

EXCULPATING YOUR PRODUCT AT THE FIRE SCENE

Product liability fire litigation relies upon expert opinion as to the origin and cause of the fire. In many instances, the product manufacturer is notified of a fire scene inspection and is given the opportunity to participate in a fire scene investigation. The product manufacturer should always take advantage of that opportunity and ensure that its “response team” gets to the fire scene as soon as practicable. What happens at the fire scene inspection may make a difference between closing the case at that point, or participating in lengthy and expensive litigation. We have had enormous success in “exculpating” our client’s products at the fire scene investigation by developing a method to bring about that result which has been successful in eighty percent (80%) of our fire scene appearances during the past two years. We are taking this opportunity to share our thoughts with our readers about this important topic in this edition of *Persepctives*.

The Response Team:

The product manufacturer, together with its insurer and/or claim management company, should establish a policy for responding to notices of potential claims where fire scene inspections are being scheduled. Some companies will want to send a response team to every fire scene inspection where they are placed on notice of a potential claim, while other companies will set a policy where they will send a response team where the estimated damages exceed a set amount. When the decision is made to send a response team to the fire scene inspection, the company must commit to sending a three-or four-member team to the inspection.

The team members should include an experienced fire science litigation attorney, a company representative, an origin expert, and, in some cases, a separate cause expert. Depending upon the circumstances, the origin expert may double as a cause expert, but that decision must be based on several factors, including the complexity of the fire scene and the expertise of the origin expert with the thermal producing properties / failure mechanisms of the product. In some instances, one expert can qualify for the roles of both the origin and cause expert, while in other circumstances, two experts will be needed.

The likelihood of exculpating the company’s product at the fire scene will be in direct proportion to the company’s level of commitment to sending a complete response team to the fire scene inspection. Cutting corners by not sending a company representative or experienced fire litigation counsel to the scene will dramatically reduce the company’s opportunity to be exculpated from responsibility at the fire scene inspection. This fact cannot be over-emphasized, as it is at this stage when many companies decide not to send counsel or a company representative to save expense costs in the short term. However, that shortsightedness may result in the company being brought into litigation in which it does not belong.

As is discussed further in this article, each member of the team has a very important and specific role to play during the fire scene inspection. The defense attorney is the team member most often left out of the response team, but is the one member whose specific role is to be the catalyst to exculpate the product at the fire scene as that member has the fire science *and* legal

knowledge to help present the manufacturer's case. Without that member's participation, the likelihood of the product being exculpated is reduced dramatically.

Fire Scene Tactics:

Every fire scene inspection is unique because the type and number of participants varies from scene-to-scene. With the varying personalities and an increased number of participants, the tactics which must be employed by the product manufacturer must be modified. While the tactical principles remain the same, the nuances involved in executing those tactics must be refined at the fire scene inspection battlefield.

The General in charge of the response team is the defense lawyer. The selection of your General is discussed in detail below, however, in short it can be said that the defense lawyer must completely understand fire science and the complexities of the proper methodology for fire investigations. Our methodology for exculpating products at the fire scene is premised upon the ability of the defense attorney to quickly (but subtly) establish credibility with the origin and/or cause expert representing the subrogation carrier. This process generally takes several hours, and sometimes days, depending on the nature and complexity of the fire scene.

Experience has taught us that most origin experts are insecure and seek consensus on their origin determination. The number one goal of the subrogation origin expert is to solicit agreement among all experts that "this is the area of origin." Once that agreement has been reached, the product manufacturer has lost 50% of its likelihood of success. At that point, the only remaining issue is "what caused the fire in this area of origin." The area of origin determination is the first and best opportunity to exculpate your product at this early stage of the litigation process.

Routinely, we attend fire scene inspections where there has been a complete or "total burn" of a structure, and the fire marshal and subrogation origin expert begin by asking everyone to agree that the fire started in a particular location, generally the area of the "greatest burning." The premise of that position is that since the area has the most damage, the fire had to have been burning there the longest, therefore making it the area of origin. Not surprisingly, this "fire science principle" is devoid of scientific merit, and is not endorsed by *NFPA 921*.

Another argument made is that the area of origin is the area of "lowest burn," or at the apex of a "V" pattern. In relatively simple fire scenes, these principles may hold true. However, these principles cannot be relied upon where there has been extensive damage, where flashover has occurred, or where there has been a complete or total burn. While presumably all fire investigators have received instruction on these points, many feel compelled for some reason to arrive at a conclusion as to the origin of a complex fire quickly before gathering all of the necessary data to support a conclusion.

On many occasions, standing in the midst of a fire scene, we have asked subrogation origin experts to explain not why the fire originated where that expert claims it did, but why the fire *did not* originate elsewhere. We specifically ask the investigators at the scene to support

their conclusions by pointing to fire patterns, fire dynamics evidence, arc mapping evidence, or witness statements to demonstrate why certain portions of a scene have been excluded from consideration. This approach may sound basic and elementary, but it is our experience that this interchange virtually never takes place at the fire scene without prompting.

Experts are reluctant to share their true thoughts among themselves, as experts believe it is outside their respective roles to challenge each other at the fire scene. Some experts have the misguided notion that all opinions are equally valid, and that the debate over the correct opinion is simply the name of the game. This premise is absolutely flawed. It is an expert's role to gather data, develop hypotheses, test those hypotheses, and arrive at conclusions based upon the scientific method as outlined in *NFPA 921* and *NFPA 1033*. As part of that role, it is incumbent upon the experts to identify data and evidence *at the fire scene* which the other experts present may be disregarding, or which the other experts may be disqualifying through the application of bad science.

However, a "catalyst" for the discussion must still exist, which is the role of the defense attorney having expertise in fire science litigation and armed with a thorough understanding of *NFPA 921*. That attorney can initiate that conversation amongst the experts, ending the posturing among the parties and beginning the process of determining what actually caused the fire. When that process occurs, those experts who have failed to consider key points and evidence begin to reassess their opinions in view of the "new" evidence identified.

The manner in which this "conversation" takes place varies with each fire scene. In many instances, straight-forward and frank discussions concerning the area of origin are had with opposing experts. During those conversations, questions can be raised, other evidence (or lack thereof) is addressed, and a thorough and complete investigation is mandated, including a complete delayering of the "area of origin" and arc mapping of all relevant portions of the fire scene.

Achieving the exculpation of the client's product at the fire scene is largely dependent upon the credibility established by the fire science attorney with the opposing experts. That credibility may ensure success more than any other point; the attorney must "walk the walk," rather than simply "talking the talk." In other words, most experts can tell after a very short conversation with an attorney whether he understands fire science concepts.

For example, an opposing expert may advocate that the area of origin is in the vicinity of the client's product. However, through discussions with the expert, the attorney may learn that there are no witnesses to the early stages of the fire, and that the fire resulted in severe, if not total, burning of the structure. Under those circumstances, the expert may have little data upon which to base his hypothesis as to the origin of the fire, other than an identifiable heat source which, to no surprise, is the client's product.

The fire science attorney's conversation with the expert would include asking the expert to distinguish his area of origin from other areas within the building equally or more severely burned. In other words, the fire science attorney should ask the expert to explain how he or she can eliminate other locations as being part of the area of origin. The attorney should request that

the opposing expert identify the burn patterns or other evidence which caused the expert to focus on the area of the client's product. A typical response to an expert's proffer of an area of origin might be as follows: "I don't see any such evidence, but I would like to have someone point it out to me so that we may photograph it while we are here." Keep in mind that there is tremendous pressure on the insurance company's expert to find a "deep pocket" from which to seek reimbursement for the loss. However, when there is push-back at the fire scene using the language and concepts of fire science, opposing experts will re-examine their area of origin and, hopefully, attempt to identify the proper target.

Obviously, the time to insist on these explanations is while the fire scene is still available. If the scene is available, the opposing experts still have the opportunity to develop new data and new hypotheses with regard to the origin and cause of the fire. Once everyone leaves the fire scene, the fire scene is remediated, and reports are written, it is too late to exculpate the product short of heading down the expensive road of litigation to an eventual settlement or trial.

Sometimes opposing experts refuse to discuss issues regarding the determination of the origin and/or cause of the fire. In those instances, it is still necessary to raise issues of concern about the determination of the origin or cause of the fire. The experts should still be challenged to point to specific evidence supporting their opinions. Even if there is no response, the points are made and have their effect on the expert. If the fire science attorney does his or her job at the fire scene, it is not uncommon, even if the opposing experts refuse to talk at the scene, that the fire scene examination is concluded, and no claim is pursued by the subrogating carrier.

Selection of the Attorney:

In selecting counsel, any company should ensure that the attorney selected must not only be a good trial lawyer experienced in product liability litigation, but should also have a background in fire science, including having attended courses designed for the training of fire investigators. These courses are available through the International Association of Arson Investigators, the National Association of Fire Investigators, the Bureau of Alcohol, Tobacco, and Firearms, and many universities. Unlike basic product liability litigation, the attorney in a fire case *cannot* rely upon their expert for training. Fire Science is a very broad subject and many experts have not completely mastered the subject. An attorney must place himself or herself in a position to judge the qualifications of the expert and challenge his or her expert throughout the fire investigation process. We suggest that you obtain copies of *NFPA 921* and *NFPA 1033* and become familiar with both documents, which are published by the National Fire Protection Association located in Quincy, Massachusetts.

In choosing your attorney, you should require the attorney to know the following points at a minimum: the difference between piloted and non-piloted ignition; what is meant by a "competent" ignition source; the importance of arc mapping in determining the area of origin, and how to perform arc mapping. You should know whether the attorney can describe the difference between the concepts of "heat" and "temperature," and what the observable characteristics of arc damage is to copper wire, and the distinction between arc damage and melting from fire attack. You should determine whether the attorney understands what

“alloying” is, and why it is important to understand the concept of alloying when performing a fire investigation. You should ask the attorney to define flashover, and to explain why that concept is important in determining the area of a fire’s origin when there are post-flashover conditions. You should question the attorney as to whether he or she can articulate the three different forms of heat transfer during a fire, and the significance of each as it relates to the spread of fire and the fire patterns left behind.

These points, among many more, have nothing to do with product liability, but are unique to fire investigation and litigation involving fire. The more comfortable an attorney is in dealing with these concepts, the greater the opportunity for that attorney to exculpate the client’s product at the fire scene, saving time and valuable resources for the company.

The Selection of the Origin Expert:

When notice is first received of an opportunity to examine a fire scene where your company’s product is alleged to be the ignition source, a good fire origin expert should be immediately retained and sent to the fire scene. Determining the area of a fire’s origin can be very simple or extremely complex depending on the nature of the fire. In most cases, it is a difficult task to narrow the area of origin to something smaller than a “room of origin.”

If the area of origin is the size of a room, then there are as many potential ignition sources as there are heat sources available in that room. If the area of origin is clearly defined, then the process of elimination can allow an expert to narrow the area to a “point of origin” where there is a competent ignition source. Keep in mind that the determination of the cause of a fire involves consideration of the circumstances, conditions, or agencies that bring together a fuel, ignition source, and oxidizer.

Determining the origin of a fire also requires the application of basic fire science principles involving heat transfer, the recognition of and interpretation of fire debris patterns, and the collection of other data, including witness statements, videotape and/or photographs of the fire in its early stages. In this modern age of *Daubert* challenges and expert preclusion, gone are the days when a fire origin expert can simply support conclusions as to the area of origin with statements such as “I have been at this for twenty years and I know how to read a fire scene.” The scientific method must be employed and the expert must understand its applicability to determining the origin of a fire. If the expert cannot articulate that concept to you, then you probably have the wrong expert.

The expert must also show an appreciation for the gathering of all available data before forming hypotheses as to the origin of the fire. The gathering of the data is key to having a reliable basis for valid conclusions which can withstand the test of careful and serious challenge. Any such challenge will include a challenge to the sufficiency of data collection, the analysis of the data, and the development and testing of hypotheses as to the area of origin.

Probably the most accurate method of hiring a competent fire origin or cause investigator would be to have an expert select the expert. The “hiring” expert could be the individual at your

company who has taken the time to become trained in the methodology and techniques of fire investigation, it could be your attorney who has developed that expertise, or it could be one of several nationally recognized fire origin and cause experts who could assist the company in developing a fire program whereby regional experts and fire attorneys are identified.

The bottom line is that all experts are not created equal. A fire expert is like anyone else: he or she could have been adhering to the wrong concepts for decades, or he or she could be making an effort to keep current with the literature and science relevant to the investigation of fires. As an example of this ever-changing field, the National Fire Protection Association published its first edition of *NFPA 921: Guide for Fire and Explosion Investigations* in 1992. That document has been revised every few years through 2008. The first edition was 122 pages long; the 2008 edition is 305 pages.

The process of review and change for *NFPA 921* is very much a peer-review process which allows any interested individual to propose changes to the document through a formal Request for Proposal. The proposals are vetted through a detailed process, and a consensus on each proposal is formed. Based on that consensus, the proposed change is either adopted or not adopted. So much interest in this field and *NFPA 921* has developed that there was a twenty-percent (20%) increase in the size and scope of *NFPA 921* between the 2004 edition and the 2008 edition. The document has come a long way, and is extremely important for those working in the area of fire science. Your expert should be intimately familiar with that document.

Your expert should also be certified by either the International Association of Arson Investigators or by the National Association of Fire Investigators, or have the benefit of special training outside of these two organizations. As a product manufacturer, you should be constantly evaluating your experts and be willing to make changes if the need arises. The old saying “if it’s not broken, don’t fix it” is not always accurate, especially if your definition of “broken” changes. Paying fifty cents on the dollar for one claim could be considered to be a victory, while paying zero settlement dollars could be an obtainable goal in another case.

Selecting the Corporate Participant in your Fire Program:

A knowledgeable and experienced corporate participant in your fire program is a key element for success. A budget must be created to allow the participant to receive formal training regarding fire science principles and fire investigation techniques. Money spent in that area will be recovered in savings down the road in the form of significantly better results for the company.

It would be helpful if the corporate representative is an engineer or someone who is familiar with the manufacturing, quality control, and testing of the product. This individual may very well end up being the corporate representative during litigation, answering interrogatories, being deposed, and generally assisting your fire science counsel. During the initial stages of the investigation, the corporate representative should be at the fire scene with the attorney and the fire investigator. The corporate representative should be comfortable at the fire scene, and be able to evaluate the investigation process and assist the investigator with information about the product and its ability to produce heat under normal, abnormal, and failure conditions.

The corporate representative should be able to make observations of the product at the fire scene and, potentially, provide valuable information to the investigator concerning the location on the product where failures have occurred in the past and the tell-tale evidence of failure. If such evidence is not present, then that might be a point the attorney should demonstrate to the opposing expert to exculpate the product at the fire scene.

The corporate representative should also be familiar with all recall notices related to the product, and be able to determine whether the failure which prompted any recall is at issue. Many times a product is identified as being at the area of origin based only on a recall of the product for potentially causing fires. If possible, it should be demonstrated at the fire scene that evidence of the failure which caused the recall is not present in the product, and that there is no other obvious malfunction. Under those circumstances, there is a great opportunity for exculpating the product at the fire scene if that information is brought to the attention of the opposing experts while they still have an opportunity to further investigate the fire scene to locate another cause.

Fire investigators keep track of products that are being recalled for potentially causing fires, and often make inquiry at the fire scene as to whether those products were present within the structure. They then locate the product, and use the presence of the recalled product as the basis, admitted or not, for their origin opinion. Such a process is *not* the proper methodology for investigating fires. Unfortunately, it is a common procedure and one that should be dealt with at the fire scene, either with evidence that the area of origin was at a different location and/or that the product exhibits none of the indicia of the failure which prompted the recall.

On many occasions, there will be an insistence upon examining the product in more detail at a location away from the fire scene. Sometimes that inspection takes place weeks or months after the fire scene inspection. Your response team should work hard to avoid any scenario that preempts a complete fire scene investigation, including placing the scene examination on “hold” while your product is examined. Instead, you should focus your efforts on identifying all of the potential ignition sources in a properly-defined area of origin, and on providing the evidence available that will exculpate your product at the scene. If months pass and the fire scene is remediated in the meantime, there is no opportunity for opposing counsel to return and re-evaluate their position, and the likelihood of exculpation prior to litigation is reduced tremendously.