

Massachusetts Fire District Fourteen P.O. Box 472 Hudson, MA 01749 508-928-2295

REGIONAL FIRE INVESTIGATION TEAM FIRE ORIGIN AND CAUSE INVESTIGATION REPORT

Date of Report: Date

NFIRS Incident Type:

Incident Street Address/Location:

Incident Date/Time (first reported):

Fire Department Incident # (host community):

Incident Type

Address or Location

Date, Time

Incident #

PRELIMINARY / FINAL REPORT

PARTICIPATING FIRE INVESTIGATORS:

The below listed personnel jointly participated in the fire investigation on <u>day, date</u>, (if applicable) through <u>day, date</u>.

Name (Lead Investigator)

Department

Department Phone #

Name <u>Name</u> Department

Department Phone #

Department Department Phone #

[Repeat the same format for each participating fire investigator]

The below listed personnel rendered special assistance to the participating fire investigators on <u>day, date</u>, (if applicable) through day, date.

Name Name

Title Title <u>Agency</u> Agency Agency Phone # Agency Phone #

[Repeat the same format for each person]

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SYNOPSIS

I.

- 1. On <u>Day, date</u> at <u>time</u>, the <u>City or Town</u> fire department received a report of <u>initial reporting description (i.e., fire, smoke)</u> at <u>Address</u>. The report was received by <u>manner of transmission (i.e., phone)</u>. A box alarm was struck and the following units under the command of <u>First Responding Incident Commander</u> responded to the scene, <u>Unit # commanded by</u>, <u>and</u>. The weather at the time of alarm was <u>temp: visibility; surface: wind</u>.
- 2. The site of the alarm was a <u>residential, commercial, industrial, other building</u>, which faced <u>direction</u> onto <u>street</u>. Arriving units discovered <u>nothing showing; light smoke; heavy smoke; flame; heavy flame; total involved location of fire evidence</u> upon their arrival. Suppression operations were immediately begun. The fire <u>was or was not</u> quickly extinguished. The blaze <u>did or did not</u> require additional alarms. [If the fire is a multiple alarm, describe the full extent of the response and who eventually took command over all suppression operations.] There were or were no <u>number of</u> deaths caused by the blaze. There were or were no <u>number of</u> persons injured as a result of the blaze. <u>Number of</u> people were left homeless. The fire <u>did or did not</u> extend to adjoining properties. The fire caused an (estimated <u>amount of</u> dollars) damage.
- 3. On <u>Day, date</u> at <u>time</u>, the Massachusetts State Police Fire & Explosion Section, assigned to the Office of the State Fire Marshal, received notification of this fire from <u>source</u>. <u>Trooper (SP)</u> was assisted in this investigation by <u>identify other troopers and agencies</u>. As a result of this investigation, the cause of the fire was ruled <u>incendiary, accidental, natural, undetermined</u>. The case <u>has been closed or remains open</u> at this time. The Massachusetts State Police Fire & Explosion Section has <u>retained or referred</u> the follow up investigation. [If referred, indicate to what agency or department].

II. FINDINGS

A. BUILDING/STRUCTURE INFORMATION

- 1. The site of the fire was a (<u>describe in detail): Include type of building construction, construction material, roof construction, type of siding, number of floors, square footage, location of stairwells and shafts, type of basement. The building faced <u>direction</u> onto <u>street</u>. Use and occupancy group classification of this structure is (<u>designated property use and occupancy group classification according to the fire safety and relative hazard involved</u>).</u>
- 2. For the purpose of orientation, the following designations will be utilized henceforth in this report: Each side of the structure will be assigned an alphabetical designation, "A", "B", "C", and "D". These designations remain constant for the interior and the exterior of the structure. The designations will begin with what is considered the front side of the structure, and proceed clockwise with each side designated as follows: The "A" side of the structure will be the front of the structure facing the street. Side "B" will be the left side of the structure as you face the front entrance. Side "C" will be the rear of the structure. Side "D" will be the right side as you face the front entrance.
- 3. The location, including building side designation, of the utilities are as follows: (as applicable: <u>Gas service, Electrical service, Telephone, Water, Cable, Oil, Other</u>).

- 4. The owner of the property was identified as <u>name, address, DOB, SS#, phone#</u>. He/She was interviewed by <u>Investigator</u> on <u>date and time</u>. Ownership of the site was executed on <u>date</u>. The property was under the mortgage(s) or (other finance agreement) with <u>Name the Firm or Person</u> for <u>amount</u>. [List all mortgages or finance interests and the amount involved]. The property <u>was or was not</u> insured. It was insured by the (<u>Name the Carrier</u>) for <u>amount</u>. [List all insurance carriers with interest on the site].
- 5. There were <u>number of</u> tenants on the property. (Tenant #1 <u>name, address, DOB, SS#</u>) was leasing space <u>location on the site</u> and was using it for <u>usage (describe)</u>. The tenant had been on the property since <u>date</u> and was paying <u>amount</u> rent. (Tenant #1 <u>name</u>) carried insurance on his/her property. The value of the coverage was <u>amount</u>. The carrier was identified as <u>name</u> <u>carrier</u>.

[Repeat the same format for each tenant, bypass those that do not apply]

6. There <u>were, had been, or had not been</u> renovations to the property. These consisted of <u>describe the renovations briefly</u>. The renovations were intended to <u>purpose of renovations (i.e., roof leak, hazmat, etc.)</u>. The work <u>was being done or has been done</u> by <u>company or person</u> at the cost of <u>amount</u>. Financing for this work was provided by <u>Name firm or person</u>.

B. VICTIM LIST

1.	<u>Name</u>	<u>DOB</u>	SS#	<u>Address</u>	<u>Phone</u>
2.	<u>Name</u>	<u>DOB</u>	SS#	<u>Address</u>	<u>Phone</u>

[Repeat the same format for each victim]

C. VICTIM INFORMATION

- 1. (Victim #1) <u>died or was injured</u> as a result of this fire. He/She was found <u>location found on site</u> by <u>person (rescuer)</u>. His/ Her condition at the time of discovery was (<u>describe physical condition</u>). The victim was removed from the scene by <u>person</u> and taken to Hospital or Funeral Home or Morque.
- 2. The victim underwent medical treatment, which was provided by <u>Physician</u>. Medical examination revealed <u>diagnosis</u> [Describe required treatment and final disposition].
- 3. (Victim #1) was pronounced dead at (<u>Location</u>) on <u>Date</u> at <u>Time</u> by <u>Physician</u>. The attending Medical Examiner was <u>name</u>. An autopsy was performed on <u>date, time</u> at <u>location</u> by State Pathologist <u>name</u>. The cause of death was determined to be the result of (<u>explain cause of death</u>).

[Repeat the same format for each victim, bypass those that do not apply]

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D. WITNESS LIST

 Name
 DOB
 SS#
 Address
 Phone

 Name
 DOB
 SS#
 Address
 Phone

 Address
 Phone

[Repeat the same format for each witness]

E. WITNESS STATEMENTS

- 1. The investigation conducted several interviews with the following witness(es). The last person to be on the premises prior to the fire was <u>name</u>, <u>DOB</u>. He/She had been on the site for <u>what purpose</u>. <u>Witness name</u> had originally arrived at the premises at <u>time</u> on <u>date</u>. He/She left the premises at <u>time</u>: <u>date</u> and went <u>to what location</u>. While on the property <u>witness name</u> had been in the following areas: <u>all areas in sequence in the building</u>. <u>Witness name</u> reported the following observations and descriptions while on the property: <u>Describe either nothing unusual</u>, <u>something unusual</u>; <u>describe anything</u>, <u>which indicates fire problem</u>. [Repeat the same format with each witness].
- 2. The fire was discovered by <u>Name, DOB</u> at <u>Time</u> on <u>Date</u>. He/She was <u>what was person doing, where was he and why was he there</u> at the time of discovery. <u>Witness name</u> provided the investigation with the following account of his/her observations and descriptions at that time: <u>Describe full statement pertaining to original views of the fire</u>. [Repeat same format with each witness].
- 3. The first responding Police Officer (s) to arrive on the scene of the fire was <u>Officers name and department</u>. He/She became aware of the fire as the result of <u>routine patrol, citizen advised, radio transmission, other.</u> <u>Officers name</u> provided the investigation with the following account of <u>his/her</u> observations and descriptions of the fire <u>Describe full statement pertaining to the original views of the fire</u>. [Repeat the same format for each additional witness].
- 4. The first responding fire unit to arrive at the scene was <u>Unit #</u> commanded by <u>Officer/Commander</u>. On the crew were Firefighters <u>names</u>. <u>Name of Commander</u> reported that his first observations of the fire condition at the site were made <u>location</u> <u>first saw evidence of the fire</u>. <u>He/she</u> described the condition of the site as follows: <u>Describe his/her first views and assessment of the scene</u>. <u>Name of Commander</u> ordered his crew to take the following action: <u>what action did the first unit take</u>.
- 5. <u>Firefighter name</u> was (the, one of the) first firefighters to enter the fire scene. He/she had been ordered into the scene by <u>Commander</u>. <u>Firefighter name</u> provided the following remarks concerning the pre-entry condition of the scene: <u>description of site prior to entry (fire condition)</u>. The initial point of entry was identified (<u>first place they tried to get in</u>). The entry point (was or was not) secured. [Where other sites attempted and were they locked or barred?] The actual point of entry was identified as <u>Place where they actually got inside</u>. [Was it found to be secured? Was forced entry required to get in at this point? Was entry at an unsecured point?]. After entry was <u>condition, location of lowest flame, heaviest heat, flame reactions to water, smoke detector heat detector operation, explosions, odors, suspicious or odd circumstances.</u>

[Repeat the same format for other witnesses]

- 6. <u>Name of officer</u> took overall command of the fire suppression operations at <u>time</u> on <u>date</u>. He/She relieved <u>Name of officer</u>. Upon taking command of the scene, he/she described the fire situation as follows: <u>area of heaviest fire</u>, <u>direction of extension difficulties encountered sprinkler or smoke detector operations, suspicious circumstances, suspected point of origin, information as to cause.</u>
- 7. During his/her interview with the investigation, <u>Owner's name</u> provided the following account of his/her activities for the period of time preceding the fire: <u>Provide a complete alibi for 24-hour period prior to the fire, Names of all persons and places included</u>. He/she stated that he/she was notified about the fire by <u>person who notified and how</u>. <u>Owners name</u> then <u>took following action</u>. <u>Owner's name</u> (did or did not) have an opinion as to the cause of the fire. He/she stated that the cause of the fire was <u>Owner's stated cause</u>.

[Repeat the same format for each owner of the property]

8. <u>Owner's name</u> has access to <u>number of</u> vehicles. These vehicles are described as <u>year, color, model, make and</u> <u>registration</u> and owned by <u>owner's name</u>. [Repeat for each vehicle with access]. The vehicle that <u>owner's name</u> most commonly uses is <u>identify the vehicle</u> owned by <u>vehicle owner's name</u>. [If the owner responded to the scene after notification, describe the car and the owner that he used to get to the scene].

[Repeat the same format with each owner]

F. FIRE SCENE EXAMINATION

- 1. On <u>date</u> at <u>time</u> an examination of the fire scene was conducted by <u>name each agency and representative (i.e., regional investigation team, state police investigators, SP Air Wing, building/electrical/gas inspectors). Entry onto the premises was made <u>during fire suppression, immediately following fire suppression, with owners consent, with search warrant</u>. [If a warrant was used, indicate the date, time, and court issuing it and indicate the officer that applied for it]. The scene examination concluded on <u>date</u> at <u>time</u>.</u>
- 2. The fire scene examination methodology consisted of documentation of the exterior then the interior of the structure. A systematic approach was utilized examining areas observed as least damage to areas of heaviest damage.
- 3. Exterior examination of the fire site revealed <u>area of greatest, outside observable fire damage, location (floor, level, side, etc).</u> Describe lowest external point and pattern of extension.
- 4. Interior examination of the fire site revealed that the lowest and most substantial area(s) of fire damage (was or were) located at on floor, piece of furniture, at an appliance, at a utility, at a pile of debris, other. (Several separate points). Describe the point where all fire damage comes together at the low point. Examination of the gross fire damage pattern on the scene revealed that all the damage proceeded from (this or these) area(s) in a "V" shaped pattern, which is the characteristic indicator of a fire's point of origin. [In cases of multiple origins, add that your examination revealed that each low point was separate and unconnected to the others].
- 5. The low burn area(s) was or were examined in closer detail. This examination revealed: <u>Floor: describe intensity, fingerlike contours on floor burns; Furniture: intensity, annealed springs, extent of damage; Pile of Debris: extent of burn; Appliance: heat effects, extent of damage, melting, seizing; Utility: melting, seizing; other: intensity, melting.</u>

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- 6. The investigation revealed that the low burn area was frequented by <u>Name of Person (s)</u>. The area was used for <u>what activity</u>. The last person at that location before the fire was <u>name of person</u>. He/she was there on <u>date</u> at <u>time (why?)</u> and <u>did or did not</u> report any problems at this time. *If problems,* The problems were described as follows: <u>any indication of pre fire condition, smell, light dimming, smoke, other.</u>
- 7. The property was heated by <u>Describe the unit in detail (make, model)</u>. The heating unit was located <u>location on premises</u>. The unit was fueled by <u>type of fuel, in what container</u>, which was located at <u>location on premises</u>. The system was examined by <u>official's name</u> on <u>date, time</u>. The result of this examination revealed <u>describe results of the examination</u>. <u>Witness name</u> advised that there had been problems with the heating system. He/she described the problems as follows: <u>delayed ignition, blow back,</u> <u>last service, other problems</u>.
- 8. The property was serviced by a <u>describe capacity of electrical system (i.e., 200 AMP/400 AMP, volts, etc.)</u>. The main panel box was located <u>location on premises</u>. The panel controlling circuits in the low burn area was located <u>sub panel if any</u>. There are <u>number of</u> outlets and <u>number of/and describe</u> electrical appliances in the low burn area. The components of the electrical system were examined by <u>official(s)</u>. The result of this examination revealed <u>describe the examination of electrical system, panel box condition, conduit condition, breakers or fuses for over current. Witness name advised that there had been problems with the system. The problems were described as <u>short circuits, dimming, lack of power, etc.</u></u>
- 9. <u>Witness name</u> identified areas within the building that contained special fire hazards. The hazards were described as <u>identify area and activity</u>. These hazards were located in <u>location</u>. This information <u>was or was not</u> confirmed by <u>scene</u> examination, witnesses or both.
- 10. <u>Witness name</u> identified areas within the building that contained flammable fuels. The fuels were described as <u>types and amounts</u>, <u>stored in what kind of containers</u>. They were located in <u>locations</u>. This information was or was not confirmed by <u>scene</u> examination, witnesses or both.

E. SAMPLES AND ANALYSIS

- 1. <u>Name</u> captured <u>number</u> of digital photographic images in the course of the fire scene analysis. No other evidence was collected during this investigation.
- 2. Samples were removed from the scene for lab analysis. The items were taken on <u>date</u> by <u>officer's name</u>. The samples consisted of the following <u>describe item and where it was taken from, Add if K-9 detection dog was used</u>.
- 3. The samples were submitted to <u>what lab</u> on <u>date and time (who)</u>. They were examined by <u>lab technician</u> on <u>date</u>. The results of the examination revealed the following <u>result of the examination</u>.
- 4. Name produced a diagram of the fire scene (not to scale).

F. SECURITY

1. <u>Number</u> entrances onto the property were identified. The entrances are listed as follows: <u>list number and location</u>. The property was protected by <u>electronic system</u>, <u>access control through key management</u>, <u>other protection</u>. [Was the electronic system in use or was it off? Describe the general system and its operation, indicate where the control panels were and what condition they were found. Indicate whether the system was supervised.] Windows <u>were or were not</u> secured by <u>describe how windows were secured</u>, <u>if secured</u>.

[Were windows included in the electronic system]?

2. The investigation revealed that *there was or was not* evidence of forced entry. The point of entry was identified as <u>location</u>. Entrance had been gained by <u>manner of entry</u>. The entry area was processed for fingerprints by <u>name of technician; any recovered?</u>

[Explain how electronic systems were by-passed]

3. The investigation revealed that the locked condition of the entry points at the time of the fire was: <u>secured, unsecured, undetermined</u>. The conditions of these points are listed as follows: <u>list location and condition</u>. The condition was determined by <u>witness interview or on scene examination</u>. The security conditions of the windows were <u>secured, unsecured, undetermined, explain).</u>

G. FIRE PROTECTION

- 1. The property was protected by a fire protection system which featured: <u>describe whether heat/smoke detectors, local alarm, supervised system, central station, hardwired detectors, sprinklers (wet or dry), pull stations, other. Location of alarm panel, examine and condition. The fire protection system was last serviced on <u>service date</u> by <u>service company/technician</u>.</u>
- 2. The system <u>did or did not</u> operate properly at the time of the fire. [Describe its operation, describe malfunctions if any, and include any evidence of deliberate intent to obstruct the systems operation]. <u>Examine the panel box</u>, <u>look for electronic</u> bridges, batteries dead, other evidence.
- H. FIRE PROGRESSION TO OTHER STRUCTURES
- 1. The fire at this location <u>did or did not</u> progress to other structures.

[Describe other involved structures]

I. ESTIMATED PROPERTY LOSS

1. Estimated Building/Structure Loss: [dollar value estimate]

2. Estimated Contents Loss: [dollar value estimate]

3. Estimated Property Loss: [dollar value estimate – Building/Structure Loss plus Contents Loss]

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1. Weather data was collected from [weather data source].

[Describe weather conditions at the time of the fire]

III. CONCLUSIONS

- 1. Based upon the information compiled during the course of the investigation, and derived from scientific methodology, it is this investigators opinion, that the origin (s) of this fire was <u>location of the low burn point or other point(s) of origin</u>, and that the cause was <u>incendiary, undetermined, accidental, natural</u>. It is further concluded that the building was or was not secured at the time of the fire.
- 2. The operation of the fire protection system *performed or failed to perform* as it was designed. The failure of this system was due to *explain*.

IV. RECOMMENDATIONS

1. This investigator respectfully recommends that this case:

Remain open pending further investigation

Remain open pending further investigation by Dept. or Agency

Remain open pending further information

Be closed

٧.	ATTACHMENTS			3	
	[i.e., Voluntary Statements, Firefighte	er Statements, Owner/0	Occupant Initial Intervie	ews}	
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VI.	REFERENCE MATERIAL				
	[List any reference material utilized to compile data, i.e.	., assessor's property o information]	cards, permits issued,	scientific fire behavi	ior
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The action	e preceeding report is representative of the prominent kno ions carried out during the course of the investigation of t	own facts relative to thi his incident.	is case, and is not inter	nded to represent a	11
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