

Fire O&C Investigation:

Getting It Right on the Initial Inspection

By Lloyd C. Hawkins, CFI, CFEI

Witness interviews and deductive reasoning: These are two key components of a professional fire O&C investigation. The common sub-thesis to this is collection of facts, data, and testing of a hypothesis or multiple hypotheses until it passes muster.

For a fire investigator, the initial scene inspection can, at times, make or break a case. Errors made during the initial scene inspection may not come to light until a joint inspection or, even worse, at deposition or trial. Therefore, it is imperative for a fire investigator to have the ability and willingness to test their hypothesis as well as interview all available witnesses, which not only includes the property owner, but the individual(s) who first saw the fire, the firefighters who were first on scene, the public investigator, etc.

The following case study provides insight into how diligent fact and data collection through witness interviews, along with deductive reasoning tests of that data, **would** have led to the correct origin and cause determination.

During the late afternoon hours on a cold, windy day, a large residential structure caught fire, destroying most of the second floor, attic and roof of the structure. The initial O&C investigator inspected the residence, interviewed the homeowner and the public investigator. He concluded that the fire originated in the attic and was caused by the improper installation of a new furnace, more specifically, he contended that the flue pipe was improperly installed. ProNet was retained to investigate the fire loss on behalf of the contractor who installed the new furnace. We attended a joint inspection of the scene with multiple parties present, conducted interviews with fire department personnel, the homeowner and the witness that discovered the fire. Prior to our interview no one had spoken to the witness that discovered the fire. The interview with this individual revealed that he first saw fire at an area low on the roof line near the gutter on the opposite side of the residence from where the initial investigator placed the origin. After learning this information, we then conducted a comprehensive interview with the homeowner. The homeowner stated that although it was a cold day, neither furnace was in operation and had not been for several days. With this information, we conducted a thorough inspection of the remaining attic structure.

Through the course of the investigation we learned that there were two furnaces in the attic and neither furnace was in operation at the time of the fire. The furnace and flue pipe where the initial investigator placed the origin of the fire was, in fact, not installed by our client. Our client installed the other furnace and replaced the flue pipe. Had the investigator tested his hypothesis and interviewed all witnesses to the fire, he would have realized that the fire could not have occurred as he originally stated.

A proper and thorough fire O&C investigation requires understanding and application of fire science methodology; collection of data and facts; interviews of all parties involved – public investigator, the

person who first discovered the fire, the person who first reported the fire, any witnesses, etc.; creating and testing a hypothesis; if it fails, continue to create a hypothesis until it passes the ultimate test – deductive reasoning. A key truth regarding a final determination of the origin and cause of a fire is only as good as the data collected and the ability and willingness of the fire investigator to test their hypothesis.

Lloyd Hawkins of ProNet Group has over 29 years of experience in fire service and investigations. For more information call 800.216.7268 or contact him at lhawkins@pronetgroup.com. For further information on ProNet Group, visit their website at www.pronetgroup.com or contact Shawn Shoop, Vice President of Marketing & Business Development at sshoop@pronetgroup.com.