

**DEVELOPMENT OF A JOINT FIRE AND LAW ENFORCEMENT FIRE
INVESTIGATION POLICY**

EXECUTIVE DEVELOPMENT

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An applied research project submitted to the National Fire Academy as part of the Executive Fire Officer Program.

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ABSTRACT

The problem identified with this research was that policies and procedures for conducting joint fire investigations between the Rice Lake Fire Department (RLFD) and local law enforcement agencies were non-existent which resulted in uncoordinated, confusing investigations.

The purpose of this research was to objectively evaluate methods for combining fire department and law enforcement efforts toward creating an effective policy of fire investigation.

Descriptive research was employed to discover various roles and responsibilities from fire service organizations and law enforcement agencies when investigating fires. Action research was also accomplished to develop a draft fire investigation policy.

Four questions were identified as the foundation for this research:

1. What is the responsibility and role of the RLFD in fire investigations?
2. Where does the responsibility of the RLFD begin and end?
3. When does law enforcement enter the investigation process?
4. What types of incidents dictate the involvement of outside agencies?

The author researched statutory, governmental publications, national standards, nationally recognized training manuals, and on-line sources. In addition, the author conducted a survey of Wisconsin fire service organizations and attended a presentation conducted by an Alcohol, Tobacco and Firearms (ATF) representative to gain information regarding fire investigations.

Due to the provided statutory obligations and nationally accepted investigative techniques, the results of this research indicated that coordinated, joint fire investigations between the RLFD and local law enforcement agencies were required for successful fire investigations.

Based upon the research, the following recommendations were created:

1. Redefine the mission statement of the RLFD.
2. Initiate formal fire/arson investigation training for company officers.
3. Implement the fire investigation policy developed as a result of this research.
4. Develop a policy specific to that of conducting fatal fire investigations.
5. Consider the formation of a joint fire investigation unit.

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INTRODUCTION

The Rice Lake Fire Department (RLFD) responds to between 300 and 400 requests for emergency assistance including fire, emergency medical, rescue, and hazardous material on an annual basis. In 1998 alone, the RLFD responded to 360 emergency incidents with a total fire loss of over \$1.5 million dollars. The majority of the fire loss occurred in commercial properties and was attributable to arson.

Prior to 1989, fire investigations were performed by company officers who had little or no officially recognized training in this area. From 1989 to 1998, the fire chief accomplished fire investigations with assistance from company officers and operations personnel. In 1998, the RLFD was reorganized and as a result of the reorganization, the RLFD had a designated lead fire investigator. The role of local law enforcement in fire investigations was extremely limited, and when involved, their role was not clearly defined.

The problem identified with this applied research project was that policies and procedures for conducting joint fire investigations between the RLFD and local law enforcement agencies were non-existent which resulted in uncoordinated, confusing investigations.

The purpose of this research was to objectively evaluate methods for combining fire department and law enforcement efforts toward creating an effective policy of fire investigation.

Descriptive research was employed to discover various roles and responsibilities from fire service organizations and law enforcement agencies when investigating fires. Action research was also accomplished with the development of a draft fire investigation policy.

Four questions were identified as the foundation for this research:

1. What is the responsibility and role of the RLFD in fire investigations?
2. Where does the responsibility of the RLFD begin and end?
3. When does law enforcement enter the investigation process?
4. What types of incidents dictate the involvement of outside agencies?

BACKGROUND & SIGNIFICANCE

The City of Rice Lake is a small community located in northwest Wisconsin approximately 100 miles northeast of Minneapolis-Saint Paul, Minnesota. It covers approximately 9.5 square miles, with a resident population 8,170 (*City of Rice Lake 1999 Budget*, 1998, p. 6). The population increases by an estimated 35% to 45% during the summer months. Tourism and recreation are the main causes for this increase.

The community supports a diverse composition of manufacturing, wood industry, retail, commercial, residential and recreational areas. As the city has grown in both population and complexity, the demands for service have increased as well.

The RLFD is a combination fire department with an authorized force of 14 sworn career personnel, 25 Paid-On-Call (POC) Firefighters, and one civilian. Operations personnel are assigned to two platoons with the Fire Chief, Captain-Fire Prevention, and Administrative Assistant on a 40 hour work week. The RLFD currently operates three engine companies, one aerial apparatus, one medium rescue unit, two tanker units, one wild-land unit, one boat unit, three support units, and two hazardous material response units. All apparatus, with the exception of one tanker, which is based in the Town of Cedar Lake, operate out of one fire station. There is a minimum on-duty staffing of three career

personnel with off-duty career and POC firefighters available for recall by a pager system, to augment the on-duty fire fighting force.

Through contractual agreements, the RLFD provides fire suppression, rescue, and inspection enforcement for three Townships: (1) Town of Rice Lake, (2) Town of Oak Grove, and; (3) Town of Cedar Lake. Including the contracted Townships, the RLFD provides services for an area of approximately 115 square miles and a population of 13,000. The RLFD also serves as the State of Wisconsin Hazardous Materials Response Team (HMRT) for Barron County, a 900 square mile area.

Local law enforcement agencies, the Rice Lake Police Department (RLPD) and the Barron County Sheriff's Office (BCSO) provide no training specific of that to fire investigation for their respective investigators. Law enforcement investigators do provide the RLFD with evidence collection and interview support. They also have apprehension and arrest authority.

This research is a requirement for the National Fire Academy (NFA) Executive Fire Officer Program (EFOP) Executive Development Course. This research relates to the Service Quality unit of the above-mentioned course by identifying recommendations that will hopefully maximize the human and physical resources of the RLFD and local law enforcement agencies.

The results of this research are anticipated to have a positive impact in the coordination of fire investigations between the RLFD and local law enforcement agencies.

LITERATURE REVIEW

The research process began with a literature review conducted at the Learning Resource Center (LRC) on the NFA campus in March 1999. Further literature reviews were conducted between March

1999 and July 1999 at the Rice Lake Public Library, RLFDD reference library, on-line resources, and from policy and procedures from other Wisconsin fire service organizations.

The literature reviewed located Wisconsin Statute §165.55(1) pertaining to fire investigations.

The statute stated the following:

The chief of the fire department or company of every city, village and town in which a fire department or company exists, and where no fire department or company exists, the city mayor, village president or town clerk shall investigate or cause to be investigated the cause, origin and circumstances of every fire occurring in his or her city, village or town by which property has been destroyed or damaged when the damage exceeds \$500, and on fires of unknown origin he or she shall especially investigate whether the fire was the result of negligence, accident or design. Where any investigation discloses that the fire may be of incendiary origin, he or she shall report the same to the state fire marshal (Wisconsin Statutes, 1997, Volume 3, p. 2929).

To further clarify, Wisconsin Statute §166.55(2) states: “The department of justice shall supervise and direct the investigation of fires of incendiary origin when the state fire marshal deems the investigation expedient” (Wisconsin Statutes, 1997, Volume 3, p. 2929).

A review of governmental publications revealed two documents prepared for the Federal Emergency Management Agency (FEMA) and NFA. The first, *Establishing An Arson Task Force*, states: “Successful fire and arson investigation requires cooperative effort. It calls for a wide range of skills and a critical mass of investigative resources” (USFA, 1989, p. 5). The second, *A View of Management In Fire Investigation Units*, states:

The trend has been for the fire department to assume the lion's share of investigation work using cross-trained fire investigators who are also sworn peace officers with powers of arrest. Sometimes fire investigators handle the case up to the point of arresting suspects at which time police detectives get involved. In areas served by volunteer fire departments, the sheriff's office, a regional representative from the State Police or State Fire Marshal's officer, or a privately-hired investigator investigate fires suspected of being incendiary (USFA, 1990, p. 28).

The literature review located three National Fire Protection Association (NFPA) documents regarding the coordination of fire investigation policies and procedures.

The first, NFPA Standard Number 1033, *Professional Qualifications for Fire Investigators*, states, "The fire investigator shall maintain appropriate liaison with other interested professionals" (NFPA, 1998, p. 2).

The second NFPA publication, *Management In The Fire Service*, states the following:

Investigations into fires that are not considered to be of suspicious origin are conducted by department officers or fire prevention inspectors. They provide the basis for learning about the causes of fires, the reasons for their spread, and the performance of whatever fire prevention equipment had been installed in the building (NFPA, 1987, p. 220).

The third, NFPA's *Fire Protection Handbook*, states the following:

The organizations involved in fire investigation can be separated into two types: (1) public agencies, or those required by law to investigate fires at the local, state, and

federal levels; and (2) private sector organizations. Of the public agencies, the local fire department generally has the primary responsibility to document a fire and to provide an initial determination of the cause and origin. In much of the United States and in all Canadian provinces, the investigation responsibility for incendiary fires is vested in the state or provincial fire marshal's office. In states where this is not the case, the local fire marshal or the local police or fire department may have investigative responsibility, either legally or by delegation from the state (NFPA, 1997, p. 11-3).

Several other publications were found that addressed the area of fire investigation and the coordination of the investigation process.

The first was the *Fire Investigation Unit Management Guide*, which states the following: Fire and arson investigation requires a coordinated, cooperative effort to be successful. The investigation of arson and explosion incidents requires close cooperation between fire service, law enforcement, and the insurance industry if the investigation is to be successful. To achieve the required level of cooperation, the specific roles and responsibilities of each agency need to be clearly defined and unanimously agreed to (State of Maryland, 1997, p. 7-1).

The second was the International Fire Service Training Association (IFSTA), *Introduction to Fire Origin and Cause*, which read, "The cause of a fire is a joint effort requiring cooperation and support from a number of fire department participants – the firefighters, the company officer, the fire investigator, and the fire chief" (IFSTA, 1997, p. 6).

IFSTA also states that:

The fire chief has the legal responsibility within most jurisdictions for determining the cause of a fire. The fire chief relies on the fire officers and firefighters at the scene to make sure that the true and specific cause of the fire can be determined (IFSTA, 1997, p. 6).

Fires and Explosions-Determining Cause and Origin by John M. and Patrick M. Kennedy (1985), states the following:

Fires and explosions are usually investigated by more than one person or agency. Very seldom does any one person or agency make a solitary investigation of a fire or explosion. The fire investigation is often conducted as a “team effort” with several agencies participating (Kennedy, John and Patrick M., 1985, p. 5-6).

John M. and Patrick M. Kennedy (1985) also state the following:

The first person to investigate is usually the fire officer in charge at the scene of the fire. He does this immediately after the fire is extinguished or brought under control. The fire officer makes an examination in an attempt to determine where the fire started and why or to establish the origin and cause (Kennedy, John and Patrick M., 1985, p. 6).

Ed Comeau (1998) stipulates the following:

Any fire investigation, no matter how small, requires a range of skills and discipline.

While a smaller incident may be investigated by a few people from the local fire department or state fire marshal’s office. If an incident is of such catastrophic proportions then an investigation would exceed the abilities of the local authority, however, there’s a resource to call upon: the Bureau of Alcohol, Tobacco and Firearms’ (ATF) *National Response Team (NRT)* (*National Response Teams help local agencies investigate fires* [Online]).

PROCEDURES

Methodology

Research involved a review of literature from the Wisconsin Statutes, RLF reference library, the NFA Learning Resource Center (LRC), on-line resources, and from policy and procedures from Wisconsin fire service organizations. The literature was then reviewed with material relevant to this project, summarized, and grouped based upon the corresponding research questions.

To aid in the research process, a survey instrument was distributed to 25 randomly selected Wisconsin fire service organizations (Appendix A).

The author attended a March 12, 1999, presentation regarding the role of the ATF's National Response Teams given by ATF Special Agent, Tom Hahm, Jr., as part of the Wisconsin Fire Chief's Education Conference held in the Wisconsin Dells.

Limitations and Assumptions

A primary restriction was lack of cooperation from the Rice Lake Police Chief. The incumbent Police Chief is in the process of retirement, and the search for his replacement is underway. The Police Chief felt that if he provided input into a standard operating guideline or policies and procedure document, it would be a detriment to the individual selected as the next Police Chief.

An additional limitation imposed upon the author was that a significant amount of literature is published regarding the crime of arson. For the purposes of this research, the author elected to include literature that addressed conducting arson investigations.

The final limitation surrounds that of the survey instrument. In retrospect, the author feels that the questions contained within the survey instrument were, to some extent, ambiguous and did not ask precise enough questions. Additionally, the author failed to survey Wisconsin law enforcement agencies

in a similar manner to that of fire service organizations which may have provided additional perspectives regarding the coordination of fire investigations.

Selected Terms and Definitions

The following list of selected terms is provided to assist non-fire service readers a better comprehension of uncommon terminology used within the context of this ARP:

Accidental Fire Cause: Accidental fires involve all those where the proven cause does not involve a deliberate human act to ignite or spread fire into an area where the fire should not be. In most cases, this classification of fire will be clear, but some deliberately set fires can still be accidental.

Alcohol, Tobacco and Firearms (ATF): A branch of the Department of Justice tasked with the investigation of fires and explosions.

Arson: The crime of maliciously and intentionally or recklessly starting a fire or causing an explosion. Precise legal definitions vary among jurisdictions, wherein it is defined by statutes and judicial decisions.

Department of Criminal Investigations (DCI): Department of Criminal Investigations (State Fire Marshal's Office).

Incendiary Fire Cause: A fire that is deliberately set under circumstances in which the person(s) knows that the fire should not be set.

Incident Management System (IMS): An organized system of roles, responsibilities, and procedures used to manage emergency incidents. As used within this, the terms "Incident Command System" and "Incident Management System" are synonymous.

Paid-On-Call (POC) Firefighters: Individuals trained to a state specified level, pager equipped but not a career member. POC's are paid a wage for attending training sessions and for responding to emergency incidents.

Undetermined Fire Cause: A fire in which a proper classification cannot be determined.

RESULTS

The results of the survey instrument outlined in the table below indicate that eight or 34% of the organizations with or without fire investigations teams have formal written policies for conducting and coordinating of fire investigations. Demographic information of those fire service organizations which returned the survey instrument is included in this research as Appendix B.

Table 1

Fire/Arson Investigation Survey Results		
	Total	Percentage
Number of Organizations Surveyed	25	-----
Number of Surveys Returned	23	92%
Organizations with Fire Investigation Teams	15	65%
Organizations with Fire/Arson Investigation Policy	8	34%

(1) What is the responsibility and role of the RLF D in fire investigations?

As defined by Wisconsin Statute §166.55(1), the role of the fire department has the primary responsibility to document a fire and to provide an initial determination of the cause and origin.

The chief of the fire department or company of every city, village and town in which a fire department or company exists, and where no fire department or company exists, the city mayor, village president or town clerk shall investigate or cause to be investigated the cause, origin and circumstances of every fire occurring in his or her city, village or town by which property has been destroyed or damaged when the damage exceeds \$500, and on fires of unknown origin he or she shall especially

investigate whether the fire was the result of negligence, accident or design

(Wisconsin Statutes, 1997, Volume 3, p. 2629).

IFSTA concurs by stating that:

The fire chief has the legal responsibility within most jurisdictions for determining the cause of a fire. The fire chief relies on the fire officers and firefighters at the scene to make sure that the true and specific cause of the fire can be determined (IFSTA, 1997, p. 6).

IFSTA goes even further by stating the following:

Whether the local fire department or another agency has the legal responsibility for extended fire cause investigations, the chief of the fire department has the primary responsibility, both legally and morally, for seeing that every fire has a proper fire cause determination investigation completed. The fire chief must provide the resources necessary for at least a preliminary fire investigation by the fire company or fire prevention bureau. The fire chief's attitude and support directly affect the level and quality of fire cause investigation. The fire chief must give fire cause determination as high a priority as fire suppression (IFSTA, 1997, p. 6).

The NFPA mimics IFSTA and provides further insight regarding responsibility of the fire department in stating the following:

The organizations involved in fire investigation can be separated into two types: (1) public agencies, or those required by law to investigate fires at the local, state, and federal levels; and (2) private sector organizations. Of the public agencies, the local fire department generally has the primary responsibility to document a fire and to provide an initial determination of the cause and origin (NFPA, 1997, p. 11-3).

(2) Where does the responsibility of the RLFD begin and end?

The responsibility of the RLFD begins with the response and extinguishment of the fire and ends, in the case of a fire that is determined not to be incendiary; suspicious; or arson, with the fire investigation report.

IFSTA states: “In the case of a fire which is suspicious in nature, the fire department lead fire investigator shall continue to work with local, State and/or Federal law enforcement agencies” (IFSTA, 1997, p. 6).

Renowned fire and explosion experts John M. and Patrick M. Kennedy (1985) state the following:

The fire officer in charge usually supervises the first investigation which is very important. If his findings as to cause is “undetermined”, “suspicious”, or “incendiary”, he usually withdraws from the investigation and the fire and arson investigating division of the city, county, or state will move in and assume the responsibility (Kennedy, John and Patrick M., 1985, p. 6).

(3) When does the law enforcement agency having jurisdiction enter the investigation process?

As stipulated by Wisconsin Statutes, law enforcement officials shall enter the investigation process when the cause determination of the fire is believed to be of a suspicious nature.

The NFPA agrees by stating:

When a fire department investigation determines that the fire may have been incendiary or suspicious origin, other organizations may be assigned the legal

responsibility to make the final decision of fire cause and to continue the investigation pursuant to possible criminal action (NFPA, 1997, p. 11-3).

The NFPA's *Fire Protection Handbook* also states that:

All fire investigators should also have some knowledge of the legal aspects of investigations, such as how to gain access to a scene, how to take and handle evidence, and how to question witnesses. In fire investigation units to which both police and fire personnel are assigned, personnel should be cross-trained in basic fire science and law enforcement. Departments that become familiar with each other's technology and terminology benefit from enhanced communication, more complete and thorough investigations and more successful prosecutions (NFPA, 1997, p. 11-7).

(4) What types of incidents dictate the involvement of outside agencies?

The RLFD and local law enforcement organizations operate with minimal personnel and physical investigative resources. With the resources available, the following type of incidents will require the assistance of outside agencies to conduct a comprehensive fire investigation:

- Multiple fatality fires.
- Fires evolving from an explosive device.
- Fires involving a large geographic area (i.e. city block).
- Fire involving significant dollar loss and impact to the community.
- Suspected arson fire(s).

ATF Special Agent Hahm established during his March 12, 1999, presentation to the Wisconsin Fire Chief's Education Association, that the ATF National Response Team (NRT) responds

to large fire scenes or explosion scenes with a specialized team of 17 personnel including an accelerant detection canine. The priority of the NRT is: (1) a loss of \$1 million or an incident with a minimum of one death or more than ten injuries, (2) a loss of less than \$1 million with at least one serious injury; and (3) incidents of a high profile nature. Hahm also emphasized that the ATF NRT would respond within 24 hours and operate within the IMS structure established by local fire and law enforcement agencies.

The Waukesha (Wisconsin) Fire Department, as stated in the publication *FP-8, Fire Investigation*, operates under the following premises when deciding to involve outside agencies, specifically the Wisconsin Department of Criminal Investigations (DCI):

- Any fire that causes death or serious bodily injury in which unlawful activity is known or suspected.
- Any fire that causes death or serious bodily injury that the cause is undetermined.
- Any fire where the dollar loss is in excess of \$500,000 and is suspected to be incendiary in nature.
- Multiple fires that involve different buildings in the same general location that occur around the same time with similar circumstances.
- Any explosion that is not obviously accidental or any incendiary fire that insurance fraud is suspected and assistance will be needed in obtaining records.
- Any fire that is of an undetermined nature where the support of DCI would be needed to determine the cause or assist with the investigation (Waukesha Fire Department, 1999, p. 1-4).

The results of the research serve as the foundation for the draft fire investigation policy (Appendix D). The basis of the draft fire investigation policy focuses upon that of statutory

requirements. However, the impact of the NFPA, IFSTA and nationally accepted investigative techniques are significant and are included in the draft policy.

DISCUSSION

NFPA Standard Number 921, *Guide for Fire and Explosion Investigations*, defines the term fire investigation as “The process of determining the origin, cause, and development of a fire or explosion” (NFPA, 1994, p. 9). The author concurs with the NFPA who, in the *Fire Protection Handbook*, states that:

It is a good idea to be prepared in advance for the investigation of a fire. The level of organization selected is dependent upon the size of the organization, the frequency of need, the resources available, and the legal or statutory requirements (NFPA, 1997, p. 11-7).

The author contacted the two local law enforcement agencies providing jurisdiction for areas served by the RLFD. Neither the Rice Lake Police Department nor the Barron County Sheriff’s Office included within their policy and procedure manual any policies nor procedures for conducting and coordinating fire investigations within their respective jurisdictions.

The lack of written fire investigation policies indicated by the survey instrument, while at first glance seems to be discouraging, appears to correspond with the thought process that most fire service organizations utilize Wisconsin Statute §166.55(1) as the basis for conducting fire investigations.

As an organized Wisconsin municipality, the RLFD is bound by Wisconsin Statute § 166.55(1) and (2). This legislation, without exception, must be the foundation of a fire investigation policy and procedure directive.

NFPA and IFSTA outline that the role of the fire department is cause and origin determination. At the point where fire officials suspect an arson fire, is where law enforcement officials enter the investigation. The author agrees, to a point. Within the RLFD's jurisdiction, law enforcement officials typically respond with fire department personnel on all reported structure fire, thus, law enforcement has an opportunity to assist with the fire investigation during the initial stages of an incident.

Conversely, local law enforcement investigators are over burdened with normal law enforcement investigations and are not trained in fire investigative techniques; thus, the cause and origin determination rests with the fire department.

With the perils of today's society facing emergency responders, the increased cooperation of fire and law enforcement officials is vital. Although not included in any of the literature review located by the author, joint investigations are also recommended for fires involving illegal activities (i.e. drug labs, drug houses, etc.) and must have immediate involvement of law enforcement.

The importance of conducting coordinated fire investigations between fire and law enforcement is emphasized by the NFPA.

In reality, local fire and law enforcement officials notify the state fire marshal, who, after reviewing the situation, may elect to keep the investigation with local authorities. This situation normally is dictated by the caseload of the state fire marshal, qualifications of the local agencies and magnitude of the incident. In all situations involving a fire fatality, it is imperative that the state fire marshal be notified immediately with local fire and law enforcement officials securing the scene (NFPA, 1997, p. 11-7).

The literature review indicates that the state fire marshal be notified on all fires thought to be incendiary in nature. While the Statutory language is clear, the workload of the state fire marshal is comparable to that of local law enforcement officials. The state fire marshal does not respond to investigate suspicious fire unless the dollar loss figure is significant, loss of human life or other extenuating circumstances exist. The investigation is left up to the fire department and local law enforcement officials.

The ATF's National Response Team, when requested by the state fire marshal, shall respond to those incidents meeting the following criteria: (1) dollar loss of greater than \$1 million (2) loss of human life; and (3) when the size of the incident overwhelms the capabilities of local agencies (Hahm, personal communication, March 12, 1999).

Implications

The implications surrounding this research are positive for the RLFD. The development of a draft fire investigation policy is a positive step forward for the organization as a whole by defining roles and responsibilities. The success of the draft policy hinges around the commitment from local law enforcement officials surrounding these issues:

- Training of law enforcement investigators in fire investigation techniques.
- Cross training of fire department investigators in basic law enforcement principles (i.e. evidence collection, photography, interviewing, etc.).
- Commitment of top law enforcement officials to see a fire investigation through to maximize the chance of prosecution in arson cases.

RECOMMENDATIONS

The following are the recommendations offered as a plan of action based upon the results of the research:

1. Redefine the mission statement of the RLFD to include the function of fire investigation (Appendix C).
2. Initiate formal fire/arson investigation training for company officers through enrollment in NFA field programs and DCI sponsored training seminars.
3. Implement the fire investigation policy developed as a result of this research when the new RLFD Chief is appointed (Appendix D).
4. Develop a policy specific to that of conducting fatal fire investigations.
5. Conduct a planning session within the next six months to consider the formation of a joint fire investigation unit between the RLFD and local law enforcement agencies.

REFERENCES

- City of Rice Lake, Wisconsin. (1998). *Fiscal Year 1999 Budget*. Rice Lake, WI: Author.
- Comeau, Ed. (1998). *National Response Teams help local agencies investigate fires* [Online]. Available from: http://www.efilmgroup.com/disviii_5.html.
- International Fire Service Training Association. (1997). *Introduction To Fire Origin and Cause*. Stillwater OK: Oklahoma State University.
- Kennedy, John and Patrick M. (1985). *Fires and Explosions- Determining Cause and Origin*. Chicago, IL: Investigations Institute.
- National Fire Protection Association. (1994). *921 Guide for Fire and Explosion Investigations*. Quincy, MA: National Fire Protection Association.
- National Fire Protection Association. (1998). *1033 Professional Qualifications for Fire Investigators*. Quincy, MA: National Fire Protection Association.
- National Fire Protection Association. (1987). *Management in the Fire Service*. Quincy, MA: National Fire Protection Association.
- National Fire Protection Association. (1997). *Fire Protection Handbook*. Quincy, MA: National Fire Protection Association.
- State of Maryland Office of the State Fire Marshal. (1997). *Fire Investigation Unit Management Guide*. Maryland Fire and Rescue Institute.
- State of Wisconsin. (1997). *Wisconsin Statutes (41st ed.)*. State of Wisconsin: Author.
- United States Fire Administration FA-93. (1990). *A View of Management In Fire Investigation Units*. Washington D.C.: U.S. Government Printing Office.

United States Fire Administration FA-88. (1989). *Establishing An Arson Task Force*.

Washington D.C.: U.S. Government Printing Office.

Waukesha Fire Department. (1999). *WFD Standard Operating Procedure FP-8, Fire Investigations*. Waukesha, WI: Author.

APPENDIX A

FIRE INVESTIGATION SURVEY

Executive Development
Executive Fire Officer Program (EFOP)

1. Name of department: _____

2. Type of Organization:

- | | |
|--|---------------------------------|
| <input type="checkbox"/> Fire Department | <input type="checkbox"/> City |
| <input type="checkbox"/> Volunteer | <input type="checkbox"/> County |
| <input type="checkbox"/> Paid | <input type="checkbox"/> Other |
| <input type="checkbox"/> Combination | |

3. Contact Person and Title: _____

Daytime Phone: _____

4. Population of area served: _____

(Check one) Urban Suburban Rural

5. Which departments or agencies are involved in investigating fires in your jurisdiction?

6. Do you have an organized fire investigation team? Yes No

If no, go to question #7

If yes, who makes up the team? _____
Name of Lead Investigator

7. Does your organization have written policies and procedures for fire investigations?

yes no If so, could you please provide a copy.

Appendix B

Demographic Information Regarding Fire Service Organizations Responding to the Survey

Organization	Fire/Arson Investigation Team	Local Law Enforcement Participation	Formal Policy	Population Served	Organization Type
Antigo	Yes	Yes	Yes	9,000	Combination
Ashland	No	No	No	10,300	Combination
Beaver Dam	No	Yes	No	20,000	Combination
Caledonia	Yes	Yes	Yes	23,000	Combination
Chippewa Falls	No	Yes	No	13,000	Combination
Eau Claire	No	Yes	No	62,000	Paid
Fitchburg	No	Yes	No	18,000	Combination
Manitowoc	Yes	Yes	No	34,334	Paid
Marshfield	Yes	Yes	No	20,000	Paid
Menasha	No	Yes	Yes	16,000	Paid
Menomonie	Yes	Yes	No	25,000	Combination
Menomonie Falls	Yes	Yes	No	30,000	Combination
Merrill Fire	No	No	No	11,000	Paid
Neenah	Yes	Yes	Yes	23,000	Paid
New Berlin	Yes	Yes	Yes	N/A	Combination
Rhineland	No	Yes	No	8,000	Paid
Saint Francis	Yes	Yes	No	9,451	N/A
Town of Madison	Yes	Yes	Yes	6,600	Combination
Two Rivers	Yes	Yes	No	13,400	Combination
Watertown	Yes	Yes	No	N/A	N/A
Wausau	Yes	Yes	No	40,000	Paid
Waukesha	Yes	Yes	Yes	63,000	Paid
Wisconsin Rapids	Yes	Yes	Yes	18,900	Paid

Appendix C

Rice Lake Fire Department Revised Mission Statement

The Rice Lake Fire Department is committed to Public Safety achieved through developing, promoting and maintaining a comprehensive network of fire prevention, fire suppression, fire investigation, emergency medical services, hazardous materials and specialized rescue services for the City of Rice Lake and contracted Townships. Through education, training and communications, we shall continue to provide quality services.

Appendix D

Policy and Procedure

Rice Lake Fire Department
34 South Wilson Avenue
Rice Lake, Wisconsin 54868

OPERATIONS MANUAL

EMERGENCY OPERATIONS

Chapter: INCIDENT OPERATIONS
Subject: FIRE INVESTIGATIONS
Code: 900-00-01
Date: August 16, 1999

Approved By: DRAFT – NOT FOR IMPLEMENTATION UNTIL SIGNED

1.00 PURPOSE: The purpose of this policy is to establish a uniform policy and procedure which shall promote and provide an accurate and standardized methodology of conducting coordinated joint fire investigations between fire and law enforcement personnel.

2.00 POLICY: The policy of the Rice Lake Fire Department (RLFD) shall be to investigate all fires to determine cause and origin, to prevent future occurrences of fires, and to meet the requirements of Wisconsin Statutes.

3.00 STATUTORY REQUIREMENTS: The following Wisconsin Statutes provide the legal basis for which fire investigations shall be conducted:

- a. § 165.55(1) states that *“The chief of the fire department or company of every city, village and town in which a fire department or company exists, and where no fire department or company exists, the city mayor, village president or town clerk shall investigate or cause to be investigated the cause, origin and circumstances of every fire occurring in his or her city, village or town by which property has been destroyed or damaged when the damage exceeds \$500, and on fires of unknown origin he or she shall especially investigate whether the fire was the result of negligence, accident or design. Where any investigation discloses that the fire may be of incendiary origin, he or she shall report the same to the state fire marshal.”*
- b. § 165.55(2) states that *“The department of justice shall supervise and direct the investigation of fires of incendiary origin when the state fire marshal deems the investigation expedient.”*

4.00 SCOPE: This policy covers all career and Paid-On-Call (POC) members of the RLFD and law enforcement investigators assigned to assist in fire investigations.

5.00 RESPONSIBILITY: All career and POC RLFD members shall be responsible for ensuring that the provisions of this Standard Operating Guideline (SOG) are adhered. The Incident Commander (IC) has ultimate responsibility for the implementation of this SOG at an incident.

6.00 INCIDENT MANAGEMENT: The RLFD IC shall be in-charge of the incident until such a time that the incident scene is declared fire safe. A unified command consisting of fire and law enforcement is recommended for the investigation phase of the incident to ensure the best possible utilization and coordination of human and physical resources.

7.00 SAFETY: Fire scenes present a multitude of hazards ranging from the by-products of combustion to structural collapse.

- ◆ The IC shall ensure that standard emergency incident operations safety practices are adhered to.
- ◆ Initial fire investigations may require the utilization of fire fighting protective clothing and self-contained breathing apparatus.
- ◆ Fire investigators shall be provided and shall utilize a Personal Alert Safety System (PASS) when conducting an investigation.

8.00 ROLES: The RLFD shall be responsible for determining the initial cause and origin of all fires not suspected as being intentionally set. When a fire or other incident is determined to be suspicious, the RLFD IC shall immediately request an investigator from the law enforcement agency having jurisdiction, as well as the State Fire Marshal.

The Captain-Fire Prevention and local law enforcement shall be responsible for determining fire cause and origin in conjunction with the State Fire Marshal in those fires, which have met the criteria in Section 13.00. The Rice Lake Police Department/Barron County Sheriff's Department Investigator(s) shall work in conjunction with the RLFD and State Fire Marshal and assist with evidence collection, preservation, and transmittal to the crime laboratory and photography.

9.00 GENERAL CONSIDERTAIONS: The IC shall ensure that fire suppression operations are conducted with scene preservation as a consideration. Overhaul must be limited to that required for fire suppression only. Standard evidence collection techniques shall be utilized; battery operated or other non-hydrocarbon-fueled tools/equipment shall be utilized to obtain such evidence.

10.00 SCENE SECURITY: The IC shall ensure that all fire scenes are secured pending the conclusion of the fire investigation. In those situations where the fire is undetermined or suspicious in nature, the IC shall ensure that the RLFD, in coordination with the law enforcement agency having jurisdiction, maintains the security of the scene.

11.00 PROCEDURES: The Captain-Fire Prevention shall conduct and coordinate fire investigations that meet the following criteria:

- ◆ Any fire that has an estimated damage amount in excess of \$1,000, ***excluding*** vehicle fires. This figure shall include contents, structure, smoke, and fire and water damage.
- ◆ All fires resulting in serious injury and/or death.
- ◆ All fires in which the cause and origin cannot be determined.
- ◆ All fires that appear to be incendiary in nature.
- ◆ Any fire that the IC feels uncomfortable in making a cause and determination origin.

For vehicle fires isolated to engine compartments and if the vehicle is three (3) years old, the company officer, or IC shall conduct the investigation. If the area of origin is outside of the vehicle appears to be incendiary in nature, and/or a fatality is involved, the Captain-Fire Prevention shall conduct the investigation.

For fires not meeting the criteria listed above, the company officer or IC shall be responsible for conducting the cause and origin determination.

12.00 COORDINATION: All fire investigations shall be done in cooperation and coordinated with the Rice Lake Police Department or the Barron County Sheriff's Department, depending on jurisdictional authority.

13.00 OUTSIDE AGENCY ASSISTANCE: The IC or Captain-Fire Prevention shall ensure that Department of Criminal Investigations (DCI) is notified when a fire meets the following criteria:

- ◆ Any fire that causes death or serious bodily injury in which unlawful activity is known or suspected.
- ◆ Any fire that causes death or serious bodily injury that the fire cause is undetermined.
- ◆ Any fire where the dollar loss is in excess of \$500,000 and is suspected to be incendiary in nature.
- ◆ Multiple fires that involve different buildings in the same general location that occur around the same time with similar circumstances.
- ◆ Any explosion that is not an obvious accident.
- ◆ Any incendiary fire that insurance fraud is suspected and assistance will be needed in obtaining records.
- ◆ Any fire that is of an undetermined nature where the support of DCI would be needed to determine the cause or assist with the investigation.
- ◆ Where the magnitude of the incident would overwhelm local resources.
 - The State Fire Marshal must make the request for the Alcohol, Tobacco, and Firearms (ATF) National Response Team (NRT).

- As a guideline, the ATF NRT requires a maximum of 24 hours from the time of the activation to that of arrival on scene.

14.00 MEDIA RELEASE: A RLFD media release shall be prepared and distributed as set forth by established guidelines. Media releases for fires involving joint agency involvement shall be coordinated with the appropriate agency/agencies prior to distribution.

15.00 COORDINATION: Due to the number and nature of agencies involved in a fire investigation, it is imperative that each agency involved understands and approve of the policies and procedures contained within this policy. For that purpose, the following agencies have concurred with the procedures outlined and offer their signatures to attest:

Bradley E. Beffa
Chief, Rice Lake Police Department

Richard A. Miller
Barron County Sheriff