

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

PAULA UNDERHILL, *Individually and as
Special Administrator of the Estate of Galen
Underhill*, and SEAN UNDERHILL,

Plaintiffs,

vs.

COLEMAN COMPANY, INC.,

Defendant.

Case No. 12-cv-129-JPG-DGW

MEMORANDUM AND ORDER

This matter comes before the Court on plaintiffs Paula Underhill's and Sean Underhill's ("Plaintiffs") motion to exclude the expert testimony of Dr. Richard Roby (Doc. 112); and defendant Coleman Company, Inc.'s ("Coleman") motions to exclude the expert testimony of Eileen Kirkpatrick (Doc. 138), Robert Engberg (Doc. 139), and Dr. Gary Hutter (Doc. 141). Coleman filed a response (Doc. 126) to Plaintiffs' motion to exclude the testimony of Dr. Roby to which Plaintiffs replied (Doc. 127). Plaintiffs filed responses (Doc. 153, 161 & 164) to Coleman's motions to exclude the testimony of Kirkpatrick, Dr. Engberg, and Dr. Hutter. On March 6 and 7, 2014, the Court held hearings on the motions to exclude the testimony of Drs. Roby and Hutter. For the following reasons the Court denies Plaintiffs' motion to exclude the testimony of Dr. Roby (Doc. 112), grants in part and denies in part Coleman's motion to exclude the testimony of Dr. Hutter (Doc. 141), grants Coleman's motion to exclude the testimony of Engberg (Doc. 139), and denies Coleman's motion to exclude the testimony of Kirkpatrick (Doc. 138).

1. Standard

Admissibility of expert testimony is governed by Federal Rule of Evidence 702, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and its progeny. In *Daubert*, the Supreme Court held that Federal Rule of Evidence 702 did not incorporate the “general acceptance” test set forth in *Frye v. United States*, 54 App. D.C. 46 (D.C. Cir. 1923). Instead, the Court held that Rule 702 required district judges to be gatekeepers for proposed scientific evidence. *Daubert*, 509 U.S. at 589; *see also General Elec. v. Joiner*, 522 U.S. 136, 142 (1997). For scientific evidence to be admissible, the Court found, a district court must find it both relevant and reliable; it must be scientific knowledge grounded “in the methods and procedures of science” and consist of more than “subjective belief or unsupported speculation.” *Daubert*, 509 U.S. at 589-90.

In 2000, Rule 702 was amended in response to *Daubert*. *United States v. Conn*, 297 F.3d 548, 555 (7th Cir. 2002). In its current form, it reads 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.

When dealing with scientific evidence, the preliminary question is “whether the reasoning or methodology underlying the testimony is scientifically valid and . . . whether that reasoning or methodology properly can be applied to the facts in issue.” *Daubert*, 509 U.S. at 592-93. Considerations pertinent to this inquiry include whether a theory or technique is capable of being or has been tested, whether it has been subjected to peer review and publication, its

known or potential rate of error when applied, and whether it has gained general acceptance. *Id.* at 593-94; *accord Conn*, 297 F.3d at 555. Rule 702’s advisory committee’s note suggests courts also consider:

(5) whether “maintenance standards and controls” exist; (6) whether the testimony relates to “matters growing naturally and directly out of research they have conducted independent of the litigation,” or developed “expressly for purposes of testifying”; (7) “[w]hether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion”; (8) “[w]hether the expert has adequately accounted for obvious alternative explanations”; (9) “[w]hether the expert is being as careful as he would be in his regular professional work outside his paid litigation consulting”; and (10) “[w]hether the field of expertise claimed by the expert is known to reach reliable results for the type of opinion the expert would give.”

Fed. R. Evid. 702 advisory committee’s note (2000 amends.); *accord Fuesting v. Zimmer, Inc.*, 421 F.3d 528, 534-35 (7th Cir. 2005), *vacated in part on other grounds*, 448 F.3d 936 (7th Cir. 2006), *cert. denied*, 127 S. Ct. 1151 (2007).

To determine if an expert is qualified to testify on a particular matter, a court should “consider a proposed expert’s full range of practical experience as well as academic or technical training.” *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000). However, generalized knowledge within an area is not necessarily enough to qualify an expert:

[A]n expert’s qualifications must be within the same technical area as the subject matter of the expert’s testimony; in other words, a person with expertise may only testify as to matters within that person’s expertise. Generalized knowledge of a particular subject will not necessarily enable an expert to testify as to a specific subset of the general field of the expert’s knowledge.

Martinez v. Sakurai Graphic Sys. Corp., No. 04 C 1274, 2007 WL 2570362, at * 2 (N.D. Ill. Aug. 30, 2007) (citing *O’Conner v. Commonwealth Edison Co.*, 807 F. Supp. 1376, 1390 (C.D. Ill. 1992), *aff’d*, 13 F.3d 1090 (7th Cir. 1994)). With these standards in mind, the Court will consider each of the parties’ remaining motions to exclude expert testimony.

2. Dr. Richard Roby (Doc. 112)

Plaintiffs object to the testimony of Dr. Roby only to the extent he opines that the defects in the heater were the result of a post-sale alteration. Specifically, Plaintiffs contend that Dr. Roby is not qualified by education or training to express such opinions and Dr. Roby's post-sale alteration opinion lacks the reliability required by Federal Rule of Evidence 702.

Plaintiffs attach the opinion of Dr. Felix Lee, Professor and Director of Industrial and Manufacturing Engineering at Southern Illinois University Edwardsville, in which Dr. Lee assesses Dr. Roby's qualifications to offer the opinion that the defect was a result of a post-sale alteration. Dr. Lee opines that Dr. Roby is not qualified to offer an opinion on Coleman's quality control or assurance program because his

qualifications simply do not provide the requisite coursework, experience in academia teaching these courses or conducting practical research within the field to analyze the sufficiency of quality control/assurance documents and programs and make opinions regarding their sufficiency.

(Doc. 112-1, p. 1). Plaintiffs also argue that Dr. Roby's failure to belong to a professional organization solely focusing on quality control and quality assurance further indicates his lack of qualifications to provide an opinion about Coleman's quality control or assurance program.

The Court finds Plaintiffs' arguments unpersuasive. Significantly, Dr. Roby has worked in the engineering field for over thirty years. Dr. Roby's curriculum vitae indicates he has bachelors' degrees in Chemistry and Chemical Engineering from Cornell University, a master's degree in Mechanical Engineering from Cornell University, and a doctorate in Mechanical Engineering from Stanford University (Doc. 126-1). Plaintiffs have pointed to no authority specifying that these degrees and/or coursework necessary to obtain these degrees are insufficient to offer an opinion on quality control and assurance.

Dr. Roby worked as an associate professor in the Mechanical Engineering Department at Virginia Polytechnic Institute and State University from 1986 to 1992. He testified that as part of those courses he taught quality control and assurance. Plaintiffs emphasize that Dr. Roby has never taught a course specifically in quality control and/or assurance; however, they offer no authority that teaching a course specifically on quality control and/or assurance is a prerequisite to offering an opinion on the topic.

Finally, Plaintiffs emphasize that Dr. Roby is not a member of a professional association solely specializing in quality control and/or assurance. At the hearing, Dr. Roby indicated that he was a member of professional associations that had divisions that focused on quality control and assurance. Plaintiffs have failed to provide any authority or argument convincing this Court that Dr. Roby's membership in multiple professional organizations dealing with aspects of quality control and/or assurance is insufficient.

Having considered Dr. Roby's testimony at the *Daubert* hearing and the record, the Court finds that Dr. Roby's educational and professional experience qualify him to testify as to whether Coleman's quality control and/or assurance program was sufficient to prevent the heater to leave Coleman in its defective condition.

Next, Plaintiffs argue Dr. Roby's post-sale alteration opinion lacks a reliable foundation and fails to satisfy the reliability component Federal Rule of Evidence 702. The Court does not find Plaintiffs' arguments persuasive. Dr. Roby set forth his methodology in his report and further expanded on it at the hearing. He relied on his testing of the incident heater and his knowledge of other Coleman heaters. He also relied on documents from Coleman. Plaintiffs' criticisms go to the weight of this evidence and do not foreclose the admissibility of Dr. Roby's opinions arising from them. After considering the parties' filings and hearing testimony from

Dr. Roby, the Court finds that Dr. Roby's quality control opinions are reliable within the meaning of Rule 702. Accordingly, the Court denies Plaintiffs' motion to exclude Dr. Roby's testimony (Doc. 112). Plaintiffs concerns can be addressed on cross-examination.

3. Motion to Strike the Testimony and Opinions of Dr. Gary Hutter (Doc. 141)

Coleman seeks to strike the testimony and opinions of Dr. Hutter. Dr. Hutter holds a doctorate in environmental occupational health studies and a bachelor's degree in mechanical engineering. He has testified in numerous Coleman heater design defect claims. In the instant case, Plaintiffs seek to introduce his opinions regarding (1) the cause of the injuries at issue in the case, (2) design and manufacturing defects of the Coleman 5045 heater, and (3) the inadequacies of the Coleman 5045 heater's warnings. Specifically, with respect to a design defect, Dr. Hutter will opine that (1) the thermocouple location allowed the heater to produce lethal amounts of CO, (2) the thermocouple was not installed with an anchoring mechanism to assure its proper installation, and (3) the set screw's design allowed post-manufacture modification. With respect to manufacturing defects, Plaintiffs explain that Dr. Hutter will opine regarding the following defects: (1) an improperly-positioned thermocouple, and (2) and improperly set regulator pressure.

Coleman, however, contends that Dr. Hutter's (1) manufacturing defect opinions are not the product of appropriate scientific methodology, (2) newly formulated design defect claims must be stricken, and (3) warnings opinions are irrelevant, unreliable, and duplicative. The Court will undertake a review of Dr. Hutter's proposed testimony and determine its admissibility pursuant to *Daubert*.

Prior to inspection of the incident heater, Dr. Hutter issued his preliminary report (Doc. 141-5) on November 9, 2012, in which he concluded that Coleman defectively designed and

issued insufficient warnings with respect to the Coleman 5045 heater. After witnessing Dr. Roby's testing of the incident heater, Dr. Hutter issued his Second Supplemental Report on May 14, 2013, in which he indicated that testing of the incident heater "revealed that the location of the thermocouple on the subject Underhill heater in relation to the burner bowl was not in accordance with the manufacturer's design specifications" (Doc. 141-10, p. 3). He further opined that "Coleman failed to select and utilize a thermocouple anchoring mechanism or means, the design of which, would assure that the thermocouple was installed and remained at an appropriate location and distance from the burner assembly" (*Id.*).

In his second supplemental report, Dr. Hutter opines that "the reduced thermal output . . . is the result of a combination of a defective regulator and/or manipulation of the propane tank valve" (Doc. 141-10, p. 4). He further opined that "[t]he regulator on the subject heater is therefore defective as manufactured, assembled, or installed, and said defect is the cause of the diminished thermal BTU output of the subject heater and of the elevated CO levels" (Doc. 141-10, p. 5). Then, in his rebuttal report, Dr. Hutter opines that "Coleman could have and should have designed the set screw in such a manner that it could not be accessible and/or readjusted after its manufacture" (Doc. 141-11, p. 9).

In their response, Plaintiffs indicate that Dr. Hutter will express opinions regarding (1) the cause of death and injury to Galen Underhill and Sean Underhill, (2) design and manufacturing defects of the incident Coleman 5045 heater, and (3) warning opinions. The Court will first consider whether Dr. Hutter's manufacturing defect opinions are admissible under *Daubert*.

First, Coleman argues that Dr. Hutter's opinion that the alleged manufacturing defects existed at the time the heater left Coleman's control is supported by insufficient evidence and is

based on pure speculation. Coleman also argues that Dr. Hutter's opinion that the defect existed before the heater left Coleman's control is based on Coleman's inability to prove through its quality control documents that the condition did not exist. This, Coleman argues, inappropriately shifts the burden of proof. The Court finds Coleman's arguments with respect to Dr. Hutter's manufacturing defect opinions unpersuasive. Rather, Dr. Hutter based his opinion, in part, on an analysis of Coleman's assembly procedures and their inability to ensure that the thermocouple would be properly placed at the time of assembly. This is not merely pure speculation as suggested by Coleman. Rather, Coleman's concerns can be addressed on cross-examination. The Court denies Coleman's motion to the extent it seeks to strike Dr. Hutter's manufacturing defect opinions.

Second, Coleman argues that Dr. Hutter's design defect opinions must be stricken for various reasons. Initially, as the Court indicated to the parties at the hearing and in its previous order, Plaintiffs cannot maintain both a manufacturing defect claim and a defective design claim based on the placement of the thermocouple. As such, Dr. Hutter may not testify that the design of the heater was defective based on the placement of the thermocouple. Such testimony would simply not be in accord with the facts of this case which suggest that the thermocouple was not in accord with the manufacturer's specifications.

With respect to Dr. Hutter's alternative anchoring mechanism design, there is no evidence that Dr. Hutter ever tested such an alternative design. He simply argues that other devices use anchoring mechanisms; however, that does not indicate that an anchoring device was feasible for the Coleman 5045 heater's thermocouple. Further, there is no indication that Dr. Hutter could not have tested his theory. As such, the Court will grant Coleman's motion to the extent it strikes Dr. Hutter's testimony regarding an anchoring device.

Third, Coleman argues that Dr. Hutter's warnings opinions are irrelevant, unreliable, and duplicative. Specifically, Coleman argues that Dr. Hutter failed to consider the warnings that were included with this heater and bases his opinion on speculation as to Galen Underhill's knowledge of the heater's CO production. Coleman also argues that Dr. Hutter's warning opinions would be duplicative of Dr. Wogalter's opinions. The Court, however, is not persuaded by Coleman's arguments regarding Dr. Hutter's warnings opinions. Rather, Coleman's concerns are more appropriate for cross-examination.

Accordingly, the Court grants in part and denies in part the motion. Specifically, the Court grants the motion to the extent it excludes Dr. Hutter's design defect opinions regarding (1) an alternative anchoring mechanism design and (2) an alternative thermocouple placement design. The motion is denied in all other respects.

4. Motion to Strike the Testimony and Opinions of Robert Engberg (Doc. 139)

Next, Coleman seeks to strike the testimony and opinions of Robert Engberg, a mechanical engineer. Engberg intends to offer opinions regarding the cause of Galen Underhill's death and the design of the heater. Coleman argues that Engberg's testimony should be stricken because he failed to consider the facts of this case and his methodology is unreliable.

Engberg offered this opinion prior to the testing in which it was concluded that the thermocouple in the incident heater was not placed in accord with Coleman's design specification. He has offered no supplemental opinion. In his report (Doc. 139-4), Engberg offers his opinion that the incident heater was defectively designed. He proceeds to offer alternative designs, including an alternative placement of the thermocouple and an oxygen depletion sensor.¹ Ultimately, Engberg concludes that the defective design, including the failure

¹ According to Engberg, an oxygen depletion sensor "would operate to shut down the heater when oxygen levels dropped below 19% and before dangerous levels of CO were produced." Doc. 139-4, p. 5.

to alternatively place the thermocouple or include an oxygen depletion sensor, of the heater caused Galen Underhill's death and Sean Underhill's injury. Engberg further concludes that Coleman had knowledge of the potential for these heaters to produce deadly levels of CO and failed to warn consumers of the hazard. He offers no opinion on a manufacturing defect claim.

Plaintiffs argue that Engberg's opinion is admissible to the extent Engberg offers an opinion that the incident heater, by design, was capable of producing lethal amounts of carbon monoxide. Plaintiffs further maintain that they have not abandoned a design defect claim based on thermocouple placement. Finally, Plaintiffs argue that Engberg's failure to test the incident heater is irrelevant because his theory is that *all* Coleman heaters are defectively designed for failure to alternatively place the thermocouple.

It is clear that Engberg's design defect opinion is no longer relevant to this case. Engberg offered these opinions prior to the testing of the incident heater that revealed the thermocouple was not in the place indicated in the manufacturer's design specifications. The Court has previously explained that any design defect claim relevant to thermocouple placement is inconsistent with a claim that the thermocouple was not placed in accord with design specifications. Further, Plaintiffs have indicated they have abandoned any theory advocating an oxygen depletion sensor as an alternative design. *See* Doc. 139-6, p. 1. Accordingly, without determining the reliability of Engberg's methods, the Court finds Engberg's opinion regarding a defect in the design of the heater is inadmissible because it is not relevant to the facts of this particular case. The Court thus grants the motion to the extent it excludes Engberg's testimony regarding a design defect in the placement of the thermocouple or the failure to include an oxygen depletion sensor.

5. Motion to Exclude Testimony of Eileen Kirkpatrick (Doc. 138)

Coleman next seeks to exclude the testimony of Eileen Kirkpatrick, an industrial hygienist. In her report (Doc. 138-4), Kirkpatrick opines that the injuries at issue in this case resulted from the use of tank valve control² to control the heat output of the heater, rather than using the control knob. She bases her opinion on her own testing and the testing of two other Coleman Powermate 5045 heaters involved in carbon monoxide injuries.

Coleman argues that Kirkpatrick's opinions should be stricken because she failed to consider the essential facts of the case, failed to utilize a reliable methodology in formulating her opinions, and her opinions invade the province of the jury. In their response, Plaintiffs maintain that Kirkpatrick "will not make any opinions regarding the design, manufacture or operation of the heater beyond this very specific opinion that the Coleman Powermate 5045 under restricted fuel flow conditions can produce dangerous and lethal levels of CO." Doc. 153, p. 3. With these limitations placed on Kirkpatrick's testimony, the Court will deny the motion to exclude her testimony (Doc. 138). Kirkpatrick may testify to her opinion that the Coleman Powermate 5045 was capable of producing dangerous and lethal levels of CO in restricted fuel flow conditions.

6. Conclusion

For the foregoing reasons, the Court:

- **DENIES** Plaintiffs' motion to bar the expert testimony of Dr. Roby (Doc. 112);
- **GRANTS in part and DENIES in part** Coleman's motion to strike the testimony and opinions of Dr. Gary Hutter (Doc. 141). Specifically, the Court grants the motion to the extent it excludes Dr. Hutter's design defect opinions regarding (1) an

² "Tank valve control" describes the way in which a consumer controls the heat output of the heater by adjusting the valve on the propane tank rather than using the control knob.

alternative anchoring mechanism design and (2) an alternative thermocouple placement design. The motion is denied in all other respects;

- **GRANTS** Coleman's motion to strike the testimony and opinions of Robert Engberg (Doc. 139); and
- **DENIES** Coleman's motion to exclude the testimony of Eileen Kirkpatrick (Doc. 138).

IT IS SO ORDERED.

DATED: May 2, 2014

s/ J. Phil Gilbert
J. PHIL GILBERT
DISTRICT JUDGE