

**IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF UTAH
CENTRAL DIVISION**

DAVID CALDER, Individually, and as
Father and Guardian of BC, a Minor, and of
JC, a Minor, and as Father and Guardian of
HMP, a Deceased Minor,

Plaintiff,

v.

BLITZ USA,

Defendant.

**MEMORANDUM DECISION and
ORDER**

Case No. 2:07-cv-00387-TC-PMW

Judge Tena Campbell

This matter comes before the court on the motions in limine filed by Plaintiff David Calder and Defendant Blitz U.S.A., Inc. to exclude certain expert testimony. On October 22, 2010, the court held a hearing to determine whether Plaintiff's proposed experts Glen Stevick and Arthur Stevens and Defendant's proposed expert Carl Adams qualify as experts under Rule 702 of the Federal Rules of Evidence and Daubert v. Merrill Dow Pharm., Inc., 509 U.S. 579 (1993). Having considered the record established in pleadings and at the hearing, as well as pertinent law, the court holds that (1) Dr. Stevick qualifies as an expert witness in the areas for which he has been designated to testify, (2) Mr. Stevens does not qualify as an expert witness in the areas for which he has been designated to testify, and (3) Dr. Adams qualifies as an expert for the purpose of testifying about whether the injuries victims sustained in the fire are consistent with an explosion. Accordingly, the court denies Defendant's motion to exclude the testimony of Dr. Stevick, grants Defendant's motion to exclude the testimony of Mr. Stevens, and grants in part and denies in part Plaintiff's motion to exclude the testimony of Dr. Adams.

Standards Governing Admissibility of Expert Witness Testimony

Under the Federal Rules of Evidence, “[i]f 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 (emphasis added). The proponent of an expert witness bears the burden of showing that witness’s proffered testimony is admissible under Rule 702. U.S. v. Nacchio, 555 F.3d 1234, 1241 (10th Cir. 2009).

The court’s inquiry under Rule 702 is twofold. First, the court must determine whether the witness is qualified as an expert in the area about which he will testify. Id. “In determining whether expert testimony is admissible, the district court generally must first determine whether the expert is qualified ‘by knowledge, skill, experience, training, or education’ to render an opinion.” Id. (quoting Fed. R. Evid. 702). Second, the court must determine whether the expert opinion is relevant and reliable. Daubert v. Merrill Dow Pharm., Inc., 509 U.S. 579, 589 (1993).

The court evaluates several factors when assessing the reliability of the proposed expert witness’s testimony, including: “(1) whether the expert’s technique or theory has been or can be tested; (2) whether the technique or theory has been subject to peer review and publication; (3) whether there is a known or potential rate of error of the technique or theory when applied; (4) whether standards and controls for the technique or theory exist and are used; and (5) whether the technique has been accepted in the scientific community.” Daubert, 509 U.S. at 593-94.

Additionally, “expert testimony prepared solely for purposes of litigation, as opposed to testimony flowing naturally from an expert's line of scientific research or technical work, should be viewed with some caution.” Johnson v. Manitowoc Boom Trucks, Inc., 484 F.3d 426, 434 (6th Cir. 2007).

Plaintiff’s Expert Glen Stevick

Defendant Blitz U.S.A. (Blitz) has moved to exclude the testimony of Plaintiff’s expert, Glen Stevick, Ph.D. Dr. Stevick’s challenged opinions can be summarized as follows: (1) the accident was the result of a flashback explosion; (2) flame arrestors can prevent flashback explosions; (3) the Blitz gasoline container was unreasonably unsafe because it did not have a flame arrestor; and (4) the warning on the Blitz gasoline container was not sufficiently conspicuous.

Blitz claims that Dr. Stevick’s training and experience do not qualify him to give these opinions at trial. Blitz also contends that Dr. Stevick’s opinions are not the result of reliable scientific methodology and are simply opinions he prepared in anticipation of litigation. The court has reviewed Dr. Stevick’s reports, portions of his depositions, the memoranda filed by the parties, and considered the testimony given by Dr. Stevick at the October 22, 2010 hearing. Based on this review and as explained below, the court DENIES Blitz’s motion.

Dr. Stevick’s Qualifications

Dr. Stevick earned a Ph.D. from the University of California at Berkeley in Mechanical Engineering. He is a licensed Mechanical Engineer in California and Nevada. During his career, he has investigated numerous home fires, industrial equipment fires, propane tank explosions, building fires, and motor home fires. At the October 22, 2010, hearing, Dr.

Stevick testified that he had investigated the source and origin of fires “hundreds of times.” (Tr. of Oct. 22, 2010 Hearing at 42:8-11.) He has also given presentations to insurance companies on the subject of propane and electrical fires.

Dr. Stevick was employed for approximately eight years as an engineer for Chevron Corporation working on projects dealing with flame arrestors and storage systems for gasoline and other hydrocarbons. In performing his flame arrestor design work, he analyzed flame arrestor feasibility from both a performance and a cost point of view.

In 1989, Dr. Stevick and two partners founded Berkeley Engineering and Research, Inc. (BEAR). His work with BEAR appears to be primarily as a litigation expert. He has been involved in nine cases involving gasoline container explosions. He has performed or overseen numerous tests focusing on gasoline container explosions, including gasoline aging tests and pouring gasoline on a fire or embers. Many of these tests were conducted in connection with this and other gas can litigation.

Dr. Stevick’s design experience includes redesigning the service valve for consumer propane tanks, high temperature/high pressure piping, and pressure vessels for fluidized catalytic cracking plants used in the process of making gasoline. He recently oversaw and directed the design of a fluid based flame arrestor for the vapor recovery system of a crude oil transport barge.

One of Blitz’s main arguments is that Dr. Stevick’s experience is with products and systems far different than the gasoline container at issue here. But Dr. Stevick’s experience and training demonstrate that his challenged opinions are “within the reasonable confines of his subject area.” Compton v. Subaru, 82 F.3d 1513, 1520 (10th Cir. 1996) (quoting Wheeler v.

John Deere Co., 953 F.2d 1090, 1100 (10th Cir. 1991) overruled on other grounds by Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999).

Dr. Stevick's Challenged Opinions

1. The cause of the accident

Blitz raises a number of arguments in support of its contention that Dr. Stevick's methodology is so unreliable that his opinions must be excluded. Blitz's chief contention is that because Dr. Stevick's investigation and testing was done in anticipation of litigation, it was slanted to achieve a certain result. The court should apply the Daubert factors with greater rigor to tests performed in anticipation of litigation. Johnson, 484 F.3d at 434. If the expert testimony is based on tests performed in anticipation of litigation rather than on independent research, "the party proffering it must come forward with other objective, verifiable evidence that the testimony is based on 'scientifically valid principles.'" Id. (quoting Daubert v. Merrell Dow Pharm., 43 F.3d 1311, 1318 (9th Cir. 1995)).

Blitz makes conclusory arguments without support in the record that because Dr. Stevick performed tests in preparation for litigation that the tests should automatically be excluded. But the court has seen nothing in Dr. Stevick's testimony and materials that would warrant exclusion for this reason. Moreover, Dr. Stevick had extensive experience in investigating various types of explosions and fires outside of litigation. Because Dr. Stevick's methodology and experience are based on scientifically valid principles, the court will not exclude the tests he performed merely because they were conducted in preparation for litigation.

2. Flame arrestors can prevent flashback explosions, and the Blitz gasoline container was unreasonably unsafe because it did not have a flame arrestor

Dr. Stevick described his experience, primarily with Chevron, in designing and redesigning complex equipment, including flame arrestors and explosion doors. He testified that he “also analyzed flame arrestor feasibility issues from both a performance and a cost standpoint.” (Stevick Aff., ¶ 5, Ex. E to P1’s Opp., Dkt. No. 292.) While the court acknowledges that the equipment Dr. Stevick worked with at Chevron was not for portable gasoline containers, Dr. Stevick explained that he took a number of internal education courses on combustion science during his time at Chevron that, combined with his experience with large gasoline containers, give him the necessary expertise to opine on the necessity of a flame arrestor in a consumer gasoline container.

In his affidavit, Dr. Stevick testified about his efforts in designing and testing a flame arrestor for a Blitz gasoline container. (Stevick Aff. ¶¶20-22.) The court has seen nothing in the affidavit or any other materials that causes it to believe that this evidence is so unreliable that it must be excluded.

3. The warning on the Blitz gasoline container was not sufficiently conspicuous

At the hearing, the court questioned Dr. Stevick about his expertise in product warnings and related issues. Dr. Stevick testified that he learned about product warnings during his undergraduate studies of mechanical engineering and applied that knowledge when he designed gas containers for Chevron. Dr. Stevick also stated that he has twenty years of experience in his consulting business evaluating and designing product warnings, including a warning for a consumer propane tank. This experience is sufficient to allow Dr. Stevick testify about the

adequacy of the warning on the Blitz gas container.

Plaintiff's Expert Arthur Stevens

Blitz moves to exclude the expert testimony of Plaintiff's expert, Arthur Stevens, who holds a B.A. degree in economics and has around fifty years experience as a marketing expert and executive in the gas can industry. Mr. Stevens' expert testimony would include the following: (1) that flashback caused an explosion in the Calder case, (2) that a safer alternative design for the Blitz gas can would include a flame arrestor, and (3) that the layout of the warning on the Blitz can is deficient. But Mr. Stevens is not an engineer, and his technical experience is limited to that which he picked up as a marketing executive. He has conducted no testing related to the specific circumstances of the Calder case. And although he once designed a warning label for a safety can – a commercial analog to the consumer gas can – his expertise regarding warning labels is limited to 1) his own interpretation of industry rules or regulations and 2) a focus group test that he conducted in 1971. Accordingly, and for the reasons set forth more fully below, the court grants Blitz's motion in limine to exclude the testimony of Mr. Stevens.

Mr. Steven's Qualifications

Mr. Stevens received a bachelors degree in economics from Denison University in 1956. In the spring of 1959 he joined Protectoseal as an accounting assistant. Protectoseal is a manufacturer of equipment for the safe storage and handling of flammable liquids, including gasoline. Mr. Stevens remained with Protectoseal until 1971, holding various positions in advertising and marketing, including Marketing Vice-President.

In 1971, Mr. Stevens joined Justrite Manufacturing in Chicago. Justrite is also a manufacturer of flammable liquids handling equipment, including both metal and plastic portable

gasoline containers. As Marketing Vice-President at Justrite, Mr. Stevens supervised product development, sales growth and business communications.

In 1976, Mr. Stevens left Justrite to establish Stevens Associates, a marketing and communications agency geared towards safety and fire protection product manufacturers.

At Stevens Associates, Mr. Stevens worked with the Vice-President of Engineering on product development issues. He observed numerous fire tests involving gasoline containers and flame arrestors.

In 1986 Mr. Stevens returned to Justrite as its president, and remained president until 1989. Mr. Stevens designed the warning label on the Justrite metal safety cans. Mr. Stevens has also conducted numerous seminars during which he has demonstrated the flammable and explosive properties of gasoline, including that flashback explosions will occur under some conditions.

Although Mr. Stevens has never worked directly with portable plastic consumer gasoline containers, he has spent decades in the gas can industry. He is a member of the American Society of Safety Engineers and the Society of Fire Protection Engineers. But Mr. Stevens explained that those organizations recognize expertise based on years of service in the industry – not necessarily technical expertise. Mr. Stevens' time in the gas can industry was spent as a marketing expert and a business person. He studied some fire science and engineering to better understand the products his company was designing and selling. (See Tr. of Oct. 22, 2010 Hearing at 81:11-24.) To the extent that he authored technical articles, produced films, and gave demonstrations, these activities were ancillary to his job as marketing expert.

Mr. Stevens' Challenged Opinions

1. Flashback caused an explosion in the Calder case

In his seminars, Mr. Stevens has demonstrated the phenomenon of flashback numerous times. In fact, his demonstrations might qualify him to testify as an expert regarding the existence of flashback generally. But Mr. Stevens is not a scientist or a fire investigator, nor has he done any testing that would simulate the conditions of the Calder accident. Therefore, he is not qualified to offer an opinion regarding the particular circumstances of the Calder accident.

2. A safer alternative design for the Blitz can would include a flame arrestor

Mr. Stevens opined that “[a] flame arrestor was technologically feasible to add to a portable plastic gasoline container at the time the container in question was manufactured and subsequently purchased.” (Expert Report of Arthur Stevens at 37 (attached as Ex. C to Dkt. No. 77).) According to Mr. Stevens, another company, Eagle, manufactured a portable consumer gasoline container with a flame arrestor, and, therefore, it was both technologically and economically feasible for Blitz to manufacture its portable plastic gasoline container with the addition of a flame arrestor.¹ But an expert does not assist a jury by making a logical inference that the jury could just as easily make itself. See U.S. v. Fredette, 315 F.3d 1235, 1240 (10th Cir. 2003) (expert testimony may be excluded where that testimony would “add[] nothing to the trial that a juror could not understand on the basis of common sense”). Instead, the expert must have some “scientific, technical, or other specialized knowledge [that] will assist the trier of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702.

¹ Mr. Stevens also referred to four safety-can manufacturers that he says use flame arresters. (See Expert Report of Arthur Stevens at 31 (attached as Ex. C to Dkt. No. 77).)

Mr. Stevens has never overseen the production or manufacture of portable plastic consumer gasoline containers. He is not familiar with Blitz's manufacturing process. (Tr. of Oct. 22, 2010 Hearing at 71:25-72:3.) He has never done any comparative testing of gasoline containers with and without flame arrestors. (Tr. of Oct. 22, 2010 Hearing at 70:22-24.) And he is not an engineer or a scientist. By providing his opinion that a flame arrestor could be inserted into a portable plastic gasoline container, Mr. Stevens has not stayed "within the reasonable confines of his subject area."² See Compton v. Subaru, 82 F.3d at 1520 (quoting Wheeler v. John Deere Co., 953 F.2d at 1100).³

3. The layout of the warning on the Blitz can is deficient

Mr. Stevens conducted two focus group tests in 1971 in which he asked Justrite employees in the sales department and employees on the management team whether an embossed warning label similar to the Blitz label was more or less difficult to read than a label with contrasting colors. The results of these tests were never recorded or published. (Tr. of Oct. 22, 2010 Hearing at 68:8-11.) Again, an expert must have some "scientific, technical, or other specialized knowledge [that] will assist the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Ev. 702. But Mr. Stevens agrees that the jury could draw its own conclusion by just looking at the warning label on the plastic can. (Tr. of Oct. 22, 2010

² Based on an analysis performed by Stephen DeHoff, staff consultant at SES Product Development & Engineering, and on the testimony of Eagle executive John Gillispie, Mr. Stevens has an opinion regarding the cost of adding a flame arrestor to the Blitz can. Because this testimony would not be based on any scientific, technical, or other specialized knowledge, it is not admissible.

³ Similarly, Mr. Stevens is not qualified to opine on whether it was reasonably foreseeable that someone like David Calder would use a Blitz gasoline container to start a fire.

Hearing at 88:4-10); see also U.S. v. Garcia, 994 F.2d 1499, 1506 (10th Cir. 1993) (expert opinion regarding the meaning of the phrase “your old man” is not proper under Federal Rule of Evidence 702 because no specialized knowledge is necessary to understand the phrase).

To the extent that Mr. Stevens’ opinion relies on industry regulations or standards, his testimony would not assist the jury. First, there is no evidence that the standards are confusing, or open to different interpretations. Mr. Stevens testified that he did not see himself interpreting the standards, but rather applying unambiguous standards: “I believe the standard interprets itself, particularly in the paragraph [related to the type of lettering that should be used].” (Tr. of Oct. 22, 2010 Hearing at 103:7-23.) In other words, expert testimony related to the regulations is not necessary. Second, although Mr. Stevens has designed a warning label for metal safety cans (which he believes complied with the regulations) he has no expertise or specialized knowledge that would assist the jury in interpreting the regulations.

Defendant’s Expert Carl Adams

Mr. Calder has moved to exclude Dr. Carl Adams’ testimony that the thermal burns suffered by the fire victims in this case were not caused by an explosion. He argues that Dr. Adams lacks the qualifications to testify about explosions, that Dr. Adams did not base his opinion on sufficient facts or data, and that Dr. Adams did not use reliable principles and methods to form his opinion.

Blitz proposes to call Dr. Adams to testify that, based on his experience, a victim of an explosion will exhibit some or all of the following injuries: “burned oral mucosa, thermal lung injury from heat and smoke inhalation, broken ribs, internal trauma or broken facial bones.” (Expert Report of Carl Adams at 2 (attached as Ex. C to Mem. in Opp. to Pl.’s Mot. to Exclude

Testimony of Carl Adams).) His additional testimony would be that based on his review of the medical records of the victims in this case, the victims were not injured in an explosion.

The court has reviewed Dr. Adams' reports, portions of his depositions, the memoranda filed by the parties, and considered the testimony given by Dr. Adams at the Oct. 22, 2010, hearing. Based on this review and as explained below, the court grants in part and denies in part Mr. Calder's motion. Specifically, Dr. Adams may only testify about whether the victims' medical injuries were consistent with an explosion.

Dr. Adams' Qualifications

Dr. Adams is a medical doctor Board certified in cardio-thoracic surgery. For twenty years, he was also Board certified in surgical critical care. As part of his army service, he performed a six-month burn residency at the Brook Army Medical Center in 1983-84, where he treated approximately forty to fifty burn patients each day. During this time about sixty percent of his patients suffered from volatile chemical burns including burns from gasoline, diesel fuels, and butane explosions. Dr. Adams does not know specifically which patients suffered from gasoline burns or if any were involved in exploding gasoline container accidents. Dr. Adams has also continued to treat victims of explosions during his practice and during his service with the military. This experience includes a recent deployment to Somalia where Dr. Adams treated patients who suffered burns from exploding Molotov cocktails.

Mr. Calder argues that because Dr. Adams specializes and primarily works as a cardio-thoracic surgeon, he is not qualified to opine about whether Mr. Calder's burns were consistent with a gasoline explosion from a plastic container. Mr. Calder also argues that Dr. Adams improperly opines on aspects of the accident outside his area of expertise. For instance, Mr.

Calder objects to Dr. Adams' statement that there was "no evidence of a pressure change in the room." (Dep. of Carl Adams, 72:04-12 (attached as Ex. F to Mem. in Supp. Mot. to Exclude Testimony of Carl Adams).)

"As long as an expert stays 'within the reasonable confines of his subject area,' our case law establishes 'a lack of specialization does not affect the admissibility of [the expert] opinion, but only its weight.'" Compton, 82 F.3d at 1520 (quoting Wheeler, 953 F.2d at 1100). In this case, Dr. Adams bases his testimony about the cause of Mr. Calder's injury on his experience treating patients who have been burned by explosions of volatile gas. There are likely some differences between the explosions that injured Dr. Adams' patients and the explosion at issue in this case, such as the type of flammable liquid and container. But Dr. Adams' knowledge about injuries that result from explosions is nonetheless within the reasonable confines of his area of expertise. On the other hand, insofar as Dr. Adams rests his opinion on something other than the medical symptoms manifested by the victims of the fire, that testimony is excluded. Dr. Adams may not testify about the conditions that created the fire, such as evidence of pressure change in the trailer during the fire, because he is not qualified to do so.

Basis for Dr. Adams' Opinion

Mr. Calder argues that Dr. Adams ignored portions of the first responder report that noted "hair, eyebrows and eyelashes were . . . singed" when he opined that there was no evidence of hot gas inhalation. When confronted with this inconsistency at the hearing, Dr. Adams explained that mere singing of facial hair did not constitute evidence of an explosion. Further, Dr. Adams opined that if Mr. Calder had inhaled hot gas it would have been significant enough to have been included in his medical reports.

Mr. Calder also contends that Dr. Adams did not sufficiently consider the official police report, which noted that an explosion took place, in forming his opinion that no explosion occurred. The fact that Dr. Adams did not consult the police report, which states that an explosion took place, does not conclusively demonstrate that his testimony is not based on sufficient facts.

Dr. Adams based his opinion on the victims' medical records. This satisfies Rule 702's requirement that testimony must be based on sufficient facts or data.

Reliability of Dr. Adams' Opinion

Mr. Calder argues that Dr. Adams' testimony is not reliable because he performed no testing and cited no peer-reviewed literature and because his experience does not "fit" with his expert opinion.

Although it is true that Dr. Adams does not cite peer-reviewed literature in support of his opinion, that is only one factor the court considers in determining the reliability of an expert. Dr. Adams' testimony, which is based on his experience, is similar to "differential diagnosis," a technique long upheld by courts under Daubert. See Nitler v. A.O. Smith Corp., 400 F.3d 1227, 1237 (10th Cir. 2004) (listing jurisdictions that have upheld "differential diagnosis" under Daubert). A physician using differential diagnosis analyzes the medical records to determine the most likely cause of a patient's ailment. Similarly here, Dr. Adams has examined Mr. Calder's medical records and applied his experience to determine that an explosion of volatile liquid did not cause Mr. Calder's injuries.

ORDER

The court DENIES Defendant's motion to exclude the testimony of Dr. Stevick (Dkt. No.

273), GRANTS Defendant's motion to exclude the testimony of Mr. Stevens (Dkt. No. 250), and GRANTS in part and DENIES in part Plaintiff's motion to exclude the testimony of Dr. Adams (Dkt. No. 224).

DATED this 27th day of October, 2010.

BY THE COURT:

A handwritten signature in black ink that reads "Tena Campbell". The signature is written in a cursive, flowing style.

TENA CAMPBELL
Chief Judge