevant to two primary arguments in the Postal Service’s Post-Trial Briefs:

1. The Commission has already recognized that defining a hazard as “excessive heat,” which the Secretary has done in this case, falls far short of due process. [E.O. 13892] makes it clear that OSHA is required to afford regulated parties safeguards “above and beyond” those required for due process. Vaguely defining a hazard as “excessive heat” does not meet [E.O. 13892’s] requirements.

2. [E.O. 13892] makes it clear that OSHA’s reliance on its heat chart and other guidance documents as the basis for establishing a heat hazard is impermissible. While agency guidance documents can be useful in enhancing the regulated community’s understanding of a regulation, they are not intended to form the basis of a violation. Guidance documents do not have the benefit of undergoing notice and comment rulemaking, and thus do not provide the regulated community with fair notice.

(Letter, p. 2) (footnotes omitted)

The Secretary filed a response on December 4, 2019, stating the terms of E.O. 13892 do not create rights enforceable against the Secretary, and due process concerns are not implicated where the Postal Service has recognized or should have recognized the excessive heat hazard at issue. The Secretary notes the Postal Service has suffered no unfair surprise as that term is used in the Order.

By order dated January 30, 2020, the Court accepted the Letter and attached copy of E.O. 13892 as supplemental authority in this proceeding in accordance with FRCP 15(d), which provides:

(d) SUPPLEMENTAL PLEADINGS. On motion and reasonable notice, the court may, on just terms, permit a party to serve a supplemental pleading setting out any transaction, occurrence, or event that happened after the date of the pleading to be supplemented. The court may permit supplementation even though the original pleading is defective in stating a claim or defense. The court may order that the opposing party plead to the supplemental pleading within a specified time.

Having considered the parties’ arguments, the Court finds that in citing the Postal Service for a violation of § 5(a)(1) for excessive heat exposure, the Secretary did not overstep the terms of E.O. 13892. Section 11(c) of E.O. 13892 states, “This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents,

or any other person.” Section 11(c) of E.O. 13892 bars review in adjudicative proceedings of an agency’s compliance with E.O. 13892.

Furthermore, § 9(c) of the Act grants the Secretary the authority to cite employers for violations of § 5(a)(1). 29 U.S.C. § 658(a). Section 11(a)(i) of E.O. 13892 provides, “Nothing in this order shall be construed to impair or otherwise affect: (i) the authority granted by law to an executive department or agency, or the head thereof.” E.O. 13892 cannot be used to restrict the Secretary’s congressional authority to implement § 5(a)(1).

Finally, E.O. 13892 states agencies “may apply only standards of conduct that have been publicly stated in a manner that would not cause unfair surprise.” Section 5(a)(1) requires employers to “furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.” 29 U.S.C. § 654(a)(1). Hazards are recognized within the meaning of § 5(a)(1) if they are known to the cited employer or would be known to a reasonably prudent employer in the industry. *SeaWorld of Fla., LLC v. Perez*, 748 F.3d 1216 (D.C. Cir. 2014). Employer or industry recognition precludes unfair surprise. The Secretary had previously cited the Postal Service for the willful exposure of carriers to an excessive heat hazard, and a Commission judge affirmed the violation. The decision and order became a final order of the Commission. *United States Postal Service*, No. 13-0217, 2014 WL 5528391 (OSHRC Oct. 24, 2014). The Postal Service cannot claim plausibly it was unfairly surprised by subsequent citations for repeat violations alleging exposure of carriers to excessive heat hazards.

IV. THE MARTINSBURG HEARING

Stipulations

The parties stipulate the following:⁴

...

3. [The Postal Service] is divided into seven Areas which are in turn divided into Districts.

4. The seven areas are: Northeast Area; Eastern Area; Western Area; Pacific Area; Southern Area; Great Lakes and Capitol Metro.

⁴ Paragraphs 1 and 2 of Exhibit J-1 stipulate the Commission has jurisdiction over this action, and the Act covers the Postal Service.

5. This hearing involves operations at the post office at 1355 Old Courthouse Square, Martinsburg, West Virginia (Martinsburg) which is located in the Eastern Area.
6. On August 13, 2016, rural carrier [LC-1]⁵ was an employee of [the Postal Service] who worked at the Martinsburg Post Office.
7. On August 13, 2016, LC-1 was a rural carrier.
8. On August 13, 2016, LC-1 [had] worked for [the Postal Service] as a rural carrier for 26 years[,] 10 months.
9. On August 13, 2016, LC-1 was assigned to Rural Route 13 which was her regular route.
10. On August 13, 2016, LC-1 had been assigned Rural Route 13 for 21 years.
11. On August 13, 2016, LC-1 [had driven] a Long Life Vehicle (LLV) for [the Postal Service] for at least 10 years.
12. The LLV had a fan on the dashboard that was 6” in diameter.
13. LC-1 was hospitalized on August 13, 2016.
14. On August 13, 2016, the total number of city letter carriers who were employed by the Martinsburg Post Office was 24.
15. On August 13, 2016, the total number of rural letter carriers who were employed by the Martinsburg Post Office was 33.
16. On August 13, 2016, the total number of mail routes at the Martinsburg Post Office was:

18 City routes
24 Rural routes

(Exh. J-1)

BACKGROUND

The Martinsburg Post Office

The Postal Service employs both city letter carriers and rural letter carriers at the Martinsburg Post Office in Martinsburg, West Virginia. During the summer of 2016, 24 city carriers and 33 rural carriers worked in the post office. Rural carriers deliver mail on *mounted* routes, meaning they deliver mail mostly from their vehicles as they drive from mailbox to mailbox. Rural carriers occasionally park and exit their vehicles to deliver parcels or mail that requires customers’ signatures (Exh. J-1, ¶¶ 14-15; Tr. 576, 587-88).

⁵ Pseudonyms are used in this Decision and Order to preserve the privacy of the Martinsburg Postal Service employees and former employees.

There are several classifications for rural carriers. A regular rural carrier is a career employee who delivers mail on one assigned route every day and has the same day off every week. A part time flexible (PTF) rural carrier is a career employee who is not assigned a regular route. A rural carrier associates (RCA) is a non-career employee who covers routes on the off days of regular carriers. Associate rural carriers (ARCs) deliver Amazon packages on Sundays and federal holidays (Tr. 576-77). A T6 is a regular rural route carrier who is assigned to five specific routes that rotate. “They basically fill in for the day off of the regular carrier on five different routes during the week.” (Tr. 627)

In 2016, the Martinsburg Post Office received outgoing mail at around 7:30 a.m. on trucks transporting it from a facility in Baltimore, Maryland. Clerks in the Martinsburg Post Office would sort the mail into parcels, *flats* (magazines and legal-sized envelopes), and letters. The collective bargaining agreement (CBA) between the Postal Service and the NRLCA prohibited carriers from assisting in sorting the mail. Postmaster TT, who was postmaster of the Martinsburg Post Office in the summer of 2016, stated “Rural carriers deliver mail in the rural area, and clerks are the only ones that break down or sort mail or sell product at the retail counter.” (Tr. 578-79)

In 2016, the start time for rural carriers was 8:00 a.m. They could not start earlier because the clerks would not have completed sorting the incoming mail (Tr. 169, 582, 630-31). Postmaster TT explained the *casing* process carriers used to sequence their day’s mail once they received it from the clerks:

[A] carrier case is basically a cubicle that a carrier stands at and it's got three sides to it and it has six shelves and it has a ton of slots in it, and every slot represents an address on the row. So like to kind of consider that the neighborhood and it literally would go in order that they would deliver their mail. So they would get a bucket of mail, bring it over and organize it in the way that they would deliver it.

(Tr. 582)

One route may have 500 to 1,000 addresses for which mail must be cased at the beginning of each workday. Casing mail for rural carriers generally takes 2 to 3½ hours to complete, which is about twice as long as casing time for city carriers (Tr. 584). The post office workroom where the carriers case mail is air-conditioned (Tr. 633). After casing the mail, rural carriers pull it down in order and place it into hampers they roll out to their vehicles for loading. In the summer of 2016, rural carriers generally clocked out to the street to deliver the mail

anytime from 10:00 a.m. to 1:30 p.m. (Tr. 585). Rural carriers usually completed delivery of their routes in 4 to 5 hours (Tr. 593).

As the rural carriers are casing their mail in the morning, supervisors go around and perform a time check (or projection) to see what time each carrier thinks he or she will return in the afternoon. If a carrier projects a late return, the postmaster or supervisor can arrange for assistance or make other adjustments. “[O]nce the carriers hit the street, if you don’t know that they’re going to run late until it’s too late, the help has gone home.” (Tr. 606)

Rural carriers collect customers’ outbound mail as they deliver their routes each day and bring it back to the post office. They are required to return with the outbound mail by 6:00 p.m. because the dispatch truck that transports the outbound mail to the distribution facility leaves shortly after 6:00 p.m., and a supervisor has to drive any late mail to the distribution center after hours (Tr. 581).

Route Evaluations

The Postal Service conducts rural route evaluations annually, usually in February, March, or April, when the mail flow is “average” compared to the peak holiday season in December and the lighter volume in summer. Postmaster TT stated mail volume changes “[d]ramatically” over the course of the year, lessening significantly “[u]sually toward the end of May.” (Tr. 598) By performing the evaluations in late winter or early spring, the Postal Service avoids the extremes of mail volume. “[The carriers’] evaluation is done during the average time of year, so, you know, Christmas they’re carrying more mail, but it’s also the overtime time. So they would get paid above and beyond their evaluation at Christmas. But in the summer, it’s kind of where they make up time. So you know, a route that may be evaluated at 8½ hours, they may be able to do in less time because there’s lighter mail volume. They’d be skipping more houses. It’s a day-to-day thing.” (Tr. 598-99)

The first part of the evaluation is a ride along, when the evaluator rides with the carrier or follows in a separate vehicle and records the mileage driven and the steps taken. If the carrier has “to do a dismount or if [the carrier has] to get out of the vehicle to service a customer, its actual footage is measured.” (Tr. 594-95)

The second part of the evaluation is counting the mail. Postmaster TT explained the process:

Usually in my experience, it runs 2 full weeks or 12 business days, but it can run up to 30 days. We literally count everything that comes in. So what happens is as the mail is coming in, I'm counting every piece . . . When I finish a pile, I put the yellow sticky note on, and the carrier is permitted to go ahead and verify your count on every set.

All that information is entered into a computer program and at the end of . . . each day I would enter everything in, and the next morning the carrier would come in and they would have like a worksheet in front of them that summarized the day prior, and that would be their opportunity to dispute anything that they didn't agree with or add something or remind you of something.

Then at the end of the count, put all the information in. It spits back out the evaluation. You sit down with the carrier, go over it, and then you both sign off on it.

(Tr. 595-96)

The rural carrier is expected to complete delivery for that route within the evaluated time. The Postal Service does not pay rural carriers more if they exceed the evaluated time (with the exception of Christmas overtime) (Tr. 70, 598-99).

LLVs

In the summer of 2016, the vehicles provided by the Martinsburg Post Office for letter carriers were six Dodge Caravans, four Ram ProMasters, and several Long Life Vehicles (LLVs). The Caravans and the ProMasters were air-conditioned and equipped with left-hand side steering, which could be used by carriers on *park and loop* routes and on *centralized delivery* routes.⁶ They could not be used on mounted routes because the carrier could not reach safely across from the left-hand driver's seat and through the opened right-hand window to deliver the mail to the mailboxes (Tr. 588-90).

The LLV is designed for right-hand driving and is not air-conditioned (Tr. 74). The LLV has two side windows that can be rolled down (Tr. 590-91). The LLV also has two 3-inch by 5-inch vents in each back corner and a fan, 6 inches in diameter, mounted to the dashboard (Tr. 75, 592-53).

Carriers could drive with the windows rolled down and could leave them rolled down when they exited the LLVs, as long as they were in sight of it. Carriers could also drive with the

⁶ Park and loop routes primarily require walking delivery. The carrier parks at a designated park point and exits the vehicle, carrying mail for one loop. The carrier delivers mail on one side of the street, crosses, and delivers mail on the other side of the street on the way back to the vehicle. The carrier then drives to the next park point and repeats the process (Tr. 587, 637-38). Centralized delivery is delivery to a cluster box, "the big box were every customer has their own key and the carrier would distribute the mail in the back and then lock it up." (Tr. 587-88)

driver's side door open as they made deliveries from mailbox to mailbox. "They were not allowed to cross an intersection of any sort, even if it was a small subdivision street. That door had to be closed any time they were crossing more than just box to box." (Tr. 592)

RLC-1 is a former city carrier who worked for the Martinsburg Post Office for almost 34 years before he retired in 2008 (Tr. 257). He began driving LLVs when they were relatively new, "[e]arly somewhere in the '90s." (Tr. 263) He delivered on a mounted route and estimated he spent 5½ to 6 hours driving each workday. He described the interior of an LLV on a summer's day. "Just very, very hot. . . . [L]ike a car without air conditioning wouldn't be as hot as it was in that truck. It's bare metal with a piece of rubber on the floor. So it's just very, very hot in there. And the windshield in them is enormous. And the fan that sits on the [dashboard is] just blowing this very hot air on you all the time." (Tr. 264-65) RLC-1 stated the LLV's "engine sits up front, and you get the transmission with the exhaust. Everything's right under you. And hot air rises." (Tr. 265)⁷

LC-1 drove an LLV for approximately 8 years on her route. Before that, she drove her personal vehicle, for which the Postal Service reimbursed her for mileage. The Martinsburg Post Office eventually disallowed LC-1 the use of her personal vehicle (Tr. 72-73).⁸ LC-1 was in the LLV approximately 80 percent of her route. Perhaps 5 percent of that time was spent in a shaded area (Tr. 76-77, 114). LC-1 explained that when driving from the post office to her route and back, she could lower only the right-side window closest to her. "I could open both of them when I was on the route, but if you were going in -- like traveling back and forth from the road or the Post Office to the route, I would say anything over 30-mile-an-hour, you could only have the one window down, because your mail was sitting on a ledge beside of you where the other

⁷ RLC-1 testified he bought a digital thermometer from Walmart and used it to measure interior temperatures of the LLV on certain days when the exterior temperature exceeded 90°F (Tr. 265-69). He believes he bought the thermometer in the early 2000s. He does not recall the brand of the thermometer (Tr. 269, 272). He did not calibrate the thermometer. "It was just a simple thermometer. You turn it on. . . . [T]here's no calibrating on it. . . . It either reads right or it doesn't." (Tr. 274) RLC-1 did not record the temperature readings or tell anyone about the temperature readings at the time (Tr. 277-78). Based on the vagueness of RLC-1's testimony relating to the brand of the thermometer, the date he purchased it, the dates he took the temperature readings, the exterior temperatures on the days he took the interior readings, and the absence of calibration data or a contemporaneous record of the readings, the Court determines RLC-1's testimony regarding interior temperature readings of the LLV is unreliable and gives it no weight.

⁸ It is not clear why the Martinsburg Post Office told LC-1 and LC-2 they could no longer drive their personal vehicles to deliver mail. At the national hearing, it was established that approximately 47 percent of rural carriers drive personally-owned vehicles (POVs), for which they receive an equipment maintenance allowance (EMA) (NH Tr. 2479).

window is. And, of course, you can't have the air blowing in and blowing things around.” (Tr. 75) The carriers refer to an LLV as “an Easy Bake Oven,” (Tr. 77)

LC-2 is a rural carrier for the Martinsburg Post Office (Tr. 165). She also drove her personal vehicle to deliver mail on Route 1 before the post office disallowed it. She spends approximately 90 percent of her route in an LLV (Tr. 168-69). In the summer of 2018, she felt ill one day when the temperature was above 90°F after having driven her LLV for approximately 3.5 hours (Tr. 170).

[I]t started out just sweating profusely, and it didn't seem like I could get enough to drink. Just very dry. As it progressed, I just -- just felt like I couldn't breathe properly. So I had to -- I had a parcel for this one lady on my route, and I get out and she said, "You look awful." And I said, "I feel awful." And she produced a bottled water for me and an orange, and I sat there at her house until I finished the orange and the water. And I was able to continue on. And when I got back to the Post Office, I did feel a bit dizzy.

(Tr. 169-70)

LC-2 testified that in the summer, the heat in the LLV affects her on a daily basis. “Just about every night I have leg cramps and a headache.” (Tr. 177) She did not have these symptoms when she drove her air-conditioned personal vehicle (Tr. 177). LC-2 has not told her supervisors about the leg cramps and headaches and has not sought medical treatment for them (Tr. 208-09).

LC-3 is a city letter carrier for the Martinsburg Post Office (Tr. 214). She drives an LLV on her regular route. She described the heat in an LLV on a summer day. “It feels like you’re in a sauna. It’s radiant heat coming off the floorboards that just overwhelms you, and you feel like you can’t escape. . . . When you’re inside the LLV, it feels overwhelming because there’s not much air movement even with the fan on. It’s blowing hot air in your face.” (Tr. 226-27)⁹

RLC-2 worked as a city letter carrier for 44 years and retired in May of 2018 (Tr. 282). He drove an LLV as he delivered mail on his route, which was primarily mounted (Tr. 291). “It’s pretty warm. And I probably opened the windows more than most carriers did because it just,

⁹ LC-3 recounted an incident from “[a]round 2006” when she began to feel unwell while driving an LLV in the afternoon and eventually sought treatment at an urgent care center (Tr. 224-25, 240). The alleged violation description (AVD) of the Citation alleges the Postal Service exposed its employees in Martinsburg to the hazard of excessive heat “[o]n August 13, 2016,” when the afternoon heat index was 103°F. The Court determines LC-3’s testimony regarding the incident, which occurred a decade before the hospitalization that gave rise to this proceeding and for which no temperature readings or medical records were presented, lacks probative value and is accorded no weight.

you know, was very warm especially on a sunny day with that sun coming through all that glass of the big windshield and everything -- pretty warm. It was so warm that the fan in there really is pretty much worthless because it just blows hot air in your face. So you don't use the fan." (Tr. 292)

RLC-2 testified regarding an incident that occurred in June of 2016, when he was driving an LLV an average of 7½ to 9½ hours a day (Tr. 290-91).¹⁰ He stated he began to experience symptoms of "nausea, feeling light-headed and just not sweating. That's why my wife was concerned when I talked to her about the fact that I wasn't sweating. I just felt really weak." (Tr. 292)

LC-4 is an RCA who carries the mail "for the regular carriers when they're out of town or they need a day off." (Tr. 330) She testified regarding the LLVs she drives on the various routes she has delivered. "I would describe it as you could fry an egg on the floor of it, and also I believe that no human being should have to drive. That's how hot they get in the summer. No human being should have to drive an LLV in the summer."(Tr. 331) She stated the temperature of the interior of an LLV in the summer "is way hotter" than the outdoor temperature, and the fan "blows hot air. . . It does not help at all (Tr. 332).

LC-4 recalled an incident on July 2, 2018, when the temperature was "[a]t least 100 degrees (Tr. 333). She left the post office around 11:30 a.m. and was driving an LLV. At approximately 3:15, she began to feel nauseated and dizzy. She eventually vomited several times. She notified Supervisor DD by text that she did not feel well (Tr. 334-38). She managed to complete the her assigned routes, but when she returned to the post office, Supervisor DD assigned her another route.

I got back and I pulled into my parking spot and I saw [Supervisor DD] coming towards me with a clipboard and I asked him, I said, "Do I really have to go back out?" And he said, "Yes. I'm sorry, we just really need the help." It was 5:45 at this point. And there were two other regular carriers that had pulled in at the same time as me. I was telling them that I was sick and I had thrown up a couple of times and they -- that's what they said to [Supervisor DD]. They said, "She cannot go back out. She's sick. Look at her."

Like I was sweating profusely, like noticeably. Not just sweaty from the heat. Like sick sweaty.

And he said, "I'm sorry, but you have to go back out." And I got back in the back of my truck to get my stuff and my voice was cracking and I started to

¹⁰ RLC-2 was on the overtime list and sometimes exceeded the 8 hour daily base time (Tr. 291).

cry. Then I went inside and [LC-2], the regular carrier, gave me a towel, a wet towel to put on my neck, and I was about to leave and [Supervisor DD] offered me a drink of Gatorade if I had a cup. . . . I just left to do my – because we have a time crunch and they want us back at a certain time. So I wasn't going to say no to my supervisor.

(Tr. 339-40)

Bruce Goetz is the Eastern Area safety manager for the Postal Service (Tr. 447). He testified the Postal Service uses approximately 30,000 LLVs in the Eastern Area. He acknowledged LLVs “can get hot” in the summer, and that “could be a factor” in heat-related incidents (Tr. 506).

Overtime-Desired List and Scheduling

City routes are configured so letter carriers can complete them in 8 hours. Regular city carriers are guaranteed 8 hours per day in accordance with the CBA and must be paid overtime for any time worked over 8 hours. Postmaster CE was the city delivery supervisor for the Martinsburg Post Office in 2016 (Tr. 626). She explained carriers could choose to be on *work assignments*, for which “they are willing to work however many hours in a day that it took to complete their route. . . . They did not want to work their day off, but they would work as many hours in one day as they needed.” (Tr. 644)

Every quarter, management posts an *overtime-desired list* on the post office bulletin board. Carriers could sign up to be on the 10- hour or 12-hour overtime desired list, for which they are willing to work up to 10 or 12 hours every day (Tr. 370-71). “They would help on other routes, either a case, or carry, or both and they would also work on their day off if they were needed.” (Tr. 643) The lists run from quarter to quarter, and carriers have to sign up each time if they want to remain on the list. Carriers can choose to be on the list one quarter and off the next (Tr. 644)

If a city carrier believes it will take more than 8 hours to complete his or her route on a given day, the carrier can submit a form (Form 3996) in the morning to request more time (overtime) or help (auxiliary assistance) (Tr. 641). Postmaster CE testified she would approve or disapprove the request based on the amount of mail the carrier had that day. “I could compare

that request to the DOIS [(Delivery Operations Information System)] workload status report.¹¹ And also I could look at the mail myself, see that what the carrier has, and then make the determination.” (Tr. 641)

Postmaster CE was asked what happens when a city carrier has already clocked out to the street and is delivering mail when he or she notifies management the route will not be completed in 8 hours. She responded, “If the carrier is an overtime carrier, an overtime-desired carrier, I would allow them to carry the mail themselves. If the particular carrier was an . . . 8-hour worker, I would send either an overtime person to finish carrying the route for them, or maybe a CCA if I had one.” (Tr. 642)

Supervisors often assign letter carriers a *pivot* or *bump* to facilitate mail delivery. RLC-2 explained the use of pivots. “Pivoting is something that usually occurs during the summer when the mail volume is lower. It is a management strategy to . . . ‘capture the savings.’” (Tr. 296) For example, if on a given day some city carriers complete their routes in 7½ hours, their supervisors can determine they are undertime and assign them an additional half hour of street time to meet their 8 hour minimums. Supervisors may divide up an auxiliary route, which has no regularly assigned carrier, and assign portions of the route (pivots) to various carriers (Tr. 296-97). “So they’re not only carrying their own route but they’re carrying part of another route just to make their 8 hours in the summer.” (Tr. 297)

RLC-2 believes the Postal Service benefits financially from assigning pivots because it saves money by paying for fewer hours at the end of the day. “They’re not paying an extra 3 or 4 hours to carry a route or auxiliary route or whatever. It’s being absorbed by the regular carriers.” (Tr. 297-98) This strategy comes at a physical cost for the carriers, according to RLC-2. “The downside is this happens during summer. And when you’re already out there and it’s 90 or 95 degrees or maybe even a 100 index day, you’ve already had a tough enough day as it was. And now you’re out there another half hour or 45 minutes or whatever, carrying somebody else’s route in addition to yours.” (Tr. 298) RLC-2 conceded that when the Postal Service assigns pivots to regular carriers, it is utilizing hours for which it is contractually obligated to pay (Tr. 301).

¹¹ The DOIS program generates daily workload status reports that calculate “how many hours it should take the carriers to case up their mail, what time approximately they should leave, and what time approximately they should return.” (Tr. 641)

Time Pressure

LC-2 felt pressure to complete her route as quickly as possible every day. She does not usually take the 30-minute lunch break to which she is entitled because she is trying to complete her route and get back to the post office by 6:00 p.m. (Tr. 177-80). She has been yelled at by a postmaster for failing to meet her evaluated time. She witnessed Supervisor DD send LC-4 back out to deliver mail on another route after she had vomited while delivering mail on her assigned route (Tr. 181-84).

LC-3 testified she has felt pressure to complete her route more quickly (Tr. 219).

If we're going to go over the 8 hours, they want you to explain why you're going over the 8 hours. And they don't take into account the human factor that customers are going to ask you questions, if you have to pick up packages, and things of that nature. . . . When you get back in the office, they usually ask you: "What took you so long? We didn't have that much mail; it shouldn't have -- you shouldn't have taken this time on the street."

(Tr. 219-20)

In the summer of 2016, city letter carriers were permitted to take *comfort breaks*, to use the restroom, buy or refill beverages, or cool off (Tr. 644). Asked if carriers were allowed to take extra breaks in hot weather, LC-3 replied, "They say we can, but they pressure you if you do." (Tr. 221) As a city carrier, LC-3 was entitled to overtime. On days when she took longer than 8 hours to complete her route, she was paid for the overtime, and she was not disciplined for exceeding 8 hours (Tr. 238-39).

RLC-2 testified regarding the pressure carriers feel to work faster, in part due to the GPS-equipped scanners they carry to scan bar codes on parcels as they deliver them.

The time pressure that's exerted on the employees through the GPS in their scanner could make them want to hurry because they know that they're being tracked. They can even hear the pings in their scanner being tracked. And the supervisors at the desks watching the little pins every -- whatever it is -- minute, you know, watching them on the street. So just the time pressure involved in that. . . . [M]anagement knows exactly where you are on the map and can track you on the map and print out a map of exactly where you are. They even know if you're off your route. . . . At one time I had a Postmaster actually called me up or texted me and wondered where I was. I was taking a break and he wanted to know what I was doing, you know, and it was just one of my two scheduled ten minute breaks. He knew where I was.

(Tr. 287-88)

LC-5 is a city letter carrier for the Martinsburg Post Office (Tr. 361). She testified, “We’re under a lot of pressure to get the mail delivered and be back, preferably by 5:00 but by 6:00p.m. at the latest. That’s, like, our drop dead time. And it’s -- you know, you’re pushed, you’re pushed, you’re pushed to do more. If you happen to get done early, they find more for you to do, to go help someone else. So you -- it’s just not a real comfortable working situation.” (Tr. 365-66) She testified management’s attitude towards comfort breaks is “two-sided. Out of one side of their mouth, they will say it’s hot, take more breaks in the shade if you need them. And out of the other side, it’s hurry up because you need to be back by 6:00.” (Tr. 367)

Hydration

In the summer of 2016, the Martinsburg Post Office placed marine coolers containing ice and bottled water in a vestibule next to the parking area for the LLVs. The post office also provided two water fountains and a breakroom with a sink and faucet, a refrigerator, and a vending machine (Exh. R-32; Tr. 585-86, 634-37). City and rural carriers had access to “[a]ll the water, the water coolers, the marine coolers were full of ice, and we have ice bags in the freezer.” (Tr. 586)

Heat Stress Safety Training

Postmaster TT testified regarding heat stress safety training during the summer of 2016. “We had service talks regarding how to dress, how to stay hydrated, you know, getting good sleep the night before, avoiding alcohol, being mindful of any medications that you took that heat may be a factor of, reminding them to take water, reminding them when they came back off the street to drink as well.” (Tr. 600) Topics included how to prevent heat-related illness, recognizing the signs and symptoms of heat-related illness, providing help to those with heat illness, and reporting heat illness (Exhs. R-6, R-7, R-9, R-10, R-12, R-13; Tr. 197-99, 232, 407).

Exhibit R-9 is a copy of safety talk entitled *Beat the Heat*:

May 2016

Beat the Heat, Stay Cool

It’s that time of year again, when the temperatures begin to rise, and the potential for heat related illnesses becomes a factor during your daily work routines. It’s important to remember the keys to staying cool and safe this summer season.

Here are some quick tips for battling the heat:

1. Hydrate before, during and after work. Prevention is important, so make sure to maintain good hydration by drinking at least 8-ounces of water every 20 minutes.

2. Dress appropriately for the weather. On warm days, make sure to wear light colored, loose fitting, breathable clothing to keep body temperatures down.

3. Utilize shade to stay cool. When possible, use shaded areas to stay out of direct sunlight.

4. Know the signs of heat stress. You should understand what heat stress is, and how it can affect your health and safety. Here are some things to look out for:

- Hot, dry skin or profuse sweating
- Headache
- Confusion or dizziness
- Nausea
- Muscle cramps
- Weakness or fatigue
- Rash

Finally, it's important to notify your supervisor or call 911 if you're experiencing signs of heat related illnesses. This will not only ensure your safety but can also save your life!

(Exh. R-9)

Postmaster TT stated this safety talk was “for everyone in the building, not just carriers. It would have impacted the clerks as well. If I remember correctly, there was a poster that accompanied this, a carrier with a bottle of water in his hand. So that was posted. And this was given frequently, not just once in a while.” (Tr. 602)

LC-1 and the August 13, 2016, Incident

LC-1 worked for the Postal Service for 27 years, leaving the job in February of 2017 (Tr. 68).¹² She started her career with the Postal Service as a rural carrier associate (RCA), which is “basically a substitute for a regular carrier. They work when the regular carrier needs time off.” (Tr. 67-68) LC-1 worked as an RCA for approximately 7 years and then became a rural carrier (Tr. 65).

LC-1's regular route for almost 20 years was Route 13. Route 13 comprised approximately 780 addresses. LC-1 generally completed the route in 5 or 6 hours once she was

¹² LC-1 did not formally resign or retire. She took leave for a surgical procedure and never returned or contacted the Martinsburg Post Office. LC-1 received a Notice of Removal and several other letters from the Postal Service, to which she did not respond (TR. 96-97). She stated, “I found it hard to return because, prior to going out, I felt I had been harassed: why I couldn't get back in time, why I wasn't meeting my evaluation. I just -- on a daily basis they would come to me and ask me why I couldn't be as fast as I used to be, why I wasn't getting done in time.” (Tr. 68)

on the road (Tr. 70). She was expected to be on the street by 11:45 a.m. and back at the post office 5:20 p.m. (Exhs. R-21 & R-22; Tr. 71-72, 100).

Route 13 is a mounted route, meaning the carrier will stay in the vehicle when making most deliveries. At each address, LC-1 would pull up to the mailbox, open it, and insert that day's mail while staying seated in the vehicle. If there was a parcel or mail for which the customer needed to sign, she would exit the LLV and take it to the residence and leave the parcel or get the customer's signature. There were also residential cluster boxes for mail delivery to multiple people (Tr. 76-77, 93, 94).

Every time LC-1 exited the LLV, she was required to curb the wheels, put the vehicle in park, turn off the ignition, set the emergency break, and lock the doors. If she stayed in sight of the vehicle, she could leave the windows rolled down—otherwise she was required to roll them up. LC-1 was in the LLV approximately 80 percent of the route. Perhaps 5 percent of that time was spent in a shaded area. LC-1 chose to take the mail in every day for a 7-Eleven convenience store, where she would also use the restroom and buy beverages. It was the only time on her daily route that she was in an air-conditioned building (Tr. 76-77, 114).

On August 13, 2016, LC-1 arrived at the Martinsburg Post Office at 8:45 a.m. She was wearing shorts and either a T-shirt or a tank top.¹³ She cased her mail in the air-conditioned post office workroom. After loading her LLV, she left the post office at 11:10 a.m. She had two or three bottles of water with her. About an hour later, she stopped at the 7-Eleven for a break. She dampened some paper towels and wrapped them around her neck to cool off. She bought bottles of Gatorade, water, and iced tea. She was at the 7-Eleven for about 15 minutes (Exh. R-22; Tr. 78, 80-81, 120-23, 127).

At approximately 12:45 p.m., she began to feel ill. "I started feeling sort of nauseous and sweating pretty profusely. And then as time went on, it got to where I was feeling lethargic and I started nodding. And then I stopped sweating. And I just kept nodding, and it was getting worse as time went on." (Tr. 78-79) Despite feeling ill, LC-1 continued delivering her route for approximately an hour and a half. "I was afraid that if I didn't push myself and try to finish the route that I would be reprimanded in some way for not completing the tasks. . . I've been

¹³ Rural carriers do not have a uniform policy (Tr. 346).

harassed in the past about not completing them quick enough and not getting done in the evaluated time.” (Tr. 83)

At approximately 2:20 p.m., she decided to return to a house where she had already delivered that day’s mail. She had become friendly over the years with the Clarks, the couple who live there. She exited the LLV, making sure to lock it, and knocked on the door. Both Mr. and Ms. Clark came to the door, looked at LC-1, and told her she needed to come inside immediately (Tr. 82-83, 85-86, 127). “[T]hey looked at me, and they said, ‘Oh, my God, you need to get in here right away.’ And they took me in and sat me down in a chair next to the door. She went and got me a cold rag and put that on my forehead.” (Tr. 86)

Ms. Clark called the Martinsburg Post Office and informed Supervisor DD of the situation. Supervisor DD arrived at the Clarks’s house. He asked LC-1 if she was able to drive herself to the hospital, and she replied she did not feel it was safe to do so (Tr. 87). He then asked her if she thought she needed an ambulance. Eventually Supervisor DD and LC-1 left together and got in DD’s car. LC-1 believed they were going to the hospital but Supervisor DD drove to the Martinsburg Post Office instead to pick up “the necessary paperwork.” (Tr. 88) Supervisor DD then drove LC-1 to the Berkeley Medical Center emergency room (Tr. 89).

The attending physician told LC-1 her “kidneys had stopped functioning, and that they needed to admit [her] and try to get [her] kidneys restarted.” (Tr. 90) She stayed at the hospital for 2 days, and she was off work for another 4 days (Tr. 90). At the time of the incident, LC-1 was taking several prescription medications daily, including lisinopril, hydrochlorothiazide, oxycodone, oxymorphone, tizanidine, gabapentin, Topamax, and diclofenac (Tr. 118-19).

V. THE NATIONAL HEARING

Joint Stipulations

The national hearing was held from February 25 to March 12, 2019, Washington, D.C. At the beginning of the hearing, the Court admitted the parties’ statement of joint stipulations into the record:

1. In the following Fiscal Years (FY), the Postal Service’s total revenue was:

2016 \$71.498 billion
2017 \$69.636 billion
2018 \$70.660 billion

2. In the following Fiscal Years, the Postal Service’s total operating expenses were:

2016 \$76.899 billion
2017 \$72.210 billion
2018 \$74.445 billion

3. In the following Fiscal Years, the Postal Service's net loss was:

2016 \$5.591 billion
2017 \$2.742 billion
2018 \$3.913 billion

4. As of September 30, 2018, the Postal Service employed approximately 497,000 career employees and approximately 137,000 non-career employees.

5. In FY 2016, the Postal Service employed the following:

170,885 city delivery carriers
40,436 city carrier assistants
68,261 career rural delivery carriers
53,183 rural carrier associates

6. In FY 2018, the Postal Service employed the following:

168,199 city delivery carriers
42,115 city carrier assistants
70,852 career rural delivery carriers
59,183 rural carrier associates

7. In FY 2016, the Postal Service had approximately 144,571 city delivery routes and 74,724 rural delivery routes.

8. In FY 2018, the Postal Service had approximately 143,358 city delivery routes and 78,737 rural delivery routes.

9. In FY 2016, the Postal Service managed a combined total of approximately 31,585 post offices, stations, and branches.

10. In FY 2018, the Postal Service managed a combined total of approximately 31,324 post offices, stations, and branches.

(NH Exh. J-100; NH Tr. 11)

Overview of the Postal Service's Operations

David Williams Jr. has been the chief operating officer and executive vice president for the Postal Service since February of 2015. He is responsible for all operations required to process, transport, and deliver mail (NH Tr. 1728, 1746). He explained the Postal Service's operations are divided into three primary sectors: network operations, delivery operations, and retail and customer service operations (NH Tr. 1774-75).

Network operations cover mail processing plants where mail is sorted, processed, and distributed to some level of ZIP Code order (NH Tr. 1775-76). Network operations include the surface and air transportation that is coordinated with the distribution centers and post offices

throughout the nation. The Postal Service coordinates surface transportation with the assistance of over 1,900 contractors and covers approximately 1.9 billion miles a year (NH Tr. 1774-76). It relies on “a vast air network,” which includes 90 airplanes during the day and 140 at night provided by FedEx, as well as planes provided by UPS (NH Tr. 1760). The Postal Service also uses commercial airlines (mainly Delta, United, and American) to transport mail (NH Tr. 1779). The extensive transportation network is necessary due to the Postal Service’s unique mandate to deliver to every address in the United States.

[A] lot of transportation is involved in moving product because of the complexity of our network, the fact that we go everywhere. We go everywhere because our mandate is to serve every American, no matter where they live, no matter what community they're in. And the connectivity that's required to make that happen involves a very complex, very sophisticated transportation network. We spent about \$7.9 billion a year on transportation, so a significant spend. It's the second-largest spend, and 11 percent of our expenses are involved in transportation.

(NH Tr. 1780-81)

Nationwide, delivery operations require city and rural letter carriers to complete approximately 226,000 routes 6 days a week (NH Tr. 1783-84). The Postal Service uses the concept of “FirstMile” to identify the initial contact the customer has with the Postal Service during delivery operations. A customer wanting to send a piece of mail puts a stamp on it, places it in the household mailbox, and raises the red flag. The raised red flag “is a signal to our carrier workforce that there is mail to be collected. . . We also have a FirstMile component at our post offices. . . [T]here’s a slot where they can drop mail into any one of approximately 31,000 post offices.” (NH Tr. 1785-86)

Retail and customer service operations also involve a FirstMile component when customers buy stamps or mail packages at a post office. Williams stated the Postal Service has the largest retail footprint in the United States, with more retail units than Starbucks, Walmart, and McDonald’s combined. Service and sale associates (SSAs) work in the fronts of the post offices and interact with customers while postal clerks work in the backs sorting mail (NH Tr. 1787-89).

Williams expounded on the scope and complexity of its operations.

I can't think of any network that is as complex as ours. You think about all the touch points that we have in our network, every 226,000 carriers, 31,000 post offices, 285 processing and distribution centers. Back through our network of transportation, whether it's air or surface, 2 billion miles. Airplanes that are flying all over the country, connecting that promise and that thing, that message of

sympathy and love, transactions, educational material to anybody else in the United States or our territories, even the world. We deliver 47 percent of the world's mail.

So significant, significant operational footprint that we have, supported by a tremendous amount of complexity to make sure that we're delivering the promise of when you put that stamp on that birthday card for one of your loved ones, they're going to get it.

(NH Tr. 1791-92)

In order to ensure its operations run smoothly and punctually, the Postal Service implements “the 24-hour clock” as an organizing principle. “[W]e have critical points on the clock, developed to make sure that we're hitting the mark, all to achieve on-time service to points. Our mission to provide prompt, reliable, efficient service is based on this 24-hour clock. And it's critical.” (NH Tr. 1795)

The clock starts with letter carriers retrieving mail at the FirstMile. At the end of the day, the letter carriers return to their post offices and place the collected mail in containers that are loaded onto trucks to transport the mail to processing and distribution centers. The operational process starts with cancellations, during which the stamps on mail are marked to show they have been used. The Postal Service expects 80 percent of all collected mail to be canceled by 8:00 p.m. Aligning the cancellation process with the 24-hour clock is crucial for the Postal Service’s overall operations (NH Tr. 1795-97). “[T]hat very first step is highly important because any variation in the very first processing step, it could be a slight variation, but that slight variation creates greater variation at the next step. It creates even larger variation on the third step. Fourth step, even larger. By the time you get to the last step, which is the delivery, we call it the bullwhip effect. A small variation at the front end creates this huge swing of variation at the back end.” (NH Tr. 1797)

The next step is the outgoing primary processing, where mail is sorted to a destinating plant based on the first three digits of the ZIP Code.¹⁴ This step needs to be completed by 11:00 p.m. to align with the 24-hour clock. A second sorting is completed by midnight (NH Tr. 1798-1800). “[A]t midnight, across the country, all this mail that's been collected, the mail that's received over a retail operation, mail that you have put in your mailbox to be collected by the

¹⁴ “Destinating plant” is Postal Service nomenclature for the facility receiving mail that will be sorted and transported to local post offices and from there delivered to its intended address.

carriers, mail that was inducted into our plant operations by any one of our mailers that have discounts, that so some level of sort, all of that has to take place by midnight.” (NH Tr. 1800-01)

After the mail is sorted, it must be assigned to transportation by 2:00 a.m. “No wiggle-room on in that. Trucks have to leave. Our entire surface network has been designed by the transport time that it takes to go from point A to point B. Can’t bend time; can’t bend distance. . . [T]his number is fixed in our operating window. By 2 o’clock we have to have that mail assigned. . . [P]lanes and trucks have to leave on time. That is the mark that has to be made.” (NH Tr. 1801-02)

Once mail reaches its destinating plant, the incoming processing begins. Mail arrives throughout the day and night, but it must be processed by 3:00 a.m. because that is the time postal employees start delivery point sequencing (DPS). DPS must be completed by 6:00 a.m. Priority mail takes longer and is not sorted to DPS but is sorted to a specific post office. It must be finished by 4:00 a.m., when trucks leave the destinating plant to transport mail to the post offices. Once the day’s mail has arrived at the local post office, it must be delivered to the intended address by 6:00 p.m. that day (NH Tr. 1803-06). “[W]e want to get our carriers off the street by 6:00 p.m. And that’s important because the trucks have to come back from the post office, back to the originating processing plant so we can get cancellations done by 8:00 p.m., 80 percent of them.” (NH Tr. 1806)

LLVs and Air Conditioning

Dr. Thomas Bernard testified regarding the benefits of providing letter carriers with air-conditioned vehicle.¹⁵ The Court found Dr. Bernard qualified, “based on his knowledge, skill,

¹⁵ Dr. Thomas Bernard is a professor in the College of Public Health at the University of South Florida. He has taught there for 30 years. He is the director of the university’s NIOSH- supported education research center (NH Tr. 793-94). He earned a Bachelor of Science degree and a Master of Science degree in mechanical engineering from Carnegie Mellon University and a PhD in occupational health from the University of Pittsburgh Graduate School of Public Health (NH Tr. 795-98). He worked for a time for the United States Bureau of Mines in the post-disaster survival and rescue section. Dr. Bernard worked for 11 years as a senior engineer at the Westinghouse Electric Research and Development Center, focusing on heat stress management in the power industry (NH Tr. 795-96). At the University of South Florida, he teaches master’s degree level students in, he stated, “classes related, broadly speaking, to occupational health and safety, specifically a class in ergonomics, one in physical agents and controls. I teach a class in occupational health and safety management systems and other administrative kinds of topics. . . . I’ve done a few guest lectures in the intro to industrial hygiene, a couple of laboratory lectures, and I also have a few lectures in service class for the college.” (NH Tr. 794)

Dr. Bernard is certified as an industrial hygienist and as a safety professional (NH Tr. 797). He is a fellow of the American Industrial Hygiene Association (AIHA) and is on the Physical Agents Committee for the [American Conference of Governmental Industrial Hygienists] [(ACGIH)]. He was a Fulbright Scholar at the Loughborough University in London. He has published approximately 16 peer-reviewed papers in the past decade, most of them on

experience, training, and education,” to testify as an expert “in the areas of industrial hygiene and specifically regarding industrial heat stress.” (NH Tr. 808)

Dr. Bernard recommended air conditioning be provided in the letter carriers’ vehicles, and he found it to be technically feasible (NH Tr. 823). The goal of a heat stress program is to reduce the metabolic rate. An air conditioned space is “more favorable to dissipating heat by sweat evaporation[.] . . . [T]he air conditioning provides a less humid environment, so that’s the thing that really helps make it more favorable to evaporative cooling.” (NH Tr. 820) Letter carriers could take breaks in their air-conditioned vehicles and save time driving to an air-conditioned rest area. Air-conditioned vehicles would also assist with the first aid response in the event a letter carrier recognizes the onset of a heat-related disorder. “[A]n air-conditioned vehicle helps facilitate the recovery so that it doesn’t progress into an incident.” (NH Tr. 823)

Han Dinh works for the engineering department of the Postal Service as its manager for vehicle engineering (NH Tr. 314). He has a Master of Science and a Bachelor of Applied Science, both in mechanical engineering (NH Tr. 316). He is “the chief technical advisor for the Postal Service when it comes to vehicles. . . . [He is] responsible for the research, development, technology, testing and evaluation, including the specifications for mail vehicles for the Postal Service.” (NH Tr. 315).

Dinh testified the Postal Service introduced the LLV to its workforce in 1987 and the fleet of over 200,000 vehicles was fully deployed by 1994 (NH Tr. 317, 347-48). In 2014, the Postal Service began its Next Generation Delivery Vehicle (NGDV) project because by that time the LLVs were from 20 to 27 years old and the costs to maintain and repair them were increasing. “[T]he spare parts have been very hard, difficult to find because General Motors stopped making the spare parts for the vehicle. . . . [The engineering department had] to actually design and rebuild and make the new frame for the” LLVs (NH Tr. 320).

LLVs and NGDVs are purpose-built vehicles with right-hand driving. The Postal Service’s engineering department convened a supply conference in 2015, attended by representatives from Ford, General Motors, and Chrysler, among others (NH Tr. 321-22). The Postal Service issued a statement of objectives (SOO) and subsequently selected the top six

some aspect of heat stress, and has also contributed chapters to scientific handbooks. Dr. Bernard presents talks and webinars to occupational health researchers and professionals on the topic of heat stress. He has worked with private employers to develop heat stress programs for their employees (NH Tr. 799-802).

suppliers to build prototypes meeting the SOO and deliver them to the Postal Service by the end of September of 2017. The Postal Service began testing and evaluating the prototypes, and that process was continuing at the time of the national hearing (NH Tr. 323-26). Dinh stated the Postal Service is “planning to have the vehicle go into production assembly lines in December 2021, if everything goes right.” (NH Tr. 332) Air conditioning was listed as “optional” at the supply conference, but the Postal Service listed it as a requirement in the SOO (NH Tr. 337-38).

The SOO, updated November 20, 2015, by Dinh, provides:

The vehicles must have air conditioning/cooling systems sufficient to cool the operator’s torso area when seated in the driving position with the driver’s window open, so that the air temperature at the operator’s torso area is maintained at or below 85 degrees Fahrenheit when the outside temperature is 120 degrees Fahrenheit. Cooling is only required in the operator cab.

(NH Exh. C-161; NH Tr. 352-53)

Dinh explained the Postal Service has not committed to deploying air conditioned vehicles to its workforce but wanted to study its efficacy.

We wanted to study the feasibility of the air conditioning in the delivery vehicle with the window open, with carriers getting in and out all the time. So the intent behind to have a requirement in the SOO codified so that we can have a chance to study whether we can efficiently cool the vehicle with everything open and we go at the extremely low speed. And you probably are aware that all delivery vehicles, from UPS, from FedEx, none of them have air conditioning today in their vehicles. So we wanted to study it.

(NH Tr. 339-40)

Dinh explained the rationale for requiring the capacity for cooling the interior of the cab to 85°F when the outside temperature is 120°F.

My research at the time found out that when the outside temperature 120 degrees, the maximum temperature they can achieve with the AC system is around 70 degrees at the vent where the AC vent is inside the vehicle. So we made an educated guess at the time, if the vent temperature, the coolest temperature at the vent is about 70 degrees and the torso area is far away from the vent because of heat loss between where the vent is and the torso of the driver, so we made an educated guess about 15 degrees. So by the time it gets to the torso with the heat loss -- heat environment coming from the environment, the torso area probably at best can achieve -- optimum temperature would be around 85 degrees. That's educated guess of how the air conditioning system would -- could operate at the time.

(NH Tr. 353-54)

Three of the suppliers submitted prototypes of the NGDV with air conditioning. The Postal Service was in the process of testing and evaluating the feasibility of air conditioning the NGDVs at the time of the national hearing (NH Tr. 363-64). It is Dinh's opinion that equipping vehicles with air conditioning is a matter of comfort, and not safety, for the drivers (NH Tr. 367-68). He testified the Postal Service had not reached a final decision on whether it would require its NGDV to be equipped with air conditioning (NH Tr. 341, 368-69).

Kevin McAdams works for the Postal Service in Washington, D.C., as its vice president of delivery and retail operations. He agreed with Han Dinh that air conditioning is a matter of comfort, not safety, and the ubiquity of air conditioning in contemporary vehicles reflects a societal shift in lifestyle. "What's different today is air conditioning as a comfort feature has become like satellite radio, right? You don't have a tape deck anymore. It's just standard equipment. . . . So that decision is really – society has made that decision. The car manufacturers have made that decision for us. But in 1980 that was not an unusual decision [to drive a vehicle without air conditioning]." (NH Tr. 2098-99)

Dr. Aaron Tustin testified regarding the temperatures inside LLVs.¹⁶ The Court determined Dr. Tustin was qualified to provide expert testimony "regarding occupational medicine in general, heat stress exposure assessments, and the epidemiology of occupational heat-related illnesses." (NH Tr. 254)

¹⁶ In 1998, Dr. Aaron W. Tustin received a Bachelor of Science degree in physics from the Massachusetts Institute of Technology. He received a Master of Science degree in astronomy from Harvard University in 2000 (NH Tr. 229). After working for a time in the private sector, Dr. Tustin attended Vanderbilt University Medical School and received a medical degree in 2012 (NH Tr. 230). After completing a year of residency at Johns Hopkins Hospital, he went to Peru for a year to conduct research in epidemiology and biostatistics for the University of Pennsylvania (NH Tr. 231). He then completed a two-year residency program in occupational and environmental medicine at Johns Hopkins Bloomberg School of Public Health and received a master's degree in public health in 2015 (NH Tr. 233-34). Dr. Tustin is board certified in occupational medicine and is a member of the American College of Occupational Environmental Medicine (ACOEM). He serves as an adjunct assistant professor at the Uniform Services University of Health Sciences (NH Tr. 236-38).

In August 2016, Dr. Tustin began working in Washington, D.C., as a medical officer for OSHA's Office of Occupational Medicine and Nursing (OOMN) (NH Tr. 226). He described OOMN's priorities as (1) "supporting OSHA field officers with their investigations" as expert consultants; (2) reviewing annual medical exams of CSHOs to assess their fitness for duty; and (3) "analyzing OSHA's internal data to try to improve [OOMN's] guidance that we give to workers and employers." (NH Tr. 226-27) Dr. Tustin has conducted research and written approximately a dozen peer-reviewed published articles relating to occupational health, including articles published in *The Journal of Occupational and Environmental Medicine*, *The Journal of Occupational and Environmental Hygiene*, and *Morbidity and Mortality Weekly Report (MMWR)*, published by the Centers for Disease Control and Protection (CDC) (NH Tr. 240-47). He has lectured at medical conferences, including the American Occupational Health Conference (AOHC) and the National Occupational Injury Research Symposium (NOIRS) (NH Tr. 247-50).

Dr. Tustin concluded the interiors of LLVs were hotter than the outside air temperature after reviewing a report entitled *Postal Vehicle Temperature Test Phoenix District Safety Office 2005* (NH Exh. C-151; NH Tr. 299). The Phoenix report explained the setup and process for the Phoenix test:

The test set-up consisted of taking temperature readings on three days when the temperatures were above normal in the Phoenix area. The first test was to get baseline data on temperatures in a Long Life Vehicle (LLV) with readings on dew point, heat index, percent relative humidity and the outside air temperature on May 19th, 2005. The follow up testing, on May 20th, consisted of gathering data points comparing two LLV side by side measuring one LLV with windows up and the other LLV with windows down 1½ inches to quantify the difference in temperature. Additional testing was performed on May 23rd gathering data on temperatures on a static Ford Windstar and 2-ton delivery vehicle; both vehicles closed with windows up. The hypothesis was designed to take accurate measurements of the temperature in postal delivery vehicles to answer the question “Are vehicles any cooler with the windows down 1½ inches opposed to windows closed?” The hypothesis was further tested to find out if the vehicle inside temperature increased 75% within the first 5 minutes and 90% of the temperature increase occurred within 15 minutes.

(NH Exh. C-151, p. 1)

The report summarized the Phoenix test results:

The following conclusions were made from the analysis of the series of tests to compare the rate of rise of temperature in static postal delivery vehicles:

The temperature reached a maximum of 122 degrees inside the LLV at 5 p.m. when the temperature was 101 degrees outside; a temperature differential of 21 degrees. The temperature rose only 4 degrees in the first 5 minutes and 10 degrees within 15 minutes. This did not verify the hypothesis of 75% temperature increase in the first five minutes nor 90% within fifteen minutes. However, the hypothesis did not take into account the constant rise of the outside air temperature during the day. The temperature on the test day ranged from 86 degrees at 10 a.m. to 101 degrees at 5 p.m.

The side by side test of two LLV’s comparing temperatures with the windows closed in one LLV and the windows down 1½ inches in the other show very small difference. The results show that at the maximum temperature the difference in temperature was only 2½ degrees. This equates to only a 2% difference in temperature.

...

In conclusion, this testing shows that having windows down in a parked LLV does not make a significant impact on the inside temperature.

(NH Exh. C-151, p. 3)

Dr. Tustin summarized the results of the temperature test:

They put temperature sensors inside an LLV, both with the windows completely closed and also with the windows cracked open about an inch and a half, and they were comparing the interior temperature to outside temperature. I believe they had several conclusions, but some of the main conclusions that I take away from this were that the interior temperature was always hotter, at least 5°F hotter, than the outside conditions.

(NH Tr. 299-300)

On cross-examination, Dr. Tustin conceded the test was conducted in LLVs parked in direct sunlight in a parking lot in Phoenix, Arizona, with the doors closed and the windows either closed or open 1.5 inches. It took an hour for the interior temperature to increase 21°F, and the interior temperature reached 122°F after the LLV sat in direct sunlight for 7 hours. Dr. Tustin agreed he could not think of an example in any of the five Postal Service cases where a carrier left an LLV parked in direct sunlight for an hour or more (NH Tr. 650-52). He also acknowledged the Phoenix test did not factor in any cooling effects from a carrier opening the door to reenter the LLV and driving it with the windows down to the next park point (Tr. 653-54).

The Postal Service hired Rodman Harvey as a consultant in the five cases before the Court.¹⁷ The Court qualified Harvey to testify as an expert “in industrial hygiene, with specialized expertise in assessing the risk of exposure to excessive heat, based on his knowledge, skill, experience, training, and education.” (NH Tr. 2766)

Harvey found the Phoenix test report to be unreliable. “In reviewing the document, there's errors with regard to definitions of terms. There's nonsensical statements about temperatures increasing by a certain percentage point. There's representations in the conclusions that don't appear to be supported by the testing that was done. And the testing conditions were not very rigorous in terms of standardization or trying to standardize other variables.” (Tr. 2838)

Harvey elaborated on the errors he found in the report:

Q.: You mentioned definitions. Can you be specific about what you found with regard to the definitions?

¹⁷ Rodman Harvey is the director of client services for Carnow Conibear & Associates, an environmental health and safety consulting firm in Chicago. He manages the company's industrial hygiene group (NH Tr. 2750-51). Harvey received a bachelor's degree in biology from Lawrence University in 1983, and a master's in environmental engineering in 1986 from the Illinois Institute of Technology (NH Tr. 2745). He is a certified industrial hygienist (NH Tr. 2747-49).

Harvey: Yeah. On page 4 of that document, there's a section called "Definitions". And it has a definition for "heat stress" and then in parentheses it says, "heat index". And then the definition is primarily a definition of heat index and has nothing to do with heat stress, which is the primary word or phrase being defined.

Q.: Mr. Harvey, I notice on the first page of the document, which is marked 0001085, in the first paragraph, there's a reference to "hypothesis" and then it's got 75 percent and 90 percent. What does that sentence mean?

Harvey: I have no idea what it means. It talks about the hypothesis that the temperature increased 75 percent in a certain period or 90 percent, but the temperature is not an absolute scale. So you can't compare two different temperatures using percentages. For instance, 60 degrees Fahrenheit is not twice as hot as 30 degrees Fahrenheit. So I don't know what the hypothesis was or what they were trying to test.

Q.: I believe that the document describes – I guess what I would call the testing conditions for the various vehicles. Did you find any flaws in the testing methods?

...

Harvey: [I]n describing the methods when they tested the LLVs, they made a point to point out that the LLVs were both pointing south so that the effect of the sun would be the same on each. And then later they test two other vehicles and one was pointed to the south and one was pointed to the west. So the effect of the sun would be completely different.

Q.: If you look at the first chart or graph or whatever it is on the first page, which begins 0001085, is this trying to tell us the temperature with windows open or windows closed, or what is this trying to communicate? Based on your review of this.

Harvey: I don't know that I can tell the condition of the LLV from what's written here.

(NH Tr. 2838-40)¹⁸

Finances of the Postal Service

The Postal Service originated in 1775 when the Second Continental Congress appointed Benjamin Franklin its first postmaster general. President George Washington signed the Postal Service Act in 1792, creating the Post Office Department. It became a cabinet-level department and transitioned to an independent agency in 1971 under the Postal Reorganization Act of 1970

¹⁸ The Court finds the Phoenix test report to be unreliable and accords it no weight. In addition to the flaws pointed out by Rodman Harvey, the record establishes the Phoenix testing conditions do not reflect the actual working conditions of carriers who drove LLVs in Martinsburg, West Virginia.

(NH Tr. 1747-1750). In 2006 Congress passed the Postal Accountability and Enhancement Act (PAEA) which, Williams stated, “created some business model changes for the Postal Service, split our products into two product types, competitive products and market dominant products, [and] placed some restrictions on pricing for market dominant products so that we could no longer rise our rates beyond [the Consumer Price Index,] CPI.” (NH Tr. 1751)

The PAEA requires the Postal Service to prefund the Retiree Health Benefits Fund (RHBF) annually. Williams stated this requirement “really is a millstone around the Postal Service’s neck in terms of finances. The manner in which we’re required to prefund that obligation is one that I don’t think the vast majority of companies or any other government agency is required to do.” (NH Tr. 1751-52)

Jim Sauber of NALC¹⁹ agreed the prefunding obligation is “really the central driving force of Postal Service’s finances. . . . Most companies just pay their retiree health premiums on a pay-as-you-go basis for their current retirees. This law added an additional obligation to the Postal Service, not only to pay their existing retirees’ health and premiums, but to pay in advance, decades in advance the cost of future retiree health benefits.” (NH Tr. 894-95) The Postal Service operated at a loss in 2016, 2017, and 2018 (NH Tr. 890-93).²⁰

This prefunding mandate cost the Postal Service \$9.1 billion in 2016, \$4.3 billion in 2017, and \$4.5 billion in 2018. The year 2016 “was the last year in which the Postal Service was required to prefund their retirees’ health, but also out of their own operating budget pay for current retirees’ health benefits. Starting in 2017 and going forward, they can now use the fund that they’ve set aside for these prefunding payments, which . . . has nearly \$50 billion in it.” (NH Tr. 896-97)

Since 2010 the Postal Service has been unable to meet the RHBF payments. “They have to report it as an expense, but then it gets reported as an additional liability on their balance sheet.” (NH Tr. 897) Because the Postal Service is a federal agency and not a private company, it

¹⁹ Jim Sauber is the chief of staff to the president of NALC since 2002, first for Bill Young (until he retired in 2009) and then for Fred Rolandro. He manages NALC’s professional staff, which includes staff in the areas of politics, legislation, communications and media relations, and research. Sauber is familiar with all publicly available information about the Postal Service, the Postal Regulatory Commission, and the collective bargaining rights and benefits programs of letter carriers (NH Tr. 871-74).

²⁰ The parties stipulate, “In the following Fiscal Years, the Postal Service’s net loss was: 2016: \$5.591 billion; 2017: \$2.742 billion; 2018: \$3.913 billion.” (NH Exh. J-100, ¶ 3)

cannot file for bankruptcy. “So this has become the center of all the discussions about postal reform legislation, is what to do, how to reduce or repeal this prefunding burden.” (NH Tr. 898) If the unpaid amounts for the retiree health benefits were removed from the budget statements for 2013 to 2018, the combined operating income for those years would be \$3.8 billion (NH Exh. C-135; NH Tr. 899-903).

Sauber explained the retiree health benefit is not a debt owed to a third party.

[T]his is not like defaulting on your mortgage if you don't make these payments. It's like if you're in tough times and you stop putting money into your kid's college fund. It's a future obligation and a future liability that you're going to have, but nonetheless it's out there and just by law Congress has decided that the Postal Service and only the Postal Service -- no other private company has to do this, has to prefund retiree health.

(NH Tr. 903-04)

The Postal Service is an agency of the federal government and, as such, does not file taxes. It is required by the Securities and Exchange Commission to file annual 10-K reports (NH Exh. C-131; NH Tr. 874-75). The Postal Service is funded entirely by the sales of postage and stamps—it receives no revenue from federal taxes “with one small exception.” (NH Tr. 876) Market dominant services (MDS), which include “letters, invoices, statements, [and] marketing mail,” are items for which the Postal Service is the main provider (NH Tr. 877). The Postal Regulatory Commission (PRC) permits the Postal Service to raise rates once a year for MDS, indexed to the CPI (NH Tr. 878) The Postal Service increased rates in January of 2019 by 2.5 percent and estimated it would “generate approximately \$891 million in annualized income.” (NH. Tr. 881)

Congress also provides a “sort of safety valve” for circumstances where higher rate increases are deemed necessary, called “exigent rate increases” that are “above and beyond the CPI.” (NH Tr. 881-82). In 2011 or 2012, in the aftermath of the Great Recession, the Postal Service experienced a severe drop in mail volume. It petitioned the PRC for a 4.3 percent exigent rate increase above the CPI, which the PRC granted in December of 2013. The exigent increase was temporary, staying in effect until the Postal Service recovered \$4.6 billion. It expired in April of 2016 after meeting that goal (NH Tr. 882-83).

The Postal Service also raises revenue by offering competitive services in the categories of priority mail, priority mail express, first-class package service, and parcel select. It has more flexibility in setting the rates according to market conditions for competitive services (NH Tr.

883-85). Sauber stated competitive services have given an economic boost to the Postal Service. “There was a booming, booming growth in e-commerce, and so the demand was providing the ability for the Postal Service to raise their rates. The demand was also raising their costs too, so that's in part why they did these rate increases.” (NH Tr. 890) The Postal Service raises about \$21.5 billion of its annual \$71 billion revenue from competitive services. In 2018, approximately 4 percent of the total number of pieces letter carriers delivered were categorized as competitive services (NH Tr. 886-67). In January 2019, the Postal Service implemented a 7.4 percent increase in its competitive rates (NH Exh. C-131; Tr. 887).

Another anomaly of the Postal Service’s business model is its partnership with its direct competitors. Williams stated, “[W]e rely on FedEx and we rely on UPS, but we also compete with them. So in the package market there is a lot of competition, as you might imagine, with two big package delivery companies like UPS and FedEx. So within the competitive product line, most of the products and services are around packages.” (NH Tr. 1753)

The Postal Service is committed to meeting service standards for mail delivery, meaning the transit time for different types of mail is predictable. First class mail has overnight, 2-day, 3-day, 4-day and 5-day service standards (NH Tr. 1756). The Postal Service recognizes its customers rely on its promise to meet its service standards for both business and personal reasons.

[W]e have a 2-day service commitment for first class mail if you're mailing within a 6-hour drive time within the United States, 2-day service standard. You're expecting to have that mail delivered in 2 days. If you're mailing a bill or if you're synchronizing when you're mailing a birthday card to your mother, and you know she lives within six hours of you, you know you've got 2 days to get that mail piece delivered, the promise that we're making our customers through our service standards.

And cataloguers plan their promotions around expected delivery times in the home. They staff up their call centers expecting when we're going to deliver a catalogue in somebody's home so that when you receive a catalogue, you're calling up the call center and making an order.

So our customers are counting on us. Amazon is counting on us to make their 2-day promise. Cataloguers are staffing up and counting on us to deliver catalogues so that whatever product is being sold can be bought. And if you've got personal correspondence, business correspondence or paying your bills, we've got a promise that we're going to deliver on that promise. When those expectations aren't met, our customers can get quite agitated, right. If you make a payment to your mortgage and it's not received on time and you get hit with a late fee, that's a

major issue for our customers. If you staff up your call center and expecting a lot of calls because you've entered product into one of our plants and we don't deliver that timely, number one, you're not getting the sales that you're expecting. You've paid for a lot of people to be in call centers that aren't taking calls.

(NH Tr. 1762-64)

For certain guaranteed types of mail, the Postal Service must refund the customer's postage if the mail is not delivered in the promised time, which, Williams stated, is a financial penalty. However,

the bigger penalty for us is when customers use us and we don't deliver on the promise that we're making, they go to alternative places, right? We're competing in every single product line. It's not just the competitive products where people traditionally see us as competing with United States Parcel Service or FedEx.

We're competing now with our own customers. We're competing with Amazon. Amazon is creating their own delivery network. We're competing with electronics. . . . If you go on any social media app, whether it's Facebook, whether it's Instagram, whether it's email, you're getting hit multiple, multiple times by an unlimited number of companies that are using electronic media to deliver their message, whether it's a business message, whether it's a transaction, whether it's a bill payment, bill presentment, advertising piece, if it's periodicals, online periodicals.

So even within our market dominant products, we're competing in every product, and service -- it's very hard to compete when somebody can deliver an email to your account free and when they want. . . . But if we're not delivering on our standards and we're losing customers, we call that churn, so churn is a term that we use. Last year we lost \$5.5 billion for customers that left us. About 1.8 billion of that was because of service-related issues.

So when we're not delivering on service, promises that we're making when we ink deals with some of the major e-commerce companies, they leave us. Some of them left us this past Christmas season when we were having difficulties in certain pockets of the country. We lost business because some of these e-commerce companies diverted packages that we would normally have received and were expecting to receive, they diverted them to some of our competitors.

(NH Tr. 1765-67)

NALC and Heat Stress Awareness

Manuel Peralta works in Washington, D.C., as the national director of safety and health for the NALC. NALC, with approximately 295,000 active and retired members, is "the union that has exclusive jurisdiction to represent city letter carriers throughout the country." (NH Tr. 43)

In July of 2012, Peralta learned a letter carrier in Independence, Missouri, "had died, and it was believed to have been related to the heat." (NH Tr. 52) In December of 2012, the Secretary

issued a willful citation to the Postal Service for a § 5(a)(1) violation for exposing employees to excessive heat. The Postal Service contested the citation and the case went to hearing in February of 2014.

Peralta attended the hearing presided over by Judge Peggy S. Ball. He observed the testimony of the Secretary's expert witness, Dr. Thomas Bernard (NH Tr. 52-54).²¹ Dr. Bernard's testimony inspired Peralta to address the issue of excessive heat exposure for letter carriers.

As a direct result of the testimony of the doctor and the Occupational Safety and Health expert . . . I was stunned over what they explained, how it -- the heat affects the body. . . . The steps that I personally took is, I started to speak with the Business Agent, speak with the other officers, and determined that we had to learn more about the heat, learn more about its effects, learn more about what do we have to do as a craft to prevent our brothers and sisters from getting hurt. A few months later, the judge issued her decision.²² And in reading her decision, I decided to start writing articles where I specifically made reference to her findings and her opinion. And I started to read more and more and more, including documents that came out from NIOSH and recommendations, and started to put together information and sending it more and more to the field.

(NH Tr. 55-56)

In response to increased awareness of heat stress, the Postal Service and NALC negotiated a memorandum of understanding (MOU) in 2015 (NH Tr. 56, 59). Section 1 of the MOU addresses training and provides:

New letter carrier employee orientation will include the heat stress training identified below. Training will also be provided annually (no later than April 15) to all employees, with regular reminders throughout the summer season by local management.

LMS Course 10019802—Heat Stress Recognition and Prevention (Supervisors and Carriers)

PowerPoint Presentation—Heat Stress Recognition and Prevention (Supervisors to present to carriers). This program is designed as alternative training for those employees without access to the online Learning Management System.

Heat Stress SDOM Video: <http://blue.usps.gov/hr/safety/video/heat-stress.htm>

²¹ Dr. Bernard testified in the national hearing of the Postal Service cases before the Court.

²² Judge Ball found the Postal Service committed a willful violation of § 5(a)(1) by exposing its employees "to recognized hazards related to working outside during periods of excessive heat" and assessed a penalty of \$70,000. The Commission declined to direct the case for review, and the decision became a final order. *United States Postal Service*, No. 13-0217, 2014 WL 5528391 (OSHRC Oct. 24, 2014). The Postal Service appealed to the United States Court of Appeals for the Eighth Circuit, but voluntarily dismissed its appeal on May 28, 2015 (NH Exh. C-189).

Stand Up Talks and Info Pak Information (attached as an appendix).

(NH Exh. C-106, p. 3) The Postal Service did not make the heat stress training mandatory for supervisors until May of 2018 (NH. Tr. 61).

The MOU was signed on May 5, 2015, and applies to the post office in Independence, Missouri, but states, “While this Agreement applies solely to the Independence, Missouri, Post Office, including its stations and branches, the parties recognize that heat abatement is an essential element of on-the-job safety for city letter carriers in all locations where city letter carriers are exposed to excessive heat.” (NH Exh. C-106)

The second section of the MOU addresses increased supervisory monitoring of letter carriers when the heat index rises to 103 °F:

2) Monitoring Employees

...

[T]o the extent practicable, management will increase contact with employees performing street duties for the purpose of monitoring employees’ well-being on days when the National Weather Service predicts a heat index (air temperature and relative humidity combined into a single value) at or above 103°F. For purposes of this agreement, the combination of air temperature and relative humidity at or above 103°F is deemed an “excessive heat day.” The chart below indicates the heat index system used by the National Weather Service. [The NWS’s heat index chart is depicted.]

(NH Exh. C-106; NH Tr. 147-51)

The MOU includes a section on work/rest cycles, again finding the heat index of 103°F to be a triggering event for additional measures:

5) Work/Rest Regimen

On days where the National Weather Service predicts a heat index at or above 103°F, in addition to their regular scheduled break(s) and lunch break, city letter carriers are encouraged to take additional breaks in designated climate-controlled or shaded areas . . . when necessary to mitigate the impact of excessive heat. Additionally, the parties understand and agree that it may be necessary for individual city letter carriers to take additional breaks when the heat index is under the threshold set above. Individual city letter carriers returning from absence or illness may be especially vulnerable to the effects of excessive heat, and therefore, are especially encouraged to take necessary breaks pursuant to this paragraph. City letter carriers taking an extra break under this provision, using their assigned MDD, send a text message to their assigned facility at the MDD, send a text message to their assigned facility at the beginning of the break (indicating the break location) and another text message at the conclusion of the break. The parties understand and agree that there may be circumstances where a

city letter carrier taking a break under this provision may not immediately report the breakthrough the MDD.

(NH Exh. C-106; NH Tr. 151-53)

In 2015, without input from NALC, the Postal Service implemented a heat stress awareness program that supervisors communicated to letter carriers during standup safety talks (NH Tr. 62-63). Peralta found the program to be “very shallow in the depth of information provided. . . . [I]t’s the limitation of hydrate yourself, avoid certain things, but very little, and none that I remember on acclimatization.” (NH Tr. 63) He also objected to the format of standup talks being used to communicate the information, based on the 5 years he had worked as a letter carrier in California.

When I was a carrier in Anaheim, I remember being called together for standup talks where the supervisor would read in the most monotonous, boring, uninspiring tone what he was required to read. And it felt like they were making a little checkmark on a piece of paper, telling you to finish up, go back to your case. It was absolutely worthless. So I spoke up because I was very disappointed with the quality of training. And that’s one of the reasons that my president later volunteered me for the safety committee.

(NH Tr. 63-64)

Peralta created a form entitled *Initial Heat Injury Report* and distributed copies to the local union branches and posted it on NALC’s website (NH Exh. C-105; NH Tr. 65-67). The purposes of the form are to track heat injuries and to assist injured letter carriers with claims under the Federal Employee Compensation Act (NH Tr. 67). NALC developed yearly spread sheets to track the heat injury reports (NH Exhs. C-107 (2015), C-108 (2016), C-109 (2017), C-110 (2018); NH Tr. 79-88).

Peralta investigated many of the injury reports and found a pattern emerged.

[I]t surprised me how much pressure the employees were under to keep working. It stunned me that it was a common denominator in most of the cases. Keep pushing and pushing and pushing. We have a heat wave. We know we’re affected by the heat wave. . . . It was my understanding that the employees were suffering from pressure to keep pushing forward. When I read the statements, in some of them it was, "I called my supervisor. My supervisor told me to keep going in spite of a standup talk that told us to recognize the symptoms. When we did call, we were forced to keep going." And that happened a lot.

(NH Tr. 70-71) Eventually, Peralta became aware that letter carriers who suffered heat injuries were subject to disciplinary procedures (Tr. 89, 96).

Peralta attributed the death of a letter carrier in Medford, Massachusetts, in July of 2015 to excessive heat exposure (NH Tr. 102). He testified regarding the death of another letter carrier in Woodland Hills, California, in July 2018 on a day when the temperature was 117 °F. The letter carrier “had been off duty for approximately three months. She had suffered an on-the-job injury. I believe it was either a severely sprained or a broken ankle. She was on medication, off work for three months. That Friday was her first day back.” (NH Tr. 104) Peralta discovered the Postal Service had certified the deceased letter carrier had undergone heat safety training during a period of time when she was not working.

[D]uring my meeting on May the 15th of 2018 with management, they also told me every single letter carrier in the country will also undergo the LMS training for the heat safety program that we audited in 2015. They specifically put, to me, confirmation that 640,000 employees will undergo that training. Because I was very doubtful that they were going to have everybody go. I said, are you talking every single letter carrier? Well, we're not talking about individually, but in groups. Every single letter carrier and every single supervisor. So as the facts revealed themselves, I am provided with documents that indicated [the deceased letter carrier] was certified as having gone through that training when she wasn't ever at work yet. Her first day at work, she returns and dies, but they certified that she had gone through that training weeks earlier, which was absolutely untrue. They were embarrassed, and then they later, after the fact, corrected their records.

(NH Tr. 106)

Rural Delivery

The working conditions and payment structure for rural carriers differs from that of city carriers. David Heather of the NRCLA provided an overview of rural delivery for the Postal Service.²³

Heather described a typical day for a rural letter carrier: Rural carriers report to their post offices and gather their mail, including the delivery point sequence mail that has already been organized. They then case the mail for 2 or 3 hours by sorting it into the slotted sections of the case for each delivery address. The rural letter carriers also gather and sort their parcels. They then load the mail and parcels into their vehicles and proceed on their routes. They deliver and collect mail as they drive their routes, dismounting to walk parcels to the addresses or to deliver

²³ David Heather is on leave without pay from his position as a rural letter carrier in Kansas City, Missouri, while he works as the director for labor relations for the NRLCA (NH Tr. 175-76). His duties include overseeing “all labor relations issues with the Postal Service, including the grievance and arbitration procedure, national arbitrations, area arbitrations, [and] the steward system in the field.” (NH Tr. 177)

to business addresses. After completing their routes, the rural letter carriers return to their post offices where they will deal with undeliverable mail (due to an incorrect address, for example) and the mail they collected on their routes (NH Tr. 179-81). Heather testified approximately 45 percent of the rural carriers drive their own vehicles, and the rest drive LLVs (NH Tr. 181-82).

Heather explained the different positions among the rural letter carriers:

[T]he first designation would be a regular rural carrier. That's a career rural carrier who works either five or six days a week on a full-time regular route. We have another career position called a PTF or a part-time flexible rural carrier. Those folks are only guaranteed anywhere between two and five days of work per week. But they're considered career. They have career benefits. So that's the second category. We have rural carrier associates [RCAs] who are actually not guaranteed a whole lot of work at all. Because when they're hired their job is specifically to fill in for one particular regular carrier. Ideally, we would have an RCA assigned to every regular route so that when the regular carrier is gone that RCA's job would be to fill in. That is a non-career position. And then we have another non-career position that we established fairly recently called an assistant rural carrier. And that position was established specifically to help us deliver parcels on Sundays and holidays. And then we did agree that they could do some other work on Saturdays. So it's basically a weekend position.

(NH Tr. 183-84)

Heather explained rural letter carriers "are kind of an anomaly in the Postal Service and probably in all of labor" in the calculation of their salary (NH Tr. 186). They are paid on the basis of "evaluated time," using

a daily evaluation which comes from a weekly evaluation of the route. And this weekly evaluation is determined by a mail count which is a periodic time where we take a snapshot . . . most of the time it is [for] two weeks. And during that period of time we establish how many boxes there are on the route; how long the route is in miles. We count, physically count, every letter, every flat, every parcel that the carrier delivers. We count every certified letter. All of these items have a time factor that's been agreed to and in some cases arbitrated by the carriers over the years. And you add up all of these elements. You multiply the time factors. You add all of that up and you come up with a weekly evaluation for the route. And that establishes how that route will be paid and how that carrier will be paid until there is a next mail count or a next substantial change in the route.

(NH Tr. 187)

Rural letter carriers are paid the same amount regardless whether they complete their routes in 6 hours or 10 hours (NH Tr. 188). They cannot earn overtime. "It's a matter of personal motivation and efficiency." (NH Tr. 189) The pay rate includes the time spent casing in the post

office as well as delivering the mail (the street time). Evaluated time is calculated based on 42 different elements. The weather is not one of them (NH T. 188-89, 2484-86).

Rural letter carriers are not permitted the 10-minute morning and afternoon breaks that the city letter carriers take. They are allowed an unpaid 30-minute lunch break “in whatever increments [they] want, wherever and whenever [they] want along the route.” Heather assumes “the bulk of our rural carriers probably don’t take any of that lunch most days. . . . [T]he incentive is strong. When you get to go home when you’re done, that’s a strong motivator.” (NH Tr. 191) It is Heather’s opinion that if rural letter carriers were paid for 30-minute lunch breaks, they would still not take them “[b]ecause rural carriers want to get done and go home.” (NH Tr. 195)

Rural letter carriers are expected to return to their post offices in time for the evening dispatch, when “the last truck comes to the office to pick up the outgoing mail.” (NH Tr. 191) If a rural letter carrier misses the evening dispatch, a postal employee will have to drive to the distribution center with collected mail (NH Tr. 192). Heather stated, “[T]here’s always pressure to make it back to dispatch. I think that’s especially high during the peak season when the weather’s bad, when we have a lot more parcels than we normally would. When I say ‘peak’ I mean Christmas. . . . [T]here are folks who have trouble getting back before the dispatch even during all seasons.” (NH Tr. 193)

James Boldt has been the Postal Service’s manager of rural delivery since 2013 (NH Tr. 2466). He is responsible for overseeing the policy and procedures of rural delivery, including the efficiency of operations and changes in standards for how rural carriers perform their duties (NH Tr. 2470).

Boldt testified the Postal Service delivers on 78,500 rural routes nationwide, in 64 of its 67 districts, to approximately 45 million delivery points (NH Tr. 2470). He stated people often envision “rural” as farm country but in reality “city delivery is basically urban and suburban, and rural delivery is suburban and rural. . . .[A]bout 58 percent of the rural routes are actually in locations that I would consider more suburban.” (NH Tr. 2471) Each year, the Postal Service adds 1.1 to 1.5 million new deliveries, and up to 75 percent of those are on rural routes. The Postal Service employs approximately 132,000 regular and replacement rural letter carriers. Regular rural letter carriers are career employees who deliver on a regular route. Replacement carriers, or rural carrier associates (RCAs) are noncareer employees who relieve regular carriers

on their scheduled days off, or when they take annual or sick leave. The Postal Service also employs approximately 6,500 associate rural carriers (ARCs) who deliver on Sundays and holidays. The NRLCA represents all three categories of rural carriers (NH Tr. 2472-73).

The majority of rural deliveries are to curbside mailboxes; park and loop routes are rare. Approximately 53 percent of rural letter carriers drive vehicles provided by the Postal Service (mainly LLVs). The remaining rural letter carriers drive their personally owned vehicles (POV), for which the Postal Service provides a maintenance allowance (NH Tr. 2478-79, 2481-82).²⁴

Form 3996 and Time Pressure

Jennifer Thi Vo works as the Postal Service's director of city delivery (NH Tr. 2583). She has worked for the Postal Service for 25 years and has held a variety of positions, including post office supervisor (NH Tr. 2584). She oversees all work aspects of city letter carriers and the approximately 143,000 routes on which they deliver. The Postal Service employs approximately 161,000 full-time city letter carriers and 2,800 part-time employees, plus approximately 44,000 CCAs (NH Tr. 2587-88).

Vo has experience as a post office supervisor receiving Form 3996 requests from letter carriers due to predicted hot weather. She explained the process she used with the requesting letter carriers to determine whether she approved or disapproved the requests.

I supervised in Memphis during the summer of 2014. . . . [I]t's hot, so on the 3996 they asked for overtime based on the heat. What I was explaining to the managers and the supervisors, we had four types of 3996, all heat off for half an hour.

What I looked at and what I try to teach is that each one of the 3996s are different because the employees are different and the routes are different. So the first one that I disapproved was for 30 minutes and it had heat. The conversation with the employee is that they leave their route at 10:00 o'clock and then usually are back by 4:00. But that day they were leaving at 9:30, so they're leaving an extra half an hour early. So the conversation that I would have is, "I'm disapproving your 3996. You asked for 30 minutes "O" due to the heat. I do think that you might take the 30 minutes but you're leaving a half an hour earlier. I'm not going to give you any extra work." So I would disapprove that.

²⁴The Postal Service offers an incentive of \$1,000 to rural carriers to buy a right-hand drive vehicle as a POV. It offers an incentive of \$500 for purchase of a conversion kit to modify a left-hand drive vehicle so it can be driven from both sides (NH Tr. 2480). Boldt testified the conversion incentive is "very limited in today's world. . . . Airbags have kind of prevented that from happening because to put that steering wheel on the right side, you now interfere with the safety of the vehicle, so it's pretty much a nonevent in today's world." (NH Tr. 2480)

The second one might be different. 30 minutes, and I remember this one. He asked for 30 minutes. He was leaving on time, so he's leaving at 10:00. He's supposed to leave at 10:00. He put heat, but his building, his route is 95 percent in the building. It's in the Civic Center, which is air conditioned, which the heat should not affect it. But usually what I did on that was I disapproved the 30 minutes. I gave him 15 minutes and told him that I would approve it. Use it if he needs it. If he needs more, let us know. But that's the conversation.

The last two we approved because they were out on the street. They were leaving at the same time, so we went ahead and approved it.

On those three cases, none of those employees worked overtime. It's really about the communication and talking to them. If they need it, they need it. If they don't -- 3996 is just a form to kind of determine if you need something.

It's going to change once you get on the street. It might be that they used 35 minutes. It might be they used 15 minutes, but every single form is not the same, every route is not the same and every carrier is not the same.

So that supervisor is really the key because they're the ones that are talking to employees every day. . . . [Form 3996 requests are] made at the beginning of the day, but all of the stations and branches usually have a requirement to call by a certain time. So if you know -- so at my stations, they're required to call at 3:00 o'clock. So they know -- it doesn't mean wait until 3:00 o'clock to call. It means that as soon as they find out that there's an issue there, give us a call.

We have three options. The supervisors that pick up the phone have three options when they call. The first option is go ahead and use the overtime. Second option is I'll send you some help. And the third option is bring back the mail.

Now, there's situations. Just like there's different carriers, there's different supervisors out there that's going to need training and stuff that will just say, "Continue going." If it's going to continue going, they have approved that overtime.

(NH Tr. 2597-2600)

When asked if it is proper procedure if a supervisor "just had their employees put a 3996 in a folder, doesn't look at them, disapproves them," Vo responded, "It would be. . . . A 3996 is—if it doesn't get approved or disapproved, it's automatically approved. So if you put in a request for overtime and the supervisor doesn't address it or any point, then the overtime's approved." (NH Tr. 2672)²⁵

Vo testified a letter carrier's medical condition could affect the time needed to complete a route (NH Tr. 2636). When a letter carrier notifies the post office in the morning he or she is not feeling well, the supervisor can allow extra time for overtime or assign part of the route as a

²⁵ The carriers in the five Postal Service cases did not appear to be aware that Form 3996 overtime requests were automatically approved if a supervisor failed to address the requests.

pivot. If a letter carrier is on the street and calls to say he or she is not feeling well and may require extra time to complete the route, Vo stated, “We usually won’t have an issue with that.” (NH Tr. 2637)

On cross-examination, Vo was asked about testimony from letter carriers in the local cases indicating their supervisors consistently discouraged them from submitting Forms 3993 or taking lunch or breaks due to hot weather. She responded, “So what I heard from the testimony is that the employees felt they were pressured to be done on time. And I don't see that to be the case of my experience and what I see as in data. These looked like isolated incidents. But I don't see -- I haven't seen any factual, just what I've heard on it. But I don't think that that is representative of the Postal Service.” (NH Tr. 2728)

Vo presents an idealized description of conversations between supervisors and city carriers regarding Form 3996 requests. The pleasant, civilized discussions she envisions, based on mutual respect between carriers and supervisors are not, however, the norm. Rather than being “isolated incidents” when “employees felt they were pressured to be done on time,” the records in the five Postal Service cases, across five cities, demonstrate rural and city carriers experience near-constant pressure to complete their routes faster and to discourage them from taking breaks or calling in sick. In this case, every city and rural carrier, active and retired, testified they were “harassed” or “pushed” or “yelled at” when they asked for more time or assistance (Tr. 68, 93, 177-84, 219-21, 287-88, 365-67). The Court agrees with Peralta’s opinion regarding the attitude of the Post Office to its carriers. “[I]t surprised me how much pressure the employees were under to keep working. It stunned me that it was a common denominator in most of the cases. Keep pushing and pushing and pushing.” (NH Tr. 71).

Dr. Bernard testified letter carriers are influenced by the corporate culture of the Postal Service to prioritize productivity. “[T]here seems to be a dance where I ask for extra time with a form 3996 . . . and [the forms will] sit on a desk, and so it becomes an effective denial. . . . [T]here's pressure that comes down . . . to the senior supervisor in an office down to the first-line supervisors to the employees about the need to meet these goals. And I mention it from the dance point of view is there was no evidence that people were punished on taking more time, but there was certainly this culture of discouraging, you know, that was there.” (NH Tr. 847-48) He stated letter carriers who in 2016 did report heat stress symptoms “were nonetheless encouraged to continue their routes.” (NH Tr. 945) Even though supervisors received heat stress training, “they

still had the emphasis on productivity versus trying to make sure that there was an early identification of signs and symptoms and early first aid.” (NH Tr. 947)

Even if the letter carriers in these cases did not suffer heat-related illnesses, they were experiencing illnesses of some sort and were plainly in distress. Yet in every one of the five local cases, supervisors to whom carriers reported their ailments either ignored the calls or texts or exhibited dismissive and disparaging attitudes towards the carriers. To discourage requests for overtime or sick leave, supervisors intimidated, belittled, and, in at least once case, bullied carriers, creating an atmosphere of disquiet and suspicion. These cases reveal a pervasive culture of mistrust and skepticism on the part of postal supervisors regarding reports of injuries or illnesses made by carriers. The supervisors’ indifference and the carriers’ reluctance to engage in confrontational conversations with management contribute to the stress already inherent in meeting the unforgiving demands of the 24-hour clock.

VI. THE CITATION

The Secretary’s Burden of Proof

To establish a violation of the general duty clause, the Secretary must prove: “(1) a condition or activity in the workplace presented a hazard; (2) the employer or its industry recognized the hazard; (3) the hazard was causing or likely to cause death or serious physical harm; and (4) a feasible and effective means existed to eliminate or materially reduce the hazard.” *S. J. Louis Constr. of Tex.*, 25 BNA OSHC 1892, 19 1894 (No. 12-1045, 2016).

Quick Transp. of Arkansas, LLC, No. 14-0844, 2019 WL 33717, at *2 (OSHRC March 27, 2019). “The Secretary also must prove that the employer ‘knew, or with the exercise of reasonable diligence could have known, of the violative conditions.’ *Tampa Shipyards Inc.*, 15 BNA OSHC 1533, 1535 (No. 86-360, 1992) (consolidated).” *A.H. Sturgill Roofing, Inc.*, No. 13-0224, 2019 WL 1099857, at *2 (OSHRC Feb. 28, 2019).

Alleged Repeat Violation of § 5(a)(1)

Item 1 of Citation No. 1 alleges,

OSH ACT of 1970 Section 5(a)(1): The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees in that employees were exposed to recognized hazards related to working outside during periods of excessive heat.

a) On August 13, 2016, at job sites located on mail routes in Martinsburg, West Virginia, with an afternoon heat index of 103 degrees Fahrenheit, the employer exposed employees to the recognized hazard of excessive heat during mail

delivery. Beginning at approximately 11:30 a.m., a rural letter carrier began delivering mail from an enclosed Postal Service truck (LLV) without air conditioning and in the direct heat. At approximately 1:30 p.m. the employee began feeling the symptoms of heat stress. The employee was hospitalized and diagnosed with heat related illness.²⁶

A. Existence of a Hazard

1. The Evidence Does Not Establish Exposure to Excessive Heat Caused the Illness of LC-1

The first element the Secretary must prove to establish a § 5(a)(1) violation is: “A condition or activity in the workplace presented a hazard.” The alleged violation description (AVD) of the Citation identifies the workplace at issue as “outside.” The Citation identifies the hazard presented as “excessive heat.” The “condition or activity” that presented the alleged hazard appears to be the afternoon heat index of 103°F.

Heat Stress Hazards

The Secretary called Dr. Tustin to testify regarding excessive heat exposure. He explained heat stress results from a combination of a person’s metabolic heat and environmental heat. Metabolic heat is generated by the human body and environmental heat results from sources outside the body. Sources of environmental heat include air temperature, relative humidity, radiant heat, and air movement. Humidity is the concentration of water vapor in the air. Radiant heat is generated by electromagnetic waves, such as direct sunlight (NH Tr. 255-57). Sunlight is “radiation that is striking the worker. So moving from the shade into the sunlight, even if the air temperature doesn’t change, you’ll be struck by the radiant heat so it can feel hotter.” (NH Tr. 258) The National Weather Service uses the heat index to combine air temperature and relative humidity as a single metric. “What it’s doing is accounting for two of the main environmental factors. . . . If the humidity rises, the heat index rises for a given temperature. So it’s assessing how it feels to a worker.” (NH Tr. 274)

²⁶ At the beginning of the hearing, counsel for the Postal Service requested a standing objection “to any reference to the hazard as being anything other than excessive heat, as defined in the citation.” (Tr. 14-17) The Court granted the Postal Service’s request. At the national hearing, the Court ruled that in the context of the five Postal Service cases, references to “excessive heat,” “heat stress,” or similar formulations are “all the same issue regarding the § 5(a)(1) citations that have been alleged.” (NH Tr. 1339) The Commission has also recognized these phrases are interchangeable in the context of § 5(a)(1) cases alleging exposure to the hazard of excessively high temperatures. See *Duriron Co., Inc.*, No. 77-2847, 1983 WL 23869 (OSHRC April 27, 1983) (“heat stress,” “excessive heat,” “extreme heat”); *Industrial Glass*, No. 88-348, 1989 WL 88787 (OSHRC April 21, 1992) (“heat stress,” “excessive exposure to heat”).

The most serious illness caused by heat stress is heatstroke, which causes a dysfunction of the brain. Symptoms include slurred speech, disorientation, confusion, unconsciousness, or coma. Heatstroke causes an elevated body temperature, generally defined as 104 or 105°F (NH Tr. 259). Heat exhaustion is a less severe result of heat stress. Its symptoms may include headache, nausea, vomiting, dizziness, and profuse sweating. Heat exhaustion does not result in an elevated body temperature or brain dysfunction (NH Tr. 260). Dr. Tustin stated symptoms of heat exhaustion, either separately or in combination, are also symptoms of other conditions and their presence may be unrelated to heat (NH Tr. 538-541). Unlike heat stroke, there is no diagnostic test for heat exhaustion (NH Tr. 536). Less severe conditions caused by heat stress include heat cramps, heat rash, and heat syncope (fainting) (NH Tr. 261).

LC-1 and the August 13, 2016, Incident

Dr. Tustin reviewed weather data from the National Weather Service (NWS) for Martinsburg, West Virginia, on August 13, 2016 (NH Exh. C-304; NH Tr. 445). The NWS data showed the highest temperature in Martinsburg on August 13 occurred at 3:53 p.m. It was 93°F, and the relative humidity was 58 percent, resulting in a heat index of 106°F.

Dr. Tustin testified a heat index of 106°F is hazardous, based on epidemiological studies and cases he has reviewed (NH Tr. 447). He stated his belief is “also consistent with other recommendations, for example, from the National Weather Service and OSHA, heat index charts and thresholds that they’ve published.” (NH Tr. 419)

Dr. Tustin reviewed LC-1’s hearing testimony and medical records, and he gave his opinion of her medical condition at the time she arrived at the hospital on August 13, 2016.

She was in the hospital for, I believe, two days, and they performed several tests. The ones that I thought were most pertinent were the blood tests. So they tested her creatinine level, which I've already mentioned for the previous case. Her creatinine level was elevated about four times the upper limit of normal, according to my – what I recall. And so that's essentially diagnostic of what we call kidney failure or renal failure. Her blood pressure was low, so that's an objective vital sign that we look at. That was probably a causal factor in the renal failure. They had her seen by a nephrologist, who's a kidney specialist. And the nephrologist concurred that this was acute renal failure due to prerenal kidney injury. . . . [The attending physician] diagnosed her with, like I said, acute renal failure, which resolved by the time she was discharged. And they diagnosed her with heat exhaustion, which also resolved by the time she was discharged two days later.

(NH Tr. 452-53)

LC-1 had gone to the emergency room approximately 2 weeks before the incident at issue, on July 28, 2016. She was diagnosed with a urinary tract infection (UTI), hypotension, renal failure and essential hypertension, and was given a prescription for Ceftin (NH Tr. 3023-24). Dr. Tustin disagreed with the diagnosis of UTI.

She did not have any pain or burning with urination. She didn't have any flank pain, so pain around the region of the kidneys or in the region of the bladder on physical exam. The lack of those symptoms really reduces the likelihood of a UTI. And the reason they diagnosed a UTI was based on a urinalysis. But when I looked at the urinalysis results, it was contaminated, which that means that it wasn't a clean urine sample. And when you do a urinalysis, you're trying to examine a clean sample directly from the bladder. But sometimes when the patient urinates, the sample can be contaminated by cells or bacteria or other things from the surrounding tissue. The laboratory in July specifically mentions it was a contaminated urine sample. They said that it should be repeated because it was contaminated. So you really can't diagnose a UTI based on a contaminated urine sample.

(NH Tr. 459). LC-1 was also diagnosed with a UTI during her stay at the hospital that began 2 weeks later on August 13, 2016 (Exh. R-35, p. 305).

Dr. Tustin was asked about the side effects of one of the medications LC-1 was taking.

Q.: [C]an topiramate cause sweating cessation?

Dr. Tustin: Yes, I've seen that. I've seen that listed as a side effect.

Q.: In this case in August of 2016, do you believe that topiramate caused [LC-1] to stop sweating?

Dr. Tustin: No, I don't think so. . . . [T]here are actually several reasons, but probably a couple of the most important ones are the mechanism just doesn't make sense to me. If topiramate caused someone to not be able to sweat, then you wouldn't see sweating in the morning and then suddenly stop sweating in the afternoon, for one thing. I think that if it was due to topiramate that's she's been taking for months or years, then you wouldn't see that abrupt change from sweating to not sweating.

And the other thing I think is that it doesn't really make sense that it would cause dehydration. If topiramate prevented somebody from sweating, that would actually protect against -- protect against dehydration because the person wouldn't be sweating, so they wouldn't dry out like someone dries out when they are sweating a lot. And so if it was due to the topiramate, then she, in my opinion, would not have developed the dehydration-related acute renal failure. . .

[T]hey instructed her to continue taking the topiramate. So that indicates to me that they did not think it had a causal role in her acute renal failure. I think a physician would not have instructed a patient to continue taking a medication if the physician thought that it had caused acute renal failure that was serious enough for hospitalization.

(NH Tr. 460-62)

On cross-examination, Dr. Tustin conceded LC-1's opioid usage could cause some of the same symptoms he attributed to heat exhaustion.

Q.: Can taking opioids cause UTIs?

Dr. Tustin: I believe I have seen that, yes.

Q.: And can UTIs cause dehydration?

Dr. Tustin: They can, yes.

Q.: Can taking a high dose of opioids cause low blood pressure?

Dr. Tustin: Again, I don't remember all the side effects of opioids, but it might be possible.

Q.: Can it cause fatigue?

Dr. Tustin: Possibly.

Q.: Some of the literature I've read says it can cause sedation. Do you agree with that?

Dr. Tustin: Yes. Yes, I agree with that.

(NH Tr. 692).

Dr. Shirly Conibear also reviewed LC-1's medical records.²⁷ The Court determined Dr. Conibear was qualified, based on her knowledge, skill, experience, training, and education, to testify as an expert "in occupational medicine, with specialized expertise in heat stress and abatement measures that may materially reduce the hazard of excessive heat." (NH Tr. 3013)

Dr. Conibear concluded LC-1 did not experience a heat-related illness on August 13, 2016 (NH Tr. 3021). She noted that when LC-1 had gone to the emergency room previously on July 28, 2016, she had complained of "nausea, dizziness and generalized weakness for a few days." (NH Tr. 3024) At the time she went to the emergency room, LC-1 was taking the

²⁷Dr. Conibear is the president of Carnow Conibear & Associates. She received a medical degree in 1976 and a Master of Public Health degree. She is board-certified by the American Board of Preventive Medicine and Occupational Medicine (NH Tr. 2967-68). She is president and part owner of Carnow Conibear & Associates. She owns its sister company OMS, where she works as a senior physician, performing physical exams and fitness-for-duty evaluations in regulated entities (NH Tr. 2972-73). She also supervises "athletic trainers who are embedded in industry, using what's called the industrial athlete model." (NH Tr. 2974) Dr. Conibear is an adjunct professor at the University of Illinois and is on the Resident Advisory Committee there (NH Tr. 2982). For almost a decade, she was the director of programs and medicine in the educational resource center, "which NIOSH established to train nurses, safety professionals, industrial hygienists, and physicians in occupational health and safety." (NH Tr. 2984) She is a member of the National Advisory Committee for Occupational Safety and Health (NACOSH) (NH Tr. 2985).

medications “atorvastatin, lisinopril, omeprazole, oxycodone, oxymorphone, tarzanadine and topiramate.” (NH Tr. 3024)

Dr. Conibear testified regarding the uses and side effects of the medications LC-1 was taking. Topiramate (Topamax) is a carbonic anhydrase inhibitor, used to suppress seizures and as an anti-psychotic. Side effects of topiramate include cessation of sweating and increased body temperature (NH Tr. 3033). Lisinopril lowers blood pressure, which can cause symptoms of fatigue, dizziness, and lightheadedness (NH Tr. 3025-26). Hydrochlorothiazide a diuretic, “so it causes volume depletion of about a liter and a half of fluid. . . . [I]t basically reduces blood pressure by eliminating the amount of fluid there is to pump around. So it works in concert with the lisinopril to lower blood pressure.” (NH Tr. 3026) Diuresis is not a side effect of hydrochlorothiazide but is “the desired effect. You're giving it to them so that they will become dehydrated and that lowers the blood pressure.” (NH Tr. 3040)

Two of LC-1’s medications were synthetic opioids: oxycodone (prescribed four times a day) and oxymorphone (prescribed three times a day) (Tr. 3025). Dr. Conibear explained doctors calculate the morphine equivalent dose (MED) to determine a patient’s cumulative daily intake of any drugs in the opioid class to reduce the likelihood of an overdose.

[Morphine] was the ultimate pain reliever for many years and then when the synthetic opioids came out, there was a question about how to switch people who were taking morphine to these drugs and how -- there was no experience with them. So this was a way of equating it to what doctors were using previously. It's also a way of in terms of looking at overdose, what the risk is. Basically, they all work the same way. They just have different timings of when they act.

(NH Tr. 3030)

Dr. Conibear stated an MED of “60 would be considered a very substantial dose currently.” (NH Tr. 3031) She calculated LC-1’s MED as 240, or four times the recommended dosage (Tr. 3030-31). When asked what side effects could result from such a high dosage, Dr. Conibear responded, “[D]efinitely somnolence and lethargy and sleepiness. Can also lower blood pressure, suppress respiration. It can also paradoxically cause cramping, cause urinary retention and the bowel stops working. Those are the most common. . . . [Urinary retention] does tend to lead to urinary tract infection.” (NH Tr. 3030)

Dr. Conibear testified the symptoms LC-1 reported at the ER on August 13, 2016, (“nausea, stopped sweating, and lethargy”) were “very similar” to the symptoms she reported July 28, 2016, when she was diagnosed with renal failure (NH Tr. 3035). Dr. Conibear believes

the hospital correctly diagnosed LC-1 with a UTI during her stay that began on August 13, 2016. “[I]t was diagnosed by a nephrologist and she had an elevated white blood count and she ascribed to having had urinary tract infection symptoms for the previous two weeks.” (NH Tr. 3036) LC-1’s discharge records reflect “her neutro cells are elevated ... It's called a left shift and it signifies infection somewhere in the body, usually a bacterial infection.” (NH Tr. 3039).

Dr. Conibear concluded LC-1’s medication use, in combination with the UTI, caused LC-1’s hospitalization on August 13, 2016, not excessive heat.

Q.: Is it your belief that her symptoms were caused by her medications on August 13, 2016?

Dr. Conibear: Yes.

...

Q. [W]hat symptoms would the opioids cause?

...

Dr. Conibear: Somnolence, sleepiness, and they could have lowered her blood pressure to a certain extent. They could have been responsible for her muscle spasms, for her chronic dizziness, nausea, lethargy.

Q.: What symptoms would the diuretics cause?

Dr. Conibear: Diuretics cause dehydration and they cause low blood pressure, and that can cause feeling of fatigue and weakness and dizziness.

Q.: What symptoms would the topiramate cause?

Dr. Conibear: Topiramate can cause lack of sweating and it also can cause sleepiness, dizziness.

Q.: [LC-1] had been taking some of these medications for quite some time, or had she?

Dr. Conibear: Yes, quite some time.

...

Q.: So if she had been taking these medications for years without suffering side effects other than July 28th, is the differentiating factor the urinary tract infection?

Dr. Conibear: Yes, I would say so.

(NH Tr. 3047-49)

Dr. Conibear stated that a UTI “causes an inflammatory response, so it's not just in the organ that's infected itself. It's that icky feeling that you get when you have the flu. It's called -- it actually has a name now. It's called systemic inflammatory response. The whole immune system gets roiled up and it gives you those feelings that people associate with being sick.” (NH Tr. 3049-50). She disagreed with the LC-1’s diagnosis of heat exhaustion. “[E]verything that she

had is explained by the diagnoses list that we went through, with the exception of heat exhaustion.” (NH Tr. 3052)

Dr. Conibear noted LC-1’s medical records state under “Final Diagnoses” that one of her diagnoses was “Heat exhaustion, unspecified, *initial encounter*.” (Exh. R-35, p. 279) (emphasis added) “That's what was diagnosed in the ER. . . . I think she continued to have the same problem August 13th that she had July 28th. She had hypotension and that caused her kidney problems, and those were the drug side effects and she had a urinary tract infection.” (NH Tr. 3053) When asked if LC-1 would have manifested the same symptoms had she been working when the heat index was 70°F, Dr. Conibear replied, “Yeah, I don't think it would have made any difference.” (NH Tr. 3054)

Credibility Determination

Dr. Tustin testified unequivocally that heat stress caused LC-1’s illness that led to her hospitalization on August 13, 2016. Dr. Conibear was just as adamant the heat index of around 103°F at the time LC-1 sought help from the Clarks that day had nothing to do with her illness, which was caused by predisposing conditions. These two highly-credentialed experts reviewed the same medical reports and testimony and reached opposite conclusions. They both appeared confident, knowledgeable, and trustworthy as they testified. The Court does not, however, find their conclusions regarding the cause of the illness of LC-1 to be particularly helpful.

Dr. Tustin and Dr. Conibear reviewed the limited information presented in the medical records and appeared to conclusively diagnose LC-1’s condition. They each appeared to be beyond doubt as to cause of the illness of LC-1, whom they had never met or examined. They selectively discounted diagnoses in LC-1’s medical records that did support their opinions but relied on other diagnoses that aligned with their seemingly predetermined conclusions.

Dr. Conibear was unwavering in her opinion the hot weather on August 13, 2016, in Martinsburg had no causal link to the illness of LC-1.

Q.: Didn't you testify in your deposition that due to her medications, [LC-1] was more susceptible to suffering an illness as a result of exposure to heat stress?

Dr. Conibear: Yes.

Q.: And didn't you testify during your deposition that the drugs [LC-1] was taking interfered with her body's ability to dissipate heat and therefore made her more likely to become ill?

Dr. Conibear: Yes.

Q.: Meaning she was more prone to having a heat-related illness?

Dr. Conibear: Yes.

Q.: And so is it your opinion that [LC-1] did in the end suffer a heat-related illness . . . [c]aused both by her exposure to heat stress and her medications?

Dr. Conibear: No.

(NH Tr. 3198)

The unyielding stances of Dr. Tustin and Dr. Conibear as to whether heat stress caused the illness of LC-1 on August 13, 2016, are not persuasive. Dr. Tustin stated humans have a range of tolerability for heat stress, depending on factors such as predisposing conditions and acclimatization (NH Tr. 546-47). The certitude of Dr. Tustin and Dr. Conibear, formed after reviewing the limited information available in the medical records, is at odds with their testimony that the symptoms of heat illness often mimic the symptoms of other conditions, and vice versa (NH Tr. 538-41, 3156).

See Riegel v. Medtronic, Inc., 451 F.3d 104, 127 (2d Cir. 2006), *aff'd*, 552 U.S. 312 (2008) (stating that “[a]n expert opinion requires some explanation as to how the expert came to his conclusion and what methodologies or evidence substantiate that conclusion[.]” and dismissing negligent manufacturing claim where expert failed to explain the basis for his opinion that catheter burst radially, not longitudinally); *SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1210 (Fed. Cir. 2013) (evidentiary value of conclusory expert testimony is “unhelpful”; such opinions “lack any substantive explanation tied to the intrinsic record” and “without a more detailed explanation” as to how the expert “formed his conclusions,” they “deserve[] no weight”). . . . *See Mosser Constr., Inc.*, 23 BNA OSHC 1044, 1046-47 (No. 08-0631, 2010) (finding expert’s opinion “unpersuasive” where the expert failed to explain factual details underlying it); *Peterson Bros. Steel Erection Co.*, 16 BNA OSHC 1196, 1203-04 (No. 90-2304, 1993) (discounting expert’s testimony because he did “not include the factual basis and reasoning behind [his] opinion”), *aff'd*, 26 F.3d 573 (5th Cir 1994).

A.H. Sturgill Roofing, Inc., No. 13-0224, 2019 WL 1099857, at *5-6 (OSHRC Feb. 28, 2019).

On the issue of whether heat stress or some other physical condition caused the illness of LC-1 on August 13, 2016, the Court accords no weight to the testimony of Dr. Tustin and Dr. Conibear. They testified previously in the national hearing that symptoms of heat illness can also be symptoms of other conditions.

It is the Secretary’s burden to establish a condition or activity in the workplace presents a hazard to employees. Here, he did not prove the illness of LC-1 was caused by exposure to heat stress rather than the effects and side effects of the multiple medications she took and the UTI

she may have had (the Postal Service did not prove it was not caused by heat stress exposure, but it is not the respondent's burden). It is not essential to the Secretary's case, however, to prove a causal connection between the cited condition and the illness of LC-1. The fact the incident cited in the AVD may not have been caused by the cited condition or activity does not disprove the alleged violation.

Proof that a cited activity actually caused harm or necessarily could have caused harm under the precise physical conditions that happened to be present at the time of the violation, or at any other specific time, is not required. *See Bomac Drilling*, 9 BNA OSHC 1682, 1691-92 (No. 76-450, 1981) (consolidated) ("Under section 5(a)(1) case law, the 'hazard' that must be 'recognized' is not a particular set of circumstances at a specific location and specific point in time but rather the broader, more generic or general hazard."), *overruled on other grounds by United States Steel Corp.*, 10 BNA OSHC 1752 (No. 77-1796, 1982); *Brennan v. OSHRC*, 494 F.2d 460, 463 (8th Cir. 1974) (Secretary need not prove general hazard was cause of the accident that gave rise to the citation); *Beverly Enters.*, 19 BNA OSHC at 1171 (same).

Quick Transp. of Arkansas, 2019 WL 33717, at *3.

2. Judge Ball's 2014 Decision in *United States Postal Service*

Even though the Secretary is not required to establish excessive heat caused the illness of LC-1 on August 13, 2016, it is still his burden to prove that high temperature or heat index on that day exposed Martinsburg's letter carriers to the hazard of excessive heat. In support of his position, the Secretary cites Judge Ball's 2014 decision finding a willful violation of § 5(a)(1) in *United States Postal Service*, 2014 WL 5528391. The Secretary states, "[O]n facts similar to those presented here, Judge Ball found that there was 'no real dispute' that letter carriers in Independence, Missouri, were exposed to the hazard of excessive heat." (Secretary's brief, p. 30)²⁸ In this case, however, the Postal Service vigorously disputes the temperature or heat index on August 13, 2016, presented a hazard to Martinsburg's letter carriers, and consequently the record evidence differs markedly from the Independence case.

As an unreviewed ALJ decision, the Independence *United States Postal Service* case is not Commission precedent. "[R]eliance on an unreviewed administrative law judge decision involving a citation under § 5(a)(1) of the Occupational Safety and Health Act, 29 U.S.C. §

²⁸ The decision states, "For the most part, it appears Respondent does not contest the existence of a violation of the general duty clause—almost all of Respondent's brief is directed towards the willful characterization. . . . There is no real dispute that [Independence letter carriers] were exposed to extreme heat on July 23 and 24, and that such heat was a hazard." *United States Postal Service*, 2014 WL 5528391, at *14.

654(a)(1) [is] misplaced. *See Leone Constr. Co.*, 3 BNA OSHC 1979, 1981 (No. 4090, 1976) (unreviewed administrative law judge decision does not constitute binding precedent for the Commission).” *TNT Crane & Rigging, Inc.*, No. 16-1587, 2020 WL 1657789, at *7 (OSHRC March 27, 2020). A case decided by the Commission last year involving a citation under § 5(a)(1) for exposure to excessive heat is, however, binding precedent for this Court.

3. The Commission’s Decision in *A.H. Sturgill Roofing, Inc*

On February 28, 2019, the Commission issued its decision in a case involving an employee who collapsed at a worksite and subsequently died from complications of heat stroke after working on a roofing project. *A.H. Sturgill Roofing, Inc.*, No. 13-0224, 2019 WL 1099857 (OSHRC Feb. 28, 2019). Commissioner (now Chairman) Sullivan, with then-Chairman MacDougall concurring, vacated two items alleging serious violations that had been affirmed by the judge in the underlying case. Commissioner Atwood dissented. Of interest here is Item 1 of the citation, alleging a serious violation of § 5(a)(1) for exposing employees “to the hazard of excessive heat from working on a commercial roof in the direct sun.” *Id.* at 2019 WL 1099857, at *1.

The roofing project Sturgill was working on involved tearing off the old roof of a flat-topped bank building in Ohio so a new roof could be installed. The crew included three temporary employees.

One of the temporary employees was “MR,” a 60-year-old man with various preexisting medical conditions, including hepatitis C and congestive heart failure. It was the first day that MR was assigned to work at Sturgill. He began work that day at 6:30 a.m. and was tasked with standing near the edge of the roof where other employees brought him a cart full of cut-up pieces of roofing material that he then pushed off the roof into a dumpster below. The assignment of this work was intentionally made by Foreman Leonard Brown because it was MR’s first day on the project. When MR began his work, the temperature was approximately 72°F with 84 percent relative humidity. There is no dispute that Brown encouraged all employees to utilize the immediate access to ice, water, rest, and shade, without fear of reprisal.

At around 11:40 a.m., after other employees reported being concerned about MR to Brown and Brown himself observed him “walking like clumsy,” MR collapsed and began shaking. The temperature at that point was approximately 82°F with 51 percent relative humidity. Emergency medical personnel were summoned, and they took MR to the hospital where his core body temperature was determined to be 105.4°F. MR was diagnosed with heat stroke and died three weeks later. According to the coroner, his death was caused by “complications” from heat stroke.

Id. at 2019 WL 1099857, at *1-2. The Commission found the Secretary failed to establish “the existence of a hazard likely to cause death or serious physical harm.” *Id.* at 2019 WL 1099857, at *3.

4. Is “Excessive Heat” a Cognizable Hazard Under § 5(a)(1)?

The Postal Service argues that in *A.H. Sturgill*, the Commission found “excessive heat” is not a cognizable hazard under the general duty clause. In her concurring opinion, Chairman MacDougall questioned the meaning of the cited hazard:

In this case, what is meant by “excessive heat?” Is it the heat index the judge formulated by adding degrees to the ambient temperature, or the heat index that would result from adding 10 degrees to the ambient temperature since the foreman said it felt about that much hotter on the roof, or some combination of factors perhaps set forth in OSHA’s website publication regarding “Occupational Heat Exposure”? To pose the question is to answer it. By defining the hazard merely as “excessive heat,” the Secretary has failed to point to any specific, concrete environmental conditions, and has instead effectively defined the hazard as a sliding scale of possibilities. This open-ended, moving target is not a cognizable hazard under the general duty clause as it provides insufficient notice to the employer of exactly what it is required to free its workplace from to protect its employees.

Id. at 2019 WL 1099857, at *15.

In a footnote to the lead opinion, Commissioner Sullivan (now Chairman) agreed “with the concerns expressed by Chairman MacDougall in her concurring opinion in connection with defining the hazard in this case as ‘excessive heat.’” *Id.* at 2019 WL 1099857, at *7, n. 14. Contrary to the Postal Service’s argument, this agreement does not establish that a majority of the Commission conclusively found “excessive heat” is not a cognizable hazard under the general duty clause. This reference to defining the hazard is the only one in a lengthy footnote on foreseeability, and its vague reference to “the concerns expressed by Chairman MacDougall” is insufficient to constitute a dispositive conclusion that a citation under § 5(a)(1) alleging exposure to “excessive heat” will always fail due to fair notice to the employer.²⁹ If Commissioner

²⁹ In its entirety, footnote 14 in *A.H. Sturgill* states:

While the Commission has never held that certainty as to the threshold level for injury is a prerequisite to a general duty clause violation, *see Beverly Enters., Inc.*, 19 BNA OSHC at 1172, knowledge of the “significant risk of harm” cannot be based on the hidden characteristics of an “eggshell” employee; the risks resulting from such characteristics do not fit within the confines of a realistic possibility or the consideration of the best available evidence. *See Pratt & Whitney*, 649

Sullivan’s agreement with Chairman MacDougall’s “concerns” constituted a majority opinion that “excessive heat” is not a cognizable hazard, there would be no need for a concurring opinion or for most of the analysis in the lead opinion. The Court determines the Commission has not held absolutely that “excessive heat” is not a cognizable hazard under the general duty clause. The cited hazard is, however, difficult to establish under *A.H. Sturgill*.

5. Scientific Basis of the NWS Heat Index Chart

Dr. Tustin testified he relied on the NWS and OSHA heat index charts in concluding there was a heat stress hazard in each of the five Postal Service cases (NH Tr. 583-84). The NWS heat index chart is reproduced here:³⁰

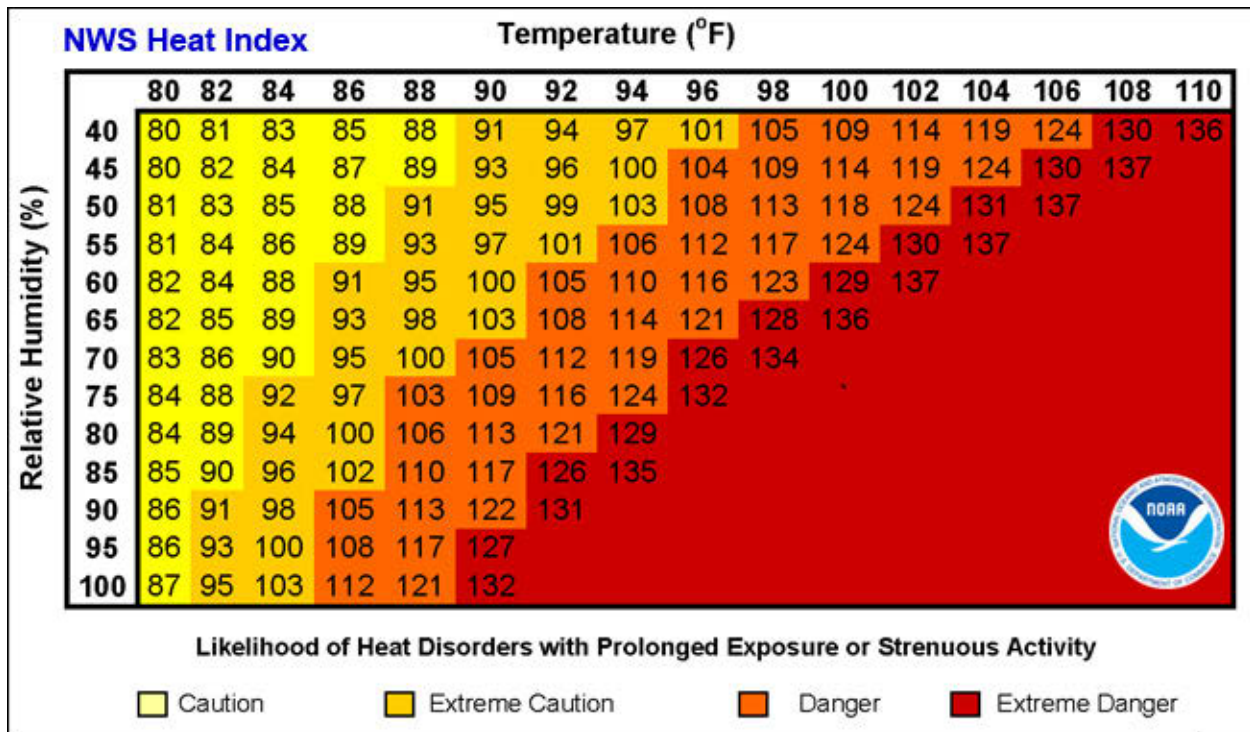
F.2d at 104 (the Act “is intended only to guard against significant risks, not ephemeral possibilities”).

Commissioner Sullivan agrees with the concerns expressed by Chairman MacDougall in her concurring opinion in connection with defining the hazard in this case as “excessive heat.” He also finds, however, that the Secretary must prove that Sturgill could have reasonably foreseen the incident occurring given all of the facts available to it prior to the incident and not simply that there was a “risk of harm” based on an expert’s later opinion as to what constitutes a “heat-related exposure risk.”

In Commissioner Sullivan’s view, the Commission should return to an interpretation put forth in *Pratt & Whitney*, 8 BNA OSHC 1329 (No. 13591, 1980), *aff’d in part, rev’d in part, remanded*, 649 F.2d 96, 101 (2d. Cir. 1981), and *Bomac Drilling*, 9 BNA OSHC 1681 (No. 76-0450, 1981) (consolidated), overruled by *U.S. Steel Corp.*, 10 BNA OSHC 1752 (No. 77-1796, 1982). In those cases, the Commission held that the Secretary must prove that an incident is “reasonably foreseeable” when citing under the general duty clause. *Pratt & Whitney*, 8 BNA OSHC at 1334. The reasoning underlying this test was a concern that general duty clause cases were wrongly focusing on the particular incident causing the injury in the case, rather than the hazard in general. Commissioner Sullivan views the focus of the current case to be the same as it was in *Pratt & Whitney*—what happened specifically to the employee (MR), rather than whether the employer (Sturgill) could have reasonably foreseen the incident occurring given all the other conditions at the time of the incident. As such, in his view, the Commission should again embrace the “reasonably foreseeable” test as set forth by the Commission in those cases, an interpretation which the Commission pointed out is consistent with the definition of a “serious” violation under section 17(k) of the Act. *See Pratt & Whitney*, 8 BNA OSHC at 1335; 29 U.S.C. § 666(k). When evaluating the general duty clause, the Secretary must establish that a truly “meaningful” and “significant” possibility of harm existed, and that “employers receive adequate notice of their legal responsibilities under the general duty clause.” *See 5 BERKELEY J. EMP. & LAB. L.* at 305. Since the Secretary failed to make this showing here, Commissioner Sullivan finds that the Secretary failed to establish the existence of a hazard.

Id. at 2019 WL 1099857, at *7, n. 14.

³⁰ Exhibit C-23 is a copy of the heat index chart admitted at the hearing. Reproduced here is the chart from the NWS website at <https://www.weather.gov/safety/heat-index>.



Dr. Tustin testified he was curious regarding the origins of the color-coded risk levels on the chart. “I contacted somebody at the National Weather Service to find out where these caution levels came from, and that’s the article that they provided to me. . . . I was interested. I’d seen these caution levels, and I wanted to find out . . . why the National Weather Service put these out there.” (NH Tr. 590) The article to which he refers is by a Dr. Steadman, who originally created a chart to show how hot it feels (the heat index) when a specific air temperature is paired with a specific relative humidity. The chart was included in an article written by Quayle and Doehring, a climatologist and meteorologist, respectively, from the National Climactic Center in Asheville, North Carolina, and published in the magazine *Weatherwise* in 1981 (NH Tr. 587-94).

Rodman Harvey was asked about the phrase "Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity" that appears on the NWS’s heat index chart.

Q.: Based on your work with heat stress, what does prolonged exposure mean?

Harvey: I’m not sure what’s meant by that, exactly, by the National Weather Service.

Q.: And what is meant by strenuous activity?

Harvey: Again, I have not found a definition of that for the National Weather Service.

Q.: Are those terms explained in the OSHA compliance guidance?

Harvey: No, not that I was able to find.
(NH Tr. 2775)

Harvey testified there are two different layers of information on the heat index chart: (1) “Along one axis are temperatures. Numbers along the other . . . side of the chart are relative humidity. And where they intersect is the corresponding heat index value for those different temperatures and relative humidities,” and (2) “The color coding that goes on top, the four different colors, and the likelihood of heat disorders with prolonged exposure or strenuous activity, and the definitions . . . for the four different colors: caution, extreme caution, danger, and extreme danger.” (NH Tr. 2776) Harvey stated the chart came from “the Steadman article,” which does not address “potential health effects associated with different heat index ranges” or “the likelihood of heat disorders with prolonged exposure or strenuous activity.” (NH Tr. 2777-78) In the article, Dr. Steadman was attempting to create a chart “that would provide the real feel temperature or the apparent temperature based on the combination of the actual air temperature and the relative humidity.” (Tr. 2778)

Harvey testified he researched the issue to determine the historical or scientific basis for the second layer of information found in the heat index chart. “I was able to find a paper; it’s the oldest reference I can find that has . . . that language of dividing the heat index values up into different categories.” (NH Tr. 2782) It was the paper published in the journal *Weatherwise*, written by climatologist Robert Quayle and meteorologist Fred Doehring (NH Tr. 2782-83). Harvey could not determine from reading the article the scientific basis for correlating temperature ranges with specific heat syndromes. He stated, “[T]he authors don’t make any reference at all to this particular chart in general or specifically with the heat syndrome and they came to those conclusions.” (NH Tr. 2783-84) It is Harvey’s opinion that OSHA based its heat index chart on the chart found in the Steadman article and the paper published in *Weatherwise* (NH Tr. 2786).

Harvey stated he believes the first layer of the heat index chart (“where they list the heat index values”) is scientifically based. “But layer two with the four different categories and the terms at the bottom of the graph, no, I don’t think that it is.” (NH Tr. 2786) He does not believe there is a scientific basis for OSHA’s conclusion that the risk level is “high” when the heat index is 103 to 115 °F (NH Tr. 2786-87).

The Postal Service is correct that, based on the testimony of Dr. Tustin and Rodman Harvey, a gap exists in the historical record that would explain the origin of the risk categories (caution, extreme caution, danger, extreme danger) that evolved from the Steadman article and were later included in the *Weatherwise* article. Neither Dr. Tustin nor Harvey could find a scientific basis for how the assigned values of caution, extreme caution, danger, and extreme dangers were determined. No supporting data is provided for why the levels of risk are attributed to their respective temperatures (NH Tr. 584-94, 2782-87). That is not to say no scientific basis for the risk levels exists, but none was presented at the national hearing or the local hearings. Despite the emphasis placed on this issue at the national hearing, the Secretary does not address it in his brief. The Court finds, based on the record, no evidence was presented to establish the scientific basis for the risk categories depicted on the NWS heat index chart. This conclusion affects the weight given to the heat index chart exhibit but does not affect its admissibility. The reliability of the heat index calculations based on the temperatures and relative humidity is not disputed.

In *A.H. Sturgill*, the Commission focused on the phrase “Likelihood of Heat Disorder with Prolonged Exposure or Strenuous Activity,” and found the Secretary failed

to show that any of the chart’s warnings applied to the conditions present that morning. . . . [F]or any of the warnings [(caution, extreme caution, danger, and extreme danger)] to have been applicable at the time of the alleged violation, the Secretary must show either that there was “prolonged exposure” to heat index values that fall within the chart or that the work involved “strenuous activity.” The record fails to establish either of these prerequisites.

Id. at 2019 WL 1099857, at *3-4.

6. Prolonged Exposure

The Commission in *A.H. Sturgill* cited the failure to define “prolonged exposure” as a major flaw in the Secretary’s case.

As to the extent of exposure, the evidence shows that the heat index values were at most in the caution range for two of the five hours the crew worked on the day in question. Yet, we cannot determine if two hours in those conditions constitutes “prolonged exposure” because the Secretary does not establish what the NWS means by “prolonged exposure”—in fact, there is no record evidence on this issue.

Id. at 2019 WL 1099857, at *3-4.

LC-1 began work at 8:45 a.m. on August 13, 2016, casing her route’s mail in the air-conditioned workroom of the post office. She began delivering mail on Route 13 at 11:20 a.m.

and took a 15-minute break in the air-conditioned 7-Eleven around 12:10 p.m. At approximately 2:20 p.m., she went to the Clarks’s residence, where they invited her inside their air-conditioned house. She waited there until supervisor DD arrived to take her to the hospital (Exh. R-22; Tr. 127).

From this schedule, the exposure of LC-1 to temperatures at specific times can be extrapolated. Dr. Tustin created a chart based on data from the National Weather Service (NWS) for August 13, 2016, in Martinsburg, West Virginia (NH Tr. 446).

August 13, 2016

Local Standard Time	Eastern Daylight Time (EDT)	Temperature	Relative Humidity	Heat Index
0853	9:53 a.m.	84°F	77%	93°F
0953	10:53 a.m.	87°F	70%	98°F
1053	11:53 a.m.	91°F	61%	103°F
1153	12:53 p.m.	93°F	56%	105°F
1253	1:53 p.m.	92°F	58%	103°F
1353	2:53 p.m.	92°F	60%	105°F
1453	3:53 p.m.	93°F	58%	106°F

(NH Exh. C-304)

On August 13, at 11:53 a.m., after LC-11 had been working for approximately 43 minutes, the heat index was 103°F, which is in the extreme caution section of the chart. At 12:53 a.m., after LC-1 had been delivering mail for an hour and a half (having taken a 15- minute break in an air-conditioned building), the heat index was 105°F, which is in the extreme caution section. At 12:58 p.m., the heat index was 100°F, which is still in the danger section. The next heat index recorded is 103°F at 1:53 p.m. LC-1 arrived at the Clarks’s house around 2:20 p.m.

Over the course of approximately 2 hours and 55 minutes (subtracting the 15-minute break from the time LC-1 clocked out to the street at 11:10 a.m. until 2:20 p.m.), LC-1 drove her LLV as heat index values hovered between 103°F and 105°F, which the heat index chart places in the extreme caution and danger sections. Nothing adduced by the Secretary in the Martinsburg and national hearings assists in making the determination whether this exposure was prolonged. One definition of *prolonged* is “continuing for a long time or longer than usual; lengthy.” *The New Oxford American Dictionary*, 1356 (2nd ed. 2005). “Long time,” “longer than usual,” and “lengthy” are relative terms that provide no guidance for ascertaining what standard of

measurement an employer should use to calculate at what point exposure becomes prolonged. LC-1 generally completed her route in 5 or 6 hours (Tr. 70). Exposure to hot weather for less than 3 hours is not “longer than usual.”

In *A.H. Sturgill*, the Commission held that if the Secretary relies on the heat index chart to prove an employee was exposed to the hazard of excessive heat, he must show either “prolonged exposure” to specified heat index values on the chart or “strenuous activity” on the part of the employee at those heat indexes. Dr. Tustin, the Secretary’s expert, testified he relied on the NWS and OSHA heat index charts in concluding there was a heat stress hazard in each of the five Postal Service cases (Tr. 583-84). The Court determines the Secretary has failed to establish prolonged exposure.

7. Strenuous Activity

“Strenuous activity” is the second phrase from the heat index chart that lacks clear meaning. *Strenuous* means “requiring or using great exertion.” *The New Oxford American Dictionary*, 1676 (2nd ed. 2005). Again, no criteria values are provided by the heat index chart to help determine when activity becomes strenuous. Some clarity is found, however, in Dr. Tustin’s testimony regarding the metabolic heat generated by letter carriers as they deliver the mail.

I read the descriptions of the activities that [the letter carriers] were doing, specifically their physical activities in terms of whether they were walking or whether they were seated driving a vehicle, for example. I compared their physical activities to tables found in [American Conference of Governmental Industrial Hygienists] [(ACGIH)] heat stress documents. They give a table where they categorize workload as either light, moderate, heavy or very heavy, and they give examples of different activities within the category.

(NH Tr. 302)

Dr. Tustin testified the metabolic workload of LC-1 on August 13, 2016, issue was light (Tr. 449-50). A workload characterized as “light” does not equate to strenuous activity.

The chart states the color-coded categories are used specifically to denote the “Likelihood of Heat Disorders *with* Prolonged Exposure or Strenuous Activity.” (emphasis added) The Secretary failed to establish either of the two metrics the chart identifies as correlatives of the likelihood of heat disorders at the given heat index values. The Court determines the Secretary failed to establish LC-1 was engaged in strenuous activity while working on August 13, 2016. As in *A.H. Sturgill*, the Secretary has not met his burden of establishing the worker identified in the

Citation's AVD engaged in either prolonged exposure or strenuous activity at specific heat indexes listed on the chart.

8. Significant Risk of Harm

To establish a cited condition or activity presents a hazard in the workplace, the Secretary must prove the condition or activity

exposed employees to a "significant risk" of harm. *See Beverly Enters., Inc.*, 19 BNA OSHC 1161, 1170-1172 (No. 91-3144, 2000) (consolidated); *see also Pratt & Whitney Aircraft v. Donovan*, 715 F.2d 57, 63 (2d Cir. 1983) (holding that a "significant risk" of harm can be established by showing a "meaningful possibility" of injury); *Titanium Metals Corp. v. Ustery*, 579 F.2d 536, 541 (9th Cir. 1978) (the possibility of harm resulting must be "upon other than a freakish or utterly implausible concurrence of circumstances"); *Nat'l Realty & Constr. Co. v. OSHRC*, 489 F.2d 1257, 1265 n.33 (D.C. Cir. 1973).

Quick Transp. of Arkansas, 2019 WL 33717, at *3.

It is the Agency's responsibility to determine, in the first instance, what it considers to be a "significant" risk. Some risks are plainly acceptable and others are plainly unacceptable. If, for example, the odds are one in a billion that a person will die from cancer by taking a drink of chlorinated water, the risk clearly could not be considered significant. On the other hand, if the odds are one in a thousand that regular inhalation of gasoline vapors that are 2% benzene will be fatal, a reasonable person might well consider the risk significant and take appropriate steps to decrease or eliminate it. Although the Agency has no duty to calculate the exact probability of harm, it does have an obligation to find that a significant risk is present before it can characterize a place of employment as "unsafe."

Indus. Union Dep't, AFL-CIO v. Am. Petroleum Inst., 448 U.S. 607, 655 (1980) (*Benzene*).

The Secretary argues he has established excessive heat exposure presents a significant risk of harm to letter carriers generally. He points to the testimony of Dr. Tustin and Dr. Bernard regarding the statistical correlation between the number of heat-related fatalities and illnesses and higher temperatures.

Screening Levels

The Bureau of Labor Statistics (BLS) tracks the number of annual occupational heat-related deaths and nonfatal heat-related illnesses in the Census of Fatal Occupational Injuries (CFOI). From 2011 to 2016, the CFOI reported an annual average of 36 heat-related fatalities and 3,500 nonfatal heat-related illnesses (NH Tr. 267-68). Dr. Tustin reviewed employer reports to OSHA of heat-related hospitalizations over a three-year period. The employers reporting the most hospitalizations were the United Parcel Service (UPS) (63 hospitalizations) and the Postal

Service (49 hospitalizations). Nationwide, UPS and the Postal Service accounted for 14 percent of all reported occupational heat-related hospitalizations over a 3-year period (NH Tr. 270).

The American Conference of Governmental Industrial Hygienists (ACGIH) publishes threshold limit values (TLVs) for hazards to which a worker can be exposed on a daily basis without adverse effects. Dr. Tustin testified the ACGIH and the National Institute for Occupational Safety and Health (NIOSH) implement “screening levels.” “If the environmental heat is above the screening level, then there’s a hazard and the employer should take additional steps to try to reduce the hazard to protect workers.” (NH Tr. 280)³¹

Based on his research, Dr. Tustin concluded, “[A] screening threshold of about 80°F seemed appropriate for using the heat index to screen for hazardous conditions.” (NH Tr. 285)³² He conceded some workers may experience heat-related illnesses even if the TLV for outdoor temperature is not exceeded, perhaps due to predisposing conditions. “Predisposing conditions are medical conditions or medications that could increase the risk of heat-related illness.” (NH Tr. 577-78)

A dose-response relationship is the relationship between the amount of exposure (dose) to a substance or condition and the resulting changes (response) in body function. He believes there is dose-response relationship between heat indexes above 80°F and heat stress—the higher the heat index, the greater the heat stress hazard. He conducted a meta-analysis of 570 heat-related deaths dating back to 1947 (NH Tr. 287). He calculated the heat index for each case. A heat

³¹ The Commission has been reluctant to hold that exceeding levels published by a third-party organization constitute a hazard:

We must note that we would be hesitant to hold that exceeding those levels is, in and of itself, proof of exposure to a hazard. The Secretary asserts that they are the dominant guidelines on heat stress and are followed by all professional industrial hygienists. . . . While it would be very appropriate for the Secretary to include a safety margin in an OSHA standard, the presence of a safety margin in the documents [he] relied on to prove a hazard here gives us reservations as to whether evidence that the limits in the NIOSH document were exceeded would, in fact, prove that there was a hazard. . . . We therefore have considerable reservations about basing a violation of section 5(a)(1) on those guidelines. Because we are deciding this case based on the insufficiency of the Secretary's evidence, however, we need not decide whether a violation of section 5(a)(1) would have been established *if* the Secretary had proved that the limits in the documents had been exceeded.

Industrial Glass, No. 88-348, 1992 WL 88787, at *14, n. 11 (OSHRC Apr. 21, 1992).

³² Denoting temperatures of 80°F or higher as hazardous is Dr. Tustin’s benchmark. The Secretary has declined to “explicitly enumerate a range of temperatures at which heat becomes hazardous.” (Secretary’s brief, p. 29)

index of less than 80°F did not appear to present a heat stress hazard. A higher heat index increased the risk of heat stress (NH Tr. 291-92).

A heat index between 80 -- when the heat index was between 80 and 90, there definitely seemed to be more risk. I think about 10 to 20 percent of all the fatalities happened when the heat index was between 80 and 90. Then when the heat index was over 90, there seemed to be higher risk in the sense that I think about 80 percent of the fatalities occurred when the heat index was over 90. So we concluded that a heat index of about 80 °F seemed to be a reasonable screening threshold for figuring out whether there was a heat stress hazard present.

(NH Tr. 292) He concluded, “[T]here's a hazard when the heat index is over 80 for the type of work that city carriers are doing.” (NH Tr. 581)

Dr. Thomas Bernard also testified regarding the effects of heat stress on outdoor workers. The Court found Dr. Bernard qualified, “based on his knowledge, skill, experience, training, and education,” to testify as an expert “in the areas of industrial hygiene and specifically regarding industrial heat stress.” (NH Tr. 808) Dr. Bernard testified LC-1 was exposed to hazardous levels of heat stress (NH Tr. 981-83).

Number of Heat-Related Incidents Among Carriers

The Secretary contends the significant risk of harm from excessive heat to which carriers are exposed is made manifest if the Court expands the scope of reported heat-related illnesses beyond the date and location of the Citation’s AVD in this case. If consideration of heat-related illnesses is expanded nationwide, the Secretary believes the significant risk to carriers of excessive heat exposure is evident.

According to Respondent’s records ([NH] Ex. C-127), the number of heat-related incidents per year (since 2015) classified by Respondent on its official accident reports (PS Form 1769/301) as caused by “GEN-EXPOSURE EXTREME TEMP-HOT” are: 378 for 2015 ([NH] 1670:9-18); 564 for 2016 ([NH] 1670:19-22); 399 for 2017 ([NH] 1670:23-1671:1); and 631 for 2018 ([NH] 1671:2-5). This is a total of 1,972 heat-related incidents over 4 years. ([NH] 1668:13-1669:16). The 1,972 heat-related incidents came from 1,258 different Respondent facilities across the country and resulted in carriers missing a total of 8,757 days away from work. ([NH] Ex. C-127) Respondent reported to the president of the NRLCA that its carriers suffered 19 injuries in 2015, 29 injuries in 2016, and 23 injuries in 2017. ([NH] Exhs. C-157 and 157)

(Secretary’s brief, p. 22)

The Postal Service counters that the number of carriers reporting heat-related illnesses is miniscule when compared to the number who did not report heat-related illnesses. Rodman Harvey stated, "On August 13, 20[16], there were 1,284 other rural carriers working in the postal

district that includes Martinsburg, West Virginia, and there was only one alleged heat-related illness reported.” (NH Tr. 2887)

The Postal Service retained Dr. Joshua Gotkin to analyze its data on heat-related accidents.³³ The Court qualified Dr. Gotkin as an expert “in the field of economics, with specific expertise in the field of statistical analysis and the application of statistics in sampling.” (NH Tr. 1631-32) Dr. Gotkin reviewed data on the number of heat-related incidents involving letter carriers that had occurred from fiscal year 2015 to fiscal year 2019 (NH Tr. 1632-33). For that 4-year period, he found 1,023 reported heat-related injuries to letter carriers and compared those to the total number of letter carrier workdays. “[Y]ou really just divide the number of events into the total number of carrier days, and that gives you a 1 in 308,000 workdays in terms of the odds of having a heat-related stress incident. . . . I also restricted it to the warmer summer months, and the odds are then reduced to 1 in 142,000 workdays.” (NH Tr. 1651) Dr. Gotkin stated, “[T]hese odds are so small that the probability associated with those are nearly zero.” (NH Tr. 1652-53)

Linda DeCarlo is the manager of safety and OSHA compliance programs for the Postal Service. She is its highest ranking safety officer (Tr. 1245). DeCarlo tracks trends of hazards as part of her duties. DeCarlo estimated that, since 2015, approximately 500 to 600 Postal Service employees (including letter carriers) annually have reported heat-related occupational injuries (NH Tr. 1257-59). The number of heat-related injuries does not cause her concern. “We have close to 120,000 accidents, incidents, near misses and customer events that take place in any given year. Thirty thousand of those are related to motor vehicles. Maybe 20,000 slip, trips, and falls. Seven thousand dog bites. So 500 heat-related claims only which of half are recordable is not a major concern when there are other opportunities that we have in front of us.” (NH Tr. 1261)

The Secretary argues the small percentage of letter carriers affected with heat-related illnesses does not disprove excessive heat hazards existed on the days they were affected. In *Pepperidge Farm, Ind.*, the employer argued different employees were affected differently by the

³³ Dr. Joshua Gotkin is the director of ERS Group, a consulting firm specializing in labor and employment economics (NH Tr. 1623). Dr. Gotkin received an undergraduate degree in economics and mathematics and a graduate degree in economics in applied econometrics, economic history, and labor economics. He received a PhD in economics from the University of Arizona in 1995 (NH Tr. 1619-20). ERS Group hired Dr. Gotkin in 1996. He became its director in 2011 (NH Tr. 1622-23). He uses applied econometrics to develop models for analyzing statistics (NH Tr. 1622-26).

ergonomic activity cited as a hazard. The Commission held susceptibility to illness or injury alone is not a basis for finding no hazard exists.

Pepperidge further points out, however, and the Secretary's experts agree, non-workplace factors may cause or contribute to the illnesses at issue, and that individuals differ in their susceptibility to potential causal factors. However, such characteristics (and the inability to determine threshold of harm) are not unique to putative ergonomic hazards but inhere in other workplace hazards as well. For example, some or all of these characteristics obtain for many chemical, toxic and other workplace hazards. Thus, to preclude the application of section 5(a)(1) to a hazard with the characteristics cited by Pepperidge would be to preclude the use of Section 5(a)(1) for many occupational ills. To be clear, characteristics such as those identified by Pepperidge may (as discussed later) bear on questions of causation or feasibility of abatement. They do not, however, *ipso facto* preclude the possibility of regulation under Section 5(a)(1).

Pepperidge Farm, Inc., No. 89-265, 1997 WL 212599, at *23 (OSHRC Apr. 26, 1997). The Secretary also contends he is not required to state the temperature or heat index at which heat becomes excessive. “While knowledge of the threshold for injury may be essential in some cases, however, the Commission has never held that certainty as to the threshold level for injury is a prerequisite to regulation under the general duty clause.” *Id.* at 1997 WL 212599, at *22.

It is not the Secretary’s burden to prove it is likely a heat-related illness will occur at certain temperatures, only that if such an illness occurs the letter carrier would be exposed to a significant risk of harm. “[T]here is no requirement that there be a ‘significant risk’ of the hazard coming to fruition, only that if the hazardous event occurs, it would create a ‘significant risk’ to employees. *See Kelly Springfield Tire Co. v. Donovan*, 729 F.2d 317, 322–25 (5th Cir.1984).” *Waldon Health Care Ctr.*, No. 89-2804, 1993 WL 119662, at *11 (OSHRC April 2, 1993). The Secretary must prove, therefore, that if “excessive heat” occurs, it would create a significant risk to letter carriers delivering mail that day. “[I]n order to prove the existence of a hazard within the meaning of the general duty clause, the Secretary cannot merely show that there may be some degree of risk to employees. He must show, at a minimum, that employees are exposed to a significant risk of harm.” *Kastalon, Inc.*, Nos. 79-5543 & 79-3561, 1986 WL 5351412, at * 5 (OSHRC July 23, 1986).

Magnitude of the Risk

Dr. Tustin was unable to quantify the degree of risk to which outdoor workers would be exposed in 100°F weather. Counsel for the Postal Service cross-examined Dr. Tustin regarding a scenario in which 1000 letter carriers are working on a day when the temperature is 100°F:

Q.: Can you tell me in that scenario how many employees -- what percentage of employees working in that 100-degree day would experience a heat-related illness?

Dr. Tustin: No.

Q.: You can't tell me how likely it is?

Dr. Tustin: I can't give you an exact number as far as a number of employees who will have an illness, no.

Q.: When you say you can't give me an exact number; can you give me any number?

Dr. Tustin: I can tell you, like I said before, that there's a dose-response relationship, and it's --from the data that I've seen, it's more likely that employees will become sick on a 100-degree day compared to an 80-degree day. But I can't give you an exact number.

Q.: Can you tell me, on a 100-degree day with 1,000 employees working outside under identical conditions, what percentage will sustain a heat-related illness that is "serious" by your definition?

Dr. Tustin: No.

Q.: Do you recall during your deposition giving testimony about the likelihood that a cohort of workers would experience heat-related illness? . . . [Reading from deposition]: QUESTION: "The employees that would develop an illness, what sort of characteristics would you expect to see in those employees, if any?" ANSWER: "Like I said, I can't predict. If you gave me a cohort of workers at the beginning of the day, and so predict which workers are going to develop a heat-related illness, I don't think I can do that -- I could do that." Do you recall giving that testimony?

Dr. Tustin: Yes.

Q.: Do you agree with it?

Dr. Tustin: Yes.

(NH Tr. 546-47)

Dr. Tustin's testimony establishes incidents of heat-related illness are likely to increase as the heat index rises above 80°F, but it does not establish the magnitude of the risk or its significance. Dr. Tustin stated the severity of heat-related illnesses varies. Some, such as heat stroke, can be deadly, but others (such as heat rash and dehydration) can be minor (NH Tr. 261). Dr. Tustin reviewed spreadsheets compiled by the Postal Service when he was preparing his expert report. They listed heat-related incidents reported by Eastern Area Postal Service employees in the summers of 2017 and 2018 (NH Exh. C-162 & C-163).

Q. So you testified earlier that there are incidents in the data that clearly weren't reportable; is that correct, just from your review?

...

Dr. Tustin: I mean, just looking at the spreadsheet there are some that say the person felt dizzy and remained working, so yes. I mean, that doesn't seem to be a reportable incident.

Q.: And is it your understanding that these reports could include situations like an employee calling their supervisor and saying, "I feel really hot, I'm going to sit down for a while," and drinking a bottle of water and then continuing working?

Dr. Tustin: Yes, it appears that there are some like that.

Q.: I mean, there's one in there that just says, "I feel hot," right?

Dr. Tustin: I don't know. There might be.

...

Q.: Well, if that employee sits down and drinks a lot of water and says, "Hey, I feel great, I'm going to go back to work," do they have a heat illness?

Dr. Tustin: They may have -- they might have had symptoms that would cause them to stop working, so that could be a mild heat illness, yes.

Q.: Would you characterize that as serious?

Dr. Tustin: No

(NH Tr. 628-29)

Determination of causation is also an issue. In recording injuries from vehicular accidents, falls, or dog bites, there is little doubt of the actual cause of the injury. Not all conditions diagnosed as heat-related are, however, heat-related. Dr. Tustin conceded the symptoms of heat exhaustion, either separately or in combination, are also symptoms of other conditions and their presence may be unrelated to heat (NH Tr. 538-541).

Tolerability of Heat Stress

At one point, Dr. Bernard compared ACGIH's TLV levels for heat to OSHA's occupational noise exposure standard. Section 1910.95 sets the permissible exposure limit (PEL) for noise exposure during an 8-hour day to 90 dBA for all workers.

The PEL for noise is 90 dBA. And you might argue a little bit about what the number is, but [there] generally are between 20 and 25 percent of the population will suffer an occupational hearing loss at 90 dBA. So that's the reason for the hearing conservation amendment where you have audiograms. That's your way of catching somebody who will be less tolerant of the noise. Even with the ACGIH TLV at 85 dBA, there's a small percentage of people who will still have an occupational hearing loss. So again, the audiograms are a way of catching that.

(NH TR. 994-95)

Counsel for the Postal Service returned to the subject on cross-examination.

Q.: If we think about people being exposed to noise levels of 90 dBA or higher, you or somebody like you could tell us at those ranges this percentage of workers would lose hearing; is that fair?

Dr. Bernard: Yes.

Q.: With these TLVs would you agree that even at levels below the TLV there will be certain workers who will have heat-related illness?

Dr. Bernard: Yes.

Q.: And you would agree with me that at levels above the TLV, perhaps significantly above the TLV, there will be workers that will not have heat-related illness?

Dr. Bernard: Yes.

...

Q.: [W]e know that above 90 dBA there's a certain percentage who are pretty likely to lose hearing; do we not? That's why OSHA set the limit at 90?

Dr. Bernard: Yes.

...

Q.: Would you agree with me that the TLVs are designed -- currently designed such that 99 percent of workers exposed at levels below the TLVs will keep their core body temperatures at 38.3°C or below?

Dr. Bernard: Yes.

Q.: The final question on ACGIH, the ACGIH guidelines are set not to prevent heat illness. They're set to -- the goal of them, if you will, is to keep the core body temperature at 38.3°C or below?

Dr. Bernard: Well, and more importantly -- or more specifically so that you can maintain thermal equilibrium.

Q.: So again, those are unlike, for example, the noise standard which is set to prevent hearing loss? This is set to maintain thermal equilibrium.

Dr. Bernard: Yes.

Q.: So it's not set to prevent an illness?

Dr. Bernard: Not directly.

Q.: Well, I mean, you already agreed that certainly you will have some unspecified percentage of workers who will experience a heat illness even when working at levels below the TLV?

Dr. Bernard: Yes.

(NH Tr. 1056-59)

As with heat exposure, noise exposure affects different people differently. A certain percentage of workers will suffer some hearing loss at a level below the PEL, and a certain percentage may not register hearing loss at certain levels above the PEL. The difference is employers know at what level OSHA, for the purpose of compliance, has determined noise presents a hazard. Section 1910.95 establishes a regulatory baseline that provides notice to employers of the PEL for noise exposure and the requirements for hearing monitoring and testing.

Quantification of “Excessive” Heat

The Secretary must show a condition or activity in the workplace presents a hazard. Here, the condition and the alleged hazard are identical. The condition of excessive heat presents an alleged hazard of excessive heat. The precise temperature at which regular heat becomes excessive heat is, however, unclear. OSHA has been urged to promulgate a heat stress standard since shortly after the Act went into effect. *See Industrial Glass*, No. 88-348, 1992 WL 88787, at *12 (OSHRC Apr. 21, 1992) (“In 1972, NIOSH recommended that OSHA adopt a standard governing exposure to heat, and a panel appointed by OSHA endorsed that recommendation in 1974. Nevertheless, OSHA has not adopted a heat stress regulation[.]”).

The local and national hearings in the Postal Service cases establish people tolerate environmental heat at different levels, and other factors, such as underlying medical conditions or medication use, can affect their usual tolerability. Dr. Tustin and Dr. Bernard agree that some people may sustain a heat-related illness at temperatures below 80°F, their recommended screening level. The statistical evidence from the national hearing establishes the vast majority of letter carriers completed their routes without incident on the dates the heat-related illnesses cited by the Secretary occurred. Without a temperature- or heat index-specific standard, it is difficult for employers to know when heat is “excessive.” Chairman Sullivan commented on the lack of a uniform measurement in *A.H. Sturgill*. “The Secretary’s failure to establish the existence of an excessive heat hazard here illustrates the difficulty in addressing this issue in the absence of an OSHA standard.” *Id.* at 2019 WL 1099857, at *5, n.8.

In her concurring opinion in *A.H. Sturgill*, former Chairman MacDougall addresses the nebulous phrase “excessive heat.”

“Excessive heat” is a condition that is inherent in the performance of outdoor work and one that only presents the possibility for harm, not an employment condition that by itself necessarily carries a significant risk of harm. *See Mo.*

Basin Well Serv., Inc., 26 BNA OSHC at 2316 n. 5 (MacDougall, Chairman) (“As the Commission observed in *Pelron*, an employer cannot reasonably be expected to free its workplace of inherent risks that are incident to its normal operation.”). This vague definition also neither identifies a condition or practice over which an employer can reasonably be expected to exercise control nor provides an employer with fair notice of what it is required to do to protect its employees.

Id. at 2019 WL 1099857, at *15.

“Whether there exists a significant risk depends on both the severity of the potential harm and the likelihood of its occurrence, but there is an inverse relationship between these two elements. As the severity of the potential harm increases in a particular situation, its apparent likelihood of occurrence need not be as great.” *Weirton Steel Corp*, No. 98-0701, 1999 WL 34813785, at *5 (OSHRC July 31, 2003). The record demonstrates the difficulty of accurately determining the etiology of illnesses presumed to be heat-related. The Secretary has not shown the incidence of carriers’ self-reported heat-related illnesses establishes a “significant” risk of harm, either in the statistical likelihood of occurrence or in the severity of potential harm.

Conclusion

The Court concludes the Secretary did not establish the cited weather conditions exposed Martinsburg letter carriers to a significant risk of harm from excessive heat on August 13, 2016.³⁴ The Secretary has not met his burden to establish a condition or activity presented a hazard.³⁵ The Citation is vacated.

³⁴ This conclusion is not intended to minimize the general physical discomfort of letter carriers delivering mail in hot weather. As the Commission noted in *International Glass*, heat is an unavoidable feature of some workplaces (such as the open air in summer). “While the employee testimony regarding the difficulties they experienced because of the hot working conditions troubles us because it clearly shows that this is an uncomfortable working environment and that employees do suffer from the effects of the heat, the citation's identification of the hazard as excessive heat stress suggests that the Secretary recognizes that some degree of discomfort is inherent in the job.” *Id.*, No. 88-348, 1992 WL 88787, at *12 (OSHRC Apr. 21, 1992).

³⁵ The Martinsburg case is the only one of the five Postal Service cases in which the cited incident involved a carrier who delivered mail on a mounted route in an LLV. The evidence for a workplace hazard of excessive heat is more compelling in this case than in the cases involving carriers whose routes were primarily park and loop or who drove air-conditioned vehicles.

The Court credits the corroborative, consistent testimony of the seven carriers in this proceeding who testified temperatures in the interiors of LLVs are hotter in the summertime than outside temperatures (In the words of LC-3, “When you're outside the LLV, you have some air movement from a slight breeze, and it just feels more comfortable because you don't have the radiant heat coming at you. The sidewalks don't get as hot as the floorboards.” (Tr. 227)).

The evidence, however, falls short of establishing the existence of an excessive heat hazard for two reasons. First, the only references to the interior temperatures of LLVs in Martinsburg comes from RCL-1’s testimony that he used a digital thermometer sometime in the early 2000s to take temperature readings on hot days. The Court

B. Feasible and Effective Means to Eliminate or Materially Reduce the Hazard

Assuming the Secretary had established the heat index values on August 13, 2016, presented an excessive heat standard, as well as the elements of industry or employer recognition, likelihood of death or serious physical injury, and knowledge, the Court finds he failed to establish the element relating to feasible and effective means of abatement. “To establish the feasibility of a proposed abatement measure, the Secretary must ‘demonstrate both that the measure[] [is] capable of being put into effect and that [it] would be effective in materially reducing the incidence of the hazard.’ *Arcadian*, 20 BNA OSHC at 2011 (citing *Beverly Enters. Inc.*, 19 BNA OSHC at 1190). Where an employer has undertaken measures to address a hazard alleged under the general duty clause, the Secretary must show that such measures were inadequate. *U.S. Postal Serv.*, 21 BNA OSHC 1767, 1773-74 (No. 04-0316, 2006).” *A.H. Sturgill*, 2019 WL 1099857, at *8.

1. Alternative Means of Abatement

In *A.H. Sturgill*, the Commission stated,

Before addressing this element of proof, however, we must first determine whether the Secretary proposed each measure as an alternative means of abatement, in which case implementing any one of them would constitute abatement of the alleged violation, or as a component of a single means of abatement, in which case all of the measures must be implemented to abate the violation. If the former, the Secretary can prevail on this element only if he proves that Sturgill implemented none of the measures. . . . If the latter, he need only show a failure to implement one of them.

Id. at 2019 WL 1099857, at *9.

concludes his testimony is unreliable and gives it no weight. There is, therefore, no probative evidence establishing the interior temperatures of the LLVs on the days carriers experienced illnesses they attributed to excessive heat.

Second, the Citation alleges the Postal Service employees were exposed to hazards “related to *working outside* during periods of excessive heat.” (emphasis added) In contrast, the AVD of the Citation states the carrier became ill as she delivered mail “from an enclosed . . . LLV without air conditioning and in the direct heat.” The Citation contradicts itself in asserting the carrier was exposed to excessive heat hazards both when she was “working outside” and when she was delivering mail from an “enclosed . . . LLV.” The testimony of the carriers establishes the conditions that make driving an LLV uncomfortable and potentially hazardous (heat rising from the motor, the greenhouse effect created by the large windows, the hot air circulated by the fan, etc.) are separate from the conditions attendant to delivering mail outdoors on foot. “The Secretary must draft a citation ‘with sufficient particularity to inform the employer of what he did wrong, i.e., to apprise reasonably the employer of the issues in controversy.’ *Alden Leeds, Inc. v. OSHRC*, 298 F.3d 256, 261 (3d Cir. 2002) (quoted case omitted); see 29 U.S.C. § 658(a) (requiring that citations “describe with particularity the nature of the violation”).” *L & L Painting Co., Inc.*, No. 05-0050, 2008 WL 4542427, at *4 (OSHRC September 29, 2008). The Court concludes evidence relating to the the alleged hazard of excessive heat in LLVs is not probative of an alleged excessive heat hazard related to working outside.

The Citation presents six proposed methods of abatement (the sixth proposed method includes ten subparts proposing additional methods of abatement) for the alleged excessive heat exposure hazard:

Among other methods, feasible and acceptable means of hazard abatement include:

- (i) Providing a climate-controlled environment or vehicle where heat-affected employees may take their breaks and/or recover when signs and symptoms of heat-related illnesses are recognized,
- (ii) Acclimatizing employees returning to work after an extended absence to working in the heat or beginning a new route,
- (iii) Training supervisors and other employees in the proper response to employees reporting heat-induced illness symptoms, which includes stopping work, getting to a cool place, and providing help, evaluation and medical assistance,
- (iv) Requiring trained supervisors to go into the field and conduct in-person evaluations of employees complaining of heat-induced symptoms [and] arranging for medical attention or other assistance as necessary,
- (v) Establishing work rules and practices that encourage employees to seek assistance and evaluation when experiencing heat stress symptoms, and
- (vi) Establishing a heat stress management program which incorporates guidelines from the ACGIH's threshold limit values and biological exposure indices and/or National Institute for Occupational Safety and Health (NIOSH) document, "Working in Hot Environments"; such a program should be tailored to the particulars of the employer's work, and may include the following:
 - 1. Training for supervisors and workers to prevent, recognize, and treat heat-related illness
 - 2. Implementing a heat acclimatization program for workers
 - 3. Providing for and encouraging proper hydration with proper amounts and types of fluids
 - 4. Establishing work/rest schedules appropriate for the current heat stress conditions
 - 5. Ensuring access to shade or cool areas
 - 6. Monitoring workers during hot conditions
 - 7. Providing prompt medical attention to workers who show signs of heat-related illness
 - 8. Monitoring weather reports daily and rescheduling jobs with high heat exposure to cooler times of the day

Here, the language used to introduce the proposed abatement list (“Among other methods, feasible and acceptable means of hazard abatement include”) is similar to the formulation used by the Secretary in *A.H. Sturgill* when introducing the list of proposed abatement methods (“Feasible and acceptable methods to abate this hazard include but are not limited to”). The Commission found

The abatement portion of the citation . . . begins with a sentence that uses and references the plural word “methods”: “Feasible and acceptable *methods* to abate this hazard include, but *are* not limited to: . . .,” suggesting that each measure is an alternative means of abatement. (emphasis added).

Id. at 2019 WL 1099857, at *9, n. 17.

In his post-hearing brief, the Secretary acknowledges the proposed abatement methods are distinct alternatives, and not components of a single abatement method. “[T]he evidence shows that Respondent could have taken *many steps* to abate or materially reduce the heat stress hazard its employees faced. *These steps include* an adequate work/rest cycle, use of air-conditioned LLVs, an adequate emergency response program, analyzing existing data on employees’ heat-related illnesses, employee monitoring, reducing outdoor exposure time, and proper training. *By failing to implement these or equally effective abatement measures*, Respondent exposed its workers to dangerous heat stress hazards.” (Secretary’s brief, p. 44) (emphasis added)

Having found the Secretary proposed alternate methods of abatement in *A.H. Sturgill*, the Commission concludes, “[I]f the record shows that Sturgill implemented any one of the Secretary's proposed measures, or is equivocal in that regard, the abatement element of the Secretary's burden of proof has not been established.” *Id.* at 2019 WL 1099857, at *9. So it is here. If the Postal Service implemented any one of the Citation’s six proposed abatement methods, the Secretary cannot meet his burden on this element.

2. Training in Heat-Related Illness Symptoms and Prevention of Heat-Related Illness

The Secretary’s sixth proposed means of abatement is

(vi) Establishing a heat stress management program which incorporates guidelines from the ACGIH’s threshold limit values and biological exposure indices and/or National Institute for Occupational Safety and Health (NIOSH) document, “Working in Hot Environments”; such a program should be tailored to the particulars of the employer’s work, and may include the following:

...

3. Training employees about the effect of heat-related illness symptoms and how to prevent heat-related illnesses.

It is undisputed Martinsburg Post Office supervisors provided heat stress training, including the recognition of heat stress symptoms and the prevention of heat-related illness, to letter carriers prior to the August 13, 2016, incident at issue. Martinsburg supervisors and letter carriers testified on this issue (Tr. 197-98, 407, 487-88, 565-68, 600-05, 645-48).

Postmaster TT, who was the postmaster for the Martinsburg Post Office in the summer of 2016, testified, “We had service talks regarding how to dress, how to stay hydrated, you know, getting good sleep the night before, avoiding alcohol, being mindful of any medications that you took that heat may be a factor of, reminding them to take water, reminding them when they came back off the street to drink as well.” (Tr. 600) Topics included how to prevent heat-related illness, recognizing the signs and symptoms of heat-related illness, providing help to those with heat illness, and reporting heat illness (Exhs. R-6, R-7, R-9, R-10, R-12, R-13; Tr. 232, 407).

The Court finds the Postal Service trained Martinsburg letter carriers in heat stress symptom recognition and prevention prior to the arrival of “excessively hot weather conditions,” in accordance with the Secretary’s proposed method of abatement.

3. Economic Infeasibility

Finally, the Secretary failed to establish its proposed abatement methods regarding work/rest cycles, acclimatization programs, and additional paid breaks are economically feasible. It is the Secretary’s burden to show his “proposed abatement measures are economically feasible. . . . In cases involving the general duty clause, the Commission has generally held that an abatement method is not economically feasible if it ‘would clearly threaten the economic viability of the employer.’ *National Realty*, 489 F.2d at 1266 n.37.” *Beverly Enterprises, Inc.*, Nos. 91-3144, 92-238, 92-1257, 93-724, 2000 WL 34012177, at *34-35 (OSHRC Oct. 27, 2000).³⁶

Two of the Secretary’s proposed abatement methods listed in the Martinsburg Citation are:

- (ii) Acclimatizing employees returning to work after an extended absence to working in the heat or beginning a new route.

³⁶The Secretary acknowledges he has the burden of proving economic feasibility of proposed abatement methods in § 5(a)(1) cases but argues an exception should be made here since the Postal Service “is unique among employers subject to OSHA’s enforcement jurisdiction, because it is an executive branch agency.” (Secretary’s brief, p. 58) The Court disagrees. The burden of proof remains with the Secretary.

...
(vi) Establishing a heat stress management program which incorporates guidelines from the ACGIH's threshold limit values and biological exposure indices and/or National Institute for Occupational Safety and Health (NIOSH) document, "Working in Hot Environments"; such a program should be tailored to the particulars of the employer's work, and may include the following:

- ...
2.) Provide a work/rest regimen.
...
4.) Including a heat acclimatization program for new employees or employees returning to work from absences of three or more days.
...
9.) Allowing employees to modify their work schedules in the summer months to begin an hour to two hours earlier and end their shift one to two hours later.

At the national hearing, the issues of acclimatization schedules, work/rest cycles, and early workday start times were also addressed, along with extra paid breaks. All of these proposals would require the Postal Service to pay for time during which letter carriers are not working or pay additional carriers at regular or overtime rates.³⁷ Dr. Tustin testified regarding abatement measures that he recommends the Postal Service implement to reduce its employees' exposure to excessive heat. Safety organizations used the concept of hierarchy of controls to prioritize measures to reduce hazardous exposure. The first and most effective measure is elimination of the hazard, followed by substitution, engineering controls, administrative controls, and personal protective equipment (PPE) (NH Tr. 498-500). Dr. Tustin stated elimination of the hazard (hot weather) is not an option for the Postal Service, nor is substitution.

Work/Rest Cycles

Dr. Tustin discussed, as an administrative control, work/rest cycles to lower the postal worker's metabolic heat. "[T]he employer would give workers rest breaks . . . and they would increase in either frequency or duration as the temperature increases." (NH Tr. 508) He advocated for a "protocol for giving more frequent breaks" such as "when the temperature reaches a certain level, workers might break for 15 minutes out of every hour and rest in a cooler

³⁷ During the term of the CBA, the Postal Service cannot unilaterally change wages, hours, benefits, or working conditions of the contract (MH Tr. 2225-26).

location. As the temperature increases even more, there might be another threshold where they have to rest even more than 15 minutes per hour—maybe 30 minutes per hour.” (NH Tr. 509)

Dr. Tustin believes the most effective use of the work/rest cycle is to require mandatory breaks. “[F]or heat-related illnesses in particular, . . . if it’s progressing to heat stroke that can cause disorientation and confusion, mental status changes. So somebody who is progressing to heat stroke might not realize that they need a rest break. So relying on the worker to take a rest break could be dangerous in that situation.” (NH Tr. 513) He does not think the Postal Service’s policy of allowing comfort breaks to be an effective administrative control. “To be honest it didn’t even really appear sincere to me. The testimony that I reviewed indicated that sometimes supervisors said that workers were allowed to take extra rest breaks but then when workers either reported symptoms or said they wanted extra rest breaks; they were . . . either disciplined or supervisors became angry.” (NH Tr. 514) It is Dr. Tustin’s opinion, to a reasonable degree of medical certainty, that exposure to excessive heat “would have been significantly reduced in all seven incidents [cited in the five Postal Service cases before the Court] if a work/rest cycle program had been implemented.” (NH Tr. 514)

Acclimatization

Dr. Tustin discussed three types of acclimatization in the context of abatement measures. First, a worker may not be acclimatized if he or she is newly hired and has not been exposed to the work environment. “In that case allowing the person to become acclimatized to heat stress is thought to be helpful.” (NH Tr. 515) Second, a worker who has taken time off work, either due to vacation or illness, “might lose acclimatization or when the worker comes back the heat stress might be higher when the worker left. So allowing that worker to gradually acclimatize, . . . if the absence has been more than about two weeks, is helpful.” (NH Tr. 515-16) The third case involves “situations where essentially the entire workforce is unacclimatized if it’s, . . . for example, a heat wave. Protecting the entire workforce somehow during a heat wave can materially reduce the hazard.” (NH Tr. 516)

Noting temperatures typically are highest between 2:00 p.m. and 4:00 p.m., Dr. Tustin recommended the Postal Service could adjust its delivery schedule, so letter carriers are not working during the hottest hours in the afternoon. “[I]f you shifted the work hours that they finish by 1:00 p.m. then [the letter carriers] would be exposed to both lower levels of

environmental heat overall. So the level of heat would be lower and the amount of time that they were exposed to a hazardous level of environmental heat would be shorter.” (NH Tr. 518)

Dr. Bernard recommended newly hired letter carriers and letter carriers returning after a work break follow an acclimatization schedule that builds up daily to increased heat exposure (NH Exh. C-312). He believes his recommended acclimatization is technically feasible for the Postal Service. “[I]t's with the preplanning that goes into things. And they do plan their routes. They do have unexcused absences and others. So there's a capability of managing how you can assign routes and a workload, so I think this fits into that possibility.” (NH Tr. 837)

Dr. Bernard acknowledged on cross-examination he did not know realistically how the Postal Service could implement his recommended acclimatization plan.

Q.: In those scenarios where, you know, you're going to have in your opinion workers who cannot be on the street working outside because they returned from that 3-week vacation, you said they can be productive in other ways. Given what you know about the Postal Service operation, what are they going to do during that time?

Dr. Bernard: Well, I don't know.

Q.: Okay. So you don't know if they can be productive or not?

Dr. Bernard: Yeah, I mean, I can create scenarios and the Post Office will laugh at me. You know, so this isn't my business, but the Post Office knows their business. . . . But the goal is, you know, is some sort of progressive increase. The classic one is 50 percent on day one. 60, 80, 100. . . . And that is the outdoor portion, the casing doesn't count.

(NH Tr. 1080-81)

Funding for Proposed Abatement Methods

The Secretary presented no witnesses, expert or otherwise, to show funding the proposed additional rest/recovery/acclimatization time is economically feasible. Instead, the Secretary argues the Postal Service could simply raise prices for competitive products, such as packages, or borrow \$4 billion from the U.S. Treasury (Secretary's brief, p. 61). These suggestions are speculative and presented without evidence of their efficacy. The Secretary also claims the Postal Service is not actually operating at a deficit because it has defaulted on its financial obligations for several years.

The 2018 Presidential task force report provides a clear snapshot demonstrating six consecutive years of postal profits totaling \$3.8 billion in revenue. (DC Ex. C-135 at p.19) All of Respondent's claimed losses are merely paper losses. After nine years of not paying into the Retiree Health Benefits Fund (“RHBF”), it is

clear the prefunding mandate of the Postal Accountability and Enhancement Act (“PAEA”) is not a true expense because the act has no mechanism to enforce payment, Respondent suffers no penalty from default, and it intentionally chooses to spend its revenue elsewhere.

(Secretary’s brief, p. 60)

The Postal Service, in contrast, presented a detailed analysis explaining why the Secretary’s proposed time-related abatements are unworkable. David Williams Jr., Chief Operating Officer and Executive Vice President for the Postal Service, testified at length regarding its precarious financial condition resulting from increased competition and the obligation to prefund the RHBf (NH Tr. 1751-52). He described how the complex network of employees, contractors, facilities, airplanes, trucks, and other vehicles coordinate nationwide to meet the timetable imposed by 24-hour clock, and how one snag could create a bullwhip effect (NH Tr. 1760, 1780-81, 1783-84, 1791-92, 1795-97). Williams stated, “Every step depends on the previous step. And if we change one thing, we change another.” (NH Tr. 1814)

Williams testified the Secretary’s recommendations for work/rest cycles and unlimited paid breaks were economically (as well as technically) infeasible.

If you think about the 24 hour clock that I talked about the need for our carriers to get back by 6:00 p.m. so that we could meet the dispatch schedules and start that whole process around our operating plan to insure that we achieve the service expectations of our customers, when an employee can take an unlimited break for work 75 percent of the time that means that for -- at least for the one where the heat said 45 minutes work 15 minutes break for every hour, that’s significant.

That impacts our ability to deliver mail on time to make the 24 hour clock. If you think about 50 percent of the time where a carrier is working 30 minutes out of every hour, totally infeasible in terms of our ability to provide prompt, reliable and efficient service.

And then if you think of 15 minutes of work and 45 minutes of break, totally infeasible. Then the unlimited breaks, I don’t know of any business, any business that provides unlimited breaks whenever anybody would want to take a break.

. . . [W]e’re hemorrhaging money every day. And the costing that was performed on this analysis is in the hundreds of millions of dollars. We can’t afford it.

(NH Tr. 1911-13)

The parties stipulated that the Postal Service’s net losses were in the billions for 2016, 2017, and 2018:

1. In the following Fiscal Years (FY), the Postal Service’s total revenue was:

2016 \$71.498 billion
2017 \$69.636 billion
2018 \$70.660 billion

2. In the following Fiscal Years, the Postal Service's total operating expenses were:

2016 \$76.899 billion
2017 \$72.210 billion
2018 \$74.445 billion

3. In the following Fiscal Years, the Postal Service's net loss was:

2016 \$5.591 billion
2017 \$2.742 billion
2018 \$3.913 billion

(NH Exh. J-100)

Dr. Do Yeun Sammi Park, financial economist for the Postal Service, testified regarding the financial impact of implementing the abatement methods proposed by the Secretary related to paid worktime.³⁸ The Court determined Dr. Park was qualified "in terms of her knowledge, skill, experience, training, and education" as an expert in economics with a "specialized expertise in cost modeling." (Tr. 1559-60)

She explained her process for developing a costing model to determine how much proposed changes in CBAs would cost the Postal Service. CBAs usually expire after 3 or 5 years, and then the terms have to be renegotiated.

[W]henever we do the negotiation, the major portion is an economic proposal, which is determining the wage increase, the general wage increase or COLA increase or step increase. Those are the three main parts of the wage increase.

So whenever we do the negotiation, there's a lot of proposals going on, and we – my task was to cost each economic proposal, how much it's going to cost to the USPS. . . . So I developed a fairly complicated model, the costing model. And so I polish up the model, develop it and prove it and update it before the negotiations start. And whenever the negotiation is actually going on, the main spokesperson talks to the union's head, and then they discuss – they bounce each other the proposals, and they let me -- tell me I need to cost what it's going to cost USPS 1.3 percent of general increase next year or throughout the 3-year contract.

³⁸ Dr. Park works as a financial economist for the Postal Service. She received undergraduate and graduate degrees in economics from the University of Missouri Columbia. In 2009, she received a PhD in economics from Purdue University. Dr. Park taught as a graduate instructor at both universities and was an adjunct professor at Hofstra University, teaching principles of micro- and macroeconomics. She also taught as a visiting professor at Sungshin University in Seoul, South Korea, teaching world economics and industrial organization (NH Tr. 1550-54).

And I have to cost -- for example, it's going to cost \$800 million to the USPS. . . . So a costing model consists of basically wages and benefit part. . . . So the general increases on . . . the salaries, so that comes into it.

The benefit part, we also have to -- so whenever we increase a salary, that also affects the benefit, and we have to cost that part out. Mainly, the cost part of the benefit is -- we look at the proportion of how much, if we increase salary -- the basic salary goes up, then what's the proportion of benefit goes up with it. So those are the main big components of the costing model.

(NH Tr. 1556-58)

In August of 2018, the Postal Service asked Dr. Park to determine the cost of two proposed changes designed to reduce the exposure of letter carriers to excessive heat: an acclimatization program and an additional paid 5-minute break. For the acclimatization program, Dr. Park assumed the targeted letter carriers are returning to work after a 3-day layoff and after a 7-day layoff. For both layoff periods, Dr. Park assumed the letter carriers' return schedule would start the first day with restricting them to working only 2 hours outdoors, then 4 hours the second day, and then 6 hours the third day. On the fourth day, the letter carriers can return to their regular schedules. Dr. Park relied on the acclimatization analyses developed by Robert Mullin, a data analyst in field staffing and support for the Postal Service, to perform her cost modeling the proposed changes (NH Tr. 1473, 1560-63).

Dr. Park used a "consolidated rate" to calculate the cost. The consolidated rate is determined by combining the various wage rates for full-time, part-time, and non-career postal employees into one wage rate. She also reviewed the CBAs for city and rural letter carriers for details relating to guaranteed hours the Postal Service is contractually obligated to pay (NH Tr. 1564-68). Based on her analyses of six hypothetical situations, Dr. Park determined the total costs of the acclimatization program and the paid 5-minute break:

(1) Cost of 3 Day Acclimatization and Paid Break, 4/1/2017—10/1/2017, for All Carriers:

Straight Time--\$333,877,519 Overtime--\$487,864,332

(2) Cost of 3 Day Acclimatization and Paid Break, 6/1/2017—10/1/2017, for All Carriers:

Straight Time--\$209,293,069 Overtime--\$312,124,391

(3) Cost of 3 Day Acclimatization and Paid Break, 6/1/2017—9/1/2017, for All Carriers:

Straight Time--\$179,628,724 Overtime--\$263,267,664

(4) Cost of 7 Day Acclimatization and Paid Break, 4/1/2017—10/1/2017, for All Carriers:

Straight Time--\$126,620,282 Overtime--\$188,428,747

(5) Cost of 7 Day Acclimatization and Paid Break, 6/1/2017—10/1/2017, for All Carriers:

Straight Time--\$87,849,671 Overtime--\$130,815,782

(6) Cost of 7 Day Acclimatization and Paid Break, 6/1/2017—9/1/2017, for All Carriers:

Straight Time--\$67,536,663 Overtime--\$100,540,277

(NH Exh. R-202, pp. 6-8; NH Tr. 1599-1602)

The Secretary argues these figures are inflated.³⁹

The calculation is a gross over-estimation of costs as acclimatization is not needed after a mere three or seven days off; rather, it is necessary for new workers and workers returning from a two to three week absence. Therefore the group selected for costing was over-inclusive. Further, acclimatization is generally only needed when the heat index is at least 91°F, so calculating for every single day inside a three month time period is also grossly over inclusive.

(Secretary's brief, p. 61, n. 28)

It is not the Postal Service's burden to establish the Secretary's proposed abatement methods are economically feasible. The Postal Service has presented the analysis of a cost modeling specialist who projected the cost of implementing specified extra break and acclimatization schedules. The Secretary had the opportunity to rebut the projected costs with his own expert or to cross-examine Dr. Park more extensively on the accuracy of her projections.

“OSHA is not required to prove economic feasibility with certainty but is required to use the best available evidence and to support its conclusions with substantial evidence.” [*American Iron & Steel Institute v. OSHA* 939 F.2d 975, 980–81 (D.C. Cir. 1991) (*Lead II*)]. OSHA must also provide “a reasonable estimate of compliance costs and demonstrate a reasonable likelihood that these costs will not threaten the existence or competitive structure of an industry, even if it does portend disaster for some marginal firms.” [*United Steelworkers of America, AFC-CIO-CLC*, 647 F.2d 1189, 1272 (D.C. Cir. 1960), (*Lead I*)].

³⁹ The Secretary takes issue with the projected acclimatization costs but does not address other proposed time-based abatement costs not covered in Dr. Park's analysis. Dr. Bernard proposed a work/rest recovery cycle which would require letter carriers to rest for 15, 30, or 45 minutes per hour, depending on the temperature. Dr. Bernard testified he did not consider the Postal Service's 24-hour clock model, the CBA provisions, or the number of replacement workers required to complete timely mail delivery when proposing this abatement method (NH Tr. 1117-18). The Secretary did not provide an estimate of compliance costs or the effects of the costs on the existence or competitive structure of the Postal Service for Dr. Bernard's proposal.

N. Am.'s Bldg. Trades Unions v. Occupational Safety & Health Admin., 878 F.3d 271, 296 (D.C. Cir. 2017).

It is the Secretary's burden to prove the economic feasibility of his proposed abatements. The Secretary did not provide an estimate of compliance costs or demonstrate a reasonable likelihood compliance costs would not threaten the existence or competitive structure of the Postal Service.

Restrictions Imposed by the CBA for City Letter Carriers

Joseph Corbett, chief financial officer and executive vice president for the Postal Service, was asked about financing the proposed acclimatization and paid break programs. He stated, "We don't have sufficient funds to even pay our existing obligations. So, no, we do not have funds to pay additional obligations. . . . We just don't have sufficient cash. We—we can't." (NH Tr. 2383-84)

Alan Moore has been the Postal Service's manager of labor relations since 2007 (NH Tr. 2211). He is responsible for contract administration for the NALC and for managing the labor relations process when rules are created or changed (NH Tr. 2214-15). His testimony illustrates how the CBA creates further obstacles to feasibly implementing the Secretary's proposed time-based methods of abatement.

The Postal Reorganization Act requires the Postal Service to bargain with its employees' labor unions. The parties bargain over wages, hours, benefits, and working conditions (NH Tr. 2216). Generally, when a contract is set to expire, the parties have an approximately 90-day window to bargain. They jointly establish the ground rules, including what discussions will be off the record. They set up bargaining teams who work on proposals (NH Tr. 2218). The Postal Service looks at the total cost of any proposed contract. "[G]enerally there's a *quid pro quo* process. So if the union . . . wants something, then we get something in return." (NH Tr. 2219) During the term of the CBA, the Postal Service cannot unilaterally change wages, hours, benefits, or working conditions of the contract (MH Tr. 2225-26).

The CBA does not permit the Postal Service to divide a city letter carrier's assignment so part of it is worked in the morning and part in the late afternoon. "[T]here's a requirement that

full-time assignments are either 8 or 9 hours within 10 hours.⁴⁰ [T]he 8 hours within 9 hours . . . is in offices with a hundred employees or something. There's a baseline there. . . . So the biggest gap you can have in a regular assignment is 2 hours.” (NH Tr. 2234-35)

The CBA guarantees full-time city letter carriers 8 hours of work or 8 hours' worth of pay daily. If a full-time city letter carrier works only 2 hours during a day's assignment, the Postal Service still owes the city letter carrier for 8 hours' pay (NH Tr. 2235-36). The Postal Service must assign overtime work first to full-time employees who have signed up for the overtime-desired list. If the Postal Service assigns an employee who is not on the list to work overtime, it must also pay the employee on the overtime-desired list for the same work (NH Tr. 2237-38).

The Postal Service has demonstrated the Secretary's proposed time-based abatement methods threaten its economic viability. The Court concludes the Secretary has failed to establish his proposed abatements relating to acclimatization programs, additional paid breaks, work/recovery cycles, and earlier workday start times are economically feasible.

VII. CONCLUSION

The Secretary has not met his burden of proving the cited conditions presented a hazard of excessive heat exposure to Martinsburg letter carriers on June 13, 2016. He has not shown the Postal Service failed to implement any of the alternative methods of abatement he proposed. And he has failed to establish the economic feasibility of his proposed abatement methods related to acclimatization programs, additional paid breaks, work/recovery cycles, and earlier workday start times.

Because the Court finds the Secretary did not prove a violation of the general duty clause, it is not necessary to address the Secretary's request for enterprise-wide abatement of excessive heat exposure for letter carriers.

The Citation is vacated.

VIII. FINDINGS OF FACT AND CONCLUSIONS OF LAW

The foregoing decision constitutes the findings of fact and conclusions of law in accordance with Fed. R. Civ. P. 52(a).

IX. ORDER

⁴⁰ The 9- or 10-hour block of time includes the 30-minute lunch break and the 10-minute morning and afternoon breaks, as well as any comfort breaks (NH Tr. 2236).

Based on the foregoing decision, it is hereby **ORDERED**:

Item 1 of the Citation, alleging a serious violation of § 5(a)(1), is **VACATED**, and no penalty is assessed.

SO ORDERED.

Dated: July 29, 2020
Washington, DC

/s/ _____
Sharon D. Calhoun
Administrative Law Judge, OSHRC