

Arson & Negative Corpus Methodology

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Arson is a crime. The American Heritage Dictionary defines arson as “*the crime of maliciously, voluntarily, and willfully setting fire to the building, buildings, or other property of another or of burning one's own property for an improper purpose, as to collect insurance.*”¹ (Emphasis added)

Proving arson by an insured has been difficult and is becoming more difficult.

An insurance company can and should investigate a suspicious fire to determine if the insured burned, or had someone else burn, a property for the purpose of collecting insurance benefits. An insurance company can and should investigate a suspicious fire to determine if there is subrogation potential. This article addresses claims made by the insured for the purpose of collecting insurance benefits in those cases where the insurance company suspects or alleges arson.

There is no question arson is a serious crime. Finding accurate figures on the number of

¹The American Heritage® Dictionary of the English Language, Fourth Edition copyright ©2000 by Houghton Mifflin Company. Updated in 2009. Published by Houghton Mifflin Company.

arson fires in the U.S. is not easy - older figures may be suspect when using current definitions.² The Coalition Against Fraud Insurance indicates the National Fire Protection Association estimated nearly 500,000 cases of arson or suspected arson in 1998.³ According to the Insurance Information Institute, more than 56,000 cases of arson were reported to the FBI in 2009, with property damage estimated at nearly \$800 million. According to the F.B.I. Criminal Justice Information Services Division: *“In 2010, 15,475 law enforcement agencies provided 1-12 months of arson data and reported 56,825 arsons.”*⁴

For the insurance company handling a suspicious fire claim, the problem arises in trying to determine if the insured committed arson and is trying to defraud the insurance company. The burden of proof is on the insurance company when it seeks to deny coverage based on the defense of arson by the insured. Generally the insurance company must prove three things:

1. Evidence of arson
2. The motive of the insured
3. Evidence implicating the insured.

Investigating the Fire for Arson

Evidence of arson is generally provided by either the fire department investigators or other independent investigators who qualify as experts on origin and cause (O&C). Direct evidence would be proof of such things as the use of accelerants, intentional ignition or the reports of eye witnesses. The physical evidence of arson may be consumed by the fire itself leaving the insurance company and the O&C expert with no physical or scientific proof of arson. Absence of direct physical proof of accidental or natural causation has led and may continue to lead some experts and insurance companies to claim they have ruled out any accidental or natural cause and, by their logic, lead them to conclude the fire must be from an incendiary cause and thus arson.

The National Fire Protection Association (NFPA) publishes NFPA 921, **Guide for Fire and Explosion Investigations**. After the 1992 edition of the **Guide for Fire and Explosion Investigations**, a number of fire investigators and insurance companies accepted as valid the

²FIRE INVESTIGATION: A Thirty-Year Perspective By Daniel L. Churchward, 2003
<http://www.kodiakconsulting.com/page19/assets/Skepticism%20Paper.pdf>

³Coalition Against Insurance Fraud, <http://www.insurancefraud.org/olderstatistics.htm>

⁴Federal Bureau of Investigation, Uniform Crime Reports,
<http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2010/crime-in-the-u.s.-2010/property-crime/arsonmain>

concept and rationale of “*negative corpus*.” Use of the process of elimination to infer the cause of a fire is often referred to as “*negative corpus*,” a fire investigator’s shorthand for “*negative corpus delicti*.” “*Corpus delicti*,” of course, means “*body of the crime*.”

After 1992 the use of “*negative corpus*” methodology became more widespread. In other words, there was no scientific evidence of the crime of arson, just a failure to find any evidence of an accidental or natural cause or anything to conclusively rule out arson. This methodology was seen by many to be a flawed methodology.

The NFPA 921, **Guide for Fire and Explosion Investigations**, 2008 Edition, discusses using the *Process of Elimination*, and sets forth some essential criteria:

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.)

Attention must be paid to the caveats noted in Section 18.2.5, namely: (1) the “*area of origin is clearly defined*” and (2) “*all other potential heat sources at the area of origin can be examined and credibly eliminated.*”

Negative Corpus

Negative corpus, in an origin and cause fire investigation, is generally recognized as the methodology of concluding the cause was arson, based primarily on the absence of any finding of accidental or natural causation.

A detailed list of issues surrounding the improper use of *negative corpus* to obtain a finding of arson is contained in an article entitled **Arson: The Process of Elimination** by the law firm of Tedford & Pond, LLP, where some specifics are cited concerning the “negative corpus” methodology and the use of the *Process of Elimination*.

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;

4. Whenever an investigator proposes the elimination of a particular system or appliance as the ignition source on the basis of appearance or visual observation, the investigator should be able to explain how the appearance or condition of that system or appliance would be different from what is observed, if that system or appliance were the ignition source for the fire.⁵

In other words, if the fire investigator cannot (1) conclusively determine the area of origin and (2) scientifically examine and eliminate all accidental causes, the methodology of “*negative corpus*” becomes highly suspect and is not a reasonable or sound basis for denying the claim on the coverage defense of arson by the insured.

Absence of Evidence

There is an old saying in science and logic (generally attributed to Martin Rees or Carl Sagan): “*Absence of evidence is not evidence of absence.*”

Absence of evidence of an accidental or natural cause is not evidence of the absence of an accidental or natural cause. Just because the investigator did not find an accidental cause does not prove there was not an accidental cause. Neither does the absence of evidence of an accidental cause allow one to scientifically or logically conclude or prove the presence of incendiary/arson causation. If an expert fails to find the origin and cause of a fire and concludes arson or an incendiary source based solely on not finding an accidental or natural cause, the adjuster should immediately review the expertise and thoroughness of the expert before relying on his opinion.

Logically, if one is to infer (1) “*no proof of accident = arson,*” then one must acknowledge (2) “*no proof of arson = accident*” as an equally valid argument. To accept the former argument and reject the latter argument is to presume (without proof) that the insured is guilty. Without proof one way or the other, the best an adjuster can do is call it “*undetermined.*”

One can speculate (imply, infer, suspect or guess) that lack of proof of an accidental cause may be a possible indicator of arson or incendiary cause, but it has always been very questionable whether an insurance company should act on speculation alone as a sufficient basis for claiming arson and then denying coverage to an insured.

*The primary duty of the claim representative is to deliver the promise to pay.
Therefore, the claim representative’s chief task is to seek and find coverage, not*

⁵*Arson: The Process of Elimination* by Tedford & Pond, LLP,
<http://www.tedfordpond.com/hot-topics/arson-the-process-of-elimination>

*to seek and find coverage controversies or to deny or dispute claims.*⁶

A simple conclusion by the fire investigator concerning O&C is not sufficient. In light of the duty of good faith and fair dealing the adjuster owes to the insured, the investigation and the report must clearly provide information to support the finding of arson. This information should be clearly and easily understood by the adjuster. If the adjuster does not clearly understand the facts, the report and the conclusions, the adjuster has a duty and responsibility to contact the investigator and obtain more information. The report and evidence should clearly reflect adequate proof to backup the opinion.

*It is to the insured that the insurance company owes the contractual obligation of utmost good faith and fair dealing.*⁷

Some Case Law - 1992 to 2010

Over the years since 1992 some courts have accepted and other courts have rejected negative corpus as a basis for alleging arson.

In 1998, *Michigan Millers Mutual Insurance versus Janelle R. Benfield*, United States Court of Appeals, Florida, the court ruled part of Michigan Miller's expert's testimony was inadmissible. The expert had opined the fire was intentionally set since he had eliminated all accidental causes and there were no other possible sources of ignition except intentional. However, the expert could not rationally explain how he came to the conclusion the fire was intentional.⁸

In 2006, a federal court in Ohio, in *Smith v Allstate Insurance Company*, dismissed Smith's claim of bad faith arising out of Allstate's denial of his fire claim. Allstate had denied the claim based on their expert's finding of incendiary origin. The expert had ruled out all causes other than intentional human acts. The court did not endorse the expert's findings but did conclude there was other sufficient evidence to support the conclusions and dismissed the bad faith claim.

⁶The Claims Environment, First Edition, James Markham, Kevin M. Quinley, Layne S. Thompson, 1993, Insurance Institute of America, page 13

⁷The Claims Environment, First Edition, page 13

⁸Michigan Millers Mutual Insurance Versus Janelle R. Benfield
<http://www.ca11.uscourts.gov/opinions/ops/19972138.OPN.pdf>

Recent Changes to NFPA 921

The 2011 version of NFPA 921, **Guide for Fire and Explosion Investigations**, finally rejected the “*negative corpus*” methodology as being inconsistent with the scientific method, based on the finding that the methodology generated unprovable and untestable hypotheses. It was determined the methodology may result in incorrect determinations of the ignition source and first fuel ignited. Where all hypothesized fire causes have been eliminated and no facts point to a cause the investigator’s only remaining choice is to opine that the cause is “*undetermined*.”

In 2012, the U.S. District Court, District of Minnesota, in *Jeremy Somnis v Country Mutual Insurance Company*, found Country Mutual’s expert’s opinion was that “*the absence of an accidental explanation suggests the fire was incendiary. Yet, the court perceives no reason why an expert is necessary to draw that inference for the jury.*” The court held that once the expert could not identify an accidental cause, the jury could draw its own conclusion concerning accident or arson. Such an inference of arson by the expert is not helpful to the jury and is excluded in that aspect. The expert is also not allowed to testify the fire was intentional because all he can scientifically testify to is he did not find an accidental cause.⁹

The adjuster is left with only the scientifically and logically provable facts, if there are any facts, and with the cause of the fire being listed as “*undetermined*” since there is no concrete proof of arson. Without proof of arson, there can be no expert testimony of arson by the insured or anyone else, based on *negative corpus* methodology.

If the adjuster can build a strong and valid circumstantial case of motive and a strong enough linkage to the insured, these factors, combined with an “*undetermined*” causation, might leave the adjuster with a chance of convincing a jury to arrive at a conclusion of arson, but the expert cannot provide the adjuster with that conclusion.

The adjuster’s job has become more difficult and fraught with peril.

Presently

Fire investigation has changed over the last 40 years. Daniel L. Churchward presented a paper in January 2003 to the Insurance Committee for Arson Control in San Antonio, Texas. He advised the adjuster should be skeptical of any expert using the “*negative corpus*” method (or as he called it, the “*Appeal to ignorance*”) or other non-scientific method.¹⁰

⁹Jeremy Somnis v Country Mutual Insurance Company, Memo. Opinion and Order <http://documents.jdsupra.com/d59ed1d9-334c-46a5-88fd-cad03ec9678e.pdf>

¹⁰FIRE INVESTIGATION: A Thirty-Year Perspective By Daniel L. Churchward, 2003 <http://www.kodiakconsulting.com/page19/assets/Skepticism%20Paper.pdf>

The adjuster has a duty to the insured to give at least as much consideration to the insured as he does to the insurance company. The adjuster cannot and should not just simply accept an opinion of arson without exploring the other options fully and objectively. Skepticism about an expert's "negative corpus" conjecture of arson, with at least equal consideration given to the findings of opposing experts, is another way of giving at least equal consideration to the interests of the insured.

Without scientific evidence and sound logic, the adjuster cannot rely on expert testimony based on the "negative corpus" methodology to conclude a fire was arson or of incendiary origin, by the insured or anyone else.

While the insurance company can and should provide law enforcement with factual and scientific evidence uncovered during the claims investigation that **objectively** points to fraud and arson, the adjuster and the expert must consider how strongly he or she may safely suggest any pursuit of criminal charges against the insured. In the past some adjusters have pushed, urged or suggested to law enforcement that it should proceed with criminal charges based on the expert's "negative corpus" theory of arson, presumably in order to reinforce the insurance company's denial of coverage. Today, such actions by the adjuster or the insurance company, in the light of recent case law and the revision of NFPA 921, might be found to be lacking in the good faith and fair dealing inherent in every insurance policy.

Each company, no matter how large or small, is accountable for the actions of its claim representatives and supervisors. Without proper training, insurance companies cannot be confident that their claim representatives and supervisors are handling claims responsibly.¹¹

Adjuster Duties

Arguably there has never been any scientific or logical basis for the use of the negative corpus methodology. The negative corpus methodology has been controversial since its inception because the conclusions and findings were generally based on an absence of evidence, rather than the presence of evidence. The argument against this methodology was that it was both unscientific and illogical. For a while segments of the insurance industry did accept and use this flawed methodology. However, the rules have changed.

Denial of a first party fire claim based solely on "Negative Corpus" may be bad faith.

The insurance policy is a contract covering the insured for perils, such as fire. The adjuster has a duty to look for and provide coverage for the perils insured against and make known and available to the insured the benefits the insured is entitled to under the policy. If the adjuster has a reasonable basis for questioning coverage, the adjuster has a duty to promptly and

¹¹The Claims Environment, First Edition, page 300

thoroughly investigate the claim. The adjuster can deny or withhold coverage and benefits if and only if the adjuster has determined there is no coverage and no benefits are due under the policy.

*When an insurance company fails to pay claims it owes or engages in other wrongful practices, contractual damages are inadequate. It is hardly a penalty to require an insurer to pay the insured what it owed all along.*¹²

When the area of origin is reasonably disputed or inconclusive, any findings of arson become suspect. If the expert did not scientifically examine and eliminate **all** accidental and natural causes, the findings are suspect. The expert merely pointing to a spot he calls the point of origin is not enough. The expert must explain how the fire started, i.e. the fuel source, the heat source, the combustion elements. He must clearly define the point of origin and the act or activity that started the fire to make it obvious to the adjuster that this is in fact a case of arson.

If, after reading the expert's report the logical and factual proof of arson is not obvious to the adjuster, the adjuster should not accept the expert's conclusion. The adjuster owes a duty of good faith and fair dealing to the insured. If the expert's conclusion of incendiary cause or arson is not convincing to the adjuster, then his conclusion concerning the cause of the fire should probably be "undetermined." "Undetermined" does not also mean suspicious and is not a reasonable basis for denial of a claim.¹³

Without proof of arson or incendiary origin, the adjuster will have considerable difficulty in denying coverage to the insured. The insurance company is left with only two of the three elements needed to sustain the denial: the insured's motive (if any), and circumstantial evidence implicating the insured or connecting him to the fire's cause. Without the crucial elements of "proof" of arson or incendiary origin, an adjuster must be extremely cautious in attempting to build a strong circumstantial case. He must be sure the issues of motive and connection to the insured are more than sufficient to convince a reasonable person (or juror) by a preponderance of the evidence. (Note: Hard to do with an unknown cause.)

To do otherwise is to invite what has become a common result - a lawsuit for bad faith.

¹²The Claims Environment, First Edition, page 274

¹³For a good detailed analysis on the problems with the negative corpus methodology, check out the article **The Pitfalls, Perils and Reasoning Fallacies of Determining the Fire Cause in the Absence of Proof: The Negative Corpus Methodology** by Dennis W. Smith, CFEI, B.A., B.Sc., A.Sc., Kodiak Fire & Safety Consulting, USA.
<http://www.kodiakconsulting.com/page19/assets/Neg%20Corpus.pdf>

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