



Fire Litigation Perspectives

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Arson

Tedford & Henry, LLP ("T&H"), is pleased to offer this article as the first of a two-part series on arson. In this segment, we will describe two fire investigations where arson was quickly ruled out as the cause of the fire. In a third investigation, arson was determined to be the cause of the fire, but basic fire science principles were not followed and a homeowner suffered the consequences of a poor investigation. In the next issue of Perspectives, we will discuss in detail why each of these three investigations failed to arrive at the correct cause of the fire.

Fire Investigation #1

During Fire Investigation #1, T&H represented the manufacturer of a motorcycle blamed for causing the total destruction of a recently-built suburban home having in excess of 4000 square feet. The house had a three-bay garage, with the bay closest to the main structure of the house being identified as the area of origin ("the subject bay"). When we arrived at the fire scene, the subject bay had been completely cleaned of all fire debris, washed with fire hoses, and swept clean.

When we began our origin and cause investigation, subroga-

tion counsel and his expert advised us that the subject motorcycle had been parked in the middle of the subject bay. We were further advised that the homeowner had started the motorcycle and left it running in the garage while he went into the house. When he came back into the garage, he observed fire in the area of the motorcycle engine. We were further advised that the homeowner then ran back into the house to obtain water. When the homeowner came back into the garage with the water, he noted that the fire was "blazing up to the garage ceiling"



article continues inside...

Welcome to FIRE LITIGATION PERSPECTIVES

This publication is brought to you by Tedford & Henry, LLP, a law firm with a national practice devoted to fire science litigation. Our business colleagues find Perspectives a resource for fire science issues, as well as for interesting developments in the law. To subscribe:

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FREE SEMINARS

To all of our colleagues — Tedford & Henry would welcome the opportunity to present our Fire Science 101, or Exculpating Your Product At The Fire Scene courses at your location. Contact us for more details.

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and that his attempt to extinguish the fire with the water failed.

The fire department was called but, despite their best efforts, the house burned to the ground. The fire investigator for the homeowner's insurer concluded that the fire was caused by "some defect" in the fourteen year old motorcycle. The claim for damages was in the amount of 1.5 million dollars for the loss of the house and its contents.

The fire did extensive damage to the home but it was apparent that the fire started in the garage. The investigator for the homeowner's insurance carrier was aggressive and condescending. He offered little background information and appeared impatient as we began our investigation. Nevertheless, throughout the day he begrudgingly provided us with bits and pieces of background information. He was resistant to our efforts to speak with the homeowner about the fire events, but we were eventually allowed to do so. When we pressed, the investigator refused to provide an explanation for the cleaned out area of origin, saying only that it was in that condition when he arrived at the fire scene. When confronted with the prospects of a spoliation defense, he simply shrugged and claimed that it was not his fault and asserted that the motorcycle was preserved and available for inspection at another location. We were advised that he had concluded that an unspecified malfunction in the motorcycle caused the fire and that another expert would be involved to examine

the bike and render further opinion on the matter.

Fire Investigation #2

A nursing home under renovation had burned to the ground a week before the construction was completed. The fire marshal quickly ruled out arson on the grounds that the accelerant detection canine did not alert to the presence of an accelerant. The fire marshal asked the general contractor if they were using any heating devices in the building, as the fire occurred during the winter and the heating system was not yet reactivated.

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The general contractor told him that a portable propane heater (salamander type) was in a basement hallway and was operational during the night to assist in drying fresh paint. The general contractor also confirmed that the main power supply to the building was not in service, but that there was temporary electrical service available for the contractors.

The fire marshal began his investigation the next day by digging out the area where the portable heater was located.

After finding the heater, he concluded that the fire was caused by the heater being placed in close proximity to combustible material which he identified as the hallway wall. Although the building was a total burn and its design and construction very complex, all investigators quickly agreed that the fire started in the basement of the building, at the location of the heater.

Suit was ultimately brought against the manufacturer of the heater to recover the 13 million dollars in building losses.

Fire Investigation #3

A fire started on the first floor of a three-story home with the owner/occupant asleep on the second floor. The fire burned quickly, consuming the entire home with the owner escaping with his two dogs through a second floor window onto the porch roof where he and the dogs were rescued by fire fighters. The fire marshal concluded that the fire was an arson fire and that the homeowner had set the fire. He based that conclusion on the process of elimination, contending that he eliminated all accidental causes in the area of origin and that only an incendiary fire remained as a potential cause.

The balance of this article and additional facts and comments on the three fires can be found on the Tedford & Henry website at: www.tedfordhenry.com/articles.

The next issue of Perspectives will discuss each of these three fire investigations and demonstrate how in each case the investigators were incorrect.

Submit Your Articles

Tedford & Henry invites readers of Perspectives to submit topical guest articles, comments, and opinions for inclusion in upcoming issues of this newsletter and on our website.

Contact Brian Henry @ 860-293-1200 or via e-mail bhenry@tedfordhenry.com

Failure to Eliminate: A Case Study

Experts' Failure to Eliminate All Potential Ignition Sources Results in Overturned Arson and Fraud Convictions in New York

In the case of *The People of the State of New York v. James Richardson*, --- N.Y.S.2d -, 2008 WL 442 5918 (N.Y.A.D. Third Dept.)(October 2, 2008); the Supreme Court, Appellate Division, Third Department, New York, reversed convictions of arson in the third degree and insurance fraud in the third degree having concluded that the jury verdicts were not supported by the weight of the evidence. The standard on review required the Court to independently review the evidence and make a determination of whether the evidence was "of such weight and credibility as to convince [the Court] that the jury was justified in finding the defendant guilty beyond a reasonable doubt." *Id.* at *3.

On February 15, 2007, the defendant's home was involved in a fire which caused severe damage, particularly to the kitchen area of the property. The fire was discovered approximately two hours after the defendant had left the premises and it was undisputed that the defendant had sole access to the property. Two arson investigators concluded that the fire originated in the kitchen where a space heater, refrigerator, stove, microwave, water cooler, and outside light were all plugged into and powered by a single electrical outlet through the use of a power strip. Both investigators testified that they ruled out all accidental causes. Moreover, a laboratory report confirmed the presence of a medium petroleum distillate on a portion of the baseboard where the fire originated.

However, both fire investigators, one being trained just five months prior to the fire and employed by the City of Albany Fire Department, and the other

having been retained by the defendant's insurance company, admitted that they were unable to pinpoint the actual cause of the fire. Further, and critical to the Court, was the fact that while the experts claimed to have eliminated the possibility of mechanical sources as the cause of the fire, neither had the majority of the kitchen appliances inspected, all of which were grouped together in the same area of the small, compact kitchen. Further, the investigators noticed three

The Court was also troubled by the fact that testing of a burn pattern on the floor was negative for the presence of ignitable fluids.

tripped circuit breakers, indicating a possible circuit overload, but did not determine the reason for the breakers' failure or even determine with which appliances they were associated. Rather, the Court criticized, one of the investigators relied on an expert report issued by an engineer specializing in failure analysis who examined the space heater, the electrical outlet, power strip and the remains of several electrical wires, but who failed to examine the scene, investigate the tripped circuit breakers or examine the remaining electrical appliances in close proximity to the fire's origin.

Further, the Court found of equal importance that the defendant had testified that he was in the process of repainting the kitchen at the time of the fire and

also stored charcoal lighter fluid in a box near the space heater. In fact, cans of paint were discovered in the kitchen in the fire debris, most of which spilled during the fire department's efforts to extinguish the fire. Thus, while investigators testified as to the presence of medium petroleum distillate—examples of which include paint thinner and some brands of charcoal lighter fluid—neither identified the specific distillate found on the baseboard and neither provided "unequivocal testimony" excluding paint thinner, turpentine or charcoal lighter fluid as the source of the distillate. The Court was also troubled by the fact that testing of a burn pattern on the floor was negative for the presence of ignitable fluids.¹

The opinion, however, was a divided one and Judge Carpinello and Presiding Judge Cardona dissented. The dissenters noted that on appeal that the Court could not evaluate the demeanor of the defendant while testifying at trial. The dissent further noted that there was no sign of forced entry at the property and stressed the fact that two certified fire investigators *did* eliminate all accidental causes of the fire based on their physical inspection of the premises.

In discussing particular evidence in the case, the dissent took exception to the majority's conclusion that the experts did not "reasonably" exclude the possibility of an electrical fire and pointed to the following...

The balance of this article can be found on the Tedford & Henry website at: www.tedfordhenry.com/articles.

Arson: The Process of Elimination

NFPA 921, Guide for Fire and Explosion Investigations, 2008 Edition, Section 18.2 discusses the use of the Process of Elimination, often referred to as “negative corpus,” in determining the cause of a fire. This method may be relied upon when there is no direct evidence as to the cause of a fire. The process of elimination is sometimes relied upon to determine that the cause of the fire was incendiary (intentionally set) even when there is no objective evidence that an open flame or any other type of incendiary device was used to ignite the fire.

The “Process of Elimination” was first discussed in the 2001 edition of *NFPA 921*. The principal proponents for inclusion of a section entitled “Process of Elimination” in determining the cause of a fire were from the public sector. State and local fire officials argued that a credible determination of an incendiary fire could be made when all accidental causes could be eliminated in the area of origin. Over the years, the

language in this section has changed, narrowing, and more clearly defining the circumstances under which the process of elimination could be applied to the determination of the cause of a fire.

The current 2008 edition of *NFPA 921*, Section 18.2.1 makes it very clear that the process of elimination may be used to determine the cause of a fire only “when the origin of a fire is clearly defined...” The text goes on to state “[A] clearly defined origin exists when it is known conclusively to the exclusion of all other potential origins.” (Emphasis added.) “The positive identification of the origin is the most significant factor in determining whether the use of the process of elimination is appropriate. If the origin cannot be positively identified to the exclusion of all other potential areas of origin, no inferences regarding the ignition source should be made.” *Id.*

Section 18.2.1 describes circumstances that prevent the origin from being clearly defined. “Some of the con-

ditions and circumstances that prevent the origin from being clearly defined include the degree and extent of damage (such as those conditions found in fully developed compartment fires), or the adverse effects of fire suppression activities (such as fire scenes where excessive overhaul has occurred).” In these situations the use of the process of elimination as a methodology for determining fire cause is not condoned.

Section 18.2.5 states “[T]he elimination of all accidental causes to reach a conclusion that a fire was incendiary is a finding that can rarely be justified scientifically, using only physical data; however, the elimination of all causes other than the application of an open flame is a finding that may be justified in limited circumstances, where the area of origin is clearly defined and all other potential heat sources at the area of origin can be examined and credibly eliminated.” (Emphasis added.)

There are four essential criteria for the permitted use of the process of elimination in determining the cause of the fire.

1. The area of origin must be clearly defined and known conclusively to the exclusion of all other potential origins;
2. All accidental causes in the clearly defined area of origin must be examined and credibly eliminated;
3. The scientific method must be used in the analysis which eliminated all accidental causes and the remaining ignition source must be consistent with all known facts;

Criterion 4 and the balance of this article can be found on the Tedford & Henry website at: www.tedfordhenry.com/articles.



Not Arson: A Case Study

Expert's Opinion that Defendant Committed Arson Was Not Based on Scientific Analysis, Invaded Province of Jury, and Therefore, Was Improperly Admitted

In the case of *State of Connecticut v. Beavers*, ---A.2d---, 2009 WL 294364 (Conn. 2009); the Connecticut Supreme Court, upheld the defendant's convictions of arson murder, attempted murder, and arson in the first degree, concluding that the improper admission of expert testimony that the fire was intentionally set, which was not based on a scientific investigation, was harmless error.

On December 9, 1998, the date of the fire, the defendant resided in a townhouse in Bristol Connecticut, with his mother, his teenage son, the victim, and the victim's boyfriend. At approximately 4:00 in the morning, the defendant ran to a neighbor's house and asked her to call the fire department. When the first police officer arrived on scene, the residence was engulfed in flames; the victim could be seen lying on the floor inside the front door, but could not be rescued due to the intense heat. The victim died of smoke inhalation.

Members of various law enforcement agencies investigated, including a detective with the Bristol Police Department, Christopher Lennon. Lennon interviewed the defendant and when asked to empty his pockets so that Lennon could secure his clothes; the defendant produced a lighter and book of matches. He claimed they were needed to light a blowtorch at his place of work. (It was later learned that he had not been employed for several weeks.) At a subsequent interview, he also stated that his son had confessed to him that he

smoked cigarettes in the basement, had knocked over an ashtray in the area of the washer and dryer, but may not have cleaned up all the cigarette butts. (The son later stated that he smoked filtered cigarettes, but did not do so in the basement.) Two state troopers and certified fire marshals, Joseph Paola and Kevin McGurk, investigated the fire for the state fire marshal's office and concluded

At approximately 4:00 in the morning, the defendant ran to a neighbor's house and asked her to call the fire department.

that the fire's burn pattern indicated it had started in the basement in and around the area where the defendant had described the knocked over ashtray as being. However, the investigators concluded that cigarettes did not start the fire as there were no ashtrays, cigarettes or remnants of cigarette filters (which are noncombustible fiberglass) in the area of origin. They further ruled out a cigar as the ignition source which was found in a pile of clothing in the basement since the cigar did not appear burned, nor did the clothing on top of it. After ruling out thermonuclear, electrical, mechanical and providential causes, the investigators concluded that the fire was started by human interven-

tion, either accidental or intentional, via open flame. The fire was not classified as intentionally caused until after results from Lennon's interviews with the defendant and others became available.

At trial, McGurk testified that Lennon had provided him with additional information obtained from his interviews with the defendant, his son, and the victim's boyfriend, which caused him to change his conclusion with respect to the cause of the fire. Over the defendant's objection, McGurk testified that he determined that the fire had been intentionally set; and that the interviews eliminated accidental ignition as a cause of the fire.

On appeal, the defendant contended that the trial court improperly admitted McGurk's testimony that the fire was intentionally set because it addressed the ultimate issue in the case and was not necessary to aid the jury's determination about whether the fire was intentionally set because it was not derived from his expert scientific knowledge or skill.

The Supreme Court agreed that, inasmuch as the defendant's theory was that the fire was accidentally caused by the cigar or the son's smoking, the cause of the fire was an ultimate issue to be decided in the case...

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Perspectives from the **Hotseat**

Tedford & Henry **News & Facts**

Frederick B. Tedford will be speaking at the National Association of Subrogation Professionals (NASP) Annual Conference to be held November 1-4, 2009, in Colorado Springs, Colorado. His presentation will be "Effectively Investigating a Fire Scene to Maximize Recovery for the Insurer." For details, please contact us or go to www.subrogation.org.



Tedford & Henry, LLP is pleased to announce that Karey P. Pond has become a partner in our firm. Ms. Pond practices in the areas of Fire Science Litigation, Subrogation and General Insurance Defense.

