

SUPREME COURT
STATE OF LOUISIANA
NO. 2014-C-2102

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ALNEDIA ANTHONY, *et al.*, Plaintiffs/Appellees

versus

GEORGIA GULF LAKE CHARLES, LLC, Defendants/Appellants

MAURICE PAUL BILLIOT, *et al.*, Plaintiffs/Appellees

versus

GEORGIA GULF LAKE CHARLES, LLC, Defendants/Appellants

TANGELA BROWN, *et al.*, Plaintiffs/Appellees

versus

GEORGIA GULF LAKE CHARLES, LLC, Defendants/Appellants

BRIEF OF WASHINGTON LEGAL FOUNDATION AS *AMICUS CURIAE*
IN SUPPORT OF GEORGIA GULF LAKE CHARLES, LLC'S
APPLICATION FOR WRIT OF CERTIORARI TO THE COURT OF APPEAL—THIRD CIRCUIT

Application for Writ of Certiorari or Review to the Third Circuit Court of Appeal,
Appeal Nos. 13-236 CA, 13-638 CA, 13-778 CA, and 13-779 CA through 13-788 CA;
and 14th Judicial District Court for the Parish of Calcasieu,
Div. E, Judge David Ritchie: No. 2007-5073 (Anthony),
Div. A, Judge D. Kent Savoie: No. 2007-5082 (Billiot),
Div. B, Judge Clayton Davis: Nos. 2007-5068, 2007-5074,
2007-5120, 2007-5124, 2007-5189, 2007-5201, 2007-5206,
2007-5213, 2007-5219, and 2007-5264 (Brown)

SUPREME COURT
OF LOUISIANA

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By: /s/ A. Gregory Grimsal
A. Gregory Grimsal (#0662)
Gordon Arata McCollam Duplantis & Eagan LLC
201 St. Charles Avenue
40th Floor
New Orleans, LA 70170-4000
Telephone: 504-569-1834
Facsimile: 504-582-1121
E-mail: ggrimsal@gordonarata.com

Counsel for *Amicus Curiae*

October 10, 2014

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INTERESTS OF *AMICUS CURIAE*

The Washington Legal Foundation (WLF) is a public interest law firm and policy center whose primary mission is the defense and promotion of individual rights and the rule of law.

A basic tenet of our legal system is that a defendant may not be found liable for an injury in the absence of evidence demonstrating that the defendant's conduct caused the injury. WLF is concerned that the decision below—by upholding causation findings based on the *ipse dixit* of expert witnesses without any meaningful effort to examine the reliability and relevancy of the evidence upon which the witnesses sought to base their findings—will undermine that basic tenet.

INTRODUCTION AND STATEMENT OF PROCEEDINGS

WLF urges the Court to grant the writ of review filed by Georgia Gulf Lake Charles, LLC (“Georgia Gulf”). In particular, WLF agrees with Georgia Gulf that the court of appeal has erroneously interpreted the law of this State by upholding causation findings based solely on the unsupported conclusions of expert witnesses that the Appellees’ symptoms were caused by their alleged exposure to toxic gases. WLF respectfully submits that additional guidance from this Court is urgently needed, in order to make clear to lower courts that such testimony standing alone is insufficient to satisfy the admittedly deferential standard of appellate review. Rather, courts of appeal are required to examine the evidence on which expert witnesses based their testimony to determine whether that evidence is reliable and reasonable, an examination that the court below neglected to undertake. Any such examination would have revealed the inadequacy of the evidence on which the expert witnesses relied.

Appellees are 41 individuals who in September 2006 lived near (or were traveling near) an industrial plant operated by Georgia Gulf in Westlake, Louisiana. Appellees contend that they were harmed by exposure to chemicals that escaped from the plant during a fire on the night of September 17, 2006; thousands of other individuals have filed similar claims. Three trials conducted during 2012 resulted in damages being awarded to each of the 41 Appellees. Georgia Gulf’s appeals from those three judgments were consolidated before the Third Circuit Court of Appeal.

In a decision issued on May 21, 2014, the court of appeal affirmed in all respects. In

particular, the court concluded that there existed “a reasonable basis for the findings of the respective trial courts that the chemical release from the Georgia Gulf facility caused the symptoms suffered by the plaintiffs.” Slip op. at 11. The court admitted that Appellees had “difficulty . . . assess[ing] the amount of chemical exposure each plaintiff suffered,” but it blamed that difficulty on what it termed Georgia Gulf’s “deliberate or grossly negligent” failure to undertake more extensive off-site air monitoring on the night of the fire. *Id.* at 8. The court said that the findings that Appellees were exposed to an “unsafe” level of toxic chemicals was supported by the expert testimony of Rod O’Connor (who testified that “the turbulence of the fire would have dispersed the chemicals in all directions”) and Frank Parker (who opined that each Appellee was exposed to unsafe levels of hazardous chemicals based on the large amount of chemicals that escaped from the plant). *Id.* at 9-10.

The appeals court said that the finding that Appellees’ symptoms were caused by their exposure to hazardous chemicals was supported by the expert testimony of Dr. Barry Levy. *Id.* at 10. It noted that Dr. Levy relied on one epidemiology study that examined health effects on local residents following release of hydrogen chloride (the principal chemical released during the Georgia Gulf fire). *Ibid.* The court said that that study showed “statistically significant health problems” similar to those suffered by Appellees, and that those problems persisted for 20 months following a single exposure. *Ibid.* The court also noted testimony from several treating physicians that Appellees’ symptoms—*e.g.*, sore throat, persistent coughing, headaches, sinus problems—“were consistent with exposure” to toxic chemicals. *Id.* at 11.

The court of appeal also upheld the damages awarded by the trial courts, which came to an average of about \$25,000 per Appellee. *Id.* at 11-35.

SUMMARY OF ARGUMENT

As this Court has repeatedly pointed out, evidence that is scientifically unreliable is no evidence whatsoever. *See, e.g., State v. Foret*, 628 So.2d 1116 (La. 1993); *State v. Chauvin*, 02-1188 (La. 5/20/03), 846 So.2d 697. Accordingly, in determining whether a trial court’s causation findings have sufficient evidentiary support to be upheld, an appellate court must determine whether the plaintiffs’ causation evidence was scientifically reliable.

The evidentiary burden has not been satisfied simply because the plaintiffs' expert witnesses opine that the defendant's actions caused the plaintiffs' injuries, even if the experts are impeccably credentialed. Were such "magic words" accepted by themselves as sufficient to uphold the trier of fact's findings, we would effectively remove the jurisdiction of the appellate courts to determine the legal sufficiency of the evidence in any case requiring expert testimony. Rather, appellate courts must also examine the reliability and relevance of evidence underlying an expert's opinion.

The writ of review should be granted because the court of appeal did not conduct any such investigation in this case. Had it done so, it could only have reached one conclusion: that Appellees introduced *no* scientifically reliable evidence that their symptoms were caused by exposure to gas released from the Georgia Gulf plant. Appellees have shown that some amount of hazardous chemicals escaped from the plant. But as they candidly admitted to the appeals court, the dosage absorbed by each of the Appellees—who were scattered throughout the Westlake area—"was not capable of being calculated." Appellees Br. at 10.

That deficiency is fatal to Appellees' case. Even assuming that Appellees could demonstrate that they had some exposure to chemicals released from the Georgia Gulf plant—and their evidence on that issue consisted of little more than that they smelled gas—it is undisputed among scientists that it is the *dose* of the chemical received by an individual that is the predominate factor in determining whether the exposure will have adverse effects on the individual's health. Large doses of chemicals such as hydrogen chloride can be highly toxic, but small doses produce *no* toxic effects. In the absence of any evidence regarding doses received by Appellees, there is no evidence indicating that any symptoms they were experiencing in September 2006 were caused by exposure to chemicals released from the Georgia Gulf plant.

Dr. Levy's conclusion that Appellees received toxic doses of released chemicals was based largely on the symptoms they reported in the September 2006 time frame and thereafter, such as sore throats, coughing, headaches, dizziness, and eye and nasal irritation. But those symptoms can have numerous causes, and no trial evidence tended to rule out those alternative causes. Moreover, it is uncontested that any exposure was of extremely limited duration, given

that releases from the Georgia Gulf plant were contained within a matter of several hours. The record contains no credible medical evidence that a one-time exposure could have caused the symptoms that were reported to have persisted for several years, particularly in the absence of objective signs of injury to support the reported symptoms.

More fundamentally, there is no reliable evidentiary support for the trial judges' conclusions that each of the Appellees—who were scattered across the Westlake area and most of whom remained indoors—were exposed to hazardous chemicals at all. Appellees made no effort at trial to demonstrate the movement of gas escaping from the Georgia Gulf plant. Rod O'Connor, Appellees' expert witness, simply declared that the gas must have dispersed in *all* directions. His opinion was based neither on weather data reporting wind direction on September 17, 2006, nor on air modeling. Indeed, he candidly admitted that he had no idea how large a chemical "cloud" was created that evening.

The leading toxic tort case to come before this Court, *Arabie v. Citgo Petroleum Corp.*, 10-2605 (La. 3/13/12), 89 So.3d 307, makes clear that a causation finding cannot be upheld based on the sort of evidence presented here. While *Arabie* explained that numerical exposure and dose information is not an absolute prerequisite, at least some evidence of a significant dose—beyond the plaintiffs' claims to have experienced contemporaneous medical symptoms—is required to establish causation. Thus, the evidence in *Arabie* demonstrated that the plaintiffs' work area was "surrounded" by escaping slop oil for at least *several weeks*. An expert witness introduced air modeling data demonstrating that the plaintiffs were exposed to high levels of toxic chemicals emanating from the slop oil. *Id.* at 321. No comparable evidence was introduced here. The court below allowed evidence of alleged symptoms to substitute for evidence of exposure/dosage, and then—quite illogically—to rely on that same evidence as proof that the supposed exposure/dosage must have caused the symptoms. The Court should grant a writ of review to provide guidance for toxic tort cases and to make clear that unreliable and irrelevant evidence of the sort relied on here is insufficient to support a finding of causation.

While tacitly conceding the paucity of exposure/dosage evidence, the court of appeal repeatedly sought to blame Georgia Gulf for that fact, faulting it for failing to conduct more air

monitoring outside the plant. *See, e.g.,* slip op. at 8, 17, 18. Indeed, the court of appeal apparently concluded that the failure to conduct more extensive air monitoring justified lowering Appellees' evidentiary burden with respect to causation. That conclusion finds no support in Louisiana law. In effect, the court of appeal attempted to apply the doctrine of spoliation of evidence to the facts of this case. But case law in Louisiana and elsewhere unanimously holds that that doctrine is applicable *only* where evidence at one time existed but was later destroyed by a party. If the documentary evidence in question never existed, a party's alleged negligence in failing to prepare the document cannot be used against him in order to ease the opposing party's evidentiary burden. *See, e.g., Jackson v. Home Depot, Inc.*, 04-1653 (La. App. 1 Cir. 6/10/05), 906 So. 2d 721, 728).

ARGUMENT

I. AN EXPERT WITNESS'S UNSUPPORTED TESTIMONY THAT APPELLEES' SYMPTOMS WERE CAUSED BY EXPOSURE TO CHEMICALS RELEASED FROM THE PLANT WAS INSUFFICIENT TO MEET APPELLEES' BURDEN TO DEMONSTRATE CAUSATION

It is uncontested that, in order to recover on their claims against Georgia Gulf, Appellees were required to demonstrate that their injuries were caused by Georgia Gulf's actions. In reviewing a trial court's causation finding, an appellate court is directed to undertake a two-part analysis: (1) it must determine, based on the trial record, whether there is "a reasonable factual basis" for the finding; and (2) it must further determine whether the record establishes that the finding is not clearly wrong or manifestly erroneous. *Arabie*, 10-2606, 89 So. 3d at 312. By uncritically accepting the causation claims of Appellees' expert witnesses without examining the scientific basis for those claims, the court of appeal failed to undertake the required appellate review.

An expert's unsupported claim that A caused B is not, considered in isolation, evidence of causation. Rather, before allowing opinion evidence from expert witnesses to be credited, this Court has been scrupulous in requiring a showing that the testimony "assist[s] the trier of fact to understand the evidence or to determine a fact in issue." La. Code Evid. art. 702. In particular, before expert scientific evidence can be credited, it "must rise to a threshold level of reliability." *Chauvin*, 02-1188, 846 So. 2d at 701. Adopting the standard set forth by the U.S. Supreme Court

in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 592-94 (1993), this Court listed several factors that should be considered in determining reliability, including “whether the [expert’s] theory or technique can be and has been tested.” *Ibid.*¹

The court of appeal held that there existed a reasonable basis for the trial courts’ findings that Appellees’ symptoms were caused by exposure to gas released from Georgia Gulf’s plant, citing the testimony of expert witness Dr. Barry Levy. Slip op. at 10. It stated that Dr. Levy possessed “impeccable academic and experiential credentials and has received numerous awards from professional organizations for his contributions to public, occupational, and environmental health.” *Id.* But the issue here is not whether Dr. Levy is well-credentialed but whether his causation opinion is supported by any reliable scientific evidence. *Moore v. Ashland Chemical, Inc.*, 151 F.3d 269, 278 (5th Cir. 1998) (“under the regime of *Daubert* a district judge asked to admit scientific evidence must determine whether the evidence is genuinely scientific, as distinct from being unscientific speculation offered by a genuine scientist.”); *Bostic v. Georgia Pacific Corp.*, ___ S.W.3d ___, 2014 WL 3797159 at *10 (Tex., July 11, 2014) (“If the expert’s scientific testimony is not reliable, it is not evidence.”). An examination of Dr. Levy’s testimony demonstrates that there is no reasonable scientific basis for concluding that Appellees’ symptoms were caused by chemical exposure.

A. A Causation Finding Is Improper in the Absence of Any Reasonable Basis for Estimating the Dose Absorbed by Each Appellee

It is well accepted within the scientific community that establishing that a specific environmental contaminant caused any particular disease or condition requires four findings: (1) the contaminant is capable of causing the health effect; (2) the dose absorbed by the individual was of sufficient size and duration to elicit the health effect; (3) the chronological relationship between exposure and effect is biologically plausible; and (4) the likelihood is that the health effect was caused by the contaminant rather than by some other source. *See, e.g.*, David L.

¹ In addition to being reliable, any such evidence cannot be credited unless it is also “relevant” evidence, *id.* at 700-01, which is defined as “evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.” La. Code Evid. art. 401. Unreliable evidence is also irrelevant because it does not make the existence of key facts any more or less probable.

Eaton, *Scientific Judgment and Toxic Torts—A Primer in Toxicology for Judges and Lawyers*, 12 J.L. & Pol’y (2003), at 38-40; Philip S. Guzelian, et al., *Evidence-based Toxicology: a Comprehensive Framework for Causation*, 24 Human & Experimental Toxicology 161, 190 (2005). “Dose” (the amount of chemical that enters the body) is “the single most important factor to consider in evaluating whether an alleged exposure caused a specific adverse effect.” Eaton, at 11. Yet, Appellees conceded in the court below that the dosage absorbed by each of the Appellees—who were scattered throughout the Westlake area—“was not capable of being calculated.” Appellees Br. at 10. In the absence of such evidence, as well as the absence of any evidence from which dosages could reasonably be estimated, Appellees failed to meet their burden of proving causation.

Dr. Levy’s “dose” finding was based to a large extent on the symptoms reported by each of the Appellees, which he deemed to be consistent with a finding that they had absorbed toxic chemicals. But the reported symptoms—ranging from sore throats, coughing, headaches, and dizziness to eye and nasal irritation—have numerous potential causes. The existence of those symptoms does not constitute reliable evidence that Appellees were either exposed to or absorbed dangerous levels of chemicals released from the Georgia Gulf plant, in the absence of evidence ruling out the likelihood that the symptoms had other causes. *Rando v. Anco Insulations Inc.*, 08-1163 (La. 5/22/09), 16 So. 3d 1065, 1090 (“If circumstantial evidence is relied upon, that evidence, taken as a whole, must exclude every other reasonable hypothesis with a fair amount of certainty”); *Bostic*, 2014 WL 3797159 at *11 (“if there are other plausible causes of the injury or condition that could be negated, the plaintiff must offer evidence excluding those causes with reasonable certainty.”).

At the very least, proof of causation requires some effort “to quantify exposure, to arrive at estimates of the dose received by the exposed population, and to determine the duration of time over which that dose is received.” Joseph V. Rodricks, *Reference Guide on Exposure Science* at 525.² Levy made no effort to quantify the size and duration of the doses allegedly

² The various “Reference Guides” cited herein are included as chapters within a document maintained by the Federal Judicial Center: *Reference Manual on Scientific Evidence*, The National Academies Press (2011, 3rd ed.), available at www.fjc.gov/public/pdf.nsf/lookup/

absorbed by Appellees, other than to state broadly that “the exposure the plaintiffs endured was sufficient to cause the injuries claimed.” Slip op. at 10. Levy relied on evidence that several chemicals—including hydrogen chloride, ethylene dichloride, and vinyl chloride—escaped from Georgia Gulf’s plant on September 17, 2006 in quantities well in excess of public health guidelines. But professional toxicologists generally do not rely on such guidelines when assessing causation issues because they recognize that, in keeping with the “precautionary principle,” government agencies generally build a very large margin of safety into those guidelines. Guzelian, *supra*, at 166. Public health guidelines “overestimate potential toxicity levels for nearly all individuals; . . . although health authorities can confidently expect that exposures below reference dose levels will not result in adverse effects, the converse is not true.” Eaton, *supra*, at 34-36. Thus, even assuming that Appellees were exposed during one evening to chemicals in concentrations in excess of public health guidelines, such evidence would be insufficient to establish causation; such evidence is “of limited value in judging whether a particular exposure was a substantial contributing factor to a particular individual’s disease or illness.” *Id.* at 36.³ Indeed, Levy cited no studies indicating the size and duration of doses at which the released chemicals were likely to trigger an adverse reaction.

Nor did Levy seek to use air modeling as a means of estimating the doses absorbed by Appellees. Air modeling is sufficiently common in toxic tort cases that the only plausible explanation for Appellees’ failure to introduce any air modeling evidence was their fear that doing so would have undermined the claims of some (and perhaps all) claimants. Air modeling, used in conjunction with direct measurement of atmospheric conditions “is often the most useful

SciMan3D01.pdf/\$file/SciMan3D01.pdf. The *Reference Manual* is a project of the National Academy of Science.

³ The limited value of public health guidelines in deciding causation issues is particularly evident with respect to claims that an exposure to chemicals has created a risk that an individual will later develop cancer. As one leading treatise has noted:

A public health standard to protect against the lifetime risk of inhaling a known carcinogen will usually be based on lifetime exposure calculations of 24 hours a day, everyday for 70 years. This is more than 25,000 days and 600,000 hours. Exceeding this standard for a few hours would presumably have little impact on cancer risk.

Bernard D. Goldstein, *et al.*, *Reference Guide on Toxicology*, at 650 n.49.

and reliable” means of estimating exposure and dosage. *Rodricks, supra*, at 530. Because models are often “the only method available for estimating exposure,” they are widely considered to be “necessary elements of exposure assessments and have been used extensively.” *Id.* at 531. In the absence of such evidence, Levy’s testimony that Appellees absorbed a sufficient dose of chemicals to elicit an adverse health effect is not reliable, and thus there is no reasonable factual basis for the trial courts’ causation findings.

This Court made clear in *Arabie* that at least some reliable evidence of a toxic dose is required to establish causation in cases of this sort. In particular, the Court noted in that case that the plaintiffs’ expert witness introduced air modeling data demonstrating that the plaintiffs were exposed to high levels of toxic chemicals emanating from the slip oil that “surrounded” their work area for *several weeks*. *Arabie*, 10-2605, 89 So. 3d at 321. No comparable evidence was introduced here. As the U.S. Supreme Court has noted, nothing in *Daubert* “requires a district court to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert.” *General Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997). To accept Levy’s unsupported testimony as constituting a reasonable factual basis for a causation finding “would effectively remove the jurisdiction of the appellate courts to determine the legal sufficiency of the evidence in any case requiring expert testimony.” *Merrell Dow Pharmaceuticals, Inc. v. Havner*, 953 S.W.2d 706, 711-12 (Tex. 1997).

B. A Causation Finding Is Improper in the Absence of Evidence that Appellees’ Symptoms Were Not Attributable to Other Causes

Dr. Levy stated that he examined relevant medical records and concluded that Appellees’ symptoms were not attributable to causes other than exposure to toxic gas. Yet he provided virtually no support for that conclusion. The evidence at trial indicated that even if some Appellees absorbed a relevant dose of escaping gas, their symptoms at least as likely were attributable to other causes.

Toxicologists attempting to discern the cause of a medical condition generally engage in a deductive process referred to as differential diagnosis. That process begins with a listing of potential medical explanations for a given set of complaints and findings, based on a thorough patient history, examination by a physician, and completion of all relevant laboratory testing.

The toxicologist then applies the scientific method to the list: (s)he forms a hypothesis about causation and collects additional information that will either rule in or rule out the hypothesis based on objective criteria. The process is repeated as new evidence is gathered and new hypotheses are formed. Importantly, the differential diagnosis process can only be undertaken on an individual-by-individual basis, as every patient's history and symptoms will be unique. *See generally* Goldstein, *supra*, at 665-675.

The evidence indicates that Levy did not undertake a rigorous differential-diagnosis process in arriving at his causation opinion. Instead, he relied primarily on the fact that most of the Appellees began complaining of symptoms soon after the September 17 fire, while ignoring evidence that did not fit his hypothesis. Toxicologists generally refer to such reasoning as “the fallacy of post-hoc reasoning.” *See* Guzelian, *supra*, at 191. As that journal article explains:

It is, unfortunately, common for an event to be called the ‘cause’ of an effect, simply because it precedes that effect chronologically. Classically, the rooster’s crowing is given credit for causing the sunrise. This logical fallacy is sometimes identified as ‘*post hoc ergo propter hoc*’ (‘after it, therefore because of it’). First, it is argued that the existence of the claimed medical condition (*e.g.*, a symptom or a diagnosed disease) demonstrates that sufficient antecedent exposure has occurred. Then, it is argued that exposure, having now been shown to be sufficient, provides the basis for explaining the cause of the claimed medical condition. In short, the symptoms essentially become the basis for explaining themselves in a circuitous logic. When medical conditions by themselves become the proof of sufficient chemical exposure, a flawed, self-defeating argument is produced.

Id. at 191-192.

The deficiencies in Levy’s diagnostic process were numerous. For example, his expert report included no discussion of what conclusions should be drawn from the failure of many of the Appellees to seek medical assistance for their symptoms in the aftermath of the chemical leak, even though that failure tends to weaken the hypothesis that those symptoms were caused by exposure to the leaked chemicals.⁴ Although Levy is trained as an epidemiologist, he conceded that he undertook no epidemiological studies—such as a cohort study designed to

⁴ Puzzlingly, Levy’s analysis *did* attach some significance to the fact that some non-litigating local residents sought medical assistance for symptoms they experienced on the night of the gas leak. The relevance of that evidence is obscure, given that none of the non-plaintiffs seeking assistance were at the same locations as any of the Appellees; more importantly, Levy did not study the medical records of any of these non-plaintiffs and thus had no basis for concluding what may have caused their symptoms.

compare the health of those residing near the Georgia Gulf with the health of similar individuals who lived elsewhere. Levy made no effort to quantify the dose absorbed by each Appellee and did not even seek to develop a range of likely exposure levels. He conceded that none of the Appellees suffered any organ damage or other observable physical manifestations of chemical exposure. Levy testified that Appellees' lingering symptoms, ones that persisted for years on end, were caused by alleged exposure to a toxic dose of leaked gas on a single occasion, yet he could not point to any continuing manifestations of that single exposure (such as respiratory tract irritations). His analysis also did not take into consideration that none of the workers at the Georgia Gulf plant who fought the fire on September 17, 2006 sought medical treatment or had significant adverse reactions, despite uncontested evidence that their exposure was significantly greater than that of the Appellees, many of whom were inside homes located well more than a mile from the plant.⁵

The court of appeal noted that although Levy conducted no epidemiological study of his own, his causation opinion did rely on one such study "that involved exposure to hydrogen chloride released into a community." Slip. op. at 10. The court deemed the study "important":

Similar to this case, the precise amount of that chemical released into the community was not known, but there were clear, statistically significant health problems in the exposed residents that mirrored the type of health problems suffered by the plaintiffs here. Importantly, the exposed residents in the aforementioned study were still having problems twenty months after the exposure.

Ibid.

⁵ The court of appeal responded dismissively to evidence regarding the health of Georgia Gulf employees:

In support of its case, Georgia Gulf takes the position that, even with the on-site monitors showing levels of hazardous chemicals in the air that were many times what would be considered a safe level, it allowed many employees and on-site responders to be present without any protective gear, which would be a clear violation of Georgia Gulf's own safety policies and procedures. The fact that Georgia Gulf violated its own policies and put its employees and responders at risk is not impressive or persuasive to this Court.

Slip op. at 8-9 (quoting *Anthony* trial court decision). But whether Georgia Gulf employees should have been wearing more protective gear is not the issue. Rather, the issue is whether it is plausible that Appellees' symptoms were caused by exposure to leaked chemicals when plant workers who had a far greater exposure experienced no such symptoms. Levy's expert testimony did not even consider that issue.

The court of appeal's decision gives no indication that the court actually reviewed the study in question, as opposed to reviewing Levy's description of the study. Had the court undertaken a review, it would quickly have realized that the study—Kaye H. Kilburn, *Effects of a Hydrochloric Acid Spill on Neobehavioral and Pulmonary Function*—is of highly questionable reliability. Dr. Kilburn is an internal medicine specialist who throughout his professional career frequently served as an expert witness for plaintiffs in tort suits. The study in question was prepared in the run-up to litigation involving the leakage of hydrochloric acid near a mobile home park in Abbeville, Louisiana in August 1993. Although the study purported to be a cohort study, comparing the health of those living near the spill site to the health of comparable individuals living elsewhere, the study's methodology was badly flawed. The study's subjects were not a random cross-section of individuals living near the spill site but rather consisted of individuals who volunteered for the study and had signed up as plaintiffs in the contemplated litigation, thereby providing them with an incentive to exaggerate their reported symptoms.⁶ Significantly, the Kilburn study was the only evidence relied on by Levy in support of his conclusion that Appellees' single exposure was responsible for symptoms that persisted for years on end. In sum, Appellees have presented no reliable evidence that their persistent symptoms—which admittedly had numerous potential causes—were more likely caused by chemical exposure than by other causes.

II. AN EXPERT WITNESS'S UNSUPPORTED TESTIMONY THAT ESCAPING GAS DISPERSED IN ALL DIRECTIONS WAS INSUFFICIENT TO MEET APPELLEES' BURDEN TO DEMONSTRATE EXPOSURE

As explained above, no reasonable factual basis exists for the trial courts' findings that Appellees' symptoms were caused by gas leaking from Georgia Gulf's plant, even if one assumes that Appellees were exposed to some amount of the gas. But Appellees' claims also suffer from an even more fundamental defect: there is no reliable evidentiary support for the trial judges' conclusions that each of the Appellees—who were scattered across the Westlake area and most of whom remained indoors—were exposed to hazardous chemicals at all.

⁶ Lawsuits arising from the hydrochloric acid leak never went to trial. The court of appeal affirmed dismissal of the cases on procedural grounds. *Touchet v. Baker Hughes Inc.*, 98-749 (La. App. 3 Cir. 2/3/99), 737 So. 2d 821.

At the time of the fire, Appellees were located at numerous different locations, at various distances and directions from the Georgia Gulf plant. The court of appeal held that there existed a reasonable basis for the trial courts' findings that each of the Appellees was exposed to gas released from Georgia Gulf's plant, citing the testimony of expert witness Rod O'Connor:

Dr. Rod O'Connor testified the turbulence of the fire would have dispersed the chemicals in all directions. It was his opinion that the levels of the pertinent, surrounding zones exceeded safe levels and would likely result in injuries based upon the relevant exposure standards set forth by the Environmental Protection Agency.

Slip op. at 9.

As with the testimony of Dr. Levy, the testimony of Dr. O'Connor cannot be deemed reliable because it was not based on any reliable scientific evidence. O'Connor opined that "turbulence" created by the fire would have caused gas to disperse in all directions. But, of course, the fire and related turbulence were confined to the plant site and thus would have had little if any bearing on what happened to gas that escaped from the site. Indeed, O'Connor candidly admitted that he had no idea how large a chemical "cloud" was created that evening.

As noted, there are numerous tools that experts use to determine atmospheric conditions. They can rely on readily available meteorologic data. They can construct air models, as was done in *Arabie*, a technique that is widely considered to be a "necessary" element of exposure assessments and has been used "extensively." Rodricks, *supra*, at 531. Appellees did neither.

Nor did Appellees introduce air sampling data from the vicinity of any of the Appellees on the night of the fire. Appellees discounted air sampling data collected by Georgia Gulf and government officials on the night of the fire, data that generally showed very low levels of escaping gases in neighborhoods surrounding the plant; O'Connor testified that that data was unreliable because it was collected in a deficient manner by inadequately trained individuals. Inconsistently, Appellees (and the court of appeal) sought to rely on the one or two Georgia Gulf air sampling reports that showed higher levels of escaping gases; they made no effort to explain why those isolated readings should be credited while other readings showing no dangerous levels of escaping gases should not be credited. Moreover, O'Connor conceded that none of the Appellees was located in the vicinity of the spots where higher readings were recorded. Furthermore, Appellees introduced absolutely no data suggesting that heightened levels of

escaping gas entered any enclosed structures.

By relying on O'Connor's opinion testimony as its basis for upholding the trial courts' exposure finding without making any effort to examine the reliability of the evidence on which O'Connor based his findings, the court of appeal allowed exposure/causation findings to be upheld based on nothing more than "the *ipse dixit* of the expert." *Joiner*, 522 U.S. at 146. This Court should grant the writ of review and provide guidance to lower courts regarding the need to ensure the reliability of expert testimony before crediting it.

III. APPELLEES' BURDEN OF DEMONSTRATING CAUSATION SHOULD NOT BE REDUCED DUE TO THE PAUCITY OF AIR MONITORING DATA

Both Appellees and the court of appeal conceded the lack of exposure/dosage evidence presented in this case, an absence that should have led the courts below to reject Appellees' claims. Instead, the court of appeal sought to excuse the absence of such evidence, both because of the inherent difficulty of collecting such evidence and because it faulted Georgia Gulf for the evidentiary deficiencies. Neither argument is well taken.

First, it is uncontested that Appellees bear the burden of proving each element of their claims, including proof that Georgia Gulf's negligence proximately caused Appellees' injuries. *See, e.g., Rando*, 08-1163, 16 So. 3d at 1089. A plaintiff's burden of proof "is not relaxed or reduced because of the degree of difficulty that might ensue in proving" individual elements of his or her claim. *Id.* at 1091. *Accord, Davidson v. Georgia Pacific LLC*, ___ F. Supp. 2d ___, 2014 WL 3510268 at *5 (W.D. La., July 14, 2014).

Moreover, a defendant in a tort action is under no obligation to create evidence that might assist the plaintiffs in proving their claims. The court of appeal, by including multiple criticisms of Georgia Gulf's air monitoring efforts, suggested otherwise:

Georgia Gulf made a deliberate and/or grossly negligent decision prior to, during and after, the explosion and resulting fire, to make sure there was minimal, if any, air monitoring outside of the plant in the most populated and heavily traveled areas closest to the Georgia Gulf plant, which made it impossible for Plaintiffs, or anyone else, to determine the amount of the multiple hazardous chemicals to which the public may have been exposed.

Slip op. at 8 (quoting trial court decision in *Anthony*).

Regardless of whether Georgia Gulf was under some government regulatory obligation to

conduct more extensive air monitoring, its failure to do so does not alter Appellees' burden of proof in this case. By suggesting that Georgia Gulf's allegedly deficient monitoring was relevant to whether Appellees had adequately demonstrated causation, the court of appeal was, in effect, seeking to incorporate the doctrine of spoliation of evidence into this case. Under that doctrine, a party's burden of proof can be reduced if the opposing party intentionally or negligently destroys evidence for the purpose of depriving the party of its use. *See, e.g., Clavier v. Our Lady of the Lake Hospital, Inc.*, 12-560 (La. App. 1 Cir. 12/28/12), 112 So. 3d 881, 886. But case law in Louisiana and elsewhere unanimously holds that the doctrine is applicable *only* where evidence at one time existed but was later destroyed by a party. If the documentary evidence in question never existed, a party's alleged negligence in failing to prepare the document cannot be used against it in order to ease the opposing party's evidentiary burden. *See, e.g., Jackson*, 04-1653, 906 So. 2d at 728.

CONCLUSION

The Court should grant the writ of review and reverse the decision below.

Respectfully submitted,

By: /s/ A. Gregory Grimsal
A. Gregory Grimsal (#0662)
Gordon Arata McCollam Duplantis & Eagan LLC
201 St. Charles Avenue
40th Floor
New Orleans, LA 70170-4000
Telephone: 504-569-1834
Facsimile: 504-582-1121
E-mail: ggrimsal@gordonarata.com

Counsel for *Amicus Curiae*

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CERTIFICATE OF SERVICE

I hereby certify that on this 10th day of October, 2014, copies of the foregoing *amicus curiae* brief of the Washington Legal Foundation were deposited in the U.S. Mail, postage pre-paid, addressed to the following:

Wells T. Watson
Roger G. Burgess
Baggett, McCall, Burgess, Watson & Gaughan
3006 Country Club Road
P.O. Drawer 7820
Lake Charles, LA 70605

Ernest P. Gieger, Jr.
John E.W. Baay II
William A. Barousse
Gieger, Laborde & Laperouse, L.L.C.
701 Poydras St., Suite 4800
New Orleans, LA 70139-4800

Louis C. LaCour, Jr.
Raymond P. Ward
Adams & Reese LLP
701 Poydras St., Suite 4500
New Orleans, LA 70139

/s/ A. Gregory Grimsal
A. Gregory Grimsal