

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ALABAMA
NORTHWESTERN DIVISION**

**TUSCUMBIA CITY SCHOOL)
SYSTEM, on behalf of itself and)
all others similarly situated,)
)
Plaintiff,)
)
vs.)
)
PHARMACIA CORPORATION,)
)
Defendant.)**

Civil Action No. CV-12-S-332-NW

MEMORANDUM OPINION AND ORDER

This putative class action is before the court on defendant’s motion to exclude the expert testimony of Dr. Shaun Crawford, Dr. Lois D. George, Matthew Hageman, Michael Heard, Dr. James Olson, and Robert Thompson.¹ Upon consideration of the briefs and evidentiary submissions, the court concludes that the motion should be granted in part and denied in part.

I. LEGAL STANDARDS

Analysis of the admissibility of expert testimony must begin with Federal Rule of Evidence 702, which provides that:

A witness who is qualified as an expert by knowledge, skill,

¹ Doc. no. 62 (Motion to Exclude).

experience, training, or education may testify in the form of an opinion or otherwise if:

(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

(b) the testimony is based on sufficient facts or data;

(c) the testimony is the product of reliable principles and methods;
and

(d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702 (2014).² The Eleventh Circuit requires district courts to “conduct an exacting analysis of the foundations of the expert opinions to ensure they meet the standards for admissibility under Rule 702.” *United States v. Abreu*, 406 F.3d 1304, 1306 (11th Cir. 2005) (quoting *United States v. Frazier*, 387 F.3d 1244, 1260 (11th

² The version of Rule 702 in effect prior to Dec. 1, 2011 read as follows:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702 (version prior to Dec. 1, 2011). The Advisory Committee's comments state that the language of Rule 702 was amended as part of the restyling of the Evidence Rules to make them more easily understood, and to make style and terminology consistent throughout the rules. The changes were intended to be stylistic only. There was no intent to change any result in any ruling on evidence admissibility.

Cir. 2004)) (internal quotation marks and emphasis omitted). The analysis has three parts: that is, district courts are required to assess whether

(1) the expert is qualified to testify competently regarding the matters he intends to address; (2) the methodology by which the expert reaches his conclusions is sufficiently reliable as determined by the sort of inquiry mandated in *Daubert* [*v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993)]; and (3) the testimony assists the trier of fact, through the application of scientific, technical, or specialized expertise, to understand the evidence or to determine a fact in issue.

United States v. Frazier, 387 F.3d 1244, 1260 (11th Cir. 2004) (*en banc*) (quoting *City of Tuscaloosa v. Harcros Chemicals, Inc.*, 158 F.3d 542, 562 (11th Cir. 1998)) (alteration supplied); *see also, e.g., Rink v. Cheminova, Inc.*, 400 F.3d 1286 (11th Cir. 2005) (same).

[T]he objective of that requirement is to ensure the reliability and relevancy of expert testimony. It is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.

Kumho Tire Company, Ltd. v. Carmichael, 526 U.S. 137, 152 (1999) (alteration supplied). “The inquiry . . . is a flexible one,” because “[m]any factors will bear on the inquiry, and . . . [there is no] definitive checklist or test.” *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 593–94 (1993) (alterations supplied). Even so, factors that may be relevant for consideration include:

(1) whether the theory or technique “can be (and has been) tested,” (2)

“whether the theory or technique has been subjected to peer review and publication,” (3) “in the case of a particular scientific technique, . . . the known or potential rate of error,” and (4) whether the theory or technique is generally accepted by the relevant scientific community.

Hendrix ex rel. G.P. v. Evenflo Company, Inc., 609 F.3d 1183, 1194 (11th Cir. 2010) (quoting *Daubert*, 509 U.S. at 592–94); *see also Rink*, 400 F.3d at 1292 (discussing the foregoing factors in the context of assessing an expert’s particular scientific technique).

II. DISCUSSION

Plaintiff contends that the defendant was negligent and wanton (or reckless) in the design, manufacture, and marketing of electric ballasts for fluorescent light fixtures containing “the now-banned toxic chemicals known as Polychlorinated Biphenyls (‘PCBs’).” Plaintiff alleges that failing ballasts release PCBs into classrooms like those maintained by the plaintiff, and that “PCBs could cause systemic toxic injuries” to humans.³ Plaintiff summarized the testimony it anticipates eliciting from the expert witnesses challenged by defendant as follows:

1. Dr. Shaun Crawford offers his opinion that he properly sampled both the outsides of the failed ballasts [removed from plaintiff’s schools] and the oil from the capacitors.

2. Michael Heard and Matthew Hageman offer their opinion that the samples collected by Dr. Crawford show the presence of PCBs both inside and outside the ballasts.

³ Doc. no. 12 (Amended Complaint), at 1-2.

3. Dr. James Olson offers his opinion that if PCBs have leaked from the ballasts, as shown by the other experts, they pose a serious health risk to anyone in Plaintiff's schools.

4. Robert Thompson provides for the Court a method of calculating damages both in Plaintiff's schools and throughout the class.

5. Dr. Lois George offers her opinion that fluorescent light ballasts can fail at any time and release PCBs into the environment through fire or leakage.

Doc. no. 69 (Plaintiff's Response to Defendant's Motion to Exclude), at ECF 2 (alteration supplied).⁴ Plaintiff contends that each of the referenced opinions "is the product of reliable methodology, and each is offered by an individual who is supremely qualified in his or her field."⁵

A. Dr. Shaun Crawford, Matthew Hageman, and Michael Heard

Dr. Shaun Crawford's testimony is offered solely to show that he properly sampled the exterior of four ballasts removed from fluorescent light fixtures in

⁴ *Plaintiff's counsel neglected to number the pages of their client's response to defendant's motion to exclude* — an omission that is not only an aggravation, but one that requires this court to employ the pagination electronically imprinted on the header of each page by the Court's Electronic Case Filing ("ECF") system, that allows parties to file and serve documents electronically. See *Atterbury v. Foulk*, No. C-07-6256 MHP, 2009 WL 4723547, *6 n.6 (N.D. Cal. Dec. 8, 2009). Bluebook Rule 7.1.4 *permits* citations to the "page numbers generated by the ECF header." *Wilson v. Fullwood*, 772 F. Supp. 2d 246, 257 n.5 (D.D.C. 2011) (citing *The Bluebook: A Uniform System of Citation* R. B. 7.1.4, at 21 (Columbia Law Review Ass'n *et al.*, 19th ed. 2010)). Even so, the Bluebook recommends "against citation to ECF pagination in lieu of original pagination." *Wilson*, 772 F. Supp. 2d at 257 n.5. Thus, unless stated otherwise, this court will cite the original pagination in the parties' pleadings. When the court cites to pagination generated by the ECF header, it will, as here, precede the page number with the letters "ECF."

⁵ Doc. no. 69 (Plaintiff's Response), at ECF 3.

plaintiff's schools, as well as the oil he found in the capacitors of those ballasts.⁶ Plaintiff does not intend for Crawford to testify about an analysis of his samples. Instead, plaintiff intends to offer the testimony of Matthew Hageman and Michael Heard for that purpose.⁷ It logically follows, therefore, that if the testimony of Hageman and Heard is not admissible, as defendant contends, Crawford's testimony will not be relevant or admissible either. Accordingly, the court must first address the admissibility of the testimony of Hageman and Heard.

Matthew Hageman and Michael Heard, who are employees of Sutherland Environmental Company ("Sutherland"), conducted laboratory testing of the oil and wipe samples collected by Dr. Shaun Crawford.⁸ Plaintiff intends to use their testimony to show "the presence of PCBs both inside and outside the ballasts" sampled by Dr. Crawford.⁹

Defendant contends that the testimony of both analysts is unreliable because they disregarded several quality control protocols mandated by their own laboratory.¹⁰

Sutherland has implemented six quality control protocols for "every analytical

⁶ See doc. no. 69 (Plaintiff's Response), at ECF 2.

⁷ *Id.*

⁸ See *id.* at ECF 7–8.

⁹ *Id.* at ECF 2.

¹⁰ See doc. no. 63 (Brief on Motion to Exclude), at 18–20.

measurement” conducted in its laboratory.¹¹ Most of those protocols are mandated by the United States government’s Environmental Protection Agency (“EPA”) for PCB testing.¹² Sutherland’s first protocol states:

Every sample is spiked with certified surrogate compounds. The surrogates are chemically similar to the target analytes and indicate the extraction/analysis efficiency of each sample. The surrogate recoveries should not exceed three standard deviations (3 Sigma) from the average or exceed EPA method guidelines. If the surrogate recovery is outside the limit, then the sample is repeated.

Doc. no. 64-17 (Sutherland Quality Control Protocols), at 2. Neither Hageman nor Heard followed that protocol.¹³

The second protocol states that a “matrix spike is used to assess the accuracy of the analytical method for a given sample matrix. . . . The data is acceptable if the results fall within the Upper Control Limit (UCL) and the Lower Control Limit (LCL) of the [quality control chart] for each parameter and matrix.”¹⁴ Neither Hageman nor Heard followed that protocol.¹⁵

The third protocol calls for a “duplicate sample,” which “is used to assess the

¹¹ Doc. no. 64-17 (Sutherland Quality Control Protocols), at 3.

¹² See doc. no. 67-4 (Hageman Deposition), at 24; see also UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, “Method 8082: Polychlorinated Biphenyls (PCBs) by Gas Chromatography” § 8.4, available at <http://www.caslab.com/EPA-Methods/PDF/EPA-Method-8082.pdf>.

¹³ See doc. no. 64-4 (Hageman Deposition), at 25.

¹⁴ Doc. no. 64-17 (Sutherland Quality Control Protocols), at 2 (alteration supplied).

¹⁵ See doc. no. 64-4 (Hageman Deposition), at 25.

precision of the analytical method for a given matrix. A duplicate is assayed every 20 samples and must agree within the range set out in the EPA method.”¹⁶ Neither Hageman nor Heard followed that protocol.¹⁷

The fourth protocol states:

Stewart Quality Control Charts for precision and accuracy have been developed and are used to ensure reliability in accordance with EPA methods. . . . The Upper Control Limit (UCL) and Upper Warning Limit (UWL) are established statistically and data must be within [these] control ranges to be acceptable.

Doc. no. 64-17 (Sutherland Quality Control Protocols), at 2 (alteration supplied). Neither Hageman nor Heard used a quality control chart when conducting their analysis.¹⁸

Hageman and Heard offered two explanations for not following the quality control protocols described above. The first was that plaintiff requested only “Level I” testing: that is, Sutherland offers four levels of laboratory testing, and “Level IV is the best to look at everything,” but it also is the most expensive of the four levels.¹⁹ Michael Heard testified that he recommended Level IV testing for purposes of litigation, because it provides a higher level of precision and accuracy than Level I.²⁰

¹⁶ Doc. no. 64-17 (Sutherland Quality Control Protocols), at 2.

¹⁷ *See* doc. no. 64-4 (Hageman Deposition), at 25.

¹⁸ *Id.*

¹⁹ *Id.* at 28–29.

²⁰ Doc. no. 64-5 (Heard Deposition), at 23–25.

Similarly, Matthew Hageman testified that “[w]hen you’re looking at Level I[,] it’s not going to tell you much.”²¹

The second reason given by Hageman and Heard for ignoring four of Sutherland’s quality control protocols was that they were instructed to do so by John Sutherland, even though Mr. Sutherland did not explain to either analyst how ignoring the protocols would affect the test results.²²

Plaintiff contends that the test results are “not shaken by any claims concerning Sutherland’s failure to follow procedures that called for a higher level of analysis and were simply unnecessary to determine the mere presence of a substance. Sutherland is a respected lab that was only attempting to show the presence or absence of PCBs.”²³ Plaintiff further contends that “Sutherland did not mistakenly fail to do some required step in the process of testing the samples. Rather, it chose to provide a cheaper service that tested only for the presence of PCBs.”²⁴

The Eleventh Circuit has held, however, that a departure from standard procedures “violates a primary purpose of *Daubert*: to ensure the expert employs in the courtroom the same level of intellectual rigor that characterizes the practice of an

²¹ *Id.* at 41 (alterations supplied).

²² Doc. no. 64-4 (Hageman Deposition), at 32–33. The record provides no other information on John Sutherland.

²³ Doc. no. 69 (Plaintiff’s Response), at ECF 8.

²⁴ *Id.*

expert in the relevant field.” *Guinn v. AstraZeneca Pharmaceuticals LP*, 602 F.3d 1245, 1255 (11th Cir. 2010) (internal quotation marks omitted); *see also In re Paoli R. R. Yard PCB Litigation*, 35 F.3d 717, 777-78 (11th Cir. 1994) (holding that a district court did not abuse its discretion in excluding expert testimony because the expert “failed to perform many *standard* quality control techniques” (emphasis in original)). Heard’s testimony that he would employ Level IV testing in the context of litigation suggests that an analysis typical of an expert in the relevant field would have been a Level IV analysis.

Plaintiff has failed to demonstrate that the testing conducted by Hageman and Heard — testing that did not include surrogate compound spikes, matrix spikes, duplicate samples, or a quality control matrix — “has been subjected to peer review and publication,” or is “generally accepted by the relevant . . . community.” *See Hendrix*, 609 F.3d at 1194. When Hageman was asked at his deposition how his “method” of analysis was validated, Hageman responded that he did not “have any documentation on that.”²⁵ Even so, plaintiff argues that “absolute certainty” is not required of expert testimony.²⁶ Although plaintiff is correct in that regard, the “known or potential rate of error” of the analysts’ methods remains an important

²⁵ Doc. no. 64-4 (Hageman Deposition), at 150.

²⁶ Doc. no. 69 (Plaintiff’s Response), at ECF 4.

consideration. *See Hendrix*, 609 F.3d at 1194. Here, the rate of error cannot effectively be determined because the analysts ignored most of the quality control protocols meant to ascertain the rate of error.²⁷ Defendant, on the other hand, has provided EPA language, as well as testimony from its own expert witnesses, showing that the protocols ignored by Hageman and Heard are standard analytic procedures for determining the presence or absence of PCBs.²⁸

This court concludes that the failure of Hageman and Heard to follow four of Sutherland’s six standard quality control protocols — protocols that also are required by the EPA for PCB testing — renders their findings unreliable. That conclusion is supported by Sutherland’s own explanation of its quality control protocols:

Quality control practices at Sutherland Environmental are established as part of every analytical measurement to assure reliability of final results. Variables that can affect results are considered, evaluated and controlled. Quality control is the routine procedural checks, by means of certified standards and spikes, that the data will have known precision and accuracy. Environmental Enforcement Agencies require that each laboratory generating data implement procedures to assure that the precision and accuracy are known and documented. Quality assurance at Sutherland Environmental is the overall program monitoring data reliability. All data released must be within the limit set by the quality control program and be defensible on a statistical basis. The objective of the quality assurance program is to reduce errors to tolerable limits and to assure the system is operating within acceptable limits.

²⁷ *See* doc. no. 64-17 (Sutherland Quality Control Protocols), at 3.

²⁸ *See* doc. no. 63 (Brief on Motion to Exclude), at 21–22.

Doc. no. 64-17 (Sutherland Quality Control Protocols), at 3. Accordingly, the expert testimony of Matthew Hageman and Michael Heard will be excluded.

Further, and as a result of the exclusion of the testimony of Hageman and Heard, the court finds that the testimony of Dr. Shaun Crawford, offered only for the purpose of demonstrating that his sampling was proper, is not probative of any fact at issue in this case. *See* Fed. R. Evid. 702(a). Accordingly, the testimony of Dr. Crawford also will be excluded.²⁹

B. Dr. James Olson

The Eleventh Circuit addressed expert causation testimony for toxic tort cases in *Chapman v. Procter & Gamble Distributing, LLC*, 766 F.3d 1296 (11th Cir. 2014), as follows:

For analyzing cases involving alleged toxic substances, we have delineated two categories. *McClain v. Metabolife Int'l, Inc.*, 401 F.3d 1233, 1239 (11th Cir. 2005). The first category consists of “cases in which the medical community generally recognizes the toxicity of the [substance] at issue” to “caus[e] the injury plaintiff alleges.” *Id.*; *Hendrix ex rel. G.P. v. Evenflo Co.*, 609 F.3d 1183, 1196 (11th Cir. 2010). In this category are “toxins like asbestos, which causes asbestosis and mesothelioma; silica, which causes silicosis; and cigarette smoke, which causes cancer.” *McClain*, 401 F.3d at 1239. For judicial economy, federal courts need not consider expert opinions for diagnoses “medical doctors routinely and widely recognize as true, like cigarette smoking causes lung cancer and heart disease, too much alcohol causes

²⁹ The decision of plaintiff’s counsel to request “Level I” testing in a significant case such as this one serves only to demonstrate, yet again, the truth of the old adage “penny wise and pound foolish.”

cirrhosis of the liver, and . . . the ingestion of sufficient amounts of arsenic causes death.” *Id.* at 1239 n.5. In cases where the cause and effect or resulting diagnosis has been proved and accepted by the medical community, federal judges “need not undertake an extensive *Daubert* analysis on the general toxicity question.” *Id.* at 1239.

In contrast, the second category contains cases, where the medical community generally does not recognize the substance in question as being toxic and having caused plaintiff’s alleged injury. *Id.* These cases require a two-part *Daubert* analysis, comprised of (1) general causation, “whether the [substance] can cause the harm plaintiff alleges,” *id.*, and (2) specific causation, whether experts’ methodology determines the substance “caused the plaintiff’s specific injury,” *Hendrix*, 609 F.3d at 1196 (citing *McClain*, 401 F.3d at 1239). For cases in category two, a district judge “must assess the reliability of the expert’s opinion on general, as well as specific, causation.” *Id.* (first emphasis added).

Chapman, 766 F.3d at 1303–04 (alterations in original). In the absence of contrary authority from either the Supreme Court or the Eleventh Circuit, or persuasive authority from other jurisdictions, this court will assume that PCBs fall under the second category.

Plaintiff offers the testimony of Dr. James Olson to show that “*if* PCBs have leaked from the ballasts, *as shown by the other experts*, they pose a serious health risk to anyone in Plaintiff’s schools.”³⁰ In other words, plaintiff offers Olson’s testimony to show *general* causation. Note well, however, that plaintiff does not allege personal injury in its amended complaint.³¹ Instead, plaintiff alleges that it suffered property

³⁰ Doc. no. 69 (Plaintiff’s Response), at ECF 2 (emphasis supplied).

³¹ *See* doc. no. 12 (Amended Complaint). Plaintiff alleged that the release of PCBs into its classrooms “caused these schools to be unsafe because of the potential exposure of school children,

damages when PCBs, which admittedly are also capable of causing personal injury, contaminated its property. Plaintiff's claim, then, is for economic loss damages, and Dr. Olson's testimony is offered to show that the release of PCBs can cause property damage.³²

Even so, plaintiff must address the issue of *specific* causation: that is, whether defendant's "fail[ure] to exercise reasonable care in the design, sale, testing, marketing, promotion, and distribution of PCBs" *actually caused* plaintiff's property damage.³³ The rub lies in the fact that plaintiff failed to test any of its classrooms for PCB exposure or contamination. Further, the only expert testimony offered by plaintiff that might have demonstrated contamination — *i.e.*, the testimony of Matthew Hageman and Michael Heard to the effect that PCBs were present in the capacitors and on the exterior of two ballasts — is not admissible.³⁴

Moreover, neither Dr. Olson's expert report nor his deposition testimony addresses whether the ballasts in plaintiff's schools actually leaked, or whether PCBs

faculty, and staff to toxic PCBs." *Id.* ¶ 30.

³² This conclusion is consistent with plaintiff's amended complaint, as well as this court's opinion entered on June 27, 2012. *See* doc. no. 23 (Memorandum Opinion), at 14–15 ("The *actual harm* for which the Tuscumbia City School System seeks damages in this case, however, is not compensation for personal injuries already sustained by any particular person, but instead, damage to property *other than* the fluorescent light ballasts manufactured by defendant's predecessor in interest.").

³³ *Id.* ¶ 41 (alteration supplied).

³⁴ *See supra* Part II.B.

actually contaminated plaintiff's property.³⁵ Instead, his testimony is based upon *an assumption* that the ballasts leaked PCBs on plaintiff's property. Dr. Olson cannot testify to specific causation and, thus, he fails the "two-part *Daubert* analysis" required in cases involving toxic substances. *Chapman*, 766 F.3d at 1303–04. Further, this court concludes that such incomplete expert testimony — testimony that is based upon the assumption of a fact critical to an element of plaintiff's case — is likely to mislead a jury on the issue of causation. *See Daubert*, 509 U.S. at 595 ("Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it. Because of this risk, the judge in weighing possible prejudice against probative force under Rule 403 . . . exercises more control over experts than over lay witnesses.") (internal quotation marks omitted); *United States v. Frazier*, 387 F.3d 1244, 1263 (11th Cir. 2004) ("Simply put, expert testimony may be assigned talismanic significance in the eyes of lay jurors, and, therefore, the district courts must take care to weight the value of such evidence against its potential to mislead or confuse."). Accordingly, the testimony of Dr. James Olson will be excluded.

C. Robert Thompson

None of plaintiff's experts has tested plaintiff's facilities for PCB contamination. Instead, plaintiff asks that defendant be ordered to pay for testing and

³⁵ *See* doc. no. 64-6 (Olson Report); doc. no. 64-7 (Olson Deposition), at 13–17.

for the remediation of facilities found to have been contaminated by PCBs.³⁶ Plaintiff offers the testimony of Robert Thompson to provide the court with a method for calculating the cost of such testing and remediation.³⁷

Thompson has little knowledge concerning PCBs or light ballasts.³⁸ He has never created a PCB remediation plan, nor has he received any training on PCB remediation.³⁹ He also is unfamiliar with plaintiff's facilities and classrooms.⁴⁰ Even so, Thompson created a PCB remediation plan for plaintiff's schools that was based upon a "standard, generic protocol" created by the EPA, and plaintiff attempts to claim the costs listed in that plan as damages.⁴¹

Thompson's testimony is unreliable. Not only is Thompson unfamiliar with PCB remediation, but the EPA protocol upon which he relies *is not the protocol that ultimately will be used in plaintiff's schools*, as evidenced by the following colloquy from Thompson's deposition:

Q: You would have to know [what percentage of light fixtures in each of plaintiff's schools contained PCBs] before calculating damages, wouldn't you?

³⁶ Doc. no. 12 (Amended Complaint), ¶ 44.

³⁷ Doc. no. 69 (Plaintiff's Response), at ECF 2.

³⁸ Doc. no. 64-9 (Thompson Deposition), at 25–26, 48–52.

³⁹ *Id.* at 42–44.

⁴⁰ *Id.* at 66.

⁴¹ *Id.* at 48.

A: No, but whoever wrote the protocol would.

Q: Okay. Who's going to write the protocol here?

A: I can't answer that. I would not be responsible for that.

Q: Has a protocol been written?

A: Not that I am aware of.

Q: Well, if there's no protocol, how can you cost it out?

A: These are standard boilerplate prices for the process involved in removing PCBs. The EPA has written a standard, generic protocol. And these costs or these activities associated with that are based on that — that standard.

Q: We'll get to that. Am I correct that no individual has written a protocol regarding the removal of PCB-containing ballast[s] for [plaintiff]?

A: Not that I'm aware of.

Doc. no. 64-9 (Thompson Deposition), at 47–48 (alterations supplied).

Plaintiff contends that, even though the “steps that must be taken to remediate PCB contamination come from other sources, Mr. Thompson’s job is to determine how much they will cost.”⁴² Those “steps” have not been determined, however, and Mr. Thompson therefore cannot do his “job” reliably. Indeed, Thompson testified that the yet-unwritten protocol would include some aspects of PCB remediation with

⁴² Doc. no. 69 (Plaintiff’s Response), at ECF 11.

which he is unfamiliar: *e.g.*, proper containment practices.⁴³

The court cannot allow Thompson to testify as to the costs of PCB remediation in plaintiff's schools when a remediation protocol has not been written, and when Thompson is not even qualified to speculate about the possible details of such a PCB-specific protocol.⁴⁴ Accordingly, the expert testimony of Robert Thompson will be excluded as unreliable.

D. Dr. Lois D. George

Plaintiff offers the testimony of Dr. Lois D. George to show that “fluorescent light ballasts can fail at any time and release PCBs into the environment through fire or leakage.”⁴⁵ Defendant contends that Dr. George's testimony is “unsupported speculation,” and that it has no scientific basis.⁴⁶ However, Dr. George based her opinion upon a document written by the EPA providing that: “All of the pre-1979 [ballasts] in lighting fixtures that are still in use are now far beyond their typical life expectancy, increasing the risk of leaks, smoking conditions, or even fires, which

⁴³ See doc. no. 64-9 (Thompson Deposition), at 46–48 (admitting that the containment procedures would have to be written by an expert in PCB remediation).

⁴⁴ See, *e.g.*, *id.* at 95 (“Q: Okay. And if PCBs are contained in . . . sealed capacitors, what are you cleaning up? / A: The industrial hygienist or the person that wrote the protocol would have to make that determination.”).

⁴⁵ Doc. no. 69 (Plaintiff's Response), at ECF 2.

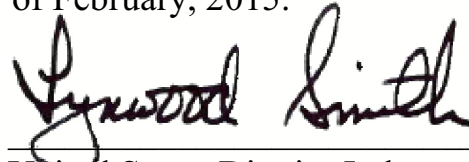
⁴⁶ Doc. no. 63 (Brief on Motion to Exclude), at 39.

would pose health and environmental hazards.”⁴⁷ That document also states that “[ballast] failures are not uncommon.”⁴⁸ Accordingly, defendant’s argument lacks a basis in fact, and is rejected.

III. CONCLUSION AND ORDERS

In accordance with the foregoing, it is hereby ORDERED that the motion to exclude expert testimony filed by defendant Pharmacia Corporation is GRANTED in part and DENIED in part. The motion is GRANTED as to the testimony of Dr. Shaun Crawford, Matthew Hageman, Michael Heard, Dr. James Olson, and Robert Thompson, and the testimony of those witnesses is EXCLUDED. The motion as to Dr. Lois George is DENIED.

DONE and **ORDERED** this 12th day of February, 2015.


United States District Judge

⁴⁷ UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, “PCB-Containing Fluorescent Light Ballasts (FLBs) in School Buildings,” *available at* <http://epa.gov/wastes/hazard/tsd/pcbs/pubs/ballasts.htm> (alteration supplied); *see also* doc. no. 64-15 (George Report), at 4, 7–8.

⁴⁸ UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, “PCB-Containing Fluorescent Light Ballasts (FLBs) in School Buildings,” *available at* <http://epa.gov/wastes/hazard/tsd/pcbs/pubs/ballasts.htm> (alteration supplied).