



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.

OSHRC Docket No. 16-1813

UNITED STATES POSTAL SERVICE,

Respondent.

ON BRIEFS:

Amy S. Tryon, Senior Attorney; Heather R. Phillips, Counsel for Appellate Litigation; Edmund C. Baird, Associate Solicitor of Labor for Occupational Safety and Health; Elena S. Goldstein, Deputy Solicitor of Labor; Kate O'Scannlain, Solicitor of Labor; U.S. Department of Labor, Washington, D.C.

For the Complainant

James C. Colling, Esq.; Eric D. Goulian, Esq.; Deborah M. Levine, Esq.; United States Postal Service, Denver, CO

Arthur G. Sapper, Esq.; Melissa A. Bailey, Esq.; Ogletree, Deakins, Nash, Smoak & Stewart, P.C., Washington, D.C.

For the Respondent

DECISION AND REMAND

Before: ATTWOOD, Chairman; LAIHOW, Commissioner.

BY THE COMMISSION:

The Occupational Safety and Health Administration issued the United States Postal Service a citation alleging a repeat violation of the Occupational Safety and Health Act's general duty clause, 29 U.S.C. § 654(a)(1), for exposing employees of a postal station in Des Moines, Iowa to an "excessive heat" hazard. In the summer of 2016, two of the station's letter carriers began feeling ill while delivering mail and were treated at a hospital or urgent care clinic. The Secretary alleges that both carriers became ill due to excessive heat.

Administrative Law Judge Sharon D. Calhoun vacated the citation.¹ For the reasons discussed below, we set aside her decision and remand for further proceedings.

DISCUSSION

To establish a violation of the general duty clause, the Secretary must show: (1) “that a condition or activity in the workplace presented a hazard,” (2) “that the employer or its industry recognized this hazard,” (3) “that the hazard was likely to cause death or serious physical harm,” and (4) “that a feasible and effective means existed to eliminate or materially reduce the hazard.” *Arcadian Corp.*, 20 BNA OSHC 2001, 2007 (No. 93-0628, 2004). 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). Here, the judge vacated the citation on the ground that the Secretary failed to prove the cited conditions posed a hazard. The judge also found that if a hazard had been proven, however, the Secretary would have established a feasible and effective means of abatement to address it. The judge did not address any of the other elements required to prove a general duty clause violation.

For the same reasons stated in *USPS*, No. 16-1713, slip op. at 3-13 (OSHRC Feb. 16, 2023) (consolidated), we find that the Secretary has established that an excessive heat hazard was present in this case. Accordingly, we reverse the judge on this element of the Secretary’s burden. We turn next to the judge’s finding that the abatement element was otherwise established. To prove abatement, the Secretary must “specify the particular steps a cited employer should have taken to avoid citation, and demonstrate the feasibility and likely utility of those measures.” *Beverly Enters., Inc.*, 19 BNA OSHC 1161, 1191 (No. 91-3144, 2000) (consolidated). On review, the Secretary broadly argues that he established the feasibility and efficacy of the abatement measures he proposed below, briefly naming a few. While he does not describe those proposals in detail,

¹ In addition to her decision in this case, the judge also issued separate decisions in four additional cases (Docket Nos. 16-1713, 16-1872, 17-0023, 17-0279), each involving a general duty clause citation issued by OSHA to the Postal Service alleging employee exposure to an excessive heat hazard in four other cities. These four additional cases were directed for review and consolidated by the Commission for disposition. Our decision vacating all four of those citations has been issued today. *USPS*, No. 16-1713, slip op. (OSHRC Feb. 16, 2023) (consolidated). To the extent relevant, we rely on the analysis in that decision throughout our opinion here. Not only do the issues and the parties’ arguments overlap in all five cases, but evidence common to all five cases was heard by the judge at a single hearing. *Id.* at 2-3.

the Secretary specifically argued before the judge in support of the same means of abatement raised and addressed in *USPS*: work/rest cycles, emergency response plans and monitoring, analyzing Postal Service data on employee heat-related illnesses, reducing time outdoors, using air-conditioned vehicles, acclimatizing employees, and training employees on heat safety.² With the exception of this last measure—training employees—we find that the Secretary has failed to show these proposed measures were feasible and/or effective for the same reasons set forth in *USPS*. *USPS*, slip op. at 13-30.

With regard to training, there is no dispute that the Postal Service provided heat safety training at the Des Moines station. The Secretary argued below that this training was deficient for many of the same reasons we found lacked merit in *USPS*—based on our analysis in that decision, we find these arguments lacking here as well. *Id.* at 30-33. But the Secretary also specifically alleged that a supervisor in the Des Moines station had been given no heat safety training, despite having been a supervisor for more than six months, and that safety talks at the Des Moines station were held at a time when employees known as “City Carrier Assistants” (CCAs) were not present.³ The Postal Service has not specifically addressed either of these claims below or on review.

The judge agreed with the Secretary that the Postal Service failed to provide “effective training” to its Des Moines supervisors on the recognition of heat-related illnesses and the proper response to employees reporting symptoms of such illnesses. Specifically, the judge pointed to three incidents in which carriers from the Des Moines station had followed the Postal Service’s practice of informing their supervisors that they were experiencing symptoms of a possible heat-related illness. Apart from one supervisor providing water to a carrier and then leaving, the judge found that these supervisors took no action to assist the carriers, including the one who the Secretary alleged was never trained on heat safety.

That supervisor, who assumed that role at the Des Moines station in December 2015, was at the station on June 9, 2016, when one of the citation incidents occurred. The affected carrier notified this supervisor that she was not feeling well in the following text message exchange:

² For the reasons stated in *USPS*, we find that these measures were not proposed by the Secretary as alternatives but were alleged in terms of a comprehensive heat stress safety program. *USPS*, slip op. at 14-16.

³ The station employs both “City Letter Carriers,” which are “career employees,” and “City Carrier Assistants,” which are “non-career employees.”

12:45 p.m., Carrier: "I'm not feeling so well. Definately [sic] to do with the heat. I've been trying to hurry but i am still a little behind. Just letting you know."

1:14 p.m., Carrier: "Feeling very weathered by the heat... as of right now i have 9 swings left."

1:17 p.m., Supervisor: "[D]o the best you can I know it really hot out right now do you need any water or anything like that."

1:34 p.m., Carrier: "Ice would be great. Did they tell you that they want me to have an 8 hr day?"

The supervisor testified that she did not respond to the carrier's last message requesting ice because she was busy and did not see it.

At around 3 p.m., the carrier felt too ill to continue working and drove back to the Des Moines station without having finished her route. On the way, she vomited out the window of her vehicle. Three carriers who were at the station when she arrived described her appearance as "extremely red," "dazed," and "shaking"; one said she looked "like she was going to die." The supervisor similarly acknowledged that the carrier looked "flushed," and said her collar was wet with sweat and that she indicated she was not feeling well. The supervisor told the carrier to sit down, asked why she did not inform her first before returning to the station, and then called the station manager. According to the supervisor, the station manager said to instruct the carrier to finish her route, which she did; the carrier then "stormed out" to go speak to a union representative. After speaking with the union representative, the carrier went to an urgent care clinic.

The supervisor testified that she had never been trained by the Postal Service on heat-related illnesses prior to this incident, apart from sometimes receiving emails with heat safety information and seeing a heat safety poster in the breakroom. She said that "[a]ll the safety talks were performed in the morning before [she] reported to work." According to the supervisor, her lack of training directly affected the way she responded to the carrier's complaints: "Due to not being correctly educated on heat exposure, I wasn't aware of how it was affecting her." None of this testimony was rebutted by the Postal Service.

We agree with the judge that this evidence supports the Secretary's argument that the Postal Service's training at the Des Moines station was deficient and that adequately training supervisors on heat safety would have materially reduced the risk posed by excessive heat to the carriers at the station. An expert on heat stress who testified for the Secretary, Dr. Thomas Bernard, stated that if employees are not trained on heat safety, including how to recognize and respond to symptoms of heat-related illness, they are unlikely to understand the significant risks involved and to respond

appropriately. Given that the Postal Service instructs carriers to contact their supervisors whenever they experience heat stress symptoms, providing this training to supervisors is critical to ensuring that they can identify when a carrier is in crisis and respond appropriately. And the feasibility of providing such training is demonstrated by the fact that a heat-related safety talk was given to Des Moines employees in May 2016, and the supervisor who lacked training was required to attend a mandatory heat safety training shortly after the incident in early July 2016.

We find that the record also supports the Secretary’s claim that CCAs in the Des Moines station missed heat safety talks because they were given in the morning when CCAs are usually not present. The supervisor responsible for conducting these talks acknowledged that they were usually given at around 8:00 a.m., even though CCAs normally do not arrive until around 9:30 a.m. He said that if a carrier was absent on the day of a talk, he would later “pull them aside and go over what we talked about.” But he did not say he would do that for the CCAs, apart from posting written copies of the talks on two bulletin boards above the time clocks so that any employee could read them.

In sum, the evidence shows that an excessive heat hazard was present at the worksite and that the Postal Service could have feasibly and materially reduced that hazard by ensuring that all employees, including supervisors and CCAs, were trained on heat safety. We therefore vacate the judge’s decision and remand for the judge to address the remaining issues in this case, including the other elements of the alleged general duty clause violation.

SO ORDERED.

/s/ _____
Cynthia L. Attwood
Chairman

/s/ _____
Amanda Wood Laihow
Commissioner

Dated: February 17, 2023



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.: **16-1813**

Appearances:

Traci Martin, Esq. and Megan J. McGinnis, Esq.
Office of the Solicitor, U.S. Department of Labor, Kansas City, Missouri
For Complainant

Deborah M. Levine, Esq., USPS, and MaryJane E. Galvin-Wagg, Esq., USPS, Denver, Colorado
For Respondent

BEFORE: Administrative Law Judge Sharon D. Calhoun

DECISION AND ORDER

I. INTRODUCTION

On June 9, 2016, a city letter carrier for the United States Postal Service began to feel ill as she delivered mail, mostly on foot, on a route for a post office in Des Moines, Iowa. She texted a supervisor at University Station, the postal facility to which she was assigned, and told her she felt unwell. The supervisor texted back, "do the best you can," and the carrier continued with her route. Eventually the letter carrier cut her route short and returned to University Station, vomiting on the way. At the post office, the supervisor told the carrier she needed to go back out and finish the route. The carrier refused and, with the intervention of a union steward, completed

necessary medical paperwork and called her husband to pick her up and drive her to an urgent care clinic, where she received a diagnosis of heat exhaustion.

On July 21, 2016, another city letter carrier for University Station began to feel ill as she delivered mail, also mostly on foot, on her assigned route. She experienced a headache, nausea, and, most alarmingly, memory loss. A University Station supervisor happened to be out delivering bottled water to carriers that day, and he came upon the carrier sitting in her delivery truck. She informed him of her symptoms. He gave her three bottles of water and left her. As she continued on her route, her symptoms worsened. Eventually she called her son, who called 911 for her. Emergency medical technicians responded to the call and transported her to a hospital, where she received a diagnosis of heat exhaustion.

University Station notified the Occupational Safety and Health Administration of the two incidents. OSHA opened an inspection at University Station on June 29, 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 September 30, 2016. 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 two instances in which the Postal Service exposed its employees “to recognized hazards related to working outside during periods of high heat levels while delivering the U.S. mail.” The Secretary proposes a penalty of \$68,591 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 hazards of excessive heat or high heat levels 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. They did not present evidence, examine witnesses, or submit post-hearing briefs in this proceeding (Tr. 11-12). 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, unless otherwise noted. The records of the individual cases were not admitted in the other actions, unless noted.²

This is the fifth of the five Postal Service cases heard by the Court. The hearing was held from November 13 to November 15, 2018, in Des Moines, Iowa. 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 hazards related to high heat levels to Des Moines's letter carriers on June 9 and July 21, 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 October 13, 2016. The parties stipulate the Commission has jurisdiction over this action, and the Postal Service is a covered employer under the Act (Exh. J-1, ¶¶ 1-4; Tr. 33-34).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*

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 (No. 17-0279); and Des Moines, Iowa (the present case) (No. 16-1813).

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 4 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)."

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.

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.

III. THE DES MOINES HEARING

Stipulations

The parties stipulate the following:⁴

...

5. [The Postal Service] is divided into seven Areas, which are in turn divided into Districts.
6. This case involves operations at the Postal Service Station at 2323 Forest Ave., Des Moines, Iowa 50311 (the “University Station”), which is located in the Western Area and in the Hawkeye District.
7. [The Postal Service] employs City Letter Carriers and City Carrier Assistants (CCAs) at University Station.
8. City Letter Carriers are career employees.
9. City Carrier Assistants (CCAs) are non-career employees.
10. Carriers employed at University Station were generally expected to case and deliver their mail within 6 to 8 hours.
11. Carriers in Des Moines have the option to waive their lunch break, as a past practice and pursuant to a subsequent arbitration award.
12. On June 9, 2016, and on July 21, 2016, a total of 44 city routes were assigned to University Station.
13. On June 9, 2016, and on July 21, 2016, a total of 54 City Letter Carriers were employed at University Station.
14. On June 9, 2016, [CLC1] was employed as a City Letter Carrier at University Station.⁵
15. On June 9, 2016, [CLC1] had a “hold down” on Route 1213 within ZIP Code 50312.
16. On June 9, 2016, [CLC1] drove a total distance of 13 miles on Route 1213.
17. On June 9, 2016, Route 1213 had three Authorized Lunch Locations per Form 1564-A, including: Subway; China One; and Price Chopper.
18. On June 9, 2016, Route 1213 had three Approximate Street Break Locations per Form 1564-A, including: 17th & Foster; Kum & Go; and Git N Go.
19. On June 9, 2016, [CLC1] was scheduled to work 8 hours, with a start time of 7:30 a.m., and an end time of 4:00 p.m.

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

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

20. On June 9, 2016, [CLC1] began her tour at 7:15 a.m. (7.25).
21. On June 9, 2016, for Route 1213, [CLC1] delivered a total of 2,038 pieces of mail that weighed a total of 238.08 pounds.
22. On June 9, 2016, [CLC1] cased the mail for Route 1213 before leaving for the street at 9:34 a.m. (9.57).
23. On June 9, 2016, [CLC1] carried her route using a Long Life Vehicle (LLV) equipped with a dashboard fan and no air conditioning.⁶
24. On June 9, 2016, [CLC1] ended her tour at 5:20 p.m. (17.33).
25. On June 9, 2016, [CLC1] worked a total of 7.75 hours.
26. As of June 9, 2016, [CLC1] had never been issued discipline while working at University Station.
27. On July 21, 2016, [CCA1] was employed as a City Carrier Assistant at University Station.
28. On July 21, 2016, [CCA1] had a “hold down” on Route 1205 within ZIP Code 50312.
29. On July 21, 2016, [CCA1] drove a total distance of 12 miles on Route 1205.
30. On July 21, 2016, Route 1205 had two Authorized Lunch Locations per Form 1564-A, including: in the LLV on route; and Subway.
31. On July 21, 2016, Route 1205 had three Approximate Street Break Locations per Form 1564-A, including: in vehicle on route; Kum & Go; and Git N Go.
32. On July 21, 2016, [CCA1] began her tour at 9:26 a.m. (9.43).
33. On July 21, 2016, for Route 1205, [CCA1] delivered 1,209 pieces of mail that weighed a total of 145.68 pounds.
34. On July 21, 2016, [CCA1] carried her route using a Long Life Vehicle (LLV) equipped with a dashboard fan and no air conditioning.
35. On July 21, 2016, [CCA1] signed the “no lunch” list.
36. On July 21, 2016, [CCA1] left her route at 3:00 p.m. (15.00).
37. On July 21, 2016, [CCA1] ended her tour at 5:57 (17.95).
38. On July 21, 2016, [CCA1] worked a total of 5.57 hours.
39. As of July 21, 2016, [CCA1] had never received any discipline while employed by [the Postal Service].
40. On June 9, 2016, [Supervisor 1] was working as a Supervisor of Customer Services at University Station.

⁶ The second day of the hearing, the parties also stipulated, “[T]he LLV as driven by letter carriers at University Station continues to be operated by the carriers at University Station, and . . . it does not have air conditioning.” (Tr. 496)

41. On June 9, 2016, [the Acting Supervisor] was working as a 204B Supervisor 1 at University Station.
42. [Supervisor 1] and [the Acting Supervisor] were the Supervisors on duty at University Station on June 9, 2016.
43. On July 21, 2016, [Supervisor 2] was working as Supervisor of Customer Services at University Station.
44. On July 21, 2016, [Supervisor 1] was working as a Supervisor of Customer Services at University Station.
45. [Supervisor 2] and [Supervisor 1] were the Supervisors on duty at University Station on July 21, 2016.
46. On June 9, 2016, and July 21, 2016, [Manager CS] was working as the Manager of Customer Services at University Station.
47. In June and July of 2016, Shirley Smith was employed as the Manager of Safety for the Hawkeye District.
48. In June and July of 2016, Bonnie Erwin was employed as a Safety Specialist for the Hawkeye District.
49. In June and July of 2016, Sheri Nady was employed as a Safety Specialist for the Hawkeye District.
50. In June and July of 2016, Laveda Padilla was employed as the Area Manager of Safety for the Western Area.
51. In June and July of 2016, Jim Hermann was the District Manager of the Hawkeye District.
52. In June and July of 2016, Cheryl Love was employed as the Postmaster in Des Moines.
53. In June and July of 2016, [CLC2] was employed as a City Letter Carrier at University Station.
54. [CLC2] was also a union steward for the National Association of Letter Carriers.
55. In June and July of 2016, [CLC3] was employed as a City Letter Carrier at University Station.
56. [CLC3] was also a union steward for the National Association of Letter Carriers.

(Exh. J-1)

BACKGROUND

CLC1 and the June 9, 2016, Incident

CLC1 began working at University Station in Des Moines, Iowa, as a city carrier assistant (CCA) in 2014 (Tr. 229). Approximately a year and a half later, she became a regular

city letter carrier. (Tr. 231-32). In June of 2016, she was not assigned a regular route but had a *hold down* on Route 1213, meaning she had been delivering mail consistently on that route for a couple of months (Tr. 234). Route 1213 was a *park and loop route*, in a mostly residential neighborhood with hilly terrain.⁷ Route 1213 included approximately 22 swings. A *swing* (also known as a *relay* (Tr. 442)) “is a certain amount of houses” that the Postal Service expects letter carriers to deliver to in 15 minutes (Tr. 241). Letter carriers stop at their vehicles at the end of a swing to grab the mail for the next swing or sometimes two swings (Tr. 241).

University Station provided Long Life Vehicles (LLVs), among other vehicles, for its carriers to use when delivering their routes. LLVs are the familiar boxy Postal Service delivery trucks. They are not air-conditioned. A small fan is mounted on the dashboard but, CLC1 stated, it is “[n]ot very” effective in alleviating the heat in the vehicle in hot weather (Tr. 242). Carriers are permitted to lower the side windows of the LLV while driving it or when they are within sight of it but must close the windows and lock the vehicle if they leave it unattended (Tr. 243). After leaving the LLV for 10 to 35 minutes to deliver a swing or swings, CLC1 found the LLV to be “[d]efinitely hotter[,] . . . at least 15 degrees” on the inside than the outdoor temperature when she returned (Tr. 244).⁸ CLC1 tried to park in the shade under trees in the summer, but it was not always possible (Tr. 245).

Most of Route 1213 was in direct sunlight. CLC1 estimated she spent 95 percent of her time on the route walking, and she walked about 10 miles each workday. The rest of the time she

⁷ For a park and loop route, a carrier drives her vehicle to a designated park point and exits the vehicle with the mail for one *loop*. She walks up one side of the street as she delivers mail, crosses over, and comes down the other side until she returns to her vehicle. She then drives to the next park point and repeats the process (Tr. 240-41, 442, 578).

⁸ The other letter carriers who testified concurred the LLVs were uncomfortably hot in the summertime. CLC4 is a city letter carrier at the University Station. He described driving an LLV in hot weather. “When you're a letter carrier and you're in an LLV, they don't have air conditioning. They have big glass windows. The trucks get very hot if you don't park them in shade.” (Tr. 411) He rarely uses the fan when the outside temperature is high “because when it gets heated, it pulls—the hottest part of the vehicle is usually the windshield. Even though the trucks are made of aluminum and they heat up really quick, the glass gets hot really quick and that's where [the fan is] mounted and, and it pulls heat off of the glass and you're just blowing hot air on yourself.” (Tr. 417)

CLC5 is a city letter carrier for University Station who also drives an LLV. He agreed the LLV fan “just blew hot air on you.” (Tr. 443) He estimated the temperature is typically 15 to 20 degrees hotter in an LLV than the outside temperature in the summer (Tr. 443). CCA1 agreed the LLV fan provided no relief, stating, “An LLV gets extremely hot and [the fan] is basically blowing around a bunch of hot air.” (Tr. 580)

CLC7 is a city letter carrier for University Station. She stated, “[W]e can't have our windows down in our LLVs. They have to be up except when you're driving. So when you get out to do a swing, your truck is totally locked up and the windows are closed, so it gets really hot in there. And by the end of the day, when the sun's beating on it all day, it's really, really hot.” (Tr. 637)

was driving the LLV. She typically could complete delivery on the route in 6 to 6½ hours (Tr. 235-40, 242).

In June of 2016, CLC1 started work at 7:15 a.m. and usually ended her workday between 5:00 and 6:00 p.m. She was on the *overtime-desired list* and typically worked more than 8 hours a day.⁹ She would either help another letter carrier finish her route or deliver on a route whose regular carrier was absent that day (Tr. 247). She checked the weather forecast in the morning most days by watching the Weather Channel (Tr. 250).

On Friday, June 3, 2016, (the week before the incident at issue occurred) CLC1 texted Supervisor 1 at 12:45 p.m.: “Im not feeling well. Definitely due to the heat. I’ve been trying to hurry but i am still a little behind. Just letting you know.” (Exh. C-22, p. 1; Tr. 251) (capitalization and punctuation as they appear in text message)¹⁰ CLC1 testified she felt “sluggish, kind of like rundown, drug down.” (Tr. 253) She finished her route that day (Tr. 256).

The next week, on Thursday, June 9, 2016, CLC1 clocked in at University Station at 7:15 a.m., performed a vehicle check on her LLV, and *cased* (casing is the process carriers use to sequence their day’s mail into delivery order using a shelving system) the mail for Route 1213. She signed the *no-lunch list* for that day.¹¹ She clocked out to the street at 9:32 a.m. CLC1 was wearing her standard summer Postal Service uniform of shorts and a polo shirt (Exh. R-12; Tr. 256-259, 301).

Around 12:30 p.m., she began to feel fatigued and nauseated. She drank some water and, at 1:14 p.m., texted Supervisor 1. “Feeling very weathered by the heat...as of right now i have 9 swings left.” Supervisor 1 responded, “do the best you can i know it really hot out right now do

⁹ City carriers have the option of signing up on the overtime desired list, so that if overtime is required to complete any routes on a given day, they are the carriers assigned the overtime. If carriers are not on the overtime-desired list, they work 8 hours each workday and no more. Carriers can also sign up for *work assignment*, meaning “they just carry all the mail on their own route only, nothing else, and that could cause them to go to overtime.” (Tr. 550) Letter carriers on the overtime-desired list may be assigned *boosts*, which are sections of other routes to be delivered after they deliver their regular routes (Tr. 635).

¹⁰ University Station had a landline that carriers could call to speak with supervisors, but most preferred to call or text to the supervisors’ cell phones. Supervisor 1 stated, “A lot of our carriers would complain because they either called the landline and either it wasn’t being answered or it was busy.” (Tr. 337)

¹¹City letter carriers in Des Moines, Iowa, are permitted to skip their 30-minute lunch break, contrary to the policy in most other cities in the United States. This option arose from an arbitration decision. City letter carriers sign the no-lunch list in the morning, indicating they will not take a lunch break that day, enabling them to end their workday earlier (Tr. 474). Supervisors are prohibited from instructing carriers that they must take lunch on a given day (Tr. 310). CLC1 testified she had only recently learned a carrier could retract her choice of the no-lunch option later that day if she changed her mind. In June of 2016, she assumed she was unable to notify her supervisor she had changed her mind and planned to take a lunch break that day (Tr. 301).

you need any water or anything like that.” CLC1 replied, “Ice would be great. Did they tell you they want me to have an 8 hour day? I’ll be bringing back 3 swings to make my 8 hour day. ” (Exh. C-22, p. 2; Tr. 261) (capitalization, punctuation, and grammar as they appear in text messages) CLC1 stated she would typically have five or six swings left to do by that time, rather than the nine she had that day. “I left their office a little later than I had been. We had some extra mailings and extra parcels loading up. Then the heat was slowing me down a little bit.” (Tr. 261) CLC1 made several *comfort stops* that day (Tr. 314).¹²

At 2:23 p.m., CLC1 alerted Supervisor 1 she was bringing undelivered mail for three swings back because “when something like that comes kind of unexpected, they would have to either move other carriers around, send two out together to try and get it done quickly. Just kind of try to find somebody to cover it.” (Tr. 262-63). At this point, CLC1’s symptoms were worsening. “The nausea, the dry skin, hot, . . . little to no sweating, feeling kind of faint.” (Tr. 275) She drank more water and took a short break next to the LLV under a shade tree. She assumed Supervisor 1 would be bringing her ice, but she never arrived (Tr. 275-76). Supervisor 1 testified she did not see CLC1’s text message requesting ice until later because she was busy (Tr. 339).

There was a total of approximately 45 houses on the last three swings that CLC1 was not able to deliver. At this point, her skin was hot and dry, and she was experiencing muscle cramps, fatigue, and nausea. She decided to return to University Station and started to drive the 5 or 6 miles back but had to pull over to vomit. She arrived at the post office around 2:50 p.m. (Tr. 278-79). Supervisor 1 noted CLC1 “was flushed in the face a little bit. Her collar appeared to be wet from sweating.” (Tr. 345)¹³

¹² The Postal Service permits carriers to take *comfort stops* in hot weather, which allow carriers to use the restroom, buy or refill drinks, cool down, etc. (Tr. 314). CLC2, who is a union steward, corrected counsel for the Postal Service when she referred to them as *comfort breaks* because “they’re not breaks.” (Tr. 477) She explained,

[I]f you look in the Postal Service handbooks and manuals, comfort stops are actually part of your route, and it's built-in time to your route. So when they do route adjustments and things like that, if you need to take a comfort stop, that's part of your job. It's not part of a street break. It's not part of an office break. It's not part of a lunch break. This is in addition to. A comfort stop is in addition to the normal breaks that you're contractually, you know, allowed.

(Tr. 481-82) Witnesses in the four other local cases and the national hearing generally referred to the interludes in question as “comfort breaks.”

¹³Supervisor 1 testified she was unaware CLC1 was not feeling well when she returned to University Station. She stated she did not interpret CLC1’s texts to mean she was ill, and CLC1 initially did not inform her she was ill when they met at the post office (Tr. 372-73). In an interview conducted by a compliance safety and health officer (CSHO) during the OSHA inspection, Supervisor 1 stated that when CLC1 returned to the station, “She was flushed,

CLC1 explained what occurred next. "I pushed my mail up towards the supervisor's desk to talk to [Supervisor 1] about what I'd brought back, and then she informed me that I needed to go back out. I told her that I couldn't, that I was throwing up on the way back and I just couldn't handle to go back out again." (Tr. 280) Supervisor 1 called the Manager of Customer Services (Manager CS) and informed her of the situation. CLC1 could hear Manager CS "yelling on the phone that I needed to return to the street and finish it. . . . I wouldn't be allowed to leave work until I finished my route." (Tr. 281)

CLC1 went to the union office in University Station, looking for CLC3, a city letter carrier and union steward for NALC (Tr. 233).¹⁴ Instead, she found CLC2, another city letter carrier who was also a union steward for NALC. CLC1 told CLC2 what had happened. "And she totally agreed that I shouldn't go back out, that I did not look in [a] well-enough state to continue." (Tr. 284) CLC5 (husband of CLC2) arrived and helped unload the undelivered mail from CLC1's LLV (Tr. 438). CLC2 walked CLC1 back to Supervisor 1's desk and asked her for the paperwork to send CLC1 to the doctor (Tr. 285). Supervisor 1 claimed she could not find the paperwork (Tr. 439).

CLC2 testified in detail about her meeting with CLC1 in the union office and the subsequent events:

[CLC1] didn't look well. I mean, it was obvious why she couldn't go back out, or why she felt she couldn't go back out. Her face was extremely red. She was shaking. When she talked to me, she didn't --like, it didn't seem like she was quite, like, tracking right.

...

[W]hile [CLC1] was talking to me, [the Acting Supervisor] came in and asked her if she'd gotten the message. And she said, "What message?" And [the Acting Supervisor] told her, "You need to go back out and finish delivering the route."

And, like I said, it was obvious she was in no shape to go back out. So then when I saw firsthand that what she had -- her concern that she had brought to me, it was no joke because here's this supervisor trying to send her back out.

I became upset. And, okay, I basically told them that she's not [expletive] going back out there, plain and simple.

...

she was red in face. Wasn't sweating." (Exh. C-26) Other witnesses testified regarding CLC1's obvious physical distress when she returned to University Station (Exhs. C-27, C-31; Tr. 407-08, 439, 459). The Court does not credit Supervisor 1's testimony that she was unaware CLC1 was feeling ill when she returned to University Station.

¹⁴ University Station has three union stewards who each assist carriers in one of three sections. The sections are determined by the ZIP Codes of the routes. CLC3 was the union steward for the section that covered Route 1213, CLC1's hold down route (Tr. 455).

[The Acting Supervisor said,] "I'm just doing what I'm told." And so I got up and I said [to CLC1], "Come with me." . . . [W]e went to the supervisor's desk, and I got [CLC1] sat down. And I told [Supervisor 1] , . . . "She's not going back out."

And then I asked [CLC1] if she needed medical, if she wanted to seek medical. She said yes. So I looked at [Supervisor 1], and I said, "You need to get her the paperwork. Get her the paperwork so she can go to the doctor."

And then I don't know how long it was. I would say 15, 20 minutes, probably 20 minutes or more, where [Supervisor 1] could not -- or couldn't figure out how to print off the paperwork to send her to the doctor.

And so eventually I ended up having to print off the paperwork for her to go to seek medical, which that's something management should have done because they have to report the accident.

(Tr. 459-61)

In a handwritten account of the events dated June 17, 2016, CLC2 wrote, “[M]anagement showed no regard to [CLC1’s] health or wellbeing but rather the only concern was that of getting her back out on her route to finish delivering the mail. I never heard management ask her if she was ok, if she needed any help, get her water, get her a chair, offer her a ride to the hospital, etc.” (Exh. C-29, p. 3)

CLC1’s husband arrived and drove her to the Mercy South Urgent Care Clinic, where she was seen by a nurse practitioner (NH Tr. 3146-47; Tr. 318). Her “Assessment” was “1. Nausea and vomiting . . . [and] 2. Heat exhaustion.” (Exh. C-47p. 3; Tr. 286, 318)¹⁵

CLC1 did not go to work for the next 3 days (Friday through Sunday) due to her illness (Tr. 292) She was already scheduled to take leave the following week, so her first day back to work was June 20 (Tr. 309-10).¹⁶

¹⁵ CLC1 recounted a second incident she attributed to excessive heat that occurred in July of 2018, when she was delivering mail for a different post office station. The route required approximately 16 miles of walking. She was driving an LLV that day. CLC1 went to a medical clinic and was told by the attending physician that she was slightly dehydrated (Tr. 298). The date of the incident is unknown, as is the high temperature or heat index that day. No medical records documenting the clinic visit were admitted into the record. The Court determines CLC1’s testimony regarding the 2018 incident lacks probative value. It will be given no weight.

¹⁶On Saturday, June 11, 2016, CLC1 attended the wedding of a friend in Oskaloosa, Iowa. A University Station supervisor saw CLC1’s post about the event on Facebook and sent a copy of it to Manager CS (Exh. C-19; Tr. 294). The supervisor also sent Manager CS a copy of a post which the supervisor interpreted to mean CLC1 helped a neighbor with yardwork on Sunday, June 12: “Thank you so much [CLC1] for helping with the yardwork today. It looks great[.]” (Exh. C-20, p. 2; Tr. 296) CLC1 testified she let her neighbor use her lawnmower, and CLC1’s children helped “pick up garbage and sticks and the little things that they could do.” (Tr. 296) Manager CS challenged CLC1’s claim of heat exhaustion based on the Facebook posts (Tr. 737-38).

The Court finds the Facebook posts of CLC1’s weekend activities after her Thursday incident are not probative of any issue in this case and accords them no weight.

CCA1 and the July 21, 2016, Incident

In July of 2016, CCA1 was a CCA at University Station. She had started working for the Postal Service in February of 2016. As a CCA, she could not refuse to work overtime. For 9 consecutive days, from Monday, July 11, to Tuesday, July 19, 2016, CCA1 worked the following number of hours, respectively: 10 hours, 7 hours, 12 hours, 11 hours, 7½ hours, 10 hours, 7½ hours, 8½ hours, and 9 hours (Tr. 572-77).

On July 21, 2016, CCA1 was assigned to deliver mail on Route 1205, which is a residential park and loop route requiring approximately 20 swings. Each swing took 10 to 20 minutes to deliver. Most of Route 1205 is in direct sunlight. CCA1 drove an LLV that day. She estimated Route 1205 required 8 to 10 miles of walking to complete (Tr. 578-80).

CCA1 did not case Route 1205 that morning. She arrived at the post office, clocked in, and then clocked out to the street at approximately 10:00 a.m. She was wearing her standard summer uniform of shorts and a blouse or polo shirt (Tr. 584). She signed the no-lunch list for that day (Tr. 612).

Approximately 2 to 2½ hours after she started, CCA1 began to experience short-term memory loss, as well as a “real bad headache and the nausea.” (Tr. 585-86) She poured water over her head and used a cooling towel provided by University Station management (Tr. 586). She also group texted several co-workers. One text reads, “Feeling really sick slight memory lose [*sic*]. Just trying to get through as fast as I can.” (Exh. C-37, p. 2; Tr. 587)

Supervisor 2 was on duty at the University Station that day (Tr. 5:30). He stated, “That day was a really hot day in the Des Moines area and myself and the other supervisors had gotten ice water and I went out and I started in the Windsor Heights area, looking for carriers, tracking them down, giving them water, checking on them to make sure they’re okay.” (Tr. 532)

Supervisor 2 met with CCA1. She stated, “[H]e came out and said that he was just checking on carriers to see how everyone was doing. I told him that I wasn’t feeling good and I was having short-term memory loss, and he gave me some more water and told me if I felt the need, felt like I needed more water, to give him a call.” (Tr. 588) CCA1 reaffirmed her account less than a month later in a handwritten statement. “Date of Incident July 21, 2016 about 1:30 p.m. [Supervisor 2] came out to the route and brought me a couple of bottles of water and I

informed him that I wasn't feeling well and was having memory loss and he did or said nothing.” (Exh. C-38)¹⁷

As CCA1 continued with her route, “[t]he memory loss got worse.” (Tr. 590). She testified,

I completely didn't remember anything or anybody. So went to my cellphone and my phone had my children's name listed as son, daughter, and I just got my son's number. I called my son and told him that I couldn't remember my name, but I had the number in my phone as my son, and I talked to him. He tried to calm me down and tried to find out who he could call to try and get some help for me. It didn't dawn on me at the time to call 911.

[My son] called -- I don't recall how he figured out where I was at or whatever. He told me to get out of the truck and walk down to the corner and tell him what street I was on, and he called an ambulance for me.

(Tr. 590)

EMTs arrived and transported CCA1 via ambulance to Mercy Medical Center, where she was diagnosed with heat exhaustion. The attending physician instructed her to stay home for the next 3 days (Tr. 591).

The Postal Service completed an accident report regarding CCA1's incident. Written on the form next to the item “Unsafe Personal Factors” is “Failure to comply with the rules.” (Exh. C-16, p.1) CCA1 testified that no one in the Postal Service told her what rules she failed to comply with on July 21, 2016 (Tr. 593).

CCA1 has Type 2 diabetes and high blood pressure. She takes prescription medicine for these conditions (Tr. 608).

¹⁷ Supervisor 2's account of their meeting differs significantly from that of CCA1. “When I saw [CCA1] that day, she was sitting in her truck. The way she looked at me was very normal. She was sweating. It was hot out. I'd expect her to be sweating. We carried on a conversation for about 5 minutes, and I left.” (Tr. 532) He offered her water, which she declined, but he left her with three bottles anyway. He also advised her to wear a hat when delivering the mail. He denied that CCA1 told him she was dizzy (Tr. 533). In an email to Safety Specialist 1 detailing this encounter that he sent on August 6, 2016, however, Supervisor 2 states CCA1 told him she was “a bit dizzy.” (Exh. C-34) Upon reviewing the email, he was asked if it refreshed his memory whether CCA1 told him she was dizzy. He responded, “No, it doesn't.” (Tr. 534) In an email he sent on August 8, 2016, to safety specialist Bonnie Erwin, Supervisor 2 wrote, “[CCA1] was given 4 days off by the ER doctor. That worked out pretty good for her because that lead right into her annual leave. (I thought that was a bit suspicious)[.]” (Exh. C-35; Tr. 536)

At the hearing, CCA1 was forthright and calm as she testified and answered questions in a matter-of-fact manner. On the other hand, Supervisor 2 was evasive and shift, and he contradicted his deposition testimony. The Court credits CCA1's testimony that she told Supervisor 2 that she was feeling unwell on July 21, 2019, when he brought her water.

Other Incidents of Illness

Two other University Station carriers testified regarding illnesses they attributed to hot weather. CLC7 is a city letter carrier. Monday, July 13, 2015, was her first day back at work delivering her route after a 2-week vacation in Colorado Springs, Colorado (Tr. 633). As she delivered the route, she began to feel increasingly ill. CLC7 described the events of that day in a handwritten statement she wrote on August 5, 2015:

Just back to work from vacation off 2 weeks—Monday 7/13/15 was doing my Route 1297 and I have boost on 1285. The temperature was 96 with a heat index of 106. Called [a supervisor] about 2:00 p.m. and told her I did not feel well. She said she had no help. I finished my Route 1297. Went to go do my boost of 1 hour. I felt sick to my stomach, had a horrible headache, was burning up, was feeling faint, and dizzy, weak. I was drinking plenty of water and Gatorade. By the time I got to my last swing on my boost 1285, I could hardly walk without feeling like I was going to pass out. I was at [a street address] and Mrs. Cleveland brought me in her house. I was confused, and very ill. I guess I walked in, but don't remember.¹⁸ She sat me in a chair and gave me some ice water and pointed a fan at me.

I didn't go to the doctor because I was so exhausted, I just wanted to get home. Once home, my husband put cool towels on me, and then I took a cool shower. [A supervisor] told me I had to come in on my day off. I told him I was ill with heat stroke. He called [Manager CS] and she said if I didn't come in on my day off she would get me for AWOL! It took me until 4:00 a.m. to get cooled down. Still very sick, I did 1285 on my day off. I called in on July 15-16-17. I went to the doctor on July 16th, he said it was heat stroke I had. I was so ill I could not get out of bed, couldn't go outside in the heat at all. I could have died.

(Exh. C-40, pp. 2-3)

Exhibit C-41 is a copy of a doctor's excuse for CLC7 restricting her from working until July 18, 2015. It lists her medical condition as "Heat Stroke Symptomology."

CLC8 is a city letter carrier for University Station. In May of 2017, she was delivering on Route 2464, which requires approximately 10 miles of walking to complete. On the day in question, she began to feel ill around noon, after she had been delivering mail for approximately 2 hours. She stated, "I did start getting dizzy and forgetting things, like I would leave my truck and forget to grab the mail or forget what address I'm at. I was getting really confused." (Tr. 677)

¹⁸ CLC7 wrote a prior statement, on July 15, 2015, in which she said she had fainted on Mrs. Cleveland's front steps before she brought her into her house (Exh. C-40, p. 1). She later learned she had walked into the house (Tr. 644). She recounted her memory of the event. "And [Mrs. Cleveland] goes, 'Hi,' and I says, 'Hi,' and I handed her mail. And she goes, 'You don't look too good. Do you feel okay?' And I says, 'No, not really.' And I went to grab her railing, and that's the last thing I remember until I was sitting in her chair inside her house." (Tr. 641)

CLC8 called a supervisor and told her she was not feeling well. The supervisor brought CLC8 some water and sat with her for 10 to 15 minutes. CLC8 told the supervisor she thought she had recovered enough to continue. The supervisor left and CLC8 continued delivering mail for about an hour. As soon as she “started carrying mail again and got out in the heat, [her symptoms] instantly got worse.” (Tr. 678-79) CLC8 stated, “I started getting really bad stomach cramps and I could not keep down any water or Gatorade at that point, and my head was spinning. I got even more confused than I was before. I was almost unable to call the office.” (Tr. 679)

CLC8 spoke with a different supervisor, who called 911. EMTs arrived and transported CLC8 to a hospital, where she received a diagnosis of heat exhaustion (Tr. 679-80). Despite this diagnosis, CLC8 encountered scheduling difficulties with University Station management.

I had to go to work the next day so I went to my doctor the following day and she put me on a seven-day indoor only work restriction, which [the supervisor who called 911] did not find acceptable.

She said that if I couldn't work outside, then I didn't need to be leaving my house and so she didn't want to give me work to do.

So I had to call my doctor and the union steward four times to figure out how the doctor could write it down to where I could come to work and work inside but not be off work.

...

[Management] wanted to send me home and not pay me for the next seven days.

(Tr. 680)

CLC8 has experienced several more incidents she attributes to heat stress. “My doctor said that any time I got out in the heat now I’m more susceptible because of the first time being so severe,” (Tr. 681)¹⁹

Heat Stress Safety Training

Laveda Peda works as the manager of safety for the Western Area, which includes Iowa (Tr. 40, 42). She advises and assists the Postal Service’s district safety managers in the Western Area “in dealing with OSHA.” (Tr. 42) In June of 2013, she sent an email to district safety managers, including Shirley Smith, the district safety manager for the Hawkeye District (in which University Station is located (Tr. 91)). A document entitled *Heat Illness Prevention Kit*

¹⁹ No medical records or evidence of the temperature or heat index for the days in question were admitted into the record. The Court determines the testimony of CLC7 and CLC8 is not probative regarding the issue of whether “high heat levels” caused their illnesses. It is probative, however, of the response or nonresponse of University Station management personnel to reports of injuries or illnesses.

was attached to the email (Exh. C-3; Tr. 44-45). The document included a safety poster, a supervisor safety checklist, a standup safety talk, and a safety pamphlet, all related to heat stress safety (Tr. 45-45). Peda testified there “was no requirement” to display the poster, and supervisors were not required to use the safety checklist (Tr. 45). The standup safety talk was not mandatory, and supervisors were not required to distribute copies of the pamphlet to employees (Tr. 46).

In June of 2015, a safety analyst working under Peda sent an email to the Western Area district safety managers. Attached to the email were nine standup safety talks (Exh. C-5; Tr. 52-54). When asked if it were mandatory for supervisors in Western Area post offices to deliver the standup safety talks to employees, she stated, “I don’t believe any part of it was mandatory. And as to the definition of ‘mandatory,’ we send a safety talk and tell everybody to give it, but we don’t do a follow-up or a check sheet to verify.” (Tr. 54) The Postal Service uses a database called Learning Management System (LMS) to document training. Peda was asked if training completed at individual post offices would be recorded in LMS. She replied, “It was recommended that they document it there. There was no requirement for them to document it in LMS.” (Tr. 55)

Exhibit C-46(a) is a copy of a video on heat stress safety. Asked if it was a requirement that management in Western Area post offices show the video to letter carriers, Peda responded, “Again, when you say ‘requirement,’ did we have an official tracking process? I don’t believe we had an official tracking process.” (Tr. 59-60) She testified that from 2013 to 2017, the Postal Service did not implement a formal heat stress program. “Not a written policy. We trained employees how to avoid heat illness, what signs and symptoms occurred with heat illness, and then what to do in case of emergency. But there was not a written program.” (Tr. 61)

Supervisor 1 testified she had supervisory authority over the letter carriers. “I was their line of contact. Basically, if the carrier had an issue, they were to come to me, and then I was to go to the station manager. . . . If there was something that had to be done, I would . . . tell [the carriers] what needed to be done.” (Tr. 334) Even though she was the first line of contact for the carriers, she routinely missed the morning standup safety talks, including the ones addressing heat stress safety. “All the safety talks were performed in the morning before I reported to work. So the only type of acknowledgment I would get is through, you know, someone tagging something, you know, through an email. You know, warning us of the weather.” (Tr. 367)

When CLC1 began feeling ill on June 9, 2016, she texted Supervisor 1 stating, “Feeling very weathered by the heat[.]” (Exh. C-22, p.2) Supervisor 1 responded, “do the best you can I know it really hot out right now” and asked her if she needed anything. CLC1 responded, “Ice would be great.” (*Id.*) Supervisor 1 did not bring her ice, did not inquire further into her physical condition, and claimed she did not recognize CLC1 was ill when she returned to University Station.

When asked what she meant when she texted CLC1, “do the best you can,” Supervisor 1 stated, “Basically, what I meant by that was, you know, continue to move along. Do the best you can. You know, get the mail delivered.” (Tr. 339) She testified supervisors were supposed to perform evaluations of the carrier’s routes once a year, but she had never done so as of June 9, 2016, because “I hadn’t been properly trained.” (Tr. 340) She also stated, “I had not had any type of learning management courses or heat stress or heat exhaustion.” (Tr. 340).

Supervisor 1 described her interaction with CLC1, as her first line of contact, upon her return to University Station:

Supervisor 1: I do not recall telling [Manager CS] that [CLC1] was feeling under the weather. I was just following [Manager CS’s] instructions that she was to complete the route on her own.

Q.: Well, let me just ask you as a -- for you as a supervisor, how did how [CLC1] feeling or how she relayed how she was feeling to you, did that have any bearing on whether or not you would instruct her to complete an 8-hour day?

Supervisor 1: Due to not being correctly educated on heat exposure, I wasn't aware of how it was affecting her.

Q.: What do you mean by not being correctly educated?

Supervisor 1: I had not had any training courses on the signs and symptoms of heat stress or heat exhaustion.

(Tr. 359)

Time Pressure and Form 3996

In the Des Moines post offices, carriers are contractually entitled to a 15-minute office break in the morning and a 15-minute street break each day (Tr. 482-83). CLC2 testified, “You’re allowed to take comfort stops, which is as-needed to take care of yourself. . . . However, more times than not, . . . management didn’t care that they were taking these breaks to take care of themselves. They wanted to know why they’d brought back 30 more minutes’ worth of mail.” (Tr. 475-76)

Supervisor 2 gave safety talks (*standup talks*) on various safety-related topics in the mornings while the carriers were still in the post office. On one occasion when he was giving a standup talk on heat stress safety, he told the carriers to take additional breaks on hot days if they felt the need (Tr. 528). Supervisor 2 testified Manager CS “privately . . . kind of asked me why I did that, why I said if you need extra ones, to take them.” (Tr. 529) He told her, “Because it was hot out, and it’s been a while since you may have carried, [Manager CS], but I just got done carrying within the last year and my previous background is you don’t mess around with the heat. If you need to take a break and sit in the shade, sit in the shade.” (Tr. 529)²⁰

CLC4 testified he had been disciplined in 2015 for taking a comfort break on a hot day (Tr. 429).

I pulled up to the parking lot and I was ready to walk in to take an extra break. I had already taken my break, and [Manager CS] and another supervisor come up and asked me what I was doing, that I had a lot of mail to carry. I told them I was going to take a break and I was overheating. When they insisted that I don't take a break, I told them I was done and I drove the postal vehicle back to the Post Office.

(Tr. 431)

Carriers use scanners (known as MDDs) to scan bar codes on packages to show they were delivered. The scanners are equipped with GPS that is used to track the letter carriers. If a carrier stays in one place for a certain length of time, it is labeled a *stationary event*, and the scanner sends an alert. The University Station supervisors are notified the carrier has not moved for a certain period of time and will call to ask why the carrier is not moving (Tr. 444-45).

University Station supervisors use *call-downs* toward the end of the workday to communicate with carriers who are clocked out to the street. CLC5 stated, “[T]owards the end of the day, they start calling carriers on their cell phones, asking them how much mail they have, telling them to go here when you're done with this or come back, we've got more mail for you.” (Tr. 444)

²⁰ Supervisor 2 stated he did not get in trouble for telling carriers to take comfort breaks if needed. He agreed, however, that at his deposition he had testified, “I got in trouble for saying this once but I said, ‘Hey, if you have to take extra breaks, do so, and if it shows up on the scan report that you took extra breaks, I’ll take the hit for it.’ My boss wasn’t too thrilled about me telling them to take extra breaks[.]” (Tr. 530) He later stated, “Initially when I told her that, she got upset with me, kind of yelled at me, but then when I went and explained why, we got over it, and that was the extent of it right there.” (Tr. 544)

CLC6 has been a city letter carrier at the University Station since 2003 (Tr. 494). She testified University Station supervisors have pressured her not to take comfort stops in hot weather (Tr. 496). One day in September of 2017, she stated,

[I]t was just hot out. It was God-awful hot and I parked my LLV under a shade tree and I did a swing and then came back, opened up the truck and stepped four to five steps away from the truck and just sat under a tree drinking some water. And [a supervisor] appeared out of I don't even know where, and he was asking me why I was just standing there. And I said, "It's hot." And he says, "You need to get back to carrying." I said, "I am. It's hot out. It's hot."

(Tr. 497)

CLC6 testified she had just stopped when the supervisor appeared. She did not know how he located her, but stated, "I know in the past he has parked on different streets and he'll just walk around, come out between houses and such." (Tr. 498)

If a city letter carrier believes she will not be able to complete her route in her allotted time, she can submit a Form 3996 to a supervisor in the morning requesting more time (overtime) or help (auxiliary assistance) in finishing her route (Tr. 498). CLC6 stated that when she submitted a 3996 form giving hot weather as the reason for requesting more time to complete her route, supervisors were dismissive. "[One supervisor] has laughed at me and said, 'Oh, come on, it's not that hot.' [Another supervisor] just said, 'Oh, come on, you're a letter carrier.' Just verbiage like that, and I just said, 'You know, hot is hot. It's just hot.'" (Tr. 499)

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 letter 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 post offices. 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.²¹ 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 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. . .

²¹ “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.

[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)

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 (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 NALC²² 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).²³

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 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)

²² 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).

²³ 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)

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).²⁴ 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

²⁴ Dr. Bernard testified in the national hearing of the Postal Service cases before the Court.

have to do as a craft to prevent our brothers and sisters from getting hurt. A few months later, the judge issued her decision.²⁵ 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>

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

(NH Exh. C-106, p. 3) Peralta testified 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

...

²⁵ 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).

[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)

LLVs and Air Conditioning

Dr. Thomas Bernard testified regarding the benefits of providing letter carriers with air-conditioned vehicle.²⁶ 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 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)

²⁶ 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 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 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).

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 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.²⁷ 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)

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.

²⁷ 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).

(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.²⁸ 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?

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

²⁸ 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).

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)²⁹

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. A 3996, we had -- it's hot, so on the 3996 they asked for overtime based on the heat. What I was

²⁹ 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 Des Moines, Iowa.

The Court does credit the corroborative, consistent testimony of the carriers in this proceeding who testified temperatures in the interiors of LLVs are hotter in the summertime than outside temperatures. The evidence, however, falls short of establishing the existence of an excessive heat hazard in LLVs for two reasons. First, there is no evidence in the record verifying the accuracy of the carriers' subjective estimates of the LLVs' interior temperatures in Des Moines in comparison to the outside temperatures. There is, therefore, no evidence establishing the magnitude of the increase in the interior temperatures of the LLVs on the days referred to by the carriers.

Second, the Citation alleges the Postal Service employees were exposed to hazards "related to *working outside* during periods of high heat levels." (emphasis added) The testimony of the carriers establishes the conditions that make driving an LLV uncomfortable and potentially hazardous (including the greenhouse effect created by the large windows and the hot air circulated by the fan) 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 alleged hazard of excessive heat or high heat levels in LLVs is not probative of an alleged excessive or high heat hazard related to working outside.

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.

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)³⁰

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 pivot (what Des Moines carriers call a "boost"). 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 3996 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, reporting injuries or illnesses, or calling in sick. In this case, carriers testified at length that when they reported they were ill and needed assistance, they were ignored or instructed to push on (Exh. C-40; Tr. 261, 280-81, 431, 459-61, 475-76, 497, 499, 680). 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)

³⁰ 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.

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 they reported their ailments 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 (OSHR 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 high heat levels while delivering the U.S. mail:

a) On or about June 9, 2016, Central Iowa was under the first high heat levels with temperatures in the 90s. On June 6, 2016, the National Weather Service of Central Iowa began to warn of high heat levels to arrive June 9, 2016 where heat indices would be 93-95 degrees Fahrenheit. Additionally, on June 8, 2016 Polk County Public Health via WHO-TV warned of dangerous heat levels for June 9, 2016 and the weekend. At approximately 09:54 am, the temperature was approximately 84.9 degrees Fahrenheit with a humidity level about 51%, creating a heat index of 86.6 degrees Fahrenheit. The seasonal elevated ambient outdoor temperatures were increasing throughout the day and the afternoon temperatures at about 1:54 pm reached 93.0 degrees Fahrenheit with humidity level of 35%, creating a heat index of 93.0 degrees Fahrenheit. Employees of the United States Postal Service (USPS) Des Moines, IA were exposed to these high levels of ambient heat during the performance of their mail delivery duties to customers in and around Des Moines, IA.

A city carrier had not become acclimatized to walking and delivering mail in high heat levels. At times, the carrier worked from a USPS vehicle without air conditioning that was sitting in the sun. Heat indices obtained under similar conditions inside the vehicle reached approximately 132 degrees Fahrenheit. The carrier was exposed to high heat for approximately four and one-half hours while delivering mail on Route #1213 that was a hilly and sunny route. The carrier utilized a mail bag weighing up to 15 pounds. The carrier developed and suffered a heat related illness.

b) On or about July 21, 2016, Central Iowa was under an Excessive Heat Warning from the National Weather Service. At approximately 08:54 am, the temperature was about 84.9 degrees Fahrenheit with a humidity level about 69%, creating a heat index of 92.1 degrees Fahrenheit. The seasonal elevated ambient outdoor temperatures were increasing throughout the day. At about 1:54 pm, the temperature increased to 95 degrees Fahrenheit with humidity level of 58%, creating a heat index of 111.4 degrees Fahrenheit. Employees of USPS Des Moines, IA were exposed to these excessive levels of ambient heat during the performance of their mail delivery duties to customers in and around Des Moines, IA.

At approximately 9:00 am, a city carrier assistant (CCA) began to deliver mail on a walking route to approximately 400 customers. This walking route was in direct

sun and the CCA carried a mail bag weighing approximately 10 pounds. At times, the CCA worked from a USPS vehicle without air conditioning that was sitting in the sun. Heat indices obtained under similar conditions inside the vehicle reached approximately 132 degrees Fahrenheit. At approximately 10:54 am, the temperature was approximately 93.9 degrees Fahrenheit with a humidity level of 56% creating a heat index of 106.9 degrees Fahrenheit. The CCA was more disoriented and nauseous. At approximately 1:30 pm, the CCA called 911 and at approximately 2:00 pm was taken to the emergency room for treatment of heat exhaustion and dehydration from exposure to extremely high levels of ambient heat.³¹

A. Existence of a Hazard

1. The Evidence Does Not Establish Exposure to High Heat Levels Caused the Illnesses of CLC1 and CCA1

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 the “outside” in the area covered by University Station in Des Moines, Iowa, through which the city letter carriers walked as they delivered mail on their routes. The Citation identifies the hazard presented as “high heat levels.” The “condition or activity” that presented the alleged hazard appears to be the high temperature and heat index of 93°F on June 9, 2016, and the high temperature of 95°F (with a heat index of 111.4°F) on July 21, 2016.³²

Heat Stress Hazards

Dr. Aaron Tustin 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

³¹ At the beginning of the hearing, counsel for the Postal Service requested a standing objection “to any reference throughout this hearing of a hazard that is not termed in this matter as a high heat level or excessive level of ambient heat.” (Tr. 32-33) 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”).

³²The second paragraphs of Instances (a) and (b) in the Citation state, in pertinent part, “Heat indices obtained under similar conditions inside the [LLV] reached approximately 132 degrees Fahrenheit.” The OSHA compliance safety and health officer (CSHO) who conducted the inspection of University Station took temperature readings in an LLV as part of her investigation (Exh. R-26, pp. 1711, 1713, 1719-20). The CSHO died before this case went to hearing. No evidence of temperature readings of the interior of an LLV were presented at the hearing.

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 (NWS) 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)

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).

CLC1 and the June 9, 2016, Incident

Dr. Tustin reviewed certified weather data from the NWS for Des Moines, Iowa, on June 9 and July 21, 2016 (Tr. 463). The NWS data showed the highest temperature in Des Moines on June 9 occurred at 3:54 p.m. It was 94°F, and the high heat index was 93°F (NH Tr. 463-64).

Dr. Tustin testified a heat index of 93°F is hazardous, based on epidemiological studies and cases he has reviewed (NH Tr. 467). Dr. Tustin reviewed CLC1’s hearing testimony and medical records. He discussed her diagnosis of heat exhaustion. “I believe as far as I recall, she seemed to be a healthy young woman with—I don’t believe she had any medical conditions that I would consider to be predisposing of a heat-related illness.” (NH Tr. 469) He stated CLC1’s white blood cell count “was within the normal range.” (NH Tr. 472) He conceded on cross-examination that CLC1’s lymphocytes were abnormally low and her neutrophils were abnormally high, but he did not believe those readings indicated the presence of an infection (NH Tr. 708).

Dr. Shirly Conibear disagreed. She also reviewed CLC1's medical records and testimony.³³ 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 CLC1 did not experience a heat-related illness on June 9, 2016 (NH Tr. 3144). CLC1's temperature, heart rate, and blood pressure were normal. The clinic did not provide her with IV fluids (NH Tr. 3147). The clinic CLC1 visited ordered blood tests for her, including a white blood cell count, which "is usually done to determine whether or not there is either a bacterial or viral infection. . . . the pattern of [CLC1's] white count was diagnostic of a bacterial infection." (NH Tr. 3145)

Dr. Conibear noted CLC1 returned to the clinic on August 16, 2016, complaining of "mild lateral abdominal pain, diarrhea and vomiting for four days. She had chills but no fever." (NH Tr. 3147) She was diagnosed with viral gastroenteritis and was prescribed ondansetron for nausea (NH Tr. 3149). CLC1 visited the clinic again on October 30, 2016, complaining of "[h]eadache, diarrhea, nausea, and vomiting for the previous 24 hours." (NH Tr. 3148) She was diagnosed with gastroenteritis and prescribed loperamide, to alleviate diarrhea, and more ondansetron. Dr. Conibear determined CLC1's symptoms on June 9, August 16, and October 30, 2016, were similar and were consistent with gastroenteritis (NH Tr. 3149). Dr. Conibear concluded CLC1 "obviously had a bacterial infection of some kind" and would have manifested the same symptoms on June 9, 2016, had the temperature been 70°F (NH Tr. 3150).

CCAI and the July 21, 2016, Incident

The highest temperature on July 21 was recorded from 2:54 to 4:54 p.m. It was 96°F, and the high heat index was 111°F (NH Tr. 476-77). Dr. Tustin testified a heat index of 111°F

³³ Dr. 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).

presents a heat stress hazard. He reviewed CCA1's medical records and concluded she was suffering from a heat-related illness on July 21 (NH Tr. 477).

CCA1 was diagnosed with heat exhaustion at the hospital. Dr. Tustin agreed with the diagnosis.

I reviewed the medical records. I didn't see any reason to doubt the diagnosis of heat exhaustion. I agree with it. She had a headache. She had at least one vital sign abnormality, as far as I remember. I believe she had a fast heart rate. She couldn't finish her mail route. It was on a day when she was exposed to heat stress. So all of those factors made sense as far as the diagnosis of heat exhaustion. In fact, I noted that her treating physician on initial arrival apparently was even concerned that she might have heat stroke because of the amnesia and the mental status changes. But I don't think she actually had heat stroke, but I just note that because it does indicate that it was -- it seemed to be a fairly severe case of heat exhaustion.

(NH Tr. 479-80)

Dr. Tustin noted CCA1 had diabetes and high blood pressure, which "are two medical conditions that are listed as predisposing conditions for heat-related illness." (NH Tr. 480) Dr. Tustin stated, "[W]ithin a reasonable degree of medical certainty, I don't think she would have experienced this heat exhaustion if she had not been exposed to heat stress. I did note that she had diabetes and hypertension, but when somebody has those conditions and is not exposed to heat stress, then they don't develop heat exhaustion." (NH Tr. 481)

Dr. Tustin stated diabetes occurs in about "12 percent of adults" in the United States, and hypertension is "even more common than diabetes. It's a common chronic medical condition, which I believe about a third of adults in the U.S. have." (NH Tr. 481)

On cross-examination, Dr. Tustin stated memory loss, such as CCA1 experienced, is not "a common symptom of heat exhaustion" but it might have been indicative of heat stroke. He stated a core body temperature of 104°F or 105°F is diagnostic of heat stroke and conceded CCA1's temperature when she arrived at the hospital was 98.1°F (Tr. 723).

Dr. Conibear reviewed CCA1's medical records and deposition testimony. She concluded CCA1 did not suffer a heat-related illness on July 21, 2016 (NH Tr. 3129). Dr. Conibear noted CCA1 was taking chlorothalidone and Losartan to treat her hypertension. She stated the usual dose of chlorothalidone is 12.5 milligrams and sometimes it is prescribed for 25 milligrams. CCA1 was taking 50 milligrams (NH Tr. 3131-32). She explained the effects of the medications.

[T]he therapeutic effects are to create dehydration. . . . It takes off about a liter and a half of fluid. It works in concert with the Losartan to lower the blood pressure, and that's the therapeutic effect.

The side effect is it lowers potassium in the blood and it also lowers magnesium. Its side effects in terms of how the person feels include weakness and fatigue and can include mental confusion. If the potassium goes low enough, it can cause cardiac arrhythmia.

. . .

[Doubling the dose of chlorothalidone] would mean more dehydration. More fluid would be excreted by the kidney.

(NH Tr. 3132-33)

It was the opinion of Dr. Conibear that CCA1 would have suffered from the same symptoms if she had been working at lower heat levels on July 21, 2016 (NH Tr. 3136, 3141). She stated CCA1 went to an emergency room on March 14, 2018, complaining of “fatigue, headache, GI problems, and short-term memory problems, which she described as can’t remember why she’s going into a room, can’t remember where she is or supposed to be going when driving.” (NH Tr. 3137) Dr. Conibear testified these symptoms are consistent with the side effects of chlorothalidone, and CCA1 was taking quadruple the typical dose of the medication (NH Tr. 3140).

Credibility Determination

Dr. Tustin testified unequivocally that heat stress caused the illnesses that led to CLC1 and CCA1 seeking medical assistance on June 9 and July 21, 2016, respectively. Dr. Conibear was just as adamant the temperatures on those days had nothing to do with the carriers’ illnesses, which were 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 illnesses of CLC1 and CCA1 to be particularly helpful.

Dr. Tustin and Dr. Conibear reviewed the limited information presented in the medical records and appeared to conclusively diagnose the employees’ maladies. They each appeared to be beyond doubt as to cause of the illnesses in the two employees whom they had never met or examined. Yet the basis for their certainty is not explained. For example, Dr. Tustin discounted the abnormal readings from CLC1’s blood tests and the similarity of her symptoms on June 9, 2016, to the symptoms that resulted in diagnoses of gastroenteritis on August 16 and October 30,

2016. Dr. Tustin had agreed earlier in his testimony that 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).

Likewise, Dr. Conibear was unwavering in her opinion the hot weather on June 9 and July 21 in Des Moines had no causal link to the illnesses of CLC1 and CCA1. Her conclusion that CLC1's later episodes of gastroenteritis prove she was suffering from that condition, and not heat exhaustion, on June 9 is speculative.

The unyielding stances of Dr. Tustin and Dr. Conibear as to whether heat stress caused the illnesses of CLC1 and CCA1 on June 9 and July 21, 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 illnesses of CLC1 and CCA1 on June 9 and July 21, 2016, respectively, 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. Neither doctor provided a substantive explanation for insisting on one diagnosis over the other.

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 illnesses of CLC1 and CCA1 were caused by exposure to heat stress (the Postal Service did not prove they were 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 illnesses of the employees. The fact the incidents 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 illnesses of CLC1 and CCA1 in June and July of 2016, it is still his burden to prove that high temperatures or heat index values on those days exposed Des Moines city 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, "On 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. 21, n. 20)³⁴ In this case, however, the Postal Service vigorously disputes the temperature or heat index on June 9 and July 21, 2016, presented a hazard to Des Moines'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

³⁴ 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.

involving a citation under § 5(a)(1) of the Occupational Safety and Health Act, 29 U.S.C. § 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 15 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.³⁵ If Commissioner

³⁵ 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). Exhibit C-45 is a copy of the NWS heat index chart admitted in the Des Moines hearing, which is reproduced here:

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.

Relative Humidity (%)

Temperature (°F)	Relative Humidity (%)																			
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
80	77	78	78	79	79	79	80	80	80	81	81	82	82	83	84	84	85	86	86	87
81	78	79	79	79	79	80	80	81	81	82	82	83	84	85	86	86	87	88	90	91
82	79	79	80	80	80	80	81	81	82	83	84	84	85	86	88	89	90	91	93	95
83	79	80	80	81	81	81	82	82	83	84	85	86	87	88	90	91	93	95	97	99
84	80	81	81	81	82	82	83	83	84	85	86	88	89	90	92	94	96	98	100	103
85	81	81	82	82	82	83	84	84	85	86	88	89	91	93	95	97	99	102	104	107
86	81	82	83	83	83	84	85	85	87	88	89	91	93	95	97	100	102	105	108	112
87	82	83	83	84	84	85	86	87	88	89	91	93	95	98	100	103	106	109	113	116
88	83	84	84	85	85	86	87	88	89	91	93	95	98	100	103	106	110	113	117	121
89	84	84	85	85	86	87	88	89	91	93	95	97	100	103	106	110	113	117	122	
90	84	85	86	86	87	88	89	91	92	95	97	100	103	106	109	113	117	122	127	
91	85	86	87	87	88	89	90	92	94	97	99	102	105	109	113	117	122	126	132	
92	86	87	88	88	89	90	92	94	96	99	101	105	108	112	116	121	126	131		
93	87	88	89	89	90	92	93	95	98	101	104	107	111	116	120	125	130	136		
94	87	89	90	90	91	93	95	97	100	103	106	110	114	119	124	129	135	141		
95	88	89	91	91	93	94	96	99	102	105	109	113	118	123	128	134	140			
96	89	90	92	93	94	96	98	101	104	108	112	116	121	126	132	138	145			
97	90	91	93	94	95	97	100	103	106	110	114	119	125	130	136	143	150			
98	91	92	94	95	97	99	102	105	109	113	117	123	128	134	141	148				
99	92	93	95	96	98	101	104	107	111	115	120	126	132	138	145	153				
100	93	94	96	97	100	102	106	109	114	118	124	129	136	143	150	158				
101	93	95	97	99	101	104	108	112	116	121	127	133	140	147	155					
102	94	96	98	100	103	106	110	114	119	124	130	137	144	152	160					
103	95	97	99	101	104	108	112	116	122	127	134	141	148	157	165					
104	96	98	100	103	106	110	114	119	124	131	137	145	153	161						
105	97	99	102	104	108	112	116	121	127	134	141	149	157	166						
106	98	100	103	106	109	114	119	124	130	137	145	153	162	172						
107	99	101	104	107	111	116	121	127	134	141	149	157	167							
108	100	102	105	109	113	118	123	130	137	144	153	162	172							
109	100	103	107	110	115	120	126	133	140	148	157	167	177							
110	101	104	108	112	117	122	129	136	143	152	161	171								
111	102	106	109	114	119	125	131	139	147	156	166	176								
112	104	107	111	115	121	127	134	142	150	160	170	181								
113	104	108	112	117	123	129	137	145	154	164	175									
114	105	109	113	119	125	132	140	148	158	168	179									
115	106	110	115	121	127	134	143	152	162	173	184									
116	107	111	116	122	129	137	146	155	166	177										
117	108	112	118	124	132	140	149	159	170	181										
118	108	113	119	126	134	142	152	162	174	186										
119	109	114	121	128	136	145	155	166	178											
120	110	116	122	130	138	148	158	170	182											
121	111	117	124	132	141	151	162	174	187											
122	111	118	125	134	143	154	165	178												
123	112	119	127	136	146	157	169	182												
124	113	120	129	138	148	160	172													
125	114	121	130	140	151	163	176													

Heat Index



Extreme Danger	Heat stroke likely.
Danger	Sunstroke, muscle cramps, and/or heat exhaustion likely. Heatstroke possible with prolonged exposure and/or physical activity.
Extreme Caution	Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.
Caution	Fatigue possible with prolonged exposure and/or physical activity.

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 testified 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) He stated 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 definitions . . . for the four different colors: caution, extreme caution, danger, and extreme danger.” (NH Tr. 2776) The Steadman article 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)

Harvey stated 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 exists for the risk levels, 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.

6. 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. User*, 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 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)³⁶

³⁶ 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)

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)³⁷ 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 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. He concurred CLC1 and CCA1 were exposed to hazardous conditions on June 9 and July 21, 2016 (NH Tr. 978-81).

Number of Heat-Related Incidents Among Carriers

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 USPS’s own records. . . , the number per year (since 2015) of heat-related incidents classified by USPS on its official accident reports (PS Form

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).

³⁷ 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)

1769/301) as caused by “GEN-EXPOSURE EXTREME TEMP-HOT” are as follows:

- a. 378 for 2015
- b. 564 for 2016
- c. 399 for 2017
- d. 631 for 2018

In total, the number of heat-related incidents over the four years was 1,972. . . . For each individual year, approximately half the incidents were OSHA reportable.

(Secretary’s brief, pp. 25-26) (citations to national hearing transcript omitted)

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, “[O]n June 9, 2016, and July 21, 2016, there were approximately 1,380 city carriers working in the postal district that includes Des Moines, Iowa, and on each day there was only one alleged heat-related illness reported.” (NH Tr. 2886)

The Postal Service retained Dr. Joshua Gotkin to analyze its data on heat-related accidents.³⁸ 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

³⁸ 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).

(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 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 the precise 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 hazard are identical. The condition of high heat levels presents an alleged hazard of high heat levels. The precise temperature at which regular heat becomes high 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 “high.” 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 establishes the difficulty of accurately determining the etiology of illnesses presumed to be heat-related. Assuming the reported events are heat-related, the Secretary has not shown they present 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 Des Moines’s letter carriers to a significant risk of harm from excessive heat on June 9 and July 21, 2016.³⁹ The Secretary has not met his burden to establish a condition or activity presented a hazard. The Citation is vacated.

³⁹ This conclusion is not intended to minimize the general physical discomfort of letter carriers delivering mail in hot weather (Tr. 137-38, 522-23). 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

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

Assuming the Secretary had established the temperatures or heat index values on June 9 and July 21, 2016, presented an excessive heat hazard, as well as proving 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 an economically and technically feasible and effective means of abatement with regard to acclimatization, work/rest cycles, and reducing the amount of time carriers spend outdoors.

1. Proposed Means of Abatement

The Citation states:

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

- (i) Acclimatizing employees returning to work after an extended absence to working in the heat;
- (ii) 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;
- (iii) Requiring trained supervisors to go in the field and conduct in-person evaluations of employees complaining of heat induced symptoms, arranging for medical attention or other assistance, as necessary;
- (iv) Establishing work rules and practices that encourage employees to seek assistance and evaluation when experiencing heat stress symptoms; and
- (v) Establishing a heat-related illness prevention program which incorporates guidelines from the National Institute for Occupational Safety and Health (NIOSH) document 2013-143 Workplace Solutions: Preventing Heat-related Illness or Death of Outdoor Workers that includes the following measures:
 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[.]

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).

7. Providing prompt medical attention to workers who show signs of heat-related illness[.]
8. Evaluating work practices continually to reduce exertion and environmental heat stress[, and]
9. Monitoring weather reports daily and rescheduling jobs with high heat exposure to cooler times of the day.

Here, the Secretary omitted some of the Citation’s listed methods of abatement from his brief and addressed other abatement methods not listed in the Citation. The methods the Secretary discusses in his brief are work/rest cycles, air-conditioned vehicles, acclimatization, emergency response and employee monitoring, analyzing its own existing data on heat-related illnesses, training, and reducing time outdoors (Secretary’s brief, pp. 50-59). The Des Moines Citation does not list air-conditioning in vehicles or analyzing its own existing data on heat-related illnesses as abatement methods, and the Court will not address them here. The time-based abatement methods (acclimatization, work/rest cycle, and reducing time spent outdoors) are addressed in the next section.⁴⁰

⁴⁰ That leaves two abatement methods addressed in the Secretary’s brief that are also represented in the Citation: “emergency response and employee monitoring” and training. Based on the record, had the Secretary proven all other elements of the general duty clause violation, the Court would have found the Secretary established a violation of § 5(a) based on evidence that abatement methods relating to emergency response and training, proposed in paragraphs (ii), (iv), and (v)(1) of the Citation, were feasible and effective and would have materially reduced hazards from high heat levels.

The pertinent proposed abatement methods are: (1) “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;” (Citation, ¶ (ii)); (2) “Establishing work rules and practices that encourage employees to seek assistance and evaluation when experiencing heat stress symptoms,” (Citation, ¶ (iv)); and (3) “Training for supervisors and workers to prevent, recognize, and treat heat-related illness.” (Citation, ¶ (v)(1)).

Supervisor 1 routinely missed the morning standup safety talks, including those addressing heat stress safety (Tr. 367). When asked what she meant when she texted, “do the best you can,” to CLC1 on June 9, 2015, in response to CLC1’s text informing her the heat was affecting CLC1, Supervisor 1 stated, “Basically, what I meant by that was, you know, continue to move along. Do the best you can. You know, get the mail delivered.” (Tr. 339) She testified, “I had not had any type of learning management courses or heat stress or heat exhaustion.” (Tr. 340) Supervisor 1 failed to recognize, both from CLC1’s texts and from her physical appearance, that she needed to be evaluated for a heat-related illness. She stated, “Due to not being correctly educated on heat exposure, I wasn’t aware of how it was affecting her. . . . I had not had any training courses on the signs and symptoms of heat stress or heat exhaustion.” (Tr. 359)

Supervisor 2 actually went to CCA1’s location on July 21, 2016, observed her condition, heard she was dizzy and suffering memory loss, left her with three bottles of water, and did nothing else for her (Exh. C-38; Tr. 533-34, 588) Likewise, when CLC7 began to feel ill on July 13, 2016, she called her supervisor and informed her of her condition. The supervisor “said she had no help.” CLC7 blacked out as a customer helped her into her house to cool off (Exh. C-40, pp. 23).

Dr. Tustin gave his opinion of the supervisory training procedures at University Station. “They were clearly inadequate. There’s no response to the initial report of symptoms. You know, the request for help in the form of ice was ignored. And then asking somebody to go back out and continue delivering mail when they’re obviously suffering from a heat-related illness is clearly unacceptable.” (Tr. 523-24)

2. Economic Infeasibility

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). The proposals related to reducing the amount of time carriers spend working outdoors would require the Postal Service to pay them for the time during which they are not working or pay additional carriers at regular or overtime rates.

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

Dr. Bernard highlighted the disconnect between preaching heat stress safety while prioritizing productivity. "[Supervisors] 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. . . . [Y]ou want the carrier to be able to recover quickly in the field. Then it doesn't really become an incident that – that requires other resources to deal with." (Tr. 947) Dr. Bernard noted that when carriers report symptoms that could be heat-related, supervisors are generally unhelpful and do not encourage carriers to stop working and cool down. Carriers, in turn, become reluctant to report they are experiencing possible heat-related symptoms and attempt to "push through the symptoms." (Tr. 981)

The Court concludes the Postal Service could have implemented effective training for supervisors regarding the recognition of heat-related illness symptoms and the proper response to employees reporting heat-related symptoms. It could also establish work rules and practices that encourage, rather than discourage, carriers to seek assistance and evaluation when experiencing heat-related symptoms. These methods would be effective in materially reducing the incidence of hazard. CLC1, CCA1, and CLC7 alerted their supervisors they were ill. In each case, the supervisors failed them by not responding appropriately, resulting in the carriers pushing themselves to deliver mail and delaying medical attention. It is fortunate the outcome for the three carriers was not more severe.

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 stops 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)

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)

Reducing Time Outdoors

Dr. Tustin also advocated for earlier start times. 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)

Funding the Proposed Abatement Methods

The Secretary presented no witnesses, expert or otherwise, to show funding the proposed additional rest/recovery/acclimatization/break 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. 62). 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 USPS'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 is not a true expense because the act has no mechanism to enforce payment, USPS suffers no penalty from default, and it intentionally chooses to spend its revenue elsewhere.

(Secretary's brief, p. 61)

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.⁴¹ 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]henver 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

⁴¹ 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).

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. 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.⁴²

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. 48, n. 33)

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*)].

⁴² 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.

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)

Restrictions Imposed by the CBA

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).

NALC is the exclusive bargaining representative of city letter carriers. Not all city letter carriers are members of NALC but the CBA for NALC applies to all of them. City letter carriers include career employees, who are either full-time (with 40-hour assignments) or part-time. Part time employees are divided into part-time regulars and part-time flexibles. The CBA limits the number of part-time regular employees to 682. The part-time flexible position is being sunsetted

and replaced by city carrier assistants (CCAs). CCAs are non-career employees who are on a path to become career employees when a regular position opens up. The CBA limits the number of CCAs to 15 percent of the full-time employees per district, and no more than 8,000 CCAs nationwide. The Postal Service is prohibited from unilaterally exceeding any position caps set out in the CBA (NH Exh. R-117; NH Tr. 2228-34).

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.⁴³ [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 Des Moines letter carriers on June 9 and July 21, 2016. 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.

⁴³ 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 stops (NH Tr. 2236).

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

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