COURTROOM DRAMAS are a staple of television today. For many SH&E professionals, it may seem that seeing a courtroom on TV is as close as they will ever get. However, SH&E professionals are playing an increasingly important role as expert witnesses in many court cases. Unlike eyewitnesses who can only testify as to what they saw, heard, felt or smelled, expert witnesses can state their opinion in court. Using education and experience, the expert evaluates the facts to provide an opinion, answering questions such as, what contributed to the accident? or, what safety regulations were violated?

What Is an Expert Witness?

An expert witness is an unbiased person with technical knowledge who can help laypeople understand the complexities of evaluating, for example, the safety of products, workplaces and processes. Experts review facts in a court case, reach an opinion based on their specialized knowledge and report their findings. Many consider the key role of these experts to be education—teaching others (e.g., judge, jury) about their specialty. This is done to convince those considering a court case that the expert’s conclusion are correct and should be believed. Ideally, this would result in a legal decision based on sound principles.

Attorneys hire experts to fill various roles. An expert may be hired initially as a confidential consultant. In this role, the expert reviews materials, then assesses and explains them to the attorney. An example would be when a plaintiff’s attorney has a safety expert evaluate some aspect of the case and prepare a technical report. This report is then shared with the defense attorney who may wish to hire another expert to review, evaluate and explain it.

A second expert could serve as a confidential consultant to the defense attorney. S/he might be asked to review the first expert’s credentials as well as his/her methods. If the defense’s expert agrees with the initial expert’s opinion, the parties may then settle the case. If the expert does not agree, then the defense attorney may wish to disclose the expert as a testifying expert and use him/her to challenge the plaintiff’s expert. A testifying expert differs from a confidential consultant in that associated materials will be shared with the opposing attorney in the discovery process and the expert may be questioned by the plaintiff’s attorney.
Another distinction sometimes used is a generalist expert versus a specialist. In complex cases, an attorney may hire a generalist who can integrate numerous technical disciplines and help manage the process. The generalist can help the attorney brainstorm, develop strategies and identify technical issues in a case. The specialist is hired to evaluate a specific aspect of the case and to develop a technical opinion.

Who Can Be an Expert Witness?

Serving as an expert witness requires a combination of education and experience. A detailed curriculum vitae (CV) listing an individual's qualifications is commonly used to establish expertise. The CV lists formal education or training. Licenses, such as P.E., and professional designations/certifications, such as a CSP or CIH, should be listed. A listing of professional publications or presentations adds to the expert's credibility. Membership and participation in professional societies and groups should also be noted (Hamilton, 2003).

In most legal settings, qualifying as an expert is based on a 1993 Supreme Court ruling in Daubert v. Merrell Dow Pharmaceuticals.

As a consequence of the Daubert ruling, the standard in federal court, as well as many other courts, is Rule 702 of the Federal Rules of Evidence: “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” (Hamilton, 2003).

In the Daubert case, four tests for reliability were presented:
• Has the theory or technique been tested?
• Has there been peer review of publication of the theory?
• What is the error rate of the theory and are there standards?
• Is there general acceptance of the theory or technique? (Carper, 2001, p. 123).

The Supreme Court case Kumho Tire Co. v. Carmichael (U.S. No. 97-1709, 3123/99) resulted in a ruling that these four tests were suggestions which applied in the Daubert case, but might not apply in other cases (Carper, 2001, p. 124). As a result of these cases, a Daubert hearing maybe convened. This is when an opposing counsel asks the judge to exclude some or all of an expert's testimony for failure to comply with these requirements. The expert is questioned outside the jury's presence on the scientific methodologies used in developing his/her expert opinion (Hamilton, 2003).

Being Disqualified

Occasionally, an expert can be disqualified in a case. If the expert's opinion fails to meet the Daubert criteria, his/her testimony will not be allowed. In Michigan Millers Mutual Insurance Corp. v. Janelle R. Benfield (11th Cir. 1998), the trial judge struck the testimony of the insurance company's fire expert and directed a verdict for the homeowner. Since fire analysis is science-based, the judge served as the gatekeeper and was charged with determining whether the expert's analysis was based on scientific knowledge and was reliable. The judge ruled that the testimony failed to meet Daubert because the expert took no samples and performed no tests, and he was unable to explain how he eliminated other possible causes of the fire (Carper, 2001).

An expert with a bias or conflict of interest will also be disallowed. Is the expert related to someone involved in the case? Does s/he have a financial interest in the parties involved? Is the expert endorsing a product that his/her company sells? Is the expert's due diligence on the attorneys involved of any potential conflicts; the attorneys will then determine whether the expert should be used.

Objectivity and honesty are critical to an expert witness. As Sunar (1985) explains, “The product is on trial only once, but the technical expert’s professional reputation is on trial every time s/he forms and defends an opinion. Honest testimony and honest business conduct will form a solid foundation for your professional reputation and success.”

What Does an Expert Witness Do?

While testifying in court is perhaps the most visible aspect of what an expert witness does, it is not the most common. Most cases settle out of court (Hamilton, 2003). Input from experts, adjusters and others may convince the parties involved to settle a case before it goes to court (Noon, 1992).

The period between when a case is filed and when the trial takes place is called discovery.

One of the purposes of discovery is to encourage settlement before trial by making everyone “show their cards.” However, since disclosure is done in response to specific inquiry, some intrigue can still take place if the right questions have not been asked (Noon, 1992, p. 183).

Discovery is done by interrogatories and depositions. Interrogatories are written inquiries from one party to another requesting information about the case. They can include requests for documents such as maintenance records or training manuals. Interrogatories can also ask for information such as names and contact information of people who may be involved in the case.

Verbal inquiries for information are called depositions. A deposition is like a mini-trial conducted in a question-and-answer format, with many procedural rules. During a deposition, a person recounts what s/he remembers about the incident. An attorney asks a witness questions and both the questions and answers are recorded by a court reporter.

The attorney may ask a safety expert for recommendations in preparing an interrogatory. For example, if the case involves a forklift incident, the safety expert might suggest that the attorney request information such as operator training manuals and main-
tenance records that would later be useful in preparing an expert opinion. The expert might also suggest questions to ask, such as the forklift’s capacity and its make and model.

When preparing an opinion, an expert generally begins by reviewing documents related to the case. An expert might review medical records describing the injuries involved, equipment maintenance records, facility photographs and policy/training manuals. For an injury-producing incident, the expert might review depositions of the victim, witnesses, managers and company safety officials.

Visiting the Incident Site
An expert may also be asked to visit the incident site to collect data or conduct tests. For example, if lighting is a potential contributing factor in a fall, then an expert might use a light meter to take measurements. Such background information will help the expert develop an opinion. The expert will document test results; describe when and how the data were collected; the meter used and the date of its last calibration; and the conditions at the time the data were collected. It is important to establish that data were collected using sound scientific procedures.

The expert’s report will then be given to all parties in the case. It will become an official exhibit in the case and will likely be reviewed by experts hired by the opposing side. The expert may be questioned about every aspect of the report.

As in an incident investigation, it is important to take photos during a site visit. Photos help fill in details and can be useful when explaining issues related to the case in a written report or deposition. Photos should be taken from various views, both up close and far away. Including a ruler or other object in the photo is useful to establish scale. The expert may only have one opportunity to view the site. Failure to take photos of critical aspects may jeopardize a case.

The Expert Opinion
After reviewing the relevant material in the case, the expert forms an opinion. It may be necessary to conduct a literature search as part of this process. Questions to consider include:

• Are there any regulations or industry standards?
• Are there established best practices?
• Are there established exposure limits?
• Does the manufacturer provide operating instructions?
• Have recalls for similar products been issued?
• Are there more appropriate products available than the ones used?

Offering an expert safety opinion requires more than simply rote recitation of an OSHA rule or regulation. It requires a full technical understanding of safety issues. Why is a certain practice required? What are the associated issues? What is the common industrial practice? The expert must present this information so s/he can be understood by people who do not have a technical background. For example, if a regulation requires that wheels be chocked when equipment is in use, the expert should explain what a wheel chock is and why it is used. The report should be written clearly and technically sound, in terms understandable to a layperson.

Anything put in writing can be involved in the discovery process—when documents related to the case are shared with other parties in the case. An attorney may initially request verbal reports concerning whether the safety professional is qualified to provide an expert opinion on the case and about which aspects of the case s/he would be prepared to testify. The expert should clarify the type of information the attorney is seeking. If noise levels in a factory do not require hearing protection, stating that verbally may be sufficient for the attorney to eliminate that factor from consideration.

The attorney will review the expert’s written document and may have additional questions. It is appropriate for an attorney to ask the expert to clarify certain aspects or correct minor errors. However, if asked to modify the report, the expert must decide whether the conclusions are being changed or whether his/her integrity is being compromised. SH&E professionals who hold the CSP designation are bound by the BCSP Code of Ethics and Professional Conduct to “be honest, fair and impartial” and to “avoid all conduct or practice that is likely to discredit the profession or deceive the public.” BCSP codes.
2002). The opposing party in the case will closely read the expert opinion and may try to refute it.

**Becoming an Expert**

Numerous expert witness directories and locator services exist. These companies serve as a clearinghouse for lawyers seeking experts. They handle advertising and provide contact information. This is a fee-based service that is usually added to the expert’s hourly fee. Such services may increase the expert’s caseload, but they may also provide the novice expert with valuable insight into market rates for given areas of expertise.

**Being Retained as an Expert**

Typically, a legal assistant or an attorney will contact an SH&E professional about a specific case. The initial conversation will likely encompass a brief overview of the case, a discussion of the individual’s expertise and any potential conflicts of interest, and a review of scheduled court dates. The agreement between the attorney and the expert may be as simple as a verbal agreement over the phone or as formal as a written contract containing a confidentiality agreement.

It is common practice for an expert to request a retainer (partial payment) before beginning work on the case (Sunar, 1985). This ensures that the expert will be fairly compensated for his/her time. A 2006 fee survey (ExpertPages, 2007) found that only 20% of the 170 experts responded that they had no problem collecting fees in the past 2 years; 50% were involved or had been involved in a dispute during the past 2 years; and the remaining 30% had experienced slow payments that did not escalate into a dispute.

The most common payment arrangement is an hourly fee. Attorneys take cases on contingency, experts do not. Since it is often difficult to predict how much work will be required in a case, fixed pricing is not common. Some experts use a single hourly rate for their time while others use multiple rates for the varying activities performed (e.g., research, travel time, testimony) (Coniglio, 2002).

Setting a fee can be difficult. Lantos (2004) states: In setting your fee, take into account that serving as an expert witness is usually more demanding than most of your other activities. Hence, you should be able to secure a generous hourly rate. Inquire into the prevailing rates, but consider the following as a starting point: Novice expert witness $100/hour, average expert witness $250/hour, witness in a highly specialized or high-technology field $300 to 400/hour.

One fee survey lists the average hourly rate for someone in accidents, injuries and safety as $257 (ExpertPages, 2007). Typically, experts invoice law firms just as they would if they were consulting for a company. If the expert earns more than $600, the firm will report the earnings to the IRS; using the expert’s Social Security number or employer identification number. However, any associated tax issues are the expert’s responsibility.

**Pitfalls to Avoid**

Word choices are critical for the SH&E professional serving as an expert witness—in both written opinions and testimony. In general, definitive words such as always and never should be avoided. The opposing attorney will likely focus on such absolutes and question whether there could ever be an exception—with the goal to call the expert’s view into question. Legal procedures are adversarial. The opposing attorney’s job is to invalidate any testimony that harms his/her case.

It is easy to become sympathetic if the victim in a case has been severely injured or killed. However, the expert must remain objective. S/he must present the facts clearly and accurately in a manner that a layperson can understand. Experts should avoid telling the client or attorneys what they want to hear rather than what the facts reveal.

In preparing an opinion, the safety expert should try to anticipate questions and challenges that may result. The expert may wish to address those challenges directly in the written report and certainly should be prepared to answer such challenges when testifying.

**Conclusion**

The adversarial format of expert work is unusual for many. Providing expert support to litigation matters can be both challenging and rewarding. It allows SH&E professionals the opportunity to educate others in important aspects of the profession and can aid in improving safety. Serving as an expert causes the SH&E professional to enlarge his/her perspective and look at a problem from the point of view of all parties involved. The professional then must form an objective opinion and support it effectively. Meeting these challenges successfully can be very satisfying for the safety professional who serves as an expert witness.

**References**


