APPELLATE PANEL DECISION AND ORDER

OF THE

SOUTH CAROLINA WORKERS' COMPENSATION COMMISSION

COMMISSION PANEL: The Honorable R. Michael Campbell, II, Chair; The Honorable Aisha Taylor; The Honorable Avery B. Wilkerson, Jr.

W.C.C. FILE NO: 1511478

Monica Murphy — EMPLOYEE, CLAIMANT/RESPONDENT

VS.

Halocarbon Products Corporation — EMPLOYER,

AND

Commerce & Industry Insurance Company c/o AIG Claims, Inc. — CARRIER, DEFENDANTS/APPELLANTS,

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Appellate Panel Review upon Remittitur from
The South Carolina Court of Appeals

Appellate Panel Decision and Order Filed:

October 18, 2022

APPEARANCES: Claimant/Appellant represented by Frederick I. Hall, III, Esquire

Defendants/Respondents represented by James H. Lichty

STATEMENT OF CASE

The original hearing was set to determine the issues raised on Forms 50 and 51. A hearing was initially scheduled for March 7, 2017, but was continued upon motion of the Claimant, whose attorney reported a personal emergency preventing his attendance. The hearing was then rescheduled for April 27, 2017.

The Claimant alleges injury to (a) heart and lungs, (b) bones, (c) smell and taste and neurological system, and (d) mind/ psyche, after she "inhaled hydrofluoric acid (HF) fumes in the process area." The Claimant alleges a date of accident on August 11, 2015. The Claimant requested medical treatment for all alleged injuries and TTD benefits from August 21, 2015, to the present and continuing. The Claimant further asks for reimbursement of all previously incurred medical treatment. The Claimant further asserted a determination of permanent disability is premature.

The Defendants admit HF vapors were present in the process area on the date in question, but deny the Claimant's exposure to these vapors was (a) of sufficient duration and/ or (b) of sufficient concentration to cause any permanent injury. At worst, Defendants admit the Claimant experienced temporary respiratory discomfort as a result of her exposure which resolved within days and resulted in no compensable injury by accident. The Defendants also allege the Claimant was aware of the potential hazard posed by the HF vapors and invited her limited contact with the vapors, such that any injuries sustained as a result are not accidental but, rather, could be reasonably anticipated.

The original hearing in this matter lasted approximately four hours and consisted of testimony from the Claimant, a former co-worker, and several employer representatives and witnesses. The documentary evidence submitted in this matter numbered in the hundreds of

pages. The subject matter involved establishes this as a medically complex case. After carefully considering all the testimony and evidence of record, the single Commissioner ruled in favor of the Defendants.

The Claimant appealed this decision to an Appellate Panel of the South Carolina Workers' Compensation Commission, raising numerous grounds of exception. Following oral argument, in an Order dated July 23, 2018, the Appellate Panel affirmed the Order of the Single Commissioner.

The Claimant appealed this decision to the South Carolina Court of Appeals. In an Opinion dated June 2, 2022, the Court of Appeals ordered that the medical report of Dr. Edelman, which had been heretofore excluded from evidence, should be admitted into evidence. The Court of Appeals declined to review the Claimant's grounds of exception, instead remanding the matter back to the Commission for any additional findings necessary following review of Dr. Edelman's report.

This is the Order from the Commission's review upon remittitur from the Court of Appeals. Having now considered the report of Dr. Edelman in great detail, the Commission determines the greater weight and preponderance of evidence favors denying this claim.

APA SUBMISSIONS

Pursuant to the South Carolina Administrative Procedures Act and the Regulations of the South Carolina Workers' Compensation Commission, the following records were admitted into evidence without objection:

Claimant's APA Submissions:

1. Timber R. Wages, P.A. and Julie N. Buird, P.A., Urgent MD, dated 11/20/14-08/26/15, pages 1-20;

2. Melania Velasquez, P.A., University Hospital, dated 08/13/15-08/21/15, pages 21-75;
3. Patrick Aquilina, M.D., University Cardiology Associates, dated 09/08/15-11/15/15, pages 76-124
4. William F. Alleyne, II, M.D., Carolina Pulmonary Physicians, P.A., dated 09/25/15-06/01/16, pages 125-155;
5. John Mitchell, M.D., Charleston Pulmonary Associates, dated 05/02/16, pages 155-159;
6. Jewel B. Duncan, M.D., Champion Orthopaedics, dated 07/23/16, pages 160-161;
7. Email from Claimant to Ken McDowell, dated 08/11/15, page 162;
8. Memo from Ken McDowell, dated 08/12/15, page 163;
9. Email from Ken McDowell to Mark Frey, Mark Harris, Mickey Brown, Chip Babb, Steve J. Harold, Tech, and EHS, dated 08/20/15 and 08/24/15, page 164;
10. Email from Ken McDowell to Mark Frey, Mark Harris, Mickey Brown, Chip Babb, Harold J. Steen, Tech, EHS and Emily Parish, sent 08/20/15 and 08/24/15, page 165;
11. Memo contained in an email from Ken McDowell, Memo sent 08/19/15 and 08/21/15, page 166;
12. Halocarbon Products Corporation Supervisor Incident Report and Management's review of Incident Report, dated 08/11/15 and 08/27/15, pages 167-168;
13. Halocarbon Products Corporation Supervisor Incident Report, dated 08/21/15, pages 169-178;
14. Statement from Chip Babb, dated 08/11/15, page 179;
15. Witness statement, dated 08/11/15, page 180;
16. Memo written by Ken McDowell, dated 08/19/15, page 181;
17. Email from Eric Schoellkopf to himself, dated 08/27/15, page 182;
18. MSDS Sheet for Hydrogen Fluoride, pages 183-198;
19. Email from Ken McDowell to Harold J. Steen, dated 02/10/16, page 199;
20. Contingency Plan, Revision 01/20/15, pages 200-212;
21. First Aid for Hydrofluoric Acid Exposure, pages 213-215;
22. Job Description; Revision 09/30/15, page 216
23. Photos taken 08/19/15 and 09/02/16-09/16/16; pages 217-219 and page 220-237;
24. Report of John F. Setaro, M.D., Yale University School of Medicine, dated 10/13/16, pages 238-242;
25. CV of John F. Setaro, pages 243-266;
26. Harriet Fowler, M.Ed., CRC, Vocational Report, 07/28/16; pages 267-288;
27. Robert Hooper, Ph.D, Psychological Report, pages 289-294
28. Philip Edelman, M.D., Report and CV, pages 295-302.
29. Claimant's Social Security Administration Award Letter, dated 11/21/16, pages 303-306;
30. Claimant's payroll records, dated 07/05/14-08/15/15, pages 307-401;
31. Claimant's medical bills, pages 402-446;
32. (blank)
33. (blank)
34. (blank)
35. Aiken Regional Medical Center, dated 09/18/02, page 471;
36. David W. Cundey, Aiken Cardiovascular Associates, dated 03/29/07, page 472;
37. Aiken Regional Medical Center, dated 09/18/08, page 473;
38. Aiken Regional Medical Center, dated 05/18/10, page 474;
39. Augusta University Medical Center/ER Department, dated 07/17/16, pages 475-494;

40. Randy Cooper, M.D., University Surgical Associates, dated 03/24/16-09/20/16, pages 495-503;
41. Laura Carbone, M.D., dated 02/14/17, pages 504-508;
42. University Hospital, dated 03/01/17-03/02/17, pages 509-513;
43. Southern Ambulance Service, dated 08/21/15, page 514;
44. Revco Discount, dated 07/12/16-03/31/17, page 515;
45. Walgreens/prescriptions, dated 07/03/16-04/04/17, pages 516-522.

Defendants' APA Submissions

26. Michael A. MacKinnon, M.D. FCFP, dated 01/27/17, pages 391-394;
27. Gordon Early, M.D., Wellness Family Medicine, dated 11/23/15, pages 395-406;
28. John A. Mitchell, M.D., Charleston Pulmonary Associates, dated 05/02/16-05/29/16, pages 407-418;
29. Selwyn Spangenthal, M.D., Charlotte Lung & Health Center, dated 09/02/16-09/28/16, pages 419-423;
30. Barry Feldman, M.D., dated 09/21/16, pages 424-425;
31. Jewell B. Duncan, M.D., Champion Orthopaedics, dated 07/22/16, pages 426-429;
32. Witness statements from Employer, dated 09/04/15-01/30/17, pages 430-432;
33. Background publications and credentials for M.A. MacKinnon, M.D., pages 433-459;
34. Sample reported cases involving Dr. Setro, pages 460-470;
35. EEOC Determination Form, dated 01/31/17, page 471.

STIPULATIONS

1. That jurisdiction is proper with the South Carolina Workers' Compensation Commission.
2. That venue is proper in Aiken, S.C.
3. That the Commission file shall become a part of the record.
4. That Claimant's average weekly wage is $1,074.24, yielding a compensation rate of $766.05.

EVIDENCE OF CASE

The Employer, Halocarbon Products, is a chemical manufacturing facility in North Augusta, South Carolina. The Claimant worked for the Employer as a Quality Control Laboratory Technician, beginning in 2012. The Claimant's job included testing chemical

samples and disposing of waste. When disposing of waste, the Claimant wore complete protective gear which included a lab coat, a sleeved apron reaching to her ankles, neoprene gloves, a hard hat with face shield, tight-fitting safety glasses, and safety shoes. The Claimant was sensitive to safety issues at work. She admitted she would frequently and consistently report issues she felt posed safety risks, admitting in her deposition she reported risks "all the time," although she had never before developed any permanent health issues in response to a perceived safety risk. She claims she encountered an injurious exposure to HF vapors while disposing of chemical waste on August 11, 2015.

Chemical waste is disposed of in a satellite area located on an outdoor patio. At approximately 8:00PM on the evening prior to the Claimant's exposure, an HF leak was discovered in a pipe on the patio near the flammable waste satellite area, approximately 12 feet from the door leading from the process area to the patio. The pipe carrying the HF solution was cleared and the leaking section of pipe secured. The HF remaining in the pipe was vented into a carboy located about 25 feet from the door leading to the patio. Vapor remained in the area because sections of the pipe containing the leak were surrounded with saturated insulation. Claimant's APA p.166. This was the condition of the patio at 5:00AM the following morning, when the Claimant encountered her exposure.

On the morning in question, the Claimant collected organic waste from the laboratory and exited through the control room into the process area, all of which are located inside the building. Both of these areas were on a second level, so the Claimant descended stairs outside the control room leading to the first level of the process area. From the bottom of the stairs, the Claimant exited the process area onto a patio containing the organic waste satellite area. This patio is located outside the building containing the process area. From where she dumped the organic

waste on the patio, the Claimant could see a co-worker, Lonnie Parsons, standing some distance down a central corridor, toward the flammable waste satellite area. Although Mr. Parsons was standing in the area the Claimant says she saw a carboy spewing visible vapor into the air, she claimed not to notice it while she was dumping the organic waste. The Claimant did not observe Mr. Parsons to be in any physical distress.

After dumping the organic waste, the Claimant returned to the laboratory to collect flammable waste, descended a different set of stairs within the process area, and then intended to exit a door on the other end of the building to access the flammable waste satellite area, which is also located on the patio. This was the door nearest the prior HF leak. As the Claimant was opening the door leading to the flammable waste satellite area, she smelled a sharp chemical odor in the air. She coughed and closed the door, taking no more than four breaths in the process. She never completely opened the door. She never stepped through the door to enter the patio.

The Claimant sought out Mr. Parsons for assistance. Although she claims she was in shock, she knew she could not leave the waste container behind and took it with her as she left the area. She held her breath and walked down an internal corridor towards the door leading to the organic waste satellite area, where she had been before. When she reached the door, she looked toward the flammable waste satellite area and observed a carboy venting white vapors she identified as HF fumes. The Claimant characterized these vapors as "billowing" from the carboy. She then heard Mr. Parsons descending some stairs leading from a second story of the patio. Despite having been seen earlier standing near the flammable waste satellite area, the Claimant did not note Mr. Parsons to be in any sort of physical distress. She told Mr. Parsons of her encounter at the other end of the patio and Mr. Parsons took the flammable waste from the Claimant and walked to the flammable waste satellite area to dispose of the waste. Mr. Parsons

returned the empty waste container to the Claimant. In dumping the waste and returning the container, the Claimant agrees Mr. Parsons had to walk past the venting carboy twice, yet he showed no signs of physical distress. The Claimant then left the patio to return to the laboratory. She claims she was still in shock and had to climb the stairs very slowly because she was coughing, her heart was pounding, and she was experiencing shortness of breath.

In the laboratory, the Claimant told her co-workers she had just inhaled HF and started to remove her protective gear. When told of the maintenance work on the patio near the flammable waste satellite area, the Claimant became angry and stated, "somebody is going to get killed down there the way – the way things are going. What's it going to take for somebody to get killed?" The Claimant then went to the control room to report her experience to Chip Babb, the assistant production manager, and complete an incident report. After discussing her experience, Mr. Babb instructed the Claimant to seek fresh air. By this time, the Claimant says she was still in shock, her mouth and sinuses were burning, she was starting to have a headache, and she was coughing and felt like her throat was closing up. She drank some water and continued to speak with co-workers about her safety concerns.

After about thirty minutes, the Claimant told Mr. Babb she was feeling better and returned to the laboratory, where she wrote a letter to Emily Parish, her assistant supervisor, to let her know what had happened. Claimant's APA #7. In the letter, the Claimant states she coughed upon opening the door but does not mention any ongoing symptoms. The letter requests an opportunity to speak with management and safety about her experience but does not request evaluation by a doctor, despite the Claimant believing she had been exposed to HF vapors, that she was suffering the symptoms of HF exposure, and that she was aware of the safety risks posed

by HF exposure. She testified she did not request a doctor because she was in shock. The Claimant left work when her shift ended.

The Claimant testified she had difficulty resting when she arrived home due to coughing and roughly six bouts of diarrhea. She experienced abdominal pain and weakness. She claimed burning and dryness in her throat and sinuses with an ongoing headache. Before reporting to work the following day, Ms. Parrish texted the Claimant and offered a medical evaluation. Ken McDowell, the Employer's Director of Regulatory Affairs, spoke with the Claimant and arranged to meet her at Urgent M.D. The report from this appointment documents cough, shortness of breath, and diarrhea were not present. Direct examination of the Claimant's nose, mouth, and throat were unremarkable. Evaluation of her lungs showed normal respiratory efforts. Her neurologic and psychiatric signs were normal. The results of the examination were discussed with the Claimant and documented the Claimant was happy with care and the management plan. The Claimant was instructed to use standard ibuprofen to treat her headache and to return to work without restriction. The report from this visit indicates Mr. McDowell provided information that the "HF was 40% concentration." Claimant's APA pp.5-8.

The Claimant reported to work following her doctor's appointment at Urgent M.D. According to her testimony, she was still experiencing the same symptoms she had experienced at home, including headache, a burning throat, nose, and sinuses, shortness of breath, and persistent coughing. Her symptoms deteriorated over the next several days to the point the Claimant could no longer lie down in her bed due to difficulty breathing. Her coughing became worse. Her weakness became worse. She returned to Urgent M.D. on August 13, 2015, for further evaluation and was referred to University Hospital for additional care. The physical examination documented on the August 13, 2015, report from University Hospital documents

normal cardiovascular rate and rhythm, normal breath sounds and no respiratory distress, and normal psychiatric mood and affect. The Claimant was told her labs were normal. After consulting poison control, University Hospital discharged the Claimant to follow up with a primary care physician. Claimant's APA pp. 21-26.

Between August 13, 2015, and August 19, 2015, the Claimant states her condition continued to worsen. In addition to the symptoms she was already experiencing, she began to develop femur bone pain and spasms in the musculature around her femur. She claims she had not had a bowel movement since the diarrhea she experienced on August 11, 2015. Nonetheless, the Claimant continued working during this time. On August 15, 2015, the Claimant returned to Urgent M.D. The report from this visit documents the Claimant reported "her sore throat, hoarseness, cough, and shortness of breath have all significantly improved." A respiratory examination noted no wheeze or shortness of breath and all auscultation was normal. A cardiovascular examination noted no chest pain or pressure or fluttering in chest with normal heart sounds and regular rate and rhythm. No gastrointestinal, musculoskeletal, or neurological deficits are noted. Claimant's APA pp.12-13.

On August 19, 2015, the Claimant met with Mr. McDowell and Harold Steen, the Safety Coordinator, to discuss, at length, how upset she was with what had happened to her. She then performed her breathing treatments but noticed it was not helping the very high levels of pain she was in, which by now was running from her head, into her face, her jaw, her feet, her ankles, and her right toe and included a numbness on the bottom of her feet, in addition to all the symptoms she was already having. After lunch, the pain was overwhelming, according to the Claimant, and the Employer agreed to return the Claimant to Urgent M.D. The August 19, 2015, report from Urgent M.D. documents subjective complaints of headaches, intermittent diarrhea, nausea, "bone

pain" in her femur and pelvis, and bilateral foot pain. The Claimant also reported a lack of taste and smell, headaches, and tingling in her hands. The Claimant also noted very specific concerns of pulmonary edema and/ or cardiac arrhythmia due to HF exposure. Yet the physical examination noted easy respiratory effort and normal heart sounds with regular rate and rhythm. After noting that serial electrolyte measurements on August 11, August 13, and August 19 were all normal, Urgent M.D. recommended evaluation by ENT, pulmonology, and toxicology. The report suggests some of the Claimant's symptoms were due to increased anxiety surrounding the exposure. And while noting a chest X-ray failed to reveal any pulmonary edema, the report states an EKG was suggestive of a chronic conduction abnormality and follow up with a primary care physician was recommended. Claimant's APA pp.14-17.

The Claimant's appointment ended around the same time as her shift and she went home, where her symptoms continued to deteriorate, according to her testimony. On the following day, August 20, 2015, the Claimant awoke to significant weakness. She could not take a shower and she did the best she could to simply rest in her recliner. She called out of work. On August 21, 2015, the Claimant reported to work, although she still felt very weak and had to pull off the road at one point due to feeling faint. She had difficulty concentrating at work. After lunch, she began to feel as though she could not breathe and had chest pains. The Claimant stated these symptoms went beyond mere shortness of breath. She called Ms. Parrish to advise she was having distress and to request help and then she lay on the floor. Mr. McDowell responded and administered a nebulizer while the Claimant waited for an ambulance. The ambulance took the Claimant to University Hospital.

The Claimant testified she was unable to hold a full conversation by the time she reached the hospital, but the University Hospital report instead documents there was no evidence of

respiratory distress at the time of her admission. The report states "the patient was comfortable and history was given by the patient without difficulty." Hr. Tr. p.102:2-7, Claimant's APA p. 47. Another notation in the report time-stamped eleven minutes after the Claimant said she was admitted states, "she does not appear in any respiratory distress at this moment. She is able to speak in full sentences without difficulty, and her oxygen saturation is 100% on room air without any obvious respiratory difficulty." Claimant's APA p.49. During the Claimant's hospital stay however, an EKG was positive for third degree atrioventricular heart block. While the Claimant attributed her symptoms to HF exposure, one part of the report states, "unclear if conduction issues are related to recent chemical exposure." Claimant's APA p.55. Later, in response to questions from the Claimant, cardiologist Dr. Lane advised "no known exposure that would cause this degree of heart block without electrolyte abnormality. This was not present." Claimant's APA p.66. On August 24, 2015, a dual chamber pacemaker was implanted by Dr. Aquilina. Claimant's APA p.58. The Claimant testified Dr. Aquilina continues to follow her for her cardiac condition.

At the time of hearing the Claimant claimed to be under the ongoing care of Dr. Alleyne for her pulmonary issues and Dr. Lane and Dr. Aquilina for her cardiac issues.

At the time of the hearing the Claimant claimed some of her sense of smell had returned but then left, along with her sense of taste. She admitted to ongoing bone pain and muscle pain and difficulty with ambulation. She still coughs and has shortness of breath. She seeks psychiatric treatment. She claims she cannot work and was accepted for Social Security Disability benefits.

Todd Lawrence testified for the Claimant. Mr. Lawrence was formerly employed as an assistant shift supervisor for the Employer but was terminated due to irregular results on a drug

test. Mr. Lawrence also explained the Employer disputed his entitlement to unemployment benefits after he was terminated. He does not feel the Employer did right by him.

Mr. Lawrence testified generally about his familiarity with HF and the process of venting HF. Mr. Lawrence explained HF can be vented to a scrubber or a carboy. A scrubber has the ability to feed water or concentrate to neutralize vented HF and is an enclosed system so that no HF vapors escape. A carboy does not have the same advantage in that a carboy can become overwhelmed and begin fuming. Venting with a scrubber is preferred to venting with a carboy but the Employer used both methods because sometimes it wasn't possible to use a scrubber. Mr. Lawrence also testified he saw the Claimant lying on the floor on August 21, 2015, before she was taken to the hospital. Mr. Lawrence disagreed with the manner Mr. McDowell treated the Claimant that day in that he felt Mr. McDowell instructed the Claimant to sit up in a rude manner.

Mr. Lawrence stated high school was his highest level of education, and he has no certificates or degrees in industrial hygiene or a related field of study. He admitted he is currently facing a criminal charge for driving under the influence. With regard to his service with the Employer, Mr. Lawrence confirmed he has personally been involved in venting HF to a carboy many times yet could not identify any health conditions he believes are the result of his exposure to HF vapors. He also testified he never used a respirator when working around HF vapors, although he believes it is a good idea.

Mr. McDowell testified for the Defendants. As Director of Regulatory Affairs, Mr. McDowell is responsible for all direction guidance policies for environment, health, safety, and security. His position includes the Director of Safety as well. He is familiar with the Safety Data

Sheet pertaining to HF and has trained employees regarding exposures to HF. He is familiar with the problems created by HF exposure and the kinds of injuries that can result.

Mr. McDowell used pictures and generally described the layout of the north patio, where the waste satellite areas and HF leak were located. Using a photograph, Mr. McDowell testified an employee standing at the organic waste satellite area would be able to see the carboy venting vapors near the flammable waste satellite area. Claimant's APA p.224. Mr. McDowell also used pictures to describe the area near the door to the flammable waste satellite area and confirmed that HF-soaked insulation would've been located approximately 12 feet from the door and the venting carboy would've been located approximately 25 feet from the door. Mr. McDowell then reviewed the Incident Report prepared following the Claimant's exposure. Claimant's APA p.167. He confirmed the report indicates only trace HF was present on the patio at the time of Claimant's exposure, meaning the quantity of HF was so low as to not be measurable. Mr. McDowell also stated no attempt was made to measure the amount of fumes present in the area. Mr. McDowell explained the small amount of HF present is due to the fact only vapors were being vented and those vapors were being at least partly neutralized by the carboy.

Mr. McDowell also identified Mr. Babb's prepared report from the incident. Claimant's APA #14. This report documents the Claimant reported feeling like something was in her throat making her want to cough, but no other symptoms following her accident. Mr. McDowell indicated the report was completed using information provided by the Claimant.

Mr. McDowell also identified the plant manager's prepared statement from the incident. Claimant's APA #17. This report confirms the concentration of HF in the solution in the pipe could have been as high as 40% but that it was likely less due to the presence of other solvents in

the solution. From this, Mr. McDowell surmised the concentration of HF vapors near the door at the time of the Claimant's exposure was definitely less than 40%.

Mr. McDowell also identified documentation he prepared to help monitor the developing situation with the Claimant. Claimant's APA p.163. In this document, he explains he considered the Claimant's post-exposure presentation unusual compared to other HF exposures he has dealt with because it took the Claimant over twelve hours to feel she needed medical care. He explained he would have expected the Claimant to have different symptoms immediately following the exposure and that the normal blood samples provided to Urgent M.D. were inconsistent with what he would expect from an industrial HF exposure. As an example, he mentioned an operator who was exposed to strong HF vapors and developed severe symptoms requiring immediate treatment. He also mentioned than none of the four or five prior employees exposed to HF developed symptoms that required them to resign their employment.

Mr. McDowell testified about his encounter with the Claimant in the office of Urgent M.D. the day following the exposure. He observed no redness about her face, coughing, or respiratory distress. According to Mr. McDowell, there did not appear to be anything wrong with the Claimant the day after the accident.

Mr. McDowell indicated that the Claimant was a competent employee but presented some management challenges. She had difficulty getting along with her co-workers and had brought several purported safety concerns to his attention over the course of her employment. Although her concerns were investigated every time they were raised, he found most of her complaints to be suggestions and or misunderstandings, although some of her concerns were legitimate.

Mr. McDowell confirmed that appropriate protocol was followed in response to the HF leak discovered on the patio. Mr. McDowell testified that the appropriate response for an employee who inhales HF is to expose the employee to fresh air to see how they respond. In the absence of a suitable response, or if the employee is showing distress, the next step would be to administer a nebulizer or take the employee to the hospital. Mr. McDowell also addressed the Employer's protocol for Safe HF Handling. Claimant's APA #17. In the event of HF inhalation, the document states the victim should immediately be removed to fresh air and immediate transportation to the hospital arranged. Claimant's APA p.193. The document also states a nebulized solution of 2.5% calcium gluconate may be administered with oxygen. Mr. McDowell agreed this protocol was not initiated following the Claimant's alleged exposure but explained the acting supervisor did not note the degree of distress necessary to enact the protocol. He admitted that, were the same situation to arise again, the Employer would strive to do better in communicating the potential risk to other employees and barricading the area surrounding the leak.

George Campbell testified for the Employer. He is a chemical operator who maintains the units he is running and makes sure they operate properly. Mr. Campbell's job also requires him to dispose of waste chemicals. Mr. Campbell encountered the Claimant on the day of her alleged exposure near the door leading to the flammable waste satellite area. Mr. Campbell had just reentered the building after dumping flammable waste. He was exposed to the setting for two or three minutes and encountered HF vapors. His exposure to the vapors took his breath away, made his eyes burn, and caused him to cough. Upon reentering the building, he encountered the Claimant and advised her not to enter the patio. He did not recall specifically telling the Claimant there were HF vapors on the patio but presumed she would understand based on the symptoms

he was experiencing when he spoke to her. His symptoms resolved after about five minutes with exposure to fresh air and he developed no permanent injuries due to his exposure. The Claimant denies encountering Mr. Campbell.

Mr. Parsons testified on behalf of the Employer and, like Mr. Campbell, is a chemical operator. Mr. Parsons discussed his encounter with the Claimant on the date of her alleged accident. He was working on a piece of equipment on the patio, preparing it for maintenance. Specifically, he was working on the HF leak by venting residual HF vapors into the carboy. He was two to three feet from the carboy and even had occasion to stand over top of it at times. At other times he worked on an elevated platform on the patio called the mezzanine. He was also near insulation which was saturated with HF solution from the leak itself. The only protective equipment Mr. Parsons used was a face shield, safety glasses, jacket, gloves, and pants. He saw the Claimant approaching from the area near the organic waste satellite area and stopped her, telling her she needed to stay back. According to his report, at the time the carboy was still venting visible vapors. Claimant's APA #12. The Claimant was not exhibiting any signs of physical distress, not coughing, and was able to speak in an unlabored manner. The Claimant asked Mr. Parsons about the smell and he told her it was HF vapors. He then offered to dump the chemical waste the Claimant was carrying, which required him to walk past the venting carboy twice. Mr. Parsons estimates he was working in the area approximately eight hours yet never developed any respiratory issues, heart issues, or other adverse physical conditions. He testified there is no way he could have worked in proximity to the leak for that length of time if the concentration of HF vapors was harmful.

A great deal of medical evidence was submitted.

The Defendants submitted a report from Dr. Michael McKinnon. Defendants' APA #26. Dr. McKinnon identified the largest controversy in this case as the degree of Claimant's exposure to HF, both in terms of the quantity and the length of exposure. Based on evidence, one of Claimant's co-workers was present in the exposure area for a much longer time than Claimant yet suffered no injury and required no medical treatment, Dr. McKinnon concluded there is no chance that HF exposure caused the many symptoms the Claimant complains of. Moreover, had she been exposed to HF to the degree necessary to cause her symptoms, she would have had many additional injuries, including skin burns to the head and neck and respiratory distress much more severe than just coughing. Dr. McKinnon concludes the Claimant's pulmonary dysfunction pre-existed her exposure. Dr. McKinnon also states the evidence does not support HF mediated heart block due to the delay between the exposure and the development of symptoms. In conclusion, Dr. McKinnon relies on his experience as a worldwide consultant for HF exposures to conclude the Claimant did not have a significant exposure to HF and that the multiple opinions connecting her exposure to her various symptoms are incorrect.

The Claimant took the deposition of Dr. McKinnon to challenge his credentials and opinions. This deposition established Dr. McKinnon has a background in family medicine and has been retired for approximately ten years. His experience with HF exposures comes from working for 35 years as a physician for North America's largest HF manufacturer. In this capacity he developed the manufacturer's published protocol for treating HF exposure. He also published two papers on HF burn therapy and the HF chapter of a medical resource called "Dermatological Clinics." Dr. McKinnon would be made available to customers to train medical staff and safety personnel on how to respond to HF exposure. The final ten years of his career he presented webinars to attendees all over the world regarding the protocols for treating HF

exposures. He was also involved with a chemical response team, where he answered emergency calls from around the world involving HF exposures. He estimates he has been involved with responding to hundreds of HF exposures.

Dr. McKinnon stated his opinions were based on an understanding the Claimant's exposure was not significant but noted the presence of visible vapors could be a sign of significant exposure unless there was something else reacting with the fluorocarbon mixture. McKinnon Depo. P.30:1-5. Dr. McKinnon stated the question of whether HF mixed with other fluorocarbons would produce visible vapors at room temperature would require the opinion of a chemist. In his own testimony, Mr. McDowell addressed Dr. McKinnon's testimony that visible vapors are an indication of HF in high concentrations. Mr. McDowell stated he believes Dr. McKinnon to be among the foremost experts in the world regarding HF treatment and that his testimony regarding the significance of visible vapors could be explained if Dr. McKinnon was not aware that the venting carboy contained other chemicals which also billow vapors. There was no discussion of what other chemicals were being vented into the carboy during Dr. McKinnon's deposition. The record confirms other chemicals were present. Hearing Transcript p.139:16-19, p.166

Dr. McKinnon confirmed his belief a significant exposure to HF exposure would have resulted in cardiac symptoms in the first 24 to 48 hours after exposure due to the physiological mechanism by which HF exposure causes heart block. In this case, there was no evidence of cardiac symptoms until eight days after the exposure, at the earliest. Dr. McKinnon also stated a person exposed to enough HF to cause heart block would be aware of other symptoms within a few hours, including awareness of the heart not beating properly and burning of the skin.

Cardiology

The Defendants submitted a toxicologist report from Dr. Gordon Early. Defendants' APA #27. Dr. Early reviewed the medical reports, took the claimant's history, and performed a physical examination. After confirming the Claimant reported the typical symptoms of acute HF exposure, he addressed the lab/ electrolyte reports from University Hospital. Dr. Early was not surprised the reports did not show low levels of calcium or phosphate due to the nature of her exposure – an inhalation exposure for a short period of time. He stated it would be very unusual for these reports to show normal electrolytes 48 hours after exposure and then low phosphate levels on day ten and have this be due to HF exposure. Dr. Early stated the cardiac effects of HF are typically mediated in the first 24 hours after exposure. Dr. Early also pointed out that hyperphosphatemia is a typical response to HF exposure while the claimant suffered from hypophosphatemia. Defendant's APA p.400. Dr. Early concludes it is difficult to explain how the Claimant's HF exposure could have caused or aggravated her arrhythmia. He concluded it is far more likely the Claimant developed AV heart block because of atherosclerosis than a ten-day old delayed onset of HF induced toxicity. Dr. Early's opinion is that the claimant's August 21, 2015, arrhythmia and subsequent pacemaker are not attributable to, or aggravated by, her HF exposure.

The Claimant submitted the deposition testimony of Dr. Lane, who is a general cardiologist. Dr. Lane admitted to speaking with the Claimant's attorney for 30 to 40 minutes in advance of her deposition. Dr. Lane first examined the Claimant at University Hospital on August 23, 2015. Dr. Lane reviewed documentation from the Center for Disease Control confirming the effects of HF are dependent upon the concentration of HF, the duration of exposure, and the penetrability of the site of exposure. Dr. Lane testified the Claimant's exposure

to HF caused her to develop heart block because the severe respiratory distress she encountered following her exposure triggered an underlying vasovagal response. This opinion was based upon a presumption of an underlying vasovagal response discerned from the Claimant's reported history of fainting while pregnant with her son over twenty years ago and not based on any medical documentation confirming the diagnosis. After stating 20% to 30% of the population has an underlying vasovagal reflex, Dr. Lane states the process of respiratory distress triggering heart block is unusual but not unheard of and is not very frequent but states it is a described event that can occur.

The Defendants submitted the deposition of Dr. Aquilina, an electrophysiologist in the same practice as Dr. Lane. Electrophysiology is a subspecialty of cardiology and involves the management and treatment of rhythm disorders of the heart. Dr. Aquilina performed the surgery to implant the Claimant's pacemaker. Dr. Aquilina states there is no way to tell what caused the Claimant's heart block with any certainty. He stated he could not state with any certainty whether exposure to HF led the Claimant to develop heart block. Dr. Aquilina also stated there is no way for him to relate a vasovagal reflex to the development of heart block. For patients with a vasovagal reflex causing heart block, the effect is transient and does not indicate treatment with a pacemaker. In monitoring the Claimant's pacing since her surgery, she is 100% dependent on her pacemaker, which suggests the heart block is not vasovagal. Aquilina Depo. P.13:18 – 14:1.

The Defendants submitted a report from Dr. Feldman, a cardiologist. Defendants' APA #30. After reviewing the records, Dr. Feldman concludes there is no obvious physiological etiology for the Claimant's development of heart block. He believes the Claimant's heart block is more likely the result of primary conduction disease. Dr. Feldman also disagreed with Dr. Lane's conclusions, finding heart block due to a vasovagal event would be transient while post-implant

interrogation has shown persistent ventricular pacing. He concludes it is physiologically improbable that there is a causal relationship between the Claimant's HF exposure and her heart block.

Respiratory

The toxicology report of Dr. Early also addressed the Claimant's respiratory complaints. Defendants' APA #27. He reviewed the Claimant's post-accident pulmonary function tests (PFTs) and concluded they did not show changes typical of obstructive lung disease. Dr. Early also discussed the diagnostic criteria set forth by the authors who defined Reactive Airways Dysfunction Syndrome (RADS) and concluded the Claimant did not meet all the criteria. Because the Claimant had previously worked at Savannah River Site, Dr. Early was able to review PFTs from 2008-2011, pre-dating the Claimant's exposure. He concluded these studies confirmed a pre-existing restrictive lung disease, which needs to be considered in determining her impairment.

The Defendants submitted a report from Dr. John Mitchell, a pulmonologist. Defendants' APA #28. After review of the claimant's medical reports, taking a personal history, and examining the Claimant, Dr. Mitchell took issue with the conclusions of Dr. Alleyene. Dr. Mitchell pointed out the Claimant's PFTs suggest a restrictive lung disease, which is inconsistent with Dr. Alleyene's diagnosis of RADS, which typically manifests as an obstructive lung disease. Dr. Mitchell also reviewed the Claimant's history of PFTs and concludes the Claimant has a history of restrictive pulmonary impairment dating from 1993. Dr. Mitchell concludes the Claimant has a pulmonary impairment which predated her exposure on August 20, 2015.

The Claimant submitted the deposition of Dr. Mitchell, who carries board certifications in pulmonology, internal medicine, critical care, and sleep medicine. At the outset, Dr. Mitchell

indicated he believes the Claimant's heart block is unrelated to her HF exposure but was willing to defer to a cardiologist for a definitive opinion. With regard to her pulmonary complaints, Dr. Mitchell testified he does not believe the Claimant to suffer from RADS. In part, Dr. Mitchell bases his opinion on the Claimant's historical PFTs, which documents a restrictive pattern for years which she continues to demonstrate. The historical data shows a pre-existing condition and the data since the exposure continues to show a restrictive deficit while a RADS diagnosis would expect an obstructive deficit. Moreover, Dr. Mitchell says the evidence does not present a compelling argument the Claimant sustained an aggravation of a pre-existing condition based on her PFTs.

Medical records from Dr. Alleyne were submitted covering treatment from September 25, 2015, to June 1, 2016. Claimant's APA #4. The initial report states the Claimant presented for evaluation of dyspnea and cough. The Claimant reported a three-minute exposure to HF vapors in her workplace. She reported exertional dyspnea, cough, and episodic wheezing. The initial physical examination notes normal auscultation and no cough. A PFT was performed at the initial visit and prompted Dr. Alleyne to assign the Claimant a Class IV impairment under the AMA Guides. He diagnosed the Claimant with reactive airway dysfunction syndrome (RADS) and recommended continued nebulized bronchodilator on a "when necessary" basis. Dr. Alleyne recommended the Claimant not return to work anywhere she would potentially be exposed to noxious fumes and chemicals. Subsequent reports document incomplete response to the medications prescribed. The most recent report documents the Claimant is maintained on Breo with, when necessary, Xopenex and Ipratropium via nebulizer.

The Claimant submitted the deposition testimony of Dr. Alleyne, who is board-certified in pulmonary disease, internal medicine, and critical care medicine. He admitted to three or four

conferences with the Claimant's attorney prior to his deposition. He explained an obstructive deficit involves problems expelling air from the lungs while a restrictive deficit involves problems bringing air into the lungs. Dr. Alleyne diagnosed the Claimant with RADS, which he states can be either a restrictive or obstructive disease. He testified the typical RADS patient does not have preexisting pulmonary issues and develops RADS after exposure to an irritant. Dr. Alleyne does not believe the Claimant's medical history documents any breathing problems prior to her exposure but also stated he believes the Claimant had a prior restrictive deficit caused by obesity. Dr. Alleyne also testified the Claimant has 30% impairment to each lung, will require ongoing use of bronchodilators, and is incapable of working in her current condition.

Dr. Alleyne testified the Claimant developed heart block as a result of her exposure to HF but acknowledged he is not a cardiologist. Despite this, and the fact he is not board-certified in cardiology, Dr. Alleyne indicated he would not defer to the opinion of a cardiologist on the question of causation. He further acknowledged the importance of learning the length of exposure and concentration of chemicals in determining the harmful effects of a chemical exposure, but then refused to acknowledge a minimum acceptable exposure limit for HF fumes.

The Defendants submitted a report from Dr. Selwyn Spangenthal. Defendants' APA #29. Dr. Spagenthal reviewed the Claimant's deposition testimony and medical records. Dr. Spangenthal concluded the medical evidence does not support Dr. Alleyene's diagnosis of RADS because the objective evidence fails to support a finding of obstructive air flow. He suspected silent reflux and morbid obesity could be considered as causes for her ongoing respiratory symptoms. Dr. Spangenthal concludes the Claimant's exposure to HF has not had a long-term negative impact on the Claimant's pulmonary system.

The Claimant submitted a vocational evaluation from Harriet Fowler. Claimant's APA #22. The report was prepared at the request of the Claimant's attorney. This report documents the Claimant has a bachelor's degree in Theology where her ending GPA was 3.9/4.0. This report documents the Claimant's prior vocational history as an admissions worker and discharge planner for outpatients at a health care facility, an EMT, and a laboratory technician. The Claimant reported prior employment with the U.S. Department of Energy from 1983 to 2011, rising to the level of Occupational Health and Safety Health Administration Safety coordinator. After a lengthy review of the medical reports, Ms. Fowler concluded the Claimant is unable to perform any type of substantial gainful employment. Ms. Fowler noted that some of the Claimant's physicians had recommended no restrictions, creating a dilemma that can only be resolved by judicial weighing of the medical opinions.

The Claimant submitted a psychiatric report from Dr. Hooper. Claimant's APA #23. The report documents a history of mental health treatment in the early 2000's related to the end of her first marriage. Multiple physical/ somatic symptoms are documented. The Claimant reported very difficult feelings regarding the management of the Employer and believes she was poorly protected before the incident and poorly cared for since. In interpreting the MMPI-2 test results, Dr. Hooper concluded her profile is probably valid but may reflect some exaggeration of symptoms. He further concluded the Claimant appears to be extremely angry and suspicious that others are taking advantage of her and is overly sensitive to criticism. She may be overtly paranoid. She tends to blame others and harbor grudges. Dr. Hooper indicates the Claimant sees the world as a threatening place. The report states the overall picture suggests a possibly aggravated reaction to perceived situational threat and that her psychological and emotional problems may likely continue even after stresses subside. On the basis of his evaluation, Dr.

Hooper diagnosed the Claimant with Post-Traumatic Stress Disorder as a result of her alleged exposure. He recommended extended psychological and psychiatric treatment for some time while noting the Claimant may not be the best or most willing candidate for psychological treatment.

The Commission also considered the report of Dr. Edelman in great depth. Dr. Edelman is a board-certified medical toxicologist and public health physician out of Great Falls, Virginia. He prepared a report on April 2, 2017, with the stated purpose of addressing the Claimant's "health problems that were contributed to by her HF exposure and the nature of health problems that are expected and that may be biologically plausible resulting from HF and other related fluoride-containing molecules." There is no suggestion Dr. Edelman evaluated the Claimant in person or where he obtained his history of the exposure, which he believed to be up to three minutes long. He never addresses what concentration of HF the Claimant was exposed to or the industrial report confirming only trace amounts of HF were present. Addressing the Claimant's pulmonary issues, Dr. Edelman concludes HF contributed to the development of asthma based on her diagnosis, the nature of HF, and the PFT tests administered by her doctor. Dr. Edelman does not address the many PFT reports pre-dating the injury which, according to Dr. Mitchell, tend to confirm the exposure had no impact on the Claimant's pulmonary function. Turning next to the Claimant's heart block, Dr. Edelman starts by dismissing the published literature on the effects of HF on the heart. He then concludes it is biologically plausible that HF exposure, in conjunction with a pre-existing condition and coughing, was a co-contributor to the Claimant's development of heart block. He then adds there is no test to prove his hypothesis and that HF cardiac complications are classically attributed to electrolyte abnormalities. Dr. Edelman did not address the several reports documenting the Claimant had no electrolyte abnormalities following

her exposure. In a parting shot, Dr. Edelman disagrees with Dr. MacKinnon's opinion that the long delay in the onset of the Claimant's symptoms is a factor against causation.

FINDINGS OF FACT

In an Order dated July 23, 2018, the Appellate Panel adopted all of the findings of fact of the Single Commissioner and further addressed the admissibility of the report of Dr. Edelman. These facts are adopted once again, subject to revisions to remove those portions of the Order reversed by the Court of Appeals, correct certain errors of syntax, and to enter additional findings after in-depth consideration of the report from Dr. Edelman. All findings of fact and law by the Hearing Commissioner are the law of this case except those within the grounds of exception of Appellant. Ham v. Mullins Lumber Co., 7 S.E.2d 712 (S.C. 1940). With regard to the grounds of exception, when reviewing the evidence and award of the hearing commissioner, the Appellate Panel may make its own findings of fact and reach its own conclusions of law either consistent or inconsistent with those of the hearing commissioner. Green v. Raybestos-Manhattan, Inc., 156 S.E.2d 318 (1967). Having now reviewed the report of Dr. Edelman, the Appellate Panel hereby enters the following findings of fact, as determined based on the reliable, probative, and substantial evidence of the whole record:

1. This matter comes before the Appellate Panel upon Remittitur from the South Carolina Court of Appeals. The April 2, 2017, medical report of Dr. Philip Edelman is hereby admitted into the record pursuant to the Order of the South Carolina Court of Appeals. The parties briefed their positions to the Appellate Panel for review. Defendants filed its' brief on September 15, 2021 and the Claimant filed her brief on October 22, 2021. The

Appellate Panel reviewed the evidence in the record as a whole as well as the written briefs provided by the parties.

2. Claimant alleges that through an acute chemical exposure (specifically hydrofluoric acid, hereinafter "HF" or "exposure") on August 11, 2015, she (a) injured her "bones," heart, lungs, neurological system, and sense of smell and taste; and (b) sustained PTSD.
3. Claimant is 57 years of age (Hearing Transcript, page 14).
4. Claimant attended four years' of college, obtaining her B.A. with a GPA of 3.9 out of 4.0. She also obtained EMT certification (Defendants' APA #31, page 427; Claimant's APA #26, pages 268 and 270).
5. Claimant's employment history includes work as a lab technician, a hospital admissions representative (a sedentary job), a hospital discharge planner/utilization review coordinator, an office receptionist and medical records clerk, and an E.N.T. Prior to her employment with Employer, Claimant worked in a laboratory at Savannah River Site for 20-25 years and worked at SRS in other capacities as well (Hearing Transcript, pages 18-19; Claimant's APA #26, pages 268-270).
6. On the date of the exposure, Claimant's job with Employer was Quality Control Laboratory Technician (Hearing Transcript, pages 14 and 16-17).
7. Claimant is described by a supervisor as competent in her duties, but a management challenge, as Claimant had difficulties getting along with some of her co-workers. Claimant "frequently and consistently" ("all the time," according to her deposition testimony) perceived and reported various issues to management that she felt were safety risks. In a previous job, Claimant had been an Occupational Health and Safety coordinator. Claimant never developed any health issues as a result of the prior

incidences she reported to Employer. Mr. McDowell is particularly credible in that he readily admitted at the hearing that some of Claimant's many complaints were legitimate, and remedial measures taken where indicated (Hearing Transcript, pages 77-78 and 151-152; Claimant's APA #26, page 269).

8. Claimant filed an EEOC claim against Employer which was dismissed (Defendants' APA #35, page 471).

9. On the date of the accident in issue, Claimant (a) weighed 206 lbs. at 5 feet, 2½ inches tall, and (b) had a BMI of 37.22. Temporal medical evidence refers to Claimant as morbidly obese (*e.g.*, Claimant's APA #1, pages 6 and 22; Claimant's APA #2, page 42; *See also* Claimant's APA #2, page 63; Claimant's APA #39, page 481).

10. Claimant has pre-existing restrictive lung disease dating back to at least 1993; the degree of impairment varied from "mild" to "moderate," as established by tests from Savannah River Site where Claimant previously worked for 28 years (1983-2011). Claimant's PFT's from 2008-2011 consistently showed restrictive lung disease with FVC and FEV1 in the 65-80% of expected. Therefore, Claimant's counsel's leading question-- regarding the fact that a hospital pulmonologist (Dr. Kulkarni) stated that Claimant "may have possible RADS" related to her exposure--is not dispositive or even persuasive, as this physician had no records relating to Claimant's pre-employment lung testing. This same physician also wrote "no indication for bronchoscopy" (Defendants' APA #27, page 406; Defendants' APA #29, pages 420-421; Hearing Transcript, pages 18-19 and 112; Claimant's APA #2, pages 53 and 55; Claimant's APA #26, pages 268-270).

11. Prior to starting work for Employer, Claimant did not pass her PFT test. This evidence is unrefuted and based on the credible testimony of Mr. McDowell (Hearing Transcript, pages 154-155).

12. Claimant has cats in her home. However, Claimant has told post-exposure providers that she avoids any irritants, and that she must wear a mask outside because of weather, air quality, and random exposure to irritants (*e.g.*, Claimant's APA #4, page 126; Defendants' APA #28, page 408; Claimant's APA #27, page 292)

13. Given (a) Claimant's educational achievements and intellect, (b) the various jobs she previously held while employed with Savannah River Site, (c) the testing she underwent numerous times at Savannah River Site, (d) her E.M.T. training, (e) her ability to recount in great detail treatment she received from a cardiologist in 2007, (f) her ability to recount in great detail work-up she underwent for kidney stones in 2010, and (g) her general level of comfort discussing complex medical terminologies and medications, the Commission does not find credible the Claimant's testimony that she was "not aware" of the fact that she had pre-existing restrictive lung disease, as such had been documented multiple times (Hearing Transcript, page 49).

14. Claimant also has pre-existing hypertension and osteoarthritis for which she was taking medications prior to the date of the accident in issue. Claimant has taken beta blockers for her hypertension. One of the medications she was taking on the date of the accident (for hypertension) has diuretic properties. [Claimant also testified at the hearing that her legs swell]. The other medication Claimant was taking prior to the exposure was for muscle spasms/pain for her osteoarthritis (hip and SI joint). According to medical evidence, both prescriptions were ongoing and "active" when the exposure occurred.

Claimant's use of the words "resolved" and the past tense "was" (as to the ongoing hip/SI joint condition and use of medication) damages her credibility, particularly as she is requesting the Commission to order Defendants to pay for "bone pain," "muscle spasms," and "muscle pain," all of which were being actively treated. After the exposure, Claimant has similarly sought treatment for hip pain, femur (leg) pain, and pelvic pain (*e.g.*, Claimant's APA #1, page 1; Claimant's APA #2, pages 21 and 71; Defendants' APA #31, page 428; Claimant's APA #1, page 14, showing that Claimant's previous prescription of Flexeril (which treats muscle spasms) was active at the time of the exposure; Claimant's APA #2, page 42—documenting that Claimant's osteoarthritis is located in her pelvis and thigh as well; *Cf.* Hearing Transcript, pages 49-50, 72-73, and 110).

15. Claimant has pre-existing kidney disease according to medical evidence. One of Claimant's own experts states that kidney disease is a risk factor for heart block (Defendants' APA #31, page 427, stating that Claimant's past medical history includes kidney disease; Claimant's APA #40, page 501, documenting kidney scar formation and previous inflammatory process; Deposition of Dr. Lane, page 25).

16. Claimant has alleged to providers and testified that she has numbness and tingling in both hands which she also relates to the accident in issue. However, Claimant had prior numbness and tingling in one or both hands, such that she was previously assessed for carpal tunnel syndrome. There is no evidence or opinion that Claimant's pre-existing condition was aggravated (Hearing Transcript, pages 52-53; medical evidence in its entirety, *e.g.*, Claimant's APA #1, page 9; Claimant's APA #2, pages 21 and 44; Defendants' APA #29, page 419).

17. Claimant has pled a loss of sense of smell and taste, and subjectively reported this complaint to various providers including Dr. Alleyne. Inconsistently, Claimant has told both Dr. Mitchell and Dr. Hooper that she is sensitive to various odors because of the exposure. Claimant cannot have it both ways (Hearing Transcript, pages 50-51; Claimant's APA #4, pages 125; *Cf.* Defendants' APA #28, page 408).

18. Claimant underwent a work up in 2007 for an irregular heartbeat. In 2014, Claimant's hypertension medication (Atenolol) was changed due to bradycardia (Hearing Transcript, page 48; Defendants' APA #26, page 393; Deposition of Dr. Mitchell, pages 13-15; Claimant's APA #2, pages 54 and 71).

19. A CT scan of Claimant's abdomen from 2010 showed atherosclerotic vascular disease in the arteries of the abdomen. Although not dispositive, this evidence is uncontroverted. Claimant's 2016 (post exposure) abdominal CT for her unrelated gallbladder shows atherosclerotic vascular disease as well (Claimant's APA #40, page 501; Defendants' APA #30, page 424).

20. Claimant has a family history of hypertension, heart failure, and stroke/TIA (Claimant's APA #1, page 1; Claimant's APA #2, page 77).

21. Literature from the CDC states that effects from HF are dependent on the (a) concentration of the HF, (b) the duration and size of the exposure, and (c) the penetrability of the site of the exposure. Defendants' expert Dr. MacKinnon agrees that the two most important factors are duration of exposure and concentration of the acid (*See* Deposition of Dr. Alleyne, page 46, citing a CDC article; Deposition of Dr. MacKinnon, pages 16 and 20-21; *See also* Deposition of Dr. Lane, page 15, lines 2-6).

22. In the mechanics of the accident, Claimant opened a door to the "patio" to dump waste, smelled HF in "*a draft of air [that] came in*," and immediately closed the door back. Claimant never proceeded through the door which was not, according to her deposition testimony, opened very far [emphasis added] (Hearing Transcript, *e.g.*, pages 22-32, 38, 80-81, and 83-84; Claimant's Deposition).

23. According to Claimant, she took a total of several breaths ("three, no more than four"); The Commission does not find credible Claimant's statements to providers that she was exposed to HF for "three minutes" or even "one to three" minutes (Hearing Transcript, pages 25 and 81; Claimant's APA #7, page 162; Defendants' APA #27, page 395; Defendants' APA #28, page 408; Deposition of Dr. Mitchell, page 48; Claimant's APA #1, page 5).

24. The Safety Data Sheet's first page (Hazard Statement) states that HF "may cause damage to organs through *prolonged or repeated exposure*" [emphasis added]. Claimant alleges that her exposure to HF damaged her heart (Claimant's APA #18, page 183).

25. When Claimant opened the door to the patio, she was wearing safety glasses, acid gloves, an acid apron, safety shoes, and a face shield (Claimant's APA #12, page 167; Claimant's APA #14, page 179; Hearing Transcript, pages 20 and 28).

26. The "patio" is not fully enclosed, but rather open to the outside air on one side. Fumes can escape to the outside and are <u>not</u> enclosed within four walls, a floor, and a roof, *i.e.*, the area is ventilated (Hearing Transcript, pages 137-138, 156, and 195).

27. The source of the HF leak was a pinhole in an economizer carrying HF at up to 40% concentration along with two other chemicals. The economizer had been drained and some HF-saturated insulation remained on the outside of the economizer. The location of

the HF-saturated insulation was approximately 12 feet from the door Claimant opened, and the nearest venting carboy was approximately 25 feet away from the door. McDowell explained to my satisfaction his use of "40% concentration" and he is, although not an expert, well-versed with HF in the workplace. At the time of the exposure, the leak had been contained and the economizer was being prepared for maintenance and the insulation was saturated (*e.g.*, Hearing Transcript, pages 139-145, 166, and 185; Claimant's APA #11, page 166; Claimant's APA #16; Claimant's APA #12; Claimant's APA #13).

28. After Claimant took three to four breaths and shut the door, another employee (Lonnie Parsons) offered to dump the waste for Claimant and she accepted his offer. In order to dump the waste, Mr. Parsons walked twice by the carboy venting the economizer. Claimant admits that Mr. Parsons was not in any physical distress when he returned the container to Claimant (Hearing Transcript, pages 32-33, 85-87, and 188).

29. Mr. Parsons did not wear a respirator. Mr. Parsons worked on the patio for approximately **eight hours** in the area where the HF leak was located but did not develop any adverse conditions including respiratory, heart, or otherwise. Sometimes he worked two to three feet away from the carboy, "even standing over top of it." Although the effect of HF on Mr. Parsons is not dispositive as to the effect on Claimant, the Commission gives this evidence great weight *vis a vis* the three to four breaths Claimant took, as duration of exposure is a factor to consider (Hearing Transcript, pages 32, 40-41, 79-80, 140, 185-186, 188-189, and 196).

30. Mr. Parsons, a chemical operator and 11-year employee, is very credible. He testified that as far as Claimant is concerned, he remembers no coughing, observed no facial

redness, observed that Claimant had no difficulty talking, and observed that Claimant appeared in no distress (Hearing Transcript, pages 184-185 and 187-189).

31. After the three to four breaths Claimant took, she went "straight to the lab" (and away from the fumes) where she told her co-workers she was "angry," and told her co-workers that "somebody is going to get somebody killed down there." Claimant then went to the control room (also in an area away from the fumes) for fresh air and was monitored. According to Chip Babb, Claimant's symptoms in the control room were slight irritation in her throat and chest and "something in the back of her throat that was inducing a cough." Claimant displayed no symptoms which raised any concern; nor did she request medical care from a physician. The Safety Data Sheet states that appropriate treatment is to remove the person who inhaled HF to fresh air and to get medical attention "if you feel unwell." Claimant told the individuals in the control room that "What's it going to take, is somebody going to have to get killed in this place for people to do the right thing" and that "some things need[ed] to change around here before someone really gets hurt" (Claimant's APA #12, page 167; Hearing Transcript, pages 36-42 And 88-89; Claimant's APA #14, page 179; Claimant's APA #18, page 184).

32. The Commission gives greater weight to the testimony of Mr. Parsons than to Claimant's testimony. This finding is based on the Single Commissioner's in-person observations of these witnesses' demeanor and on the delivery of their testimony.

33. Like Mr. Parsons, Mr. McDowell observed Claimant with no coughing and with no respiratory distress. Mr. McDowell also observed **no facial redness after the exposure,** as Claimant and even her husband have alleged to providers, and Claimant has so testified. The Commission notes that Claimant has a prior history of rosacea (Hearing

Transcript, pages 42-43 and 149; Claimant's APA #2, page 52, which lists Claimant's prior medical conditions; Defendants' APA #28, page 408).

34. One of the potential effects of HF exposure is weight loss. Claimant, by contrast, has gained 15 lbs. since the date of exposure (Claimant's APA #18, page 185; Hearing Transcript, page 50).

35. The Commission gives increased weight to the testimony of Mr. McDowell, a 28-year employee, based upon his demeanor and the straightforward delivery of his testimony. Boosting his credibility is the fact that Mr. McDowell gave answers against his employer's self-interest, such as when Mr. McDowell testified that even though the leak had been secured at the time the carboys were attached, the insulation on there would have been saturated with HF as well as sevoflurane and some HFIP. Mr. McDowell also admitted that in hindsight, better communication would have let all employees know about the leak, and/or barriers should have been in place. Mr. McDowell does not pretend that Claimant knew or should have known about the leak, which would have been far more expedient. According to Mr. McDowell, the amount of HF was "trace," and was not measurable as he explained at the hearing, testimony which dovetails with the fact that Mr. Parsons had a substantially greater duration of exposure than Claimant yet had no residual effects (Hearing Transcript, pages 134-171; Claimant's APA #8, page 163).

36. Mr. McDowell, who has dealt with several HF exposures regarding other employees in the past (both inhalation and skin), found it highly unusual that Claimant had none of the symptoms he would have expected in the control room where Claimant went after the

accident. He also found it unusual that notwithstanding Claimant's later complaints to providers, her blood work was negative (Hearing Transcript, pages 146-148).

37. During Dr. MacKinnon's deposition, Claimant's counsel points out the fact that Claimant had testified under oath at her deposition that her face was red after the exposure as noticed by her co-workers, as if this testimony proves Claimant had such a reaction to the HF. However, there is no temporal medical record stating that Claimant's face was red after examinations of her skin or that she had a rash (in fact, the first medical record specifically states that Claimant had no rash). Further, Janice Tierney, the co-worker who allegedly said "your face is so red" was not at the hearing; Claimant did not call Ms. Tierney as a witness. Nor did Mr. McDowell or Mr. Parsons observe any facial redness as set forth *supra*, and the Commission gives their testimony greater weight than to Claimant's (Deposition of Dr. MacKinnon, page 63; Claimant's APA #1, page 5; Hearing Transcript, page 42).

38. The Commission also gives increased weight to the testimony of George Campbell, a chemical operator and 11-year employee. Mr. Campbell is extremely credible because he readily admits that his exposure to HF on the date of the accident made his eyes start burning, made him cough, and made it difficult for him to catch his breath. As it would have been far more expedient for Mr. Campbell to testify that he had no problems whatsoever after his own exposure, this testimony contains salient statements against Employer's interests. Like Mr. Parsons, Mr. Campbell did not wear a respirator, and was exposed to HF for two to three minutes as he dumped slops. Mr. Campbell testified that his physical symptoms cleared up after he got fresh air and, although not dispositive, Mr.

Campbell has no lingering effects from the HF exposure (Hearing Transcript, pages 173-182).

39. Dr. Early (Defendants' expert toxicologist) states that the amount of HF needed to cause hypocalcemia or hypomagnesemia is "substantial," and most commonly occurs after dermal or oral ingestion. Although not dispositive, no HF touched Claimant's skin as she was wearing safety gloves; nor did Claimant swallow any HF, as she was wearing a face shield. Dr. Early also points to the fact that electrolyte abnormalities are noted in the first 24 hours. Claimant's labs were normal for more than a week, which Dr. Early states is not surprising given Claimant's limited exposure to HF (Defendants' APA #27, page 399).

40. Dr. Edelman provided an expert toxicological report at the request of the Claimant's attorney. This report is not provided as much weight as the report from Dr. Early, in part because Dr. Edelman did not physically examine the patient. This deficit can be inferred from the report, as Dr. Edelman seems tentative to establish a strong position on causation. Most of his opinions are expressed as "biologically plausible," which falls short of the standard requiring a "reasonable degree of medical certainty." The one opinion Dr. Edelman does provide to a reasonable degree of medical certainty is that the Claimant's HF exposure contributed to the development of asthma. But even assuming that all opinions of Dr. Edelman meet the requisite degree of proof, it is apparent those opinions rest on assumptions regarding the duration of exposure and the nature of Claimant's symptoms, including her professed absence of smell, which have been rejected as unreliable by the Commission. Dr. Edelman was of the impression the duration of Claimant's exposure was up to three minutes, which is untrue. Moreover, Dr.

Edelman's report makes no mention of the concentration of Claimant's exposure, that only trace amounts of HF vapors were detected in the area, or that several other employees were exposed to the same vapors for a much longer duration and suffered no adverse consequences. It would be very difficult for Dr. Edelman to provide a probative opinion as to causation without evidence of the duration and concentration of exposure. This difficulty is compounded since Dr. Edelman was provided with inaccurate information and did not physically examine the Claimant. Even taken at face value, the opinions of Dr. Edelman regarding causation are more than overcome by the opinions of Dr. Feldman and Dr. Mitchell. Dr. Feldman is a cardiologist who believes it is "physically improbable" that a causal relationship exists between the Claimant's exposure and her heart block based on his review of objective data and physical examination of the Claimant herself. Likewise, Dr. Mitchell is a pulmonologist who believes the Claimant's exposure did not result in permanent injury to the lungs based on actual spirometry data from both before and after the accident. Both Dr. Feldman and Dr. Mitchell have numerous advantages over Dr. Edelman, most importantly the opportunity to physically examine the Claimant and to have objective data supporting their opinions. When faced with the conflicting opinions regarding toxicity, the Commission chooses to assign increased weight to those opinions that are based on reliable information and supported by objective data, namely those opinions finding no causal relationship between the Claimant's HF exposure and the injuries she now complains of. (Claimant's APA #28, Defendants' APA #30, Deposition of Dr. Mitchell in its entirety including but not limited to, pages 6-12, 21, 33-34, 44, and 52; Defendants' APA #28 in its entirety.)

41. Claimant's exposure to HF occurred between 5:25 a.m. and 5:40 a.m. before her shift ended (Claimant's APA #12, page 167; Claimant's APA #14, page 179; Hearing Transcript, pages 19-20).

42. Shortly after 6:00 a.m., Claimant returned from the control room to her office in the lab (Claimant's APA #14, page 179).

43. At 6:35 a.m., Mr. Babb checked on Claimant. She told him that she was doing better, and that the coughing had subsided. Mr. Babb's recollection dovetails with Mr. Campbell's experience after he got fresh air (Claimant's APA #14, page 179).

44. Although Claimant professes (a) to be well versed with HF, and (b) that she had a pounding heart after the exposure, she did not request to see a doctor (Hearing Transcript, pages 76 and 87-89).

45. At 6:58 a.m., Claimant sent an e-mail she typed regarding the exposure incident, requesting a meeting with management and safety, but making no request for medical care for any ongoing injuries or symptoms (Claimant's APA #7, page 162; Hearing Transcript, pages 90-93).

46. Claimant's shift ended at approximately 7:00 a.m., and she went home (Hearing Transcript, pages 43-44).

47. Claimant went to Urgent MD (approximately 12 hours later) on August 11, 2015, where she was seen at approximately 7:20 p.m. Contrary to Claimant's (a) testimony at the hearing and (b) myriad statements to various providers (including her own experts), **providers at Urgent MD documented the fact that Claimant had no cough and no shortness of breath**. The Commission gives increased weight to this evidence, which

directly contradicts Claimant's testimony that she continued to have persistent coughing and shortness of breath. This medical record is co-signed by Dr. Payne (Claimant's APA #1, pages 5-8).

48. Contrary to Claimant's sworn testimony at the hearing that she felt a heart problem after the exposure (testimony: "my heart was pounding" and "my pounding heart" and "my heart is like pounding out of my chest"), medical evidence from Urgent MD documents the fact that Claimant actually **denied chest pressure or chest pain; nor did Claimant make any other chest complaint.** A **clinical examination found Claimant's chest, lungs, and breath sounds all "normal."** Additionally, Claimant is specifically noted to have no rash; by contrast, Claimant has told providers she had lesions on her skin she attributes to the HF exposure. Nor is there any medical evidence that Claimant's face was "red," as she and her husband have told providers. Claimant was **able to "articulate well with normal speech /language, rate, volume and coherence,"** and Claimant had an appropriate mood and affect, clinical findings inconsistent with Claimant's testimony that she was disoriented and in shock/mental distress. Urgent MD found **no wheezing, no diarrhea, no nausea, and no vomiting.** Claimant's **labs were normal** (Claimant's APA #1, pages 5-8; Hearing Transcript, pages 27-28, 31, 36, and 93-94; Defendants' APA #27, page 402—however, Dr. Early states that gaseous HF exposure of this nature would not typically cause chronic skin abnormalities).

49. Claimant's testimony at the hearing that she had six bouts of diarrhea and abdominal pain that began approximately seven and one-half hours after the exposure (which condition Claimant relates to the exposure) is refuted by the Urgent Med records of 7:20 p.m. on the date of the exposure—more than 12 hours after the exposure. **Claimant specifically**

denied any diarrhea during this medical visit. This inconsistency and Claimant's exaggeration (actually, an outright untruth) damages her credibility (Hearing Transcript, page 44; Claimant's APA #1, page 5).

50. Claimant told Urgent MD providers on the date of exposure (August 11, 2015) that she was exposed to HF for approximately 3 minutes (Claimant's APA #1, page 5).

51. At Urgent MD on the date of exposure, Claimant's actual complaints were headache, sore throat, and dry nose. After Claimant underwent an examination, she was instructed to use Ibuprofen for her headache, and was given no restrictions (Claimant's APA #1, pages 5-8).

52. Through her testimony and demeanor at the hearing, Claimant gave the impression of someone who is angry and indignant, about both the exposure and its aftermath. Claimant alleges that she requested calcium gluconate in the control room but was denied. Given the level of her symptoms in the control room, Claimant's testimony that she requested calcium is not believable, as the Commission must factor in her other untruths and exaggerations. **Nonetheless, Claimant's calcium levels were checked at Urgent MD on the date of the exposure and were within normal limits. In fact, all Claimant's labs (including but not limited to magnesium) were within normal limits.** Claimant's calcium levels were checked again at the Emergency Room two days after the exposure and were again documented within the range of normal (Claimant's APA #1, pages 5-8 and 12; Claimant's APA #2, pages 23 and 25; Hearing Transcript, pages 37-39, 41, 167, and 169-171).

53. Both Dr. Early and Dr. Mackinnon state that the cardiac effects of HF are typically revealed by severe reductions in calcium and magnesium levels within the first 24 hours

after exposure. Claimant's testing was consistently normal for two weeks (Defendants' APA #26 and Defendants' APA #27; Deposition of Dr. MacKinnon in its entirety; See also Claimant's APA #1, page 7).

54. The Commission gives increased weight to the opinion of Defendants' experts who state that exposure to HF results in immediate symptoms that improve over time. As Claimant's symptoms were mild immediately after exposure (throat irritation) this opinion dovetails with (a) Claimant's condition in the control room, (b) Claimant's condition in her office when Mr. Babb went to check on her, and (c) the clinical findings on the date of the exposure at Urgent MD. Claimant's testimony at the hearing was essentially that her condition was bad, got better (*e.g.*, no longer having the pounding heart symptom), and then became worse (Claimant's APA #14, page 179; Hearing Transcript, *e.g.*, page 93).

55. Claimant sought treatment at a follow-up visit with Urgent MD on August 13, 2015 (two days after the exposure). At this visit, Claimant subjectively reported worsening of symptoms including shortness of breath, sore throat, coughing, headache, nausea, weakness, and numbness in her fingers bilaterally. Claimant also told these providers that her voice "comes and goes." Claimant again denied any chest pain or pressure. Notwithstanding these subjective complaints, Claimant's chest, lung, and heart exams were normal. Additionally, Claimant was medically documented to have no difficulty speaking, no airway distress, no dizziness, **no skin lesions**, and no focal neurological symptoms. Claimant's labs were again referred to as normal. However, Claimant's subjective complaints were not ignored. Because she complained of an alleged worsening, Urgent MD recommended Claimant be transported to the Emergency Room.

The Commission finds it somewhat telling that, given Claimant's supposedly severe condition and symptoms, Claimant declined the ambulance offered to her (Claimant's APA #1, pages 9-11).

56. At the Emergency Room on August 13, 2015, notwithstanding Claimant's subjective complaints regarding her exposure, providers documented Claimant's **normal pulmonary/chest/lung exam, neurological exam, speech, cognition, and memory. Claimant denied any chest pain/problem and weakness. Claimant was again "[n]egative for rash." Claimant's chest x-ray was negative for pleural fluid or pneumothorax, and her labs were negative as well.** Although Claimant reported diarrhea to these providers, Claimant inconsistently testified at the hearing that she had not had a bowel movement since August 11, 2015, the date of exposure. Claimant testified that she reported "bone" pain and muscle spasms to these providers, which complaints are not found in these records; in fact, Claimant's musculoskeletal exam showed normal range of motion and no negative findings (Claimant's APA #2, pages 21-41; Hearing Transcript, pages 56-57 and 95-98).

57. Claimant returned to Urgent MD on August 15, 2015 (four days after the exposure), and presented as "mildly hoarse" with a "dry nose." Claimant's chest and lung exam was normal; her cardiovascular exam was normal as to rate and rhythm; her abdomen was normal; she had no edema in her legs; and had **no impairment of recent or remote memory**. Even Claimant reported that her sore throat, hoarseness, cough, and shortness of breath were "**significantly improved.**" Claimant's lab levels were again found normal. Claimant's testimony at the hearing and her later statements to providers are inconsistent with these clinical findings. The last page of this report, containing the

signature of the providers, was not provided to the Single Commissioner by Claimant (Claimant's APA #1, pages 12-13; Hearing Transcript, pages 99-100).

58. Claimant returned to Urgent MD on August 19, 2015, complaining of diarrhea, headache, nausea, bone pain (femurs, pelvis and bilateral foot pain), hand tingling, constant cough, weakness, and a loss of sense of taste and smell. Nonetheless, Claimant's **lung and heart exams were normal.** Claimant is **documented as giving "poor effort on strength testing of bilateral hip flexors and quadriceps."** Further, providers noticed and documented that Claimant complained even with a light touch of her lower legs, which presentation providers found "**disproportionate to exam findings.**" Claimant's lab findings were again documented as normal, and her EKG suggested "chronic" conduction abnormality, "i.e., non-industrial." In addition to these inconsistencies on presentation, these providers documented the fact that Claimant "*will not answer clearly if the albuterol and ipratropium jet nebulizer treatments improve her condition.*" By contrast, Claimant testified at the hearing unequivocally that the nebulizer helped. These medical records were also co-signed by Dr. Payne (Claimant's APA #1, pages 14-17; Hearing Transcript, pages 58-60).

59. At the hospital on August 21, 2015, Claimant's examination upon arrival and shortly before admission showed that Claimant "**does not appear to have any evidence of respiratory distress" and was able to give all history without any difficulty.** Her oxygen saturation is 100% on room air, not requiring any oxygen. On examination today there is no evidence of any wheezing or rhonchi. Chest x-ray shows no evidence of any significant changes" [emphasis added]. Claimant's PFT showed a "mild" to "moderate"

restrictive defect (Claimant's APA #2, particularly page 51; See also Claimant's APA #3, pages 83-84).

60. On August 21, 2015, during hospitalization for Claimant's complaints she attributed to the exposure, Claimant was found to have a heart block, and a pacemaker was surgically implanted to provide pacing for her heart. Claimant told hospital personnel that her heart problem was caused by HF exposure (Claimant's APA #2, pages 53 and 64; Deposition of Dr. Aquilina, pages 5-6).

61. I find that this is a medically complex case. I therefore rely primarily upon the opinions from experts. I also find the testimony of Defendants' witnesses to be very reliable and credible for the reasons set forth in this Order.

62. Defendants are not required to disprove the compensability of a denied workers' compensation claim. Nor are they required to disprove any alleged injuries from an admitted accident. In this case, however, Defendants have in fact disproven Claimant's claims regarding any injury to her "bones," heart, neurological system, ability to smell and taste, and any ongoing injury to her lungs. I base this finding primarily on the medical opinions and/or testimony of Drs. Feldman and Mitchell, and secondarily upon those of Drs. Aquilina, Early, and MacKinnon.

63. The Commission gives increased weight to the findings of toxicologist Dr. Early (MD, MPH), who believes that Claimant's dyslipidemia, hypertension, and obesity are "much more likely" the cause of AV block than the alleged 10-day delayed onset of HF-induced toxicity. Dr. Early's report in its entirety is persuasive (Defendants' APA #27, including but not limited to page 401).

64 The Commission gives weight to the entirety of the report from Dr. MacKinnon, as contained in Defendants' APA #26. Dr. MacKinnon has published and lectured throughout North America on the subject of HF exposures, injuries, and treatments. He also has been a telephone consultant worldwide for those individuals possibly exposed to HF, and has dispensed medical advice to other physicians, hospitals, and clinics. He worked for 35 years as a physician in a plant that manufactured HF. He has handled hundreds of cases of HF injuries. After reviewing all the evidence, I must agree with his finding that there are "many areas of contradiction" in this case. Dr. MacKinnon cannot be faulted for accepting Claimant's complaints at face value (he states that his patients generally tell the truth so he does not doubt Claimant has PTSD), because he was not at the hearing and has therefore not had the opportunity to review all the evidence, including but not limited to the credible testimony of Defendants' witnesses (Defendants' APA #33, as to Dr. MacKinnon's credentials; Deposition of Dr. MacKinnon in its entirety, including but not limited to pages 9-13 and 61).

65. As to the alleged heart injury, the Commission gives increased weight to the opinions and conclusions of Dr. Feldman (M.D., MHCM, FACC). Dr. Feldman states that Claimant's electrolytes were normal on three different blood draws after the exposure, and that it is "physiologically improbable that there is a causal relationship between HF and high grade heart block." The Commission gives increased weight to Dr. Feldman's report in its entirety (Defendants' APA #30, including but not limited to page 425).

66. As to the alleged heart injury, The Commission gives increased weight to the testimony and treatment records of Dr. Aquilina, Claimant's own treating cardiologist. As to causes of heart block, Dr. Aquilina, who readily admits that he is not an expert on HF, states that

most causes of heart block are unknown. Most blocks are degenerative related to getting older, but sometimes develop in patients with heart disease, muscle dysfunction, coronary disease and a "whole host of different things, but there's never any test you can do to say 100 percent why someone develops complete heart block." Dr. Aquilina goes on to say that "we do see heart block in all age groups throughout patients' lives and we don't really know what causes them most of the time." Dr. Aquilina **signed a statement on Claimant's short term disability application indicating that he does not know whether Claimant's heart block is related to a sickness or injury arising out of her employment; as to causation, he checked the box "unknown." Dr. Aquilina terms Claimant's exposure to HF as only a "possible" reason. Dr. Aquilina states that hypophosphatemia does not usually cause an irregular rhythm, "not that I've ever seen actually." Finally, Dr. Aquilina states that vasovagal reflex is "not related at all" to AV heart block.** The Commission gives this evidence increased weight (Claimant's APA #3, page 109; Deposition of Dr. Aquilina, in its entirety, including but not limited to pages 4-21).

67. As to the alleged heart injury, the Commission considered the opinion of Claimant's expert, Dr. Lane (a cardiologist), but does not give Dr. Lane's ultimate conclusions as much weight as Dr. Feldman's conclusions. Nonetheless, even Dr. Lane does not believe that Claimant's brief HF exposure directly caused Claimant's heart block: Dr. Lane writes in a treatment note that there is "**[n]o known exposure that would cause this degree of heart block** without an electrolyte abnormality" [emphasis added]; Claimant had no electrolyte abnormality as evidenced by multiple post-exposure blood tests. Instead, Dr. Lane bases her causation opinion in large part upon a single syncopal episode

that occurred 26 years ago when Claimant was pregnant, which Dr. Lane believes is an underlying vasovagal effect which combined in some way with Claimant's "severe" respiratory problems (including "wheezing") from the exposure. **This theory, however, is notably nowhere to be found in any of Dr. Lane's treatment records and does not appear until after she met with Claimant's counsel and sat for a deposition.** The Commission finds Dr. Lane's opinion/testimony lacking for several reasons: (a) Dr. Lane admits that she has never reviewed even a single medical record regarding the sole and remote syncopal episode upon which she bases her opinion; (b) Dr. Lane's opinion is premised upon the allegedly *"severe coughing," "extreme coughing," "severe respiratory issues," and "wheezing"* Claimant had after the exposure, that Claimant was *"so ill with the respiratory effects," and "[p]rimarily because of the ten-day history [Claimant] had been giving us of the initial severe episodes of shortness of breath and coughing and wheezing and gasping,"* none of which are supported by temporal (and multiple) clinical exams; (c) Dr. Lane, who states that **hypertension and kidney disease are risk factors for heart block**, issued an opinion unaware that Claimant has a history of hypertension ("I can't recall" and "I don't recall the details. I don't"), until she was reminded of Claimant's history; (d) Dr. Lane may also be unaware that Claimant has a history of kidney disease, as documented in Defendants' APA #31, page 427, and Claimant's APA #40, page 501; (e) Dr. Lane is unaware of Claimant's pre-existing respiratory issues including her PFT testing ("[n]ot that I remember in hearing her history"); and (f) Dr. Lane was "unaware" that Claimant had been on a beta blocker Atenolol in 2014, the year prior to the exposure ("I don't remember that"). Dr. Lane's opinion is frankly not impressive. However, given the subjective complaints that

Claimant has made to Dr. Lane regarding the exposure and alleged symptoms after the exposure (refuted by multiple Urgent MD and hospital records), as well as the omissions (*e.g.*, Claimant's pre-existing restrictive lung disease, and her clinic exams at Urgent MD), Dr. Lane's opinion is not really surprising (Deposition of Dr. Lane in its entirety, including but not limited to pages 7-8, 15-16, 18-27, 32-41, and 44-48; Claimant's APA #2, pages 54 and 66).

68. As to the alleged heart injury, although Dr. MacKinnon defers to a cardiologist as to the ultimate question/causation of a heart block, Dr. Mackinnon notes that exposure can cause a heart problem "very early on" because of rapid and severe reductions in calcium levels. Multiple tests over the course of a week showed Claimant's calcium levels to be normal. Dr. MacKinnon believes that Claimant's block was due to arteriosclerotic **heart disease and not HF exposure** based upon the nature and duration of Claimant's exposure (Defendants' APA #26, page 393; Claimant' APA #1; Claimant's APA #2; Deposition of Dr. MacKinnon in its entirety, including but not limited to pages 62-63).

69. As to the alleged heart injury, the Commission considered the opinion of Dr. Setaro but does not find it as persuasive as Dr. Feldman's opinion. Dr. Setaro writes that "no other conceivable reason was found or has been offered" as to causation, a statement which is not borne out by the other medical opinions and evidence. Nor does Dr. Setaro acknowledge that Claimant is morbidly obese, has kidney disease, and has abdominal arteriosclerosis/atherosclerosis (Claimant's APA #24). Defendants' APA #30, page 424.

70. As to pulmonologists, the Commission gives increased weight to the opinions/testimony of Dr. Mitchell, a board-certified pulmonologist (who is also board certified in internal medicine, critical care, and sleep medicine). Dr. Mitchell opines that the HF exposure

did not result in permanent injury to Claimant's lungs; Claimant's pulmonary function testing produced similar results as those before the exposure. The Commission gives increased weight to Dr. Mitchell's testimony regarding Claimant's chest x-ray (which was clear), ruling out chemical pneumonitis, and his explanation regarding this issue. Further, during his clinical exam, Dr. Mitchell found no wheezing; Claimant's lungs were clear bilaterally. Claimant told Dr. Mitchell that she continues to have a cough, which was not the case during the four hour hearing (referenced infra). Finally, Dr. Mitchell also opines that there is no causal relationship to the exposure and the AV block Claimant suffered two weeks later, although Dr. Mitchell to his credit ultimately defers to a cardiologist on the issue of heart block as he is a pulmonologist and not a cardiologist (Deposition of Dr. Mitchell in its entirety including but not limited to, pages 6-12, 21, 33-34, 44, and 52; Defendants' APA #28 in its entirety; observations of the Single Commissioner at the hearing).

71. According to Dr. Mitchell, a lot of people develop complete heart block for unknown reasons. This statement is consistent with the testimony of Dr. Aquilina. Even Dr. Lane admits that heart block can occur from entirely natural reasons (Deposition of Dr. Mitchell, page 7; Deposition of Dr. Lane, page 35).

72. Dr. Mitchell states that Claimant is at maximum medical improvement from the exposure and has no restrictions as a result of the exposure. As far as treatment for any pulmonary problem, Claimant needs to lose weight. Dr. Mitchell sees "no indication" for the inhaled medications Claimant uses (Defendants' APA #28, pages 417-418).

73. As to pulmonologists, the Commission also gives increased weight to the report of Dr. Spangenthal, who opines that Claimant's exposure to HF has had no long-term negative

impact on her pulmonary system. Dr. Spangenthal believes the fact that Claimant's weight (approximately 220 lbs. currently) and morbidly obesity could account for shortness of breath with exertion. However, Dr. Spangenthal specifically states that Claimant's exposure has had no long-term negative impact on Claimant's pulmonary system.

74. Dr. Spangenthal opines that Claimant has reached maximum medical improvement, has no physical restrictions, and requires no additional medical treatment (Defendants' APA #29, page 423).

75. As to pulmonologists in this case, the Commission considered the opinions/testimony of Dr. Alleyne. However, Dr. Alleyne states that a patient's "history is really the key to the diagnosis," and states that all Claimant's alleged problems developed "immediately" after the exposure. By contrast, Claimant's own theory of the case is that there was delayed onset regarding her heart; regardless, Urgent MD documented no wheezing, no breathing problems, no abnormal labs, and no heart issues or complaints for more than a week after the exposure. Even Dr. Alleyne states that chest pain and wheezing start typically within 24 hours; Urgent MD records document the fact that there was no wheezing and no shortness of breath; Claimant's heart issues did not occur until a week to 10 days after the exposure according to medical evidence. When confronted on cross examination with the fact that Claimant's post-exposure RADS (Dr. Alleyne's diagnosis) is "moderate"—the same as Claimant's pre-existing baseline from the previous employment—Dr. Alleyne's actual response is "[b]ecause when you talk to the patient, her history is classic for RADS and, in addition to the RADS, she also sustained some other injuries as a result of the hydrogen fluoride exposure." This is not a persuasive "explanation." Further, and

just as concerning, Dr. Alleyne states that normal FEV1/FVC should be between 70 and 90; below 70 would be obstruction; above 90 would be restriction. Claimant's testing shows 75 (the normal range), yet Dr. Alleyne actually states that he "do[es] not see her working in the future," even in a sedentary capacity within which Claimant has worked in the past. One of Dr. Alleyne's reasons is ostensibly in part because he says Claimant is sensitive to odors—odors which Claimant told other providers and the Single Commissioner that she cannot detect. The Commission cannot help but contrast Dr. Alleyne's statement-- that Claimant is not capable of working—with Dr. Aquilina's post-pacemaker medical record of April 2016 documenting that Claimant has been "*doing well over the past six months*" other than her (unrelated) gallbladder and some "*occasional*" bronchospasm; and that Claimant "*continues to do her activity without any new limitations*" [emphasis added]. Dr. Aquilina found Claimant's lungs clear with no wheezes. Similarly, the Commission does not find persuasive Dr. Alleyne's testimony that "RADS is really based on your [subjective] history" and "based primarily on your [subjective] history" as opposed to based upon pulmonary function tests. Dr. Alleyne also states that Claimant's previous restrictive defect was most likely based on her obesity; in fact, Claimant is, as of the date of the hearing 15 lbs. heavier. Dr. Alleyne does not opine that Claimant's preexisting lung condition was aggravated (Deposition, pages 22-23), as he will not really acknowledge that she had one. As to heart block, Dr. Alleyne, unlike Dr. Mitchell, refuses to defer to a cardiologist. Dr. Alleyne is not a cardiologist; nor has he ever been a cardiologist. Dr. Alleyne bases his opinions on the assumption that Claimant had no breathing issues prior to August 11, 2015, and that all her problems developed "immediately." Dr. Alleyne does not acknowledge the fact that

Urgent MD found no breathing problems including wheezing from the exposure on August 11, 2015. Further, in his testimony Dr. Alleyne states the Claimant "entered a room" where the HF was, when Claimant never entered the room. Additionally, I cannot ignore the fact that **Dr. Alleyne admitted at his deposition to having discussed the case with Claimant's counsel "at least" three or four times prior to the deposition.** Finally, Dr. Alleyne admits that he does not know the acceptable limit of HF exposure, and then states that there is no acceptable limit. That testimony would seem to suggest that Mr. Lawrence (who has inhaled HF during his employment with Employer, as he is familiar with its odor), Mr. Parsons, and Mr. Campbell should all have fallen ill. Of all the experts in this case, Dr. Alleyne's testimony comes across as the most outcome-determinative of any, and for the reasons set forth in this finding, the Commission lends his ultimate conclusions little credence or weight (Deposition of Dr. Alleyne in its entirety, including but not limited to pages 9-12, 14, 16-17, 19, 23, 27, and 32-43; Claimant's APA #3, page 116, but also see pages 104 and 106 ("no wheezes, rales, rhonchi"; Hearing Transcript, page 50).

76. Claimant's counsel is correct when he points out that Dr. Mitchell's report contains a mistake regarding exposure to HCL rather than HF, and a mistake in one portion of a record that refers to Claimant's weight as 241 (another portion of the report correctly records Claimant's weight as 221). The body of Dr. Mitchell's report in large part compares/contrasts Claimant's pre- and post-exposure lung condition, and is not an opinion regarding the hazards of HF, as Dr. Mitchell readily admits in his deposition that he cannot recall ever seeing a patient exposed to HF and that he is not an expert in HF. Dr. Mitchell clearly states at his deposition that it was HF to which Claimant was

exposed; there is no confusion or equivocality. As far as any error as to Claimant's weight, Claimant was already medically documented as morbidly obese on the date of the exposure and has gained 15 lbs. since. However, any such mistakes in Dr. Mitchell's report pale in comparison to the flaws in Dr. Alleyne's opinions as set forth *supra* (Defendants' APA #28; Deposition of Dr. Alleyne, pages 27-28; Deposition of Dr. Mitchell, in its entirety including but not limited to pages 5, 10, 16, and 37; *See also* Claimant's APA #2, page 63, dated 10 days after the date of exposure as to "morbid obesity").

77. As to the testimony given at the hearing, the Commission finds that Defendants' witnesses gave credible, straightforward answers, sometimes saliently against Employer's interests. The substance of these witnesses' testimony (coupled with their demeanor) eliminated any concern the Commission has that they might either be "cowed" (worried about losing their jobs or facing other punitive measures) or simply looking to serve their employer at the hearing. The Commission bases this finding on the credible testimony of Mr. McDowell, Mr. Parsons, and Mr. Campbell.

78. By contrast, Claimant's testimony is laced with exaggeration and untruths.

79. Further, Claimant's presentation at the hearing (approximately four hours in duration) was inconsistent and uneven given the injuries alleged and her subjective statements to providers. Claimant's contention that her voice "comes and goes" could have been believable, but not based upon how Claimant's voice came and went (not within words or sentences), but particularly at the beginning of cross examination (Hearing Transcript, page 76). However, Claimant was inconsistently able to raise the volume of her voice on command). These discrepancies were neither subtle nor convincing. **The Commission**

also notes that on August 13, 2015 (two days after the date of exposure), Claimant was "negative for voice change." Additionally, given the nature of the (a) contentions alleged and (b) the complaints Claimant has made to providers, the Single Commissioner was surprised that Claimant did not cough any more often or differently than anyone else in the room (Claimant's counsel actually coughed the most of anyone in the room, and even asked for water as reflected in the transcript). The Single Commissioner's observations (the virtual absence of any coughing by Claimant) led her to ask Claimant if her cough had resolved. Claimant responded that it had not. Nor did Claimant ever leave the courtroom coughing. Claimant told Dr. Mitchell that she continues to have a cough, but Claimant inconsistently told a rheumatologist that two months before the hearing that her only respiratory complaint is "shortness of breath." Nor did Claimant have any chest pain or palpitations. Moreover, **Claimant's recall/memory at the hearing was nothing short of impressive**. By contrast, Claimant has told myriad providers (*e.g.*, Dr. Mitchell and Dr. Carbone's practice) that she has memory problems stemming from her exposure to HF and/or her alleged PTSD. Nothing could be further from the truth. At the hearing, Claimant remembered the name (both first and last) of the Physician's Assistants who treated Claimant at each post-exposure medical visit **1½ years ago**, corrected her attorney who thought one of the physician's assistant's name was "Baird," and even correctly spelled the name ("B-U-I-R-D") for the court reporter. Claimant remembered that Dr. Kulkarni is an associate of Dr. Brannen, and corrected the defense attorney when he referred to Dr. Brannen as "Dr. Brennan." Further, Claimant remembered the first and last name of the attending physician who treated her at the hospital and knew that Dr. Chand was a hospitalist who discharged her (she first stated that she did not remember

being treated by Dr. Chand, and then explained that he had never treated her). This list of examples is not exhaustive. Additionally, the Commission notes that Claimant's attorney sent her for a psychological evaluation; notwithstanding Claimant's memory complaints to the evaluator, the evaluator found that Claimant demonstrated **"no evident memory problems or recall difficulties" during the interview** [emphasis added]. Finally, for reasons only known to Claimant, she was evasive —in both words and demeanor--when asked on cross examination who referred her to Dr. Alleyne, whose office is two hours away from her home (*See e.g.*, Hearing Transcript, pages 38, 45, 52, 59, 73, 76-77, 92, 102-104, 109-113, and 198; Claimant's APA #27, page 290; Claimant's APA #41, page 505; Defendants' APA #28, page 408; Claimant's APA #2, page 21—**"negative" for "voice change;"** page 22 —**"Cognition and memory are normal"**).

80. Claimant is inconsistent in her complaints to providers. Although Claimant has told some providers that she "never" had GI issues before the exposure, and attributes her GI issues to the exposure, Claimant has inconsistently denied any constipation, diarrhea, vomiting, and nausea to Dr. Alleyne at multiple visits. She also denied any gastrointestinal problem ("no vomiting, diarrhea, or abdominal pain") to Dr. Duncan. [I note as an aside that Claimant has various pre-existing allergies (including but not limited to lactose) which can cause diarrhea.] Claimant has complained of constipation to some physicians and denied it to others. Claimant has reported constant headaches to some providers (including but not limited to the psychologist to whom Claimant was sent by her attorney) and denied having headaches to others. **Claimant told the pulmonologist to whom she was sent by her attorney that she has episodic wheezing; at a cardiology visit <u>just the day before</u> with Claimant's treating cardiologist, no**

wheezing was documented (Claimant also told her cardiologist that she was "currently involved in a legal case regarding Workmen's [sic] Compensation"). Claimant has complained of shortness of breath and cough to some providers, but in a review of systems with a non-workers' compensation physician (one year after the exposure), Claimant denied any shortness of breath or cough. As to psyche, a non-workers' compensation physician documented Claimant's normal mood and affect, evidence to which I give greater weight than the report of a one-time visit to a psychologist arranged by Claimant's attorney in anticipation of litigation. In contrast to the normal mood and affect documented by the non-workers' compensation physician, Claimant displayed "extreme" symptoms to the psychologist to whom she was sent by her attorney. When Claimant sought treatment with a rheumatologist for pain she attributed to the exposure, the rheumatologist found "No joint swelling in any joints." At the hearing, Claimant attributed her hand/arm tingling to the exposure. By contrast, Claimant told her treating rheumatologist two months prior to the hearing that she has "No numbness, No tingling." The Commission gives greater weight to these inconsistencies than to any "sworn testimony" from Claimant (*e.g.*, Claimant's APA #2, page 64; Claimant's APA #3, pages 104, 106, and 118; Claimant's APA #4, pages 127, 134-135, 143, and 148; Claimant's APA #40, pages 499 and 503; Defendants' APA #31, page 428; Claimant's APA #2, page 69; Claimant's APA #41, pages 505-506; Claimant's APA #27, page 291; Hearing Transcript, page 53; Claimant's APA #39, pages 477-478).

81. The Commission gives weight to a medical record of July 2016 (approximately one year after the exposure), generated when Claimant sought treatment for left ear pain and swelling from a possible insect bite. This physician was not a workers' compensation

physician. In a review of systems, Claimant is documented as having **"[n]o shortness of breath, no cough."** Claimant's **respiratory exam was normal.** As to Claimant's counsel sending Claimant for a psych evaluation, the medical note from the July 2016 insect bite documents an **appropriate mood and affect with no psychological problem noted.** This medical record refutes Claimant's (a) hearing testimony and (b) statements to various providers (Claimant's APA #39, pages 477-478).

82. At the rheumatology appointment in February 2017, providers found Claimant's lungs clear to auscultation with **non-labored respirations** (Claimant's APA #41, page 506).

83. The Commission considered the testimony of Todd Lawrence (not an expert; he has a high school diploma) but find that he has an "ax to grind" (or at least a potential ax to grind) with Employer, as Mr. Lawrence was terminated for failing a drug test (Mr. Lawrence's urine was, as he testified, "diluted, diluted. They say diluted"). Employer therefore denied unemployment benefits, and Mr. Lawrence subsequently obtained a note from a physician stating that Mr. Lawrence's urine was diluted because he drinks a lot of water with medication. Nonetheless, even Mr. Lawrence himself has been exposed to HF (he testified as to its "strong pungent odor") but admitted that he did not wear a respirator around the chemical on Employer's premises; nor does Mr. Lawrence attribute any heart or lung injury to his inhalation exposures of HF. Mr. Lawrence is "not sure" as to whether his **hernia** was caused by exposure; that testimony alone does not serve him well. Mr. Lawrence's testimony as a whole hurts Claimant's case more than it helps it. The Single Commissioner did not find him very believable for the most part (Hearing Transcript, pages 114-132).

84. The Commission considered Defendants' argument that Claimant's exposure was not an accident (the theory being that Claimant was explicitly warned or instructed not to open the door). However, Defendants' witnesses state that the door was yet to be barricaded and was not roped off. Further, Mr. Campbell's statement to Claimant that "I wouldn't go out that door" is not tantamount to a prohibition. Other written evidence shows that the door was not barricaded (Claimant's APA #12, pages 167-168; Defendants' APA #32, pages 430-431; Hearing Transcript, pages 175-176, 180-181, and 193; Claimant's APA #8, page 163; Claimant's APA #11, page 166; Claimant's APA #16; Claimant's APA #17).

85. Claimant's heart condition is not compensable. The Commission basis this finding on the reasons set forth in this Order. It is not likely the Claimant's exposure to HF caused her heart problem. The objective data from immediately after the accident fails to support a mechanism of injury involving an electrolyte imbalance, which is the mechanism by which HF causes injury to the heart. Even Dr. Lane, whom the Claimant relied on for support, denied the heart injury was caused by HF exposure. The other primary theory advanced by the Claimant, which is that a severe respiratory response to HF exposure triggered a vasovagal reflex which triggered AV heart block, does not find sufficient support in the record. Only Dr. Lane holds this theory to be plausible while her partner, Dr. Aquilina, who as an electrophysiologist is perhaps the most qualified expert to address issues involving the electrical impulses of the heart, unequivocally states the vasovagal reflex has nothing to do with the Claimant's development of AV heart block. Dr. Aquilina's opinion was based on both his treatment of the Claimant in addition to his continued monitoring of the Claimant's pacemaker. The burden is the Claimant's to

prove the facts which support a finding of compensability and she has failed to convincingly do so. And while it is not the burden of Defendants to disprove the Claimant's allegations, they have effectively done so in this instance. The Commission does not need to determine what caused the Claimant to develop AV heart block – only whether it was caused by her accident – yet the greater weight and preponderance of the evidence suggests it is more likely the Claimant's exposure did not cause her to develop heart block than that it did, based on a reasonable degree of medical certainty.

86. The Commission has no doubt that Claimant experienced an irritation, and therefore an injury, to her nose, mouth, lungs, and throat when she was briefly exposed to HF, as the Safety Data Sheet states that breathing HF "can irritate the lungs." There is no question that HF in its pure form can be deadly. However, in this case we find that any injuries Claimant sustained were very minor, a finding based on the location of the HF, the fact that the patio was open on one side, the fact that the HF was diluted and present only in trace amounts, the fact that Claimant's exposure was brief, the fact the Claimant never even entered that part of the patio where the HF leak was located, the fact that Mr. Parsons worked in the patio for eight hours with no permanent effects, and the fact that even Claimant's own lay witness testified that he has smelled HF (just like Claimant) without experiencing any residual effects relating to his lungs or heart. The greater weight and preponderance of evidence simply does not establish that Claimant was exposed to HF in a quantity or for a duration that would result in any permanent injury. The Commission cannot rely on Claimant's subjective complaints to providers, or on her testimony, as she is not credible for the reasons set forth in this Order. See Claimant's APA #18, page 185.

87. Claimant did not prove the compensability of any loss of sense of smell and/or taste. The Commission bases this finding on the opinion of Dr. Spangenthal. For us to believe Claimant, we would additionally have to ignore the fact that Claimant has inconsistently told (a) Dr. Mitchell that she has "*sensitivity to various odors*." and (b) Dr. Hooper that she avoids people because of the effect their "odors" have on her lungs [emphasis added] (Defendants' APA #28, page 408; Defendants' APA #29, page 422; Claimant's APA #27, page 292; *See* Hearing Transcript, pages 50-51).

88 As to Claimant's "bones," Dr. Mitchell opines that Claimant's exposure to HF did not result in injury to Claimant's bones. Additionally, Dr. Duncan writes in a medical note that Claimant "*doesn't really have orthopedic issues*," and that he could "*see no distinctive pattern*" [emphasis added] (Defendants' APA #28, page 417; Defendants' APA #31, pages 427-428).

89. As to alleged injury to the "neurological system," Dr. Mitchell states that Claimant has no injury to her "neurological system" (Defendants' APA #28, page 417).

90. As to any alleged PTSD, the condition is not compensable. Although Claimant testified that she was in shock and mental distress after the exposure, in fact Claimant's mood and affect were documented as appropriate with no concerns or complaints on the date of exposure. Further, Claimant's speech/language, rate, volume, coherence, and ability to articulate were normal. Further, the Commission notes that at the second Urgent MD visit, Claimant presented as anxious ("tearful"). However, when Claimant went to the hospital **the same day** (declining an ambulance), hospital personnel recorded **psychiatric/behavioral condition as "negative" as to agitation, with no psychological problems noted**. In the hospital on August 21, 2015, Claimant denied she was worried

about HF. When Claimant sought treatment for left ear pain/swelling and headache in July 2016 (a year after the exposure) with a non-workers' compensation physician, Claimant is described as having an **"appropriate mood and affect" with no psychiatric/psychological problem noted**. At best, Claimant is inconsistent. **The Commission gives greater weight to the inconsistencies in the medical records to the conclusions as set forth by the psychologist to whom Claimant was sent by her attorney.** Additionally, at the hearing, **Claimant described no current PTSD effects of any description**. (Claimant's APA #1, pages 6 and 10; Claimant's APA #2, pages 22 and 64; Claimant's APA #39, page 478; Claimant's APA #27, page 292; Hearing Transcript in its entirety).

91. The Commission reviewed Claimant's vocational report for background information only, such as employment history, as Claimant specifically requested no finding of permanency be made (Claimant's APA #26).

92. The Commission declines to require Defendants to pay for Claimant's pre-existing conditions including but not limited to osteoarthritis, muscle spasms, bilateral hand numbness/tingling, GI problems, and rosacea, none of which were caused or aggravated by Claimant's exposure. Nor are we inclined or persuaded to require Defendants to pay for Claimant's gall bladder polyp, fatty liver, neck pain, or shoulder pain from a previous shoulder surgery. There is no competent medical opinion stating that Claimant's pre-existing osteoarthritis was aggravated; and Claimant will not even admit to having an ongoing pre-existing problem that could be aggravated (*See* Claimant's APA #40, pages 499 and 502-503; Claimant's APA #41, pages 504-508—Claimant reported "widespread body pain" following the exposure, including Claimant's shoulder; however, Claimant

denied shoulder pain to another provider—*see* Claimant's APA #40, page 499; Claimant's APA #1, page 12 as to Claimant's prior right shoulder surgery).

93. One month prior to the date of the originally scheduled hearing, Claimant told a rheumatologist that her shoulder, gluteal, and thigh pain began after the date of the exposure ("Most of her pain is focused on her lower extremities which [sic] right shoulder pain"), when in fact Claimant had a history of leg, SI, pelvic, and hip pain and problems for which she was taking Flexeril on the date of the exposure. Claimant also underwent a right shoulder surgery prior to the date of the exposure. Claimant's untrue statement to the rheumatologist serves as an example as to why a claimant's statements to providers are never dispositive in any workers' compensation claim (Claimant's APA #41, pages 504-505).

94. The Single Commissioner's impression at the hearing - that Claimant is very angry with Employer - was confirmed by her post-hearing review of the evidence. Although the Single Commissioner did not agree with the PTSD conclusion by the psychologist to whom Claimant was sent by her attorney for an evaluation in anticipation of litigation, some of his notes are instructive: Claimant has "very difficult feelings" regarding Employer, and "*believes she was poorly protected before the incident* (lack of precaution, warnings, signage, etc.) and *poorly cared for since*, primarily in the interest of the company 'always pushing for money'" [emphasis added]. Claimant's "extreme symptoms" as revealed by the MMPI showed Claimant to be "**extremely angry** and suspicious ..." and "overly sensitive to criticism." Claimant is also described as "rigidly moralistic, at times potentially using projection and rationalizing to deal with her problems," "blaming others," being **possibly overtly paranoid**, and "**harboring**

grudges." Some of these descriptions came through loud and clear at the hearing. This presentation, along with the many inconsistencies, gives the impression that Claimant wants to "stick it" to Employer by having Employer pay for all Claimant's unrelated health conditions, and other conditions, some of which she does not even appear to have (Claimant's APA #27, pages 291-292; observations of the Single Commissioner at the hearing and after reviewing all the evidence).

95. Claimant's own psychological evaluator admits that Claimant's MMPI showed some exaggeration of symptoms. Interestingly, he does not state that Claimant's testing is valid, but "probably valid." The Commission finds that Claimant's psychological evaluator's report is also inconsistent in a salient way: during the interview, he found that Claimant appeared "somewhat" anxious and "mildly" depressed. However, his ultimate conclusion is that suffers from significant PTSD (Claimant's APA #27, including but not limited to pages 290 and 292-293).

96. This case is not just a "battle of the experts." Given the salient inconsistencies in Claimant's subjective complaints to providers and her presentation at the hearing (the alleged "memory problems" alone were refuted by Claimant's impressive ability to recall the names/spellings of providers she saw two years earlier), her contentions as to the sequalae of the exposure do not ring true.

97. Claimant's social security status is not dispositive in any workers' compensation case. *See* Soloman v. WB Easton, 415 S.E.2d 841 (Ct. App. 1992) citing Larsons ("[a]wards and records of the Social Security Administration ordinarily cannot be relied upon to support or deny a workers' compensation claim"). Further, Claimant did not include the basis for which she applied; the portion of the record Claimant did submit states that "We

based our decision on information you gave us" [emphasis added] (Claimant's APA #29; Hearing Transcript, page 74).

98. Of all the evidence, the Commission gives the greatest weight to the credible opinions/statements of Drs. Feldman, Mitchell, MacKinnon (except for his assumption that Claimant is telling the truth about her emotional condition, as he has not had access to all the records as has the Commission), Aquilina, and Early. I also give weight to the treatment record by a non-workers' compensation physician.

99. The Commission finds that the only memory problems that Claimant has involve trying to keep straight her inconsistent presentations to providers. This is based on her testimony and the entirety of the medical evidence.

100. **If a claimant's sworn testimony and/or selective complaints to providers were dispositive, every workers' compensation claim would be compensable.**

101. Claimant has admittedly read up on HF and complains of most, if not all, of every conceivable side effect—except for weight loss.

102. Claimant's request for benefits under the Act beyond the treatment already provided by Defendants is denied.

103. Claimant's average weekly wage is $1,074.24, yielding a compensation rate of $766.05 (stipulation of the parties).

104. The Claimant has failed to meet her burden of proving an occupational disease as defined in the Act and all claims for benefits are denied.

105. No hearing costs are assessed.

CONCLUSIONS OF LAW

Based on the above Findings of Fact, the Appellate Panel makes the following conclusions of law:

1. S.C. Code Ann. Sec. 42-1-160 defines "injury" as only injury by accident arising out of and in the course of employment and does not include a disease of any kind. Moreover, in medically complex cases, the Claimant is required to establish that an injury arises from the employment using medical evidence. This is a medically complex case and both parties submitted medical evidence, the greater weight and preponderance of which establishes the Claimant's brief exposure to trace amounts of HF vapors did not result in any permanent injury. As to the pulmonary injuries, the evidence suggests an immediate and short-term response which was expected to resolve and, according to medical evidence, did resolve. Additional evidence suggested a chronic pulmonary condition which remained unchanged following the exposure and created no additional disability that did not pre-exist the accident. As to the cardiologic injuries, the evidence suggests the delayed onset of AV heart block is wholly inconsistent with the mechanism of injury to be expected from HF exposure, which is an immediate onset coupled with evidence of electrolyte imbalance, neither of which were present in this claim. As to the other injuries to the bones, neurological system, sense of smell and taste, and PTSD, the Claimant failed to develop convincing evidence to explain how these conditions could be related when taken in context of all the medical evidence and contradictions in the Claimant's testimony and history to her providers. To the extent medical evidence was developed in this regard, it is hard to reconcile the extent to which this evidence relied on the

Claimant's oral history against the numerous inconsistencies between the Claimant's testimony and the medical evidence. As such, the Commission concludes the Claimant did not sustain a permanent compensable injury as contemplated by the Act.

2. S.C. Code Ann. Sec. 42-1-120 defines "disability" as incapacity due to injury to earn the wages the employee was earning at the time of the accident in the same or any other employment. Workers' Compensation benefits are awarded not for a physical injury as such, but for "disability" produced by such injury as measured by the employee's capacity or incapacity to earn the wages he was receiving at the time of the accident. Corbett v. City of Columbia, 348 S.E.2d 191 (S.C. App. 1986). The evidence of this claim supports finding the Claimant was exposed to HF vapors and experienced immediate symptoms involving shortness of breath and coughing. The objective medical reports show these immediate symptoms resolved within days, even though the Claimant's subjective testimony stands to the contrary. The Claimant was capable of performing her job in the aftermath of her exposure, however, and was only incapacitated from employment when she developed AV heart block, which the Commission finds to be an unrelated, thus not compensable, condition. Moreover, the Claimant alleges her ongoing incapacity for employment is related to chronic pulmonary disability which, while potentially true, is also unrelated to her exposure to HF vapors as this disability was shown to pre-exist her injury. Thus, the Claimant failed to establish disability as contemplated by the Act.

3. The burden is on the Claimant to prove the facts that render the injury compensable. An award of benefits under the Act cannot be based on surmise, conjecture, or speculation. Kennedy v. Williamsburg County, 131 S.E.2d 512 (1963). If the evidence is conflicting

upon the issues, such conflicts can only be resolved by the Workers' Compensation Commission, the fact-finding body. Black v. Barnwell County, 143 S.E.2d 753 (S.C. 1964). The credibility and weight of a doctor's testimony is for the trier of facts. Chapman v. Foremost Dairies, 154 S.E.2d 845 (S.C. 1967); ***See* Clark v. Phillips Electronics/ Shakespeare, 433 S.C. 186, 192 (Ct. App. 2021)(citing Crane v. Raber's Disc. Tire Rack, 429 S.C. 636, 647 (2021)("The Panel, bound as it is to make findings based on substantial evidence, must explain how the credibility determination is important to making the particular factual finding.")**. The evidence in this matter is conflicting on the issues but, for the reasons discussed in-depth above, the Commission weighs the evidence in such a manner as to conclude the Claimant has not carried her burden of proof. Considering the testimony of the witnesses, the exhibits, and the medical evidence, the greater weight and preponderance of the evidence does not support a finding of compensability.

4. "Substantial evidence" necessary to support a decision of the Commission is not a mere scintilla of evidence nor evidence viewed from one side, but such evidence when, when the whole record is considered, as would allow reasonable minds to reach the conclusion the Commission reached. Whigham v. Jackson Dawson Communications, 763 S.E.2d 420 (S.C. 2014). For the Commission to rule in favor of the Claimant would require the evidence to be viewed entirely from her side. The Defendants submitted ample and convincing evidence to support the conclusion the Claimant did not sustain a compensable injury by accident. Not only did various medical reports and opinions provide direct evidence establishing the Claimant's mechanism of injury is not consistent with HF exposure, anecdotal testimony provided by employer witnesses provided

circumstantial evidence allowing the Commission to conclude the concentration and duration of exposure encountered by Claimant was insufficient to cause the injuries she alleges. **The information contained in Dr. Edelman's report does not disturb this conclusion.**

5. Nothing in the Act suggests our legislature intended to compensate an employee for aches, pains, or other conditions that do not interfere with his ability to do his job, even if those conditions are work-related. King v. International Knife & Saw, 718 S.E.2d 227 (S.C. App. 2011). Although the Claimant was exposed to HF vapors in the course of her employment, the evidence of record supports the conclusion the symptoms to arise from this exposure did not interfere with the Claimant's ability to do her job. Accordingly, the accident sustained by the Claimant is not of the sort that would give rise to compensation under the Act.

6. S.C. Code Ann. Sec. 42-15-60 allows an employer to provide medical treatment for a period not exceeding ten weeks to effect a cure or give relief. There is no liability on the part of an employer to furnish medical treatment beyond ten weeks unless it will tend to lessen the claimant's period of disability. Dykes v. Daniel Const. Co., 202 S.E.2d 646 (S.C. 1974). The Commission has determined the Claimant developed short-term symptoms as a result of her accident and orders the employer to pay for treatment rendered in addressing those symptoms. As these symptoms resolved without producing disability, as discussed above, the employer has no liability for medical treatment beyond that which they have already provided.

7. S.C. Code Ann. Sec. 42-9-10; Sec. 42-9-20; Sec. 42-9-30; and S.C. Reg. 67-1101 all address compensation schemes for permanent disability caused by an injury by accident.

Because the Commission declines to find the Claimant sustained a permanent injury by accident, no benefits are awarded under these statutes and/ or regulations.

8. S.C. Code Ann. Sec. 42-15-60 addresses entitlement to medical treatment which is the result of a compensable injury. Because the Commission declines to find the Claimant sustained a compensable permanent injury by accident beyond the medical treatment that has already been provided, no additional medical benefits are awarded under this statute.

ORDER

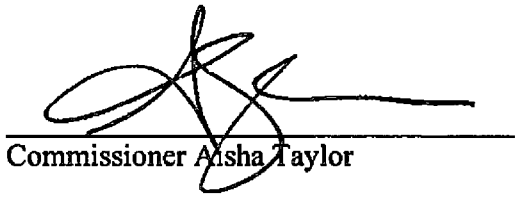
Based on the above Findings of Fact and Conclusions of Law, it is hereby Ordered that, upon careful consideration of the evidence of record, the greater weight and preponderance of evidence submitted suggests the Claimant failed to sustain a permanent injury by accident arising out of and in the course and scope of her employment when she was exposed to HF vapors on August 11, 2015. The evidence suggests she experienced temporary symptoms which resolved without causing permanent injury. The evidence also suggests the mechanism of injury alleged by Claimant is not consistent with HF exposure, which produces injury within 24 to 48 hours, not two to three weeks. Having considered all evidence of record and entering the above Findings of Fact and Conclusions of Law, the Full Panel of the Commission herby affirms the decision of the Single Commissioner, with amendments.

SO ORDERED.

Commissioner R. Michael Campbell
For the Appellate Panel

WE CONCUR:

Commissioner Avery Wilkerson



Commissioner Aisha Taylor

Order Served via email:

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CERTIFICATE OF SERVICE

This is to certify that the undersigned has on this date served a copy of this order in the above entitled action upon all parties to this case by sending an electronic copy hereof by electronic mail addressed to the attorneys for said parties; or if there is an unrepresented party(ies), by depositing a copy hereof, postage paid in the United States mail, first class, addressed to the unrepresented party(ies) and to the attorney(s) for the represented party(ies).

By Eugenia Hollmon on October 18, 2022