

Fire and Rescue Department

LOB #231:

FIRE AND HAZMAT INVESTIGATIONS

Purpose

Fire and Hazmat Investigation's primary function is investigatory/law enforcement (criminal) in nature and is mandated by Title 27-31 of the Code of Virginia and Chapter 62-2-4 of the Fairfax County Code. This involves enforcing State and County arson and firebombing laws (Title 18.2 of the Code of Virginia), investigating hazardous materials events and environmental crimes, and regulating blasting/explosive use in the County. This LOB's efforts involve investigating all structure fires, fire of suspicious or incendiary origin, large loss fires, and fires involving injury or loss of life to determine the cause, origin, other circumstances, and significant dollar losses. This LOB investigates and protects public health, safety, and the environment from the potential impact of hazardous materials used, stored or transported within Fairfax County and, if hazardous materials are released, ensures appropriate actions are taken to clean up or remediate the release. The prosecution of those responsible for criminal acts in fire and hazardous materials incidents may also be required.

Description

This LOB has been in existence since February 11, 1953 when the BOS created the Fire Marshal's Office (FMO) and assigned investigation of all fires to this office. Duties relating to investigation and enforcement of hazardous materials events were assigned to this office in January 1994 when the BOS created the Hazardous Materials Section in response to events involving the Fairfax Tank Farm and Colonial Pipeline. This LOB has two discrete program areas: one is investigatory/enforcement in nature and one is regulatory/compliance based. Emergency response services are provided 24-hours a day, 7 days a week, 365 days a year. Other ancillary programs, such as Emergency Planning and Community Right to Know Act (EPCRA) information, are provided Monday through Friday from 8:00-4:30 at FMO Headquarters located at 10700 Page Avenue in Fairfax.

The Fire and Hazardous Materials Investigations Unit is responsible for enforcing County and state laws regarding fires or explosions that occur in the County that are of a suspicious nature or which involves the loss of life or causes serious injury to persons or causes damage of or damage to property. Interacts with other local, state and federal agencies and interacts with insurance carriers. Ensures those who are responsible for criminal acts are presented to the Commonwealth's Attorney for prosecution. This program area also maintains the longest continuously-running ATF-certified Accelerant Detection Canine Program in the United States.

The Fire and Hazardous Materials Investigations Unit also investigates hazardous materials incidents and environmental crimes and protects the public health, safety, and the environment from the potential impact of hazardous materials that are used, stored or transported in Fairfax County. When releases occur, the unit ensures appropriate actions are taken to clean up or remediate such release, and provides short-term oversight for remediation activities. Investigators determine origin & cause of hazmat releases and determine responsible party and take administrative or criminal action against those responsible for release. Investigates emergency-based blasting complaints involving fly-rock on to private property, or into dwellings or vehicles.

The Fire and Hazardous Materials Technical Support Unit (HMTSU) protects the public health, safety, and the environment from the potential impact of hazardous materials used, stored or transported in Fairfax County. When releases occur, staff/investigators ensure appropriate actions are taken to clean up or remediate such release. Staff provides long-term oversight for remediation activities. This unit is responsible for enforcing explosives and blasting sections of the Statewide Fire Prevention Code (SFPC). HMTSU staff conducts inspection of critical hazards that house inventories of extremely hazardous substances (as defined by the EPA), and reviews emergency response plans. Staff serve as technical experts in the field of hazardous materials to FRD staff, County agencies, and the public at-large. Staff maintains records of releases in the County in accordance with established laws. Staff supports the federally-

Fire and Rescue Department

mandated Local Emergency Planning Committee (LEPC) and ensures the County complies with SARA Title III, Tier II (Section 302 and 312) and EPCRA through performing risk analysis of facilities using and storing hazardous materials and developing the County's Hazardous Materials Emergency Response Plan. This unit is responsible for the cost recovery program recovering costs associated with responding to hazardous materials incidents meeting certain criteria where responsible parties are known. This unit also provides critical data regarding hazardous materials releases and storage locations to the County's MS4 permit and VPDES permit programs.

Benefits

This LOB is responsible for the determination of origin and cause and performing fire trend analysis in order to provide valuable information to be disseminated to keep the public and industry informed, educated and protected. It also ensures those who are responsible for criminal acts are presented to the Commonwealth's Attorney for prosecution. Restitution is sought on arson cases during the adjudication process. This LOB protects the health, safety and environment of Fairfax County and its businesses, residents and visitors from the potential impact of releases of hazardous materials. This section coordinates recovery of costs associated with responding to hazardous materials emergencies where a responsible party has been determined.

Although investigators have the responsibility to prosecute those who intentionally destroy property, their primary mission is to determine how and why the fire started so the public and industry can be informed, educated, and protected. Investigators also protect the environment by ensuring that when a release occurs the release is properly cleaned up and responsible parties are determined.

Mandates

The vast majority of fire prevention services are fully mandated by applicable building and fire codes, state code, or federal law. In fact, prevention work is frequently referred to as "The Fire Marshal's Office" (FMO) because it is the enforcement arm of the Fire and Rescue Department (FRD). Title 27-31 of the Code of Virginia and Chapter 62-2-4 of the Fairfax County Fire Prevention Code specifically reference the investigation of fires. Since personnel assigned to this unit are granted police powers by the County, they also enforce portions of Title 18.2 (Criminal code) of the Code of Virginia.

Fire and Hazardous Materials Investigations Unit (Fire Investigations): Chapter 62-2-4 of the Fairfax County Code compels the Fire Marshal to investigate every fire or explosion occurring within the County that is of suspicious nature or which involves the loss of life or causes serious injury to persons or causes damage of or damage to property. Enforces Title 18.2 of the Code of Virginia (Criminal Code).

Fire and Hazardous Materials Investigations Unit (Hazardous Materials Investigations): Enforces all Statewide Fire Prevention Code chapters concerning hazardous materials; Chapter 62-2-8 of the Fairfax County Code; Title 18 of the Code of Virginia (Criminal Code); Federal Motor Carrier Regulations (49 CFR) regarding transportation of explosives.

Hazardous Materials Technical Support Unit: Enforces all Statewide Fire Prevention Code chapters concerning hazardous materials; Chapter 62 of the Fairfax County Code; Uniformed Statewide Building Code; Federal Motor Carrier Regulations (49 CFR) regarding transportation of explosives; Superfund Amendments and Reauthorization Act (SARA) Title III (Public law 99-499) (unfunded Federal mandate).

Fire and Rescue Department

Trends and Challenges

This section will experience retirement of several seasoned investigators during FY 2016-FY 2018. It is also anticipated there will be a significant increase in the number of cases being investigated during this same period of time. It is anticipated the overall case closure rate and the case closure rate for incendiary (arson) fires will go down due to heavier caseloads and less experienced investigators gaining on-the-job training.

One area of uncertainty that may have great impact on this LOB is increased public outreach and awareness programs that are part of the County's new Municipal Separate Storm Sewer (MS4) Permit and increased employee awareness programs regarding reporting of hazmat discharges at County facilities. The new MS4 Permit, issued on April 1, 2015, has new permit elements requiring the County to make employees more aware about reporting spills of hazardous materials. All spills of hazmat must be reported to this LOB for investigation and follow-up. It is unknown what the impact to workload may be once the public outreach and the mandatory employee training programs begin. There are also several permit elements requiring this LOB to provide Storm Water Planning with data regarding hazmat spills affecting any storm water inlets or outfalls. Staff is concerned there will not be enough day work staff available to follow-up on the hazmat spill notifications reported to the offices in support of the MS4 permit requirements. Additionally, there is no position assigned to this section that can produce the necessary ad hoc reports often requested and perform the data analysis required to support MS4 data reporting requirements as well as perform any sort of analysis relating to fire investigation trends. This type of data analysis is becoming more critical to support the development of community risk reduction and educational programs and to support the County's environmental protection initiatives. Staff expects additional staffing will be required to support the MS4 program to perform case follow-up and to perform data analysis for the section to support various prevention programs.

Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
LOB #231: Fire and Hazmat Investigations			
FUNDING			
<u>Expenditures:</u>			
Compensation	\$1,995,488	\$2,116,141	\$2,138,546
Operating Expenses	216,201	236,557	104,955
Total Expenditures	\$2,211,689	\$2,352,698	\$2,243,501
General Fund Revenue	\$43,316	\$47,519	\$1,426
Net Cost/(Savings) to General Fund	\$2,168,373	\$2,305,179	\$2,242,075
POSITIONS			
Authorized Positions/Full-Time Equivalents (FTEs)			
<u>Positions:</u>			
Regular	18 / 18	18 / 18	18 / 18
Total Positions	18 / 18	18 / 18	18 / 18

Fire and Rescue Department

Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
Number of investigations conducted (including fires, bombings, threats, arson and hazardous materials cases)	628	552	667	805	900
Number of arson investigations conducted	57	70	37	42	42
Average fire and hazardous materials cases per investigator	51	46	56	67	75
Percent total cases closed (including fires, bombings, threats, arson, and hazardous materials)	77.7%	85.5%	90.4%	85.0%	85.0%
Percent of arson cases closed	42.1%	40.0%	64.8%	50.0%	50.0%

Toward the end of FY 2015, response criteria for this investigatory unit were changed so they now respond to all reported structure fires on the initial dispatch. Prior to January 2015, investigators only responded to incidents when requested by on-scene units. This change in the response criteria resulted in an increase of 20.8 percent in the total number of incidents responded to by investigations personnel. Based on FY 2016 current YTD incident response, it is anticipated there will be an increase of an additional 20.7 percent in investigations conducted between FY 2015 and FY 2016. The section responded to a total of 667 incidents, and had an overall case closure rate of 90.4 percent (hazmat and all fires).

There was 47 percent decrease in the number of incendiary (arson) cases investigated between FY 2014 and FY 2015. This is most likely due to some stabilization of the local economy, lower unemployment locally, and lower residential foreclosure rates locally. The section has no control on the number of incendiary (arson) cases that occur each year. It should be noted this section had a case closure rate of 64.8 percent for incendiary (arson) cases in FY 2015. The national case closure rate for this type of case is between 18-25 percent.