

JOHN AARON, BARBARA ABLES, ET AL.

VERSUS

MCGOWAN WORKING PARTNERS,
MCGOWAN WORKING PARTNERS, INC.,
ET AL.

C/W

RAFAEL ADAMS, ADRIAN ANDERSON,
ET AL.

VERSUS

MCGOWAN WORKING PARTNERS,
MCGOWAN WORKING PARTNERS, INC.,
ET AL.

C/W

ANDREW L. HICKS, JR.;
ANNIE B. KENNEDY; ET AL.

VERSUS

MCGOWAN WORKING PARTNERS,
MCGOWAN WORKING PARTNERS, INC.,
ET AL.

NO. 16-CA-696 C/W
16-CA-697 &
16-CA-698

FIFTH CIRCUIT

COURT OF APPEAL

STATE OF LOUISIANA

ON APPEAL FROM THE SECOND PARISH COURT
PARISH OF JEFFERSON, STATE OF LOUISIANA
NO. 091-885, DIVISION "A"
HONORABLE ROY M. CASCIO, JUDGE PRESIDING

June 15, 2017

HANS J. LILJEBERG
JUDGE

Panel composed of Susan M. Chehardy,
Robert A. Chaisson, and Hans J. Liljeberg

AFFIRMED IN PART; AMENDED IN PART; AND REVERSED IN PART

HJL
SMC
RAC

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LILJEBERG, J.

This is a mass tort suit involving several consolidated lawsuits filed in Second Parish Court in Jefferson Parish. The litigation arises out of a hydrochloric acid leak which occurred in Avondale, Louisiana, on April 5, 2001. This appeal involves twenty plaintiffs who proceeded to trial together. Defendants, McGowan Working Partners, Inc. and Avondale Oil and Gas, L.L.C. (f/k/a McGowan Working Partners Southeast Louisiana, L.L.C.) (hereinafter referred to collectively as “McGowan”), as well as McGowan’s insurer, Federal Insurance Company, appeal the trial court’s May 7, 2015 judgment finding defendants liable to all twenty plaintiffs for damages.

For reasons set forth more fully below, we find the trial court was clearly erroneous in finding the following plaintiffs satisfied their burden to prove chemical exposure caused their injuries and reverse the awards in their favor: Eloise Caston, Eleanor Lawson, Gloria Byrd, Stacy Reid Lopez, Latangia Thornton, Laura Ann Birden, Ernest Chisholm and Doris Collins. We also find the trial court abused its discretion with respect to the amount of general damages awarded to nine of the other plaintiffs and reduce these awards. In all other respects, the judgment as amended is affirmed.

PROCEDURAL HISTORY

The trial court conducted two trials in these consolidated matters. The first trial, which involved 12 plaintiffs, occurred in November 2006. On June 4, 2008, the trial court issued a judgment awarding nine of the 12 plaintiffs monetary damages totaling \$38,000. Plaintiffs filed a suspensive appeal, but it was dismissed as untimely.

The second trial, which is the subject of the current appeal, involved 20 plaintiffs. The trial commenced on July 9, 2012, and lasted two weeks. During the trial, the parties introduced transcripts of the testimony from many of the witnesses

from the first trial, including plaintiffs' experts and several first responders who responded to the incident, as exhibits during the second trial. At the conclusion, the trial court held the matter open to allow the parties to take a rebuttal deposition of plaintiffs' air dispersion modeling expert witness, Dr. Vasilis M. Fthenakis, on July 23, 2012. Following extensive delays for post-trial motions and briefing, the trial court issued a judgment on May 7, 2015, which found as follows:

IT IS ORDERED, ADJUDGED, AND DECREED that there be Judgment herein in favor of the below listed Plaintiffs and against the Defendants, finding one hundred percent (100%) fault on Defendants, the existence of general causation of the chemical's ability to cause physical injuries to human beings in the concentrations and periods of time established, and specific causation of individual damages to the listed individuals set forth below

The trial court awarded all twenty plaintiffs general damages ranging in amounts from \$1,000 to \$8,000.¹ Defendants filed a timely motion for new trial, which, *inter alia*, asserted that according to the Louisiana Supreme Court's decision in *Howard v. Union Carbide Corporation*, 09-2750 (La. 10/19/10), 50 So.3d 1251, the amount of general damages awarded to each plaintiff was excessive.² After hearing arguments on the motion for new trial, the trial court ordered a limited new trial during which the parties were permitted to introduce evidence comparing the chemical released in this case, hydrogen chloride, with the chemical released in *Howard*, naphtha.

The trial court conducted the new trial on January 28, 2016. On June 22, 2016, the trial court issued a judgment maintaining all general damage awards rendered in its May 17, 2015 judgment. From these judgments, plaintiffs filed a timely suspensive appeal.

¹ The trial court also awarded special damages to two plaintiffs for missing work. The general and special damages awarded to all twenty plaintiffs totaled \$59,432.10.

² In *Howard*, *supra*, the plaintiffs were exposed to a chemical leak and suffered injuries similar to plaintiffs in the present matter. The Supreme Court determined the trial court's general damages awards ranging from \$1,500 to \$3,500 were a clear abuse of discretion because the "damages proven, such as eye, nose, and throat irritations, are not unlike the symptoms suffered by persons afflicted with common seasonal allergies . . . [and] might be characterized as mere annoyances." *Id.* at 1256. The Supreme Court reduced the general damages awards to a range of \$100 to \$500. *Id.*

FACTUAL BACKGROUND

The source of the hydrochloric acid leak at issue was a storage tank located on property owned and operated by McGowan. The property is located on the southeast corner at the intersection of Highway 90 (2700/2800 block) and Jamie Boulevard in Avondale, Louisiana. At 5:00 p.m. on April 4, 2001, McGowan unloaded 600 gallons of a solution of 31.4% hydrochloric acid and 68.6% water (hereinafter referred to as “HCl” or “HCl solution”) into the storage tank. Several days prior to filling this tank, a McGowan employee, Elijah Gatlin, conducted maintenance on the tank and replaced a clear plastic hose. Mr. Gatlin used a fitting made of nylon to connect the hose to a valve on the tank. Mr. Gatlin was not aware HCl causes nylon to deteriorate. Sometime in the later hours of April 4, 2001, or early morning hours of April 5, 2001, the fitting began to dissolve and HCl started to leak from the tank. Ultimately, 470 gallons of HCl solution escaped onto the ground of the McGowan property.

At approximately 3:10 a.m., Deputy Guillory with the Jefferson Parish Sheriff’s Office saw smoke coming from the McGowan property and reported a grass fire. Lieutenant Paul Jackson of the Nine Mile Point Fire Department arrived at the scene at 3:18 a.m.³ Lt. Jackson drove onto the McGowan property, exited his vehicle and stepped into the smoke. He immediately realized the smoke was vapor and was not from a fire. Lt. Jackson was not wearing protective gear and did not experience physical symptoms from the vapor. Lt. Jackson exited the property, notified hazardous materials authorities and requested additional manpower. Shortly thereafter, a command post was set up across the street from the McGowan property in a Burger King parking lot. The wind was blowing the vapor from the

³ The Nine Mile Point Fire Department responded to the call because the Avondale Police Department was engaged on the scene of a house fire.

southeast to the northwest into the intersection of Jamie Blvd. and Hwy. 90.⁴ The command post was located east of this intersection and was not in the path of the plume.

Robert Darcey, the Hazardous Materials Coordinator for Jefferson Parish Emergency Management, was contacted and responded to the scene at 4:05 a.m. He saw a white vapor cloud that looked like steam emanating from the containment area and migrating to the northwest.⁵ He went onto the property and approached the tank from the upwind side to avoid the vapor. He explained that he walked within ten feet of the tank in order to read the label and identify the chemical leaking from the tank. He did not smell any odors or feel any physical sensations at that time. Mr. Darcey testified that they asked people in four surrounding businesses, including the Shell station, McDonald's, Winn Dixie and Spur station, to shelter in place.

Around that same time, first responders set up road blocks in the surrounding area to prevent cars from entering the intersection of Hwy. 90 and Jamie Blvd. The barricade to the east of the intersection was located at Hwy. 90 and Lapalco Blvd. The southern barricade was located at South Jamie Blvd. and Rosalie Dr. and the northern barricade was located at North Jamie Blvd. and South Tish Dr. The western barricade was initially located at Hwy. 90 and West Tish Dr. Later, first responders moved the western barricade back to Hwy. 90 and Avondale Garden Rd. to improve the flow of traffic. Mr. Darcey testified that roadblocks were not set up due to any concern regarding chemical exposure in the area, but rather to ensure the safety of the first responders crossing Hwy. 90. First responders testified that they did not wear protective gear and did not experience symptoms of HCl exposure.

⁴ At the time of the incident, the wind was blowing at approximately six to seven miles per hour.

⁵ He testified that the plume continued in essentially the same direction, from the southeast to the northwest, the entire time he was at the site.

McGowan's employee, Mr. Gatlin, arrived at the McGowan property at 4:30 a.m. Mr. Gatlin and Mr. Darcey walked to the containment area surrounding the tank. Mr. Gatlin approached the tank and shut off the leaking valve at 4:35 a.m. Mr. Gatlin testified that approximately 75% of the containment area was covered with liquid at that time.

In order to monitor the air quality, Mr. Darcey took air samples at four different locations on and around the McGowan property at 4:35 a.m., 5:05 a.m. and 6:25 a.m. The first measurement he took at 4:35 a.m. was a control sample on the upwind side of the storage tank. He chose the location because he did not expect contamination at this location and the readings detected no HCl. He took the second set of measurements at the Shell station on the southwest corner of Hwy. 90 and Jamie Blvd., approximately 80 to 100 yards from the source of the leak. The readings at this location at 4:35 a.m. and 5:05 a.m. were 2 parts per million ("ppm").⁶ Mr. Darcey also took air samples just south of the edge of the vapor cloud on South Jamie Dr. and near the entrance of the Winn Dixie parking lot west of the Shell station on Hwy. 90. All readings were negative for HCl at these two locations. Based on his findings, Mr. Darcey testified that people in the Shell station continued to shelter in place, but first responders determined evacuation orders were not necessary.

HCl Dispersion and Concentration Expert Evidence

At trial, the testimony and evidence presented by the parties focused primarily on the extent of the dispersion of HCl emissions into the surrounding neighborhoods. To support their positions, each side retained air dispersion modeling experts. Plaintiffs presented testimony and evidence from Dr. Fthenakis,

⁶ As discussed *infra*, several guidelines exist regarding acceptable levels of HCl exposure. The lowest level provided by the United States Environmental Protection Agency is above 1.8 ppm. The Occupational Safety and Health Administration set the permissible level of unprotected exposure to workers for an eight hour workday in an enclosed environment at 5 ppm. Mr. Darcey testified that the minimum level he was concerned with at the time of the incident was 5 ppm and his response at this level would have been to shelter in place. He further explained that if he received a reading at 10 ppm, they would have started moving people from the area.

who was accepted by the trial court as an expert in source emission characterization, air dispersion modeling and safety assessment and analysis. Defendants presented testimony from Kennard Kosky, who the trial court accepted as an expert in information and assessment of air emissions and air dispersion modeling.

The parties agreed that in order to determine the amount of HCl emitted into the atmosphere, the experts must first determine the maximum surface area covered with acid. Dr. Fthenakis calculated a surface area of 1,500 square feet and opined that acid covered this maximum surface area for a period of 15 to 30 minutes.⁷ Based on this surface area and the prevailing conditions at the McGowan facility on the morning of the incident, Dr. Fthenakis estimated the maximum HCl emission rate to be 22 grams per second for a period of 15 to 30 minutes. He opined that a plume with concentrations sufficient to cause adverse health effects extended over a mile into the neighborhoods northwest of the facility during the maximum emission period.

Dr. Fthenakis' testimony regarding the exact timing the maximum emissions occurred was less certain. In the testimony he provided during the first trial, Dr. Fthenakis opined that maximum evaporation levels were occurring between 3:00 a.m. and 4:00 a.m., but most likely at 3:30 a.m. He further testified that after 4:30 a.m., HCl emissions from the McGowan property would be minor because Mr. Gatlin reported the amount of liquid leaking from the tank when he shut off the valve at 4:35 a.m. was "pencil thin." Prior to the second trial, Dr. Fthenakis testified by deposition that HCl emissions causing adverse health effects in humans would have stopped sometime between 4:30 a.m. and 5:00 a.m. In his final rebuttal deposition taken after the second trial, Dr. Fthenakis adjusted the time for

⁷ The storage tank at issue was surrounded by a dike or containment area which was approximately 600 sq. ft. in size. The HCl solution escaped from the containment area and into the surrounding yard of the McGowan facility because a valve was damaged during grass cutting operations and McGowan had not yet replaced the valve at the time of the spill.

the maximum emissions from 3:30 a.m. to around 4:00 a.m. He repeatedly stated throughout his testimony that based on his analysis, maximum emissions definitely occurred much earlier than the time when Mr. Gatlin shut off the valve at 4:35 a.m. He also explained that his diagram only depicted the plume at the time of maximum emissions and after that time, the plume would be much smaller.

In contrast, defendants' air modeling expert, Mr. Kosky, calculated a surface area of 166 sq. ft. at the time of maximum emissions. He opined that the HCl solution evaporated quickly. Therefore, all significant emissions occurred within ten minutes after the solution leaked from the tank and emissions after the initial ten minutes would be negligible. The model generated by Mr. Kosky indicated that HCl concentrations causing adverse health effects never travelled beyond the McGowan property.

With respect to the length of time the emissions continued, Dr. Fthenakis agreed the maximum emissions occurred within the first ten minutes. However, he did not agree that emissions would be negligible after that time. In support of his position, he pointed to a test conducted by a McGowan engineer and partner, Willem "Mart" Lamar, during which he determined that emissions continued for 31 minutes after pouring a gallon of HCl solution on the ground. Dr. Fthenakis also pointed to a container test conducted on behalf of McGowan after the spill, which indicated significant emissions continued for 22 minutes after pouring HCl solution into the container. He further noted Mr. Darcey's testimony regarding the 2 ppm reading he took at the Shell station at 5:05 a.m., 30 minutes after Mr. Gatlin closed the valve.

In its reasons for judgment, the trial court rejected Mr. Kosky's findings as inferior in credibility and competency and adopted its findings from the first trial which stated:

As such, the Court specifically finds that the dispersion geography, concentrations, and times testified to by Dr. Fthenakis on direct examination constitute the fact findings of this Court of the area into which the chemical dispersed, the concentrations the chemical existed in at said dispersion locations, and at the applicable time periods of dispersion and concentration. These findings are based on the direct examination, cross examination, and re-direct examination of Dr. Fthenakis as opposed to the direct, cross and re-direct of Mr. Kosky. The rebuttal testimony and exhibits from Dr. Fthenakis merely served to reinforce the Court's foregoing findings.

The trial court also attached and adopted a diagram prepared by Dr. Fthenakis demonstrating the location of the plume and levels of HCl emissions into the surrounding area at the time of maximum emissions. The trial court did not render any specific findings regarding the times these HCl concentrations existed in the adjacent areas.

HCl Exposure Level Guidelines

The parties presented evidence regarding several different HCl exposure level guidelines through their toxicology experts, Dr. William Nassetta (plaintiffs) and Dr. Christopher Teaf (defendants). Dr. Nassetta explained that when a person is exposed to 1.8 ppm of HCl for a period of 10 minutes, he or she may begin to manifest adverse health effects. He also agreed that pursuant to the Acute Exposure Guideline Levels ("AEGLs"), established by the United States Environmental Protection Agency ("EPA"), the lowest reported safe level of exposure to HCl is at 1.8 ppm. According to the EPA, the lowest exposure level (AEGL-1) is described as follows:

. . .the airborne concentration, expressed as parts per million or milligrams per cubic meter (ppm or mg/m³) of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic nonsensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.

The EPA provides the AEGL-1 for hydrogen chloride is above 1.8 ppm regardless of whether the time of exposure is for 10 minutes or 8 hours. According to Dr. Nassetta, low-level HCl exposure ranges from 1.8 ppm to 20 ppm. He

explained that when the HCl exposure level is at or below 20 ppm, the amount of time of exposure is not a factor because the health effects resulting from exposure are immediate.

Defendants also introduced evidence regarding permissible exposure levels set by the Occupational Safety and Health Administration (“OSHA”) and the American Conference of Government Industrial Hygienists (“ACGIH”). OSHA provides the permissible level of HCl exposure to workers during an eight hour workday in an enclosed environment is 5 ppm without the need for protective gear. Dr. Teaf testified that the ACGIH’s ceiling for HCl exposure is 2 ppm.

The toxicologists agreed this event involved low-level exposures to HCl, ranging from 1.8 ppm to 20 ppm. Both plaintiffs’ and defendants’ experts, which included their toxicologists and special causation experts, testified that the effects of low-level HCl exposure begin with eye irritation (i.e. stinging, watery eyes) and nose irritation (i.e. burning, runny nose).⁸ The symptoms could progress to throat irritation and then breathing difficulty. These experts further agreed the onset of symptoms would be immediate following low-level HCl exposure. Defendants’ experts testified the symptoms would cease almost immediately after exposure ends. However, plaintiffs’ experts testified that symptoms could last from 48 hours to two weeks depending on the level of HCl exposure. Plaintiffs’ experts also testified that the primary symptoms described above could lead to secondary symptoms such as headaches, nausea and vomiting.

DISCUSSION

FIRST ASSIGNMENT OF ERROR

In their first assignment of error, defendants contend the trial court erred by adopting the air dispersion models prepared by Dr. Fthenakis. Defendants first

⁸ Dr. Teaf testified he did not believe that all individuals would experience symptoms when exposed to HCl levels just above 1.8 ppm. However, he agreed that virtually everyone would have a consistent level of symptoms when exposed to levels starting at 3 ppm to 5 ppm.

contend this error occurred in part due to evidentiary errors committed by the trial court, including the exclusion of testimony and evidence offered by defendants' toxicology expert, Dr. Teaf, and the trial court's failure to exclude Dr. Fthenakis under *Daubert*.⁹

It is well-settled that a court of appeal may not set aside a trial court's findings of fact in the absence of manifest error or unless it is clearly wrong. *Rosell v. ESCO*, 549 So.2d 840, 844 (La. 1989). However, if upon review, we find the trial court committed one or more evidentiary errors that interdict the fact-finding process, we are required to instead conduct a *de novo* review. *Faulkner v. Better Servs.*, 10-867 (La. App. 5 Cir. 5/24/11), 67 So.3d 646, 651. As such, because a finding of an evidentiary error may affect the standard of review we should apply, we will address the alleged evidentiary errors first in this appeal.

We note, however, that in regard to defendants' allegations that the trial court improperly admitted or excluded certain evidence, the trial court is granted broad discretion in determining the admissibility of evidence and its determinations will not be disturbed on appeal absent a clear abuse of that discretion. *Color Stone Int'l, Inc. v. Last Chance CDP, LLC*, 08-35 (La. App. 5 Cir. 5/27/08), 986 So.2d 707, 715.

Exclusion of Dr. Teaf's Charts and Testimony

With respect to their toxicology expert, Dr. Teaf, defendants claim the trial court erred in excluding testimony and charts Dr. Teaf prepared regarding the percentage of claimants who were outside of the plume calculated by Dr. Fthenakis at the time of alleged HCl exposure. Defendants argue Dr. Teaf's analysis indicated that 27% of the people who submitted notarized claim forms were located outside of the plume area defined by Dr. Fthenakis.

⁹ *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993).

In the first trial, the trial court entered a case management order which provided that in lieu of formal written discovery, plaintiffs would submit notarized forms providing detailed information regarding their claims. At the first trial, plaintiffs produced 450 claim forms. Defendants provided these forms to Dr. Teaf to compare claimants located within and outside of the HCl plume calculated by Dr. Fthenakis. According to defendants, Dr. Teaf determined that 15% of the claimants were outside of the plume, but reported the same symptoms as claimants located inside the plume. Dr. Teaf testified his findings were significant because they indicated it was not scientifically possible to conclude HCl exposure took place due to the similarity of symptoms of those both inside and outside of Dr. Fthenakis' plume.

Between the first and second trials, plaintiffs provided an additional 772 claim forms for a total of 1,222 forms. These forms represented 1,611 claimants, as some forms included entries for multiple claimants residing in a household. Defendants provided these additional forms to Dr. Teaf to conduct the same analysis he previously prepared.

Just prior to the second trial, defendants indicated their intent to introduce Dr. Teaf's testimony and charts regarding his updated analysis that included the additional 772 claim forms produced after the first trial. Defendants argued this information was relevant to demonstrate the inaccuracies of Dr. Fthenakis' air dispersion models. Plaintiffs objected based on their claim that defendants waited to provide plaintiffs with notice of their intent to introduce this new testimony and evidence until just days prior to the trial and they did not have time to prepare their cross-examination regarding his new analysis.

The trial court upheld plaintiffs' objection and only allowed Dr. Teaf to testify regarding his analysis of the original 450 claim forms presented in the first trial. The trial court reasoned the new charts prepared by Dr. Teaf were exhibits

which defendants failed to provide to plaintiffs in a timely manner. The trial court also noted that defendants failed to list the notarized claim forms as exhibits and that without these forms, the trial court would have to accept Dr. Teaf's testimony without the ability to review the underlying data supporting it. At the end of the trial, defendants proffered Dr. Teaf's testimony and charts with respect to the additional 722 claim forms.

On appeal, defendants argued the case management order governing the second trial did not require the parties to provide updated expert reports. Defendants further argued they complied with the deadline to exchange demonstrative evidence by providing plaintiffs with the charts it would use during Dr. Teaf's testimony three days prior to trial. Defendants noted that since the trial court allowed Dr. Teaf's analysis of the 450 plaintiffs into evidence in the first trial, the updated analysis of the additional notarized claim forms should be admitted in the second trial. Defendants finally argued that plaintiffs' medical causation expert, Dr. Charles Mary, testified that it would be important to know whether persons in the same area had similar complaints.

In response, plaintiffs argued Dr. Teaf's statistical analysis provided no probative value in determining the validity of Dr. Fthenakis' air dispersion models and further noted that it is not uncommon for people outside the exposure zone of a chemical leak event to submit a claim. Plaintiffs argued that Dr. Teaf's analysis only proves that 27% of the claimants may not have a compensable claim for HCl exposure.

The record is unclear with respect to the deadlines the parties were required to follow prior to the second trial. However, our review of the record indicates it was not unreasonable for the trial court to require defendants to provide plaintiffs with advanced notice of their intent to introduce new evidence during the second trial to allow adequate time for review and preparation. We further find the trial

court did not abuse its discretion by finding defendants should have listed the claim forms which formed the basis for Dr. Teaf's opinions as trial exhibits. As explained above, a trial court enjoys broad discretion in determining the admissibility of evidence. *Color Stone, supra*. Therefore, we find that the trial court did not abuse its discretion by excluding Dr. Teaf's charts and testimony regarding the additional 722 claim forms produced by plaintiffs.

Furthermore, even if the trial court erred by excluding Dr. Teaf's additional analysis, we find the error was harmless, as the trial court allowed defendants to introduce similar evidence regarding Dr. Teaf's analysis of the original 450 claim forms submitted by plaintiffs. In addition, the fact that a percentage of plaintiffs claimed symptoms of HCl exposure despite being outside of the plume calculated by Dr. Fthenakis does not necessarily require a finding that the plume is inaccurate. The findings could simply indicate that a percentage of claimants filed unfounded or unsupported claims.

Daubert Challenge to Dr. Fthenakis

Defendants also complain the trial court should have rejected Dr. Fthenakis as an expert pursuant to *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993). Plaintiffs contend that defendants failed to challenge Dr. Fthenakis on *Daubert* grounds during the second trial and may not do so for the first time on appeal.

Defendants do not deny plaintiffs' assertion that they did not raise a new *Daubert* challenge regarding Dr. Fthenakis during the second trial. Defendants rely on the *Daubert* challenge raised during the first trial which questioned the methodologies employed by Dr. Fthenakis. However, defendants agreed to allow plaintiffs to introduce Dr. Fthenakis' prior trial testimony in lieu of his live testimony at the second trial without any limitations or objections. Defendants cannot rely on objections raised during the first trial without renewing the

objection with the trial court during the second trial. Therefore, we find that defendants failed to properly preserve their *Daubert* challenge with respect to Dr. Fthenakis and cannot raise the issue for the first time on appeal.

Challenge to Trial Court's Adoption of Dr. Fthenakis' Air Dispersion Model and Testimony

As stated, defendants contend the trial court erred in accepting the air dispersion models generated by Dr. Fthenakis. Defendants claim the evidence contradicts his opinions regarding the HCl emissions levels and size of the plume.

When considering expert testimony, a trial judge is free to accept or reject, in whole or in part, the opinions expressed by the experts. *Allensworth v. Grand Isle Shipyard, Inc.*, 15-257 (La. App. 5 Cir. 10/28/15), 178 So.3d 191, 197. The effect and weight to be given to the expert testimony presented is within the broad discretion of the trial judge. *Id.* The decision reached by the trial judge regarding expert testimony will not be disturbed on appeal absent a finding that the trial court abused its broad discretion. *Id.*

Furthermore, it is well-settled that a court of appeal may not set aside a trial court's findings of fact in the absence of "manifest error" or unless it is "clearly wrong," and where there is conflict in the testimony, reasonable evaluations of credibility and reasonable inferences of fact should not be disturbed upon review, even though the appellate court may feel that its own evaluations and inferences are as reasonable. *Richardson v. American Cyanamid Co.*, 99-675 (La. App. 5 Cir. 2/29/00), 757 So.2d 135, 143, *writ denied*, 00-921 (La. 5/12/00), 761 So.2d 1291. Where there are two permissible views of the evidence, the factfinder's choice between them cannot be manifestly erroneous or clearly wrong. *Id.*

The air dispersion experts, Dr. Fthenakis and Mr. Kosky, agreed that as the size or area of the HCl spill increased, the amount of evaporation or emissions increased, thereby increasing the concentration level of HCl in the air. The experts

also agreed the rate at which the HCl solution flowed from the tank affected the size or surface area of the spill. The more quickly the solution leaked from the tank, the greater the surface area of the spill. Therefore, the main disputes between the air modeling experts involved the amount of time and manner in which the 470 gallons of HCl leaked from the tank, as well as the size of the surface area of the spill and duration of evaporation.

On appeal, defendants contend Dr. Fthenakis' air modeling conclusions arise from his inaccurate determination that, at the time of maximum emissions, the HCl evaporation rate was 22 grams per second. Defendants assert Dr. Fthenakis assumed a surface area of 1,500 sq. ft. in order to increase the concentration of HCl emissions during the maximum emission period. Defendants contend this required Dr. Fthenakis to assume the nylon fitting burst and the HCl solution leaked out all at once to quickly cover an area of 1,500 square feet. Defendants claim these assumptions are incorrect and contrary to actual testing completed by McGowan engineer and partner, Mr. Lamar.¹⁰ They contend that by accepting Dr. Fthenakis' air dispersion model, the trial court failed to consider or account for Mr. Lamar's testing.

At trial, Mr. Lamar explained several different tests he conducted in an attempt to recreate the April 5, 2001 incident. He first conducted a tank test, which involved filling the tank at issue in this matter with 500 gallons of water. Based on the time required to drain 470 gallons of water from the tank, Mr. Lamar calculated it would take 51 minutes for 470 gallons of 31.4% HCl solution to leak from the tank through a 3/4" valve opening. Defendants contend this test demonstrated that Dr. Fthenakis' theory of the fitting suddenly bursting open could not be accurate as the leak was first reported at 3:10 a.m. and was still ongoing over an hour later when Mr. Gatlin closed the valve at 4:35 a.m.

¹⁰ Mr. Lamar practiced as a petroleum engineer, civil engineer and hydrologist. Defendants did not offer him as an expert witness.

In his second test, Mr. Lamar used an exemplar fitting and placed it in HCl solution to determine how long it would take for the fitting to degrade. He testified that small pinholes began to develop in the fitting after seven hours in the acid and the fitting completely dissolved after 20 hours. On the day prior to the incident, the tank was filled with acid at 5:00 p.m. Based on his experiment, Mr. Lamar concluded the tank began to leak at 12:00 a.m., which would have been seven hours after filling the storage tank. Defendants contend this test demonstrates the fitting degraded over a long period of time and the acid slowly leaked from the tank as opposed to the instantaneous bursting assumed by Dr. Fthenakis.

Finally, Mr. Lamar conducted two tests to calculate the surface area of the spill. First, he ran 500 gallons of water from a hose at approximately eight gallons per minute at the location where the leak started. He compared the path of the water to the stains left on the ground from the acid on the day of the spill and determined the acid which leaked from the tank covered three times the surface area of the water. The water covered 300 sq. ft. causing Mr. Lamar to conclude the acid would have covered 900 sq. ft. Mr. Lamar also released one gallon of water and one gallon of HCl solution on the ground to compare the area each covered. He testified that based on the results of this test, he again determined the HCl solution covered an area three times greater than the water.

McGowan also retained EFEH & Associates to conduct a container test to measure the evaporation rate of 31.4% HCl solution when applied to soil from the McGowan property. During the test, 40 ppm of HCl was measured at 12" above the soil. Defendants argue in response that only 2 ppm of HCl was measured at the top of the container another 16" above. Defendants also argue that Dr. Fthenakis did not conduct any tests to contradict the results of Mr. Lamar's testing, but continued to use a surface area of 1,500 sq. ft. Defendants argue the trial court's

failure to recognize these test results makes its acceptance and adoption of Dr. Fthenakis' model unreliable.

In response, Dr. Fthenakis testified that defendants mischaracterized his testimony by claiming he believed the fitting suddenly burst and all of the liquid exited the tank at one time. Rather, Dr. Fthenakis agreed the leak started slowly. However, he testified that at some point the fitting became thinner and burst because of the hydrostatic pressure caused by the liquid in the tank. He testified that at this point the acid exited the tank at a more rapid rate. Dr. Fthenakis further explained that at a later point, the flow rate began to slow down due to a drop in the liquid level and a reduction in the pressure from the liquid above the valve. Dr. Fthenakis explained this caused a decrease in the gravitational pull of liquid out of the tank and this concept was confirmed by Mr. Gatlin, who described the leak from the tank as a pencil-thin stream when he closed the valve at 4:35 a.m. According to Dr. Fthenakis, Mr. Lamar failed to account for the effect of these pressure levels in his testing.

With respect to the surface area, plaintiffs contend that although defendants' air modeling expert, Mr. Kosky, admitted the acid covered an area of 1,500 sq. ft., he calculated an area of only 166 sq. ft. as the maximum evaporation area. Dr. Fthenakis testified that if Mr. Kosky used the proper equation set forth in the EPA guideline documents Mr. Kosky relied upon to complete his calculations, he would have calculated a surface area of 1,900 sq. ft. Plaintiffs contend based on these equations, their surface area was smaller than the area supported by the materials relied upon by defendants' own expert.¹¹

As explained above, a trial court enjoys great discretion in its decision to accept or reject an expert opinion. *Allensworth, supra*. The trial court heard the

¹¹ Defendants also argue Dr. Fthenakis failed to account for the neutralizing effect of shells on the McGowan property which are made of calcium carbonate. When hydrochloric acid comes into contact with calcium carbonate, the acid begins to neutralize and emissions are reduced. In its reasons for judgment, the trial court noted that it assigned little weight to this issue due to defendants' failure to provide evidence regarding the quality of the shells present at the site at the time of the incident and the extent of the mitigating effect of shells on the acid.

testimony of the witnesses, viewed their demeanor and was in the best position to assess the credibility of the experts' opinions. The trial court provided extensive reasons for its decision to accept the opinions of Dr. Fthenakis over those expressed by Mr. Kosky. In addition, with respect to Mr. Lamar's testimony, the trial court reasoned as follows:

On behalf of the McGowan Defendants, with whom he is associated in business, Mr. Willem Lamar testified on his experiments and conclusions, including that the acid covered an area of 900 square feet. While the Court appreciates his efforts, the Court notes that Dr. Fthenakis has substantially more credentials and experience in the scientific matters involved. Thus, the Court rejects the conclusions of Mr. Lamar that are at odds with those of Dr. Fthenakis and accepts the conclusion of Dr. Fthenakis that the acid, more likely than not, covered an area of 1,500 square feet for a period between 15 to 30 minutes. Factoring the proven atmospheric/weather conditions at the time with the 1,500 square feet surface area, Dr. Fthenakis calculated the maximum emission rate was 22 grams per second for the 15 to 30 minute period. The Court accepts these conclusions and adopts them as its findings.

Appellate review of a trial court's factual findings is limited to a determination of whether the record contains a reasonable factual basis for the trier of facts findings. *Richardson*, 757 So.2d at 143. We have carefully reviewed the entire record in this case, including numerous volumes of testimony and exhibits. The record, when viewed in its entirety, shows a reasonable factual basis for the trial court's acceptance of Dr. Fthenakis' expert testimony over plaintiffs' witnesses and evidence. We are therefore unable to conclude the trial court's decision to adopt Dr. Fthenakis' conclusions regarding HCl dispersion and concentrations was manifestly erroneous.¹²

SECOND AND THIRD ASSIGNMENTS OF ERROR

Causation

In their second and third assignments of error, defendants assert the trial court erred in finding plaintiffs satisfied their burden of proving specific causation.

¹² Dr. Fthenakis also calculated the emission rate for an evaporation surface area of 900 sq. ft. and determined it would be 13 grams per second. Dr. Fthenakis created diagrams indicating that HCl concentrations ranging from 1.8 ppm to 20 ppm would have reached a large portion of the same area affected by the emissions calculated based on a 1,500 sq. ft. evaporation area.

Defendants argue the trial court's judgment in favor of all twenty plaintiffs is inconsistent with the facts and evidence regarding the adverse effects of exposure to low levels of HCl (1.8 ppm to 20 ppm). They further note the trial court made no effort in its ruling to define the timing of the emissions or to correlate Dr. Fthenakis' expert testimony regarding the time of HCl emissions causing adverse health effects with the time and place of exposure reported by each plaintiff. Furthermore, defendants argue the trial court failed to correlate the undisputed testimony from the toxicology and specific causation experts regarding the immediate onset of primary symptoms with the symptoms reported by each plaintiff.

In any personal injury suit, the plaintiff bears the burden of proving a causal relationship between the injury sustained and the accident which caused the injury. *Maranto v. Goodyear Tire & Rubber Co.*, 94-2603 c/w 94-2615 (La. 2/20/1995), 650 So.2d 757, 759. In toxic tort cases, proof of causation has two components, general and specific. *Pick v. American Medical Systems, Inc.*, 958 F.Supp. 1151, 1164 (E.D. La. 1997). "General causation" refers to whether a substance is capable of causing a particular injury or condition in the general population, while "specific causation" refers to whether a substance caused a particular individual's injury. *Knight v. Kirby Inland Marine, Inc.*, 482 F.3d 347, 351 (5th Cir. 2007). A plaintiff cannot sustain his or her burden of proof with general causation proof alone; the plaintiff must also establish specific causation. *See Berzas v. Oxy USA, Inc.*, 29,835 (La. App. 2 Cir. 9/24/97), 699 So.2d 1149, 1154.

Exclusion of Specific Causation Testimony

As with their first assignment of error, defendants also raise discovery and evidentiary objections regarding the trial court's decision to prohibit defendants' specific causation expert, Dr. Brobson Lutz, from conducting independent medical examinations ("IMEs") for each plaintiff, as well as the trial court's decision to

limit Dr. Lutz's trial testimony. As discussed above, if we find the trial court abused its discretion and committed evidentiary errors that interdict the fact-finding process, we are required to conduct a *de novo* review. *Faulkner*, 67 So.3d at 651.

Prior to the second trial, the parties and trial court agreed to permit defendants to conduct IMEs for each plaintiff with a physician chosen by defendants. Defendants retained Dr. Lutz, who was ultimately accepted as an expert in internal medicine during trial, to conduct the IMEs and offer an opinion as to whether each plaintiff's allegations regarding symptoms, location and time of exposure were consistent with known and accepted scientific concepts relevant to low-level HCl exposure. After the completion of several IMEs, plaintiffs filed a motion to prohibit defendants from conducting any additional IMEs and to preclude Dr. Lutz from providing expert testimony at trial. Plaintiffs argued that Dr. Lutz's reports indicated he was not conducting medical examinations, but rather interrogating plaintiffs to establish inconsistencies with respect to their times of exposure and symptoms. Plaintiffs further argued that due to the short duration of plaintiffs' injuries and the passage of time since they occurred in 2001, Dr. Lutz's IMEs and testimony would not assist the trial court as the trier of fact.

The trial court granted plaintiffs' motion in part and prohibited Dr. Lutz from performing any additional IMEs and from offering testimony regarding the IMEs he completed. The trial court first noted that La. C.C.P. art. 1464 requires a court to find good cause exists prior to ordering an IME.¹³ The trial court stated

¹³ La. C.C.P. art. 1464 provides:

When the mental or physical condition of a party, or of a person in the custody or under the legal control of a party, is in controversy, the court in which the action is pending may order the party to submit to a physical or mental examination by a physician or to produce for examination the person in his custody or legal control, except as provided by law. In addition, the court may order the party to submit to an examination by a vocational rehabilitation expert or a licensed clinical psychologist who is not a physician, provided the party has given notice of intention to use such an expert. The order may be made only on motion for good cause shown and upon notice to the person to be examined and to all parties and shall specify the time, place, manner, conditions, and scope of the examination and the person or persons by whom it is to be made.

that good cause did not exist because an IME conducted nine years after injuries ceased would not assist the court. The trial court further stated its review of Dr. Lutz's reports indicated they addressed credibility issues and inconsistencies in the plaintiffs' testimony more than they provided medical opinions.

The trial court entered a subsequent order on April 17, 2012, which permitted both plaintiffs and defendants to call expert witnesses to address specific causation issues with respect to plaintiffs' injuries. However, the trial court did not permit the experts to examine or interview plaintiffs and were limited to offering opinions based on their review of claim forms, depositions, trial testimony and medical records. During trial, the trial court also prohibited Dr. Lutz from discussing issues relating to the time and concentration levels of each plaintiff's alleged exposure. The trial court explained that establishing and comparing the timing of the emissions and each plaintiff's exposure was the trial court's job and beyond the expertise of Dr. Lutz.

On appeal, defendants contend the trial court erred by prohibiting Dr. Lutz from conducting the IMEs because obtaining a medical history is an integral part of a medical examination. Trial courts have broad discretion when regulating pre-trial discovery, which discretion will not be disturbed on appeal absent a clear showing of abuse. *Oliva v. Winn-Dixie La., Inc.*, 99-831 (La. App. 5 Cir. 1/4/00), 756 So.2d 444, 448, *writ denied*, 00-370 (La. 3/31/00), 759 So.2d 71.

After reviewing Dr. Lutz's reports, the trial court determined the purpose of the IMEs was not to gather information to evaluate the physical condition of the plaintiffs, but rather to gather information to attack their credibility. Though the parties previously agreed to allow defendants to conduct IMEs, we do not find that the trial court abused its discretion by prohibiting any further IMEs due to the lack of good cause to conduct an examination nine years after the incident.

Furthermore, plaintiffs did not sustain complicated injuries and Dr. Lutz had access

to extensive information with respect to each plaintiff through their claim forms, depositions, trial testimony and medical records.

Defendants also complain the trial court erred by prohibiting Dr. Lutz from discussing “time and concentration components” relative to each trial plaintiff. Defendants note that many plaintiffs reported first experiencing symptoms well after HCl emissions ceased as calculated by Dr. Fthenakis. Defendants contend the limitations placed on Dr. Lutz’s trial testimony deprived defendants of the opportunity to defend the specific causation issue and the trial court’s error warrants reversal.

Our review of the trial testimony indicates the trial court prohibited Dr. Lutz from comparing his interpretation of the evidence regarding the times HCl emissions were occurring with plaintiffs’ reported exposure times. The trial court, however, did permit Dr. Lutz to discuss his opinions as to the lack of evidence of specific causation with respect to plaintiffs who did not experience the primary symptoms of HCl exposure, those who did not experience the immediate onset of symptoms and those who continued to experience symptoms after exposure ceased.¹⁴ We cannot find the trial court abused its wide discretion by prohibiting Dr. Lutz, an internal medicine expert, from providing opinions which required Dr. Lutz to determine the time HCl emissions occurred. Furthermore, even if the trial court erred in excluding this testimony, we do not find that specific causation expert testimony was necessary to determine and compare the times HCl emissions occurred with each plaintiff’s reported exposure time.

Trial Court’s Failure to Define Emission Times

In their second assignment of error, defendants argue the trial court erred in finding plaintiffs satisfied their burden to prove causation and damages.

Defendants first contend it was critical for the trial court to define the potential

¹⁴ Defendants’ experts opined that symptoms should cease once exposure ended, whereas plaintiffs’ experts testified that symptoms could continue for more extended periods as HCl concentration levels increased.

exposure times and HCl concentrations prior to considering whether each plaintiff met his or her burden to prove specific causation, particularly because the symptoms of HCl exposure are common and can be attributed to a wide range of other causes. Defendants contend the trial court erred in finding specific causation existed without reaching a specific determination regarding the emission times and levels. Defendants also contend the trial court failed to correlate the expert testimony and evidence with each plaintiff's reported location, time of exposure and resulting symptoms.

The trial court stated several times during the trial that its job was to determine the relevant exposure times after reviewing all of the evidence. However, we agree with defendants that the trial court did not render a determination as to the times when HCl emissions existed that could adversely affect human health. Rather, the trial court simply stated in its reasons that it was adopting the dispersion geography, concentrations and times testified to by Dr. Fthenakis and making them the findings of the court. The trial court further adopted the "findings, calculations and conclusions of Dr. Fthenakis as shown on his modeling diagram, Exhibit P-11 (from Trial 1, Exhibit 2012-P-12 A-10 in Trial 2), attached hereto and incorporated herein as representing the Court's findings." Dr. Fthenakis explained this diagram provided information regarding the exposure levels at the time of maximum emissions. However, it does not provide the time maximum emissions occurred or explain how long emissions adversely affecting human health lasted.

Defendants argue plaintiffs' sole evidence regarding exposure times was provided through Dr. Fthenakis' testimony. Dr. Fthenakis, however, did not analyze or compare his findings with the facts specific to each individual plaintiff's

alleged exposure.¹⁵ As explained above, Dr. Fthenakis opined during the first trial that maximum emissions occurred around 3:30 a.m. He explained the rate the acid was flowing from the tank began to decrease after this time and therefore, the HCl concentration levels began to decrease. In addition, he testified that when the leak was stopped by Mr. Gatlin at 4:35 a.m., the plume could not grow any further. When asked when all emissions affecting human health would have ended, Dr. Fthenakis stated this occurred between 4:30 a.m. and 5:00 a.m.

In his final rebuttal deposition taken after the second trial, Dr. Fthenakis revised his prior testimony and stated the maximum emissions occurred sometime around 4:00 a.m. Based on Dr. Fthenakis' prior testimony, the only possible conclusion is that emissions causing adverse health effects would have ended sometime between 5:00 a.m. and 5:30 a.m. Therefore, as discussed more fully below, we find specific causation cannot exist for those plaintiffs who first experienced alleged symptoms of HCl exposure well after 5:30 a.m. as the record is void of evidence to support a finding otherwise.¹⁶

Defendants also argue the trial court erred in finding specific causation existed because the first responders, as well as Mr. Darcey and Mr. Gatlin, testified that they were within the immediate area of the spill, did not wear any protective gear and did not suffer any symptoms of HCl exposure. Defendants also argue that first responders at the roadblock located in Dr. Fthenakis' plume did not experience symptoms of HCl exposure. Defendants argue this un rebutted evidence

¹⁵ On cross-examination, defense counsel asked Dr. Fthenakis about a few specific times and locations. For instance, defense counsel inquired about the concentration level at Avondale Garden Rd. and Hwy. 90 between 5:45 a.m. and 6:00 a.m. and Dr. Fthenakis indicated the reading would be zero at this "late time." Defense counsel also inquired about the concentration level at the intersection of Grambling St. and Butler Dr. at 3:30 a.m. Dr. Fthenakis estimated that at this location at 3:30 a.m., the HCl concentration level would be at 5 ppm based on the one-minute average model he generated.

¹⁶ During his rebuttal deposition, plaintiffs' counsel briefly asked Dr. Fthenakis about the concept of "waking" as an explanation as to why some plaintiffs first experienced symptoms of HCl exposure at later times. Dr. Fthenakis explained that under this concept it could be possible for the chemical to get trapped in a house or other semi-enclosure. However, as discussed below, none of the plaintiffs who experienced HCl exposure after 5:30 a.m. reported first experiencing symptoms in or after entering an enclosed or semi-enclosed area.

undercuts the trial court's findings that all twenty plaintiffs' symptoms resulted from HCl exposure.

In its reasons adopted from the first trial, the trial court dismissed the first responder testimony based on credibility grounds. We also note that many of these individuals testified that they took precautions to remain outside of the area of the plume. Furthermore, during his rebuttal deposition, Dr. Fthenakis explained that by the time first responders arrived at the roadblock on Hwy. 90 and West Tish Dr. (later moved back to Hwy. 90 and Avondale Garden Rd.), the wind shifted the plume well north of Hwy. 90. He further opined that because maximum emissions occurred around 4:00 a.m., the HCl concentration levels may have dissipated by the time first responders established the roadblock in this area. Based on the foregoing, we do not find the trial court erred in finding plaintiffs met their burden of proof with respect to specific causation despite first responder testimony indicating they suffered no adverse health effects.

Lack of Specific Causation with Respect to Individual Plaintiffs

In their third assignment of error, defendants address the circumstances of each individual plaintiff and argue the record is void of evidence to support a finding that each plaintiff proved specific causation. Defendants contend that based on the evidence, some plaintiffs reported a time and place where it would not be possible for HCl exposure to cause his or her symptoms. With respect to other plaintiffs, defendants argue their symptoms are inconsistent with undisputed evidence regarding the expected immediate effects of HCl exposure.

The trial court relied primarily upon testimony from plaintiffs' causation expert, Dr. Mary, to support its finding that plaintiffs satisfied their burden to prove specific causation. However, Dr. Mary's specific causation testimony consisted of nothing more than assuming that each plaintiff was exposed to 1.8 ppm or more of HCl for a ten minute period and then concluding plaintiff's

symptoms were consistent with HCl exposure. Dr. Mary admitted he did not make any determinations regarding whether each plaintiff was actually exposed to hydrochloric acid. Rather, he limited his testimony to the issue of whether each plaintiff's reported symptoms were consistent with HCl exposure.

Dr. Mary agreed with the toxicology experts that the progression of primary symptoms for low-level HCl exposure are eye, nose and throat irritation, and finally difficulty breathing. He further agreed the onset of these symptoms would be immediate following exposure. When confronted with the issue of why certain plaintiffs did not experience primary symptoms and only experienced the secondary symptoms such as nausea and headaches, Dr. Mary merely speculated that perhaps some plaintiffs emphasized the secondary symptoms because they were worse. Plaintiffs did not offer further evidence to explain how plaintiffs allegedly exposed to HCl experienced delayed symptoms or none of the primary symptoms.

Based on the foregoing, defendants contend the trial court erred in finding specific causation existed as to some plaintiffs because when their symptoms arose, they were in locations beyond the plume calculated by Dr. Fthenakis and/or at times at which no adverse health effects would be expected. In addition, defendants contend that certain plaintiffs complained of symptomology that is incompatible with HCl exposure. We now review the trial court's findings regarding specific causation with respect to each individual plaintiff contested by defendants.

Artinc Johnson

Ms. Johnson resided at 339 Glendella Dr. in Avondale, La. On the morning of the incident, she awoke at 4:00 a.m. with her eyes burning. She did not see a doctor, but continued to experience burning and irritation in her eyes for three days. The trial court determined Ms. Johnson's home, as well as the streets she

used to travel to work, were within the plume and she received HCl exposure in the range of 1.8 ppm to 5 ppm for a period of time sufficient to cause her physical injuries. The trial court awarded Ms. Johnson general damages in the amount of \$3,000.

Defendants contend that based on the time and place of Ms. Johnson's exposure, one would not expect adverse health effects. In addition, defendants contend her symptoms are incompatible with HCl exposure because they lasted for three days.

Ms. Johnson complained of burning in her eyes when she awoke at 4:00 a.m. and then left for work at 4:30 a.m. She travelled east down Hwy. 90 until she reached Avondale Garden Rd. and was redirected to River Road. She explained that the burning and irritation in her eyes continued for three days. She neither missed work nor saw a doctor. She used eye drops to soothe the burning in her eyes. Based on the foregoing, we find the trial court did not err in finding specific causation existed as Ms. Johnson's home and her route of travel to work were both located within the plume calculated by Dr. Fthenakis and within the time frame he estimated for expected adverse health effects. Furthermore, though defendants' experts testified that symptoms of low-level exposure were transient and ceased immediately after exposure ceased, plaintiffs' toxicologist, Dr. Nassetta, testified the effects of HCl exposure are generally reversed within 48 hours, but in some circumstances the irritancy effects could last up to two weeks depending on the level of exposure. Therefore, the trial court was not clearly erroneous in finding that HCl exposure caused Ms. Johnson to continue to experience burning in her eyes for three days.¹⁷

¹⁷ We address issues relating to the quantum of general damages awarded to each plaintiff, with the exception of plaintiff, Joseph Chevis, Sr., in the final section of this opinion.

Alvin Harris

Mr. Harris lived at 156 Rosalie Dr. in Avondale, La. at the time of the incident. The trial court determined he received HCl exposure up to 20 ppm for a period of time sufficient to cause physical injuries when he left for work sometime between 3:00 a.m. and 3:20 a.m. After leaving his home, Mr. Harris stopped at the Shell station located at the corner of South Jamie Blvd. and Hwy. 90 sometime between 3:20 a.m. and 3:30 a.m.¹⁸ Upon exiting his car, Mr. Harris noticed the sky looked white and foggy and noted a strange smell, experienced burning in his eyes and began coughing. As his symptoms worsened, his eyes continued to burn, his throat burned, his cough persisted and he was gagging and sneezing. He saw Dr. Alex Bouchette for his sore throat on April 9, 2001, and complained that his throat continued to burn for two weeks after the incident. Dr. Bouchette noted Mr. Harris suffered from a cough, post nasal drip and itchy eyes. Mr. Harris did not miss any work. The trial court found that HCl exposure caused Mr. Harris' injuries and awarded him \$5,000 in general damages.

Defendants contend Mr. Harris' symptoms are incompatible with HCl exposure because they lasted two weeks, he did not receive prompt medical treatment and his medical records indicate his symptoms were consistent with allergies. As explained above, Dr. Nassetta testified symptoms could last up to two weeks and the nature and timing of Mr. Harris' symptoms were consistent with the timeline and symptoms described by the toxicology experts. Furthermore, we disagree with defendants' assertion that seeing a doctor four days after the incident is not "prompt medical treatment" under these circumstances. Therefore, the trial court did not err in concluding Mr. Harris satisfied his burden to prove specific causation.

¹⁸ The Shell station is located just on the other side of Jamie Blvd. from where the spill occurred. In addition, Mr. Darcey recorded readings of 2 ppm at 4:35 a.m. and 5:05 a.m. at this location.

Aubrey Lacy

Mr. Lacy lived at 241 Coretta Dr. in Avondale, La. at the time of the incident. He awoke at 3:00 a.m. and left for work at 4:00 a.m. The trial court determined his house and the streets he used to travel to work were within the plume and he received HCl exposure in amounts ranging from 1.8 ppm to 20 ppm for a period of time sufficient to cause physical injuries. Mr. Lacy explained that he drove east on Hwy. 90 toward Jamie Blvd. and began to experience eye irritation, burning throat and a cough. As he approached Jamie Blvd., he noticed a fog in the air. At that point, he was told to turn around due to a chemical spill. He testified that his symptoms lasted several days and he received medical treatment and medication from Charity Hospital. The trial court found specific causation existed and awarded Mr. Lacy \$3,000 in general damages.

On appeal, defendants note that in his deposition prior to trial, Mr. Lacy testified he did not experience symptoms until later in the morning when he arrived at work. Defendants argue Mr. Lacy impeached himself when he testified at trial that he began experiencing symptoms when he was travelling on Hwy. 90 shortly after leaving his home for work.

Where there is a conflict in the testimony, reasonable evaluations of credibility and reasonable inferences of fact should not be disturbed upon review, even though the appellate court may feel that its own evaluations and inferences are as reasonable. *Carrier Corp. v. Cousins*, 15-24 (La. App. 5 Cir. 5/14/15), 179 So.3d 1168, 1172; *Rosell*, 549 So.2d at 844. When findings are based on determinations regarding the credibility of witnesses, the manifest error-clearly wrong standard demands great deference to the trier of fact's findings. *Id.*

We find the trial court was not clearly erroneous in accepting Mr. Lacy's trial testimony and determining he met his burden of proof with respect to specific causation.

Joseph Chevis, Sr.

Mr. Chevis resided at 300 Deacon Street in Avondale, La. On the day of the incident, he was driving west on Hwy. 90 heading home from work at 4:30 a.m. He testified that he drove through the intersection at Jamie Blvd. and noticed a fog. The trial court found that upon arriving home, Mr. Chevis was dizzy and his throat and nose were burning. He took a nap and when he woke around 6 a.m., Mr. Chevis continued to experience burning in his eyes, nose and throat. He testified that he saw his family doctor two times as a result of the exposure and he had stomach problems for two to three weeks. The trial court found that at Jamie Blvd. and Hwy. 90, HCl levels were as great as 20 ppm and that Mr. Chevis' HCl exposure caused his symptoms. The trial court awarded Mr. Chevis \$3,000 in general damages.

On appeal, defendants argue Mr. Chevis' symptoms are inconsistent with HCl exposure because he did not report an immediate onset of symptoms. Defendants claim he testified that he drove through the intersection of Hwy. 90 and Jamie at 4:30 a.m., but did not report having any symptoms until after he got home, took a nap and woke at 6:30 a.m. at least two hours after exposure. Defendants also argue his symptoms are inconsistent with HCl exposure because he claims they lasted two to three weeks.

After reviewing Mr. Chevis' trial testimony, we find his reported symptoms are consistent with HCl exposure. With respect to the time he first experienced symptoms, Mr. Chevis initially testified he experienced symptoms as he was arriving home and he later testified that he first noticed the symptoms after waking up from his nap two hours later. However, as stated, the trial court's credibility findings are entitled to great deference from this Court. Therefore, we do not find that the trial court erred in finding Mr. Chevis established specific causation for his symptoms.

Eloise Caston

Ms. Caston resided at 305 Travis Dr. in Avondale, La. The trial court determined that due to the location of her home and the streets Ms. Caston travelled on the morning of the incident, her HCl exposure was in the range of 1.8 ppm to 5 ppm. The trial court noted that Ms. Caston arrived home at 6:30 a.m. and as she approached her home, she began to experience burning eyes, nose and throat, coughing and a headache. She explained the eye problems lasted the rest of the day and she experienced headaches for three days. The trial court found the exposure was sufficient to cause Ms. Caston's primary and secondary symptoms and awarded her general damages in the amount of \$3,000.

On appeal, defendants argue that due to the time and place when Ms. Caston first experienced symptoms, she should not have experienced adverse health effects. Defendants further contend her symptoms are inconsistent with the evidence because they began hours after exposure and lasted for three days.

As explained more fully above, plaintiffs presented no evidence to support a finding that HCl emissions sufficient to cause adverse human effects still were present at 6:30 a.m. Furthermore, Ms. Caston did not indicate that she experienced symptoms after entering an enclosed or semi-enclosed area where the chemical might have been trapped. Therefore, we find the trial court was clearly erroneous in concluding Ms. Caston's symptoms were caused by HCl exposure and reverse the trial court's award of general damages in the amount of \$3,000.00.

Phillip Gullage

Mr. Gullage resided at 321 Counsel Dr. west of Avondale, La., and located at the edge of the plume calculated by Dr. Fthenakis. The trial court found that on the day of the incident, Mr. Gullage drove from his home down to Hwy. 90 and headed east with his windows down. The trial court determined that he stopped to get gas at the Shell station on the corner of Hwy. 90 and Jamie Blvd. at around

4:45 a.m., but the station was closed. He continued to drive east on Hwy. 90, but encountered the roadblock at Lapalco Blvd. and claims he was directed to head back west and drove through the intersection at Hwy. 90 and Jamie Blvd. a second time. The trial court found that according to Mr. Gullage, the second time he passed through the intersection, his eyes started to burn, his head started hurting, he became nauseated and vomited. Mr. Gullage also testified that he missed seven hours of work that day at a rate of \$17.50 per hour. The trial court found specific causation existed and awarded Mr. Gullage \$1,000 in general damages and \$122.50 in special damages for missing work.

On appeal, defendants contend the trial court erred in finding specific causation because Mr. Gullage testified that he drove through the Hwy 90/Jamie Blvd. intersection twice with his windows down, but did not experience an immediate onset of symptoms. Defendants note Mr. Gullage was at the Shell station outside of his car for seven minutes around the same time Mr. Darcey detected 2 ppm of HCl, but Mr. Gullage testified that he did not experience any symptoms at that time. Rather, Mr. Gullage did not begin to experience symptoms until he drove back to Avondale Garden Rd. Defendants contend Mr. Gullage's symptoms were inconsistent because they lasted the entire day. They further note Mr. Gullage did not seek medical treatment.

According to Dr. Fthenakis' testimony, HCl emissions were beginning to decrease during the time period Mr. Gullage drove to the Shell station and through the intersection at Jamie Blvd. Dr. Fthenakis further testified that the plume was narrow in the area closest to the source of emissions and could shift to different locations within the area due to the wind. Considering the totality of the testimony and evidence, we cannot find the trial court was clearly erroneous in finding that HCl exposure at the Jamie Blvd. intersection at around 4:45 a.m. caused Mr. Gullage's symptoms. Furthermore, the fact that the symptoms lasted the entire day

is supported by testimony offered by plaintiffs' experts. Therefore, we do not find that the trial court was clearly erroneous by determining specific causation existed for Mr. Gullage's injuries and loss of income.

Elvina Gordon

Ms. Gordon lived at 124 Morgan Court in Avondale, La. The trial court noted that on the day of the incident, Ms. Gordon slept with her windows open and woke up at 4:00 a.m. with burning eyes, itchy throat, nausea and a pounding chest. She received medical treatment at Charity Hospital and reported that her burning eyes and itchy throat lasted for a week. The trial court determined Ms. Gordon's home was within the plume and she received HCl exposure in amounts up to 5 ppm for a period of time sufficient to cause physical injuries. The trial court awarded her \$3,000 in general damages.

On appeal, defendants argue Ms. Gordon's symptoms are inconsistent with the evidence because she claims they lasted for a full week after the incident. However, as explained above, Dr. Nassetta testified that symptoms could last for up to two weeks. Therefore, we find the trial court did not err in finding specific causation existed with respect to Ms. Gordon's injuries.

Richard Van Brown, Sr.

Mr. Brown resided at 115 Southern Court in Avondale. The trial court found that on the morning of April 5, 2001, Mr. Brown was on his way home from work heading west on Hwy. 90 with his windows down. He drove through the intersection of Hwy. 90 and Jamie Blvd. and stopped at a diner on Hwy. 90 for breakfast at 4:00 a.m. The diner was located just past Jamie Blvd. The trial court noted Mr. Brown began having problems with his eyes, throat and stomach while at the diner. He immediately drove to West Jefferson Medical Center ("WJMC") and at 5:30 a.m. reported burning and irritation to his eyes, nose, throat and stomach. The trial court noted the symptoms lasted through the following day and

Mr. Brown missed two days of work. However, Mr. Brown failed to provide evidence of lost wages. The trial court determined that specific causation existed and awarded Mr. Brown general damages in the amount of \$1,500.

On appeal, defendants argue that due to the time and place when Mr. Brown first began to experience symptoms, he should not have experienced adverse health effects. Defendants further contend specific causation does not exist because Mr. Brown did not have symptoms until long after he was allegedly exposed. Finally, defendants argue the medical records from WJMC indicated no abnormal findings.

Our review of Mr. Brown's testimony indicates he initially testified that he arrived at the diner sometime between 3:30 a.m. and 4:00 a.m. in the morning. Later, he testified that he arrived at 4:00 a.m. He saw smoke at the Hwy 90/Jamie Blvd. intersection as he passed through on his way to the diner. He testified that after he stopped eating, he started feeling bad and began to experience symptoms in his eyes and throat, running nose and his stomach started to feel bad. He left for WJMC sometime between 4 a.m. and 4:30 a.m. Mr. Brown also testified that he could not recall whether he missed work.

It appears defendants contend Mr. Brown should have experienced symptoms immediately after he went through the Hwy 90/Jamie Blvd. intersection. However, Dr. Fthenakis testified that the plume is narrow in areas close to the source and can shift with the wind. Furthermore, the diner was located within the plume calculated by Dr. Fthenakis and adopted by the trial court. Therefore, we cannot find the trial court was clearly erroneous in finding specific causation existed with respect to Mr. Brown's injuries.

Eleanor Lawson

Ms. Lawson resided at 157 Anne Dr. in Avondale, La. She testified that she woke up at 5:30 a.m. to the sound of sirens and went outside to investigate. She noticed an unidentifiable smell. Ms. Lawson explained that her ears and sinuses

began to bother her. She then developed a headache, and became nauseated and dizzy. The trial court determined Ms. Lawson lived within the plume close to the spill location and her exposure was up to 20 ppm for a period of time sufficient to cause physical injury. The trial court found specific causation existed and awarded Ms. Lawson \$1,000 in general damages.

On appeal, defendants complain Ms. Lawson's symptoms were inconsistent with HCl exposure and she did not seek medical treatment. Our review of Ms. Lawson's trial testimony indicates she could not recall if she began experiencing symptoms immediately after she went outside or later in the day. Furthermore, plaintiffs' experts agreed that a person exposed to HCl would immediately experience eye irritation, nose irritation, burning throat and then difficulty breathing. Ms. Lawson did not report any of these symptoms. We find Ms. Lawson failed to satisfy her burden to prove specific causation and the trial court was clearly erroneous in its finding that HCl exposure caused Ms. Lawson's symptoms. As a result, we reverse the trial court's general damage award to Ms. Lawson in the amount of \$1,000.

Betty Ann Marie Dugue

Ms. Dugue resided at 142 Southern Court in Avondale. Ms. Dugue went outside at 5:00 a.m. and noticed an unpleasant odor. She soon began suffering from watery eyes, sneezing, coughing, shortness of breath and headaches. The trial court found she lived in the portion of the plume with HCl exposure of 5 ppm for a period of time sufficient to cause physical injuries. The trial court awarded Ms. Dugue general damages in the amount of \$1,000.

On appeal, defendants argue the trial court erred in finding specific causation because Ms. Dugue's symptoms were incompatible with low-level HCl exposure since she indicated her symptoms lasted "a couple of days." Defendants further noted that Ms. Dugue did not seek medical treatment. As explained above,

plaintiffs' experts testified that HCl exposure symptoms can last beyond the time of exposure. Therefore, we do not find that the trial court erred in finding Ms. Dugue met her burden to prove specific causation for her injuries.

Gloria Byrd

Ms. Byrd lived at 185 Travis Dr. in Avondale. On the day of the chemical spill, Ms. Byrd worked at the Jefferson Parish Corrections Center in Gretna, La. until 6:00 a.m. After finishing work, Ms. Byrd proceeded home where she encountered several roadblocks. She eventually ended up on River Road, which she took to Avondale Garden Rd. Ms. Byrd testified that upon crossing the train tracks on that road, she noticed a pungent odor, her eyes and nose began to burn and she felt a cramp in her stomach. Ms. Byrd arrived home shortly thereafter at 6:40 a.m. The trial court determined Ms. Byrd was exposed to between 1.8 ppm and 5 ppm of HCl and awarded her \$1,500 in general damages.

On appeal, defendants contend Ms. Byrd could not have been exposed to HCl causing adverse health effects at the time and place of her alleged exposure. We agree, as plaintiffs presented no evidence to support a finding that residents in the adjacent neighborhoods would continue to experience adverse effects from HCl exposure at 6:40 a.m. Based on the evidence and testimony presented by Dr. Fthenakis, the latest HCl emissions with adverse effects would have occurred around 5:30 a.m. Furthermore, Ms. Byrd testified that she began experiencing symptoms as she was driving to her house, not while in her house or in any other type of semi-enclosure. Plaintiffs failed to meet their burden of proof to establish the chemical would remain in the neighborhood for almost two hours after the leak ceased and over an hour after emissions would have ceased according to plaintiffs' own expert.

Therefore, we find that the trial court was clearly erroneous in concluding Ms. Byrd's symptoms were caused by HCl exposure. We reverse the trial court's award of general damages to her in the amount of \$1,500.

Gorium Frazier, Jr.

Mr. Frazier resided at 137 Morgan Court at the time of the incident. He woke up at around 4:30 a.m. and left for work at 5:00 a.m. He testified that on his way to work he drove through the intersection of Jamie Blvd. and Hwy 90 after 5:30 a.m. At that time, his eyes began to water, his nose was stuffy and runny, and he started "feeling bad inside." His symptoms lasted until the following day. He did not miss work or seek medical treatment. The trial court determined Mr. Frazier was exposed to HCl at a range between 5 ppm and 20 ppm. The trial court awarded Mr. Frazier \$1,500 in general damages.

On appeal, defendants contend the trial court erred in determining Mr. Frazier was exposed to adverse health effects at the time and place of his alleged exposure. As explained more fully above, the testimony provided by plaintiffs' expert, Dr. Fthenakis, indicates that the latest potential emissions with adverse effects would have occurred around 5:30 a.m. and Mr. Frazier testified he first experienced symptoms around that time.

Therefore, we cannot find the trial court was clearly erroneous in its finding that HCl exposure caused Mr. Frazier's symptoms.

Stacy Reid Lopez

Ms. Lopez testified that she remained in her home located at 200 Jamie Blvd. on the morning of the incident until 7:00 a.m. At that time, she testified that a police officer came to her house and ordered her and her young infant to evacuate her house. She further testified that she was in and out of her house with the police officer still in front of her house from 7:00 a.m. until 9:30 a.m. Ms. Lopez explained she was waiting for a ride from her mother as she had no other means by

which to evacuate her home. She testified that she first experienced symptoms around 7:00 a.m., which included headaches, burning eyes, leg cramping, and a stomach ache. She claimed she later developed sores in her nose. Ms. Lopez testified that she received medical treatment, but did not introduce any medical records at trial. The trial court found Ms. Lopez received HCl exposure of 3 ppm and awarded her \$8,000 in general damages.

On appeal, defendants contend Ms. Reid's factual account and symptoms are inconsistent with the evidence. Based on Dr. Fthenakis' testimony discussed above regarding the time of emissions into the surrounding area, we find the trial court was clearly erroneous in finding Ms. Lopez was exposed to a level of HCl sufficient to cause her alleged symptoms at 7:00 a.m. We, therefore, reverse the trial court's award of general damages to her in the amount of \$8,000.

Latangia Thornton

Ms. Thornton resided at 329 Ambassador Dr. She woke up at around 4:00 a.m. feeling weak. She reported having a headache and stomach ache. She left her house for work sometime between 5:15 a.m. and 5:30 a.m. When she arrived at work, she had a bad headache and vomited. She then left work sometime between 7:15 a.m. and 7:30 a.m. to take her children to school. The trial court concluded that at this later time, Ms. Thornton drove through the intersection of Hwy. 90 and Jamie Blvd. where HCl exposures were as high as 20 ppm. Ms. Thornton alleged her symptoms lasted for a day or two. The trial court awarded Ms. Thornton \$1,500 in general damages.

On appeal, defendants argue Ms. Thornton's symptoms are inconsistent with HCl exposure and she did not seek medical treatment. We agree that only experiencing a headache and stomach ache is inconsistent with low-level HCl exposure. Dr. Mary testified these symptoms can be secondary to the primary exposure symptoms. However, the evidence does not support a finding that

secondary symptoms occur without first experiencing any primary symptoms.

Furthermore, based on Dr. Fthenakis' expert testimony, the trial court was clearly erroneous in determining Ms. Thornton was exposed to HCL as high as 20 ppm at 7:15 a.m. to 7:30 a.m. on the morning of the incident. Therefore, we find the trial court was clearly erroneous in finding Ms. Thornton met her burden to prove specific causation existed for her injuries and reverse the trial court's general damage award in the amount of \$1,500 in her favor.

Laura Ann Birden

Ms. Birden resided at 341 Blair Dr. She testified that she arrived at work at the Avondale truck stop on Hwy. 90 at 3:45 a.m. on the day of the incident.

Twenty minutes after she arrived at work, a police officer told her she needed to leave the cashier booth out by the gas pumps and go to the back of the property by the restaurant. She testified that it looked cloudy outside and she remained in the restaurant area for three hours until around 7:00 a.m. The only symptoms Ms. Birden experienced on the date of the incident were nausea and a subsequent headache, for which she took Tylenol. Ms. Birden was pregnant at the time of the incident. The trial court awarded Ms. Birden \$1,000 in general damages.

On appeal, defendants argue that Ms. Birden's symptoms were not consistent with HCl exposure and she did not seek any medical treatment. We agree Ms. Birden's symptoms of nausea and headache without experiencing any preceding primary symptoms are inconsistent with the expert testimony regarding the expected symptoms of HCl exposure. Furthermore, plaintiffs' expert, Dr. Mary, acknowledged Ms. Birden did not experience any primary symptoms and admitted it was possible her pregnancy caused the nausea. Therefore, we find that the trial court was clearly erroneous in finding Ms. Birden met her burden to prove specific causation for her injuries and reverse the trial court's general damage award in the amount of \$1,000 in her favor.

Ernest Chisholm

Mr. Chisholm testified that he left his home located at 414 George Street at 5:15 a.m. and took a left onto Hwy. 90. According to Dr. Fthenakis' air dispersion model accepted by the trial court, Mr. Chisholm's home was located near the center of the plume. He soon encountered traffic on Hwy. 90 due to a roadblock located at the intersection of Hwy. 90 and West Tish Rd. He testified that he was stopped in traffic near this intersection for about twenty minutes. The trial court appears to have found that Mr. Chisholm's eyes began watering during this time he was stopped in traffic. However, Mr. Chisholm explained in his trial testimony that he did not begin to experience watering and itching around his eyes until after he turned around on Hwy. 90 to head back to his house so he could contact work and inform them he would be late. Based on the timeline provided by Mr. Chisholm, his symptoms first occurred after 5:30 a.m.

As explained above, the evidence indicates that HCl emissions affecting humans ceased around 5:30 a.m. Mr. Chisholm did not experience any symptoms the first time he exited his home at 5:15 a.m. though it was located at the center of the plume. The roadblock he encountered was located near the Winn Dixie located on Hwy. 90. Mr. Darcey received a zero reading in the Winn Dixie parking lot at 5:05 a.m. In addition, in his rebuttal deposition, Dr. Fthenakis testified that upon reexamination of the wind direction and speeds, the plume would be well north of this area of Hwy. 90 after first responders set up the roadblocks sometime after 4:00 a.m.

Based on the foregoing, the evidence regarding Mr. Chisholm's location and time of exposure simply does not support a finding that he suffered symptoms as a result of HCl exposure on Hwy. 90 after 5:30 a.m. Therefore, we find the trial court was clearly erroneous in finding Mr. Chisholm was exposed to a level of HCl sufficient to cause his alleged symptoms. We reverse the trial court's award of

general damages to Mr. Chisholm in the amount of \$1,500 and special damages in the amount of \$209.60.

Elaine Thompson

Ms. Thompson resided at 228 Chapel Lane. She testified that she woke at 4:30 a.m. with eye irritation, coughing and sinus effects, which continued through the next few days. She used Visine drops to treat her irritated eyes. The trial court determined Ms. Thompson lived and drove through the plume where she received HCl exposure in a range of 1.8 ppm to 20 ppm sufficient to cause physical injuries. The trial court awarded Ms. Thompson general damages in the amount of \$1,500.

On appeal, defendants argue the trial court erred in its ruling because Ms. Thompson testified that her symptoms lasted for days and she did not seek medical treatment. We disagree and affirm the trial court's finding that specific causation existed for Ms. Thompson's injuries.

Paulette Alexander

Ms. Alexander lived at 545 Avondale Garden Rd. She testified that she went outside sometime between 4:45 a.m. and 5:00 a.m. She saw a fog and felt an irritant and an itching in her face. She saw a doctor six days after the incident and continued to experience symptoms of sinus, runny nose, itchy eyes and headaches for approximately a week after she saw the doctor. The trial court determined Ms. Alexander lived within the plume and received HCl exposure up to 3 ppm and awarded her \$5,000 in general damages.

On appeal, defendants contend Ms. Alexander testified that she did not experience any symptoms until an hour after exposure. Defendants also complain Ms. Alexander did not seek prompt medical attention and her complaints are not consistent with HCl exposure. However, after reviewing Ms. Alexander's trial testimony, we disagree with defendants' interpretation. Ms. Alexander testified

that she “felt itching” in her face when she went outside in the morning around 4:45 a.m.

Therefore, we find the trial court was not clearly erroneous by determining specific causation existed for Ms. Alexander’s injuries.

Doris Collins

Ms. Collins lived at 341 Church Street. She testified that she went outside for about twenty minutes sometime between 3:00 a.m. and 4:00 a.m. on the day of the incident because her husband was working on their car. She did not report experiencing any symptoms at this time. She later left home at around 6:00 a.m. to go to work. The trial court noted Ms. Collins lived on the very edge of the plume, but found that her route to work brought her into the plume. Ms. Collins testified that she experienced itchy, watery eyes and a scratchy throat. However, she testified that she did not notice these symptoms until much later in the day. The trial court determined Ms. Collins was exposed to 3 ppm to 5 ppm of HCl on her way to work and awarded her \$5,000 in general damages apparently because her symptoms lasted for a week.

On appeal, defendants argue the trial court was clearly erroneous because Ms. Collins did not complain about any symptoms until later in the night after her alleged exposure and the symptoms lasted over a week. As discussed above, the experts all agreed HCl exposure causes an immediate onset of the primary symptoms. Therefore, based on Ms. Collins’ testimony regarding the delay in her symptoms, we find the trial court was clearly erroneous in finding HCl exposure caused her alleged injuries.¹⁹ We reverse the trial court’s award of general damages to her in the amount of \$5,000.

¹⁹ In addition, Dr. Fthenakis’ expert testimony does not support the trial court’s finding that HCl emissions sufficient to cause adverse human effects still existed at 6:00 a.m.

Herbert Martin

Mr. Martin lived at 405 Butler Dr. Mr. Martin went outside on his patio for forty-five minutes sometime between 4:30 a.m. and 5:00 a.m. He noticed an odd smell and began to experience watery eyes, a runny nose and irritated skin. The trial court determined Mr. Martin's home was within the plume and he received HCl exposure in the range of 5 ppm for a period of time sufficient to cause physical injuries. Mr. Martin indicated his symptoms lasted for half a day. The trial court awarded Mr. Martin \$1,000 in general damages.

On appeal, defendants contend Mr. Martin testified that he did not experience any symptoms until several hours after he went outside at 5:00 a.m. However, during his trial testimony, Mr. Martin refreshed his memory with his prior deposition testimony and ultimately testified that he first began experiencing symptoms when he went outside onto his patio sometime between 4:30 a.m. and 5:00 a.m. Therefore, we do not find that the trial court erred in finding Mr. Martin satisfied his burden to prove specific causation for his injuries.

FOURTH ASSIGNMENT OF ERROR

General Damage Awards

In their final assignment of error, defendants contend the trial court abused its discretion with respect to the amount of general damages awarded to plaintiffs considering standards set forth for similar injuries by the Louisiana Supreme Court in *Howard v. Union Carbide Corporation*, 09-2750 (La. 10/19/10), 50 So.3d 1251. We previously reversed the trial court's judgment in favor of 8 of the 20 plaintiffs due to the lack of evidence to support a finding that specific causation existed. Therefore, we review the amount of damages awarded in favor of the remaining 12 plaintiffs.

It is well-settled that vast discretion is accorded to the trier of fact in fixing general damage awards. La. Civ. Code art. 2324.1; *Duncan v. Kansas City*

Southern Railway Co., 00-0066 (La. 10/30/00), 773 So.2d 670, 682. This vast discretion is such that an appellate court should rarely disturb an award of general damages. *Youn v. Maritime Overseas Corp.*, 623 So.2d 1257, 1261 (La. 1993), *cert. denied*, 510 U.S. 1114, 114 S.Ct. 1059, 127 L.Ed.2d 379 (1994). Thus, the role of the appellate court in reviewing general damage awards is not to decide what it considers to be an appropriate award, but rather to review the exercise of discretion by the trier of fact. *Id.* at 1260.

The initial inquiry, in reviewing an award of general damages, is whether the trier of fact abused its discretion in assessing the amount of damages. *Howard*, 50 So.3d at 1256; *Cone v. National Emergency Serv. Inc.*, 99-0934 (La. 10/29/99), 747 So.2d 1085, 1089. Only after a determination that the trier of fact has abused its discretion is a resort to prior awards appropriate, and then only for the purpose of determining the highest or lowest point which is reasonably within that discretion. *Id.*

In *Howard*, the Supreme Court determined the trial court abused its discretion by awarding general damages ranging from \$1,500 to \$3,500, when the claimants suffered minor symptoms similar to those suffered by plaintiffs in the present matter:

The record reveals claimants suffered relatively minor symptoms from their exposure, such as watering eyes, nose or throat irritation, coughing, and headaches. None of the claimants sought or required medical attention as a result of the exposure. They were not required to evacuate from the area as a result of the chemical release, nor did they miss any work or school. Dr. Sullivan testified the symptoms experienced by the claimants would resolve themselves in a day, and could be treated with over-the-counter medications such as Visine. Considering the minimal nature of the claimant's injuries, we conclude the district court's awards of \$ 1,500 to \$ 3,500 represent a clear abuse of discretion. In reaching this conclusion, we recognize, as we did in *Youn*, 623 So. 2d at 1261, that "[r]easonable persons frequently disagree about the measure of general damages in a particular case." Nonetheless, *Youn* also made it clear the general damage award must "bear a reasonable relationship to the elements of the proved damages." *Id.* In the case at bar, the damages proven, such as eye, nose, and throat irritations, are not unlike the symptoms

suffered by persons afflicted with common seasonal allergies. There is simply no reasonable relationship between the claimants' injuries, which might be characterized as mere annoyances, and the damage awards ranging from \$1,500 to \$3,500.

Id.

In *Howard*, the Supreme Court focused on the nature and extent of the injuries, not on the characteristics of the chemical at issue. As discussed above, after the trial court in the present matter rendered its May 7, 2015 judgment, defendants filed a motion for new trial, which included an argument challenging the general damage awards as excessive in light of the *Howard* decision. The trial court granted the motion for new trial in part and ordered a limited new trial to compare the chemicals at issue in this matter and in *Howard*, HCl and naphtha, respectively. At the new trial held on January 28, 2016, Dr. Nassetta testified on behalf of the plaintiffs. He indicated that both chemicals are irritants, but that HCl is more severe of an irritant than naphtha. He stated that as a result, the effects of HCl exposure can last longer than the symptoms of exposure to naphtha. He also testified that HCl can be corrosive, but he agreed that at the levels at issue in this matter, HCl would not have a corrosive effect on humans.

In its judgment, the trial court found that the “injuries that can be caused by HCl and those that can be caused by Naphtha are entirely different” and “HCl is corrosive and far more toxic, presenting a much greater health hazard, than Naphtha.”²⁰ First, the issue of whether HCl can potentially cause different injuries than naphtha is not relevant. The primary issue is whether the general damage awards were excessive in light of strikingly similar minor injuries between the instant plaintiffs and the *Howard* plaintiffs. Furthermore, as stated above, Dr. Nassetta agreed that according to the low-level HCl concentrations determined by

²⁰ In its reasons for judgment, the trial court also noted that Dr. Nassetta testified that he believed the levels of naphtha to which the *Howard* plaintiffs were exposed were not sufficient to cause any injuries. However, this testimony is inapposite as the Supreme Court in *Howard* clearly stated the record revealed the plaintiffs suffered relatively minor symptoms from their exposure, such as watering eyes, nose or throat irritation, coughing, and headaches.

Dr. Fthenakis' analysis, none of the plaintiffs in the present matter were exposed to HCl levels that would be considered corrosive.

In many instances the trial court awarded plaintiffs up to \$1,000 for each day they continued to experience symptoms from HCl exposure. We recognize some distinguishing factors exist with respect to certain plaintiffs in this case as some did seek medical attention, many experienced symptoms longer than a day, and one missed a day of work. However, considering the similarity and minimal nature of plaintiffs' injuries to the *Howard* plaintiffs, as discussed more fully below, we conclude the trial court abused its discretion with respect to the amount of general damages awarded to 11 of the 12 remaining plaintiffs.²¹

Once the *Howard* court found the general damage awards represented an abuse of discretion, it reviewed prior awards for the purpose of lowering the awards to the highest point which is reasonably within that discretion. *Id.* at 1256.

A review of the jurisprudence indicates the general damage awards made in cases involving similar facts typically ranged between \$100 and \$500. For example, in *Adams v. CSX Railroads*, 01-114 (La. App. 4 Cir. 4/20/05), 902 So. 2d 413, the plaintiffs were exposed to fumes from a leaking railroad tank car. The Adams court awarded \$500 in physical pain and suffering to a plaintiff who suffered eye and nose irritation and experienced ongoing stomach cramps. Another plaintiff who suffered eye, nose, and throat irritation for two days, but did not seek medical attention, was awarded \$200 for physical pain and suffering. The Adams court awarded \$100 for physical pain to a third plaintiff who experienced watery eyes and a sore throat, which he treated with Visine and Sucrets. *Id.* at p. 6-8; 902 So. 2d at 417.

Also instructive is *Adams v. Marathon Oil Co.*, 96-693 (La. App. 5 Cir. 1/15/97), 688 So. 2d 75. In that case, the plaintiffs in a class action alleged they were injured when the defendant negligently released ethyl mercaptan. The evidence indicated the plaintiffs suffered some mild physical discomfort such as membrane irritation, fatigue, and nausea. For these injuries, the court awarded damages ranging from \$0 to \$500.

Id. at 1256-57.

²¹ The trial court found plaintiff, Joseph Chevis, Sr. was exposed to up to 20 ppm of HCl and awarded him \$3,000 in general damages. Mr. Chevis experienced burning in his eyes, nose and throat, as well as dizziness. He testified that he saw his family doctor two times as a result of the exposure and he had stomach problems that lasted for two to three weeks. We do not find that the trial court abused its discretion by awarding Mr. Chevis \$3,000 in general damages.

The *Howard* court then proceeded to reduce the general damage awards, ranging from a high of \$3,500 down to \$1,500, to \$500 for plaintiffs in the plant at the time of the release, \$250 for plaintiffs working near the plant, \$150 to plaintiffs residing in Montz, La. and \$100 to plaintiffs residing in Killona, La.

In the present matter, no one who entered the site experienced any symptoms. However, following the standards set forth in *Howard*, we find that those who were closer to the spill site and experienced exposure levels from above 5 ppm to 20 ppm are entitled to recover general damages in the amount of \$250 per day that they continued to experience symptoms. Those who were further removed and experienced exposure levels from 1.8 ppm to 5 ppm are entitled to recover general damages in the amount of \$150 per day that they continued to experience symptoms. We also consider that some plaintiffs sought medical treatment.

1) **Artinc Johnson** - Ms. Johnson's symptoms included burning and irritated eyes for a three-day period, which she treated with eye drops. She did not miss work and she did not see a doctor. The trial court concluded she received HCl exposure ranging from 1.8 ppm to 5 ppm and awarded Ms. Johnson \$3,000 in general damages. We do not find that a reasonable relationship exists between this plaintiff's reported injuries and an award of \$3,000 in general damages. According to the Supreme Court's guidance in *Howard*, we conclude this award constitutes a clear abuse of discretion for three days of minor symptoms. Therefore, we amend Ms. Johnson's general damage award from \$3,000 to \$450.

2) **Alvin Harris** - Mr. Harris' initial symptoms included burning eyes, sneezing, coughing, gagging and burning throat. The coughing and sneezing lasted one day and his throat burned for almost two weeks. Mr. Harris experienced these symptoms at the Shell station located just across

the street from the spill site at around 3:30 a.m. This is also the location where Mr. Darcey detected HCl readings at 2 ppm at around 4:35 a.m. and 5:05 a.m. The trial court concluded Mr. Harris received HCl exposure up to 20 ppm. Mr. Harris saw a doctor four days after the incident who prescribed Claritin-D. He was able to continue to work.

The trial court awarded Mr. Harris \$5,000 in general damages. While recognizing the distinguishing factors Mr. Harris experienced, including a sore throat for two weeks and a visit to a doctor, based on the Supreme Court's ruling in *Howard*, we find the trial court abused its discretion by awarding \$5,000 in general damages for a sore throat that lasted two weeks. Therefore, we amend Mr. Harris' general damage award from \$5,000 to \$3,500.

3) **Aubrey Lacy** - Mr. Lacy experienced eye irritation, throat burning and coughing which lasted a few days. He visited a doctor, but did not miss any work. The trial court determined that he came near the spill site on his way to work and experienced HCl exposure up to 20 ppm. The trial court awarded Mr. Lacy \$3,000 in general damages. Based on the Supreme Court's ruling in *Howard*, we find this award represents a clear abuse of the trial court's discretion for minor symptoms that lasted a few days. Therefore, we amend Mr. Lacy's general damage award from \$3,000 to \$1,000.

4) **Phillip Gullage, Jr.** - Mr. Gullage experienced burning eyes, headache, nausea and vomiting that lasted one day. The trial court concluded that he received HCl exposure up to 20 ppm when Mr. Gullage drove through the intersection near the spill site. He missed seven hours of work and did not seek medical treatment. Based on the Supreme Court's *Howard* decision, we conclude the trial court clearly abused its discretion by

awarding \$1,000 in general damages for minor symptoms which lasted one day. Therefore, we amend Mr. Gullage's general damage award from \$1,000 to \$250.²²

5) **Elvina Gordon** - Ms. Gordon woke up at 4:00 a.m. with burning eyes, itchy throat, nausea and a pounding chest. She received medical treatment at Charity Hospital and reported that her burning eyes and itchy throat lasted for a week. The trial court determined that based on the area where she lived, Ms. Gordon received HCl exposure in amounts up to 5 ppm. The trial court awarded her \$3,000 in general damages. Based on *Howard*, we conclude the trial court clearly abused its discretion by awarding \$3,000 in general damages for a week of minor symptoms. Therefore, we amend Ms. Gordon's general damage award from \$3,000 to \$1,500.

6) **Richard Van Brown, Sr.** - Mr. Brown experienced burning and irritation to his eyes, nose, throat and stomach for two days. He went to the emergency room immediately following his exposure. The trial court determined Mr. Brown experienced HCl exposure of 20 ppm when he drove through the intersection of Jamie Blvd. and Hwy 90. He initially indicated that he missed two days of work, but later testified he could not recall if he missed work following his exposure. Based on *Howard*, we find the trial court clearly abused its discretion by awarding Mr. Brown \$1,500 in general damages for two days of minor symptoms. Therefore, we amend Mr. Brown's general damage award from \$1,500 to \$750.

7) **Betty Ann Marie Dugue** - Ms. Dugue reported watery eyes, sneezing, coughing, shortness of breath and headaches that lasted for two days. She did not seek medical treatment. The trial court determined Ms.

²² We affirm the trial court's special damages award in the amount of \$122.50 for missed work.

Dugue experienced HCl exposure up to 5 ppm at her home. In accordance with *Howard*, we find the trial court abused its discretion by awarding Ms. Dugue \$1,000 in general damages for two days of minor symptoms. Therefore, we amend Ms. Dugue's general damage award from \$1,000 to \$300.

8) **Gorium Frazier, Jr.** - Mr. Frazier experienced watery eyes, runny nose and "felt bad inside" for two days. The trial court determined Mr. Frazier was exposed to between 5 ppm to 20 ppm of HCl. He did not see a doctor and he did not miss work. Based on *Howard*, we find the trial court clearly abused its discretion by awarding Mr. Frazier \$1,500 in general damages for two days of minor symptoms. Therefore, we amend Mr. Frazier's general damage award from \$1,500 to \$500.

9) **Elaine Thompson** - Ms. Thompson experienced eye irritation, coughing, sinus effects and a rash under her eyes for several days. She did not seek medical treatment. The trial court determined Ms. Thompson experienced HCl exposure ranging up to 20 ppm. The trial court awarded Ms. Thompson \$1,500 in general damages. Based on *Howard*, we find the trial court abused its discretion by awarding Ms. Thompson \$1,500 in general damages for several days of minor symptoms. Therefore, we amend Ms. Thompson's general damage award from \$1,500 to \$750.

10) **Paulette Alexander** - Ms. Alexander complained of itching eyes and nose, sinus problems, as well as headaches for approximately 13 days. She received medical treatment. Furthermore, the trial court determined Ms. Alexander received HCl exposure up to 3 ppm. The trial court awarded Ms. Alexander \$5,000 in general damages. Based on *Howard*, we find the trial court abused its discretion by awarding Ms. Alexander \$5,000 in general damages for 13 days of minor symptoms. Therefore,

we amend Ms. Alexander's general damage award from \$5,000 to \$2,000.

11) Herbert Martin - Mr. Martin experienced watery eyes, a runny nose and irritated skin for half a day. He did not seek medical treatment. The trial court concluded Mr. Martin received exposure in the range of 5 ppm and awarded Mr. Martin \$1,000 in general damages. Based on the Supreme Court's decision in *Howard*, we find the trial court abused its discretion by awarding Mr. Martin \$1,000 in general damages for a half day of minor symptoms. Therefore, we amend Mr. Martin's general damage award from \$1,000 to \$250.

DECREE

Based on the foregoing, we find the trial court was clearly erroneous in finding the following plaintiffs satisfied their burden to prove chemical exposure caused their injuries and therefore reverse the judgment awarding damages in their favor: Eloise Caston, Eleanor Lawson, Gloria Byrd, Stacy Reid Lopez, Latangia Thornton, Laura Ann Birden, Ernest Chisholm and Doris Collins.

We also find the trial court abused its discretion with respect to the amount of general damages awarded to 11 other plaintiffs and amend and decrease the amount of general damages awarded to these plaintiffs as follows: Artinc Johnson, reduced from \$3,000 to \$450; Alvin Harris, reduced from \$5,000 to \$3,500; Aubrey Lacy, reduced from \$3,000 to \$1,000; Phillip Gullage, reduced from \$1,000 to \$250; Elvina Gordon, reduced from \$3,000 to \$1,500; Richard Van Brown, Sr., reduced from \$1,500 to \$750; Betty Ann Marie Dugue, reduced from \$1,000 to \$300; Gorium Frazier, Jr., reduced from \$1,000 to \$500; Elaine

Thompson, reduced from \$1,500 to \$750; Paulette Alexander, reduced from \$5,000 to \$2,000; and Herbert Martin, reduced from \$1,000 to \$250. In all other respects, the judgment as amended is affirmed.

**AFFIRMED IN PART; AMENDED IN PART;
AND REVERSED IN PART**

SUSAN M. CHEHARDY
CHIEF JUDGE

FREDERICKA H. WICKER
JUDE G. GRAVOIS
MARC E. JOHNSON
ROBERT A. CHAISSON
ROBERT M. MURPHY
STEPHEN J. WINDHORST
HANS J. LILJEBERG

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NOTICE OF JUDGMENT AND CERTIFICATE OF DELIVERY

I CERTIFY THAT A COPY OF THE OPINION IN THE BELOW-NUMBERED MATTER HAS BEEN DELIVERED IN ACCORDANCE WITH **UNIFORM RULES - COURT OF APPEAL, RULE 2-16.4 AND 2-16.5** THIS DAY **JUNE 15, 2017** TO THE TRIAL JUDGE, CLERK OF COURT, COUNSEL OF RECORD AND ALL PARTIES NOT REPRESENTED BY COUNSEL, AS LISTED BELOW:


CHERYL Q. LANDRIEU
CLERK OF COURT

16-CA-696
C/W 16-CA-697 & 16-CA-698

E-NOTIFIED

2ND PARISH COURT (CLERK)
HONORABLE ROY M. CASCIO (DISTRICT JUDGE)
R. GLENN CATER (APPELLEE)
SUSAN M. CARUSO (APPELLANT)

GARY M. ZWAIN (APPELLANT)

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