

Running head: FIRE INVESTIGATION POLICY FOR THE CITY OF BREA

Executive Development

Developing a Fire Investigation Policy for the Brea Fire Department

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**Certification Statement**

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed \_\_\_\_\_

James Dana Kemper

### Abstract

The Brea Fire Department needed a new policy that would determine the process of conducting fire investigations. Research questions asked:

- What are the desired qualifications for investigators
- Who should be assigned investigation responsibilities
- How is law enforcement involved
- How can Brea investigate fires more effectively

Action research methods were used to develop the new policy. A literature review was conducted and a survey was developed and used to answer the research questions. Department personnel were used in a collaborative approach developing the policy. Results were acquired and addressed by question. A discussion of the policy development was done. Recommendations of implementation and future improvements were made as well as offer suggestions for future researchers.

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## Introduction

The City of Brea, California, is approximately 13 square miles and is located about 30 miles east of Los Angeles. Brea is in the County of Orange and it borders Los Angeles and San Bernardino Counties. Oil was discovered in the hills of north Orange County in the late 1890s, and Brea, which is Spanish for tar, grew up around the oil production facilities. The city was founded January 19, 1911 and incorporated February 23, 1917 (The City of Brea California, n.d.)

Today Brea is a balanced community of industry, commercial, and residential property. The population is 39,000 residents and that number swells to over 100,000 during the day as people come to work and shop. Nearly all of the old oil field houses and businesses have been replaced through a very active redevelopment effort. As the old buildings are replaced by modern developments the fire issues have changed from an emphasis on fire suppression to fire prevention.

The Brea fire Department is an all paid department with four stations housing one truck, one basic life support engine, two advanced life support (paramedic) engines, and one type III brush engine. 14 full-time firefighters and two part-time apprentice firefighters staff these units on a 24-hour shift schedule. The suppression personnel fall into the Operations Division consisting of 42 full-time firefighters and about 12 part-time apprentices. Fire Administration is staffed by 12 personnel consisting of the Fire Chief, the Operations Division Chief, the Fire Marshal/Division Chief, the Training Captain, the Emergency Preparedness Coordinator, three fire prevention specialists, and four support staff. The Fire Marshal and the three civilian prevention specialists make up the Fire Prevention Bureau.

One of the basic responsibilities of the fire department is the determination of fire origin and cause. Through Brea City Ordinance N0. 1061 (2002), the City of Brea adopted the

California Fire Code (2001) which authorizes the fire department to investigate each and every fire within the jurisdiction. This is often a difficult and time consuming process that could lead to litigation for the jurisdiction and all parties associated with a fire event. In some instances criminal activity, leading to arson, makes the investigation and prosecution of criminals difficult, but necessary. Brea is fortunate to have a large percentage of newer developments that comply with newer and safer building codes and fire codes. Safer buildings, combined with public education and fire prevention activities, have reduced the fire problem in Brea to a point that advanced fire investigation has been rarely required. When we examine this fact, and add in staff cuts to the Fire Prevention Bureau in the 1990's, one can understand that having a formal fire investigation program and policy became low on the department's priority list.

Recently in Brea, additional staff has been added to the Fire Prevention Bureau, and fire investigation has once again become a priority. However, fire investigation in the City of Brea is still lacking coordination and consistency, which could hinder fire origin and cause determination, documentation, and prosecution of arsonists. The problem is that there is not a current policy determining how fire investigations will be conducted and how the fire investigation program will be managed. The purpose of this Action Research Project is to develop a policy for the Brea Fire Department that will determine how and when fires will be investigated and how the fire investigation program will be managed.

Action research methodology will be utilized in this research project so that the policy developed will have a solid foundation. At the end of this project it is anticipated that the policy generated will be adopted.

Four research questions were developed and used as the basis for the research project. They are:

*Question one:* What are the recognized qualifications or standards that exist for a fire department member to conduct fire origin and cause investigations?

*Question two:* In other jurisdictions, who are the individuals that are responsible to conduct fire investigations?

*Question three:* What are the roles and responsibilities of fire and police personnel during fire investigations in other jurisdictions?

*Question four:* How can the Brea Fire Department efficiently and effectively investigate fires that occur within the city?

A review of existing literature will be conducted to assist in gathering information and knowledge that will be needed to create a meaningful, effective fire investigation policy. The literature review will also help me to answer question one and four. To answer question two, I will be using a survey of other jurisdictions that was sent out via email fan out. The survey will also be used for question three, and when a response is not clear from the survey I will use a phone call to question specific departments on the roles of fire and police officers during fire investigations. To answer question four, a review of some existing policies from other jurisdictions will be done to see how investigations are addressed in their departments

### Background and Significance

Fire investigation has always been one of the most important functions in the fire service. It is important in the arrest and prosecution of arsonists. Even though arson has not been an issue in Brea, there needs to be an established fire investigation policy to help address any criminal investigations. National statistics show that in 2005, there were 31,500 arson fires costing 664 million dollars and 315 deaths (Karchmer, 2006).

There are several other reasons to investigate fires other than arson. Richard L. P. Custer suggests that “understanding the fire origin and cause of a fire can lead to targeted inspections, public education programs, or perhaps, proposed code changes” (Custer, 2003, p.3-5). Investigations often help identify appliances and equipment that are faulty or dangerous and may need to be recalled, or their use discontinued. Investigations also help firefighters better understand the fire problem in a community, so that they educate the public in fire safety. In short, fire investigations are instrumental in protecting the lives of men, women, and children in a community, as well as the lives of firefighters.

To start the discussion on background and significance of this research project, it is important to describe some of the history that has made the department organizational structure and culture what it is today. The Brea Fire Department was established in 1917 when the City was incorporated. The first fire engine purchased by Brea was in 1923 and, until the 1930s; the department was staffed entirely by volunteer firefighters. In 1938, A. G. Ellis was became the first paid Fire Chief of Brea. Chief Ellis is credited for being the Chief that modernized the department (Wikipedia, 2007). Since that time, the department has grown from one station in the basement of City Hall, to four stations housing 16 firefighters around the clock.

The organization of the fire department is broken down into three divisions: Administration, Prevention, and Operations. Administration is managed by the Fire Chief who also supervises the Operations Division Chief (DC) and the Fire Marshal (FM); also at the rank of Division Chief. The Operations Division Chief supervises three Battalion Chiefs (BC) who run day to day emergency response and operations. Each BC supervises a separate shift, and each shift staffs two Paramedic Engine Companies, one basic Engine Company, one Ladder Truck Company, and one Brush Engine Company. Brea Fire Companies handle all fire calls,

emergency medical services (EMS), hazardous materials, and various other emergencies in the city, unless all units are committed on calls. When Brea fire resources are exhausted, Brea utilizes a well-organized mutual and auto aide system that has been established in Orange, Los Angeles, and San Bernardino Counties. Through this mutual aid system, no fire related emergency in Brea is left without emergency responders.

Over the past 25 years the Department has changed considerably due to several influences. These influences include budgetary issues, staff cuts, organizational structure changes, personnel changes, and the introduction of new leadership, to name a few. As a result, the culture of the department has evolved and there is the need to re-examine the department and establish new policies and practices so as to provide better direction to fire department personnel. Many of the old policies and practices were suitable for the department in the past, but policy development has not kept up with organizational changes.

The department's fire investigation policy is one such policy that has not kept up with the times. The fire department's current investigation policy is dated January, 1992. This policy does not address current staffing and the relationship between the fire prevention and operations divisions, and the police department. As a result, there is often confusion about who will be responsible for a fire investigation, when it is appropriate to call another jurisdiction for assistance, and how the Brea Police Department will be involved.

Prior to 1983, the fire Prevention Bureau was staffed entirely by sworn safety personnel, and fire investigations were generally conducted by one of the prevention staff members. In 1983, Brea hired its first civilian Fire Prevention Specialist. Since then, all of the staff positions in Fire Prevention have evolved to civilian, excluding the Fire Marshal. During this transition, several factors occurred that have affected fire investigations. In the mid 1990's, the finances in

the city government led to the reduction of the fire department's administrative staff, of which fire prevention was a part. The administration staff reduction saw the full-time Fire Marshal position reduced to a part time position, and the elimination of two Prevention Specialists. The heavy workload became such an issue with the fire prevention staff that a considerable portion of the work that was historically conducted by fire prevention personnel was passed onto the fire suppression crews, including some of the fire investigation duties. However, these duties were never outlined well in a document or policy.

Fire investigations, at that time, became the responsibility of the suppression Battalion Chiefs. It was their responsibility to see that all fires were investigated and that an advanced investigator be called out for fires of significant dollar loss, and fires that caused the loss of life. The first issues with fire investigations began occurring at this time. As the advanced investigators were 40 hour, civilian staff members, they often were not available to respond to incidents at night and on weekends. This problem started out as a less than significant problem, but over time progressed to the point that an advanced investigator rarely responded on nights and weekends. This resulted in the need to call for assistance from neighboring agencies.

In the last several years, Brea has joined a countywide Arson Task Force. This task force was established to provide all departments in Orange County with a greater pool of fire investigators should the need arise. The task force was not meant to provide an investigator for a department that could not supply their own advanced investigator, but to augment when needed. Brea benefited from the task force, but eventually the city began relying on the task force to conduct fire investigations even though there was no advanced investigator available from the Brea staff. This was not how the task force was meant to be used, and it became obvious that Brea needed to do something to fix the issue. Investigators from other agencies began voicing

their concerns that Brea didn't have an effective plan for handling investigations and this was beginning to directly affect them. Then in 2006, Brea had a fire with a fatality. An outside investigator came in to do the origin and cause determination, while Brea Police did the investigation relating to the death. Following this incident, Brea police became more interested in fire investigation and two of their officers began taking fire investigation classes. Recently, as there is a new Fire Marshal and an additional Prevention Specialist, steps have been made to improve the fire prevention staff response to fire investigations. Currently, the fire and police departments are talking in an attempt to respond together for higher level investigations, and this may become a piece of the policy being written through this research project.

The Brea Fire Department has recently experienced a large number of retirements which has caused considerable staff changes. The culture of the department is evolving as we have seen all three battalion chief positions filled by individuals who were hired from outside the department. In fact, the fire chief was hired from outside the department as well. As these influential chief officers are all from separate cultures themselves, it is easy to see how a cultural shift is unavoidable. Also influencing this cultural shift is the influx of several young firefighters coming into the department, bringing with them generational issues. Change has become an important aspect of our current department and the department is working on accepting a new change model to help with transition. The model being tried is the collaborative 21<sup>st</sup> Century Leadership model, as presented by Rost (1993). This model defines leadership as is "an influence relationship among leaders and followers who intend real change that reflects their mutual purposes" (p.102). The changes being proposed by this fire investigation project will be a part of the change that is taking place in our department, and it is anticipated that it will have an impact on the culture of the department.

As stated prior, in the past it was difficult to get a Fire Prevention fire investigator to respond on nights and weekends. Currently the Fire Prevention staff has been restored to a point that the workload is more manageable and agreements have been made with fire prevention staff to once again respond to investigate fires during off-hours. The piece of the puzzle that is still lacking is a new policy that will outline how fires are to be inspected in Brea. As stated in the introduction, this project is to develop that policy. This project addresses several learning components of the Executive Development course given at the National Fire Academy. It addresses teamwork and leadership in that the final product will be one that was developed by a core group of individuals in a collaborative effort. It also takes into account organizational change and culture.

At the end of this project, the policy that is developed will be a document that will provide for better efficiency and effectiveness in fire investigations in Brea. It is also desired that the policy and the process of developing it will serve to motivate department members to participate in collaborative change efforts to help redefine the current Brea Fire Department and help direct it into the future. It is important that efforts such as this become a valued component of the department by department members. In this way, the department will begin to develop a new culture that is progressive and accustomed to change and improvement.

#### Literature Review

To begin with, why do we need a policy? R. Marinucci (2003) stated “every organization needs a set of rules to govern its members”. He continues with, “policies and procedures offer guidelines on actions and expected behaviors in situations” (p. 938). This is not a shocking statement but with this in mind I will focus on developing a good working policy.

The literature review of this research was performed to help answer research question one, as well as give more background to what might be addressed in a fire investigation program and policy. Question one asks; what are the recognized qualifications, or standards, that exist for a fire department member to conduct fire origin and cause investigations? The review will also help to answer part of Question two regarding who the individuals are that are responsible to conduct fire investigations.

Ultimate responsibility for fire investigation, in most jurisdictions, lies with the fire chief. The authority and responsibility to investigate comes through the adoption of a fire prevention code in a jurisdiction. Though fire investigation is ultimately the responsibility of a Fire Chief, these duties are most commonly delegated to various department personnel, or to investigative personnel outside the fire department (Jones, 2003, p.1075). This could include delegation to law enforcement or other agency. According to the National Fire Protection Association (2004), investigative authority is given to police and fire officers according to the laws of the jurisdiction (pg. 91), and IFSTA (2005), there are no specific rules that apply to the coordination of fire investigations at a fire scene (p.26). In some jurisdictions, police personnel respond along with fire units on every fire call. Jurisdictions that use this approach to fire emergencies find it beneficial in that police officers are present to assist with traffic, scene control, and fire investigations.

Most fires are investigated for origin and cause by the firefighters and company officers that are first on scene (IFSTA, 1992, p.491). This statement is true in that most fires are small and extinguished by the first arriving fire crew. Origin and cause of these small fires is easy to determine. For example, a cooking fire on a stove, a trash can fire, or small vegetation fires, are easily investigated by first arriving firefighters. Since the first arriving companies perform most

of the small, routine fire investigations, it is important that all firefighters receive training in fire origin and cause determination, preserving evidence, report writing, and other fire investigation duties. According to NFPA 1001 (2002), an entry level Fire Fighter, or Fire Fighter I, is to possess the skill to “recognize and preserve obvious signs of area and origin and arson” (p. 9). In the same document, a Fire Fighter II is to be able to begin assessing fire origin and cause, protect evidence, and to understand their role in relation to criminal, insurance, and fire investigations (p.11). This progression of duties and expectations suggests that the responsibility for investigating fires is one that is shared at all levels of a fire organization, beginning when a firefighter first enters the profession. As with most other fire fighting skills and job requirements, responsibilities increase as the fire professional increases in rank or job classification.

Literature suggests the company officer has a key role in all fire origin and cause determination. *Managing Fire Services*, the International City Management Association (1979) suggests that the most practical method for determination of fire origin and cause is to use company officers (p. 283). In the book, *Introduction to Fire Origin and Cause* (IFSTA, 2005), the International Fire Service Training Association (IFSTA) recommends that company officers and all other emergency response personnel need to work together to determine the cause of a fire. It goes on to state, “If their joint effort cannot determine the origin and cause of the fire, a trained fire and explosion investigator should be called out immediately” (p.31). As stated, it is the responsibility of the company officer to begin the origin and cause determination of all fires and to know when an advanced investigator needs to be called out to the scene.

The Office of the State Fire Marshal of California has developed a certification process for every area of the fire service. A chart of this certification track can be seen in Appendix G, *California State Fire Marshal Certification Track*. This series of certification programs touches

on fire investigation responsibilities and qualifications in three separate areas. The first area where fire investigation training is involved in the state level certification process, is at the Firefighter I certification level. The State Fire Training Policies and Procedures Manual summarizes that the Firefighter I certification tract "...provides training in the skills necessary to perform basic rescue operations, fire prevention and fire investigation tasks" (State Fire Training, 2007, p. 91). Taking it to the next level, in the Company Officer certification track requires the completion of Fire Investigation 1A: Fire Origin and Cause Determination. This is a 40-hour class and is one of ten certification classes in the tract (State Fire Training, 2007 p.130).

In this State certification and training system there are two levels of fire investigator, Investigator I and Investigator II. In addition to the educational classes, there are minimum experience, as well as continuing education requirements, to acquire and maintain a Fire Investigator I or II certification (State Fire Training, 2007, pp. 101-106). The Fire Investigator I must complete two 40-hour courses, Fire Investigation 1A and 1B, and also complete the Penal Code (PC) 832: Laws of Arrest course. For a Fire Investigator I to become certified he/she must either have one year of full time experience as a firefighter, or a full year assigned as a fire investigator for fire origin and cause determination. For the Fire Investigator II certification, the investigator must complete the Fire Investigator I certification plus the completion of Fire Investigation 2A and 2B. These courses are also independent 40-hour classes. In addition, the Fire Investigator II must have two years of full time employment in a fire or law enforcement agency with the primary responsibility of fire investigation, or have conducted 150 fire investigations. Finally, the Fire Investigator II must have qualified as an expert witness in fire investigation in a criminal court case. One additional qualification to obtain a Fire Investigator I certificate is that the candidate must either must possess a Firefighter II certificate or complete five core classes (15 units) in fire

technology or science. These classes include Fire Protection Organization, Fire Prevention Technology, Fire Protection Equipment and Systems, Building Construction for Fire Protection, Fire Behavior and Combustion. This provision allows for a civilian to acquire a fire investigator certification (p. 103).

As one can see the California State Fire Marshal certification process is very involved and it is very costly and time consuming to certify department members as fire investigators. With money being limited for both the classes required and for providing for pay and overtime for involved personnel, most jurisdictions find it difficult to have more than a few individuals at the higher levels of investigator. With the reduced numbers of investigators it is difficult to give fire and arson investigation the support it needs to provide for effective fire cause and arson documentation. This being the case many agencies become involved in Arson Task Forces for the sharing of resources. Task forces can be between agencies within a jurisdiction, such as between fire and police departments, or they can be wider reaching, as is the case when jurisdictions within a county share resources through a task force. Regardless of how an arson task force is set up it helpful in determining and understanding the fire problem in the area being served by the task force. R. K. Hankins (1997, ¶ 7) stated that “fire and police investigators working in concert, both at the scene and during subsequent investigations, increases the knowledge of both”. This fact also applies for fire agencies working together through arson task forces within a region. In publication NFPA 1033, The National Fire Protection Association (NFPA) has established a standard for professional qualifications for fire investigators. This is yet another set of qualifications that can be adopted by either the private or public sector.

An additional area of interest in investigator’s qualifications is whether the investigator needs to have peace officer status or not. Of all of the literature and electronic research done for

this project, little was written on the advantages of having sworn safety investigators over civilian investigators. This demonstrates that it is not so much what the job classification a person holds, but the training and experience the person has that determines her/his ability to perform fire investigations. The case whether the investigator needs to be a peace officer or not could be addressed by the definition of a peace officer. According to Onecle (2007) The California Penal Code Section 830.37 states that:

The following persons are peace officers whose authority extends to any place in the state for the purpose of performing their primary duty or when making an arrest pursuant to Section 836 as to any public offense with respect to which there is immediate danger to person or property, or of the escape of the perpetrator of that offense, or pursuant to Section 8597 or 8598 of the Government Code. These peace officers may carry firearms only if authorized and under terms and conditions specified by their employing agency:

(a) Members of an arson-investigating unit, regularly paid and employed in that capacity, of a fire department or fire protection agency of a county, city, city and county, district, or the state, if the primary duty of these peace officers is the detection and apprehension of persons who have violated any fire law or committed insurance fraud.

(b) Members other than members of an arson-investigating unit, regularly paid and employed in that capacity, of a fire department or fire protection agency of a county, city, city and county, district, or the state, if the primary duty of these peace officers, when acting in that capacity, is the enforcement of laws relating to fire prevention or fire suppression (§ 1-3).

Using the definition here of a peace officer, it would appear that anyone that serves in the capacity of fire investigator within a fire department, whether that person is a sworn safety officer, or a civilian, is by law a peace officer. Having peace officer status is important when an investigator is involved in questioning witnesses, collecting evidence, preparing documentation, and appearing in court as an expert witness.

To this point most of the information in this literature review came from public fire agency related sources. Now the question arises: who employs fire investigators? Inter Fire Online (n.d.) gives a list of who hires fire investigators as:

Federal government agencies, such as the Bureau of Alcohol, Tobacco, Firearms, and Explosives. State government, such as the State Police or State Fire Marshal. Local government and public safety agencies. Private companies, most specifically insurance companies and private sector investigation companies. Post-secondary educational institutions (as instructors at colleges and universities). Non-profit organizations such as professional associations. Self-employment as a freelance investigator and/or consultant (§ 3).

I have already addressed much of the public entity information so at this point I want to look at private industry. One such industry that employs fire investigators is the insurance industry. They have interest in fire origin and cause and insurance fraud. According to the United States Department of Labor Bureau of Labor Statistics (2006) “most insurance companies prefer to hire former law enforcement officers or private investigators as insurance investigators” (§ 21). It goes on to say that competition for private investigator jobs is high because the job attracts many qualified people, many of which are retired from law enforcement and the military (§ 26). From my personal experience in fire investigation I have encountered retired fire service

people who are insurance investigators. So the qualifications that the insurance industry are looking for in an investigator would fall in line with those of the public sector, since that is where they are hiring their investigators from.

The other large employers of fire investigator are the private investigation firms. Looking at a few of their job descriptions, it is clear that they are looking for fire investigation experience and certification. Careerbuilder (n.d.), an online employment search tool, posted a job flyer with employment requirements for a fire investigator. These requirements included, among other things, five years experience as a fire investigator and a Certified Fire Investigator (CFI) certification. It doesn't state what the certifying body for the CFI certificate is, but one recognized CFI certification is given by the International Association of Arson Investigators (IAAI) (n.d.). Another certifying body California State Fire Marshal. A second job listing for fire investigator, as found from the Rimkus Consulting Group (n.d.), listed the requirements for the job as seven plus years in a related field and IAAI CFI certification. C.D. Roberts (2007), a third source providing recommendations for private fire investigator qualifications states that, "the 'dream applicant' for a private fire investigation company would have a degree in fire investigation, and have criminal investigation experience and training as a fire investigator" (¶ 6). In publication NFPA 1033, The National Fire Protection Association (NFPA) has established a standard for professional qualifications for fire investigators. This is yet another set of qualifications that can be adopted by either the private or public sector.

An additional source of information that was evaluated were policies that I received from other departments. I requested copies of policies from the 38 departments who responded to the investigation that I used in this study. Unfortunately only one, from Huntington Beach Fire Department (2003), was useful for me at this time. Although Huntington Beach is staffed

different from Brea this policy contains sections and concepts that could enhance the Brea Policy. Specifically the lines of authority and responsibility I found interesting as well as their requirements of their first in fire officers.

This concludes the literature review. In summary, the literature suggests that public sector fire investigations are the responsibility of the Fire Chief of the jurisdiction, and that the duties of investigation are normally delegated to fire personnel. Sometimes fire investigation responsibilities are delegated to police officers and a combination of fire and police investigation teams are be used. Literature also shows that fire investigation is a basic skill that needs to be taught to all fire fighters, along with continuing training in fire investigation and scene preservation. This is important because the first arriving fire crews investigate most fires for origin and cause. Fire company officers need to take a lead role in fire cause determination because they are the first officials at the scene and their attention to fire cause, early on, is important to the origin and cause determination and documentation. When a fire investigation exceeds the expertise of the fire officers, it is important that a designated fire investigator, and possibly law enforcement, get called out to assist. To qualify as a fire investigator there are different certifications that one must acquire depending on the requirements the investigator serves. These certifications are important for employment in both public and private sectors. Another requirement in both public and private sectors is experience. With five and seven years experience in the examples above, the private sector appears to have higher experience requirements than the public sector. Additionally the private sector tends to hire retired fire and law enforcement investigators as they have already acquired several years of experience.

The information I have acquired from the literature review has reinforced my personal assumptions. I have felt strongly that fire officers need to be very involved in fire investigation

from the beginning of an incident. Investigation awareness is something that is taught from the very beginning of fire fighting education programs and academies. I also believe that police officers are better at crime scene analysis and investigation and that they need to be included in advanced fire investigation cases. Qualifications of investigators are something that exists, but are not as standardized or adopted as they might be. The fire chief makes determination of who will investigate fires in a jurisdiction, and out of necessity, individuals who are not highly trained or certified may be assigned as investigators. In a perfect world I think that all persons working as fire investigators need to be required to have a standardized level of experience and training. Experience, certification, and standardized training are very important in the private sector and need to be in the public sector as well.

#### Procedures

The procedures for this research project focus on the steps required to complete an action research project. That is, what was required to produce a working policy to address and change inefficient and ineffective fire investigation practices that exist in the Brea Fire Department? This section should make it possible for anyone to replicate the process and validate it as well.

The first step for this project was to identify a need within the Brea Fire Department and explain the significance of that need. As I was newly appointed as the Fire Marshal, I realized that fire investigations were not being performed adequately. I also found that investigators from outside Brea were performing them, quite often, because we did not have a good policy and an understanding of what our investigation procedures were. The pre-existing policy was written in 1992 and it no longer fit our organization. I also spoke with the Fire Chief and confirmed that investigations were one of the department's biggest concerns, and that he was in support of the effort to correct the problem. The goal of the project was set and that was to develop a policy for

the Brea Fire Department that will determine how and when fires will be investigated, and how the fire investigation program will be managed. This also became the purpose statement for the project.

Once the decision was made to create a new fire investigation policy, I sat with the fire prevention staff, which included a fire protection specialist, fire prevention specialist and myself. I chose these individuals because they are the ones that are recognized as the department's fire investigators. We discussed what was lacking in the current system. We also discussed what we thought we needed to make the system work. During the discussion, we discovered several limitations that we could foresee. The first was funding for the new program. This was identified because of the tight budget that the City is on and we knew we would have minimal, at best, funding to establish a program and policy. The second limitation was the number of personnel in the department who have interest, training and experience to perform fire investigations. The third limitation we discussed was level involvement and acceptance of the operations personnel, which would be those actively involved in fire fighting and emergency response. We anticipated that it would be difficult to get buy in from the fire crews, since they tend to resist being given additional responsibility. A final limitation anticipated was the involvement we would be requesting from agencies outside of the Brea Fire Department. We knew that we had to deal with the police department and neighboring jurisdictions and that we might run into roadblocks with them. Once our limitations were identified we talked about our assets, or those situational forces, that we could use to help complete the project. My biggest assets were those in the fire prevention staff, as it was in their interest to establish a new policy. The Fire Chief, as well as the Operations Division Chief, were considered positive forces in that they had an interest in seeing the enhancement of the fire investigation practices in the city. A final asset that we identified was

a newly found interest in the police detective section to improve fire investigations as these investigations often included them. In the detective section of the police department, they had two officers that had already begun taking fire investigation courses with a desire to become certified as fire investigators.

Following the meeting with staff to discuss the project, I established steps to accomplish the research required for completing the new policy and getting it adopted. The first step was to develop research questions that, when answered, would help develop a viable and valid policy. Those became the four research questions identified in the introduction of this paper. Once the questions were decided upon, I decided to answer the first two questions using a comprehensive literature review. The review included books, training manuals, magazines, and online articles. The review was not only to answer the questions specifically, but to also to educate myself in the fire investigation field as well. The literature review was done exclusively on my own and all references were annotated.

The third step in the research was to develop a survey to help answer both questions two and three. Even though I used the literature review to answer question two, I felt there was more I could learn about the question through the survey. The purpose of the survey was to see how other fire departments address their fire investigation needs. More specifically, who is assigned investigation duties (Question two), if, and how they work together with police during fire investigations (Question three), whether they belong to an arson task force, and if they have an existing investigation policy (Question four). My initial interests were the 11 other fire departments in Orange County, but then I decided to survey as many other departments I could through a discussion board fan out. From the Orange County departments I received back 100% of the surveys. I did not receive all of these surveys back initially, but I followed up with a phone

call to get every department to respond. The online survey was sent out through the Los Angeles Area Fire Marshals (LAAFAM) discussion board. This is a members only resource, but it has expanded much farther than the borders of Los Angeles. The LAAFAM title is a little misleading as it includes any interested member of a fire department, and many associated private industry associates. Individual members from several states monitor this email-focused resource across the U.S. Being so large and random it was not possible for me to know the sample size of this resource. This being the case, I chose to use the Orange County survey responses as my primary reference and the LAAFAM survey as a secondary resource. I was curious how the known sample survey would compare to the unknown sample. The participants in the survey were requested to fill out the form and either email it to my address or fax it to me. The email address and fax were included on the form. The survey form is attached in Appendix B. The data of the survey information collected can be found in Appendixes C and D, and the breakdown of the results in Appendixes E and F of this document.

One additional piece of this survey was to request policies from other departments so, that I could evaluate how their policies were set up and how their programs were staffed and managed. In this step of the process I took what was appropriate for our department so that it could be included in the study results.

The next step in the process was to take the information from the survey and the literature review and analyze it. This information was placed in the Results section of the research paper. The information then was used to develop a fire investigation policy for the Brea Fire Department. Once this policy was developed, it was presented to all of the chief officers in the department as well as the fire investigators. With their agreement, the policy was adopted into the Department's Policies and Procedures. Since this research was done to produce a working

document to improve fire services and safety of the fire fighters and citizens of Brea, the research fits into the Action Research methodology.

The next step in this project was to state my personal conclusions in the discussion portion of the paper. This step includes my own interpretation of the results as well. The final piece of the paper contains my recommendations. In this project I have seen some changes that need to take place for our department to really address fire investigations appropriately. However, in our current configuration, budgetary limitations, and level of staff experience it will be difficult for the department to develop a comprehensive investigation program. I placed my opinions and recommendations together for presentation to the management of the department. These recommendations will require expenditure of funds, and that will be the subject of a future project.

To conclude the project, all of the information was documented into a final document and presented to the Brea Fire Chief, and submitted as a requirement for completion of the NFA Executive Development course R123.

#### *Definitions of Terms*

Call out – The process of locating a fire investigator and requesting their response to a scene.

Civilian – Those members of the fire department who are not sworn officers and may have limited functions are emergencies.

Fire Investigator – A person who is assigned as a primary fire origin and cause investigator.

First in – The fire companies that arrive first on the scene of an emergency.

Operations staff - Those individuals who are assigned to the operations division. These are the emergency first responders.

Prevention staff – Those individuals who work in fire administration and perform the functions of fire prevention. These individuals are all civilians except for the Fire Marshal.

Safety – Those individuals who take a firefighter oath and who work on emergency scenes. These individuals are also considered sworn personnel.

Shift investigator – A fire investigator who is assigned to a regular 24-hour shift along with emergency crews. These individuals are usually members of a fire company.

### Results

Using the fire investigation survey that was developed for the research and the information gathered from the literature review, four research questions were examined. In this section of the paper I will break down the answers to those questions. The Fire Investigation Survey used in this study and results tables can be seen in Appendices.

*Question one:* What are the recognized qualifications or standards that exist for a fire department member to conduct fire origin and cause investigations?

From my research there is no definitive qualification that one must possess to be a fire investigator in the public sector. The deciding factor regarding qualifications comes from each jurisdiction and the standards they adopt. The Fire Chief of a department has the ultimate responsibility and authority to investigate fires and explosions in their jurisdiction. This being the case, the first level of qualification of a fire investigator is holding the office of Fire Chief. However, Fire Chiefs seldom investigate fires and the responsibility and authority are delegated to others. This delegation is usually done within the fire department, but it can be delegated to the law enforcement agency within a jurisdiction. Qualifications of personnel to investigate fires are also determined by the Fire Chief, and the Chief has several standards that can be used to set requirements.

One tool that is used, as a standard to determine desired qualification for fire investigators, is certification. There are various certifying bodies that departments may utilize for their fire investigator qualifications. In California, the most commonly used fire related certification track is from the Office of the State Fire Marshal (OSFM). Fire investigation training is included in the OSFM system in several certification tracks. Investigation is part of the curriculum in the Firefighter, Fire Officer, and Fire Investigator certification tracks. Fire investigation qualifications, as addressed by the OSFM, are set at increasing levels of responsibility, with the lowest being at the Firefighter I level and the highest at the Investigator II level. This is a good certification system, but it is not mandatory within the state. Departments can choose to use it or, not, or can choose to use only parts of it.

The International Association of Arson Investigators offers a Certified Fire Investigator (CFI) certificate as well. This certificate is one that is accepted as a qualification in the private sector and can be used as a standard certification by public agencies if adopted.

Another qualification widely used for fire investigators is level of experience. In the OSFM certification track, Fire Investigator I must have one full year of experience as a firefighter, or fire investigator, and a Fire Investigator II must have two years in either category, or must have investigated and documented 150 fires.

The City of Brea has not adopted a certification track for their fire investigators, although the new requirement for promotion to fire officer includes OSFM Fire Officer certification. This certification includes the 40-hour Fire Investigation 1A course. This course helps prepare company officers to perform simple fire investigations. Since there has been no adopted requirements for fire investigators, the department does not have personnel with formal

certifications. This is a limitation that will have to be taken into consideration when developing the new policy and will need to be addressed in the recommendations of this research project.

*Question two:* In other jurisdictions, who are the individuals that are responsible to conduct fire investigations?

Since fire origin and cause can range from an obvious source to a complex set of circumstances and participants, it is easy to see that there needs to be different levels of investigators. The act of fire investigation occurs at several levels, depending on several different factors. The cause of a simple trash can fire, that was extinguished by a garden hose, is easily a fire that can be investigated by a firefighter or fire officer. In contrast, a higher-level fire investigator, along with law enforcement, would more appropriately investigate a fire that causes a death, serious injury, large dollar loss, or arson. So it is important for a fire department to identify who the individuals are that have fire investigation duties. The decision of who will investigate fires, and how many investigators to have in a department, lies with the Fire Chief, of course departments differ in their staffing levels and assignments.

In today's fire service, all departments use first in crews to perform simple investigations. As found in the literature review, all fire responders have training in fire investigation and scene preservation. They are usually given the responsibility and authority to do investigations that do not surpass their level of expertise. Most of the remainder of the results section of this study refers to designated fire investigators and not fire company personnel.

Question two was the first question that was addressed in the Fire Investigation Survey (Appendix B). The question was written to find out how many departments use fire prevention and/or operations staff members to perform fire investigations. Since I had interest in finding out how many departments have civilian fire prevention officers, the question also addressed that

situation. The results of the survey are shown in Appendix E, Survey Results from Orange County Fire Departments, and Appendix F, Results from All Fire Departments Surveyed.

The results of the survey showed that, in Orange County, one department (9%) use only fire prevention staff, seven (64%) use only operation staff, and three (27%) use a combination of prevention and operations staff for fire investigations. Looking at all 38 the departments that responded to the survey, 15 (39%) use only prevention staff, 14 (36%) use only operations staff, and nine (24%) use a combination. Virtually all departments that used operations staff use shift investigators. Of the Orange County agencies that utilize prevention staff, none use civilians. This is in contrast with Brea, as Brea does utilize civilian prevention staff for fire investigation. Looking at all of the departments surveyed, of the 23 departments that use prevention staff seven (30%) use civilians and 16 (70%) use safety personnel. One additional break down was to see how many of the civilian investigators were considered to have peace officer status. Of those seven departments using civilians, four (57%) were considered peace officers, and three (43%) were not. Brea has traditionally used civilian prevention staff for fire investigations and they have not been considered peace officers.

*Question three:* What are the roles and responsibilities of fire and police personnel during fire investigations in other jurisdictions?

Since fire and police departments may both perform fire investigations, I think it is important to first find out how many of the departments surveyed work along with police personnel in performing fire investigations. The first part of this question asked respondents if their fire department investigators work along with police department personnel. In Orange County, 9 (82%) of the departments said that they do work along with police, and 2 (18%) do not. Looking at the larger sampling, 31 (82%) work with police, and seven (18%) do not. These

numbers are interesting in that the smaller sample demonstrated the same percentage of those who do and do not work with police. More important to this question were the written responses that I received in the survey. Those can be found in Appendix D, Listed Comments, from the Fire Investigation Survey. Of the 25 departments that responded in writing to this question, all stated that fire investigators work the origin and cause portion of the investigation, and law enforcement personnel handled the criminal investigation piece.

*Question four:* How can the Brea Fire Department efficiently and effectively investigate fires that occur within the city?

To answer this question a new fire investigation policy was written and can be found in Appendix A, The New Brea Fire Department Fire Investigation Policy. This policy was written using all of the information gathered in this study and incorporating it into what currently exists in the staffing and configuration of the department. Much of the information found was unusable due to the limitations that we had to work with. In addition I had requested copies of policies from the surveyed cities, but I only received ten. Of these ten, I found only one that was applicable and usable. This one policy was from the Huntington Beach Fire Department, which is also in Orange County. The other policies I received ranged from large arson team manuals to an Incident Commander fire investigator call out policy. Even though I did not get a good response, I found that I had enough information to write an effective policy that fit the Brea Fire Department today.

There were two additional questions in the survey that were designed to help address Question 4. These questions regarded when a fire investigator is to be called out and which departments belonged to an arson task force. It turned out that all departments use basically the same call out criteria. These criteria include fires that are above the scope of first responders,

large dollar loss fires, fatalities and serious injuries associated with a fire, and suspicious fires. Only two of the survey respondents listed that a fire investigator is called out to all fires. In regard to task forces, 36 (95%) of the departments belong to a task force, and 2 (5%) do not.

The final question on the survey asked if each department had a written policy. Of the 38 departments who responded, 23 (60%) said that they do have a written policy and 15 (40%) said they do not have a written policy.

In conclusion, the results of the research done for this project were used to produce a new fire investigation policy for the Brea Fire Department. Also taken into consideration in writing the policy were the limitations identified in the procedure section of this research paper. Without considering the limitations, the policy would be unusable and would negatively affect the process that took place in preparing it.

### Discussion

The result of this research is a new fire investigation policy for the City of Brea. It is one that is long past due. The prior policy was written in 1992 and was out of date. As such there was no standard way of addressing the investigation issues, so company officers and battalion chiefs called out investigators inconsistently and without guidelines. As a result investigators and operations personnel became frustrated. I believe the impact of this policy will be positive, and hopefully will lay the foundation for many more department policy improvements. Additionally, this policy has been written to fit the department's structure as it is today.

In examining the relationship between the policy developed from the study results, and the information found through the literature review, I find that the policy is on firm ground. I also acknowledge the potential for improvement in the future.

In the Purpose section of the new policy, I began by stating why the policy exists. This goes back to the purpose statement of this research project: develop a policy for the Brea Fire Department that will determine how and when fires will be investigated, and how the fire investigation program will be managed. The ultimate purpose of this policy is to establish guidelines for the Brea Fire Department staff. The need for such a policy is echoed by R. Marinucci (2003) when he suggested that policies need to be established so that we can outline expected behaviors of our staff (p. 938). In contrast, the survey demonstrated that only 60% of the departments that responded actually have a written policy for fire investigations. I feel that our department and staff will benefit greatly from having new guidelines. I feel that it will help relieve some of the frustration in the field when it comes to expectations and knowing when to call out for a fire investigator. Having a new policy also will address the problem statement that is the basis for this research. Once again, that statement is; fire investigation in the City of Brea is lacking coordination and consistency, which could hinder fire origin and cause determination, documentation, and prosecution of arsonists.

In process of developing this policy I also included those who are impacted the most so that they could be a part of the solution. This was very important in our effort to move forward with 21<sup>st</sup> Century Leadership. Rost (1993) defined this collaborative leadership theory as “an influence relationship among leaders and followers who intend real change that reflects their mutual purposes” (p.102). Collaborative leadership is the direction the department is taking to help with change, and build leadership for the future.

The next item to discuss is the first question, what are the recognized qualifications, or standards, that exist for a fire department member to conduct fire origin and cause investigations? The qualification component of the fire investigation program in Brea is one that

concerns me. With the certification programs (State Fire Training, 2007) that exist, and the recommended standards for fire investigators (NFPA 1001, 2002) (NFPA 1033, 2003), the department is lacking in expertise. Even though investigations can be delegated to law enforcement or another agency (IFSTA, 2005), there is no other resource in the City that has the expertise to conduct fire investigations more effectively than our fire personnel. Of the departments that I surveyed, 82% work in coordination with law enforcement. This is a very efficient way to address fire investigations. Since fire officers have the experience in determining fire origin and cause, and police have the expertise in crime scene procedures, it stands to reason that a joint effort is beneficial. R. K. Hankins (1997, ¶ 7) stated that “fire and police investigators working in concert, both at the scene and during subsequent investigations, increases the knowledge of both”. This being the case, I wrote into the policy when fire investigators are to be called out as well as when police are to be called out. This will make Brea more efficient in fire investigations, especially now that some police officers are getting training in fire investigation.

Regarding qualifications further, no specific qualifications were written into the policy that our current staff couldn't meet. That will be a topic that needs to be addressed in recommendations to the fire chief.

The second question asked; who are the individuals that are responsible to conduct fire investigations in other fire departments? This question actually tied in nicely with the first question as qualifications and responsibilities are related. In the policy, I addressed the assignment of responsibilities by assigning them to each level of the department. Starting with the fire chief, he/she has the ultimate responsibility for fire investigations in the city. J. Jones (2003) agrees with this when he suggests that fire investigations are normally one of the responsibilities of the fire chief (p.1075). The next level of responsibility in our policy is that of

the fire marshal. The fire marshal is a division chief that manages the Fire Prevention Bureau. Historically in Brea, fire investigations have been a function of fire prevention. Since the designated fire investigators are assigned to fire prevention, it made sense to place management of the program here. Further breaking down fire investigation responsibilities, the designated fire investigators have the next level of authority and responsibility. They are tasked with following investigations to which they are assigned, through to completion. The fire investigators are currently assigned to fire prevention and they are civilian positions. Investigation is just one of their job functions. Comparing this to what other departments are doing, I found that, in Orange County, only one other department uses exclusively fire prevention personnel for investigation, while seven use only operations staff, and three departments use both fire prevention staff and operations staff. Comparing that with the results of all departments surveyed, 15 departments use only prevention personnel, while 14 use exclusively operations staff, and nine use a combination of the two. I believe it is more efficient to use both operations and prevention staff. In this configuration there is greater flexibility and it assures that there will always be an investigator available should the need for advanced investigation arise. Also by providing training and special assignment opportunities to more personnel in the department, it would encourage more participation. Once again this provides for another collaborative leadership opportunity as well.

The next level of responsibility lies with the emergency responders. Literature suggests that the first arriving firefighters and company officers do most of the fire investigations (IFSTA, 1992, p.491). This has been the practice in Brea and an assumption that that was made prior to sending out the survey. This assumption was validated by the survey when the respondents did not list “all fires” for their choice for call-out situations. This being the case, the policy was

written to accentuate the responsibility of company officers and incident commanders to perform investigations to the best of their level of training and experience.

The procedure portion of the policy incorporated the responsibilities into expected behaviors of staff while on scene of an incident. Something that was completely new to our investigation practices, was a list of mutual aid resources that may be used in case there is not a fire investigator available. This was added to address the issue of lack available investigators, as was explained in the Background and Significance section of this paper. Adding this mutual aid call-out order will be a favorable addition to firefighters and dispatchers as it gives them a clear-cut process for finding a fire investigator.

Still another piece that is new to the department's policy, is an addition on the appropriate use of the Orange County Arson Investigation Task Force. The survey demonstrated that virtually all departments are members of an investigation task force. Brea has been a member of the County task force, but there was never a written policy on how and when to access help from the task force. In the past, Brea has incorrectly called out the task force to complete a fire investigation. The task force was set up to provide an investigator with help should it be needed. It was never meant to provide investigation services for a jurisdiction when their own investigators were not available to respond. Once again, this will be a policy addition that will be appreciated by operations staff as well as the members of the task force.

In conclusion, this policy is one that has been long out of date, and the new policy will be embraced as an improvement by staff at all levels. It provides for better coordination and consistency, and will enhance origin and cause determination, documentation, and prosecution of arsonists. The project and the policy will fit in well with the changing culture of the department as we transition to a collaborative organization.

## Recommendations

With the completion of the new fire investigation policy I presented it to all chief officers and the fire investigators. Shift battalion chiefs are to go over the policy with their respective fire companies. Since this was a collaborative effort it is anticipated that no alteration of the policy will be recommended at this time. It is anticipated, however, that it will change as the fire investigation efforts evolve. Evolution of the program should occur according to the listed recommendations. Since we are establishing a collaborative environment in the department, care is to be taken to involve those who are impacted by the changes.

A review of the problem and purpose statements suggest that there was need for a new fire investigation policy in the Brea Fire Department. During the research for this project it has become apparent that there are additional changes that are needed to provide for comprehensive fire investigation program in the city. A list of recommended changes is given here for further consideration.

- Become more active in the Orange County Arson Task Force. This should begin immediately and will be overseen by the fire marshal.
- Implementation of the new policy will take place over the next month. All personnel will require training with the new policy. The department training officer will coordinate this training, and the training is to be conducted by the fire marshal.
- Since the dispatchers are involved in calling for fire investigators they, will also need to be provided with a copy of the policy and training. This will be coordinated by the fire marshal over the next month.
- A liaison with police department investigators needs to be established so that fire investigations are better coordinated. This will help with coordination between origin

- and cause determination and criminal investigation. This is to be determined by the fire marshal and needs to take place within the next three months.
- Provide for training for the current fire investigators to bring them up to a California Office of the State Fire Marshal, Fire Investigator II certification. This should take place within the next six months and is to be coordinated the department training officer.
  - Take steps to get at least one line firefighter, engineer, or captain, per shift, to a Fire Investigator I certification. This will allow for the department to transition from using exclusively fire prevention staff for fire investigators to one that has a combination system of both operations and fire prevention investigators. This should take place over the next twelve months and is to be coordinated by the department training officer.
  - Once there are level I and level II investigators, the fire investigation policy will require revision. Revision is to be done by the fire marshal and he/she is to utilize a collaborative approach to policy development. Revisions should be made at six and twelve months to coincide with the certification of staff.
  - Train first responders at least twice a year in fire investigation practices. This will allow for better consistency. Training is to be done by the fire investigators and coordinated by the training officer.
  - This new program will need to be monitored for effectiveness. For quality assurance, a new program will need to be researched and established and it should take place within the next twelve months.

For those individuals who read this paper and wish to replicate it for their own jurisdiction, I have the following suggestions. First and foremost it is important to have the support of the fire chief. By presenting the research proposal to the chief and presenting the pros and cons, one should be able to gain support.

This project could have been done without input from other members of the department, which would make the project simpler and faster. I suggest, however, a collaborative approach as this provides much more insight on the issues, and possible solutions. It is always better, time permitting, to involve those who are affected by a new policy. Those who choose to participate are open to the influences of the project group and in general open to change. Getting them involved also gives them a sense of ownership and satisfaction. A word of caution is that once you start in a collaborative effort, it is important to follow through. A lack of follow through will cause resistance to like efforts in the future.

Another suggestion that I have is to plan have a good idea of what your limitations are. It would be very detrimental to produce a document that is unusable, because of unrealized limitations and hurdles. Some such limitation might be labor reluctance, lack of funding, lack of support from management, and insufficient staff experience, training, and number of personnel.

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Appendix A

The New Brea Fire Department Fire Investigation Policy

<b>OPERATIONS MANUAL</b>	<i>Revision Date:</i> <i>August 25, 2007</i>	Chapter: <b>V</b>	<b>Fire Prevention</b>
	<i>Reviewed By:</i> <i>Dana Kemper</i>	Subject: <b>5</b>	<b>Fire Investigations</b>
<b>BOOK 1 Routine Operations</b>		Pg. 1 of 5	Code: <b>2-5-2</b>
Approved:			

1. Purpose:

- A. To insure origin and cause investigation are completed for all fires, explosions, and major hazardous materials incidents occurring within the City of Brea.
- B. To insure that all origin and cause investigations are properly documented for all fires, explosions, and major hazardous materials incidents occurring within the City of Brea.
- C. To establish a procedure for call out of Fire and/or Police Investigators when their assistance is determined to be needed by the Incident Commander.

2. Policy:

- A. It shall be the policy of the Fire Department to make every reasonable effort to determine the origin and cause of all fires.
- B. It shall be the policy of the Fire Department to request immediate response of a designated Fire Investigator when any of the following circumstances exist:
  - 1. Major or unusual fires that exceed the investigation capabilities of a line Fire Captain or Battalion Chief
  - 2. Major injury resulting from a fire
  - 3. Incidents involving special circumstances, especially high dollar loss, extensive damage, or political sensitivity
- C. It shall be the policy of the Fire Department to request immediate response of a designated Fire Investigator and a Police Investigator when any of the following circumstances exist:
  - 1. Arson, incendiary, or suspicious fires
  - 2. Explosions
  - 3. Evidence or suspicion of any crime having occurred in connection with a fire
  - 4. Death resulting from a fire
  - 5. Juvenile fire start
  - 6. Illegal activities that present a potential fire and or explosion threat
  - 7. Any fire or explosion related to a crime or suspected crime

<b>OPERATIONS MANUAL</b>	<i>Revision Date:</i> August 25, 2007	Chapter: <b>V</b>	<b>Fire Prevention</b>
	<i>Reviewed By:</i> Dana Kemper	Subject: <b>5</b>	<b>Fire Investigations</b>
<b>BOOK 1 Routine Operations</b>		Pg. 2 of 5	Code: <b>2-5-2</b>
Approved:			

### 3. Responsibility:

- A. The Fire Chief has overall responsibility for fire investigations.
- B. The Fire Marshal is responsible for the management of the fire investigation program.
- C. The Incident Commander is responsible to see that all fires under their command get investigated for origin and cause.
- D. Incident Commander is responsible to determine when Fire and/or Police Investigators are needed to investigate a scene.
- E. The first in company officer is responsible to conduct a first responder level fire investigation for origin and cause.
- F. Fire department first responders are responsible to attempt to recognize the origin of the fire and preserve it for investigation.
- G. Fire Investigators who are called out are responsible to follow the fire investigation through to completion and provide complete documentation.

### 4. Procedure

- A. The first in Company Officer will conduct a preliminary investigation.
- B. When necessary a Fire Investigator may be called out according to this policy. Use of a Fire Investigator is to assist, not replace, the responsibility of the Company Officer to investigate the origin and cause of a fire.
- C. If the Company Officer is unable to make a determination as to the origin and cause of a fire, or suspects that a crime has been committed, and the magnitude of the fire would require a thorough investigation and documentation, a Fire Investigator may be called out.
- D. The order of Fire investigator call out is as follows:
  1. First call out will be to a Brea Fire Department Fire Investigator.
  2. When a Brea Fire Department Fire Investigator is not available the Incident Commander may request a Fire Investigator from another jurisdiction in the following order:
    1. East of the 57 Fwy.  
Fullerton  
Orange County Fire Authority  
Anaheim

<b>OPERATIONS MANUAL</b>	<i>Revision Date:</i> August 25, 2007	Chapter: <b>V</b>	<b>Fire Prevention</b>
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<b>BOOK 1 Routine Operations</b>		Pg. 3 of 5	Code: <b>2-5-2</b>
Approved:			

2. West of the 57 Fwy.

Fullerton  
Anaheim  
Orange County Fire Authority

- E. When Fire Investigators are called in from other jurisdictions the Incident Commander shall designate a Brea Fire Department Captain to assist the investigator.
  - F. The Orange County Arson Task Force is only to be called out by the Lead Investigator who is on scene. The Lead Investigator may be the Incident Commander or designee. When a Fire Investigator responds from another jurisdiction, that Investigator may be considered Lead Investigator and may call out assistance from the Task force.
  - G. Company Officers may request to be contacted by a Fire Investigator, via cell, phone for consultation.
5. Qualifications
- A. The Fire Prevention Specialist and Fire Prevention are the designated fire investigators for the department.
  - B. All fire department officers (chiefs and captains) are qualified to perform first responder level origin and cause fire investigations.
6. Documentation
- A. All fire department incidents are to be documented in the computer Records Management System (RMS). Investigations are to be included in the RMS documentation.
  - B. When a Fire Investigator investigates a fire a Fire Investigation report (FD #60 and 61) are to be completed and filed in Fire Administration.
  - C. All necessary areas of the report are to be filled out and when an item is not applicable N/A is to be placed in the box.
  - D. All Investigation Reports are to be forwarded to the Fire Marshal for review and filing.

<b>OPERATIONS MANUAL</b>  <b>BOOK 1 Routine Operations</b>	<i>Revision Date:</i> August 25, 2007  <i>Reviewed By:</i> Dana Kemper	Chapter: <b>V</b> <b>Fire Prevention</b>	
	Subject: <b>5</b> <b>Fire Investigations</b>	Pg. 4 of 5	Code: <b>2-5-2</b>
Approved:			

<b>INVESTIGATION REPORT</b>												<b>1</b> Case No.					
												<b>2</b> Other Agency & No.					
FELONY <input type="checkbox"/> MISDEMEANOR <input type="checkbox"/> NON-CRIMINAL <input type="checkbox"/>												<b>3</b> Date and Time Reported					
<b>4</b> Location												<b>5</b> Date and Time Occurred					
<b>6</b> Cause						<b>7</b> Offense/Incident											
<b>8</b> Motive						<b>9</b> Damage or Acres		Structure		Contents							
<b>10</b> Factors of Ignition (M.O.)																	
<b>11</b> Property Classification & Description																	
INVOLVEMENT CODE: V=Victim    W=Witness    RP=Reporting Party    S=Suspect    O=Owner    A=Arrestee    M=Mother F=Father    J=Juvenile    T= Tenant																	
<b>12</b> Involve	Last Name		First		Middle		DOB		Sex		Race						
Address			City			Zip			Home Phone		Bus. Phone						
Hair	Eyes	Height	Weight	D.L. No.		State		Soc. Sec. No.		Occupation/School							
<b>12</b> Involve	Last Name		First		Middle		DOB		Sex		Race						
Address			City			Zip			Home Phone		Bus. Phone						
Hair	Eyes	Height	Weight	D.L. No.		State		Soc. Sec. No.		Occupation/School							
<b>12</b> Involve	Last Name		First		Middle		DOB		Sex		Race						
Address			City			Zip			Home Phone		Bus. Phone						
Hair	Eyes	Height	Weight	D.L. No.		State		Soc. Sec. No.		Occupation/School							
<b>12</b> Involve	Last Name		First		Middle		DOB		Sex		Race						
Address			City			Zip			Home Phone		Bus. Phone						
Hair	Eyes	Height	Weight	D.L. No.		State		Soc. Sec. No.		Occupation/School							
<b>12</b> Involve	Last Name		First		Middle		DOB		Sex		Race						
Address			City			Zip			Home Phone		Bus. Phone						
Hair	Eyes	Height	Weight	D.L. No.		State		Soc. Sec. No.		Occupation/School							
<b>13</b> Insurance Co or Agent						Address			Phone								
<b>14</b> Evidence Taken						Collected By			<b>15</b> Photos Taken			Taken By					
YES <input type="checkbox"/> NO <input type="checkbox"/>									YES <input type="checkbox"/> NO <input type="checkbox"/>								
<b>16</b> Further Action						<b>17</b> Copies to: Sheriff _____			Probation _____			<b>18</b> Investigator _____			Date _____		
YES <input type="checkbox"/> NO <input type="checkbox"/>						Dist. Att. _____			Task Force _____			Other _____					
Reviewed _____						Date _____			Prepared By _____			Date _____					

F.D.#60



Appendix B

CITY OF BREA

FIRE INVESTIGATION SURVEY

Department: \_\_\_\_\_

1. In your department fire investigators are in what division?  
 Prevention  
 Civilian Personnel (Peace Officer Status?  Yes  No)  
 Safety Personnel  
  
 Operations  
 Shift Investigators  
 Other \_\_\_\_\_
2. Do your fire investigators work along with police personnel during fire investigations?  
 Yes  No  
(If yes in what capacity \_\_\_\_\_)
3. When do your company officers call in an investigator? (Check all that apply)  
 All Fires  
 When they cant determine origin and cause  
 Large dollar loss  
 Fatalities or firefighter injuries  
 Suspicious fires
4. Does your department participate in a Fire Investigation Task Force?  
 Yes  No
5. Does your department have a written fire investigation policy?  
 Yes  No  
(If yes would you be able to provide me with a copy of the policy?)
6. Please include any comments you would like to make regarding your fire investigation program or practices.

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Appendix C

Fire Investigation Survey Data

BREA FIRE DEPARTMENT FIRE INVESTIGATION SURVEY RESULTS						
ORGANIZATION	WHO INVESTIGATES	WORK WITH P.D.	CALLOUT WHEN	TASK FORCE	CURRENT POLICY	COMMENT
<b>Orange County Departments</b>						
Anaheim	O/SI	Yes	C/L/F/S	Yes	Yes	24
Costa Mesa	O/SI	Yes	C/L/F/S	Yes	Yes	3
Fullerton	O/SI	Yes	C/L/F/S	Yes	No	26
Fountain Valley	O/SI	Yes	C/L/F/S	Yes	Yes	17
Garden Grove	O/SI	Yes	C/L/F/S	Yes	Yes	18
Huntington Beach	P/S/PO and O/SI	Yes	C/L/F/S	Yes	Yes	29
Laguna Beach	O/SI	Yes	C/L/F/S	Yes	No	10
Newport Beach	O/SI	Yes	C/L/F/S	Yes	Yes	31
Orange	P/S/PO	Yes	C/L/F/S	Yes	No	8
Orange County FA	P/S/PO and O/SI	No	C/L/F	Yes	No	13
Santa Ana	P/S and O/SI	No	C/L/F/S	Yes	Yes	25
<b>Other Departments</b>						
Burbank	P/S/PO	Yes	C/L/F/S	Yes	Yes	
Cal Fire SLO	P/S/PO and O	No	C/L/F/S	Yes	Yes	11
Carpenteria	P/C/N	Yes	C/L/F/S	No	No	14
Chico	P/S	Yes	C/L/F/S	Yes	No	23
Chula Vista	P/C/PO	Yes	C/L/F/S	Yes	Yes	4
El Segundo	P/C/PO	No	C/L/F/S	Yes	Yes	
Escondido	P/C/N	Yes	C/L/F/S	Yes	No	15
Foster City	P/S/PO	Yes	C/L/F/S	Yes	Yes	27
Glendale	P/S/PO and O/SI	Yes	A	Yes	Yes	
Imperial County	O/SI	No	C/L/F/S	Yes	Yes	
Liv-Pleasanton	P/S/N and O/SI	Yes	L/F/S	Yes	No	12
Loma Linda	O/SI	Yes	C/L/F/S	Yes	No	
Los Angeles	O/SI	No	C/L/F/S	Yes	Yes	30
Milpitas	P/S/PO and O/SI	Yes	C/F	Yes	Yes	6
Monterey Park	P/S/PO and O/SI	Yes	C	Yes	Yes	5
Nassau County F.M.	O/SI	Yes	C/F/S	Yes	No	28
NavSta Ingelside, TX	P/C/N	Yes	A	No	No	19
NY State FM	Arson Bureau	Yes		Yes	Yes	9
Pasadena	P/S/PO	Yes	C/L/F/S	Yes	Yes	
Paso Robles	O/SI	Yes	C/L/F/S	Yes	Yes	1
Rincon Valley	O/SI	Yes	C/L/F/S	Yes	No	16
Riverhead, NY	P/C/PO	Yes	C/L/F/S	Yes	No	22
San Marcos	P/S/PO	Yes	C/L/F/S	Yes	No	20
San Marino	O Assist T/F	No	C/L/F/S	Yes	No	
Selma	P/C/PO	Yes	C/L/F/S	Yes	Yes	21
Tualatin Valley	P/S/N and O/SI	Yes	C/L/F/S	Yes	Yes	7
Woodland	P/S/PO	Yes	C/L/F/S	Yes	Yes	2
<b>Legend:</b>						
<u>Who Investigates</u>		<u>Callout When</u>				
P-Prevention		A-All Fires				
PO-Peace Officer		C-Can't Determine				
N-Non PO		L-Large Dollar Loss				
S-Safety Person		F-Fatalite or F/F				
O-Operations		Injury S-Suspicious				
SI-Shift Person		Fires				
* The majority of jurisdictions worked with police with fire doing origin and cause and police doing crime scene. Some had police/fire task forces or teams.						

Appendix D

Listed Comments from the Fire Investigation Survey

ADDED COMMENTS FROM THE SURVEY	
1	PD tags along to gain first-hand knowledge
2	A Law Enforcement type program would be a better way to go do to safety issues during investigations
3	Fire works with police on crime scene investigations.
4	At this time we have transitioned to having two fire investigators on every fire that meets our minimum qualifications. Two investigators will cover a 7-day week (24hrs.) prior to being off call: these investigators will be on call again within 5 weeks.
5	Police have two officers assigned to aid fire. We have two police officers who are available on call to assist fire in investigation and more importantly in the documentation and packaging of evidence and case filings.
6	Fire does cause and origin and police do the criminal investigations. Shift investigators call for fire investigators when the fire exceeds the room of origin too; We have 2 fire investigators in Prevention and 8 shift investigators.
7	5 Investigators do one week shifts, with one additional backup person for vacations etc.
8	Work with P.D. when needed
9	Fire works with police on crime scene investigations.
10	Arson Section was moved from Fire Prevent into Special Ops (under Bureau of Emergency Services) 3 years ago.
11	The San Luis Unit of Cal Fire has 2 investigators. 1 Captain and 1 BC. Work with Law Enforcement on occasion.
12	Fire works with police and do cause and origin. We are in the process or re-writing the investigation policy to have Battalion Chiefs and Co. Officers be the primary investigators.
13	We are currently conducting a comprehensive program/policy assessment to see how we can better identify "risks" throughout the communities we serve. This will alter our investigative policies. We currently engage on criminal fires almost exclusively. In the future we will be engaging on a higher number of over-all fire incidents with the intent to better understand actual "risks". Our efforts are starting with engine company level investigations and trying to make sure they are gathering info that is accurate.
14	Work with police when a suspect is identified.
15	F.D. responsible for cause and origin and P.D responsible for crime. Currently in the process of updating investigation policy. PD has a policy bringing both in line so that they compliment each other.
16	Law controls crime scene. We are looking at establishing a regional investigator.
17	Fire works with police on crime scene investigations.
18	Fire works with police on crime scene investigations.
19	Police function as experts on scene
20	Police handle criminal fires
21	Fire and police are part of a city task force
22	Fire and police on scene teams for examination of fire scenes
23	Fire works with police and do cause and origin.
24	Fire works with police on crime scene investigations.
25	We have one 40-hour Captain and three shift investigators
26	Fire works with police on crime scene investigations.
27	We have two arson investigators including my fire marshal position and my assistant. Police officers are available to assist fire in investigation and documentation and packaging of evidence.
28	Law and fire team concept, one fire marshal and one detective
29	Fire works with police on crime scene investigations.
30	Work with P.D and F.D. establishes origin and cause. Full time Arson Bureau working for the NYS Office of Prevention and Control
31	Fire works with police on crime scene investigations.

Appendix E

Survey Results From Orange County Fire Departments

ORANGE COUNTY AGENCIES SUMMARY OF SURVEY RESULTS		
Who Investigates		
Prevention and Operations Combo	3	
Prevention Staff	1	
Civilian	0	
Peace Officer	3	
Non Peace Officer	0	
Safety	4	
Operations Staff	7	
Shift Investigators		10
Other		0
Work With Police Department		
Yes	9	
No	2	
When to Call Out Investigators		
All Fires	0	
Can't Determine	11	
Large Dollar Loss	11	
Fatalities/Injuries	11	
Suspicious	10	
Participate in Task Force		
Yes	11	
No	0	
Written Dept. Investigation Policy		
Yes	7	
No	4	

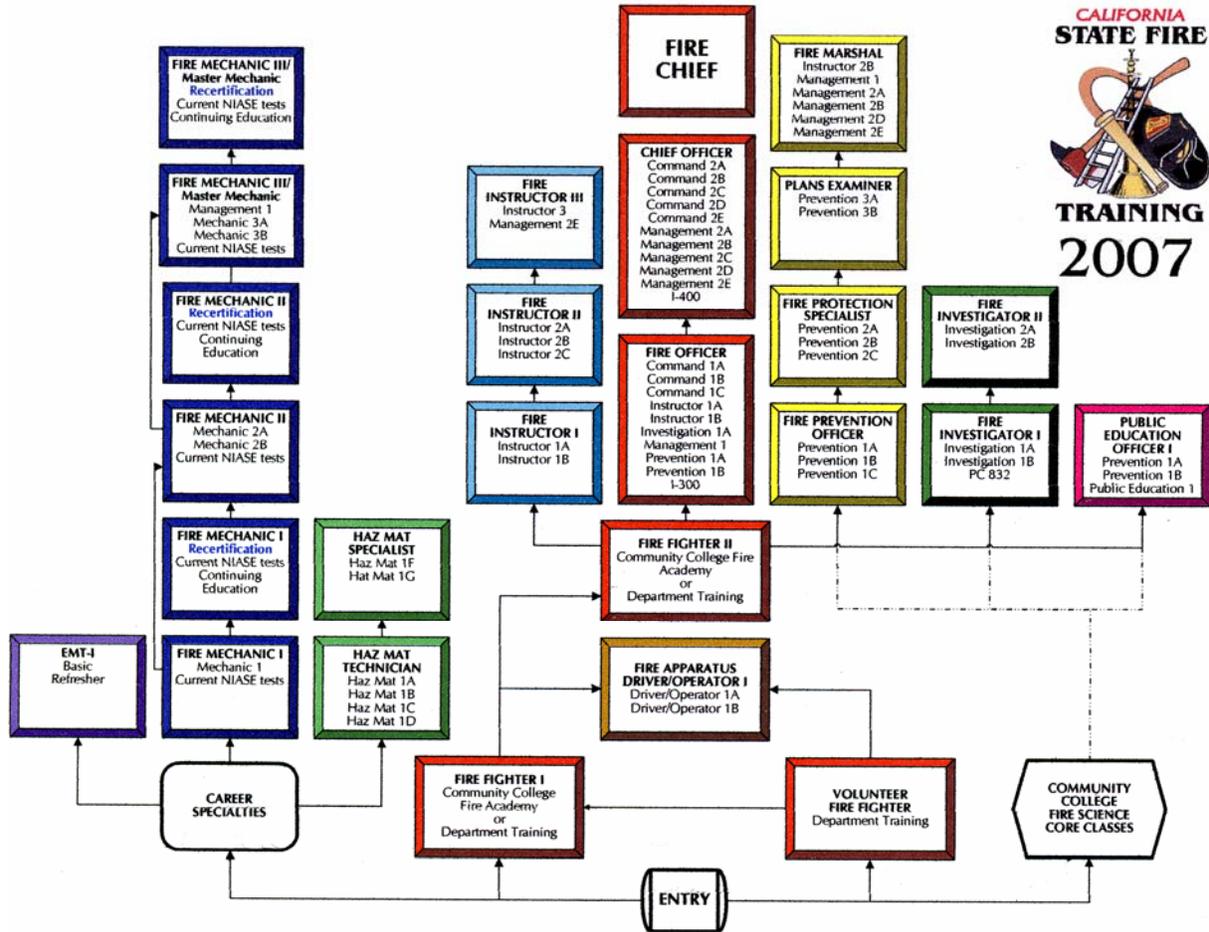
Appendix F

Results From All Fire Departments Surveyed

OVERALL SUMMARY OF SURVEY RESULTS		
Who Investigates		
Prevention and Operations Combo	9	
Prevention Staff	15	
Civilian	7	
Peace Officer	4	
Non Peace Officer	3	
Safety	17	
Operations Staff	14	
Shift Investigators		23
Other		2
Work With Police Department		
Yes		31
No		7
When to Call Out Investigators		
All Fires		2
Can't Determine		37
Large Dollar Loss		35
Fatalities/Injuries		37
Suspicious		35
Participate in Task Force		
Yes		36
No		2
Written Dept. Investigation Policy		
Yes		23
No		15

Appendix G

California State Fire Marshal Certification Track



California State Fire Marshal Certification Track (State Fire Training, 2007, p. 84)