LEGAL / CASE STUDIES / AFTER ACTION REPORT

GOOD EVENING. Individually and on behalf of all the members of the FIRE SAFETY COMMITTEE - welcome to this presentation. Prior to today the members have attended dozens of meetings collectively as a group and separately as sub-committees in performing their assigned task.

As noted by the mayor in his opening remarks the term FIRE SAFETY is a much broader and more comprehensive term than FIRE SUPPRESSION, the latter of which is within the purview of the Garden City Fire Department. The term FIRE SAFETY refers to precautions taken to prevent or reduce the likelihood of a fire that may result in death, injury, or property damage, or in the alternative, to alert those in a structure to the presence of an uncontrolled fire in the event one occurs. These actions are taken to better enable those threatened by a fire to survive in and evacuate from affected areas, or to reduce the damage caused by a fire.

Spanish philosopher George Santayana is credited with the aphorism, "*Those that do not learn from history are condemned to repeat it*". Following this sage advice, the initial objective of this Sub-Committee was to create a protocol to Obtain, Assemble and Distribute Information to aid in creating a positive FIRE SAFETY environment. For this process to be effective all stakeholders must actively participate, all stakeholders must contribute to the process and all stakeholders must recognize that reticence and fear cannot be allowed to sabotage the process. Otherwise, like a stool with three legs if one leg does not support its weight the chair falls.

Thus, in reviewing the situation that confronts us, the key elements in preparing these REPORTS are:

i. *Objectives* - what are we trying to achieve;

ii. *Observations* - what actually occurred;

iii. *Recommendations* - what should we implement to avoid future occurrences and need to act upon to achieve the stated objectives;

iv. *Corrective Actions* – following an incident occurring it is often the most difficult to recognize, investigate, accept and implement those needed changes;

Accordingly, to properly implement a FIRE SAFETY PLAN the Village must ensure that ALL participants and stakeholders are engaged in the process and appreciate the significance of this effort. Concerning the actions of the entire Fire Safety Committee this was accomplished by the Mayor in the selection of qualified applicants for the committee who had the knowledge and experience required. Further, there was the inclusion of the GCFD Chief Officers, both present and past on the committee.

From the initial meeting the Mayor stressed - there is NO PRE-SET OBJECTIVES; the committee is to let the FACTS dictate the results which are considered to be in the BEST INTERESTS OF THE VILLAGE. There is always the risk of "Paralysis by Analysis" and it was impressed by the Mayor that the committee must timely implement the process to enable each stakeholder the ability to obtain, evaluate and create Actionable Data for use by the Village and GCFD.

There have been different position adopted on recommendations between the members, however all recognized that their input was valuable in the end it will be the Board Of Trustees that determines what is important and is to be implemented.

Each participant was expected to make a diligent effort to undertake what is BEST FOR THE VILLAGE. Each participant is to let the past behind and work for a better future. Each sub-committee was expected to review what presently existed and do what it takes to transform GOOD to GREAT. Key to this process is determining if the committee and village have the right people for this task; if not, obtain those persons with the knowledge and experience that is needed. One of those processes was undertaking a Aneeds assessment@ on what must be done by this committee and performed with a timeline / due date established and objectives well-articulated and thought through prior to any action to implement and incur costs has occurred. Some of the elements that were integral to this "needs assessment" are outlined below:

a. Examining what presently exists
   b. Understanding what has recently occurred
   c. Sources of Information
   d. Requests for Information
   e. Assemblage of Information
   f. Input from GCFD, Village Departments and Executive Staff
   g. Distribute / Make Available Information to all the Committee member
   h. Analysis of Information
   i. Active listening to the GCFD and Executive Staff
   j. Distillation and Verification of Information
   k. Creating Actionable and Defined Objectives
   l. Setting forth INITIAL Proposed Suggestions and Recommendations

As noted by the Mayor in his opening remarks the term FIRE SAFETY is a much broader and more comprehensive term than FIRE SUPPRESSION which is within the purview of the Garden City Fire Department. The term FIRE SAFETY refers to precautions taken to prevent or reduce the likelihood of a fire that may result in death, injury, or property damage, or in the alternative, to alert those in a structure to the presence of an uncontrolled fire in the event one occurs. These actions are taken to better enable those threatened by a fire to survive in and evacuate from affected areas, or to reduce the damage caused by a fire.

Fire safety measures are even inclusive of those that are drafted during the initial planning phase, prior to the construction of a building, or implemented within structures that are already standing, and that information taught to occupants of a building.

This inquiry into the overall concept of FIRE SAFETY needs to fundamentally address the core consideration is WHO IS RESPONSIBLE FOR FIRE SAFETY – Village, the residents, and business owners must work together to increase FIRE SAFETY. There is significant overlap in responsibility for Fire Safety; however, like a Venn diagram, the following is a prioritized shortlist that will promote and ensure enhanced FIRE SAFETY:

1- RESIDENTS / OCCUPANTS / OPERATORS OF FACILITIES
   a. Just like in medicine, prevention is a core concept in Fire Safety
   b. Have multiple fire extinguishers throughout your home
   c. Have as many smoke alarms as you have rooms in your house.
   d. Examine the contents of a room, office, or restaurant and assess for Fire Safety
   e. Means of egress and escape should be clear of items including windows
   f. No business or individual will be allowed to violate state, county, or village codes and/or ordinances
   g. Propane tanks are to be stored outdoors
   h. Smokey the Bear - ONLY YOU CAN PREVENT FOREST FIRES,

2- PARENTS
   a. Explain best practices in Fire Safety
   b. Have a home evacuation plan and practice fire drills
   c. Do not leave a candle or open flame unattended
   d. Matches are a tool not a toy
   e. Stop drop and roll

3- BOARD of TRUSTEES
   a. Financial commitment to support proper facilities and equipment.
   b. Investment in ADDITIONAL EDUCATIONAL Fire Safety activities within the community.
   c. Establishment of Fire Safety Laws, Regulations, Standards, Practices and Protocols.
   d. Continued attention to good Fire Safety Practices.

4- VGC B Enforcement
   a. DEPT of Buildings
   b. DEPT of Public Works

5- BOARD of EDUCATION – collaboration with Village
   a. Teaching good Fire Safety practices
   b. Collaboration with GCFD for field trips to firehouses

6- GCFD & Volunteer Firefighters
   a. Extinguishment
   b. Recruitment and Volunteering
   c. Training

Simply stated, and recognized by each member of this committee, threats to Fire Safety are referred to as **"Fire Hazards"**. The members of the uniformed services and professionals whose careers are integral to the recognition of Fire Hazards as inclusive of any situation that increases the likelihood a fire may start or may impede escape in the event a fire occurs. Fire safety is often a component of building safety and the duty of each person to be prepared to assist. This obligation was first imposed on the owners of buildings in ancient Rome. Each building owner was required to have an ancient fire extinguisher – simply a water bucket available to throw water on a fire - which unfortunately was a common occurrence. The first organized fire fighting force that can be traced, was established in Rome by Augustus Caesar around 23 BC in response to a major fire that had disastrous consequences.

The term Fire Safety encompasses planning and infrastructure design aimed at reducing the risk of fire, impeding the spread of a fire when one does break out, and designing means for citizens to exit the building. Following planning and development is the establishment of a protocol for the inspection of buildings for violations of the Building / Fire Code prior to being certified for occupancy. An extension of this protocol, members of the GCFD can participate in community outreach by going to schools and educating students on Fire Safety topics.

Fire safety policies commence during the design and apply upon the construction of a building and throughout its operating life. Building codes are enacted by local, and state governments to ensure such features as adequate fire exits, signage, and fire rated construction materials are utilized including fire rated doors, windows, and walls. The Village should be vigilant in enforcing building codes that require the use of fire-resistant building materials, preventative actions, risk mitigation practices, fire safety training, fire-resistant protective clothing, and more. Fire safety is also an objective of electrical codes to prevent overheating of wiring or equipment, and to protect from ignition by electrical faults – this is the source of ignition responsible for several of the most recent fires in the village.

Applicable to this effort, but only known to few, are OSHA's *Fire Industry Standards for General Industry* at 29 CFR 1910. The National Fire Protection Agency (NFPA) also has over 300 codes, standards and guides aimed at ensuring fire safety in workplaces and the in the Fire Service for a paid department NFPA 1710, and volunteer department a NFPA 1720.

Building and Fire codes regulate such requirements, as the maximum occupancy for buildings, theatres, schools, or restaurants. Codes also opine upon means of ingress or egress and how to prevent obstructions to these therein. Under certain circumstances, codes may also require portable fire extinguishers within a building, permanently installed fire detection, occupant notification systems and suppression equipment such as hoses, a fire sprinklers system, and a well-executed fire alarm system design plan. Depending on the building emergency power systems may also be required.

This Village has personnel that are charged with fire safety and who may conduct regular inspections for such items as usable fire exits, proper exit signage, functional fire extinguishers of the correct type in visibly accessible locations, and proper storage and handling of flammable materials. Depending on local regulations, a fire inspection may result in a notice of required action or closing of a building until it remediates violations with fire code requirements.

It cannot be stressed more fervently that the actions of these local authorities in advocating for Fire Safety must be supported - not ignored, obfuscated, or overridden for other considerations. Fire Prevention is the core tenant to Fire Safety; merely because a tragic event did not occur does not mean one will not occur in the future. Fire policies must be in place to dictate training and awareness of occupants or users of a building to avoid obvious mistakes, such as the propping open of fire doors, storing fuel indoors, having working smoke and carbon monoxide alarms, and keeping all ingresses and egresses free from debris. Buildings, especially institutions such as schools, should conduct fire drills at regular intervals throughout the year and use thes opportunities to expand upon fire safety outside of school grounds.

It is recommended that consistent additional efforts in drafting Fire Risk Assessments should occur each time a building, equipment, or process is modified. The owner of the premises and fire department must be made aware of the proper stowage of flammable and hazardous materials. The installation of fire detection and automatic or semi-automatic fire alarm systems should occur to alert the occupant and fire department of an event that requires investigation and action.

Each of us has to the obligation to recognize and abatement of some the common fire hazards that exist and have caused fires, property damage and deaths are:

1. Kitchen fires from unattended cooking, grease fires/chip pan fires
2. Electrical systems that are overloaded, poorly maintained or wiring in poor condition which provides a source of ignition
3. Combustible storage areas with insufficient protection
4. Combustibles near equipment that generates heat, flame, or sparks
5. Candles and other open flames
6. Smoking (cigarettes, cigars, pipes, lighters, etc.)
7. Equipment that generates heat and utilizes combustible materials
8. Flammable liquids and aerosols
9. Flammable solvents (and rags soaked with solvent) placed in listed contained in accordance with NYSFC 304.3.1 et seq.
10. Fireplace chimneys not properly or regularly cleaned that concentrate creosote
11. Heating appliances - fireplaces, wood-burning stoves, furnaces, boilers, portable heaters, solid fuels
12. Household appliances - clothes dryers, curling irons, hair dryers, refrigerators, freezers, boilers

Fire Safety is not static. It must be an active and ongoing consideration by all the residents and businesses in the Village, the Board of Trustees and employees and Garden City Fire Department. It is an imperative that consideration of FIRE SAFETY not be left to chance or the hope of good fortune.

Once the investigation phase ended the committee needed to undertake the process of Review, Analysis, Distillation and Verification of the Information obtained. Dozens of hours were spent seeking and obtaining institutional knowledge. Always, each member was encouraged to appreciate the differences of opinion, all of which are valuable and understand there may be no RIGHT answer. The protocol for tonight is that each of the sub-committees to present a brief overview the information on the topics to which it was assigned. Previously provided to the Mayor, Board of Trustees and Executive Staff were a binder which contains the written report, appendix and some of the underlying data, documents and exhibits developed and utilized in forming the opinion of that committee. That same information provided in the binders is likewise available on the village's Website.

It is recognized by this committed that for many years, more like decades, the Village has allowed "deferred maintenance" of its property - Firehouse 2 & 3 to forgo repairs and needed upgrades. So much so that many have argued the buildings were in a non-salvageable condition. This conclusion by some lead to the proposal for the demolition of the existing structure and building of a "new firehouse", notwithstanding a proper "needs assessment" not being done. That "needs assessment" is presently being done, by utilizing the talents and institutional knowledge of other committee members and securing the active efforts and guidance of the Executive to ensure the buildings are in good working order. We should all be encouraged that this practice has started, will continue and money authorized to ensure the building do not further degrade.

As noted above and provided to the Fire Safety Committee - and now for your consideration - are articles on Methodology for Analysis that was provided to each member in this undertaking and utilized in this process.

a. NFPA 1720
b. Final Report - ICMA - 2012
c. After Action Report
d. Grenfell Tower block fire
e. FDNY - 911 After Action Report
f. Decision Theory
g. Deductive Reasoning
h. Inductive Reasoning
i. Information processing

In applying the Criteria for Evaluation abstracted from the above information there was the paramount need for unbiased verifiable facts to include as lessons learned and documented in an AFTER ACTION REPORT of the recent fires which tragically occurred in this Village. Because of the collaborative approach taken by this FIRE SAFETY COMMITTEE the input of the sub-committees was incorporated into reports commenting on the recent events that was the catalyst in the formation of this committee.

By way of Illustration -

i. 105 Hilton Avenue
   (1) Source of Ignition- Electrical
   (2) The front of the house was fully involved when the alarm was transmitted
   (3) Verified time of the actual events was secured and confirmed by time stamped photographs
   (4) A "duty crew" was present in Headquarters and responded to the scene in minutes
   (5) A PowerPoint presentation of those photographs documented this event.

ii. 148 Washington
   (1) Source of Ignition - Undetermined
   (2) There were no working smoke detectors
   (3) The fire was fully involved prior to being discovered
   (4) It was first observed by a passing Village vehicle who sounded the alarm
   (5) Initial attempts at entry were impossible because of the extensive fire

iii. 41 Spruce Street
   (1) Source of Ignition - Electrical - Extension cord
   (2) The fire spread substantially before being detected
   (3) GCFD responded within minutes of the alarm and quickly extinguished

iv. 130 Stewart Avenue
   (1) Source of Ignition - Water in Circuit Breaker Panel
   (2) Once the alarm was transmitted the GCFD responded in minutes

v. Revel Restaurant - Kellum Drive obstruction
   (1) A Fire Hazard and Risk was created by blocking a roadway
   (2) Fortunately, no injuries or deaths occurred but the Village's good fortune cannot be relied upon in the future
   (3) It is imperative that compliance with the laws and good fire prevention protocols be maintained

History is replete with governments taking ill-advised paths, then years later the citizens of that government are burdened by those ill-fated decisions. The purpose of this committee is investigation those circumstances where tragedy occurred and to identify those circumstances where decisions were made, and actions taken which could have had dire circumstances but did not. Accordingly, an examination of an event - even if a tragedy did not occur - can have a positive benefit upon the lives of our residents, aesthetes of our village, and value of our village in years to come. Accordingly, using the criteria established above an AFTER-ACTION REPORT on the structure outdoor dining structure installed by REVEL warrants comment. The elements in preparing an AFTER-ACTION REPORT are:

1. Objectives - what are you trying to achieve.
   Assist the restaurants in the Village during COVID-19 by expanding the outdoor@ dining program so as to permit structures to be installed on Village property

2. Observations - what actually occurred.
   The structure was not merely an encroachment on Village property it was an obstruction that prevented vehicular traffic, including all emergency vehicles and fire apparatus from use of the roadway.

3. Recommendations - what should the Village seek to avoid in future occurrences and need to implement in order to achieve the objective;
   a. Obtain the input from all stakeholders and ensure compliance with all state and local laws.
   b. Make the applicant (business owner, contractor and professional - engineer or architect) certify that it is in compliance with all the applicable laws;
   c. Obtain Certificate of Insurance from all entities engaged in the project, include owner and contractor with the Village being named as additional insured, and that said policy is primary and noncontributory.

4. Corrective Actions - is often the most difficult to recognize, accept and implemented;
   a. Recognition of how good intentions can result in unintended consequences that need to be explored and avoided.
   b. Insist on full disclosure concerning the ramifications of the intended action, and seek active input from all professionals and stakeholders;
   c. Appreciate that safety must take a priority.

It is appreciated that the Village has consistently in the past and will continue to do so in the future endeavor to cooperate with all businesses to assist in their economic viability. Evidence of this cooperation was the efforts by the Village brought on by COVID-19. The Village did and continues to permit outdoor dining in a manner and location that heretofore was never even imagined.

Also, the totality of fire operations must be understood. Protocol is that the ladder company should strive to enter the location AFTER the first engine company has arrived on scene, and from the same direction. Based on the obstruction imposed by the tent and concrete support that exists this basic tenet of firefighting protocol cannot be implemented. Access to the affected building would be prohibited.

The very difficult "Corrective Action" or lesson learned must be a core tenet of the Village. Notably, that only when an entity is in compliance with the law will a permit be issued. Everyone is treated equally. It is not the obligation of nor is the Village permitted to make accommodations that violate the law.

While time does not permit, as part of the work of the Fire Safety Committee we reviewed the lessons learned and documented in two AFTER ACTION REPORTS, borne of tragedies that could have, or should have been avoided warrants review. Each is on the Village's Website.

a. GRENFELL TOWER block fire that occurred on 14 June 2017, in a 24-story apartment building in North Kensington, West London, at 00:54 BST. The fire was started by a malfunctioning fridge-freezer on the fourth floor. As a consequence of that fire 72 people perished, including two who later died in hospital. More than 70 others were injured, and 223 people escaped. It was the deadliest structural fire and worst UK residential fire since World War II. See annexed documentation

b. FDNY - 911 After Action Report documented the shortcoming in the firefighting procedures and what changes needed to be implemented.

AAR01-AfterActionReport-Defined.pdf

WIKIPEDIA

After action report

An **after action report** (or **AAR**) is any form of retrospective analysis on a given sequence of goal-oriented actions previously undertaken, generally by the author themselves.

The two principal forms of AARs are the literary AAR, intended for recreational use, and the analytical AAR, exercised as part of a process of performance evaluation and improvement. In most cases, AARs are a combination of both. Most analytical AARs are conducted over a contemporary problem or situation that has occurred in the past, is happening right now, or what could happen in the future.

Contents

History

The first AARs were developed by army generals. One of the first and best examples of an AAR is Julius Caesar's "Commentaries on the Gallic War".[1]

Contemporary examples of AARs include project evaluations in business, as well as summaries of large gaming sessions in videogame culture.

Literary AARS

Literary AARs can be formal or informal documents that seek syntax and linguistic improvement. Many research papers published under an academic journal can be considered a literary AAR. There might not be much of a difference between literary AARs and analytical AARs in terms of research papers, but the key difference is analytical seeks to improve performance while literary seeks to improve style.

Analytical AARs

Analytical AARs are formal documents intended to serve as aids to performance evaluation and improvement, by registering situation–response interactions, analyzing critical procedures, determining their effectiveness and efficiency, and proposing adjustments and recommendations.

Objectives

Analytical AARs have three central objectives:

- Identifying problematic issues and needs for improvement
- Proposing measures to counteract problematic elements
- Obtaining "lessons learned"

Structure

1. Overview
2. Goals and objectives
3. Analysis of outcomes
4. Analysis of the performance shown on critical tasks
5. Summary
6. Recommendations

Examples

- The U.S. Army has adopted the After Action Review (AAR) as the primary method for delivering feedback after unit training exercises. Likewise, the U.S. Army Research Institute (ARI) has supported the development and implementation of AAR procedures for over 20 years. The After Action Review Process is critical to forming an After Action Report. Notes from the review often find themselves in the report. [2]
- Another example of an After Action Report is the global status reported on road safety. Studies are conducted in order to determine how severe road safety concerns are in a particular area. After this, a report is created over the conditional event that is road safety, and a reflection is written with insight into how road safety can be improved.[3]
- Exercise reports are a form of analytical AARs and could be peer-reviewed by an expert who might make suggestions to one's workout routine. Exercise reports find themselves following the same structure as a general AAR. A draft report can be written before workouts, and a follow-up report could be written afterward detailing steps the user could act upon in order to improve their work ethic. The exerciser looking at their own report would know what they need to improve upon in the future, and could practice that skill in order to perfect it.[4]

See also

- After action review

External links

- US Army A leader's guide to after action review (https://www.acq.osd.mil/dpap/ccap/cc/jcchb/Files/Topical/After_Action_Report/resources/tc25-20.pdf) (TC25-20).
- Guide for analytical AARs implementation (https://web.archive.org/web/20090320201640/http://transit-safety.volpe.dot.gov/training/Archived/EPSSeminarReg/CD/documents/OHIO_DOT/SEMSAFTERACTION.pdf)

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AAR02-FDNY Report_final.doc - fire_operations_response.pdf

FDNY Fire Operations response on September 11

This section of our report describes the major aspects of the response of FDNY Fire Operations to the World Trade Center attack. It has four parts. The first describes how FDNY commanders exercised overall command and control of fire operations at the scene. The second deals more specifically with how those commanders deployed and managed personnel and resources. The third describes how the Fire Department handled planning of its resource requirements on September 11 and afterwards, and how the Fire Department managed logistics (i.e., deployment of supplies and equipment). The fourth discusses the challenges faced by the Department as it sought to support and counsel its members and their families in the aftermath of September 11.

COMMAND, CONTROL AND COMMUNICATIONS

The FDNY's response to the attacks of September 11 began at 8:46 a.m., the moment that American Airlines Flight 11 crashed into Tower 1 of the World Trade Center (WTC 1).

Command is established

The Battalion Chief assigned to Battalion 1 (B1)[10] witnessed the impact of the plane from the corner of Church and Lispenard Streets. He immediately signaled a second alarm[11] and proceeded to the World Trade Center. En route, B1 requested additional resources by transmitting a third alarm at 8:48 a.m.

B1 informed the FDNY Communications Office (Dispatch) that the corner of West and Vesey Streets, one block north of WTC 1, would be the designated staging area for third alarm units.[12] B1 arrived at WTC 1 at approximately 8:50 a.m. As the first responding chief, he established the Incident Command Post

[10] A battalion is a collection of FDNY resources or "units" (e.g., engine and ladder companies) responsible for a geographical area of the city. Four to five firefighters and one officer generally comprise a unit. Five to eight units comprise a battalion. Four to seven battalions comprise a division. The World Trade Center was located in Battalion 1's response area within Division 1. "B1" and similar codes used in this document are radio designations.

[11] Alarms correspond to the number and type of units deployed to an incident. A second alarm in a high-rise building typically deploys 19 pieces of apparatus and 11 chiefs. Third, fourth and fifth alarms deploy additional resources.

[12] A staging area is a resource management area in close proximity to an incident. It is standard FDNY procedure to stage units assigned to third alarms and above. Units that are directed to stage are expected to respond to the staging area and await further deployment instructions.

(ICP) in the lobby, per FDNY's high-rise firefighting procedures.[13] In approximately 10 minutes, from 8:50 a.m. to about 9:00 a.m., Incident Command was established and passed (according to protocol) from B1 to the First Division Chief (D1) to the Citywide Tour Commander 4D (CWTC-4D)[14] and finally to the Chief of Department (COD) (see Exhibit 2 for a command and control timeline).

At approximately 9:00 a.m., the Incident Commander moved the Incident Command Post from the lobby of WTC 1 to the far side of West Street (an eight-lane highway) opposite WTC 1, because of the increasing risk from falling debris within and around the lobby and other safety concerns. Chief officers considered a limited, localized collapse of the towers possible, but did not think that they would collapse entirely. The command post in the lobby of WTC 1 became the Operations Post[15] (OP-1) for WTC 1, reporting to the ICP. This Operations Post was managed by senior chiefs and was responsible for all operations in WTC 1, including the assignment of units to search and rescue operations in that building. It was necessary for the chiefs to remain in the lobby so they would have direct access to important building systems, such as controls for alarms, elevators, and communications systems.

The Field Communications Unit (Field Com) set up operations at the West Street ICP at approximately 9:15 a.m., in accordance with protocols. This unit was responsible for tracking the location and job assignment of all resources at the incident (e.g., which units responded to which alarms and which units were assigned to each tower). Field Com was also responsible for coordinating the assignment of additional units to the incident with Dispatch, upon request by the Incident Commander.

Our interviews with the chief officers in charge of the Operations Post in WTC 1 indicated that, early in the response, they decided that operations in WTC 1 should focus on search and rescue of injured and trapped civilians. The chiefs dispatched units from the lobby of WTC 1 to higher floors in two situations:

- In response to specific distress calls (e.g., people stranded in elevators, trapped in rooms, or hurt who would either call 911 or contact OP-1 directly through WTC 1's internal telephone system).
- To ensure that floors below the fire had been totally evacuated.

[13] An Incident Command Post is the location from which all aspects of an incident, including operations, logistics, and planning are managed.

[14] The Citywide Tour Commander is a staff chief responsible for FDNY operations throughout the city. One citywide tour commander is on duty at all times. On September 11, seven citywide tour commanders were designated CWTC-4A through H, except for the designation CWTC-4F, which was unused.

[15] An Operations Post is where operations are led for one component of the incident.

Units arriving at the lobby of WTC 1 checked in with the chief officers at the Operations Post for their assignments. Chief officers sent these units up into the building in a controlled, orderly way.

Before 9:00 a.m., D1 and B1 directed Port Authority personnel to evacuate surrounding buildings as a precautionary measure.

Plane hits WTC 2

At 9:03 a.m., United Airlines Flight 175 hit World Trade Center Tower 2 (WTC 2). Resources were immediately deployed to WTC 2 from the West and Vesey staging area and WTC 1. CWTC-4B, in coordination with the Incident Commander and chiefs in command of OP-1, established an additional Operations Post in the lobby of WTC 2 (OP-2), reporting to the Incident Commander. As at WTC 1, we believe that chiefs sent units arriving at WTC 2 up into the building in a controlled, orderly way.

Chiefs designate staging areas

As the mobilization escalated, senior chiefs established staging areas near the World Trade Center. However, as units approached, many failed to report to these areas and instead proceeded directly to the tower lobbies or to other parts of the incident area (see Exhibit 3 for a staging timeline).

For instance, early in the response B1 designated the corner of West and Vesey Streets as the staging area for third alarm units. Starting at 8:53 a.m., Dispatch sent radio instructions to these units to stage at West and Vesey. At 8:57 a.m., the Chief of Department, while still en route to the incident, requested the assignment of a staging chief to coordinate activities at West and Vesey. He then issued a fifth alarm for WTC 1 and responding units were instructed to report to this staging area.

At 9:12 a.m., the Chief of Department issued a fifth alarm for WTC 2 and at approximately 9:16 a.m., the corner of West and Albany Streets (two blocks south of the World Trade Center) was designated as the staging area for WTC 2. All units responding to that fifth alarm were directed by Dispatch to stage there. Citywide Tour Commander CWTC 4E assumed command of that area as the staging chief.

However, it is unclear whether all units received Dispatch's radio transmissions instructing them to stage because the units were not explicitly asked to confirm receipt of the transmission and they did not acknowledge the messages. Some

units responding to WTC 2 from Brooklyn may have been in the Brooklyn-Battery Tunnel, out of the reach of the Dispatch's radio communication and Mobile Data Terminal[16] (MDT) systems, when the staging directions were transmitted.

As units converged on the scene and civilians were evacuated, there was traffic congestion and gridlock in the area. Several units traveling from the north had difficulty getting to their staging area south of the towers. Our interviews and reviews of dispatch tapes suggest that several responding units were unable to reach their staging areas with their apparatus and therefore proceeded on foot directly to the tower lobbies.

Among those units that failed to report to the West and Albany staging area were those responding to the fifth alarm for WTC 2. Interviews indicated that several units (probably including those responding to this fifth alarm) traveled past this staging area on their apparatus. After waiting approximately 23 minutes for adequate resources to arrive at the West and Albany staging area, CWTC-4E issued an additional second alarm for WTC 2. Units responding to this additional second alarm did report to the staging area.

At 9:47 a.m., the Incident Commander requested additional resources and issued a third fifth alarm for the incident. Units were directed to respond to the West and Vesey staging area.

The lack of staging had several effects.

- ¶ Chief officers on the scene, the Field Communications Unit, and Dispatch could not accurately track the whereabouts of all units.
- ¶ Units that failed to stage may have not received necessary information and orientation before going into the towers. As a result, several companies that were not from surrounding battalions had problems differentiating WTC 1 from WTC 2. Interviews with chief officers in command of the WTC 1 Operations Post indicated that several units that arrived there asked for confirmation of whether they were in the lobby of WTC 1 or WTC 2.
- ¶ If units had staged according to protocol, other units that were dispatched to the WTC might have been kept instead in the citywide pool. For example, the additional second alarm issued by CWTC-4E led to the dispatch of eight additional units to the incident.

[16] A Mobile Data Terminal is a computer screen and printer in an apparatus (e.g., engine or ladder truck) that can receive and send data such as deployment instructions and confirmations.

Communications limitations emerge

A number of communications difficulties hindered FDNY chief officers as they coordinated the response. For instance, problems with radio communications left the chief officers in the lobby of WTC 1, and probably those in WTC 2, with little reliable information on the progress or status of many of the units they had sent up into the buildings. The portable radios that were used by the FDNY on September 11 do not work reliably in high-rise buildings without having their signals amplified and rebroadcast by a repeater system. The World Trade Center had such a system, but chief officers deemed it inoperable early in the response after they tested it in the lobby of WTC 1. With the repeater malfunctioning, the chiefs in the lobby of WTC 1 would not have been able to communicate with any units whose radios were tuned to the repeater channel, even if such units were just a few feet away from them. On the other hand, the command and tactical channels on these radios do support some, albeit unreliable, communications in high rises. Therefore, the chiefs decided to use their command and tactical channels[17] for operations in WTC 1.

Radio communications between chief officers in the lobby of WTC 1 and the units they sent in the building were sporadic. The chiefs were able to get through to some units sometimes, but not others. Some units acknowledged receiving radio communications some times, but not others. This left the chiefs not knowing whether their messages failed to get through, whether the units failed to acknowledge because they were busy with rescue operations, or whether the units did acknowledge, but the acknowledgement did not get through. Because information about civilians in distress continued to reach the Operations Post in the lobby, the chief officers decided to continue their attempts to evacuate and rescue civilians, despite the communications difficulties. We believe that the chiefs and units in WTC 2 faced similar communications problems.

In attempts to improve their communications, chief officers tried to deploy the Department's mobile repeater and give units "standpipe phones" that could be connected to boxes along the building's standpipe system. These were all ineffective. Chief officers in WTC 1 had some success in getting information to units in high floors by instructing units in lower floors to relay messages to them.

When WTC 2 was hit, several chiefs who were in WTC 1 proceeded to that building, but first they coordinated with other chiefs the selection of command and tactical channels for the different towers.

[17] Tactical radio channels are used for on-scene communications among chiefs and the units they command. Chiefs provide directions to units on this channel while units provide status reports to the chiefs and each other and request assistance. Command channels are used by chiefs at an incident to communicate with each other.

Chief officers in the lobbies of both towers also had very little reliable information about what was happening outside the towers, beyond their communications with the ICP. They had no reliable sources of intelligence and had no external information about the overall status of the incident area, the condition of the towers or the progression of the fires. For example, they had no access to television reports or reports from an NYPD helicopter that was hovering above the towers. This lack of information hindered their ability to evaluate the overall situation.

Threat of third plane is announced

At approximately 9:30 a.m., personnel in the lobby of WTC 1 heard an unconfirmed report of a threat from a third plane. Due to this announcement and communications problems that were constraining command and control capabilities, CWTC-4D broadcast over the FDNY tactical radio channel assigned to WTC 1 an order to all FDNY members to come down to the lobby of WTC 1. There was no acknowledgement by officers or firefighters of the order.

Shortly after the order was given, chief officers in the lobby learned that the threat of a third plane was false. At this point, the chiefs continued the search and rescue operations.

Most of FDNY's senior leadership responds to scene

As the mobilization of personnel and resources grew, most of the senior uniformed and civilian leadership of the FDNY responded to the scene, including all senior Fire and EMS operations officers. Out of 32 staff chiefs and members of the executive staff,[18] 26 responded to the incident area, 22 of which arrived prior to the first collapse. Members of the executive staff who responded prior to the first collapse included the Fire Commissioner, Chief of Department, Chiefs of Fire and EMS Operations, and seven out of nine staff chiefs. The remaining two staff chiefs responded after the collapse of the towers.

The experience and leadership of these senior chiefs proved crucial to re-establishing command and control after the towers collapsed. However, had some senior officers remained at a separate, protected location with the appropriate communications infrastructure, they may have been better able to support maintenance or re-establishment of incident command and control. Or they could have improved management of the Department's resource pool to

[18] The 32-member executive staff includes the civilian fire commissioners who are responsible for bureaus within the Department, along with the Chief of Department, Chief of Operations, the Chief Fire Marshall and the nine staff chiefs. Staff chiefs include the seven citywide tour commanders, the Chief of Safety, and the Chief of Fire Prevention.

ensure that all appropriate resources were sent to the scene, while at the same time fully protecting the rest of the city in case of another major incident.

Many of the senior civilian FDNY staff members who responded to the scene had no role or responsibility in the response.

WTC 2 collapse destroys Command Post

The collapse of WTC 2 at 9:59 a.m. killed many civilians and first responders and destroyed the Incident Command Post on West Street and the Field Communications Unit. The collapse weakened the command and control structure as Fire and EMS chiefs at the ICP, including the Incident Commander, sought shelter in nearby structures.

However at OP-1, in the lobby of WTC 1, the collapse of WTC 2 was not immediately apparent. Our interviews indicate that many believed that a partial collapse within the lobby of WTC 1 had occurred or that the elevators or other debris had fallen into the lobby of WTC 1. The lobby of WTC 1 filled with blinding dust and debris and became untenable. In almost complete darkness, firefighters, officers, chiefs and civilians were forced to leave the lobby of WTC 1. Prior to searching for an exit for himself, B1 issued an order at approximately 10:00 a.m. over the portable (handie talkie) radio for all FDNY members to evacuate WTC 1.

Many firefighters and officers operating in WTC 1 informed us that they were unaware that WTC 2 had collapsed when they heard the order to evacuate. Also, firefighters and officers on upper floors never heard the evacuation order. In some cases, these firefighters were told by other firefighters that the evacuation order had been issued.

WTC 1 collapse impairs incident command

After the collapse of WTC 2, the Incident Commander and personnel operating at the Incident Command Post moved north on West Street toward Chambers Street. However, the Incident Commander along with other members of the command and executive staff returned to the incident area to assess the situation and were killed at 10:29 a.m. when WTC 1 collapsed.

Between 10:29 a.m. and 11:28 a.m., incident command and control was seriously impaired. Several factors complicated efforts to re-establish it. Dispatch and the staff chiefs were unable to determine which chiefs had survived the collapses, where they were, what resources were available in different sectors of the incident area, if there was an ICP, and who the Incident Commander was. In addition, radio communications were difficult due to the large numbers of transmissions, which included attempts to locate personnel, mayday calls and company units seeking orders. Several chief officers, including Division Chief 6 (D6), the Chief

of Fire Prevention, CWTC-4A and CWTC-4C, took the initiative to re-establish the incident command and control structure. This process led to the emergence of multiple, sometimes co-existing ICPs (see Exhibit 4).

Incident command reestablished

At the request of Dispatch at approximately 11:28 a.m., a single ICP was designated at West and Chambers when CWTC-4C assumed Incident Command (see Exhibit 5 for sample exchanges between Dispatch and responding chiefs and for sample, illustrative quotes from interviews regarding the re-establishment of command).

The ICP remained at West and Chambers until approximately 6:00 p.m. and was then moved to West and Vesey, closer to the incident area, where it remained until the morning of September 15. At that time, the ICP was relocated to Engine 10 and Ladder 10's quarters at 124 Liberty Street. On Monday, September 17, the ICP was moved to larger premises at Battalion 1, Engine 7 and Ladder 1's quarters at 100 Duane Street.

RESOURCE DEPLOYMENT AND MANAGEMENT

The response of FDNY Fire Operations personnel to the World Trade Center on September 11 was unprecedented in scale and scope. More than 200 Fire units responded, approximately half of all units in the city. In the first three hours alone, 121 engine companies, 62 ladder companies, and 27 fire chief officers were assigned to the incident.[19] This corresponds to 61 percent of engine companies, 43 percent of ladder companies, and 47 percent of chief officers (see Exhibit 6 for the resource deployment timeline and Exhibits 7 and 8 for apparatus and chief deployment).

Much of this massive response was ordered by chief officers as they dealt with an increasingly dangerous and challenging situation. However, some of the response occurred outside regular command procedures. The size of the response taxed the FDNY's efforts to effectively deploy and manage its personnel and resources.

Units ask to be dispatched to the WTC

For example, as the mobilization increased, a number of Fire units that had not been assigned to the incident – but wanted to help – contacted the Fire Dispatch

[19] In addition to 183 ladder and engine units, nearly all special operations units of the Department were assigned to the incident.

Center repeatedly by radio, asking that they be authorized to respond. In some of these cases, Dispatch relented and assigned them. Many EMS and private ambulance units did the same with the EMS Dispatch Center. This complicated efforts by the dispatchers to manage the response and, in some cases, led to the deployment of units that probably would not have been deployed had they not insisted.

Self-dispatch of Fire units is minimal

Out of the more than 200 Fire units responding, only four proceeded to the incident without being deployed by Fire Dispatch. Of these units, two informed Dispatch that they were responding and demanded an MDT ticket assigning them to the incident. Two others proceeded directly to the incident without Dispatch's knowledge: one of these responded at approximately 9:20 a.m. after responding to an unrelated incident. Another unit sent a radio transmission regarding injured civilians on the 35th floor of WTC 1 despite the fact that Dispatch records at that time indicated that this unit was available at the firehouse.

Incident timing leads to response of off-duty firefighters

Another factor that increased the size and complexity of the response was the timing of the attack. Because the attack coincided with the change of tours in the firehouses at 9:00 a.m., numerous units responded with both night-tour and day-tour members. (Exhibit 9 contains examples of units responding with additional off-duty personnel who were ending their shift.).

In addition, other off-duty firefighters and officers reported to firehouses and directly to the incident scene in response to the recall issued by the Department. Some recalled firefighters responded to the scene by riding with on-duty units.

Normally, the officer in charge of each company knows the names of all firefighters and officers responding to an incident. At the start of every tour, the officer fills out a "riding list," a form recording the names of personnel assigned to each apparatus. One copy of the riding list is stored on the apparatus and the officer keeps another copy himself. Multiple riding lists were destroyed on September 11. This was one of several factors that prevented the Department from having accurate records of those who responded to the incident.

Recall mobilizes additional off-duty firefighters

The Chief of Department directed issuance of a recall of all off-duty firefighters and officers at 9:29 a.m. The recall order was broadcast by public media outlets and dispatched across FDNY radio channels. Thousands of off-duty firefighters and EMS personnel left their families to help the city and the Department respond to the attacks.

While the Fire Department had a recall procedure for Fire Operations personnel, it had not been activated for more than 30 years and personnel received no training in its activation. As a result, the recall was disorganized and ineffective. The initial recall order did not include specific directions on where firefighters were to report. Recalled firefighters responded to multiple locations, including directly to the incident area, the firehouse closest to their location at the time of the recall, their own firehouse, or to recall staging areas which were established and communicated later in the morning.

Our interviews revealed that the Department faced substantial logistical problems transporting and equipping members responding to the recall, even after they had assembled in recall staging areas or had deployed to the incident area. All reserve apparatus and vehicles were put in service with recalled personnel. They were used at the WTC incident as well as to augment citywide coverage.

Mutual aid request brings Nassau and Westchester units

Before September 11, the FDNY had rarely requested mutual aid from departments outside the city to support fire operations. The Department had no process for evaluating the need for mutual aid, nor any formal methods of requesting that aid or managing it. Therefore, the Department had limited ability to evaluate how mutual aid could be integrated into its operations. However, due to the magnitude of the WTC incident, FDNY personnel sought mutual aid from Westchester County at approximately 10:07 a.m., and from Nassau County at 10:23 a.m.

These initial mutual aid requests did not specify the level and type of resources needed. In addition, the FDNY did not have adequate information on the resources and capabilities of departments in surrounding cities and counties (e.g., the size, capabilities and expertise of different units). And, the FDNY had minimal operational training with surrounding fire departments, and hence had limited ability to evaluate whether and how resources from other departments could be integrated with the FDNY's operations. For instance, it could not tell whether procedures could be integrated, equipment could interoperate, and whether the capabilities of units with the same names (e.g., rescue or hazmat) were comparable.

Our interviews and review of dispatch tapes indicate that mutual aid received from neighboring fire departments on September 11 consisted primarily of engine and ladder units. Some mutual aid units deployed to staging areas. Some deployed directly to the incident and others were paired with FDNY units to help maintain citywide coverage.

Personnel tracking systems were insufficient

FDNY systems to track personnel at incidents proved insufficient on September 11, as they lacked accuracy and were lost when the towers collapsed.

The FDNY Field Communications Unit was responsible for tracking the assignment of Fire units to different alarms, the release of units from the staging area to the incident area and unit locations at the incident. This unit worked next to the Incident Command Post and kept records on a magnetic command board, using small magnets placed on a diagram to indicate unit locations. This record was most likely inaccurate because many units went directly to the tower lobbies instead of their assigned staging areas. Field Com was destroyed at 9:59 a.m. when WTC 2 collapsed, and all unit assignment records were lost since the FDNY Field Communications units cannot create a remote back up of deployment records.

FDNY protocols also provide that operations posts at major incidents keep detailed records of deployments within their area of responsibility. A communications coordinator (Comcord) is designated at each operations post, responsible for tracking unit assignments and managing communications between tactical and command channels. Like Field Com, the Comcord uses a magnetic command board for record keeping. The Comcord sketches the building with a marker on the command board and places magnets designating individual units in the appropriate locations on the sketch to represent each unit's location within the building. In this case, the operations posts were located in the lobbies of the two towers. B2 was designated the Comcord in the lobby of WTC 1. It is likely that this procedure was also carried out in the lobby of WTC 2.

Radio difficulties on September 11 contributed to the complexity of keeping accurate records of individual units and tracking their progress. After units were given their assignments, the only way for the Comcords and other chief officers to track their whereabouts was through radio communications. Comcords could not ascertain, without a radio query and a response, whether units assigned to search a specific floor had reached that floor or the location of an individual firefighter in danger.

The command boards utilized by Comcords at the operation posts were destroyed when the towers collapsed. Just as with Field Com, all the information captured on them was lost, as there were no methods in place to back up the records of unit assignments.

The limitations of this tracking system were not unique to the response to the World Trade Center incident. However, the magnitude of the response, difficulties with in-building communications and the response from off-duty firefighters on September 11 significantly increased the uncertainty of firefighter

and unit locations. As a result, following the collapses, the Department could not quickly create a reliable list of missing and dead personnel.

Inter-agency coordination was minimal

Throughout the response on September 11, the FDNY and NYPD rarely coordinated command and control functions and rarely exchanged information related to command and control. For example, there were no senior NYPD chiefs at the Incident Command Post established by the Fire Department. We believe there were very limited communications, either directly or through a liaison, between senior FDNY chief officers and the senior officers in charge of the NYPD response. In addition, some potentially important information on the structural integrity of the buildings never reached the Incident Commander or the senior FDNY chiefs in the lobbies.

The evacuation and subsequent destruction of the headquarters of the city's Office of Emergency Management (OEM) in WTC 7 further impaired the coordination process among the FDNY, NYPD and other responding agencies on September 11.

Citywide coverage was maintained

As FDNY committed large numbers of units to the WTC incident, it followed existing procedures and protocols to maintain citywide coverage for fire operations. During the initial three hours of the incident, Dispatch relocated 68 units throughout the city to ensure coverage. In addition, at 9:00 a.m., FDNY reverted to a response status known as "Fallback 3"at the discretion of the Bureau of Fire Communications. Fallback refers to a situation in which the normal response to an alarm is lowered during a period of inordinately heavy fires or during an emergency that affects an entire borough or boroughs. This lowered response means that fewer units will respond initially to a first alarm and that additional units will be committed only after further evaluation. Fallback 3 corresponds to the minimum apparatus response to an alarm.

Dispatch also created several dispatch staging areas and directed resources in the citywide pool to these areas to facilitate resource management and expedite the response time to the WTC incident.

Even with the commitment of a massive amount of resources by FDNY to the WTC incident and the significant loss of resources resulting from the collapse of the towers, citywide coverage for regular fire operations was maintained. Average fire incident response times on September 11 did increase, but only by about one minute, to an average of 5.5 minutes. The total number of calls for fire related assistance received on September 11 was comparable to the same 24-hour period the previous year, 2,322 versus 2,225 respectively. Response times within the city

returned to normal on September 15 and thereafter. The Bureau of Fleet and Technical Services immediately began repairing apparatus and replacing equipment so that firehouses could be returned to service.

Citywide coverage for special operations was minimal

While the Department maintained citywide coverage for regular fire operations, it committed nearly all of its special operations units to the incident, leaving the remainder of the city with extremely limited special operations coverage.

Among the special operations units committed were the Hazardous Materials unit (Hazmat), High Rise units, a Field Communications[20] unit, the Mobile Command Center unit, all the Rescue units and six out of seven Squads.[21] Citywide Tour Commander 4D ordered Fire Dispatch to keep one Rescue Unit available for the rest of the city. However, that rescue unit contacted Dispatch multiple times asking that it be deployed until Dispatch relented and assigned it to the incident. As a result, prior to the collapses, all rescue units had deployed to the World Trade Center (see Exhibit 10).

The FDNY has just one Hazmat Unit, which was committed to the World Trade Center. Had there been another hazardous material incident in the city, terrorist-related or not, the Department's ability to respond would have been minimal. The one Squad that was left in reserve would have been able to carry out some hazmat tasks but not a prolonged, large or complex operation in the absence of the equipment, capabilities and specialized supervision of the Hazmat unit.

In addition, post-collapse, the FDNY's Marine Division was the primary source of water for all fire fighting activities on the west side of lower Manhattan. The pumping capabilities of the boats on September 11th and on succeeding days were below design capacity due to mechanical problems. A privately owned boat provided much additional pumping capacity.

[20] The Field Communications unit that was deployed and later destroyed was the Department's spare; the primary vehicle was out of service for maintenance reasons. Normally only one unit is on duty at any one time.

[21] A Squad is a specially trained and equipped engine company with expertise in hazardous materials, rescue and other special operations capabilities.

PLANNING AND LOGISTICS

During the FDNY response on September 11, officers were not selected to coordinate planning or logistics functions[22] on a dedicated basis (see Exhibit 11 for the planning and logistics timeline).

In accordance with usual FDNY practices, we believe that, before the collapse of WTC 2, the Incident Commander carried out needs assessment and resource tracking functions, with the assistance of Field Com. Personnel at the Incident Command Post were assigned tasks as needed to support the response in these areas.

However, the Incident Commander and the chief officers responsible for the operations posts were required to make decisions on these matters lacking some important information, including: reliable intelligence, media reports, aerial video coverage, or verbal reports from helicopters on the condition of the towers and traffic. After the buildings collapsed, planning and logistics requirements grew well beyond anything FDNY had experienced before.

For instance, the logistics required to support the search, rescue, and recovery operations after the collapses were massive and unprecedented for the FDNY. Our interviews suggest that the distribution of equipment (e.g., radios, self-contained breathing apparatus) may not have been adequately managed and tracked on the afternoon and evening of September 11, and as a consequence, equipment was not utilized or was lost.

In the days immediately following September 11, planning and logistics improved significantly. On September 15, a dedicated Battalion Chief was assigned as the planning chief for the incident. In addition, the U.S. Department of Forestry Incident Management Teams (IMTs), who arrived on September 13th, and the U.S. Army Corps of Engineers provided assistance with traditional planning functions and documentation. These included creation of sector logs, which are a recording of all events and actions that took place in a given sector each day. IMTs also helped create incident action plans, which outline the response plan and the resource requirements for the next 24 hours. The presence of the IMTs supplemented the FDNY's resource allocation and site mapping capabilities and enabled it to substantially improve coordination among various agencies and other parties operating at and around the incident site.

In addition, after September 11, IMTs, along with the city's Office of Emergency Management, construction companies and private donors, aided with logistics

[22] Incident planning includes determining resource requirements and managing information flow. Logistics includes managing the deployment and tracking of supplies and equipment.

coordination. An FDNY Deputy Chief was assigned as the logistics chief on September 18. Thereafter, he was responsible for leading a team to manage the logistics requirements of the incident and for addressing any safety issues. Early in October, an additional dedicated deputy chief assumed overall safety responsibilities for the site, including managing the safety officers who were already operating there. This enabled the separation of logistics and safety responsibilities.

FAMILY AND MEMBER SUPPORT SERVICES

The Fire Department has a proud tradition of supporting its members and their families when members are injured, killed, or missing. The procedures used by the FDNY to notify families that loved ones had been injured or killed, and the type and level of post-incident counseling and support given to members and families have changed over the years. However, the Department has always provided honorable, personal, and deeply felt support to its members and their families in the most difficult moments.

Faced with an unprecedented number of casualties on September 11, the Department had difficulties providing the appropriate level of support and care to its members and their families in a consistent way.

In the aftermath of the collapse of the towers, several factors made it extremely difficult for the Department to create an accurate list of personnel missing or deceased. For one thing, there was a lack of accurate records on who responded and where they were. In addition, many firefighters remained on site to help the search and rescue operation. And, the Department did not have a complete, accurate personnel notification database with records of whom to contact in case of death or injury to a member.

As a result, the Department could not provide reliable information to families immediately after the incident. There were substantial delays in notifying family members of the loss of loved ones, and the procedures to notify families varied over time, ranging from visits by retired chiefs to phone calls from the site.

The Department set up on-site counseling services for firefighters and, within a week, established remote counseling locations in Manhattan, Queens and Staten Island. However, the magnitude of the incident and the ensuing counseling needs overwhelmed the infrastructure of the Department's Counseling Services Unit. The unit's challenges at the time included evaluating, pre-screening and securing funding to pay for counselors.

Over the past several months, the Department has started to formalize several processes it developed in response to the counseling and support needs of members and their families. For example, in January, the Commissioner

appointed an assistant commissioner for family assistance to coordinate activities that meet the needs of members and their families.

AAR03-Grenfell Tower fire - Wikipedia.pdf

WIKIPEDIA

Coordinates: 51.5140°N 0.2158°W

Grenfell Tower fire

On 14 June 2017, a fire broke out in the 24-storey Grenfell Tower block of flats in North Kensington, West London, at 00:54 BST; 72 people perished, including two who later died in hospital. More than 70 others were injured and 223 people escaped. It was the deadliest structural fire in the United Kingdom since the 1988 *Piper Alpha* disaster and the worst UK residential fire since World War II.

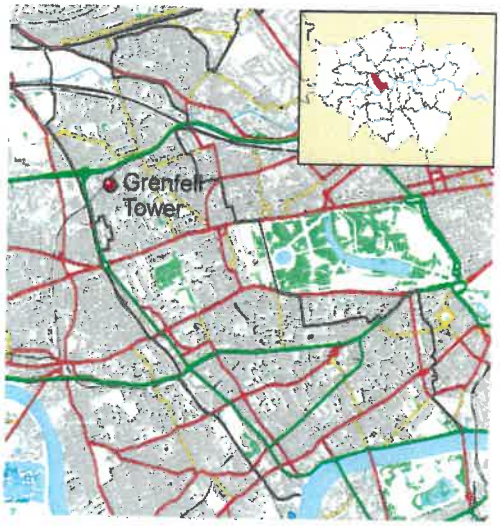
The fire was started by a malfunctioning fridge-freezer on the fourth floor.[note 1] It spread rapidly up the building's exterior, bringing fire and smoke to all the residential floors. This was due to the building's cladding, the external insulation and the air gap between which enabled the stack effect. The fire burned for about 60 hours before finally being extinguished. More than 250 London Fire Brigade firefighters and 70 fire engines were involved from stations across London in efforts to control the fire, and rescue residents. More than 100 London Ambulance Service crews on at least 20 ambulances attended, joined by specialist paramedics from the Ambulance Service's Hazardous Area Response Team. The Metropolitan Police and London's Air Ambulance also assisted the rescue effort.

The Grenfell Tower Inquiry began on 14 September 2017 to investigate the causes of the fire and other related issues. Findings from the first report of the inquiry were released in October 2019 and addressed the events of the night. It affirmed that the building's exterior did not comply with regulations and was the central reason why the fire spread, and that the fire service were too late in advising residents to evacuate. A second phase to investigate the broader causes began on the third anniversary in 2020.

As of June 2020, the fire is currently being investigated by the police, a public inquiry, and coroner's inquests. Among the issues being investigated are the management of the building by the Kensington and Chelsea London Borough Council and Kensington and Chelsea TMO (or KCTMO, which was responsible for the borough's council housing) and the responses of the

Grenfell Tower fire

The fire during the early morning of 14 June 2017



Grenfell Tower's location within the Kensington and Chelsea borough

◉ Show map of Royal Borough of Kensington and Chelsea
○ Show map of Greater London
○ Show map of the United Kingdom
○ Show all

Date	14 June 2017
Time	00:54 BST (first emergency call)

Fire Brigade, the council and other government agencies. In the aftermath of the fire, the council's leader, deputy leader and chief executive resigned, and the council took direct control of council housing from the KCTMO. The national government commissioned an independent review of building regulations and fire safety, which published a report in May 2018. Across the UK and in some other countries, local governments have investigated other tower blocks to find those that have similar cladding. Efforts to replace the cladding on these buildings are ongoing.

Contents

Duration	24 hours (under control) Over 60 hours (fully extinguished)
Location	Grenfell Tower, North Kensington, London, United Kingdom
Coordinates	51.5140°N 0.2158°W TQ 23907 80957
Type	Structure fire
Cause	Electrical fault in a refrigerator; spread of fire largely exacerbated by flammable exterior cladding on the building[1]
Outcome	▪ Government taskforce taking over parts of the RBKC council function ▪ Urgent fire safety tests on cladding from similar towers ▪ Independent review of building regulations and fire safety commissioned ▪ £200 Million pledged from Government to replace similar cladding in other residential towers in England
Deaths	72
Non-fatal injuries	74 hospitalised
Property damage	£200 million – £1 billion *(estimated)*[2]
Inquiries	Public inquiry hearings opened 14 September 2017
Inquest	Open for all 72 victims; pending police investigation and public inquiry
Arrests	6

Website	www.grenfelltowerinquiry.org.uk (https://www.grenfelltowerinquiry.org.uk/)

Background

Building and construction

Map of the western side of the Lancaster West Estate. The fire also severely affected three low-rise "finger blocks" adjoining Grenfell Tower.

Grenfell Tower was part of the Lancaster West Estate, a council housing complex in North Kensington. The 24-storey tower block was designed in 1967 in the Brutalist style of the era by Clifford Wearden and Associates, and the Kensington and Chelsea London Borough Council approved its construction in 1970.[3][4][5][6] The building was constructed by contractors A E Symes of Leyton from 1972–74.[7]

The 220-foot-10-inch (67.30 m) tall building contained 120 one- and two-bedroom flats.[8] The upper 20 of 24 storeys were residential floors, with each having a communal lobby and six dwellings, with ten bedrooms between them.[8] The lower four storeys were originally used for non-residential purposes.[note 2] Later, two lower floors were converted to residential use, bringing the total to 129 apartments, housing up to 600 people.[9] The original lead architect for the building, Nigel Whitbread, said in 2016 that the tower had been designed with attention to strength following the 1968 Ronan Point disaster and "from what I can see could last another hundred years."[11]

Like many other tower blocks in the UK, Grenfell Tower was designed to be operated under a "stay

put policy" in the event of fire. The idea was that if a fire broke out in one flat, thick walls and fire doors would contain the fire long enough for the fire service to bring it under control.[12] Only those in the affected dwelling would be expected to evacuate.[13] The building was designed under the assumption that a full evacuation would never be necessary. There was no centrally activated fire alarm and only a single central staircase.[14][15] Unlike in many other countries, UK regulations do not require a second.[15] In 2010, a fire broke out in a lobby and was quickly extinguished.[16]

Management

Until 1996, Kensington and Chelsea London Borough Council managed its council housing directly. In 1996, the council created Kensington and Chelsea TMO (KCTMO), a tenant management organisation which would manage its council housing stock.[17] KCTMO had a board comprising eight residents (tenants or leaseholders), four council-appointed members and three independent members.[18] The tower was built as council housing, but fourteen of the flats had been bought under the Right to Buy policy. These were occupied by leaseholders, or were privately rented out by them on the open market.[19]

Renovation

Grenfell Tower underwent a major renovation, announced in 2012 and conducted over 2015–16.[9][20] The tower received new windows, a water-based heating system for individual flats and new aluminium composite rainscreen cladding.[21][22][23] According to the application, the purpose of the cladding was to improve heating and energy efficiency, and external appearance. Mark Harris, of Harley Facades, said, "from a selfish point of view", his company's preference was to use (cheaper) aluminium composite material.[24][20]

Grenfell Tower in 2009, before the renovation and the installation of the cladding

Two types of cladding were used: Arconic's Reynobond PE, which consists of two coil-coated aluminium sheets that are fusion bonded to both sides of a polyethylene core; and Reynolux aluminium sheets. Beneath these, and fixed to the outside of the walls of the flats, was Celotex RS5000 PIR thermal insulation.[25][26][27] An alternative cladding with better fire resistance was refused due to cost.[28]

The original contractor, Leadbitter, had been dropped by KCTMO because their price of £11.278 million was £1.6 million higher than the proposed budget. The contract was put out to competitive tender and won by Rydon, whose bid was £2.5 million less than Leadbitter's.[29] Rydon carried out the refurbishment for £8.7 million, with Artelia on contract administration and Max Fordham as specialist mechanical and electrical consultants.[29][30][31][32][33] The cladding was fitted by Harley Facades of Crowborough, East Sussex, at a cost of £2.6 million.[34]

Safety concerns

Residents had expressed significant safety concerns before the fire.[35] Twelve years earlier, a

report had criticised the tower's emergency lighting.[36] The Grenfell Action Group (GAG) ran a blog in which it highlighted major safety problems, criticising the council and KCTMO for neglecting fire safety and building maintenance.

In 2013, the group published a 2012 fire risk assessment by a KCTMO Health and Safety Officer which recorded safety concerns. Firefighting equipment at the tower had not been checked for up to four years; on-site fire extinguishers had expired, and some had the word "condemned" written on them because they were so old. GAG documented its attempts to contact KCTMO management; they also alerted the council's cabinet member for Housing and Property but said they never received a reply.[37][38] In 2013 the council threatened one of the bloggers with legal action, saying that their posts amounted to "defamation and harassment".[39] Two women living in Grenfell Tower, Mariem Elgwahry and Nadia Choucair, were threatened with legal action by KCTMO after they campaigned for improved fire safety.[40] They later died in the fire, at the age of 27 and 33.

In January 2016, GAG warned that people might be trapped in the building if a fire broke out, pointing out that the building had only one entrance and exit, and corridors that had been allowed to fill with rubbish, such as old mattresses. GAG frequently cited other fires in tower blocks when it warned of the hazards at Grenfell.[41] In November 2016, GAG attacked KCTMO as an "evil, unprincipled, mini-mafia" and accused the council of ignoring health and safety laws. GAG suggested that "only a catastrophic event will expose the ineptitude and incompetence of [KCTMO]", adding, "[We] predict that it won't be long before the words of this blog come back to haunt the KCTMO management and we will do everything in our power to ensure that those in authority know how long and how appallingly our landlord has ignored their responsibility to ensure the heath [sic] and safety of their tenants and leaseholders. They can't say that they haven't been warned!"[42] The Grenfell Tower Leaseholders' Association had also raised concerns about exposed gas pipes in the months before the fire.[43] As with the majority of tower blocks in the UK, Grenfell Tower did not have fire sprinklers.[44]

Meanwhile, in June 2016, an independent assessor had highlighted 40 serious issues with fire safety at Grenfell Tower and recommended action to be taken within weeks. In October, the assessor asked the KCTMO why there had been no action taken for more than 20 issues in the June report. In November 2016, the London Fire and Emergency Planning Authority served a fire deficiency notice, listing many fire safety issues at Grenfell Tower that required action from KCTMO by May 2017. Areas of concern identified included fire doors, the smoke venting system and the firefighters' lift controls.[45][46]

Previous cladding fires and responses

One of the earliest fires that involved cladding materials was the 1973 Summerland disaster on the Isle of Man, which caused 50 deaths. Part of the reason why the fire spread rapidly through the leisure centre was the acrylic sheeting on the exterior of the building.[47][48] In the 1991 Knowsley Heights fire, fire spread up the entire height of an 11-storey building due to its exterior cladding, though it did not enter the interior and nobody was injured.[49] In 2009, external composite panels also played a role in the spread of the Lakanal House fire in Southwark.[50] An article in *The Guardian* three days after the Grenfell Tower fire described it as a "tragedy foretold", highlighting that there had been previous cladding fires such as the 2015 fire at The Marina Torch in Dubai, United Arab Emirates.[51]

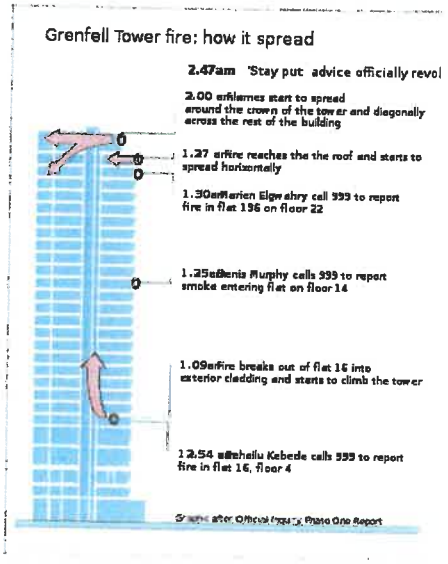
In 2016, a non-fatal fire at a Shepherd's Bush tower block spread to six floors via flammable

external cladding. In May 2017, the London Fire Brigade (LFB) warned all 33 London councils to review the use of panels and "take appropriate action to mitigate the fire risk".[52][53][54][55]

Fire

Initial fire (00:50–01:15)

The fire started in the early hours of Wednesday 14 June 2017 at around 00:50 BST (UTC+1), when a fridge-freezer caught fire in Flat 16, on the fourth floor. The flat's resident was woken by a smoke alarm. He entered the kitchen and discovered the fridge-freezer smoking. He alerted his lodgers and neighbours, then called the LFB at 00:54.[56][note 3] The first two fire engines ("pumps") arrived six minutes later.[58][59] The initial incident commander said that the fire was visible at this point as a "glow" in the window.[60] A further two pumps were also dispatched.[61][62] Any residents of the tower who called the fire service were told to remain in their flat unless it was affected, which is the standard policy for a fire in a high-rise building,[56] as each flat should be fireproofed from its neighbours. Also due to this policy, the building had no central fire alarm.



Timescale of the disaster

Most of the firefighters entered the building. They set up a bridgehead (internal base of operations) on the second floor and connected hoses to the dry riser. They first entered Flat 16 at 01:07. It was a further seven minutes before they began tackling the kitchen blaze. At approximately 01:08, the fire began to penetrate the window frame.[62] Within a few minutes, it was setting the surrounding cladding panels on fire. Observing this, the incident commander requested another two pumps and an aerial appliance at 01:13, which also triggered the dispatch of more senior officers, a fire investigation unit and two command vehicles.[62] Another firefighter was asked to try to prevent it spreading with a water jet, though this jet could not reach higher than the fourth floor, and due to fears of causing a dangerous build-up of steam on the inside, it was not aimed directly at the window.[63]

Rapid upward spread (01:15–01:30)

By the time the firefighters began extinguishing the kitchen fire, a column of flames was quickly advancing up the side of the building. At 01:15, a firefighter discovered smoke in Flat 26 (directly above Flat 16), another discovered residents who had fled smoke on the fifth and sixth floors, and large quantities of debris began falling from the burning façade.[62] The flames spread up the side at a "terrifying rate".[64] Attempts to fight the fire with an external jet were unsuccessful, as it was mostly burning behind the waterproof rainscreen.[62] By 01:30, a rising column of flames had reached the roof and the fire was out of control.[65][62] The fire on the eastern exterior spread sideways and brought smoke and flames into multiple flats.[66][64][67][68]

By 01:18, 34 of 293 residents had escaped.[56] The busiest phase of evacuations was between 01:18

and 01:38, when 110 escaped,[56] with many being woken up by their smoke alarms when smoke entered their flat. Due to Ramadan, many observing Muslim residents were awake for the pre-dawn meal of *suhur*, which enabled them to alert neighbours.[69][70]

LFB rapidly escalated its response during this time period. The number of pumps in attendance was raised from six to eight at 01:19, with a specialist fire-rescue unit, bulk breathing apparatus carrier and damage control unit being sent too. Pumps were made up to 10 at 01:24, then to 15 at 01:27 along with a second aerial platform. Two minutes later pumps were made 20 and two more fire-rescue units were mobilised, and pumps were made up to 25 at 01:35, also triggering the dispatch of an Assistant Commissioner.[62] Dany Cotton, the Commissioner of the London Fire Brigade, was also called out and began driving to the scene from her home in Kent.[note 4] The Metropolitan Police Service (MPS) were called at 01:24 to manage the gathering crowd outside.[62] Five minutes later, the London Ambulance Service were also called.[62]

Trapped residents and rescue missions (01:30–02:04)

Due to fire doors not closing and sealing properly, smoke began to spread from affected flats into the lobbies.[61] By 01:33, LFB were receiving calls from residents who reported being trapped in their flats.[62] At some point between 01:30 and 01:40, smoke began to enter the stairwell.[56] The Inquiry later estimated that despite this, the stairs were still passable for over half an hour.[72] Evacuation rates slowed, with 20 escaping between 01:38 and 01:58.[56] More than half of those still trapped at 01:58 were killed, while 48 were rescued between 01:58 and 03:58.[56] The fire continued to spread sideways on the exterior, and by 01:42 had reached the north side.[61]

LFB call handlers collected information from trapped residents and this was relayed to the LFB's command unit that was parked outside. Communicating through radio proved difficult, due to noise, the sheer volume of talk and possibly the concrete building structure. Instead, details of trapped residents were written on slips of paper and ferried by runners from the command unit to the bridgehead on the second floor. At the bridgehead, incoming firefighters were assigned flats to go to and briefed on whom they would need to rescue.[73] They donned breathing apparatus and headed to the flat to search for its residents.

The firefighters encountered thick smoke, zero visibility and extreme heat when they climbed above the fourth floor.[59][74] Furthermore, some residents had moved location to escape the smoke. Three firefighters who went to rescue a 12-year old girl on the 20th floor were unable to find her. Unknown to them, she had moved up to a flat on the 23rd floor, was on the phone to a control operator who had no means of knowing what the firefighters were doing,[62] and later died in this location.[75] Another two firefighters were sent to a flat on the 14th floor with a single resident, only to find 8 people (four of them eventually escaped).[76]

Major incident declared (02:04–04:00)

Witnesses reported seeing people trapped inside the burning building, switching the lights in their flats on and off or waving from windows to attract help, some holding children. Eyewitnesses reported seeing some people jumping out, and four victims were later found to have died from "injuries consistent with falling from a height".[77][78] These deaths were classed as 'suicides', despite being a direct consequence of the fire. At least one person used knotted blankets to make a

rope and escape from the burning building.[79] Frequent explosions that were reported to be from gas lines in the building were heard.[59]

Outside operations were hindered by falling debris, including burning pieces of cladding. Due to this danger, the police moved crowds away from the building as a safety precaution. The MPS Territorial Support Group was present; besides being a specialist unit for public order policing, they provided riot shields to protect firefighters from falling debris.[80]

Shortly after 02:00, a major incident was declared and the number of fire engines was raised from 25 to 40, the number of fire-rescue units increased to 10, command vehicles to six, aerial platforms to four, and operational support units to two.[61] Over the course of the operation, 250 firefighters attempted to control the blaze,[81] with more than 100 firefighters inside the building at a given time. Assistant Commissioner Andrew Roe assumed direct command of firefighting operations for the next 11 hours. Rather than command the operations directly, Commissioner Cotton served as a Monitoring Officer, overseeing Roe and providing moral support to firefighters. She admitted that LFB had broken their own safety protocols by entering a large building without knowing whether it was in danger of structural collapse.[71] It was not until the following afternoon that structural engineers were able to assess the structure and determine that it was not in danger of collapse.[59]

By 02:20, the level of smoke in the stairwell constituted a threat to life, although some survivors did escape beyond then.[72] At 02:47 the "stay put" policy, advising those residents in areas unaffected by the blaze to remain there, was abandoned in favour of general evacuation.[13] After this point only 36 further residents were able to escape. Experts on the subsequent inquiry into the disaster later said that the "stay put" policy should have been discarded an hour and twenty minutes before it eventually was.[82]

Final rescues (04:00–08:07)

By sunrise, firefighters were still busy fighting the fire and attempting rescues on the inside. At 04:14, police addressed the large crowd of onlookers and urgently instructed them to contact anyone they knew who was trapped in the building—if they were able to reach them via phone or Twitter—to tell them they must try to self-evacuate and not wait for the fire brigade.[83] By 04:44, all sides of the building had been affected.[61]

Only two further rescues took place, with one resident being rescued at 06:05 and the last being rescued at 08:07.[61] Firefighters rescued all remaining residents up to the 10th floor and all but two up to the 12th floor, but none got higher than the 20th floor during this time; only two people escaped from the highest two floors.[56]

Grenfell Tower in the early morning of 14 June. The burnt cladding is visible on the outside of the building.

Residual fire (08:07 – 16 June)

At a news conference in the afternoon of 14 June, LFB reported firefighters had rescued 65 people from the building and reached all 24 floors.[84] Seventy-four people were confirmed by the NHS to be in six hospitals across London with 20 of them in critical care.[85]

The fire continued to burn on the tower's upper floors. It was not brought under control until 01:14 on 15 June and firefighters were still damping down pockets of fire when the Brigade issued an update on 16 June.[86] The fire brigade also used a drone to inspect the building and search for casualties.[87] The fire was declared extinguished on the evening of 16 June.[88]

Grenfell fire seen at 4.51am on 14 June from Putney Hill, London

Reporting

Reporting of the disaster escalated as follows:

Grenfell Tower two days after the fire broke out

- By 05:00, police reported that several people were being treated for smoke inhalation.[89]
- By 06:30, it was reported that 50 people had been taken to five hospitals: Chelsea and Westminster Hospital, King's College Hospital, Royal Free, St Thomas's, and St Mary's Hospital.
- By 09:30, London Fire Commissioner Dany Cotton reported that there were fatalities resulting from the fire, but she could not specify how many had been killed because of the size and complexity of the building.[89][90] Cotton said: "This is an unprecedented incident. In my 29 years of being a firefighter, I have never ever seen anything of this scale."[91][92]
- By 12:00 the Metropolitan Police announced there were six people confirmed dead, and more than 70 in hospital, with 20 in critical condition.[89] The first person announced dead was Mohammed al-Haj Ali, a Syrian refugee.[93] A large number of people were reported missing.
- At around 17:00, the number of confirmed deaths was increased to 12.[94]

False accounts

In the immediate aftermath of the fire, a number of unsubstantiated reports about casualties circulated online, which were to later be debunked, including that the government had covered up details of the fire and babies' miraculous survival stories.[95][96][97][98][99] A later investigation by *BBC Panorama* found no evidence that these survival accounts were credible: neither the Metropolitan Police, London Ambulance Service nor any A&E departments were able to find any record of this happening.[100][101]

Impact

Deaths

The fire caused 72 deaths, including one who died in hospital a day later and another who died in January 2018.[102][103][104] The latter occurred after an official death toll was announced by police

in November 2017.[105] The incident ranks as the deadliest structural fire in the United Kingdom since the 1988 Piper Alpha disaster and the worst UK residential fire since the Second World War.[106]

Police examined the remains of Grenfell Tower and used "every imaginable source" of information "from government agencies to fast food companies" to identify casualties. Their analysis of CCTV evidence concluded that 223 people (of 293 present) had escaped.[107] This investigation took five months, with only 12 fatalities being identified on the actual day of the fire.[94] By the following week, police had estimated that 80 people had died.[108] This was the most widely quoted estimate in the media for several months.[109][110] On 19 September 2017, Metropolitan Police Commander Stuart Cundy suggested that the number of dead could be lower than 80 because eight people were being investigated for making fraudulent financial claims for non-existent victims.[109][110][111] By 1 June 2018, this had led to five people being convicted of fraud.[112][113] Obstacles to identifying fatalities included the fact there was no formal register of who was in the building,[114][115] and the number of undocumented subtenants, migrants and asylum seekers who were believed to have been living there.[116] Mayor Sadiq Khan called for an amnesty to ensure that people with pertinent information could come forward.[117]

Survivors came from 106 of the tower's 129 flats; eighteen people among the occupants of these flats were reported as dead or missing presumed dead, whereas most of those killed were said to have been in the remaining 23 flats between the 11th and 23rd floors.[118] Some people from lower floors may have tried to move up the building, and it is thought a number of people may have ended up in one flat.[119] Some victims were identified from 26 calls to 999 made from inside the 23 flats.[1]

The dead included many children,[120] five of whom were students at the nearby Kensington Aldridge Academy.[121] The youngest of those known killed, Leena Belkadi, was 6 months old. One victim died in hospital on 15 June 2017 due to inhalation of fire fumes.[103] Additionally, one then pregnant survivor lost her baby through stillbirth as a result of the fire.[122]

The first Coroner's Inquests opened on 23 August 2017[123] and all other inquests were opened by 23 November 2017.[124]

In the aftermath of the fire, members of the local community, including a residents group called Grenfell United,[125][126][127] stated that the official figures were far short of existing estimates, with some believing that the death toll was "in hundreds".[128] Ten days after the fire, only 18 deaths had yet been officially recorded, compared to the estimate of 80 and the eventual figure of 72.[129][130] Rumours that the toll was higher than official figures persisted after the official figures were confirmed.

Psychological health and human factors

Beyond physical injury, the fire was a traumatic event which had a psychological impact on residents, emergency service workers and the public at large, as detailed below.

On 26 July 2017, at the fourth public meeting of the Grenfell Response Team, a local volunteer reported that there had been at least 20 suicide attempts in north Kensington since the fire, one of which had been completed.[131][132][133] The mental health of many survivors was damaged.[134]

LFB Commissioner Dany Cotton defended the heroism of emergency service workers who themselves were affected by trauma.[81] An on-call counsellor was made available. Around 80 firefighters and Met Police officers were reported to be suffering from their experiences.[135] Cotton told LBC Radio that she too was undergoing counselling.[136][137]

An extra four full-time counsellors were employed (reversing previous staff reductions) and 60 volunteer counsellors were brought in. All firefighters who attended Grenfell were given a psychological health check. The BBC reported that LFB used its reserve budget to bring counselling staff back to 2008 levels.[138]

In July 2017, NHS England issued an open letter to GPs giving advice on symptoms for mental health conditions such as post-traumatic stress disorder (PTSD) that those affected by this fire (or recent terrorism) may be experiencing.[139] It is estimated that 67% of people caught up in the fire, who lost relatives, were rescued or evacuated from the tower, need treatment for PTSD. Further between 26% and 48% of people living nearby who were not evacuated but witnessed the fire have PTSD. It is unclear how far this indicated reaction to the fire and how far previously existing psychiatric conditions were being uncovered.[140]

The Metropolitan Police Service assigned 250 detectives to the fire, placing additional workload and personal stress on a force that was also investigating recent terrorist incidents, including the London Bridge and Finsbury Park attacks.[141]

Psychologists worked at Kensington Aldridge Academy to support students returning to the original site. Measures have been taken to protect student welfare, such as shielding classroom windows overlooking the tower.[121]

Long-term physical health

On 21 September 2018, the coroner, Fiona Wilcox, expressed concern for the long term physical health of victims and emergency service workers exposed to smoke and dust inhaled during the fire, and its subsequent clear up. Those affected could be at increased risk of conditions such as cancer, asbestosis, COPD and asthma. The tower is known to have contained asbestos and other toxins. In her letter to NHS chief executive Simon Stevens, Wilcox notes that firefighters involved in the September 11 attacks suffered significant health problems from smoke inhalation. She asked for a physical health screening programme to be established to help prevent future deaths.[142][143]

Public Health England have been monitoring the quality of the air around the derelict tower. In a March 2019 report, they stated that "the risk to public health from air pollution remains low."[144] While the fire itself released many toxic chemicals, they were quickly dispersed in the wind.[145] There has not been a full assessment of the risk posed by soil contamination.[144] Also in March 2019, an independent study led by Professor Anna Stec reported in the journal Chemosphere that research had uncovered "significant environmental contamination" in the soil and buildings around the local area, including significant concentrations of benzene, benzo(a)pyrene, phosphorus and polycyclic aromatic hydrocarbons.[145][144] Chemicals in the soil are unlikely to seep into the air, but could be uncovered if the soil is disturbed.[144] Stec said her findings showed "the need for further in-depth, independent analysis to quantify any risks to residents."[144]

Costs

Grenfell Tower was insured by Protector Forsikring ASA for £20 million, but the direct costs of the fire are likely to be substantially higher. According to *The Times*, the financial impact of the fire could reach as high as £1 billion due to a combination of litigation, compensation for deaths and injuries, rehousing and rehabilitation, the cost of demolition and rebuilding and the possibility that other tower blocks may have to be improved or evacuated.[146]

Councils said the government is not releasing funds to increase fire safety in many other tower blocks after the Grenfell fire although they promised lack of finance would not prevent essential work. The government is not paying to put sprinklers into older tall buildings though sprinklers are required in new buildings over 30 metres tall.[147][148]

In the 22 November 2017 Budget, Chancellor Philip Hammond announced that an extra £28 million was being provided to help victims. He asked that local authorities without the means to make buildings safe should contact central government. Of the fire he said: "This tragedy should never have happened, and we must ensure that nothing like it ever happens again."[149]

On 4 January 2018, BBC News reported the Met Police were asking the Home Office to pay for the investigation, which was one of the largest, most complex and most expensive in its history. A figure of £38 million was quoted.[150]

On 9 May 2019, Housing Secretary James Brokenshire announced the £200m cost of replacing cladding on private tower blocks would be paid for by the Government, reversing the position of leaving costs to owners.[151]

Aftermath

A total of 151 homes were destroyed in the tower and surrounding area.[152] People from surrounding buildings were evacuated due to concerns that the tower might collapse.[59]

The fire also severely affected three low-rise "finger blocks" adjoining Grenfell Tower. Their residents were evacuated due to the fire. The blocks, Barandon Walk, Testerton Walk and Hurstway Walk, also lost access to hot water as they shared a boiler beneath Grenfell Tower that was destroyed in the fire.[153]

Direct causes

Refrigerator

It was initially reported that the fire had been started by a faulty refrigerator.[154] Police confirmed on 23 June that a faulty fridge-freezer had initially started the fire and named the model as a FF175BP fridge-freezer produced under the Hotpoint brand for Whirlpool.[155] Owners of the types FF175BP and FF175BG were urged to register their appliance with the manufacturer to receive any updates. Sixty-four thousand of these models were made between March 2006 and July 2009, after which the model was discontinued. It is unknown how many are still in use.[156]

The Department for Business, Energy and Industrial Strategy (BEIS) commissioned a product safety investigation into the Hotpoint FF175B fridge-freezer. Independent experts examined the remains of the appliance recovered from Grenfell and exemplar models of the same type. They

concluded that the design met all legal safety requirements, and there was no need to issue a recall of the model. Consumer group *Which?* complained that the legal requirements were inadequate.[157][158]

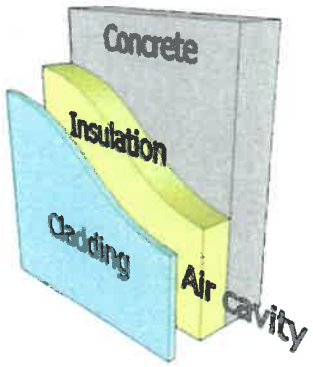
Tenants had repeatedly complained about electrical power surges causing appliances to smoke and such a surge may have set the fridge-freezer on fire. The local authority knew about complaints and had paid tenants compensation for damaged appliances. Nonetheless, the surges continued. Judith Blakeman, a local Labour councillor, said the surges affected many appliances including fridges. Blakeman maintains that the cause of the surges was never solved.[159]

On 27 November 2018, evidence given to the Grenfell Tower inquiry by electrical investigating engineer J. Duncan Glover suggested that in Flat 16 the fridge-freezer compressor relay wiring was not tightly fitted. In his view, this probably created additional electrical resistance leading to overheating and igniting the outer plastic insulation of the wire at 90 °C. Glover described the state of the fusebox following a short circuit to the compressor. During questioning, he compared US and UK safety standards, noting that US regulations require a steel back to the fridge to help contain a fire, whereas UK fridges were allowed to have only a plastic backing.[160]

Exterior cladding and insulation

The newly renovated façade of the tower is believed to have been built as follows:[163]

- exterior cladding: aluminium sandwich plates (3 mm each) with polyethylene core
- a standard ventilation gap (50 mm) between the cladding and the insulation behind it
- an insulation made of PIR (polyisocyanurate) foam plates (150 mm) mounted on the existing facade
- the existing prefabricated reinforced-concrete facade
- new double-glazed windows of unknown type and material, mounted in the same vertical plane as the PIR foam insulation plates[164]



Anatomy of Grenfell Tower cladding.[161] The structure consists of 3 mm cladding (Reynobond PE), 50 mm ventilated cavity, 150 mm insulation (Celotex RS5000) and 250 mm existing concrete.[162]

Both the aluminium-polyethylene cladding and the PIR insulation plates failed fire safety tests conducted after the fire, according to the police.[165]

Earlier in 2014, safety experts had cautioned that the planned insulation was only suitable for use with non-combustible cladding. *The Guardian* saw a certificate from the building inspectors' organisation, Local Authority Building Control (LABC), which stated that the chosen insulation for the refit should only be used on tall buildings with fibre cement panels, which do not burn. Combustible panels with polyethylene were put up on top of insulation known as Celotex RS5000, made from polyisocyanurate, which burns when heated, giving off toxic cyanide fumes. Despite the above, the Royal Borough of Kensington and Chelsea certified the Grenfell tower building work as allegedly conforming to "the relevant provisions". Council building inspectors visited the site 16 times from August 2014 to July 2016. Kooltherm, a phenolic insulation, was also used on Grenfell. Kooltherm was never tested with polyethylene core

aluminium panels according to the manufacturer. The manufacturer, Kingspan, "would be very surprised if such a system [...] would ever pass the appropriate British Standard 8414 large-scale test". Kooltherm's LABC certificate states phenolic products, "do not meet the limited combustibility requirements" of building regulations.[166]

The combustible materials used on Grenfell Tower were considerably cheaper than non-combustible alternatives would have been. There appear to have been intense cost pressures over the Grenfell refurbishment. In June 2017, it was stated the project team chose cheaper cladding that saved £293,368, after the Kensington and Chelsea Tenant Management Organisation mentioned in an email the need for "good costs for Cllr Fielding Mellen [the council's former deputy leader]".[166]

A building control officer from the Royal Borough of Kensington and Chelsea reportedly passed the cladding on Grenfell Tower on 15 May 2015, though there was a nationwide warning that the combustible insulation used should only be used with cladding that does not burn.[167]

Aluminium-polyethylene cladding

Fire safety experts have said that the building's new external cladding was a possible cause of the rapid spread of the fire.[170] Experts said the gap between the cladding and the insulation worked like a chimney to spread the fire.[164] The cladding could be seen burning and melting, causing additional speculation that it was not made of fire-resistant material. One resident said: "The whole one side of the building was on fire. The cladding went up like a matchstick."[171]

Structure of an ACM sandwich panel. In the case of Reynobond PE, the aluminium sheets' thickness is 0.5 mm (0.020 in) and overall panel thickness is either 3, 4, or 6 mm.[168][169]

Concerns about the dangers of external cladding were raised years before, following a fire in 1991 at flats in Knowsley Heights, Merseyside.[172][173] Recent major high-rise fires that have involved flammable cladding are listed below.[172][174][175][176]

Records show that a contractor had been paid £2.6 million to install an "ACM rainscreen over-clad" during the recent refurbishment at Grenfell Tower.[34] ACM stands for "aluminium composite material", also known as a sandwich panel, the combustibility of which depends on the choice of insulation core material.[172]

One of the products used was Arconic's Reynobond, which is available with different types of core material—polyethylene, as reportedly used in Grenfell Tower (Reynobond PE), or a more fire-resistant material (Reynobond FR).[32][177] The Reynobond cladding reportedly cost £24 per square metre for the fire-retardant version, and £22 for the combustible version.[177]

According to Arconic's website and brochure for the mainland European market at the time of the fire, the Reynobond PE cladding used was suitable only for buildings 10 metres or less tall; the fire-retardant Reynobond FR was suitable for buildings up to 30 metres tall; and above the latter height, such as the upper parts of Grenfell Tower, the non-combustible A2 version was supposed to be used ("As soon as the building is higher than the firefighters' ladders, it has to be conceived with an incombustible material").[178][179][180] After the fire, Arconic stopped sales of Reynobond PE

worldwide for tower blocks.[181]

Similar cladding containing highly flammable insulation material is believed to have been installed on thousands of other high-rise buildings in countries including Britain, France, the UAE and Australia.[174][182] Advice published by the Centre for Window and Cladding Technology is that where such materials are used in buildings over 18m, the fire performance of the cladding system as a whole must be proven by testing.[183](p5)

In September 2014, a building regulations notice for the re-cladding work was submitted to the authority and marked with a status of "Completed—not approved".[184] The use of a "Building Notice" building control application is used to remove the need to submit detailed plans and proposals to a building control inspector in advance, where the works performed will be approved by the inspector during the course of their construction. Building inspector Geoff Wilkinson remarked that this type of application is "wholly inappropriate for large complex buildings and should only be used on small, simple domestic buildings".[185]

On 18 June, Chancellor of the Exchequer Philip Hammond stated that the cladding used on Grenfell Tower was banned in the United Kingdom.[186] Grenfell Tower was inspected 16 times while the cladding was being put on but none of these inspections noticed that materials effectively banned in tall buildings were being used. Judith Blakeman, local Labour councillor questioned the competence of the inspectors. Blakeman, representing the Grenfell residents, said, "This raises the question of whether the building regulations officers were sufficiently competent and did they know what they were looking at. It also begs a question about what they were actually shown. Was anything concealed from them?"[187]

The Department for Communities and Local Government stated that cladding with a polyethylene core "would be non-compliant with current Building Regulations guidance. This material should not be used as cladding on buildings over 18 metres (59 ft) in height."[188] On 31 July 2017, the Department released results of fire safety testing on the cladding panels used at Grenfell Tower, which were carried out by the Building Research Establishment and assigned the polyethylene filling a category three rating, designating a total lack of flame retardant properties.[189]

Fire safety experts said the tests the government is doing on cladding only are insufficient, as the whole unit of cladding and insulation should be tested including fire stops. Fire safety experts maintain further that the testing lacks transparency, as the government has not described what tests are being carried out.[190]

According to US-based Arconic, the polyethylene version of the material is banned in the United States for use in buildings exceeding 40 feet (12 m) in height, because of the risk of spreading fire and smoke.[191] NPR subsequently stated that nearly all jurisdictions in the US (except three states and the District of Columbia) have enacted the International Building Code (IBC) requirement that external wall assemblies (cladding, insulation, and wall) on high-rise buildings with combustible components must pass a rigorous real-world simulation test promulgated by the National Fire Protection Association under the name NFPA 285.[192][193][194]

To perform the test, the entire planned assembly is constructed on a standardised test rig two storeys tall, with a window opening in the middle, and is continuously ignited with gas burners from two different angles for 30 minutes.[195] The assembly must satisfy numerous performance criteria to pass, including a requirement that flames cannot spread more than 10 ft (3.0 m) vertically from the top of the window opening or 5 ft (1.5 m) horizontally.[193][195]

A single NFPA 285 test can cost over US$30,000, and it certifies only a particular assembly (i.e., a particular combination of parts from specific manufacturers as they are currently fabricated), meaning that any change to any part used for any reason requires a new test.[192][196] As of mid-2017 ACM cladding with a polyethylene core had not been able to pass the NFPA 285 test, and thus had been effectively banned on US high-rise buildings for decades.[193][197] The UK does not mandate the use of such realistic simulations[193][197] and allows its own similar full-scale tests to be bypassed as long as "the wall assembly components, when tested individually, pass small-scale combustibility tests."[198]

Polyisocyanurate insulation

The refurbishment also used an insulation foam product named Celotex RS5000, installed behind the cladding.[199] Police said this insulation proved "more flammable than the cladding".[200]

The top floors of Grenfell Tower after the fire, showing the burned insulation, with portions of the original structure revealed underneath. The cladding had melted.

According to its datasheet, the polyisocyanurate (PIR) product —charred pieces of which littered the area around Grenfell Tower after the fire—"will burn if exposed to a fire of sufficient heat and intensity".[32][201] PIR insulation foams "will, when ignited, burn rapidly and produce intense heat, dense smoke and gases which are irritating, flammable and/or toxic", among them carbon monoxide and hydrogen cyanide.[202] The fire toxicity of polyisocyanurate foams has been well understood for some time.[203]

At least three survivors were treated for cyanide poisoning.[204] Simultaneous exposure to carbon monoxide and hydrogen cyanide is more lethal than exposure to the gases separately.[205]

Celotex's Rainscreen Compliance Guide, when specifying Celotex RS5000 in buildings above 18 metres (59 ft),[206] sets out the conditions under which the product was tested and for which it has been certified as meeting the required fire safety standards. These include the use of (non-combustible) 12 mm fibre cement rainscreen panels, ventilated horizontal fire breaks at each floor slab edge and vertical non-ventilated fire breaks. It states that any changes from the tested configuration "will need to be considered by the building designer".

Cavity barriers

It has been asserted that cavity barriers intended to prevent the spread of fire in the gap between the facade and the building (the chimney effect) were of insufficient size and, in some cases, incorrectly installed, facilitating the spread of fire.[207]

Windows

It has been asserted that windows and their surrounds installed as part of the refurbishment were less fire resistant than those they replaced due to the materials used and that the windows were of insufficient size necessitating larger surrounds. This would facilitate the spread of fire between the

interior and exterior of the building.[207]

Criticism of the fire response

Criticism of the response to the fire primarily consisted of condemnation of issues with the emergency response and fire safety regulation practices in the UK at the time. Broader political criticism was also directed at British society, including condemnation of the response by governmental bodies and UK politicians, social divisions, deregulation issues, and poor transparency overall.

Fire and structural safety reviews

United Kingdom

In the days after the fire, UK local authorities undertook reviews of fire safety in their residential tower blocks. Building regulations also came under review in the light of the fire due to concerns with the rules and their enforcement.[208][209]

Hanover House, a residential tower block in Sheffield, with its cladding partially removed after failing fire safety tests following the Grenfell fire

On 30 August 2017, the Department for Communities and Local Government published the terms of reference for the Independent Review of Building Regulations and Fire Safety. This independent review was led by Dame Judith Hackitt, who is a senior engineer and civil servant with experience as the Chair of the Health and Safety Executive. The review reported to both DCLG head, James Brokenshire (Sajid Javid at the time the report was commissioned) and Home Secretary, Sajid Javid (Amber Rudd at the time the report was commissioned). The two main aims of the review are firstly to develop improved building regulations for the future, with a focus on residential high-rise blocks, and secondly to provide reassurance to residents that their homes are safe.[210][211]

The Department for Communities and Local Government (DCLG) commissioned tests on how various cladding systems fared in a fire. Seven combinations were tested, and six deemed dangerous. It reported in August 2017 that there were 228 buildings in the United Kingdom cladded using these methods. There are no existing buildings in the UK using the one combination deemed safe, but it could be used to reclad all the buildings that are currently using the other combinations. These findings will be used to help revise the Building Regulations.[212]

On 18 December 2017, Hackitt published her initial report. She described the entire building regulatory system as "not fit for purpose" and made interim recommendations for significant change.[208] The final report was published on 17 May 2018, outlining a number of key failings and recommendations.[213][214] The report did not recommend a ban on the use of combustible cladding on high rise buildings and Hackitt did say that she would support the government if it was to attempt to legislate a ban.[215][216] Recommendations will be reconsidered after the conclusion of the public inquiry. The government is consulting on a possible ban on combustible materials. It is unclear if this applies only to cladding or to insulation as well.[217]

In October 2018, the government announced plans to ban flammable cladding on newly built buildings that were over the height, as well as for those of certain types such as schools, care homes and student housing. The Fire Brigades Union have argued that it should be entirely banned, and that a ban should also apply to existing buildings.

By November 2019, the Government had identified 446 residential and publicly owned buildings in England over 18 metres in height with ACM cladding of the kind used on Grenfell Tower that were unlikely to meet Building Regulations and had pledged £600m towards paying for remediation. However, as investigations arising from the Grenfell disaster proceeded, along with the Barking Riverside fire in June 2019 and the Bolton Cube fire in November 2019, it became clear that far more buildings in the UK either used materials that did not meet safety standards or were otherwise not constructed in accordance with building regulations.[218] By June 2020, around 2,000 high-risk buildings had been identified over 18m tall in England alone; a further 9,600 high-rise buildings thought to have combustible cladding; and 100,000 between 11 and 18 metres whose status was as yet unknown.[219] 2019 saw a collapse in confidence in the safety of blocks of flats among mortgage lenders and insurers, leading to the freezing of a substantial section of the UK housing market.[218] By February 2021, the government had pledged somewhat over £5bn towards the remediation of fire safety problems — a figure that still fell far short of the costs involved, many of which were being borne by owners of flats who had bought them in the belief that they had been built legally.[220]

International

In Australia, authorities decided to remove similar cladding from all its tower blocks. It was stated that every tower block built in Melbourne in the previous 20 years had the cladding.[221][222] In Malta, the Chamber of Engineers and the Chamber of Architects urged the Maltese Government to update the building regulations with regards to fire safety.[223] On 27 June 2017, an 11-storey tower block in Wuppertal, North Rhine-Westphalia, Germany was evacuated after it was found that the cladding was similar to that installed on Grenfell Tower.[224]

A month after the fire at Grenfell Tower the external cladding of the newly built 433-room Hilton Hotel at Schiphol airport in The Netherlands was partly removed, over concerns of fire safety.[225][226] Allegedly due to financial problems at the supplier, the material used did not meet the approved standards. Additional to the replacement, an external video system was installed specifically to detect fires. Also a university building in Rotterdam was found to have the same cladding and was subsequently closed and refurbished.[227] 'Dozens' of other buildings in The Netherlands allegedly suffer the same defects.[228]

In response to Grenfell Tower and similar high-rise fires in the Middle East involving exterior cladding, the United Arab Emirates updated its Fire and Life Safety Code in 2018 to mandate the use of the NFPA 285 fire safety test.[229]

Investigations

The local borough pledged to carry out a full investigation into the fire.[230] Prime Minister Theresa May ordered a full public inquiry, saying that people "deserve answers" to why the fire was able to spread as quickly as it did.[231]

In July 2017, the government offered an amnesty to those who had been illegally sub-letting[232] and a one-year immigration amnesty to those who came forward with information, though did not offer a full guarantee against deportation.[233] On 31 August 2017 Immigration Minister Brandon Lewis announced that the deadline to register for the one-year immigration amnesty for displaced undocumented residents of Grenfell Tower was to be extended by three months to 30 November 2017. Sir Martin Moore-Bick (who leads the public inquiry) wrote to the Prime Minister asking her to consider the long term future for these residents beyond their value as witnesses for the inquiry. These views were echoed by campaign groups BMELawyers4Grenfell and Justice4Grenfell.[234]

Campaign banner for local community group 'Justice4Grenfell'

On 16 September 2019 it was reported that London Fire Brigade as a body have been interviewed by Metropolitan Police under caution in respect of the Health and Safety at Work etc. Act 1974.[235] In a press statement, LFB Commissioner Dany Cotton said the Brigade had been subject to police investigation from just after the fire; hundreds of officers had given voluntary police interviews; and LFB would continue to assist investigators.[236]

Leilani Farha argued that the failings of Grenfell Tower were a breach of residents' human rights, because they were not sufficiently involved in the way the building was developed, notably safety issues, before the fire and are not sufficiently involved in the investigations after the fire.[237]

Criminal

On 15 June 2017, Metropolitan Police Commander Stuart Cundy announced that a criminal investigation had been opened to establish if there was any case for charges to be brought.[238] On 27 July 2017 Police issued a public notice to residents saying that they had "reasonable grounds" to suspect that both the Royal Borough of Kensington and Chelsea and the Kensington and Chelsea Tenant Management Organisation "may have committed" corporate manslaughter. Senior representatives of both organisations are likely to face police interviews under caution. More than sixty companies and organisations are associated with Grenfell Tower, and police are keeping open all options for a range of possible charges.[239][240] These include manslaughter, corporate manslaughter, misconduct in public office and fire safety offences.[241]

In an interview with the London Evening Standard on 7 August 2017, the Director of Public Prosecutions, Alison Saunders, said investigations are at an early stage and nothing is ruled out. Mrs Saunders said it was more important to build strong cases than to rush to court, and that the DPP had yet to see the evidence. Health and safety legislation and other criminal laws will be considered. If proven, the offence of Gross Negligence Manslaughter carries a maximum life sentence, with a guideline minimum of twelve years.[242][243] For such a charge the prosecution must show sufficient evidence to pass a four stage "Adomako Test" proving a reprehensible breach of duty of care which caused or contributed to the victims' death.[244]

On 7 June 2018, BBC News reported that the Met Police are investigating the London Fire Brigade for using the "Stay Put" policy. Possible criminal offences under the Health and Safety at Work Act are under consideration.[245]

As of 7 June 2019, thirteen interviews had been held under caution with more expected, and 7,100 statements had been taken from witnesses, family members, emergency service personnel and others.[246] In March 2019, it was revealed that no criminal charges are due to be brought before late 2021. The Metropolitan Police explained that all evidence had to be considered before a case could be put before the Crown Prosecution Service. Phase 2 of the public enquiry is unlikely to start before 2020, and no case can be brought until after the report has been published.[247]

Fraudulent claims

On 19 September 2017, Commander Stuart Cundy briefed that eight people were being investigated for allegedly making false claims to financial support in the name of fictitious victims.[109][110] By 1 June 2018, five people had been convicted for fraud offences after stating they were victims of the fire to claim financial support.[113][112]

New arrests were made in London on 7 June 2018 of a further nine people suspected of fraud.[248] Four were charged a day later. Three people were charged with fraud while one additional suspect was initially charged with drug and theft offences but was eventually charged with fraud on 19 July.[249][250] The other five were released under investigation.

By March 2020, twenty one people had been charged with fraud offences relating to the fire, with all of them being found guilty after twenty investigations by the Metropolitan Police and one investigation by the City of London Police Insurance Fraud Enforcement Department. They were given prison sentences totaling almost 90 years in total after fraudulently claiming around £1 million in pre-paid credit cards, hotel accommodation costs and other funds intended for the victims of the fire.

All of those convicted of fraud stated that they lived in the tower block and that their homes had been destroyed, and many said that members of their family had been killed. They spent their money on lavish holidays, expensive cars and gambling, and some even asked for more money after complaining about the food and WiFi in the hotels they were being housed in. Three of those convicted were also found to have been illegal immigrants living in the UK, and one man was caught with quantities of illegal drugs in his hotel room. Another man was also found to have committed a burglary. A woman who pretended to be a Grenfell victim was found to have made more than fifty false claims to insurers and to have also said she was present at the Manchester Arena bombing and the London Bridge attack just weeks earlier.[251][252][253][254][255][256][257][258][259][260]

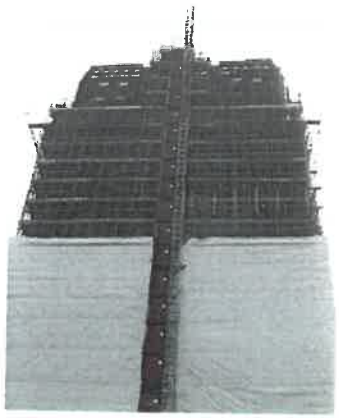
Forensic search and recovery

Detailed investigations into the causes and possible criminal charges of manslaughter or breach of regulations are in progress. Search dogs, fingertip searches, DNA matching, fingerprinting, forensic dentistry and forensic anthropologists have been used. An external lift was fitted to the building to improve access.[1]

The scale of the search and recovery operation was challenging. Human remains were mixed within an estimated 15.5 tonnes (17.1 tons) of debris on every floor.[261] Time and care was taken to maintain a judicial standard and avoid mistaken identity, which could have caused further distress to surviving relatives. Disaster Victim Identification was expected by police to continue to 2018.[1]

Fire brigade

Following the Newsnight report of 7 July 2017, the LFB said issues encountered in its response to the fire would also form part of the police investigation.[65] LFB Commissioner Dany Cotton said in a *Channel 4 News* interview on 11 July 2017 that she expected reasonable criticism of the LFB response in the investigation and public inquiry.[81] Following criticism by survivors and victims families, Cotton retired early at the end of December 2019.[262] Her replacement from 1 January 2020 is Deputy Commissioner Andrew Roe.[263]



View of the lift and hoist system installed on the east face of the tower to remove debris from the tower

BBC Radio 4 reported on 16 August 2017 that the Fire Brigade was advised by KCTMO during the refurbishment and fire officers had been shown "fire safety features". Council opposition leader Robert Atkinson, structural engineer Paul Follows and building inspector Geoff Wilkinson all expressed shock that the fire had happened given prior consultation with LFB.[264]

London Fire Brigade said it had not given approval for the work, saying its legal powers are limited. It said firefighters regularly visit buildings to gain familiarity with the layout and equipment, but that this was not the same as a detailed inspection.[265]

Public inquiry

Grenfell Tower Inquiry
Public hearings opened 14 September 2017

One day after the fire broke out, Prime Minister Theresa May announced a public inquiry into the causes of the fire. Two weeks later, Sir Martin Moore-Bick was appointed to lead it. He pledged that the inquiry would be "open, transparent and fair". The inquiry will run alongside the criminal investigations.

On 15 August 2017, Theresa May announced the terms of reference, accepting in full Moore-Bick's proposals. The inquiry plans to examine the cause and spread of the fire, the adequacy and enforcement of building regulations and fire protection measures, the actions of the council and KCTMO prior to the fire, and the responses of the London Fire Brigade, council and national government.[266] Labour Party politicians and some survivors called for the inquiry to include a broader examination of national social housing policy, which was not included in the terms of reference.[267][268][269] The Inquiry's public hearings started on 14 September 2017.[270]

The first report (Phase 1) from the inquiry was officially published on 30 October 2019, but had been leaked and publicised during the press embargo.[271] Originally due in spring 2019, the date was pushed back to October. Moore-Bick told survivors the timing disappointed him.[272]

Moore-Bick's report affirmed the exterior cladding was the primary reason the fire spread out of control, and that it did not comply with the building regulations. He praised the "courage and devotion to duty" of the firefighters but argued LFB suffered from "significant systemic failings" and that incident commanders were not trained to deal with a failure of compartmentalisation of this scale. The report was welcomed by survivors.[57] On 6 December, Dany Cotton announced she would retire earlier than planned.[273]

The inquiry resumed with Phase 2 on 28 January 2020.

Equality and Human Rights Commission report

The *Following Grenfell* report (March 2019) observes that children who witnessed the fire, or who have lost a friend or part of their family, don't know where or how to access help because the services are not available.[274]

The EHRC report expressed particular concern around the placing of disabled people, including wheelchair users, on upper storeys of tower blocks without any consideration about how they could escape in a fire or other emergency. The report considered disabled people had faced discriminatory treatment amounting to breaches of the right to life, the right to safe, adequate housing; and the right to freedom from cruel, inhuman and degrading treatment, further noting that degrading treatment continued after the fire with disabled people being housed in inaccessible premises.[275]

Civil lawsuit

On 11 June 2019, survivors and families of the victims of the fire filed a civil action complaint in the Court of Common Pleas of the First Judicial District of Pennsylvania in Philadelphia against Arconic and Celotex (both of which are headquartered in Pennsylvania), seeking an unspecified amount of money damages for various product liability claims.[276][277] The 420-page complaint alleges that the cladding and insulation were defective because they lacked fire retardant and were therefore combustible.[276][277] Whirlpool, the Michigan-based manufacturer of the Hotpoint refrigerator believed to have caused the fire, was also named as a defendant in the suit on the grounds that the refrigerator contained materials liable to catch fire.[276][277] Litigation is expected to take at least two and a half years due to the long process of discovery.[276]

By August, the defendants had exercised their right to remove the case to the appropriate federal court: the United States District Court for the Eastern District of Pennsylvania.[278] In November 2019, Arconic resisted production of documents (already in the possession of its American lawyers at DLA Piper) on the basis that the cladding at issue had been manufactured by a French subsidiary, Arconic Architectural Products SAS, and that French law prohibits the production of commercial information in foreign legal proceedings without authorization by a French court.[279] According to its US corporate filings, as of November 2019, Arconic had already spent approximately £30 million on lawyers and advisers to respond to all the criminal and civil investigations, inquiries, and litigation arising out of the fire.[280]

Demolition

Grenfell Tower site manager Michael Lockwood told a public meeting on 26 July 2017 that the building would be covered in a protective wrap supported by scaffolding. This is to protect forensic evidence but would later allow the building to be taken down. The community will be consulted on how the space should be used after demolition.[281] As of September 2018, deconstruction is expected by 2022.[282]

Similar fires

The following are similar fires that spread through exterior wall assemblies (cladding, insulation, wall) containing combustible components. Most of them involved high-rise buildings.

Grenfell Tower partially covered in scaffolding and the protective wrap in May 2018

United Kingdom and Isle of Man

- 1973 Summerland disaster – leisure centre fire in Douglas, Isle of Man, worsened by the ignition of flammable acrylic sheeting covering the building, led to at least 50 deaths.[48][47]
- 1991 Knowsley Heights fire – a fire in a tower block in Liverpool that had recently been fitted with rain screen cladding spread from the bottom to the top of the building via the 90 mm air gap behind the cladding.[283][284]
- 1999 Garnock Court fire – the fire in a tower block in Irvine, North Ayrshire, spread rapidly up combustible cladding,[175] resulting in one death and four injured.[285] The incident led to a parliamentary inquiry into the fire risk of external cladding and a change of the law in Scotland in 2005 requiring any cladding to inhibit the spread of fire.[286]

The 2005 Harrow Court fire in Stevenage caused three deaths

- 2005 Harrow Court fire – in a tower block in Stevenage, Hertfordshire, led to three deaths.[287]
- 2009 Lakanal House fire – in a tower block in Camberwell, South London, led to six deaths and at least twenty injured; an inquest "found the fire spread unexpectedly fast, both laterally and vertically, trapping people in their homes, with the exterior cladding panels burning through in just four and a half minutes."[288]
- 2010 Shirley Towers fire – two firefighters died after tower block fire rapidly escalated.[289]
- 2016 Shepherd's Court fire – in a tower block in Shepherd's Bush, West London, a faulty tumble-dryer caught fire on the seventh floor, 19 August 2016. The fire spread up six floors on the outside of the building, which is owned by Hammersmith and Fulham Council. There were no fatalities but some suffered smoke inhalation.[53][54][55][52]
- 2019 De Pass Gardens fire – a fire in a six-storey tower block in Barking, East London spread through all six floors.[290]
- 2019 The Cube fire – a fire in a six-storey student residence in Bolton, re-clad in 2018 with high-pressure laminate. The fire spread "extremely rapidly" through the top three floors of the building.[291][292]
- 2021 Poplar/New Providence Wharf fire – a fire that affected three floors of a tower block in New Providence Wharf, Poplar, which also used the same type of cladding tiles, with two people being sent to hospital for smoke inhalation[293]

Elsewhere

- 2007 fire at The Water Club (Atlantic City, New Jersey, US) – a fire that occurred as the

building was nearing completion spread rapidly up aluminium composite panel cladding with a polyethylene core, from the 3rd floor to the top of the 41-floor building.[175][283]

South Korean firefighters in the 2010 Wooshin Golden Suites fire used a helicopter as part of their operations to put out a cladding fire that rose within minutes from the 4th to the 38th floor.[294][295]

- 2009 Beijing Television Cultural Center fire (China) – believed to have spread via insulating foam panels on the building's facade.[296][297]
- 2010 Wooshin Golden Suites fire (Marine City, South Korea) – spread within 20 minutes from the 4th floor to the top of the 38-storey building, which featured flammable aluminium composite cladding with a polyethylene core, along with insulation made of glass wool or polystyrene.[175][294][295][283]
- 2010 Shanghai fire (China) – destroyed a 28-storey high-rise apartment building, killing at least 58 people; flammable polyurethane insulation applied to the outside of the building was reported to have been a possible contributory factor.[298][299]
- 2012 Al Tayer Tower fire (Sharjah, United Arab Emirates) – the rapid spread of the fire, which started in a first-floor balcony and spread to the top of the 40-storey (34 residential, six parking floors) tower, was attributed to aluminium sandwich panels featuring a thermo-plastic core.[175][300]
- 2012 Mermoz Tower fire (Roubaix, France) – saw fire spread rapidly up flammable cladding, resulting in one death and six injured.[301][302]
- 2012 Tamweel Tower fire (Dubai, United Arab Emirates) – spread across dozens of floors via flammable aluminium cladding.[51][303][300]
- 2014 Lacrosse Tower fire (Melbourne, Australia) – a fire started on an eighth-floor balcony took just 11 minutes to travel up 13 floors to the building's roof, spreading via the same type of aluminium composite cladding as was used in Grenfell Tower.[304]
- 2015 fire at The Marina Torch (Dubai, United Arab Emirates) – fire spreading up the cladding of several dozen storeys from the 50th floor to the top of the building.[51][305] A second fire occurred on 4 August 2017, again spreading rapidly up the exterior of the building.[306]
- 2015 fire at The Address Downtown Dubai (United Arab Emirates) – cladding fire in a supertall hotel and residential skyscraper.[174]
- 2016 Ramat Gan high-rise fire (Ramat Gan, Israel) – a small fire in a flat quickly spread to the top of a 13-storey tower block via combustible external insulation panelling.[307]
- 2016 Neo Soho fire (Jakarta, Indonesia) – the fire occurred while the building was still under construction and spread rapidly up dozens of floors via flammable cladding.[308][309][310][311]
- 2018 Employees Provident Fund building fire (Petaling Jaya, Selangor, Malaysia) – the fire occurred due to sparks from maintenance works on the building ignited the outer cladding of the building. This is the first fire involving cladding in Malaysia. No one was reported hurt. The fund stated that "there has been no compromise to the data integrity or members' savings in any manner".[312][313]
- 2018 Edifício Wilton Paes de Almeida in São Paulo, Brazil was devastated by fire and collapsed. Neighbouring buildings also caught fire.[314] The fire caused at least four deaths, with a further 40 people missing as of May 2018.[315]
- 2019 Neo200 apartment building fire – a fire ignited on the 22nd floor of the apartment building

located at 200 Spencer Street, Melbourne, Victoria, Australia and rapidly spread to the 29th floor. It was the second fire at the building; the first happened on 31 December 2015.[316] The tower was known to have the same type of cladding as the Grenfell Tower and the fire was found by a council inspection to have affected sprinkler systems and alarm systems. It was also reported that extra smoke alarms were installed just two weeks before the fire and that some residents had put plastic covers over their smoke alarms. Other residents refused to leave, complicating the evacuation process.[317][318][319]

See also

- Barking fire
- Building regulations in the United Kingdom § Part B. Fire safety
- The Dalmarnock fire tests – A televised highrise fire-test, conducted in Scotland 2006
- Fire escape
- Fire services in the United Kingdom
- History of fire safety legislation in the United Kingdom
- King's Cross fire – The 1987 London fire that likewise spread upward due to the trench effect, where hot gases will adhere to nearby surfaces and inclined planes
- Khadija Saye, a victim of the fire
- Skyscraper fire – List of notable tower block fires
- List of high-rise facade fires

Notes

1. This article uses the post-renovation floor numbering scheme, except where noted.
2. The floors were originally numbered Ground, Mezzanine, Walkway, Walkway + 1, Floor 1, Floor 2, ..., Floor 20.[9] After the 2015–16 renovation, the floors were numbered Ground, Floor 1, Floor 2, ..., Floor 23. The flat numbers followed a pattern in which the last digit indicated a flat's position on the floor, and the preceding digits indicated the original number of the floor. Thus Flat 16 was in the northeast corner of Floor 1, and Flat 26 was directly above it. The 2015–16 renovation changed the floor numbers but not the flat numbers. Therefore Flat 16 was now on Floor 4, the former Floor 1.[10]
3. The inquiry ruled in 2019 that the resident was not to blame.[57]
4. The most senior officers of the London Fire Brigade take it in turns to be on call at night, to respond to a major incident.[71]

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- Independent Review of Building Regulations and Fire Safety: interim report (https://www.gov.uk/government/publications/independent-review-of-building-regulations-and-fire-safety-interim-rep

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- Met Police – UPDATE: Grenfell Tower fire investigation (https://web.archive.org/web/20180620052605/http://news.met.police.uk/news/latest-grenfell-tower-fire-investigation-250453)
- NHS Statement on fire at Grenfell Tower (https://www.england.nhs.uk/london/2017/06/14/statement-on-fire-at-grenfell-tower/)
- Police Public Appeal For Photos and Videos (http://www.ukpoliceimageappeal.co.uk/)
- London fire: Who are the victims? (https://www.bbc.co.uk/news/uk-40282153) (BBC News)
- Product Notice – Hotpoint Fridge Freezer (http://www.hotpointservice.co.uk/fridgefreezer) at hotpointservice.co.uk
- Dany Cotton interview Channel 4 News 11 July 2017 (https://www.channel4.com/news/dany-cotton-only-a-miracle-could-have-saved-grenfell)
- LFB Video of plastic backed fridge fire (https://web.archive.org/web/20170825065024/http://www.london-fire.gov.uk/total-recalls/change-the-way-fridges-and-freezers-are-constructed.asp)
- Grenfell Tower fire (https://www.theguardian.com/uk-news/grenfell-tower-fire) (The Guardian)
- GOV.UK Grenfell Tower Documents Collection (https://www.gov.uk/government/collections/grenfell-tower)
- James MacTaggart Memorial Lecture: Jon Snow (https://www.youtube.com/watch?v=bOpMl3nWsrY)
- Grenfell Tower: The 21st floor – BBC Newsnight (https://www.youtube.com/watch?v=-cY_fgeeCzc) (TV report)
- The 21st floor – Katie Razzall – BBC Newsnight (https://www.bbc.co.uk/news/resources/idt-sh/Grenfell_21st_floor) (article)
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- Graphics, photographs and timeline of fire spread (https://www.bbc.co.uk/news/uk-44381387) (BBC)
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- Grenfell Tower Inquiry Daily Podcast (https://www.bbc.co.uk/programmes/p066rd9t/episodes/downloads) (BBC)
- Grenfell Tower Inquiry hearing videos (https://www.youtube.com/channel/UCMxYjfZsqLa8DanN0r2eNJw/videos) (YouTube)
- *Reynobond Aluminum Composite Material* (https://fairfieldmetal.com/wp-content/uploads/2014/02/Reynobond_Brochure.pdf) (PDF), Alcoa Architectural Products, November 2012 – brochure for the cladding used and other claddings made by the same company, quoting their safety ratings with respect of flame spread and smoke developed.
- *Two Years on from Grenfell* (https://www.firesafetysearch.com/two-years-on-from-grenfell/) – Two Years on from Grenfell, Carl Hunter looks at Document B the core fire safety document underpinning the industry.
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AAR04-Texas City Disaster-1947.pdf

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Coordinates: 29°22′39″N 94°53′29″W

Texas City disaster

The **1947 Texas City disaster** was an industrial accident that occurred on April 16, 1947, in the Port of Texas City, Texas, at Galveston Bay. It was the deadliest industrial accident in United States history and one of history's largest non-nuclear explosions. A mid-morning fire started on board the French-registered vessel SS *Grandcamp* (docked in the port) and detonated her cargo of about 2,300 tons (about 2,100 metric tons) of ammonium nitrate.[1] This started a chain reaction of fires and explosions in other ships and nearby oil-storage facilities, ultimately killing at least 581 people, including all but one member of the Texas City fire department.[2]

The SS *Wilson B. Keene*, destroyed in the disaster's second explosion

The disaster drew the first class action lawsuit against the United States government, on behalf of 8,485 victims, under the 1946 Federal Tort Claims Act.

Contents

Ships

The *Grandcamp* was a recently re-activated 437-foot-long (133 m) Liberty ship. Originally named the SS *Benjamin R. Curtis* in Los Angeles in 1942, the ship served in the Pacific theatre and was

mothballed in Philadelphia after World War II.[3] In a Cold War gesture, the ship was assigned by the United States to the French Line to assist in the rebuilding of France, along with other efforts in Europe. Along with the ammonium nitrate—a very common cargo on the high seas—it was carrying small arms ammunition, machinery, and bales of sisal twine on the deck. Another ship in the harbor, the SS *High Flyer*, was docked about 600 feet (200 m) away from the SS *Grandcamp*. The *High Flyer* contained an additional 961 short tons (872 metric tons) of ammonium nitrate[1] and 1,800 short tons (1,600 metric tons) of sulfur. The ammonium nitrate in the two ships and fertilizer in the adjacent warehouse were intended for export to farmers in Europe. The *Grandcamp* had arrived from Houston, where the port authority did not permit loading of ammonium nitrate.

Cargo

The ammonium nitrate, needed either as fertilizer or an explosive, was manufactured in Nebraska and Iowa and shipped to Texas City by rail before being loaded onto the *Grandcamp*.[4] It was manufactured in a patented process, mixed with clay, petrolatum, rosin and paraffin wax to avoid moisture caking. It was packaged in paper sacks, then transported and stored at higher temperatures that increased its chemical activity. Longshoremen reported the bags were warm to the touch before loading.

Fire

On April 16, 1947, around 8:00 a.m., smoke was spotted in the cargo hold of the *Grandcamp* while she was still moored. Over the next hour, attempts to extinguish the fire or bring it under control failed, as a red glow returned after each effort to douse the fire.

Shortly before 9:00 a.m., the captain ordered his men to steam the hold, a firefighting method where steam is piped in to extinguish fires, in order to preserve the cargo. This was unlikely to be effective, as ammonium nitrate is an oxidizer, thus neutralizing the extinguishing properties of steam. The steam may have contributed to the fire by converting the ammonium nitrate to nitrous oxide, while augmenting the already intense heat in the ship's hold.[5]

The fire attracted spectators along the shoreline, who believed they were at a safe distance.[6] Eventually, the steam pressure inside the ship blew the hatches open, and yellow-orange smoke billowed out. This color is typical for nitrogen dioxide fumes.[1] The unusual color of the smoke attracted more spectators. Spectators also noted that the water around the docked ship was boiling from the heat, and the splashing water touching the hull was being vaporized into steam. The cargo hold and deck began to bulge as the pressure of the steam increased inside.

Explosion

At 9:12 a.m., the ammonium nitrate reached an explosive threshold from the combination of heat and pressure.[7] The vessel detonated, causing great destruction and damage throughout the port. The tremendous blast produced a 15-foot (4.5 m) wave that was detectable nearly 100 miles (160 km) from the Texas shoreline. The blast leveled nearly 1,000 buildings on land. The *Grandcamp* explosion destroyed the Monsanto Chemical Company plant and resulted in ignition of refineries and chemical tanks on the waterfront. Falling bales of burning twine from the ship's

cargo added to the damage, and the *Grandcamp*'s anchor was hurled across the city. Two sightseeing airplanes flying nearby were blown out of the sky,[8] while 10 miles (16 km) away, half of the windows in Galveston were shattered.[9] The explosion blew the almost 6,350 short tons (5,760 metric tons) of the ship's steel into the air, some at supersonic speed.

This 2-ton anchor was thrown more than 1.6 miles when the *Grandcamp* exploded

Official casualty estimates came to a total of 567, including all the crewmen who remained aboard the *Grandcamp*. All but one member of the 28-man Texas City volunteer fire department were killed in the initial explosion on the docks while fighting the shipboard fire. With fires raging throughout Texas City, first responders from other areas were initially unable to reach the site of the disaster.

The first explosion ignited ammonium nitrate in the nearby cargo ship *High Flyer*. The crews spent hours attempting to cut the *High Flyer* free from her anchor and other obstacles, in order to move her, without success. After smoke had been pouring from the hold for over 5 hours, and about 15 hours after the explosions aboard the *Grandcamp*, the *High Flyer* exploded, demolishing the nearby SS *Wilson B. Keene*, killing at least two more people and increasing the damage to the port and other ships with more shrapnel and burning material. One of the propellers on the *High Flyer* was blown off and subsequently found nearly a mile inland. It is now part of a memorial park and is located near the anchor of the *Grandcamp*. The propeller is cracked in several places, and one blade has a large piece missing.

The cause of the initial fire on board the *Grandcamp* was never determined. It may have been started by a cigarette discarded the previous day, meaning the ship's cargo had been smouldering throughout the night when the fire was discovered on the morning of the day of the explosion.[1]

Scale of the disaster

The Texas City disaster is generally considered the worst industrial accident in American history. Witnesses compared the scene to the fairly recent images of the 1943 air raid on Bari and the much larger devastation after the atom bomb was dropped at Nagasaki.

A five-story rubber factory beside slip #1

Of the dead, 405 were identified and 63 have never been identified. The latter remains were placed in a memorial cemetery in the north part of Texas City near Moses Lake. An additional 113 people were classified as missing, for no identifiable parts were ever found. This figure includes firefighters who were aboard *Grandcamp* when she exploded. There is some speculation that there were hundreds more killed but uncounted, including visiting seamen, non-census laborers and their families, and an untold number of travelers. But there were also some survivors among people as close as 70 feet (21 m) from the dock. The victims' bodies quickly filled the local morgue. Several bodies were laid out in the local high school's gymnasium for identification by family or friends.

Parking lot ¼ mile (400 m) away from the explosion

More than 5,000 people were injured, with 1,784 admitted to 21 area hospitals. More than 500 homes were destroyed and hundreds damaged, leaving 2,000 homeless. The seaport was destroyed, and many businesses were flattened or burned. Over 1,100 vehicles were damaged and 362 freight cars were obliterated; the property damage was estimated at $100 million[10] (equivalent to $1.2 billion in 2020).

A 2-short-ton (1.8-metric-ton) anchor of *Grandcamp* was hurled 1.62 miles (2.61 km) and found in a 10-foot (3 m) crater. It was installed at a memorial park. The other main 5-short-ton (4.5-metric-ton) anchor was hurled ½ mile (800 m) to the entrance of the Texas City Dike. It rests on a "Texas-shaped" memorial at the entrance. Burning wreckage ignited everything within miles, including dozens of oil storage tanks and chemical tanks. The nearby city of Galveston, Texas, was covered with an oily fog that left deposits over every exposed outdoor surface.

Firefighting casualties

Some of the deaths and damage in Texas City were due to the destruction and subsequent burning of several chemical plants (including Monsanto and Union Carbide), oil storage, and other facilities near the explosions. 27 of the 28 members of Texas City's volunteer fire department and 3 of 4 members of the Texas City Heights Volunteer Fire Department who were on the docks near the burning ship were killed. One firefighter, Fred Dowdy, who had not responded to the initial call, coordinated other firefighters arriving from communities up to 60 miles (100 km) away. Alvin Fussell, sole survivor of the Heights Volunteer fire fighters, was driving to work in Alvin when he heard of the fire on the radio. Eventually 200 firefighters arrived, from as far away as Los Angeles. Fires resulting from the cataclysmic events were still burning a week after the disaster, and the process of body recovery took nearly a month. All four fire engines of Texas City were twisted and burned husks.

Texas City Disaster Firemen Memorial

Reactions and rebuilding

The disaster received national media attention, with offers of assistance coming from around the country. Several funds were established to handle donations, particularly the Texas City Relief Fund, created by the city's mayor Curtis Trahan.[11] One of the largest fundraising efforts for the city and the victims of the disaster was organized by Sam Maceo, one of the two brothers who ran organized crime in Galveston at the time. Maceo organized a large-scale benefit on the island, featuring entertainers including Phil Harris, Frank Sinatra, and Ann Sheridan.[12][13] In the end, the Texas City Relief Fund raised more than $1 million ($12.3 million in today's terms). Payouts for fire insurance claims reached nearly $4 million ($45.8 million in today's terms).[11]

Within days of the disaster, major companies that had lost facilities in the explosions announced plans to rebuild in Texas City and in some cases to expand their operations. Some companies implemented policies of retaining all of the hourly workers who had previously worked at destroyed facilities with plans to use them in the rebuilding.[11] Cost estimates of the industrial reconstruction were estimated at approximately $100 million ($1.16 billion adjusted for inflation).[11]

"Commemorating the 50th Anniversary of the explosion (...), just as the Phoenix bird symbolizes resurrection from the ashes of despair, the 'Phoenix Fountain' epitomizes courage and the triumph of the human spirit. (...) Chewatah, Washington Artist David Govedare was commissioned by Mayor Charles T. Doyle (...) [to] produce this twelve foot sculpture from half inch cor-ten steel. Architect Joseph Allen Hoover and City Engineer James McWhorter designed the fountain built by Texas City's Public Works Department."[1] (http://www.local1259iaff.org/phoenixfountain.htm)

Legal case

Many of the legal cases seeking compensation were combined into *Elizabeth Dalehite, et al. v. United States*, under the recently enacted Federal Tort Claims Act (FTCA). On April 13, 1950, the district court found the United States responsible for a litany of negligent acts of omission and commission by 168 named agencies and their representatives, in the manufacture, packaging, and labeling of ammonium nitrate. This was further compounded by errors in transport, storage, loading, fire prevention, and fire suppression, all of which led to the explosions and the subsequent carnage.

On June 10, 1952, the U.S. Fifth Circuit Court of Appeals overturned this decision, finding that the United States maintained the right to exercise its own "discretion" in vital national matters. The Supreme Court affirmed that decision (346 U.S. 15, June 8, 1953), in a 4-to-3 opinion, noting that the district court had no jurisdiction under the federal statute to find the U.S. government liable for "negligent planning decisions" which were properly delegated to various departments and agencies. In short, the FTCA clearly exempts "failure to exercise or perform a discretionary function or duty", and the court found that all of the alleged acts in this case were discretionary in nature.[14]

In its dissent, the three justices argued that, under the FTCA, "Congress has defined the tort liability of the government as analogous to that of a private person", i.e., when carrying out duties unrelated to governing. In this case, "a policy adopted in the exercise of an immune discretion was carried out carelessly by those in charge of detail", and that a private person would certainly be held liable for such acts. A private person is held to a higher standard of care when carrying out "inherently dangerous" acts such as transportation and storage of explosives.

According to Melvin Belli in his book *Ready for the Plaintiff!* (1965), Congress acted to provide some compensation after the courts refused to do so.[15] The Dalehite decision was eventually "appealed" to Congress, where relief was granted by means of legislation (Public Law 378, 69 Stat. 707 (1955)).[16] When the last claim had been processed in 1957, 1,394 awards totaling nearly $17 million had been made.

See also

- List of ammonium nitrate disasters

- Largest artificial non-nuclear explosions
- Halifax Explosion
- Oppau explosion (1921)
- West Fertilizer Company explosion in West, Texas
- 2015 Tianjin explosions
- 2020 Beirut explosion

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11. Stephens (1997), p. 104–105.
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16. "Public Law 378 Chapter 864 69 Stat. Page 707" (https://www.gpo.gov/fdsys/pkg/STATUTE-69/pdf/STATUTE-69-Pg707.pdf) (PDF).

External links

Final reports

- Record of Proceedings of Board Investigation Inquiring Into Losses By Fires and Explosions of the French Steamship Grandcamp and U.S. Steamships Highflyer and Wilson B. Keene at Texas City, Texas 16 and 17 April 1947, U.S. Coast Guard, U.S. Treasury Department, pages 538-550 (https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/CG-5PC/INV/docs/boards/grandcamp.pdf)

Legal documents

- Supreme Court opinion, Dalehite v. U.S., 1953 (http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=us&vol=346&invol=15)

Collections and galleries

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- "The Explosion: 50 years later, Texas City still remembers (https://web.archive.org/web/19980213082948/http://www1.chron.com/content/chronicle/metropolitan/txcity/index.html)." - Collection of articles by the *Houston Chronicle*

Other links

- Headline, NY Times, April 17, 1947, *Blasts and Fires Wreck Texas City of 15,000; 300 to 1,200 Dead; Thousands Hurt, Homeless; Wide Coast Area Rocked, Damage in Millions* (https://www.nytimes.com/learning/general/onthisday/big/0416.html#article)
- Texas City Disaster, 1947 photographs (http://texashistory.unt.edu/search/?q=Texas+City+Disaster%2C+1947&t=dc.subject) from the Moore Memorial Public Library, hosted by the Portal to Texas History (http://texashistory.unt.edu/)
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- Details and photos of local destruction (http://www.local1259iaff.org/disaster.html)
- Joint report of Fire Preventions and Engineering Board of Texas and the National Board of Fire Underwriters (http://www.local1259iaff.org/report.htm)
- Images from the day after the explosion at the UH Digital Library (http://digital.lib.uh.edu/cdm4/browse.php?CISOROOT=%2Fp15195coll4)
- Footage appears in the film *Encounters with Disaster*, released in 1979 and produced by Sun Classic Pictures. Viewable on the Internet Archive.

AAR05-MVA-SunriseHighway-06-11-2005.pdf

NEWS

FIREBA 4 KILLED AS HIGHWAY CRASH LEADS TO TANKER BLAST AND PILE-UP

By Kieran Crowely June 11, 2005 4:00am

It was hell on the Sunrise Highway yesterday when a collision between an oil tanker and a gravel truck triggered a fiery chain-reaction smash-up. Four people were killed and 14 vehicles were mangled and burned after leaking fuel ignited into a fireball.

Flames shot high into the air above the eastbound lanes in North Babylon near Exit 40 in Suffolk County after the 9 a.m. disaster.

Among the dead was a woman who survived the initial carnage but was trapped in her crushed car, desperately honking her horn and crying out "Please help me! Please help me!"

But the tanker truck blew up before anyone could get her out, witnesses said.

Willie Uettwiller, 42, who was riding in a car with his girlfriend and her baby son, tried valiantly to save the doomed woman whose car was pinned under the truck after the pile-up.

Using only his bare hands, Uettwiller could not get the woman out of the mangled wreckage.

"That's when the bangs started" as gas tanks exploded and tires began popping in the searing heat, he said.

Then he saw a second female victim who had been thrown from her vehicle and somehow landed atop a box truck that was traveling behind Fierro's car.

"The flames were spreading all around," he said. "We screamed to her to jump, and she jumped and landed face down on the pavement." Uettwiller and another man pulled the badly burned

ex-brother-in-law's c

"Don't you recognize d him as he carried her away. "But I coul ied," Uettwiller said later.

In the meantime, the trapped woman continued banging on her horn and crying for help. But Uettwiller, whose face was reddened from the heat after the accident, said the spreading inferno kept him from getting back to her.

"I kept hearing the horn over and over. It didn't stop with the fifth or sixth explosion, it kept going," he said. "But after 20 or so, the horn stopped. That was the last I heard of that lady," he said. "I still hear that horn."

"No one could get to her, so she died," said Fierro sadly.

Suffolk Police Detective Sgt. Kenneth Williams said the Mystic Tank Line tanker-trunk, carrying more than 10,000 gallons of home heating oil, was unable to stop at a construction merge and plowed into traffic that had backed up.

Police said the tanker spilled its contents after the collision, and a fire from a gas tank in one of the cars behind the trucks spread to the tanker.

The resulting explosions and fire left the busy Long Island artery looking more like a war zone than a suburban commuting corridor.

Uettwiller, a construction worker from Lindenhurst, and his girlfriend, Ann Marie Fierro, said they first heard loud bangs coming from behind them.

every car everywnere."

"I said, 'Oh my God, we're going to die,' " said Fierro, who was driving. "I saw cars just being pushed out of the way" in the review mirror.

Other eyewitnesses agreed that the gravel truck – which had been hit from behind by the tanker –

for Mystic, the comp and had a good safety record.

An employee who a ccident last night.

"The back of the [gra hing everything in its path. It was just li

The colossal wreck closed down the busy highway for the remainder of the morning, snarling local roads as commuters sought alternate routes. By mid-afternoon, only the westbound access road had reopened, giving headaches to hordes of weekend travelers heading out to the Hamptons in the summer Friday exodus.

Cops said three people were injured in the disaster – a woman who was in critical but stable condition in the burn unit at Nassau University Medical Center and two people who were treated at Good Samaritan Hospital for minor injuries.

Burned-out cars littered the roadway, and the intense heat from the fire melted the aluminum sides of the gravel truck.

Orville Kerr, 49, of Paterson, N.J., was driving the box truck, which was full of wine.

He said the hellish scene, which sent plumes of black smoke hundreds of feet into the air, was "terrifying, like a TV movie or like maybe I was dreaming."

"There were so many explosions, it was like being in Iraq.

"It made me think, maybe I'll take another direction in life."

AAR06-Analysis of FireResponseTimes.pdf

lexipol.com

Understanding and Measuring Fire Department Response Times

Lori Moore-Merrell

9-11 minutes

As the first-due engine arrives, the captain can see Mrs. Smith waiting anxiously outside her house. Light smoke is venting from a first-floor window. The engine operator positions the apparatus, the crew begin to stretch a line and the captain talks with Mrs. Smith, who tells him her dog is still in the home, most likely upstairs. As the captain completes his 360-degree assessment, the first-due truck arrives, followed shortly by the second-due engine and a battalion chief. Within minutes, crews have water on the fire. The primary search turns up Mrs. Smith's chihuahua, obliviously asleep upstairs.

This is a common scenario in fire departments across the country. A resident has a fire or emergency medical situation and calls 9-1-1, call intake information is gathered, the tones go off, crews are dispatched, and firefighters turn out and arrive on scene to mitigate the situation. But hidden among these everyday actions are hundreds of data points, important clues to understanding whether the department has enough resources to address emergencies in the community.

In the first two articles in this series, we discussed using data to

demonstrate fire department value and using data to identify the risks facing your community. The third key area of data usage involves measuring operational performance—specifically, the tasks that occur every time someone calls 9-1-1, including call intake, call processing, firefighter turn out, total response times and time to first intervention.

Fire department response times—for first-due units and for the total effective response force—provide valuable information for resource allocation decisions such as fire station location, apparatus deployed and crew size/staffing levels. For example, if a department experiences many hours in a day where a significant percentage of overall resources are engaged on assignment in the same neighborhood, it may leave other neighborhoods at greater risk since resources are displaced outside their immediate response zone, causing longer response times for units responding from further distances. This high volume of incidents and frequency of overlapping incidents experienced may lead department administrators to conclude the department requires additional resources to provide effective and efficient emergency response.

If fire department response times and force assembly times are low, it is more likely sufficient resources have been deployed, which is associated with more positive outcomes from risk events.

The relationship between deployment of resources, response time and positive outcomes is circular. If fire department response times and effective response force assembly times are low, it is more

likely that sufficient resources have been deployed, which is associated with more positive outcomes from risk events. Conversely, if response times and effective response force assembly times are high, it is more likely that insufficient resources have been deployed, which is associated with more negative outcomes.

Breaking Down Emergency Response

There are three basic components of fire department emergency response performance:

- *Availability*—The degree to which the resources are ready and available to respond.
- *Capability*—The abilities of deployed resources to manage an incident.
- *Operational Effectiveness*—A product of availability and capability. It is the outcome achieved by the deployed resources or the ability to match resources deployed to the risks to which they are responding.

How do fire departments accurately evaluate their response in these three areas? NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments establishes criteria that provide a good place to start. Those criteria include:

- Alarm Answering Time: 15 seconds for 95% of calls; 40 seconds for 99% of calls
- Alarm Processing Time: 64 seconds for 90% of calls; 106 seconds

for 95% of calls

- Turnout Time: 60 seconds for EMS responses; 80 seconds for fire responses
- First Engine Arrive on Scene Time: 240 sec (4 minutes) for 90% of responses with a minimum staffing of 4 personnel
- Second Company Arrive on Scene Time: 360 seconds (6 minutes) for 90% of responses with a minimum staffing of 4 personnel
- Initial Full Alarm – Low and Medium Hazard Assembly Time: 480 seconds (8 minutes) on 90% of responses
- Initial Full Alarm – High Hazard/High-Rise Assembly Time: 610 seconds (10 minutes 10 seconds) on 90% of responses

Although NFPA 1710 provides essential benchmarks, fire departments often measure baseline performance in terms of *total response time*, which is the time it takes from the call to be received at the Public Safety Answering Point (PSAP) until the first unit arrives on the scene of the emergency incident. Total response time should be measured and reported for all first-due units *and* the effective response force (ERF) assembly. Total response time is composed of call-processing time, turnout time and travel time:

- *Call processing time* – the elapsed time from the call being received at the PSAP to the dispatching of the first unit.
- *Turnout time* – the elapsed time from when a unit is dispatched until that unit changes their status to "responding."
- *Travel time* – the elapsed time from when a unit begins to respond until its arrival on the scene.

All these data elements are captured in the National Fire Operations Reporting System (NFORS). Fire departments using NFORS have access to a live interactive dashboard that can make raw data usable in operational decision-making. Visit https://i-psdi.org/nfors.html for more information.

Additional Data

Emergency response performance metrics provide a foundation for assessing fire department performance, but there are numerous other data elements to consider.

Resources responding includes all mobile resources dispatched to an incident. The frequency of response can also be determined for each unit.

Staffing/Crew Size is a measurable objective in NFPA 1710 and is an important determinant in assembling an effective response force on scene. Crew size also determines which tasks can be accomplished once a unit arrives on scene. For example, a first-in engine with three-person crew cannot engage in interior firefighting until a second unit arrives to accomplish the OSHA requirement for two-in and two-out. While two-in/two-out is well understood within the fire service, decision-makers at the municipal level may not fully understand the requirement's impact on operations and therefore the impact of crew size reductions on fire department performance.

Emergency response performance metrics provide a foundation for assessing fire department performance, but there are numerous other data

elements to consider.

First Unit Arrival denotes the first-arriving fire department vehicle with the potential to intervene in the situation and curtail or stop the escalation of the incident. In the absence of on-scene task times, if crew size and structure type are known, first unit arrival time can be used as a proxy for estimation of tasks like water-on-fire time.

Initial Alarm Arrival (Assembly of Effective Response Force) —Given expected on-scene conditions, the number of on-duty members sent in an initial alarm should be determined through task analysis considering life hazard protected population, safe and effective performance, potential property loss, hazard levels of properties and tactics employed. The timing of the complete assembly of these forces is significant in ensuring risk control tasks can be implemented in a timely and effective manner. For example, on the fireground, coordinating ventilation with water on the fire is an absolute and requires enough personnel to complete.

Intervention time is the time that responders arriving on scene engage to stop the emergency. For EMS, this time is typically when the responders are at a patient's side. For fire response, this time may be documented as water on fire time, given that this intervention time is a critical indicator of operational performance and stopping risk escalation.

Decisions Require Data

In today's ever-changing economy, local government decision-makers often alter emergency response resources faster than fire

service leaders can evaluate the potential impact. These whirlwind decisions can leave a community without enough resources to respond to emergency calls safely, efficiently and effectively. The effects of uninformed decision-making can have even greater impact on vulnerable populations including the elderly, young children and people with disabilities.

It is imperative firefighters and fire department leaders, as well as political decision-makers, understand how fire department response and performance times affect their local community. The right data is key to building that understanding.

AAR07-Decision Making in Public Safety – Lexipol.pdf

lexipol.com

How Planning Supports Decision Making in Public Safety – Lexipol

Rex Scism

11-14 minutes

Editor's note: This article is part of a series, Finding the Leader in You, which addresses key concepts in public safety leadership.

As we continue our exploration toward *Finding the Leader in You*, this month we'll focus on two elements of leadership that are often taken for granted—planning and decision making.

Public safety leadership involves a number of challenges, often in situations where the stakes are high. Decisions made while on the job have the potential to impact both human life and personal liberties. These decisions are often made in fractions of a second and are commonly based on quickly processed information. While we can't plan for every possible scenario, effective planning offers a method to the madness that better prepares us for the future. Whether engaged in short-term planning approaches or longer-term strategic plans, organizing important goals and objectives makes us better at providing service to the public.

Planning 101

Planning is the process we use to select goals and determine how

to achieve them. It arranges the use of our resources in an orderly, economical, and goal-accomplishing manner. It's also a description of what we want to accomplish in the future and establishes some type of agreement on the means for achieving it. Proper planning assists both supervisors and organizations with preparing for essential mission tasks. Planning is a valuable component for supervisors because it:

- Serves as a guide or reference for training and performance while simplifying direction and facilitating coordination of group efforts.
- Keeps everyone working in the same direction while promoting effectiveness and efficiency.
- Forces critical and analytical thinking.
- Forces objective evaluation of past performance and offers continued attention to improvement of practices and procedures.
- Helps avoid crisis management.

Planning is more detailed and specific at the operational level and more general at the administrative level. First-line leaders generally need more technical skill to effectively supervise at the street level, while mid-level managers deal with more broad-based and conceptual issues focused on the entire organizational structure. These distinctly different planning levels are commonly referred to as operational and strategic. At the operational planning level, there is more focus on day-to-day activities geared toward accomplishing the basic functions of the organization (handling calls for service, etc.). At the strategic planning level, a more conceptual approach is utilized to define and achieve organizational goals (budget and staffing issues, etc.). Operational planning approaches generally support strategic planning

initiatives, thereby allowing a given organization to make progress toward progressive goals and objectives.

Goals and Objectives

Effective planning often requires a roadmap that plots the direction both personnel and the organization need to take to carry out required tasks. Goals and objectives provide this direction and are an essential part of any planning initiative. Goals are a general statement of what an organization desires to accomplish—where we are going. Objectives are specific statements about how goals will be achieved—how we are going to get there. Objectives must be observable, measurable, and have some time element or deadline to be effective.

Limitations and Barriers to Planning

Although planning is an essential part of how supervisors organize the collective efforts of subordinates, it is not without its challenges. Planning often leads to changes in policies and procedures. Most humans resist change since it brings about a certain level of discomfort and uncertainty. Fear of the unknown and the inability to accurately forecast how a plan will truly impact personnel or situations can be a stumbling block. Additionally, lack of resources (staffing, budget, equipment, etc.) often impedes implementation of a plan.

Effective supervisory decision making should involve a methodical process of analysis that helps a supervisor select from rational alternatives that

best serve the agency, employees, and the public.

Therefore, it's extremely important for leaders to be realistic when setting both personal and organizational goals and objectives, and to be prepared to change plans as conditions demand. A change in plans does not render the initial planning process useless—or as General Dwight D. Eisenhower said, "In preparing for battle I have always found that plans are useless, but planning is indispensable."

Five-Step Planning Process

Even though many plans are informal and require little thought, more complex planning initiatives should involve a systematic approach, which provides structure and focus. Consider the following five-step process:

1. *Recognize the need for a plan* – In this step we identify the problem and potential causes while also determining who or what can solve the problem.
2. *Formulate goals and objectives* – This step aids in complex problem solving and involves crafting objectives that are clear and concise. If we consider that the end result of the plan is our goal, then objectives provide us with the steps we need to move toward the goal.
3. *Define the present situation* – This is an important step since it involves gathering and analyzing data, while soliciting from those who are close to the problem or have related experience. Compiling relevant statistical information and determining resource availability are also part of this step.

4. *Develop a plan of action* – Be realistic and consider alternatives. Make sure the plan falls in line with organizational goals and objectives. Outline specific personnel assignments and accountability standards.
5. *Make a decision* – This is often the most difficult step, primarily because humans possess an inherent fear of failure. Decisions should involve rational alternatives and should also be based on input from key internal/external stakeholders.

Decision Making 101

Public safety professionals are no strangers to the power of effective decision making. Whether deciding on the most effective course of action or simply trying to pick where to eat lunch, the average human makes roughly 35,000 decisions per day. But while decisions are a basic function of life, there are times where we suffer from what I refer to as paralysis by analysis. Fear of failure or fear of making the wrong decision sometimes cause hesitation or even nonaction. We previously discussed the five-step planning process, so it should come as no surprise that step number five (make a decision) is typically where effective planning falls short.

Effective decision-making is the choice between rational alternatives. With some exceptions, it is primarily an individual process. Although groups certainly lend input into the process, the final decision normally rests in the hands of a single person—in this case, the supervisor. When an individual chooses between alternatives, it implies one solution is better than the other; this is considered the correct course of action. When a supervisor makes

a decision, they believe it is the best course of action based on their current circumstances, training, and experience.

That last point is an important one, because we all have different perspectives—we perceive events and make decisions through a unique lens. This is one of the reasons decisions can be so frustrating to subordinates; they often possess a different perspective than the supervisor. While we can never see things from the exact same perspective as another person, effective communication within the organization and among both supervisors and subordinates (something we'll get into more in a future article) can help align perspectives.

Factors and Limitations That Influence the Decision Maker

Our decisions are largely based on our comprehension of a problem, coupled with our training and experience. Both internal and external factors play a role with influencing the decision maker. Internal factors come from within the decision maker and typically evolve from:

- Intelligence and experience
- Personal values
- Psychological state or capacity
- Fatigue, emotion, or other personal "noise" that impacts behavior

Conversely, external factors are generally outside of the decision maker's control and are equally powerful in guiding the decision-making process. These factors commonly include:

- Rule of law (legislative, court-driven, etc.)

- Organizational policy
- Available information or relevant training
- Unanticipated events and community pressures

Six-Step Decision-Making Process

Considering our capacity to make thousands of decisions each day, effective supervisory decision making should involve a methodical process of analysis that helps a supervisor select from rational alternatives that best serve the agency, employees, and the public. Consider the following six-step process:

1. *Clarify the problem* – This starts with not only seeing the problem clearly but examining the desired outcome. In other words, determining the overall cause of the problem rather than simply treating the symptoms.
2. *Research and gather facts* – Here, it's important to take a rational approach and know that you will likely never have access to all the facts. This is the step where too much analysis can often occur.
3. *Develop, determine, and evaluate alternatives* – Don't be afraid to solicit opinions from your subordinates or other leaders who have more experience. It's also important to be aware of personal bias while not being afraid to think outside the box. Avoid the status quo—"We have always done it that way" stifles innovation.
4. *Select the best alternative* – Once you've conducted appropriate due diligence, make a decision and stick to it. Don't forget to consider how your decision will impact the agency and your personnel, while maintaining visibility on relevant policy implications.

5. *Implement the decision* – A decision is obviously worthless if not acted upon; this is typically the most time-consuming part of the process.
6. *Conducted appropriate follow-up* – Provide opportunities for feedback and don't be afraid to revise your decision after you've had time to determine the overall impact and viability. Remember, things always look good on paper!

Other Important Factors

Organizational leaders should also factor in some important considerations when making decisions that may impact the agency, its personnel, or any external stakeholders. Ask yourself these questions:

- Are there any civil or criminal liability implications?
- Is there a precedent that's already been set?
- How will this impact agency morale?
- What kind of resources are required?
- How will it impact community relations and/or public safety?
- Are there any policy implications?

It's also important to aim decisions toward desired outcomes. Be creative and don't be afraid to challenge the status quo. I remind new supervisors of two key points that typically lead to hesitation when making decisions. First, you won't always make the right decision. Second, those under your charge won't always be happy with the decisions you make. Don't let fear of failure lead to inaction; trust your instincts. Ancient philosopher Maimonides was

spot on when he rationalized that, "The risk of a wrong decision is preferable to the terror of indecision."

AAR08-Anecdotal Evidence.pdf

en.wikipedia.org

Anecdotal evidence

Contributors to Wikimedia projects

12-15 minutes

Anecdotal evidence is a factual claim relying only on personal observation, collected in a casual or non-systematic manner. The term is sometimes used in a legal context to describe certain kinds of testimony which are uncorroborated by objective, independent evidence such as notarized documentation, photographs, audio-visual recordings, etc.

When used in advertising or promotion of a product, service, or idea, anecdotal reports are often called a testimonial, which are highly regulated[1] in some jurisdictions.

When compared to other types of evidence, anecdotal evidence is generally regarded as limited in value due to a number of potential weaknesses, but may be considered within the scope of scientific method as some anecdotal evidence can be both empirical and verifiable, e.g. in the use of case studies in medicine. Other anecdotal evidence, however, does not qualify as scientific evidence, because its nature prevents it from being investigated by the scientific method. Where only one or a few anecdotes are presented, there is a larger chance that they may be unreliable due to cherry-picked or otherwise non-representative samples of

typical cases.[2][3] Similarly, psychologists have found that due to cognitive bias people are more likely to remember notable or unusual examples rather than typical examples.[4] Thus, even when accurate, anecdotal evidence is not necessarily representative of a typical experience. Accurate determination of whether an anecdote is typical requires statistical evidence.[5] Misuse of anecdotal evidence is an informal fallacy[6] and is sometimes referred to as the "person who" fallacy ("I know a person who..."; "I know of a case where..." etc.) which places undue weight on experiences of close peers which may not be typical.

In all forms of anecdotal evidence its reliability by objective independent assessment may be in doubt. This is a consequence of the informal way the information is gathered, documented, presented, or any combination of the three. The term is often used to describe evidence for which there is an absence of documentation, leaving verification dependent on the credibility of the party presenting the evidence.

Scientific context[edit]

In science, definitions of anecdotal evidence include:

- "casual observations or indications rather than rigorous or scientific analysis"[7]
- "information passed along by word-of-mouth but not documented scientifically"[8]
- "evidence that comes from an individual experience. This may be the experience of a person with an illness or the experience of a

practitioner based on one or more patients outside a formal research study."[9]

- "the report of an experience by one or more persons that is not objectively documented or an experience or outcome that occurred outside of a controlled environment"[10]

Anecdotal evidence can have varying degrees of formality. For instance, in medicine, published anecdotal evidence by a trained observer (a doctor) is called a case report, and is subjected to formal peer review.[11] Although such evidence is not seen as conclusive, researchers may sometimes regard it as an invitation to more rigorous scientific study of the phenomenon in question.[12] For instance, one study found that 35 of 47 anecdotal reports of drug side-effects were later sustained as "clearly correct."[13]

Anecdotal evidence is considered the least certain type of scientific information.[14] Researchers may use anecdotal evidence for suggesting new hypotheses, but never as validating evidence.[15]

Anecdotal evidence is often unscientific or pseudoscientific because various forms of cognitive bias may affect the collection or presentation of evidence. For instance, someone who claims to have had an encounter with a supernatural being or alien may present a very vivid story, but this is not falsifiable. This phenomenon can also happen to large groups of people through subjective validation.

Anecdotal evidence is also frequently misinterpreted via the availability heuristic, which leads to an overestimation of

prevalence. Where a cause can be easily linked to an effect, people overestimate the likelihood of the cause having that effect (availability). In particular, vivid, emotionally charged anecdotes seem more plausible, and are given greater weight. A related issue is that it is usually impossible to assess for every piece of anecdotal evidence, the rate of people not reporting that anecdotal evidence in the population.

A common way anecdotal evidence becomes unscientific is through fallacious reasoning such as the *post hoc ergo propter hoc* fallacy, the human tendency to assume that if one event happens after another, then the first must be the cause of the second. Another fallacy involves inductive reasoning. For instance, if an anecdote illustrates a desired conclusion rather than a logical conclusion, it is considered a faulty or hasty generalization.[16] For example, here is anecdotal evidence presented as proof of a desired conclusion:

> There's abundant proof that drinking water cures cancer. Just last week I read about a girl who was dying of cancer. After drinking water she was cured.

Anecdotes like this do not prove anything.[17] In any case where some factor affects the probability of an outcome, rather than uniquely determining it, selected individual cases prove nothing; e.g. "my grandfather smoked two packs a day until he died at 90" and "my sister never smoked but died of lung cancer". Anecdotes often refer to the exception, rather than the rule: "Anecdotes are useless precisely because they may point to idiosyncratic responses."[18]

More generally, a statistical correlation between things does not in

itself prove that one causes the other (a causal link). A study found that television viewing was strongly correlated with sugar consumption, but this does not prove that viewing causes sugar intake (or vice versa).

In medicine, anecdotal evidence is also subject to placebo effects:[19] it is well-established that a patient's (or doctor's) expectation can genuinely change the outcome of treatment. Only double-blind randomized placebo-controlled clinical trials can confirm a hypothesis about the effectiveness of a treatment independently of expectations.

By contrast, in science and logic, the "relative strength of an explanation" is based upon its ability to be:

- tested or repeated
- proven to be due to the stated cause, and
- verifiable under neutral conditions in a manner that other researchers will agree has been performed competently, and can check for themselves

Law[edit]

Witness testimony is a common form of evidence in law, and law has mechanisms to test witness evidence for reliability or credibility. Legal processes for the taking and assessment of evidence are formalized. Some witness testimony may be described as anecdotal evidence, such as individual stories of harassment as part of a class action lawsuit. However, witness testimony can be tested and assessed for reliability. Examples of approaches to testing and assessment include the use of

questioning to identify possible gaps or inconsistencies, evidence of corroborating witnesses, documents, video and forensic evidence. Where a court lacks suitable means to test and assess testimony of a particular witness, such as the absence of forms of corroboration or substantiation, it may afford that testimony limited or no "weight" when making a decision on the facts.

Scientific evidence as legal evidence[edit]

In certain situations, scientific evidence presented in court must also meet the legal requirements for evidence. For instance, in the United States, expert testimony of witnesses must meet the Daubert standard. This ruling holds that before evidence is presented to witnesses by experts, the methodology must be "generally accepted" among scientists. In some situations, anecdotal evidence may meet this threshold (such as certain case reports which corroborate or refute other evidence).

Altman and Bland argue that the case report or statistical outlier cannot be dismissed as having no weight: "With rare and uncommonly occurring diseases, a nonsignificant finding in a randomized trial does not necessarily mean that there is no causal association between the agent in question and the disease."[20]

See also[edit]

- Anecdotal value
- Argument from ignorance – Logical fallacy that, since proposition has not yet been proven false, it must be true
- Confirmation bias – Tendency of people to favor information that confirms their beliefs or values

- Empirical evidence – Knowledge acquired by means of the senses
- Eyewitness testimony – Account a witness gives in the courtroom of what they observed
- Fallacy – Argument that uses faulty reasoning
- Faulty generalization – Conclusion made about all or many instances of a phenomenon, that has been reached on the basis of one or a few instances of that phenomenon
- Hasty generalization
- List of fallacies – Types of reasoning that are logically incorrect
- Post hoc ergo propter hoc – Fallacy of assumption of causality based on sequence of events
- Presumption of guilt – Presumption that a person is guilty of a crime
- Scientific method – Interplay between observation, experiment and theory in science

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AAR09-Measuring Fire Department Response Times.pdf

lexipol.com

Understanding and Measuring Fire Department Response Times

Lori Moore-Merrell

9-11 minutes

As the first-due engine arrives, the captain can see Mrs. Smith waiting anxiously outside her house. Light smoke is venting from a first-floor window. The engine operator positions the apparatus, the crew begin to stretch a line and the captain talks with Mrs. Smith, who tells him her dog is still in the home, most likely upstairs. As the captain completes his 360-degree assessment, the first-due truck arrives, followed shortly by the second-due engine and a battalion chief. Within minutes, crews have water on the fire. The primary search turns up Mrs. Smith's chihuahua, obliviously asleep upstairs.

This is a common scenario in fire departments across the country. A resident has a fire or emergency medical situation and calls 9-1-1, call intake information is gathered, the tones go off, crews are dispatched, and firefighters turn out and arrive on scene to mitigate the situation. But hidden among these everyday actions are hundreds of data points, important clues to understanding whether the department has enough resources to address emergencies in the community.

In the first two articles in this series, we discussed using data to

demonstrate fire department value and using data to identify the risks facing your community. The third key area of data usage involves measuring operational performance—specifically, the tasks that occur every time someone calls 9-1-1, including call intake, call processing, firefighter turn out, total response times and time to first intervention.

Fire department response times—for first-due units and for the total effective response force—provide valuable information for resource allocation decisions such as fire station location, apparatus deployed and crew size/staffing levels. For example, if a department experiences many hours in a day where a significant percentage of overall resources are engaged on assignment in the same neighborhood, it may leave other neighborhoods at greater risk since resources are displaced outside their immediate response zone, causing longer response times for units responding from further distances. This high volume of incidents and frequency of overlapping incidents experienced may lead department administrators to conclude the department requires additional resources to provide effective and efficient emergency response.

If fire department response times and force assembly times are low, it is more likely sufficient resources have been deployed, which is associated with more positive outcomes from risk events.

The relationship between deployment of resources, response time and positive outcomes is circular. If fire department response times and effective response force assembly times are low, it is more

likely that sufficient resources have been deployed, which is associated with more positive outcomes from risk events. Conversely, if response times and effective response force assembly times are high, it is more likely that insufficient resources have been deployed, which is associated with more negative outcomes.

Breaking Down Emergency Response

There are three basic components of fire department emergency response performance:

- *Availability*—The degree to which the resources are ready and available to respond.
- *Capability*—The abilities of deployed resources to manage an incident.
- *Operational Effectiveness*—A product of availability and capability. It is the outcome achieved by the deployed resources or the ability to match resources deployed to the risks to which they are responding.

How do fire departments accurately evaluate their response in these three areas? NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments establishes criteria that provide a good place to start. Those criteria include:

- Alarm Answering Time: 15 seconds for 95% of calls; 40 seconds for 99% of calls
- Alarm Processing Time: 64 seconds for 90% of calls; 106 seconds

for 95% of calls

- Turnout Time: 60 seconds for EMS responses; 80 seconds for fire responses
- First Engine Arrive on Scene Time: 240 sec (4 minutes) for 90% of responses with a minimum staffing of 4 personnel
- Second Company Arrive on Scene Time: 360 seconds (6 minutes) for 90% of responses with a minimum staffing of 4 personnel
- Initial Full Alarm – Low and Medium Hazard Assembly Time: 480 seconds (8 minutes) on 90% of responses
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It is imperative firefighters and fire department leaders, as well as political decision-makers, understand how fire department response and performance times affect their local community. The right data is key to building that understanding.

AAR10-NYS VIL LAW- Article 10-Fire Department.pdf

McKinney's Consolidated Laws of New York Annotated
Village Law (Refs & Annos)
Chapter 64. Of the Consolidated Laws (Refs & Annos)
Article 10. Fire Department

McKinney's Village Law § 10-1000

§ 10-1000 General powers of the board of fire commissioners

Effective: December 28, 2018
Currentness

The board of fire commissioners of a village, subject to the approval of the board of trustees:

1. Has the care, custody and control of all village property of the fire department.

2. May purchase such equipment as is suitable and necessary to prevent and extinguish fires within the village, or for the purposes of any emergency and first aid squad organized within the fire department, and uniforms for all active members of the fire department and keep the same in good condition and repair.

3. May erect and maintain suitable and necessary buildings for the fire department.

4. May construct and maintain reservoirs and cisterns and supply them with water for use at fires.

5. May adopt rules for the admission, suspension, removal and discipline of the members, officers and employees of the fire department, may prescribe their powers and duties, and fix their compensation not inconsistent with section 10-1018 of this article.

6. May adopt rules and regulations governing fire companies and fire departments, prescribing the duties of the members thereof, and may enforce discipline and provide for public drills, parades, funerals, inspections and reviews of the village fire department, or any company or unit thereof, within the village or at other places within the state, any adjoining state or in Canada. Such rules and regulations shall not authorize any member of the board of fire commissioners to interfere with the duties of the fire chief or the assistant fire chief at such times as the fire department or any company or squad thereof is on duty.

7. May appoint persons other than members or officers of the department to take charge of village property, and may fix their compensation.

8. May employ duty or "persons on call," to serve on a part-time basis when necessary, and fix their duties and compensation. Such part-time paid firefighters in the event of injury shall be entitled to the applicable benefits provided for such part-time paid firefighters under section two hundred seven-a of the general municipal law and in the event of injury or death shall be entitled to the applicable benefits, if any, provided for such part-time paid firefighters under the retirement and social security law and

the workers' compensation law. Persons who are volunteer members of the village fire department may be employed as such part-time paid firefighters, but in the event of injury, death, disease, or infection, resulting from services performed in line of duty as such part-time paid firefighters they shall not be entitled to any of the benefits provided for volunteer firefighters under the volunteer firefighters' benefit law, or under any policy of blanket accident insurance purchased by the village or purchased by the fire department to cover only volunteer members of such department.

9. May inquire into the cause and origin of fires occurring in the village and may take testimony in relation thereto.

11.[1] Notwithstanding any other provisions of law to the contrary, a village may include as part of its budget an appropriation to fund an annual firefighters' inspection-dinner for each fire company within the village.

Credits

(L.1972, c. 892, § 3. Amended L.1972, c. 894, § 4; L.1975, c. 838, § 3; L.1977, c. 320, § 1; L.1980, c. 307, § 3; L.2018, c. 476, § 110, eff. Dec. 28, 2018.)

Notes of Decisions (48)

Footnotes

1 So in original. Probably should be subd. 10.

McKinney's Village Law § 10-1000, NY VILLAGE § 10-1000

Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

End of Document

McKinney's Consolidated Laws of New York Annotated
Village Law (Refs & Annos)
Chapter 64. Of the Consolidated Laws (Refs & Annos)
Article 10. Fire Department

McKinney's Village Law § 10-1002

§ 10-1002 Rules and regulations

Currentness

The board of fire commissioners may adopt rules and regulations for the following purposes:

(a) To protect and preserve the village property and apparatus of the fire department.

(b) To prevent danger from fires and to protect property exposed to destruction or injury by fire.

(c) To provide for pulling down, blowing up and the removal of buildings and property to arrest the progress of fires or extinguish the same.

(d) To provide for the installation of yard hydrant systems connected with the public water supply system in accessible locations on private property for the protection of multiple residences enumerated in the multiple residence law where the possibility of a serious fire hazard is determined by the board to exist.

Credits
(L.1972, c. 892, § 3.)

Notes of Decisions (2)

McKinney's Village Law § 10-1002, NY VILLAGE § 10-1002
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

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Article 10. Fire Department

McKinney's Village Law § 10-1004

§ 10-1004 Organization of companies

Currentness

The board of fire commissioners, with the approval of the board of trustees, may organize and maintain fire, hose, protective and hook and ladder companies, whenever in its judgment the public interests require. The board of fire commissioners may, by resolution, with the approval of the board of trustees, consent to the incorporation of any of the companies so organized by them, or may, by like approval, consent to the incorporation or the organization without incorporation of as many companies voluntarily organized in said village as may be deemed necessary.

Credits
(L.1972, c. 892, § 3.)

Notes of Decisions (11)

McKinney's Village Law § 10-1004, NY VILLAGE § 10-1004
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

End of Document

KeyCite Yellow Flag - Negative Treatment
Proposed Legislation

McKinney's Consolidated Laws of New York Annotated
Village Law (Refs & Annos)
Chapter 64. Of the Consolidated Laws (Refs & Annos)
Article 10. Fire Department

McKinney's Village Law § 10-1006

§ 10-1006 Volunteer members of village fire companies

Effective: September 21, 2020
Currentness

1. The volunteer members of a fire company shall be elected and appointed as provided in this section.

2. The board of fire commissioners shall appoint residents of the village as the volunteer members of any newly organized fire company. Thereafter, the fire company may elect other eligible persons, including village officers, as volunteer members. The election shall be pursuant to the by-laws, if any, of the fire company; otherwise, by a three-fourths vote of the members of the fire company present and voting at a regular or special meeting thereof. The membership of any person so elected shall become effective when approved by resolution of the board of fire commissioners. Membership shall be deemed to have been approved pursuant to this subdivision in the event that no action is taken by the board of fire commissioners, either approving or disapproving, within forty days after servce[1] of written notice of election to membership shall have been made by the secretary of the fire company upon the village clerk, either personally or by mail.

3. Any person elected to membership as a volunteer member as[2] a fire company shall be a resident of the village or of territory outside the village which is afforded fire protection by the fire department of the village, or any fire company thereof, pursuant to a contract for fire protection, except as otherwise provided in subdivision six.

4. The membership of a volunteer member of a fire company shall terminate when he ceases to be a resident of the village or of any territory outside the village which is afforded fire protection but[3] the fire department of the village, or any fire company thereof, pursuant to a contract for fire protection, except as otherwise provided in subdivision five.

5. Any fire company may authorize the continued membership of any volunteer member where such member notifies the secretary of his or her fire company (a) that he or she plans to change his or her residence to territory which is not in the village and is not protected by the fire department of the village, or any fire company thereof, pursuant to a contract for fire protection, and (b) that by reason of his or her residence in the vicinity or his or her usual occupation he or she will be available to render active service as a volunteer firefighter in the village or in territory outside the village which is afforded fire protection pursuant to a contract for fire protection by the fire department of the village, or a fire company thereof. Such authorization shall be pursuant to the by-laws, if any, of the fire company of which he or she is a member, otherwise by a three-fourths vote of the members of such fire company present and voting at a regular or special meeting thereof. Such authorization shall not become effective unless approved by resolution of the board of fire commissioners. Such authorization shall be deemed to have been approved pursuant to this subdivision in the event that no action is taken by the board of fire commissioners, either approving

or disapproving, within forty days after service of written notice of such authorization shall have been made by the secretary of the fire company upon the village clerk, either personally or by mail. Any membership continued pursuant to the provisions of this subdivision shall terminate when the member cannot meet either the requirements of this subdivision or the residence requirements of subdivision three of this section. In the case of a village which adjoins another state, the term "vicinity", as used in this subdivision, includes territory in this state and territory in the adjoining state.

6. A person who cannot meet the residence requirements of subdivision three of this section may be elected to membership as a volunteer member of any fire company of the fire department if by reason of his or her residence in the vicinity or his or her usual occupation he or she will be available to render active service as a volunteer firefighter in the village or in territory which is afforded fire protection pursuant to a contract for fire protection by the fire department of the village or a fire company thereof. Such election shall be pursuant to the by-laws, if any, of the fire company; otherwise by a three-fourths vote of the members of the fire company present and voting at a regular or special meeting thereof. The membership of any person so elected shall not become effective unless approved by resolution of the board of fire commissioners. Membership shall be deemed to have been approved pursuant to this subdivision in the event that no action is taken by the board of fire commissioners, either approving or disapproving, within seventy days after service of written notice of election to membership shall have been made by the secretary of the fire company upon the village clerk, either personally or by mail. The membership of any volunteer member elected pursuant to the provisions of this subdivision shall terminate when the member cannot meet either the requirements of this subdivision or the residence requirements of subdivision three of this section. In the case of a village which adjoins another state, the term "vicinity", as used in this subdivision, includes territory in this state and territory in the adjoining state.

7. The membership of any volunteer firefighter shall not be continued pursuant to subdivision five of this section, and persons shall not be elected to membership pursuant to subdivision six of this section, if, by so doing, the percentage of such non-resident members in the fire company would exceed forty-five per centum of the actual membership of the fire company, provided however, that the provisions of this subdivision shall not apply to the membership of the village of Blasdell volunteer fire department, provided however, that the provisions of this subdivision shall not apply to the membership of the village of Delanson volunteer fire company in the village of Delanson, county of Schenectady, provided however, that the provisions of this subdivision shall not apply to membership of the village of Port Dickinson Fire Department, within the village of Port Dickinson, Broome County.

8. The board of trustees, or the board of fire commissioners subject to approval of the board of trustees, by resolution may restrict the membership of volunteer members in any or all of the fire companies of the fire department to residents of the village. Any volunteer member who then resides in territory outside the village shall cease to be a member of any fire company to which the restriction is applicable unless the resolution provides that his membership shall continue during the existence of any contract for fire protection to such territory by his company or the fire department or during the period in which he may continue to meet the requirements of subdivision three, five or six.

9. Residents of outside territory protected pursuant to a contract for fire protection who have been elected to volunteer membership, and non-residents whose volunteer memberships have been continued or authorized pursuant to subdivision five or six of this section, shall have all the powers, duties, immunities, and privileges of resident volunteer members, except (1) non-residents of the state may not be appointed or elected to any office in the fire company or fire department, and (2) a non-resident of this state whose membership has been continued pursuant to subdivision five of this section, or a non-resident of this state who was elected to membership pursuant to subdivision six of this section, shall not be considered to be performing any firemanic duty, or to be engaged in any firemanic activity, as a member of the fire company while he or she is outside of this state unless and until he or she has first reported to the officer or firefighter in command of his or her fire department, or any company, squad or other unit thereof, engaged or to be engaged in rendering service outside this state, or has received orders

or authorization from an officer of the fire department or fire company to participate in or attend authorized activities outside of this state in the same manner as resident members of the fire company.

10. A person shall not be eligible to volunteer membership in more than one fire company at one time.

11. The term "contract for fire protection" as used in this section means one under which a cash consideration is received by the village or by the fire department or a fire company thereof for the furnishing of fire protection to an area outside the village. Any such contract shall be deemed in full force and effect for the purposes of this section if negotiations are pending for the renewal thereof.

12. In a village where there is no board of fire commissioners, the board of trustees shall have the powers and perform the duties of such board which are prescribed in this section.

13. The provisions of this section shall not be deemed to authorize the election of any person as a member of a fire company or the continuance of membership in a fire company as herein provided if such election or continuance of membership shall be contrary to the by-laws, rules or regulations of the fire company or of the fire department of the village.

14. A village may not adopt a local law changing, amending or superseding this section.

15. Any person:

(1) who was recognized prior to the first day of July, nineteen hundred fifty-four, as a volunteer member of any fire company of a village subject to the provisions of this article by the board of trustees or board of fire commissioners of the village or by the officers and members of his fire company, and

(2) who rendered active service with such fire company prior to such date, and

(3) who was, at the time of his or her nomination for membership, a resident of the village or of territory outside of the village which was afforded fire protection by the fire department of the village, or any fire company thereof, pursuant to a contract for fire protection, shall for all purposes in law be considered to have been duly nominated and appointed to membership in such fire company as of the date of such appointment, if any, and, if none, then as of the date of such nomination; notwithstanding that there may have been some legal defect in such nomination, or the proceedings precedent thereto, or a failure of the board of fire commissioners or board of trustees to appoint such member, as provided by law in force at the time of such nomination, and the status of such person as a volunteer firefighter as of the date of such appointment or nomination is hereby legalized, validated and confirmed. An election to membership in a fire company shall be deemed equivalent to a nomination for membership for the purposes of this subdivision in the event that a formal nomination for membership was never presented to a board of fire commissioners or board of trustees as provided by the law in force prior to the first day of July, nineteen hundred fifty-four, and, for the purposes of this subdivision, such election, and the proceedings precedent thereto, shall be considered to have been held and conducted in the manner required by law. This subdivision shall not apply to a person, if any, whose volunteer membership in a fire company was declared invalid by a court of competent jurisdiction prior to the first day of January, nineteen hundred fifty-five.

16. Any person:

(1) who was recognized on and after the first day of July, nineteen hundred fifty-four and prior to the first day of January, two thousand eleven, as a volunteer member of any fire company of a village subject to the provisions of this article by the board of trustees or board of fire commissioners of the village or by the officers and members of his fire company, and

(2) who rendered active service with such fire company between such dates, and

(3) who was, at the time of his or her election to membership, a resident of the village or of territory outside the village which was afforded fire protection by the fire department of the village, or any fire company thereof, pursuant to a contract for fire protection, or who was a non-resident who was elected to membership or who was continued as a member, pursuant to the provisions of subdivisions five or six of this section, shall for all purposes in law be considered to have been duly elected and approved, or continued, as a member in such fire company as of the date of such approval, if any, and, if none, then as of the date of such election or, in the case of a continuance, as of the date of the approval, if any, by the board of fire commissioners or the board of trustees, and, if none, as of the date of authorization of continuance by the fire company; notwithstanding that there may have been some legal defect in such election, or the proceedings precedent thereto, or a failure of the board of fire commissioners or board of trustees to approve such member, or approve the continuance of membership of such member, as provided by the law in force at the time of such election, or continuance, and the status of such person as a volunteer firefighter as of the date is hereby legalized, validated and confirmed. This subdivision shall not apply to a person, if any, whose volunteer membership in a fire company was disapproved by the board of trustees or board of fire commissioners or declared invalid by a court of competent jurisdiction prior to the first day of January, two thousand eleven.

17. (a) It shall be an unlawful discriminatory practice for any volunteer fire department or fire company, through any member or members thereof, officers, board of fire commissioners or other body or office having power of appointment of volunteer firefighters in any fire department or fire company pursuant to this section, because of the race, creed, color, national origin, sex or marital status of any individual, to exclude or to expel from its volunteer membership such individual, or to discriminate against any of its members because of the race, creed, color, national origin, sex or marital status of such volunteer members.

(b) Any person claiming to be aggrieved by an unlawful discriminatory practice pursuant to this section may by himself or his attorney at law make, sign and file with the state division of human rights, a verified complaint which shall set forth the particulars of the alleged unlawful discriminatory practice and contain such other information as the division of human rights may require. The division shall thereupon cause to be made an investigation and disposition of the charges pursuant to the provisions of article fifteen of the executive law.

18. A person who has been convicted of arson in any degree shall not be eligible to be elected or appointed as a volunteer member of a fire company. The membership of any volunteer member of a fire company shall immediately terminate if he is convicted of arson in any degree while a member of a fire company.

19. Upon application by any person for membership in a fire company operating pursuant to this section, the fire chief shall cause the applicant's background to be checked pursuant to section eight hundred thirty-seven-o of the executive law for a criminal history involving a conviction for arson and conviction of a crime which requires the person to register as a sex offender under article six-C of the correction law. Where such criminal history information includes conviction of a crime which requires the person to register as a sex offender under article six-C of the correction law, a fire company shall determine whether or

not such person shall be eligible to be elected or appointed as a volunteer member of such fire company. Such determination shall be made in accordance with the criteria established in sections seven hundred fifty-two and seven hundred fifty-three of the correction law.

Credits

(L.1972, c. 892, § 3. Amended L.1976, c. 273, § 2; L.1978, c. 215, § 5; L.1980, c. 133, § 2; L.1984, c. 185, § 4; L.1985, c. 719, § 8; L.1999, c. 423, § 4, eff. April 1, 2000; L.2003, c. 393, §§ 2, 3, eff. Aug. 19, 2003; L.2011, c. 373, §§ 2, 3, eff. Aug. 3, 2011; L.2014, c. 117, § 1, eff. July 22, 2014; L.2014, c. 198, § 3, eff. Dec. 2, 2014; L.2014, c. 215, § 1, eff. Aug. 7, 2014; L.2018, c. 476, § 111, eff. Dec. 28, 2018; L.2020, c. 185, § 1, eff. Sept. 21, 2020.)

Notes of Decisions (37)

Footnotes

1 So in original. Probably should read "service."

2 So in original. Probably should read "of."

3 So in original. Probably should read "by."

McKinney's Village Law § 10-1006, NY VILLAGE § 10-1006

Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

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McKinney's Consolidated Laws of New York Annotated
Village Law (Refs & Annos)
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McKinney's Village Law § 10-1008

§ 10-1008 Incorporation of fire department

Currentness

The members of all the fire, hose, protective and hook and ladder companies of a village, organized and maintained in pursuance of law, constitute a corporation by the name of the "fire department of ...." The term, fire department of a village, as used in this chapter, refers to such a corporation.

Credits
(L.1972, c. 892, § 3.)

Notes of Decisions (3)

McKinney's Village Law § 10-1008, NY VILLAGE § 10-1008
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

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McKinney's Village Law § 10-1010

§ 10-1010 Election of company officers and delegates

Effective: November 20, 2015
Currentness

Each of the several companies whose members constitute the fire department of the village shall hold an annual meeting on the first Tuesday in April in each year, except those fire companies constituting the fire department of the village of Fishkill, Dutchess county, which shall hold such annual meetings on the first Tuesday in December of each year. At such meeting the members of each company shall elect by ballot from their own number a captain and a lieutenant, and such further officers if any as may be provided for in the by-laws of the company, who must be approved by the board of fire commissioners, one warden and one delegate to the general convention of the fire department. The terms of office of the captain and lieutenant and such further officers if any, as are elected as herein provided, shall be one year, the wardens two years, and the delegates three years, respectively, and any vacancies occurring in any such offices shall be filled by election in like manner. At the first annual meeting after this act takes effect two wardens and three delegates shall be elected, the wardens to serve for one and two years, respectively, and the delegates for one, two and three years, respectively. Any person who has been convicted of arson in any degree shall not be eligible for election to the office of captain, lieutenant, warden, delegate and any other offices provided for in the by-laws of the company. Any captain, lieutenant, warden, delegate or other officer of the company who is convicted of arson in any degree during his term of office shall be disqualified from completing such term of office.

Credits
(L.1972, c. 892, § 3. Amended L.1985, c. 719, § 9; L.2015, c. 481, § 1, eff. Nov. 20, 2015.)

Notes of Decisions (5)

McKinney's Village Law § 10-1010, NY VILLAGE § 10-1010
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

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McKinney's Village Law § 10-1012

§ 10-1012 Chief and assistant chiefs

Effective: November 20, 2015
Currentness

1. The chief and the first and second assistant chiefs and such additional assistant chiefs, if any, as may be provided for in the by-laws of the fire department shall each be a member thereof and a resident of the state of New York. In addition, the board of trustees, or the board of fire commissioners subject to the approval of the board of trustees, may, by resolution, require that any or all of such fire department officers shall be residents of the village. The delegates elected to the general convention of the fire department shall meet at the council room thereof on the Thursday following the first Tuesday in April, except the elected delegates of the fire department of the village of Fishkill, Dutchess county, which shall meet on the first Tuesday in December, and nominate a person for each of such offices; but the fire commissioners of any village may adopt a rule requiring all such nominations to be made on the day of the meeting by a vote of the duly qualified members of the department, in which case the meeting of the delegates in general convention, as provided for in this section, shall be dispensed with. The person acting as secretary of such convention shall forthwith file in the office of the village clerk a certificate of such nominations. The board of fire commissioners at its next meeting shall consider the nominations and appoint such persons to the offices to which they are respectively nominated or, if a nomination is not approved the board shall reconvene the general convention, which shall submit a new nomination to take the place of any nomination not approved, which procedure shall continue until a full set of officers is approved. A person who has been convicted of arson in any degree shall not be eligible for nomination, election or appointment to the office of chief or assistant chief. Any fire chief or assistant chief who is convicted of arson in any degree during his term of office shall be disqualified from completing such term of office.

2. Notwithstanding the provisions of any general, special or local law inconsistent herewith any such chief or assistant chief of a village fire department need not be a resident of the village in order to serve as a member of the council of the fire department of the village pursuant to section 10-1014 of this article unless the board of trustees, or the board of fire commissioners subject to the approval of the board of trustees, has, by resolution, as provided in this section, required that any or all of such fire department officers shall be residents of the village. Except as otherwise provided pursuant to this subdivision, a person shall not hold the office of village mayor or village trustee and the office of chief or assistant chief of a village fire department at the same time. A village trustee who does not, either as an individual or as a member of a board, appoint or approve the appointment of the chief or assistant chief of a village fire department, may hold the office of chief or assistant chief at the same time. Notwithstanding any inconsistent provision of law, a person who is the chief or an assistant chief of a village fire department, if he is otherwise qualified, may be elected to the office of village mayor or village trustee or may be appointed to the office of village mayor or village trustee to fill a vacancy and, if he is so elected or appointed, his office as chief or assistant chief, as the case may be, shall become vacant upon his taking his oath of office as village mayor or village trustee.

Credits

(L.1972, c. 892, § 3. Amended L.1972, c. 894, § 5; L.1980, c. 88, § 1; L.1985, c. 719, § 10; L.1991, c. 433, § 1; L.2015, c. 481, § 2, eff. Nov. 20, 2015.)

Notes of Decisions (23)

McKinney's Village Law § 10-1012, NY VILLAGE § 10-1012
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

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McKinney's Village Law § 10-1014

§ 10-1014 Council of fire department

Effective: November 20, 2015
Currentness

In a village in which separate fire commissioners are not appointed, the chief, the assistant, and the wardens of the several companies constitute the council of the fire department. The council shall meet on the third Tuesday in April in each year, except for the council of the fire department of the village of Fishkill, Dutchess county, which shall meet on the first Tuesday of December, and choose from its own number a secretary, a treasurer and a collector of the fire department, who shall hold their respective offices for one year unless sooner removed by the council. A vacancy in the office of secretary, treasurer or collector shall be filled by the council at its next meeting for the balance of the unexpired term. Such council shall have all the powers and be subject to all the liabilities and perform all the duties of a separate board of fire commissioners, as prescribed in section 10-1000 of this article, except subdivisions two, three, four and eight and the fixing of compensation under subdivisions five and seven of such section, and as to the provisions of such subdivisions such council shall only recommend to the board of trustees of the village. A majority of the members of such council constitute a quorum, and may make and prescribe by-laws for the proper management of the affairs and the disposition of the funds of the fire department, may call meetings of the members, and designate one or more days in each year for public exercise, inspection and review.

Credits
(L.1972, c. 892, § 3. Amended L.1972, c. 894, § 6; L.2015, c. 481, § 3, eff. Nov. 20, 2015.)

Notes of Decisions (12)

McKinney's Village Law § 10-1014, NY VILLAGE § 10-1014
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

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McKinney's Village Law § 10-1016

§ 10-1016 Annual meeting of fire department

Currentness

The members of the several companies constituting the fire department shall hold an annual meeting at such time and place as the council may direct.

Credits
(L.1972, c. 892, § 3. Amended L.1973, c. 976, § 19.)

Notes of Decisions (1)

McKinney's Village Law § 10-1016, NY VILLAGE § 10-1016
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

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McKinney's Village Law § 10-1018

§ 10-1018 Duties of chief and assistants

Currentness

The chief shall be president of the council and of the meetings of the fire department. He shall, under the direction of a separate board of fire commissioners, if any, have exclusive control of the members at all fires, inspections and reviews, the supervision of the engines, hose and other apparatus owned by the village for the prevention or extinguishment of fires, of all property owned by the fire department, and of all officers and employees thereof elected or employed by the council or by a separate board of fire commissioners, if any. He shall, whenever required by the board of fire commissioners, report to the board the condition of the property of the department and such other information respecting the department as may be required. He shall hold the members, officers and employees of the department strictly to account for neglect of duty, and may, in a village in which separate fire commissioners are not appointed, suspend or discharge them at any time, subject to the approval of two-thirds of the members of the council at the next meeting. He shall, upon application, and if authorized by the council, or a separate board of fire commissioners, if any, issue through the secretary of the fire department a certificate of the time of service of a member of the fire department, and shall give to each officer of the department immediately after his election a certificate thereof countersigned by the secretary. In case of the inability or absence of the chief, the first assistant and in case of the absence or inability of both the chief and first assistant, the second assistant, and in the absence of the second assistant, the third assistant, if any, and in the absence of the third assistant, if any, the fourth assistant, if any, shall perform the duties and have all the powers of the chief.

Credits
(L.1972, c. 892, § 3.)

Notes of Decisions (3)

McKinney's Village Law § 10-1018, NY VILLAGE § 10-1018
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

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McKinney's Village Law § 10-1020

§ 10-1020 Abolition of fire department; employment of paid firefighters

Effective: December 28, 2018
Currentness

The board of trustees of any village may, by resolution, abolish, in whole or in part, the fire department in such village, which action of the board of trustees shall be subject to a permissive referendum as defined in this chapter; if such fire department is abolished, all the money and property of such department shall be turned over by the officers of such department or by the fire commissioners to the board of trustees within ten days after service of notice on such officers or commissioners of the action of the board of trustees. Or, the board of trustees may, by resolution, determine that one or more firefighters shall be employed to act with such voluntary department and may fix the salary of such firefighters; the board of trustees may also determine that such paid firefighters shall have charge of all apparatus and other equipment and that the voluntary department shall act under the orders of such paid firefighter or firefighters.

Credits
(L.1972, c. 892, § 3. Amended L.2018, c. 476, § 112, eff. Dec. 28, 2018.)

Notes of Decisions (4)

McKinney's Village Law § 10-1020, NY VILLAGE § 10-1020
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

End of Document

McKinney's Consolidated Laws of New York Annotated
Village Law (Refs & Annos)
Chapter 64. Of the Consolidated Laws (Refs & Annos)
Article 10. Fire Department

McKinney's Village Law § 10-1022

§ 10-1022 Fire inspection in contract areas

Effective: December 28, 2018
Currentness

The chief officer of the fire department or fire company which is to furnish fire protection service to a village under a contract for fire protection may inspect (1) any public building and (2) with the consent of the owner, any privately-owned building, located within the village or the portion thereof required to be protected under such contract, for fire hazards, or such chief officer may delegate such power of inspection to an officer or member of such department or company.

The term "building," as used in this section does not include a multiple dwelling which may be inspected by such fire department or company under and pursuant to the provisions of subdivision four of section three hundred three of the multiple residence law.

The failure of any such officer or member to discover and properly report any such fire hazards or his or her neglect or omission to perform such duties shall not subject him or her, his or her fire department, fire company, or the city, village, fire district or town in which or of which he or she is a firefighter to any civil or other liability. Any such fire officer or member shall not be liable civilly for any act or acts done by him or her as a firefighter in the performance of such duties, except for wilful negligence or malfeasance, but the provisions of this section shall not relieve any such city, village, fire district, town, or fire company from liability, if any, for the negligent or wrongful acts of the officer or member in the actual performance of such duty.

Credits
(L.1972, c. 892, § 3. Amended L.2018, c. 476, § 113, eff. Dec. 28, 2018.)

Notes of Decisions (3)

McKinney's Village Law § 10-1022, NY VILLAGE § 10-1022
Current through L.2021, chapters 1 to 152. Some statute sections may be more current, see credits for details.

End of Document

AAR11-GCFD-NYFIRS-Working Fires-2020-2015.pdf

Garden City Fire Department

WORKING FIRES

YEAR	DATE	LOCATION	Report
2020	9/5/2020	105 Hilton Ave	✓
2020	12/18/2020	206 Stewart Ave (GC Country Club Pro Shop)	✓
2019	1/26/2019	145 Hampton Rd	✓
2019	5/16/2019	860 Franklin Ave	✓
2019	10/15/2019	34 Avalon Road	✓
2019	10/15/2019	52 St. James Street S.	✓
2018	11/15/2018	3 Commercial Ave (Atlantic Irrigation Specialty)	✓
2017	1/2/2017	141 Chestnut Street	✓
2017	2/5/2017	48 Fenimore Ave	✓
2017	8/1/2017	152 Rockaway Ave	✓
2017	10/21/2017	510 Stewart Ave (Fed-Ex)	✓
2016	8/7/2016	25 Yale Street	✓
2016	8/9/2016	62 Washington Ave	✓
2015	5/4/2015	120 Wilson Street	✓
2015	9/8/2015	951 Franklin Ave	✓
2015	9/24/2015	35 Dartmouth St	✓
2015	11/15/2015	40 Prospect Ave	✓

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 09/05/2020 (Date) | 00:55:00 (Time) | 2020-000600 (Incident Number) | 00 (Exposure)

B Street address
105 HILTON AVE
GARDEN CITY, NY 11530
Cross Street: STEWART AVE / 9TH ST - ZONE 2 AMB 26
Census Tract

C Incident Type: 111
Building fire

D Mutual aid received
30042 (Their FDID) | NY (State) | 160 (Incident)
30070, 30008, 30017, 30043, 30020, (Responding Departments (Press Other))

E1 Dates and Times
Alarm Time 09/05/2020 00:55:00
Time Out 09/05/2020 00:56:54
Arrival 09/05/2020 00:57:48
Controlled 09/05/2020 04:23:00
Cleared 09/05/2020 05:19:00

E2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken
1. Extinguishment by fire service personnel
2. Ventilate
3. Salvage & overhaul

G1 Resources

	Apparatus	Personnel
Suppression	5	16
EMS	0	0
Other	3	3
Personnel Not on Apparatus		3
Total Personnel		22

G2 Estimated Dollar Losses
Losses
Property Unknown
Contents Unknown
Pre Incident Value
Property Unknown
Contents Unknown

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H2 Detector

I Mixed Property Use

K1 Person Entity Involved
[redacted]
105 HILTON AVE
GARDEN CITY, NY 11530
[redacted]

K2 Owner
[redacted]
105 HILTON AVE
GARDEN CITY, NY 11530
[redacted]

L Remarks
RESPONDED TO THE ABOVE ADDRESS REPORTING A PORCH FIRE - UPON ARRIVAL FD ENCOUNTERED A HEAVY VOLUME OF FIRE TO THE ENTIRE FRONT PORCH AREA (#1 SIDE) OF THE DWELLING. THE FIRST ARRIVING UNIT TRANSMITTED A WORKING FIRE TO FIRE COMMUNICATIONS. ENGINE 145 WAS THE FIRST DUE ENGINE AND STRETCHED MULTIPLE HANDLINES FROM THEIR UNIT TO THE FIRE. ENGINE 142 ARRIVED AT THE SCENE AND SECURED A POSITIVE WATER SOURCE TO SUPPLY ENGINE 145. A COMMAND POST WAS ESTABLISHED IN FRONT OF THE FIRE BUILDING - OIC TRANSMITTED A SECOND ALARM DUE TO FIRE EXTENSION TO THE UPPER FLOORS OF THE DWELLING. THREE ADDITIONAL HANDLINES WERE STRETCHED FROM LADDER 147 (QUINT) FOR EXTINGUISHMENT. SEARCHES WERE CONDUCTED FOR OCCUPANTS WITH NEGATIVE RESULTS. ENGINE 143 ARRIVED ON THE SCENE AND SECURED A POSITIVE WATER SOURCE TO SUPPLY LADDER 147. COMPANIES FROM WITHIN THE BUILDING REPORTING HEAVY FIRE EXTENDING TO SECOND AND THIRD FLOORS. THE OIC TRANSMITTED A THIRD ALARM FOR ADDITIONAL COMPANIES AND RESOURCES. THE COMMAND POST RECEIVED A RADIO REPORT OF A MISSING MEMBER AT 0219 HRS. ROLL CALL WAS CONDUCTED BY COMMAND POST AND OIC. ALL MEMBERS HAVE BEEN ACCOUNTED FOR AS OF 0223 HRS. NATIONAL GRID AND PSEG ALSO REQUESTED TO SCENE TO SHUT DOWN UTILITIES TO THE DWELLING. FD CONDUCTED AN EXTENSIVE OVERHAUL WITHIN THE DWELLING - EXTENSIVE FIRE, SMOKE AND WATER DAMAGE TO ALL FLOORS OF THE DWELLING. IT APPEARS FROM THE FIRE MARSHALS INVESTIGATION THAT AN EXTENSION CORD WAS CONNECTED TO AN OUTLET ON THE 1/4 CORNER OF THE PORCH AND RAN ACROSS THE FRONT PORCH FLOORING INTO AN AIR COMPRESSOR USED FOR CONSTRUCTION. IT APPEARS THAT THE AIR COMPRESSOR AND EXTENSION CORD OVERHEATED AND OVERLOADED THE CIRCUIT. THE AIR COMPRESSOR TANK RUPTURED DUE TO THE RAPID INCREASE OF SURROUNDING HEAT FROM THE FIRE.
OTHER MUTUAL AID COMPANIES ASSIGNED TO THE INCIDENT - NASSAU COUNTY FIELD COMM UNIT - MERV UNIT - NASSAU COUNTY REHAB UNIT - NASSAU COUNTY OEM. MINEOLA AMBULANCE, NYU

AMBULANCE - NO REPORTED INJURIES TO OCCUPANTS OR FIREFIGHTERS
NASSAU COUNTY FIRE MARSHALS OFFICE ALSO REQUESTED TO RESPOND.

FM HICKMAN THEIR INCIDENT NUMBER 300-20
NASSAU COUNTY ARSON MARCANO - NCPD 2716

GCPD BLOTTER NUMBER 10434-20
GCFD INCIDENT NUMBER 600

TIMES :

NATIONAL GRID AT SCENE	0129
PSNG AT SCENE	0138
FIRE MARSHALS AT SCENE	0207
MISSING MEMBER	0219
MISSING MEMBER LOCATED	0223
MERV AT SCENE	0243
REHAB AT SCENE	0345
UNDER CONTROL	0423
WATER DEPT	0459
RETURNING TO QTS	0515
BUILDINGS DEPT	1000

M	**THOMAS STRYSKO** Officer in Charge	**Chief** Rank	**Driver** Assignment	**09/05/2020** Date
	RICHARD B CHIARELLO Member Making Report	**Ex-Chief** Rank	**Headquarters** Assignment	**09/05/2020** Date

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *1*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Exterior balcony, unenclosed porch
Area of Fire Origin

Heat from powered equipment, other
Heat Source

Electrical wire, cable insulation
Item First Ignited

Type of Material First Ignited

E_1 Cause of Ignition
Unintentional

E_2 Factors Contributing to Ignition
1. Electrical failure, malfunction, other
2. Mechanical failure, malfunction, other

E_3 Human Factors
Asleep

F_1 Equipment Involved in Ignition
Air compressor

Brand | Serial Number

Model | Year

F_2 Equipment Power
Electrical, other

F_3 Equipment Portability
Portable

G Fire Suppression Factors
1. Balloon construction

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type
Enclosed building

I_2 Structure Status
In normal use

I_3 Building Height
3 stories above grade
3 stories below grade

I_4 Main Floor Size
A length of 100 feet by a width of 80 feet

J_1 Fire Origin
1 story above

J_2 Fire Spread
Beyond building of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread
Item

Type

L_1 Presence of Detectors
Undetermined

M_1 Presence of Automatic Extinguishment System
None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 12/18/2020 (Date) | 15:01:00 (Time) | 2020-000855 (Incident Number) | 00 (Exposure)

B Street address

206 STEWART AVE
GARDEN CITY, NY 11530
Cross Street: EDGEMERE ROAD / ROXBURY ROAD - ZONE 4 AMB 19

Census Tract

C Incident Type: 111
Building fire

D Automatic aid given
30017 NY
Their FDID State Incident
30015, 30063, 30043, 30008, , 30042
Responding Departments (Press Other)

E1 Dates and Times
Alarm Time 12/18/2020 15:01:00
Time Out 12/18/2020 15:03:14
Arrival 12/18/2020 15:06:34
Controlled
Cleared 12/18/2020 16:23:31

E2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken
1. Extinguishment by fire service personnel
2. Salvage & overhaul
3. Investigate

G1 Resources

	Apparatus	Personnel
Suppression	5	6
EMS	0	0
Other	2	2
Personnel Not on Apparatus		18
Total Personnel		26

G2 Estimated Dollar Losses
Losses
Property Unknown
Contents Unknown
Pre Incident Value
Property Unknown
Contents Unknown

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
Clubhouse

H2 Detector
Detector alerted occupants

I Mixed Property Use

K1 Person Entity Involved
GARDEN CITY COUNTRY CLUB
206 STEWART AVE
GARDEN CITY, NY 11530

K2 Owner
GARDEN CITY COUNTRY CLUB
206 STEWART AVE
GARDEN CITY, NY 11530
- -- -

L Remarks
FIRE LOCATED IN THE CEILING - 1ST FLOOR - AT THE PRO SHOP - CURRENTLY THE INCIDENT IS UNDER INVESTIGATION BY NASSAU COUNTY FIRE MARSHAL OFFICE -- 12-18-20 # 64

AR-402-20
User: Watch Desk 12/19/2020 11:12:24

M

DEVYN F MOODY (Officer in Charge)	Assistant Chief (Rank)	Driver (Assignment)	12/18/2020 (Date)
RICHARD B CHIARELLO (Member Making Report)	Ex-Chief (Rank)	(Assignment)	12/18/2020 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 Number of buildings involved.

B_3 Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Area of Fire Origin

Heat Source

Item First Ignited

Type of Material First Ignited

E_1 Cause of Ignition

Cause under investigation

E_2 Factors Contributing to Ignition

Not entered

E_3 Human Factors

F Equipment Involved in Ignition

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

I_2 Structure Status

I_3 Building Height

of stories above not entered

# of stories below not entered

I_4 Main Floor Size

Not entered

J_1 Fire Origin

Not entered

J_2 Fire Spread

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item

Type

L_1 Presence of Detectors

Not entered

M_1 Presence of Automatic Extinguishment System

Not entered

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 01/26/2019 (Date) | 16:36:00 (Time) | 2019-000068 (Incident Number) | 00 (Exposure)

B Street address

145 HAMPTON ROAD
GARDEN CITY, NY 11530
Cross Street: ST PAULS PL / MERILLON AVE - ZONE 1 AMB 26

Census Tract

C Incident Type: 111
Building fire

D Mutual aid received
30042
Their FDID | State | Incident
30043, 30042, 30068
Responding Departments (Press Other)

E1 Dates and Times
Alarm Time 01/26/2019 16:36:00
Time Out 01/26/2019 16:37:43
Arrival 01/26/2019 16:42:39
Controlled
Cleared 01/26/2019 19:15:33

E2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken
1. Extinguishment by fire service personnel
2. Salvage & overhaul
3. Establish safe area

G1 Resources

	Apparatus	Personnel
Suppression	6	18
EMS	0	0
Other	3	3
Personnel Not on Apparatus		14
Total Personnel		35

G2 Estimated Dollar Losses
Losses
Property $25,000
Contents $25,000
Pre Incident Value
Property Unknown
Contents Unknown

H1 Casualties

	Deaths	Injuries
Fire Service	0	1
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H2 Detector

I Mixed Property Use

K1 Person Entity Involved
[redacted]
145 HAMPTON ROAD
GARDEN CITY, NY 11530

K2 Owner
[redacted]
145 HAMPTON ROAD
GARDEN CITY, NY 11530
- -- -

L Remarks

GENERAL ALARM FROM FIRE COM REPORTING SMOKE IN THE HOUSE. UPON FD ARRIVAL, ENCOUNTERED STRONG ODOR OF SMOKE AND SMOKE CONDITION THROUGHOUT RESIDENCE. SEARCH CONDUCTED, AND FOUND HOT SPOTS ON 2ND FLOOR BEDROOM CLOSET. FD OPENED AREA AND FOUND SMALL POCKETS FIRE IN CLOSET AREA. AREA EXTINGUISHED USING DRY POWDER EXTINGUISHER. HOSE LINE USED TO CONFIRM ALL HOT SPOTS REMOVED. DAMAGE TO AREA OF FIRE, ALONG WITH WATER DAMAGE TO 1ST FLOOR DINING AREA. OCCUPANT ADVISES THEY WERE HAVING INTERMIT ANT POWER ISSUES SINCE 0800 HOURS THIS DATE. PSE&G REPORTS TRANSFORMER PROBLEM I/R/O 149 HAMPTON ROAD WHICH THEY WERE INVESTIGATING. PSE&G POWER ISSUE ALSO RESULTED IN ADD'T ALARMS, SEE RUN #2019-000069, 2019-000070, 2019-000071. ALSO ON SCENE NYU-LANGONE EMS UNIT 1482.

*NOTE - WHILE HOOKING UP TO HYDRANT I/F/O RESIDENCE WATER DEPT EMPLOYEE K. KIRBY APPROACHED E-145 CHAUFFEUR AND ADVISED HIM NOT TO FLUSH FIRE HYDRANT DUE TO POSSIBILITY OF CREATING RUSTY WATER CONDITION FOR OTHER HOMES IN THE AREA. GCPD NOTIFIED AND REMOVED MR. KIRBY FROM THE AREA AT REQUEST OF CHIEF O'MALLEY. SEE GCPD BLOTTER #1326

M

BRIAN G GALLO (Officer In Charge)	**Chief** (Rank)	**Driver** (Assignment)	**01/26/2019** (Date)
RICHARD B CHIARELLO (Member Making Report)	**Ex-Chief** (Rank)	**Scene** (Assignment)	**01/26/2019** (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *1*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Closet
Area of Fire Origin

Electrical arcing
Heat Source

Interior wall covering excluding drapes, etc.
Item First Ignited

Multiple types of material
Type of Material First Ignited

E_1 Cause of Ignition

Failure of equipment or heat source

E_2 Factors Contributing to Ignition

1. Electrical failure, malfunction, other

E_3 Human Factors

None

F Equipment Involved in Ignition

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type
Enclosed building

I_2 Structure Status
In normal use

I_3 Building Height
of stories above not entered
# of stories below not entered

I_4 Main Floor Size
3,000 total square feet

J_1 Fire Origin
2 stories above

J_2 Fire Spread
Confined to room of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread
Item

Type

L_1 Presence of Detectors
Present

L_2 Detector Type
Smoke

L_3 Detector Power Supply
Hardwire only

L_4 Detector Operation
Detector operated

L_5 Detector Effectiveness
Detector alerted occupants, occupants responded

L_6 Detector Failure Reason

M_1 Presence of Automatic Extinguishment System
None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 05/16/2019 (Date) | 09:55:00 (Time) | 2019-000376 (Incident Number) | 00 (Exposure)

B Street address

860 FRANKLIN AVE
GARDEN CITY, NY 11530
Cross Street: STEWART AVE / 9TH ST - ZONE 1 AMB 26
Census Tract

C Incident Type: 111
Building fire

D Mutual aid received
30019 NY
Their FDID State Incident
30017, 30042, 30043, 30068
Responding Departments (Press Other)

E1 Dates and Times
Alarm Time 05/16/2019 09:55:00
Time Out 05/16/2019 09:57:05
Arrival 05/16/2019 09:58:57
Controlled
Cleared 05/16/2019 11:14:12

E2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken
1. Extinguishment by fire service personnel
2. Provide manpower
3. Provide apparatus

G1 Resources

	Apparatus	Personnel
Suppression	2	2
EMS	0	0
Other	2	3
Personnel Not on Apparatus		8
Total Personnel		13

G2 Estimated Dollar Losses
Losses
Property $0
Contents $45,000
Pre Incident Value
Property Unknown
Contents Unknown

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
Restaurant or cafeteria

H2 Detector

I Mixed Property Use

K1 Person Entity Involved
NOVITA RESTAURANT
860 FRANKLIN AVE
GARDEN CITY, NY 11530
[redacted]

K2 Owner
NOVITA RESTAURANT
NOVITA RESTAURANT
860 FRANKLIN AVE
GARDEN CITY, NY 11530
[redacted]

L Remarks

RESPONDED TO A GENERAL ALARM TO THE ABOVE ADDRESS REPORTING SMOKE FROM THE BUILDING - UPON ARRIVAL FD FOUND A HEAVY FIRE CONDITION IN THE 1ST FLOOR KITCHEN AREA. FD STRETCHED A 2 1/2 INCH LINE FROM THE 1ST DUE ENGINE (145) TO THE FRONT DOOR INTO THE KITCHEN AREA TO EXTINGUISH THE FIRE, THE 1ST DUE ARRIVING CHIEF TRANSMITTED A WORKING FIRE & A 2ND ALARM WAS TRANSMITTED. THE FIRE HAD EXTENDED UP AND INTO THE DUCTS AND BEHIND THE WALL AND CEILING.AREA. SPRINKLER WAS ACTIVATED AND KEPT FIRE IN THE KITCHEN AREA. EXTENSIVE DAMAGE TO ALL APPLIANCES INCLUDING 22 BURNER (GARLAND STOVE), DEEP FRYER, PIZZA OVEN (PIT CO), & 4 CONTIMENLI GRILLS. EXTENSIVE SMOKE AND WATER DAMAGE THROUGHOUT. THERE WERE NO INJURIES REPORTED. MUTUAL AID RESPONDING DEPARTMENTS - MINEOLA LADDER TO THE SCENE, NEW HYDE PARK FAST TRUCK, WESTBURY LADDER TO STANDBY & FRANKLIN SQUARE ENGINE TO STANDBY.
User: Watch Desk 05/16/2019 16:35:45

M

DEVYN F MOODY (Officer in Charge)	Assistant Chief (Rank)	(Assignment)	05/16/2019 (Date)
RICHARD B CHIARELLO (Member Making Report)	Ex-Chief (Rank)	(Assignment)	05/16/2019 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *Not Residential*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Cooking area, kitchen
Area of Fire Origin

Molten, hot material
Heat Source

Cooking materials, including edible materials
Item First Ignited

Cooking oil, transformer or lubricating oil
Type of Material First Ignited

E_1 Cause of Ignition

Unintentional

E_2 Factors Contributing to Ignition

1. Operational deficiency, other
2. Mechanical failure, malfunction, other

E_3 Human Factors

None

F_1 Equipment Involved in Ignition

Deep fryer
PIT COMPANY
Brand | Serial Number
Model | Year

F_2 Equipment Power

Natural gas or other lighter-than-air gas

F_3 Equipment Portability

Stationary

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Fixed portable or mobile structure

I_2 Structure Status

In normal use

I_3 Building Height

16 stories above grade
1 story below grade

I_4 Main Floor Size

6,000 total square feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Confined to floor of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item

Type

L_1 Presence of Detectors

Undetermined

M_1 Presence of Automatic Extinguishment System

Present

M_2 Type of Automatic Extinguishment

Wet-pipe sprinkler

M_3 Automatic Extinguishment System Operation

System did not operate

M_4 Number of Sprinkler Heads

M_5 Automatic Extinguishment System Failure Reason

Undetermined

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 10/15/2019 (Date) | 10:39:00 (Time) | 2019-000872 (Incident Number) | 00 (Exposure)

B Street address

34 AVALON ROAD
GARDEN CITY, NY 11530
Cross Street: IRIS LA / SURREY LA - ZONE 3 AMB 26
Census Tract

C Incident Type: 111
Building fire

D Mutual aid received
30017 (Their FDID) NY (State) 713 (Incident)
30042, 30020, 30017, 30068, 30008, (Responding Departments (Press Other))

E1 Dates and Times
Alarm Time 10/15/2019 10:39:00
Time Out 10/15/2019 10:39:44
Arrival 10/15/2019 10:41:24
Controlled
Cleared 10/15/2019 13:49:47

E2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken
1. Extinguishment by fire service personnel
2. Fire control or extinguishment, other
3. Fires, rescues & hazardous conditions, other

G1 Resources

	Apparatus	Personnel
Suppression	4	12
EMS	0	0
Other	2	2
Personnel Not on Apparatus		10
Total Personnel		24

G2 Estimated Dollar Losses
Losses
Property Unknown
Contents Unknown
Pre Incident Value
Property Unknown
Contents Unknown

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H2 Detector

I Mixed Property Use

K1 Person Entity Involved
[redacted]
32 AVALON RD
GARDEN CITY, NY 11530
[redacted]

K2 Owner
[redacted]
32 AVALON RD
GARDEN CITY, NY 11530
[redacted]

L Remarks
RESPONDED TO THE ABOVE ADDRESS REPORTING A HOUSE FIRE - UPON ARRIVAL FD TRANSMITTED A WORKING FIRE - HEAVY FIRE ON THE 2ND FLOOR AND THROUGH THE ROOF - FD USED MULTIPLE HANDLINES FOR FIRE SUPPRESSION - MUTUAL AID COMPANIES REQUESTED TO THE SCENE FOR MANPOWER AND FIRE DUTY. FIRE MARSHALS ALSO REQUESTED, NATIONAL GRID, PSEG RESPONDED TO SCENE TO SHUT DOWN UTILITIES - EXTENSIVE FIRE, WATER, SMOKE AND STUCTURAL DAMAGE TO THE DWELLING - POSSIBLE CAUSE AS PER FIRE MARSHALS WAS UNINTENTIONAL ELECTRICAL PROBLEM, FRONT FOYER OF THE DWELLING. THERE WERE NO REPORTED INJUIRES. OCCUPANT ADVISED NOT TO ENTER THE DWELLING WHEN FD LEAVES THE SCENE, TOTALLY UNSAFE.
User: Watch Desk 10/15/2019 17:53:30
User: Watch Desk 10/15/2019 18:24:55

M

DEVYN F MOODY (Officer in Charge)	Assistant Chief (Rank)	(Assignment)	10/15/2019 (Date)
RICHARD B CHIARELLO (Member Making Report)	Ex-Chief (Rank)	Driver (Assignment)	10/15/2019 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *3*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Substructure area or space, crawl space
Area of Fire Origin

Electrical arcing
Heat Source

Structural component or finish, other
Item First Ignited

Plywood
Type of Material First Ignited

E_1 Cause of Ignition

Unintentional

E_2 Factors Contributing to Ignition

1. Electrical failure, malfunction, other
2. Unspecified short-circuit arc

E_3 Human Factors

None

F Equipment Involved in Ignition

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

of stories above not entered
# of stories below not entered

I_4 Main Floor Size

1,500 total square feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Beyond building of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item

Type

L_1 Presence of Detectors

Present

L_2 Detector Type

Smoke

L_3 Detector Power Supply

Battery only

L_4 Detector Operation

Undetermined

L_5 Detector Effectiveness

Undetermined

L_6 Detector Failure Reason

Undetermined

M_1 Presence of Automatic Extinguishment System

None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 10/15/2019 (Date) | 01:48:00 (Time) | 2019-000870 (Incident Number) | 00 (Exposure)

B Street address

52 ST JAMES ST S
GARDEN CITY, NY 11530
Cross Street: WASHINGTON AVE / PROSPECT AVE - ZONE 6 AMB 26

Census Tract

C Incident Type: 111
Building fire

D Automatic aid received

Their FDID	State	Incident
30042	NY	168

30042
Responding Departments (Press Other)

E1 Dates and Times

Alarm Time 10/15/2019 01:48:00
Time Out 10/15/2019 01:49:37
Arrival 10/15/2019 01:51:54
Controlled
Cleared 10/15/2019 03:49:19

E2 Shift and Alarms

Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken

1. Extinguishment by fire service personnel
2. Remove hazard
3. Salvage & overhaul

G1 Resources

	Apparatus	Personnel
Suppression	3	14
EMS	0	0
Other	3	3
Personnel Not on Apparatus		5
Total Personnel		22

G2 Estimated Dollar Losses

Losses
Property Unknown
Contents Unknown
Pre Incident Value
Property Unknown
Contents Unknown

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H2 Detector

I Mixed Property Use

K1 Person Entity Involved

[redacted]
52 ST JAMES STREEET SOUTH
GARDEN CITY, NY 11530
[redacted]

K2 Owner

[redacted]
52 ST JAMES STREEET SOUTH
GARDEN CITY, NY 11530
[redacted]

L Remarks

RESPONDED TO THE ABOVE ADDRESS REPORTING AN ELECTRICAL FIRE - UPON ARRIVAL FD DETERMINED THAT POWER SERVICE ENTERING THE HOUSE HAD MALFUNCTIONED AND SHORTED OUT WHICH CAUSED A FIRE ON THE EXTERIOR OF THE HOUSE BEFORE THE METER BOX - FIRE DID TRAVEL INTO THE 1ST FLOOR OF THE DWELLING - SMOKE/WATER AND SOME FIRE DAMAGE WAS FOUND ON THE CEILING AND FIRST FLOOR OF THE DWELLING - PSEG ALSO RESPONDED TO THE SCENE TO ASSESS THE POWER ISSUE - NO INJURIES HAVE BEEN REPORTED - MINEOLA FD ALSO RESPONDED TO THE SCENE WITH ONE LADDER AS PER GCFD MUTUAL AID POLICY - FD USED DRY CHEMICAL EXTINGUISHER AND WATER CAN TO EXTINGUISH THE FIRE.
User: Watch Desk 10/15/2019 16:29:52

M

THOMAS STRYSKO (Officer in Charge)	Chief (Rank)	(Assignment)	10/15/2019 (Date)
RICHARD B CHIARELLO (Member Making Report)	Ex-Chief (Rank)	Driver (Assignment)	10/15/2019 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *2*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Wall surface: exterior
Area of Fire Origin

Electrical arcing
Heat Source

Electrical wire, cable insulation
Item First Ignited

Multiple types of material
Type of Material First Ignited

E_1 Cause of Ignition

Unintentional

E_2 Factors Contributing to Ignition

1. Electrical failure, malfunction, other
2. Mechanical failure, malfunction, other

E_3 Human Factors

None

F Equipment Involved in Ignition

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

3 stories above grade
# of stories below not entered

I_4 Main Floor Size

A length of 20 feet by a width of 40 feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Confined to building of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item

Type

L_1 Presence of Detectors

None present

M_1 Presence of Automatic Extinguishment System

None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 11/15/2018 (Date) | 22:55:00 (Time) | 2018-000993 (Incident Number) | 00 (Exposure)

B Street address

3 COMMERCIAL AVE
GARDEN CITY, NY 11530
Cross Street: CLINTON ROAD - ZONE 3 AMB 26

Census Tract

C Incident Type: 111
Building fire

D Mutual aid received
Their FDID | State | Incident
Responding Departments (Press Other)

E1 Dates and Times
Alarm Time 11/15/2018 22:55:00
Time Out 11/15/2018 22:57:45
Arrival 11/15/2018 22:59:21
Controlled
Cleared 11/16/2018 01:21:11

E2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken
1. Extinguishment by fire service personnel
2. Salvage & overhaul

G1 Resources

	Apparatus	Personnel
Suppression	5	6
EMS	0	0
Other	4	4
Personnel Not on Apparatus		21
Total Personnel		31

G2 Estimated Dollar Losses
Losses
Property $75,000
Contents $10,000
Pre Incident Value
Property Unknown
Contents Unknown

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
Mercantile, business, other

H2 Detector

I Mixed Property Use

K1 Person Entity Involved
3 COMMERCIAL AVE
GARDEN CITY, NY 11530

K2 Owner
SUSAN KURLANDER
3 COMMERCIAL AVE
GARDEN CITY, NY 11530
917-992-1235

L Remarks
GENERAL ALARM TRANSMITTED TO THE ABOVE ADDRESS - UPON ARRIVAL FD REPORTED A WORKING FIRE IN A COMMERCIAL BUILDING -. FD FORCED ENTRY INTO BUILDING - FIRE WAS LOCATED ON THE 1ST FLOOR OFFICE - FIRE CREWS REPORTED HEAVY FIRE AND SMOKE CONDITION ON THE 1ST FLOOR AND 2ND FLOOR FIRE WAS CONFINED TO AN OFFICE LOCATED ON THE 1ST FLOOR.
FD USED A 2 1/2 LINE AND 1 3/4 LINE FOR EXTINGUISHMENT. HEAVY SMOKE CONDITION THROUGHOUT BUILDING ON ALL FLOORS AND OVERHAUL WAS PERFORMED NO OTHER EXTENSION WAS REPORTED . FIRE MARSHALS WHERE REQUESTED FOR AN INVESTIGATION - THERE WERE NO INJURIES REPORTED TO FIRE PERSONNEL
MUTUAL AID FROM GARDEN CITY PARK - WILLISTON PARK - MINEOLA - NEW HYDE PARK - FRANKLIN SQUARE- WESTBURY .
User: Watch Desk 11/16/2018 02:12:06

M

BRIAN G GALLO (Officer In Charge)	Chief (Rank)		11/16/2018 (Date)
RICHARD B CHIARELLO (Member Making Report)	Ex-Chief (Rank)	Driver (Assignment)	11/16/2018 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *Not Residential*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site materials, other

On-site material (1) — Storage Code: Bulk storage or warehousing

On-site material (2) — Storage Code

On-site material (3) — Storage Code

D Ignition

Undetermined
Area of Fire Origin

Multiple heat sources including multiple ignitions
Heat Source

Electrical wire, cable insulation
Item First Ignited

Type of Material First Ignited

E_1 Cause of Ignition

Cause, other

E_2 Factors Contributing to Ignition

1. Factors contributing to ignition, other

E_3 Human Factors

None

F Equipment Involved in Ignition

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

2 stories above grade

# of stories below not entered

I_4 Main Floor Size

A length of 100 feet by a width of 50 feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Confined to room of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item

Type

L_1 Presence of Detectors

Undetermined

M_1 Presence of Automatic Extinguishment System

Undetermined

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 01/02/2017 (Date) | 15:23:00 (Time) | 2017-000006 (Incident Number) | 00 (Exposure)

B Street address

141 CHESTNUT ST
GARDEN CITY, NY 11530
Cross Street: BOYLSTON ST / GROVE ST - ZONE 3 AMB 26

Census Tract

C Incident Type: 111
Building fire

D Mutual aid received

Their FDID	State	Incident
30042	NY	160

Responding Departments (Press Other)

E1 Dates and Times

Alarm Time 01/02/2017 15:23:00
Time Out 01/02/2017 15:26:13
Arrival 01/02/2017 15:27:29
Controlled
Cleared 01/02/2017 17:34:26

E2 Shift and Alarms

Shift	Alarm	District	Alarm Box

E3 Special Studies

F Actions Taken

1. Extinguishment by fire service personnel
2. Salvage & overhaul
3. Information, investigation & enforcement, other

G1 Resources

	Apparatus	Personnel
Suppression	5	4
EMS	0	0
Other	2	1
Personnel Not on Apparatus		28
Total Personnel		33

G2 Estimated Dollar Losses

Losses
Property $100,000
Contents $50,000
Pre Incident Value
Property $700,000
Contents Unknown

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H2 Detector

I Mixed Property Use

K1 Person Entity Involved
141 CHESTNUT ST
GARDEN CITY, NY 11530

K2 Owner
141 CHESTNUT ST
GARDEN CITY, NY 11530

L Remarks

Reported house fire via Firecom. 1460 first on scene & transmitted a SIG 98 with smoke showing, then transmitted a Sig 10 with heavy smoke condition throughout house. GCPD advised 1402 occupants were out of the house. FD forced entry and located fire in basement, #2 side in laundry room area. Fire extended via basement ceiling to #3 side and caused heavy damage to first floor joists supporting dining room. Heavy smoke extension to first, second & third(attic) floors. Fire was extinguished with 1-3/4" handline, backup 1-3/4" handline put in place at rear door. Primary and secondary searches performed, ventilation performed on basement, #1 & #2 floors, No extension made into 1st floor walls. Salvage/overhaul confined to area of fire and 1st floor dining room #3 side. NCFM and NCPD Bomb/Arson teams notified for routine investigation, report # 0004-17. Cause of fire was determined to be the dryer vent pipe exhaust completely blocked with lint. Homeowner interviewed and information taken for fire report. Utilities were shut down and VGC Building Department was notified. All apparatus and equipment returned to duty, no injuries reported. Signal 13/7. 1402

M

	Rank	Assignment	Date
THOMAS STRYSKO (Officer In Charge)	Assistant Chief	Driver	01/02/2017
LOUIS J MIRA (Member Making Report)	Lieutenant		01/02/2017

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *1*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1) — Storage Code

On-site material (2) — Storage Code

On-site material (3) — Storage Code

D Ignition

Laundry area, wash house (laundry)
Area of Fire Origin

Heat from powered equipment, other
Heat Source

Dust, fiber, lint, including sawdust and excelsior
Item First Ignited

Type of Material First Ignited

E_1 Cause of Ignition

Unintentional

E_2 Factors Contributing to Ignition

1. Design, manufacture, installation deficiency, other
2. Fire spread or control, other

E_3 Human Factors

None

F_1 Equipment Involved in Ignition

Clothes dryer

Brand — Serial Number

Model — Year

F_2 Equipment Power

Electrical, other

F_3 Equipment Portability

Stationary

G Fire Suppression Factors

None

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

3 stories above grade
1 story below grade

I_4 Main Floor Size

A length of 40 feet by a width of 40 feet

J_1 Fire Origin

1 story below

J_2 Fire Spread

Confined to floor of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item Structural member or framing

Type

L_1 Presence of Detectors

Present

L_2 Detector Type

Smoke

L_3 Detector Power Supply

Undetermined

L_4 Detector Operation

Detector operated

L_5 Detector Effectiveness

There were no occupants

L_6 Detector Failure Reason

M_1 Presence of Automatic Extinguishment System

None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 02/05/2017 (Date) | 16:35:00 (Time) | 2017-000088 (Incident Number) | 00 (Exposure)

B Street address

48 FENIMORE AVE
GARDEN CITY, NY 11530
Cross Street: HUDSON ROAD / GLEN ROAD - ZONE 2 AMB 19

Census Tract

C Incident Type: 111
Building fire

D Mutual aid received
30043
Their FDID | State | Incident

Responding Departments (Press Other)

E 1 Dates and Times

Alarm Time 02/05/2017 16:35:00
Time Out 02/05/2017 16:38:34
Arrival 02/05/2017 16:39:46
Controlled
Cleared 02/05/2017 18:12:03

E 2 Shift and Alarms

Shift | Alarm | District | Alarm Box

E 3 Special Studies

F Actions Taken

1. Extinguishment by fire service personnel

G 1 Resources

	Apparatus	Personnel
Suppression	5	4
EMS	0	0
Other	5	6
Personnel Not on Apparatus		23
Total Personnel		33

G 2 Estimated Dollar Losses

Losses
Property $15,000
Contents Unknown
Pre Incident Value
Property Unknown
Contents Unknown

H 1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H 3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H 2 Detector

I Mixed Property Use

K 1 Person Entity Involved
48 FENIMORE AVE
GARDEN CITY, NY 11530

K 2 Owner
48 FENIMORE AVE
GARDEN CITY, NY 11530
- -- -

L Remarks

Department dispatched for house fire via Fire Com. First arriving units reported Sig 10. FD found all residents were out of the dwelling. FD strechted three 1 3/4 handlines to extinguish and overhaul fire. Fire was in an attached garage. There was major fire and smoke damge to the garage, with minor fire damage and smoke damage to the interior of the main house. Lt Clancy

M

WILLIAM K CASTORO (Officer In Charge)	Chief (Rank)		02/05/2017 (Date)
PETER J CLANCY (Member Making Report)	Lieutenant (Rank)	(Assignment)	02/05/2017 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *1*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Vehicle storage area; garage, carport
Area of Fire Origin

Electrical arcing
Heat Source

Undetermined
Item First Ignited

Undetermined
Type of Material First Ignited

E_1 Cause of Ignition

Unintentional

E_2 Factors Contributing to Ignition

1. Electrical failure, malfunction, other

E_3 Human Factors

None

F_1 Equipment Involved in Ignition

Personal or household equipment, other
air compressor

Brand | Serial Number

Model | Year

F_2 Equipment Power

Electrical line voltage (>= 50 volts)

F_3 Equipment Portability

Stationary

G Fire Suppression Factors

None

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

2 stories above grade
1 story below grade

I_4 Main Floor Size

A length of 75 feet by a width of 40 feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Confined to room of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item Storage supplies, other

Type

L_1 Presence of Detectors

Present

L_2 Detector Type

Smoke

L_3 Detector Power Supply

Battery only

L_4 Detector Operation

Undetermined

L_5 Detector Effectiveness

Undetermined

L_6 Detector Failure Reason

Undetermined

M_1 Presence of Automatic Extinguishment System

None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 08/01/2017 (Date) | 22:58:00 (Time) | 2017-000539 (Incident Number) | 00 (Exposure)

B Street address

152 ROCKAWAY AVE
GARDEN CITY, NY 11530
Cross Street: SOUTH GATE / MERILLON AVE - ZONE 1 AMB 26

Census Tract

C Incident Type: 111
Building fire

D Automatic aid received
30020
Their FDID | State | Incident
30068, 30008, 30043, 30063, 30017,
Responding Departments (Press Other)

E1 Dates and Times

Alarm Time 08/01/2017 22:58:00
Time Out 08/01/2017 22:57:05
Arrival 08/01/2017 22:59:52
Controlled 08/02/2017 00:01:00
Cleared 08/02/2017 00:47:01

E2 Shift and Alarms

Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken

1. Extinguishment by fire service personnel
2. Incident command

G1 Resources

	Apparatus	Personnel
Suppression	5	4
EMS	0	0
Other	5	5
Personnel Not on Apparatus		24
Total Personnel		33

G2 Estimated Dollar Losses

Losses
Property $50,000
Contents Unknown
Pre Incident Value
Property Unknown
Contents Unknown

H1 Casualties

	Deaths	Injuries
Fire Service	0	1
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H2 Detector

I Mixed Property Use

K1 Person Entity Involved
150 ROCKAWAY AVE
GARDEN CITY, NY 11530

K2 Owner
150 ROCKAWAY AVE
GARDEN CITY, NY 11530
- -- -

L Remarks

1401 AS INCIDENT COMMANDER NOTIFIED OF SMOKE SHOWING FROM EXPOSURE 1 SIDE. TRANSMITTED A SIGNAL 98 FOLLOWED BY BY A SIGNAL 10. PRIMARIES AND SECONDARIES CONDUCTED WITH NEGATIVE RESULTS. FIRE CONTAINTED TO THE LIVING ROOM WITHIN THE 1/2 CORNER BETWEEN THE CEILING AND FLOOR JOIST. OVERHAUL CONDUCTED WITH NEGATIVE EXTENSION. NO CIVILIAN INJURIES, ONE FIREFIGHTER INJURY (TJ MICHON) WITH RMA. FIRE MARSHALL REPORT NUMBER 267-17.
PD BLOTTER 6228.

M

THOMAS STRYSKO (Officer In Charge)	Assistant Chief (Rank)	Driver (Assignment)	08/02/2017 (Date)
JAMES R TAUNTON (Member Making Report)	Captain (Rank)	(Assignment)	08/02/2017 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *3*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Function areas, other
Area of Fire Origin

Electrical arcing
Heat Source

Interior ceiling covering or finish
Item First Ignited

Plywood
Type of Material First Ignited

E_1 Cause of Ignition

Failure of equipment or heat source

E_2 Factors Contributing to Ignition

1. Electrical failure, malfunction, other

E_3 Human Factors

None

F_1 Equipment Involved in Ignition

Electrical wiring, other

HIGH HAT LIGHT FIXTURE

Brand | Serial Number

Model | Year

F_2 Equipment Power

Electrical, other

F_3 Equipment Portability

Stationary

G Fire Suppression Factors

1. Alarm system malfunction

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

25 stories above grade
2 stories below grade

I_4 Main Floor Size

A length of 50 feet by a width of 50 feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Confined to floor of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item Interior ceiling covering or finish

Type

L_1 Presence of Detectors

Present

L_2 Detector Type

Heat

L_3 Detector Power Supply

Hardwire with battery

L_4 Detector Operation

Detector failed to operate

L_5 Detector Effectiveness

Failed to alert occupants

L_6 Detector Failure Reason

Undetermined

M_1 Presence of Automatic Extinguishment System

None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 10/21/2017 (Date) | 22:28:00 (Time) | 2017-000818 (Incident Number) | 00 (Exposure)

B Street address
510 STEWART AVE
GARDEN CITY, NY 11530
Cross Street: CLINTON ROAD / RAYMOND CT - ZONE 3
AMB 26
Census Tract

C Incident Type: 132
Road freight or transport vehicle fire

D Mutual aid received
30042 (Their FDID) NY (State) (Incident)
Responding Departments (Press Other)

E 1 Dates and Times
Alarm Time 10/21/2017 22:28:00
Time Out 10/21/2017 22:29:33
Arrival 10/21/2017 22:33:32
Controlled
Cleared 10/22/2017 00:00:02

E 2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E 3 Special Studies

F Actions Taken
1. Extinguishment by fire service personnel

G 1 Resources (Apparatus | Personnel)
Suppression
EMS
Other
Personnel Not on Apparatus
Total Personnel

G 2 Estimated Dollar Losses
Losses
Property Unknown
Contents Unknown
Pre Incident Value
Property Unknown
Contents Unknown

H 1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H 3 Hazardous Materials Release

J Property Use
Post office or mailing firms

H 2 Detector

I Mixed Property Use

K 1 Person Entity Involved
FEDEX
510 STEWART AVE
GARDEN CITY, NY 11530

K 2 Owner
FEDEX
510 STEWART AVE
GARDEN CITY, NY 11530

L Remarks
Department dispatched for Sig 8, AFA via Fire Com. Additional information from Fire Com reporting water flow activation. Upon arrival FD found a smoke condition with odor of burning from interior of building. 1400 upgraded alarm to general alarm. FD supplied sprinkler system and performed forcible entry. FD found Fed Ex box type delivery truck on fire. FD extinguished fire and vented area. Mutual aid received from Mineola, Westbury, Garden city Park, New Hyde park and Stewart Manor FD's.

M

BRIAN G GALLO (Officer in Charge)	Chief (Rank)	(Assignment)	10/22/2017 (Date)
PETER J CLANCY (Member Making Report)	Lieutenant (Rank)	(Assignment)	10/22/2017 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *Not Residential*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *Buildings not Involved*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Engine area, running gear, wheel area
Area of Fire Origin

Electrical arcing
Heat Source

Undetermined
Item First Ignited

Undetermined
Type of Material First Ignited

E_1 Cause of Ignition

Unintentional

E_2 Factors Contributing to Ignition

1. Electrical failure, malfunction, other

E_3 Human Factors

None

F Equipment Involved in Ignition

G Fire Suppression Factors

None

H_1 Mobile Property Involved

Involved in ignition and burned

H_2 Mobile Property Type

General use truck, dump truck, fire apparatus

Other Make

Mobile Property Make	License Plate Number
Mobile Property Model	State
Year	VIN Number

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 08/07/2016 (Date) | 15:01:00 (Time) | 2016-000614 (Incident Number) | 00 (Exposure)

B Street address

25 YALE ST
GARDEN CITY, NY 11530
Cross Street: JACKSON ST / HARRISON ST - ZONE 2 AMB 19

Census Tract

C Incident Type: 111
Building fire

D Mutual Aid: None
Their FDID | State | Incident
Responding Departments (Press Other)

E 1 Dates and Times
Alarm Time 08/07/2016 15:01:00
Time Out 08/07/2016 15:05:59
Arrival 08/07/2016 15:03:00
Controlled 08/07/2016 15:10:00
Cleared 08/07/2016 16:00:00

E 2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E 3 Special Studies

F Actions Taken
1. Fire control or extinguishment, other

G 1 Resources (Apparatus | Personnel)
Suppression
EMS
Other
Personnel Not on Apparatus
Total Personnel

G 2 Estimated Dollar Losses
Losses
Property $2,500
Contents Unknown
Pre Incident Value
Property Unknown
Contents Unknown

H 1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H 3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H 2 Detector

I Mixed Property Use

K 1 Person Entity Involved
25 YALE ST
GARDEN CITY, NY 11530

K 2 Owner

L Remarks
GENERAL ALARM FOR HOUSE FIRE, SMOKE SHOWING FROM GARAGE UPON ARRIVAL, IMMEDIATE SIGNAL 32 FOR MANPOWER AND ACTUAL EMERGENCY, FIRE INCLUDED ITEMS IN CENTER OF GARAGE AND EXTENDED TO SHELVING UNIT. HIT WITH CAN WHILE LINE BEING STRETCHED, HIT WITH LINE, PRIMARY SEARCH FOR FOR EXTENSION, HOUSE CHARGED WITH SMOKE, RESIDENT LEFT DOOR FROM GARAGE TO HOUSE OPEN, PRIMARY AND SECONDARY NEGATIVE, FAN OPERATION TO CLEAR HOUSE OF SMOKE AND CO. SMOKE CLEARED, CO NORMAL, ALL UNITS 13.

M

BRIAN G GALLO (Officer In Charge)	Assistant Chief (Rank)		08/07/2016 (Date)
RUSSELL R FINCHER (Member Making Report)	Lieutenant (Rank)	Driver (Assignment)	08/07/2016 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *1*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Vehicle storage area; garage, carport
Area of Fire Origin

Heat from powered equipment, other
Heat Source

Organic materials, other
Item First Ignited

Plastic
Type of Material First Ignited

E_1 Cause of Ignition

Failure of equipment or heat source

E_2 Factors Contributing to Ignition

1. Short-circuit arc from defective, worn insulation

E_3 Human Factors

None

F_1 Equipment Involved in Ignition

Power saw

UNKNOWN	*UNKNOWN*
Brand	Serial Number
UNKNOWN	
Model	Year

F_2 Equipment Power

Electrical line voltage (>= 50 volts)

F_3 Equipment Portability

Portable

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

16 stories above grade
1 story below grade

I_4 Main Floor Size

2,000 total square feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Confined to room of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item Bedding; blanket, sheet, comforter

Type

L_1 Presence of Detectors

None present

M_1 Presence of Automatic Extinguishment System

None Present

basic

A GARDEN CITY FD (Fire Department) | 08/09/2016 (Date) | 15:45:00 (Time) | 2016-000622 (Incident Number) | 00 (Exposure)

B Street address
62 WASHINGTON AVE
GARDEN CITY, NY 11530
Cross Street: GARDEN ST / CHESTNUT ST - ZONE 3 AMB 26
Census Tract

C Incident Type: 111
Building fire

D Mutual aid received
30019 (Their FDID) NY (State) 30019 (Incident)
30008, 30017, 30043, 30020, 30042,
Responding Departments (Press Other)

E1 Dates and Times
Alarm Time 08/09/2016 15:45:00
Time Out 08/09/2016 15:49:39
Arrival 08/09/2016 15:54:53
Controlled
Cleared 08/09/2016 18:12:50

E2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken
1. Extinguishment by fire service personnel
2. Salvage & overhaul
3. Ventilate

G1 Resources

	Apparatus	Personnel
Suppression	5	2
EMS	0	0
Other	1	1
Personnel Not on Apparatus		12
Total Personnel		15

G2 Estimated Dollar Losses
Losses
Property $200,000
Contents $75,000
Pre Incident Value
Property $1,700,000
Contents $75,000

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	1

H3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H2 Detector
Detector alerted occupants

I Mixed Property Use

K1 Person Entity Involved
62 WASHINGTON AVE
GARDEN CITY, NY 11530

K2 Owner
62 WASHINGTON AVE
GARDEN CITY, NY 11530

L Remarks
Recieved call via Fire Com reporting house fire. Investigation found bedroom fire on second. Fire was extinguished with 1 handline. Ventilation and overhaul was conducted..Mutal Aid was recievd along with NC EAB. Fire damage was contained to one bedroom but extensive smoke and water damage throughout. NC Fire Marshal (report # 16-270) and NC Arson bomb squad conducted the investigation. Female occupant Refused medical treatment. .Lt. Frank Roca

M

WILLIAM CASTORO (Officer in Charge)	Chief (Rank)		08/09/2016 (Date)
FRANK G ROCA (Member Making Report)	Lieutenant (Rank)	(Assignment)	08/09/2016 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *1*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Bedroom - 5+ persons; including barrack/dormitory
Area of Fire Origin

Electrical arcing
Heat Source

Furniture, utensils, other
Item First Ignited

Undetermined
Type of Material First Ignited

E_1 Cause of Ignition

Unintentional

E_2 Factors Contributing to Ignition

1. Electrical failure, malfunction, other

E_3 Human Factors

None

F Equipment Involved in Ignition

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

Under construction

I_3 Building Height

3 stories above grade
1 story below grade

I_4 Main Floor Size

A length of 75 feet by a width of 50 feet

J_1 Fire Origin

2 stories above

J_2 Fire Spread

Confined to room of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item Furniture, utensils, other

Type

L_1 Presence of Detectors

Present

L_2 Detector Type

Smoke

L_3 Detector Power Supply

Battery only

L_4 Detector Operation

Detector operated

L_5 Detector Effectiveness

Detector alerted occupants, occupants responded

L_6 Detector Failure Reason

M_1 Presence of Automatic Extinguishment System

None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 05/04/2015 (Date) | 16:49:00 (Time) | 2015-000356 (Incident Number) | 00 (Exposure)

B Street address

120 WILSON ST
GARDEN CITY, NY 11530
Cross Street: STRATFORD AVE / CLINCH AVE - ZONE 2
AMB 19

Census Tract

C Incident Type: 111
Building fire

D Mutual aid received

Their FDID	State	Incident
30043	NY	170

Responding Departments (Press Other)

E1 Dates and Times

Alarm Time 05/04/2015 16:49:00
Time Out 05/04/2015 16:50:23
Arrival 05/04/2015 16:57:01
Controlled
Cleared 05/04/2015 18:23:24

E2 Shift and Alarms

Shift	Alarm	District	Alarm Box

E3 Special Studies

F Actions Taken

1. Extinguishment by fire service personnel
2. Salvage & overhaul
3. Shut down system

G1 Resources

	Apparatus	Personnel
Suppression	5	4
EMS	0	0
Other	4	4
Personnel Not on Apparatus		20
Total Personnel		8

G2 Estimated Dollar Losses

Losses
Property $75,000
Contents $5,000
Pre Incident Value
Property $600,000
Contents $5,000

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H2 Detector
Detector did not alert occupants

I Mixed Property Use

K1 Person Entity Involved

[redacted]
120 WILSON ST
GARDEN CITY, NY 11530
[redacted]

K2 Owner

[redacted]
120 WILSON ST
GARDEN CITY, NY 11530
[redacted]

L Remarks

Received call via 1301 transferred to Fire Com for dispatch reporting house fire. Investigation found fire in the attic area above kitchen. One handline was used to extinguish fire. Overhaul and ventilation was conducted in origin of fire on inside and outside soffit area. Electric was shut down at main panel. It was noticed that one circuit breaker was tripped prior to electric being shut down, but unknown what breaker controlled. Fire Origin was by a high hat transformed which charred 2 beans in ceiling area. High Hat was model TF0149911AS. Occupant was advised to contact insurance company and licensed electrician before turning on electric. Lt. Frank Roca

M

JOSEPH R NADOLNY (Officer in Charge)	Chief (Rank)	(Assignment)	05/04/2015 (Date)
FRANK G ROCA (Member Making Report)	Lieutenant (Rank)	(Assignment)	05/04/2015 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *1*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Cooking area, kitchen
Area of Fire Origin

Electrical arcing
Heat Source

Structural member or framing
Item First Ignited

Sawn wood, including all finished lumber
Type of Material First Ignited

E_1 Cause of Ignition

Failure of equipment or heat source

E_2 Factors Contributing to Ignition

1. Electrical failure, malfunction, other

E_3 Human Factors

None

F_1 Equipment Involved in Ignition

Transformer, low voltage

COOPER LIGHTS
Brand | Serial Number

TF0149911AS
Model | Year

F_2 Equipment Power

Electrical line voltage (>= 50 volts)

F_3 Equipment Portability

Stationary

G Fire Suppression Factors

None

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

1 story above grade
1 story below grade

I_4 Main Floor Size

A length of 60 feet by a width of 25 feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Confined to room of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item

Type

L_1 Presence of Detectors

Undetermined

M_1 Presence of Automatic Extinguishment System

None Present

A GARDEN CITY FD (Fire Department) | 09/08/2015 (Date) | 08:28:00 (Time) | 2015-000703 (Incident Number) | 00 (Exposure)

B Street address
951 FRANKLIN AVE
GARDEN CITY, NY 11530
Cross Street: 9TH ST / 10TH ST - ZONE 1 AMB 26
Census Tract

C Incident Type: 111
Building fire

D Automatic aid received
30019 (Their FDID) NY (State) 140 (Incident)
30020, 30042, 30043, 30068, 30017
Responding Departments (Press Other)

E1 Dates and Times
Alarm Time 09/08/2015 08:28:00
Time Out 09/08/2015 08:31:33
Arrival 09/08/2015 08:37:26
Controlled
Cleared 09/08/2015 11:18:09

E2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E3 Special Studies

F Actions Taken
1. Extinguishment by fire service personnel
2. Salvage & overhaul
3. Ventilate

G1 Resources

	Apparatus	Personnel
Suppression	3	4
EMS	0	0
Other	1	1
Personnel Not on Apparatus		20
Total Personnel		5

G2 Estimated Dollar Losses
Losses
Property $25,000
Contents $5,000
Pre Incident Value
Property $600,000
Contents $5,000

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
Specialty shop

H2 Detector
Detector alerted occupants

I Mixed Property Use

K1 Person Entity Involved
J.E. LUND JEWELERS
951 FRANKLIN AVE
GARDEN CITY, NY 11530

K2 Owner
J.E. LUND JEWELERS
951 FRANKLIN AVE
GARDEN CITY, NY 11530

L Remarks
Received call via Fire Com reporting AFA from 949 Franklin Ave. Investigation found smoke condition in restaurant and coming from jewelry store @ 951 Franklin Ave. Entry was gained to J.E. Lund Jewelers and found a fire in the work area in the middle of the store. A 2 1/2 handline was stretched into the occupancy and fire was extinguished. Mechanical ventilation was used to remove smoke from Jewelry store and restaurant. Electric was shut down to all 3 stores Mutual aid was provided to the scene and stand-by at Fire Headquarters. Garden City Police provided traffic control PSE&G and National Grid were notified to respond. PSE&G was able to turn on the 2 occupancies not involved in the fire and isolated the Jewelers and left there power off till a Licensed Electrician could make sure power is safe to turn on. Nassau County Department of Health was notified and responded (Kristen Ricupero [redacted]) and allowed both Sushi Ya and the Soup Man to re-open. Nassau County Fire Marshal's Office (Greg Smith [redacted] responded and conducted the investigation and assigned 352-15 as the investigation number. Scene was left with the owner of the Jewelry Store. Lt. Frank Roca

M

JOSEPH R NADOLNY (Officer In Charge)	Chief (Rank)	(Assignment)	09/08/2015 (Date)
FRANK G ROCA (Member Making Report)	Lieutenant (Rank)	(Assignment)	09/08/2015 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *Not Residential*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Maintenance shop or area, paint shop or area
Area of Fire Origin

Undetermined
Heat Source

Undetermined
Item First Ignited

Undetermined
Type of Material First Ignited

E_1 Cause of Ignition

Cause under investigation

E_2 Factors Contributing to Ignition

1. Factors contributing to ignition, other

E_3 Human Factors

None

F Equipment Involved in Ignition

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

1 story above grade
1 story below grade

I_4 Main Floor Size

A length of 15 feet by a width of 75 feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Confined to room of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item Box, carton, bag, basket, barrel

Type

L_1 Presence of Detectors

Present

L_2 Detector Type

Smoke

L_3 Detector Power Supply

Detector power supply, other

L_4 Detector Operation

Detector operated

L_5 Detector Effectiveness

Detector alerted occupants, occupants responded

L_6 Detector Failure Reason

M_1 Presence of Automatic Extinguishment System

None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 09/24/2015 (Date) | 07:48:00 (Time) | 2015-000754 (Incident Number) | 00 (Exposure)

B Street address

35 DARTMOUTH ST
GARDEN CITY, NY 11530
Cross Street: NEW HYDE PARK ROAD / MIDDLETON ROAD - ZONE 2 AMB 19
Census Tract

C Incident Type: 111
Building fire

D Mutual aid received

Their FDID	State	Incident
30019	NY	140

30043, 30017, 30020, 30063, 30042,
Responding Departments (Press Other)

E1 Dates and Times

Alarm Time 09/24/2015 07:48:00
Time Out 09/24/2015 07:51:06
Arrival 09/24/2015 07:54:12
Controlled
Cleared 09/24/2015 11:03:02

E2 Shift and Alarms

Shift	Alarm	District	Alarm Box

E3 Special Studies

F Actions Taken

1. Extinguishment by fire service personnel
2. Search & rescue, other
3. Ventilate

G1 Resources

	Apparatus	Personnel
Suppression	3	5
EMS	0	0
Other	1	0
Personnel Not on Apparatus		17
Total Personnel		5

G2 Estimated Dollar Losses

Losses	
Property	$250,000
Contents	$75,000
Pre Incident Value	
Property	$1,500,000
Contents	$200,000

H1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H3 Hazardous Materials Release

J Property Use
Residential, other

H2 Detector
Detector did not alert occupants

I Mixed Property Use

K1 Person Entity Involved

ST ANNES CHURCH RECTORY
35 DARTMOUTH ST
GARDEN CITY, NY 11530

K2 Owner

ST ANNES CHURCH RECTORY
35 DARTMOUTH ST
GARDEN CITY, NY 11530

L Remarks

Received call via Fire Com reporting Building Fire. Investigation found fire on the second floor of the Rectory. Additional information reported possible priest still inside. 1 3/4 inch hand line was stretched to the second floor and a primary search was conducted which was negative. Fire was extinguished in a rear 2nd floor bedroom and living room. Ventilation and overhaul was conducted throughout. Considerable damage to second floor and water damage to first floor. St. Anne's Catholic School was also evacuated due to smoke from fire entering the school. Utility Company was on scene to secure electric and gas. Nassau County Fire Marshal's Office and Nassau County Arson/Bomb squad responded and Investigation report # 15-373 was generated. (See this report for Cause and origin). Garden City Building Department, Garden City Police Department and Nassau County EAB units 2350, 2365, 2363 were also on scene. Building was left with representatives of the St. Anne's Church. Lt. Frank Roca

M

	Rank	Assignment	Date
JOSEPH R NADOLNY (Officer in Charge)	Chief		09/24/2015
FRANK G ROCA (Member Making Report)	Lieutenant		09/24/2015

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *1*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Bedroom - < 5 persons; included are jail or prison
Area of Fire Origin

Electrical arcing
Heat Source

Cabinetry (including built-in)
Item First Ignited

Wood or paper, processed, other
Type of Material First Ignited

E_1 Cause of Ignition

Cause under investigation

E_2 Factors Contributing to Ignition

1. Electrical failure, malfunction, other

E_3 Human Factors

None

F Equipment Involved in Ignition

G Fire Suppression Factors

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

2 stories above grade
1 story below grade

I_4 Main Floor Size

A length of 50 feet by a width of 25 feet

J_1 Fire Origin

2 stories above

J_2 Fire Spread

Confined to floor of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item Furniture, utensils, other

Type

L_1 Presence of Detectors

Present

L_2 Detector Type

Smoke

L_3 Detector Power Supply

Battery only

L_4 Detector Operation

Detector failed to operate

L_5 Detector Effectiveness

Failed to alert occupants

L_6 Detector Failure Reason

Battery missing or disconnected

M_1 Presence of Automatic Extinguishment System

None Present

NFIRS-1 Basic

A GARDEN CITY FD (Fire Department) | 11/15/2015 (Date) | 12:09:00 (Time) | 2015-000907 (Incident Number) | 00 (Exposure)

B Street address

40 PROSPECT AVE
GARDEN CITY, NY 11530
Cross Street: BROOK ST / ST JAMES (S) ST - ZONE 3 AMB
26

Census Tract

C Incident Type: 111
Building fire

D Mutual Aid: None
Their FDID | State | Incident
Responding Departments (Press Other)

E 1 Dates and Times
Alarm Time 11/15/2015 12:09:00
Time Out 11/15/2015 12:13:03
Arrival 11/15/2015 12:17:59
Controlled
Cleared 11/15/2015 13:37:35

E 2 Shift and Alarms
Shift | Alarm | District | Alarm Box

E 3 Special Studies

F Actions Taken
1. Investigate fire out on arrival
2. Ventilate

G 1 Resources

	Apparatus	Personnel
Suppression	3	4
EMS		
Other		
Personnel Not on Apparatus		
Total Personnel		4

G 2 Estimated Dollar Losses

Losses	
Property	$10,000
Contents	$10,000
Pre Incident Value	
Property	$500,000
Contents	Unknown

H 1 Casualties

	Deaths	Injuries
Fire Service	0	0
Civilian	0	0

H 3 Hazardous Materials Release

J Property Use
1 or 2 family dwelling

H 2 Detector

I Mixed Property Use

K 1 Person Entity Involved
[redacted]
40 PROSPECT AVE
GARDEN CITY, NY 11530
[redacted]

K 2 Owner
[redacted]
40 PROSPECT AVE
GARDEN CITY, NY 11530
[redacted]

L Remarks

Department dispatched for house fire via Fire Com. Upon arrival FD found homeowner extinguished fire with garden hose. FD investigation found cause of fire to be from discarded cigarette butt in garbage can. Fire spread from garbage can to small end table and couch in the room. Fire was found in room on the 2, 3 corner of the dwelling. Fire was contained to the room with smoke damaged throughout the dwelling. FD conducted overhaul , opening walls and ceilings to check for extension. FD used mechanical ventilation to clear dwelling of smoke. FD informed homeowner Mrs Dincesen of finding and actions taken. Lt Clancy

M

WILLIAM CASTORO (Officer In Charge)	Assistant Chief (Rank)	(Assignment)	11/15/2015 (Date)
PETER J CLANCY (Member Making Report)	Lieutenant (Rank)	(Assignment)	11/15/2015 (Date)

R

SS Special Studies

ID	Title	Entry Description
9244	COVID 19 Discovery	

NFIRS-2 Fire

B Property Details

B_1 *1*
Estimated number of residential living units in building of origin whether or not all units became involved.

B_2 *1*
Number of buildings involved.

B_3 *None*
Acres burned (outside fires).

C On-Site Materials or Products

On-site material (1)	Storage Code
On-site material (2)	Storage Code
On-site material (3)	Storage Code

D Ignition

Function areas, other
Area of Fire Origin

Hot ember or ash
Heat Source

Rubbish, trash, waste
Item First Ignited

Wood or paper, processed, other
Type of Material First Ignited

E_1 Cause of Ignition

Unintentional

E_2 Factors Contributing to Ignition

1. Abandoned or discarded materials or products
2. Factors contributing to ignition, other

E_3 Human Factors

None

F Equipment Involved in Ignition

G Fire Suppression Factors

None

H Mobile Property Involved

NFIRS-3 Structure

I_1 Structure Type

Enclosed building

I_2 Structure Status

In normal use

I_3 Building Height

2 stories above grade
1 story below grade

I_4 Main Floor Size

A length of 40 feet by a width of 30 feet

J_1 Fire Origin

1 story above

J_2 Fire Spread

Confined to room of origin

J_3 Number of stories damaged by flame

K Material Contributing Most to Flame Spread

Item Upholstered sofa, chair, vehicle seats

Type

L_1 Presence of Detectors

Present

L_2 Detector Type

Smoke

L_3 Detector Power Supply

Battery only

L_4 Detector Operation

Detector operated

L_5 Detector Effectiveness

Detector alerted occupants, occupants responded

L_6 Detector Failure Reason

M_1 Presence of Automatic Extinguishment System

None Present

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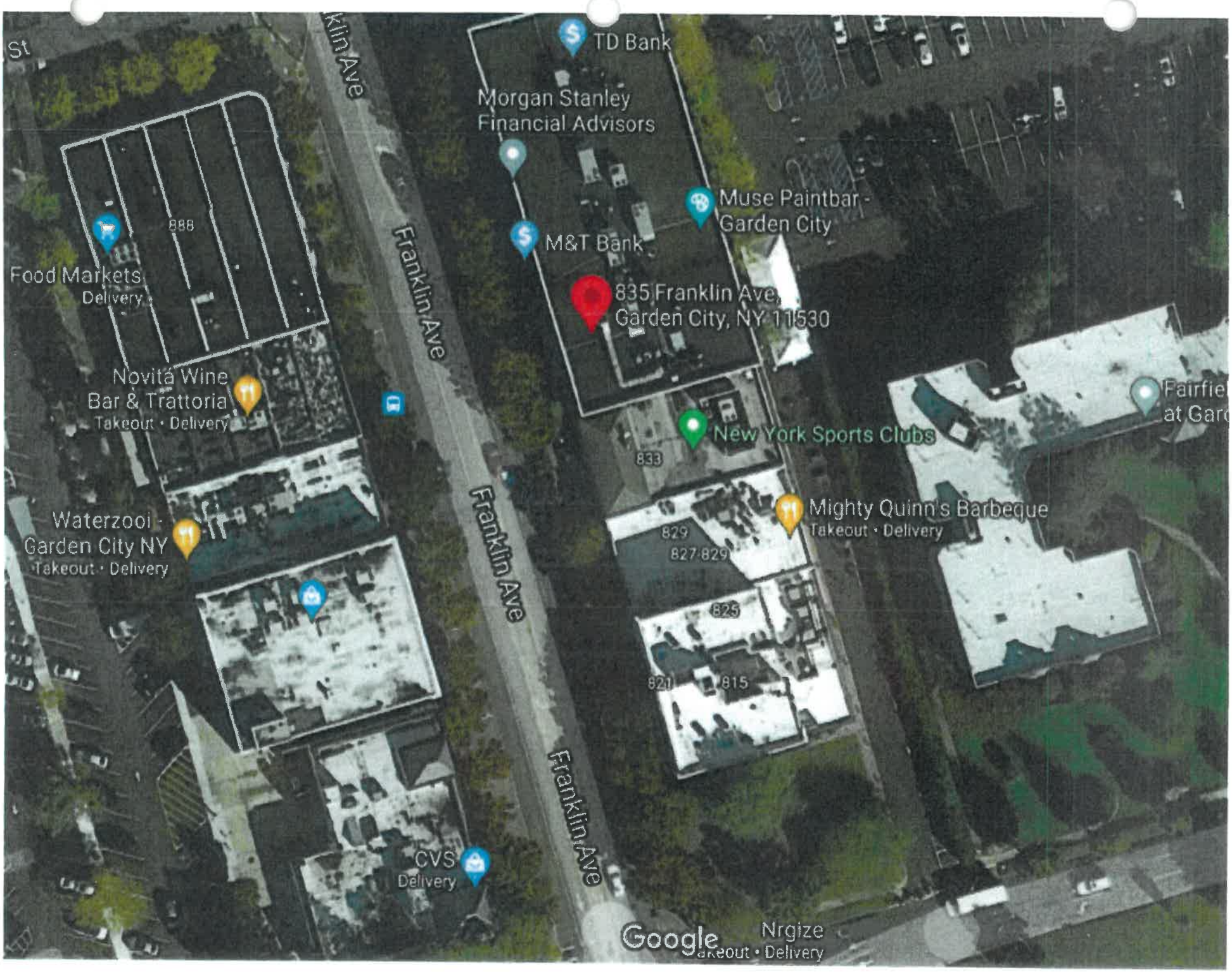
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Franklin Ave
TD Bank
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M&T Bank
835 Franklin Ave,
Garden City, NY 11530
888
Food Markets
Delivery
Novita Wine
Bar & Trattoria
Takeout · Delivery
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833
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at Gard
Mighty Quinn's Barbeque
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825
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