



APX DATA Fire Investigations

Structure Fire Field Notes

CASE NUMBER: 123564 **INVESTIGATOR:** _____

DATE: 2022-05-18

TIME NOTIFIED: 02:52 **ARRIVED ON-SCENE:** 03:01

ADDRESS: 420 E 143rd St, Bronx, NY

SCENE COMMANDER: Assistant Chief Kevin Brennan **FIRST-IN UNITS:** E45, T41

Investigation Summary

On 2022-05-18, at approximately 2:52AM, the APX Fire Department responded to a reported Structure Fire at 420 E 143rd St, Bronx, NY. The First-in Unit was E45, T41, and arrived at 3:01AM. The Scene Commander was Assistant Chief Kevin Brennan. Furthermore, the following agency/agencies were on scene:

- NYPD Bill Thomson

The weather the time of the fire was the following:

- Weather: Rain
- Temperature: 52
- Wind Direction: NNE
- Humidity: 20%

Investigator Alex Craib arrived at the scene at 3:01AM. Alex Craib completed an initial walkthrough of the fire scene, then spoke to property owner John Smith, and the following occupants and/or witnesses:

- Witness: Jack Bower

After completing a fire scene investigation, it was determined that the area of origin was the Electrical Panel in Mechanical Room, with a fire cause determination of Failure of equipment or heat source.

FIRE REPORTED BY: Neighbor

ADDITIONAL AGENCIES INVOLVED

NYPD	Bill Thomson	
AGENCY	NAME	BADGE #
PHONE # _____		

PROPERTY LOSS

TOTAL SQUARE FOOTAGE:	<u>3000</u>
ESTIMATED PROPERTY VALUE (\$):	<u>\$381150.00</u>
PERCENT DAMAGED (%):	<u>98</u>
ESTIMATED PROPERTY LOSS (\$):	<u>\$373527.00</u>
ESTIMATED CONTENT VALUE (\$):	<u>\$285862.50</u>
CONTENTS DAMAGED (%):	<u>100</u>
ESTIMATED CONTENT LOSS (\$):	<u>\$285862.50</u>

WEATHER CONDITIONS AT TIME OF INCIDENT:

CLEAR <input type="checkbox"/>	RAIN <input type="checkbox"/>	SNOW <input type="checkbox"/>	SLEET <input type="checkbox"/>	OTHER <input type="checkbox"/>
TEMP <u>52</u>	WIND DIRECTION <u>NNE</u>	VELOCITY <u>8</u>	HUMIDITY <u>20</u>	
ELECTRICAL ACTIVITY IN AREA:	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>		

OWNER

Smith	John		
LAST NAME	FIRST NAME	MIDDLE NAME	
ADDRESS:	<u>420 E 130 St, Unit 305</u>	DOB:	<u>1977-02-09</u>
LICENSE #:	<u>f858g84884</u>	SSN:	<u>455475577</u>
PHONE (H):	<u>555-3456-4358</u>	PHONE (C):	_____
SMOKER:	YES <input type="checkbox"/>	NO	<input checked="" type="checkbox"/>

OCCUPANT (IF DIFFERENT THAN OWNER)

LAST NAME	FIRST NAME	MIDDLE NAME	
ADDRESS:	_____	DOB:	_____
LICENSE #:	_____	SSN:	_____
PHONE (H):	_____	PHONE (C):	_____
SMOKER:	YES <input type="checkbox"/>	NO	<input type="checkbox"/>
INSURANCE:	_____	POLICY #:	_____

WITNESSES/ADDITIONAL OCCUPANTS

Bower	Jack		
LAST NAME	FIRST NAME	MIDDLE NAME	
ADDRESS:	<u>426 E 143rd St</u>	DOB:	<u>1984-05-01</u>
LICENSE #:	<u>f848f8f8f8</u>	SSN:	<u>3545848</u>
PHONE (H):	<u>555-556-3675</u>	PHONE (C):	_____
SMOKER:	YES <input type="checkbox"/>	NO	<input checked="" type="checkbox"/>

SUSPECT(S)

LAST NAME	FIRST NAME	MIDDLE NAME
ADDRESS: _____	DOB: _____	
LICENSE #: _____	SSN: _____	
PHONE (H): _____	PHONE (C): _____	
SMOKER:	YES <input type="checkbox"/>	NO <input type="checkbox"/>

INSURANCE/MORTGAGE INFORMATION

INSURANCE CO:	<u>Belair Direct</u>
INSURANCE AGENT:	<u>Sean Bean</u>
PHONE NUMBER:	<u>555-134-6543</u>
POLICY NUMBER:	<u>9f848f8489f</u>
ANY PREVIOUS FIRES:	<u>Yes</u>
YEAR PURCHASED:	<u>2000</u>

HAZARDS/PROBLEMS	YES	NO	NOTES
SMOKE DETECTORS WORKING	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
# NOT WORKING			20
ALERTED BY ALARM	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Vacant property.
HEAR ALARM	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Vacant property.
UTILITIES - NATURAL GAS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Most utilities shut off, but electrical still running. Panel destroyed in fire.
UTILITIES - PROPANE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Most utilities shut off, but electrical still running. Panel destroyed in fire.
UTILITIES - ELECTRICITY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Most utilities shut off, but electrical still running. Panel destroyed in fire.
GAS LEAKS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ANYONE SMOKING INSIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No occupants. Witnesses indicated no evidence of smokers outside anywhere within proximity of building.
ANYONE SMOKING OUTSIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No occupants. Witnesses indicated no evidence of smokers outside anywhere within proximity of building.
CANDLES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ELECTRICAL ITEMS LEFT RUNNING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Dehumidifier in ground floor mechanical room. Destroyed in fire.
ODORS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
APPLIANCES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
HEAT/AC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
FIREPLACE/WOODSTOVE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
NEW CONSTRUCTION/REMODEL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ELECTRICAL/REWIRING	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
WELDING/SOLDERING	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ANY SERVICE WORK	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ANY PROBLEMS WITH HOUSE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Vacant property. Flooding in Spring 2022 led to extended use of dehumidifier
WHO HAS KEYS TO THE RESIDENCE?			Owner has keys to residence.

FIRE ORIGIN

NEED: Structure fire occurred

PROBLEM: What was the origin of the fire

COLLECTED DATA:

On initial fire scene walkthrough, the following data was collected.

- A portable electric dehumidifier was running unobserved in the mechanical room. This device was destroyed in the fire. Witness statement from neighbor indicated that the device was in operation and unobserved at the approximate time of the incident.
- Initial inspection of the electrical panel suggested that the model was outdated. Owner statement indicated that the panel had not been serviced in over 5 years.

DATA ANALYSIS:

Upon conduction of burn analysis and witness statements from both neighbors and owner, it is apparent that the most likely area of origin was the mechanical room. Scorch marks are most prevalent in this location.

HYPOTHESES

ORIGIN HYPOTHESIS

Mechanical Room

HYPOTHESIS TYPE

Final

IS THERE A COMPETENT IGNITION SOURCE AT THE ORIGIN?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
DOES THE ORIGIN EXPLAIN THE DATA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
ARE CONTRADICTIONS RESOLVED?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
DOES AN ALTERNATE ORIGIN EXPLAIN THE DATA EQUALLY WELL?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

FINAL HYPOTHESIS:

Upon analysis of the fire origin, it was determined that the area of origin as the mechanical room on the south side of the building.

FIRE CAUSE

NEED: Structure fire occurred

PROBLEM: What was the cause of the fire

COLLECTED DATA:

- Owner statement indicates that there was a previous fire in October 2021 attributed to a malfunctioning electrical appliance on the top floor.
- Witness statement indicated smoke appeared to originate from ground floor.

- Due to extended vacancy, building electrical not inspected by electrician in over 10 years.

DATA ANALYSIS:

- On initial fire scene walkthrough, burn/char analysis suggested that the electrical panel was the point of origin.
- Investigation of panel by licensed electrician noted large number of suspected deficiencies in the panel:
 - Outdated model
 - exposed wires
 - loose caps
- Investigation of burn patterns within the panel support fire cause being faulty electrical wiring leading to accidental ignition.

HYPOTHESES

CAUSE HYPOTHESIS

Faulty wiring in electrical panel

HYPOTHESIS TYPE

Final

HYPOTHESIZED IGNITION SOURCE LOCATED AT AREA/POINT OF ORIGIN	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
HYPOTHESIZED IGNITION SOURCE CAN IGNITE THE FIRST FUEL	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
HYPOTHESIZED CAUSE CONSISTENT WITH ALL KNOWN FACTS	YES <input type="checkbox"/>	NO <input type="checkbox"/>
OTHER CAUSE HYPOTHESIS EXPLAINS THE DATA EQUALLY WELL	YES <input type="checkbox"/>	NO <input type="checkbox"/>

FINAL HYPOTHESIS:

Faulty electrical wiring in the electrical panel ignited material within the panel, which in turn spread to the wall paneling to which the panel was attached. This faulty wiring was not caught during inspection because the building has been vacant for over 8 years

Cause Determination: Failure of equipment or heat source



Side A, Facing south



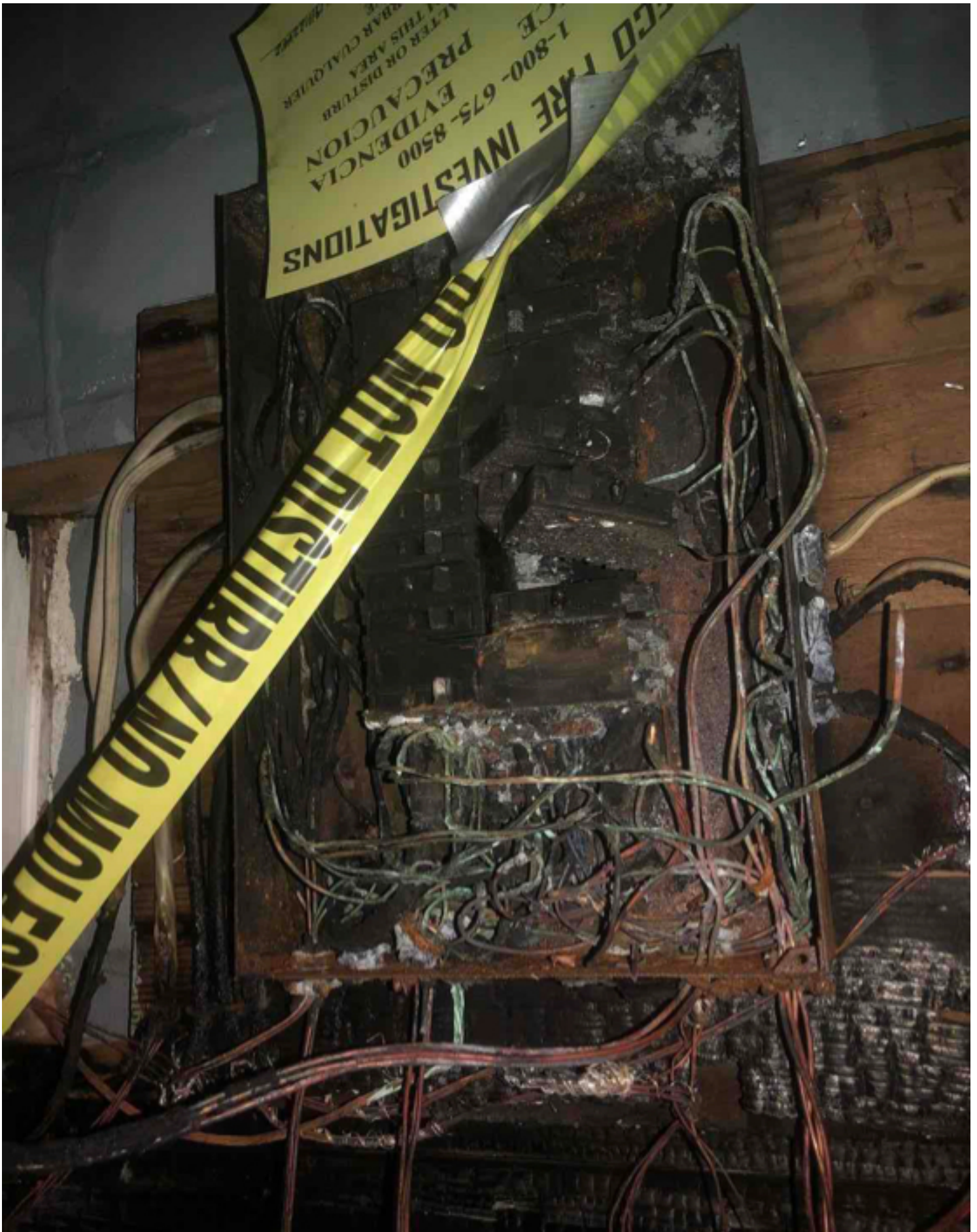
Second Floor, South Side



Second Floor, North Side



Mechanical Room, facing South



Electrical panel on ground floor, South side of building. Destroyed.