



# FIRE & CHEM

PANAMA CONSULTANTS

## Fire, Prevention, & Investigations



# About us



## FIRE & CHEM

PANAMA CONSULTANTS

**First and only company in  
the Republic of Panama to  
provide certified services...**

In fire prevention and investigation while abiding by the National Fire Protection Association (NFPA).



# About us

## WHAT MAKES US STAND OUT

Fire & Chem is a family owned and operated business rooted in three (3) generations of firemen going as far back as the 1950s when grandfather, Mario Sr became a fireman.

Mario III, who grew up in a household of fireman remembers as a child listening in on the firefighter mobile radio of all fire events throughout his city. By the time he was 9 years old he could easily recite the codes and meaning to every code being sent throughout the radio waves.

At 16, Mario III became a volunteering brigade to gain experience and patiently wait for the legal age requirement to enroll into the Fire Academy. In 2003, he graduated first in his class and thus began his official career as a fireman.

After his high school graduation, Mario III felt that to better serve his community, a deeper understanding of chemistry was needed and thus enrolled in college while maintaining his fireman role to then attain a bachelor's in chemistry.

Upon graduation, he started his professional career as a fire investigator. Within two short years a demand from local Panamanian companies surged and Mario III was presented with consulting offers due to the need for HAZMAT experts with chemical backgrounds. Since Mario III was the only in his class, the demand increased and expanded to US companies with offices in Latin America.

In 2018, Mario III became the 1st globally recognized, Certified Fire Investigator in Panama. With the guidance of his grandfather, a retired Battalion Chief, he started Fire & Chem to serve Latin America and international countries with fire prevention and investigation needs and expertise.

# Mission and Vision

## Mission

- Our mission is to partner with our clients and bring our industry standard knowledge and skills to aid in the prevention of fire hazards, investigations, and explosions. Ensuring fire protection and life safety is in our DNA.

## Vision

- To be a global leader and consultant in fire, explosion investigations, and prevention.



## Our Values

- Loyalty
- Justice
- Honesty
- Impartiality
- Integrity



# What we offer

## We are a team of subject matter experts who provide tailored solutions based on fire industry standards.

- Our experts are **certified investigators** who provide consultancy on fire protection, civil engineering, chemical, and architecture.
- We use the **latest industry standards**, guides, and methodology for fire and explosion investigations.
- Provide periodic inspections and **risk analysis** for buildings, storage, warehouses, and industrial areas.
- Educate our clients on **safety methods** to reduce risks and fire accidents.
- Provide up to date risk analysis **reporting and assessment** of fire protection systems using current guidelines, codes, and standard of the National Fire Protection Association (**NFPA**).
- Provide Fire Prevention and Fire Origin and Cause reporting in both **English and Spanish**.
- Our experts attend annual NFPA training education to **maintain compliance**.



# Who we are



# Who we are



## Mario Ramirez III

Is the CEO and innovator behind Fire & Chem with over 20+ years of fire experience, and 12 years of fire protection engineering and chemistry experience. He is a certified fire inspector by the National Fire Protection Association (NFPA) and a certified fire investigator by the International Association of Arson Investigators (IAAI).

**T: +507 6983-1708**  
**E: [mario@firechemconsultants.com](mailto:mario@firechemconsultants.com)**



## Olga Perea

Is a Subject Matter Expert in the areas of Architecture and Civil Engineering, and with more than 10 years of experience. She is a certified fire inspector by the National Fire Protection Association (NFPA) and a Fire Investigation Technician (FIT) by the International Association of Fire Investigators (IAAI).

**T: +507 6780-8452**  
**E: [olga@firechemconsultants.com](mailto:olga@firechemconsultants.com)**



## Ornel Ramirez Sr.

Is a retired fire investigator chief of the Fire Investigators Department, with more than 35 years of fire scene and handling investigation experience. His experience has allowed him to view and lead on more than 1,000 registered fire scene investigations which bring true value to the Fire & Chem client experience.

**T: +507 6671-2684**  
**E: [info@firechemconsultants.com](mailto:info@firechemconsultants.com)**

# About education and certification

We have qualified specialists certified by organizations such as the National Fire Protection Association (NFPA), International Association of Arson Investigation (IAAI) and Fire Emergency Services TEEEX.

Our extensive experience and professional background allow us to support and advise companies and industries to comply with fire prevention regulations, protecting their business assets. We guide our clients in the proper handling of hazardous materials and in determining the cause and origin of fires.

Certified Fire  
Investigation



Certified Fire  
Inspector



Certified Fire  
Instructor



Industrial Emergency  
Response Specialist



Fire Investigation  
Technician



Evidence Collection  
Technician



Accrediting Agencies



JUNTA TECNICA DE  
INGENIERÍA Y ARQUITECTURA







# Services

- 1. Fire Investigation
- 2. Fire Prevention



## Fire and explosion investigation



### 1. Structural Fire Investigation

Fire investigation cause and origin for commercials and residential.



### 2. Complex Fire Investigation

Provide Expert advice for complex fires, such as shopping malls, industries, and storage warehouses.



## Fire and explosion investigation



### 3. Vehicle Fire Investigation

Fire investigation cause and origin for vehicles, trucks, and industrial machines.



### 4. Fire investigation in marine vessels

Fire investigation cause and origin for yachts, vessels, and floating equipment's.

## Fire and explosion investigation



### 5. Explosions investigations

Explosion investigation advice for commercial and residential. Explosions related to LPG, LNG and chemical substances.



### 6. In-Depth Reporting and Origin

Analysis and evaluation of fire and explosions reports, finding inconsistencies and/or omissions in the collection and evaluation of data.



## Fire prevention inspection and risk assessment



### **1. Inspections for Commercials and residential**

The inspections are aimed at detecting fire risks, recommending Prevention Action, advising compliance with NFPA standards and national fire laws, emergency plans and human safety.

### **2. Fire protection and human safety consulting**

Provides a fast and reliable solution on fire protection and life safety. Whether you are an entrepreneur looking to make your business safer, a facility manager ensuring your building is up to code, or an insured business simply needing to know about the potential fire risk in a structure, our consulting is the solution to your problems.

## Fire prevention inspection and risk assessment



### 3. Fire prevention advising

Fire prevention consultancies are developed to educate personnel on the precautions that must be taken to prevent fires and in the case of an incident, be prepared to react.



# Objetives





# Objectives

## Fire prevention avoids fire investigation








# Sample Reporting



# Sample Reporting



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PANAMA CONSULTANTS

## Fire Origen & Cause Report

CASO

018

Fire Investigation & Explosion

Place:  
Panama, Panama City, Building 680

Incident Date:  
June 23-4, 2023

Reclamo No.  
00000000

Prepared to:  
Zona Libre Panama S.A.

Attention:  
Peter Johnson

Reporte de inspección en prevención de incendios

Panamá, June 23rd, 2023

**Assignment**  
This part describes the company that hires us and the assignment of the fire according to the dates and general details.

**The scope of this assignment and subsequent instructions were:**

- Determine the origin and cause of the fire.
- Determine the ignition source.
- Establish the circumstances that allowed that heat, oxygen and fuel to come together and start the fire.

**Conclusion**  
This section describes the area of origin of the fire and the causes that led to this fire starting.  
The most relevant points found at the scene of the fire that could affect the development of the fire are also added.

**Background**  
This section describes and establishes the context underlying the investigation. It contains the summary of the fire extinguisher operation, an overview of the fire scene and a brief of event that were happened in the incident until the fire was totally extinguished.

**Procedures**  
This section describes the method used to do this investigation. The scientific method is the recommended methodology provided by the National Fire Protection Association 921, Guide for Fire and Explosion Investigations, 2021 Edition.

**Data Collection**  
This section describes all the information that recollected. There should include evidence, research, interviews, fire department report, and other utility report.

**Fire Origen Analysis**  
This section includes a list of fire patterns and fire effect that then are analyzed. This analysis describes how and why is reached that conclusion based on specific patterns and fire effects.

**Fire investigation report:** Is the analysis and examination of fire-related incidents. Sometimes referred to as origin and cause investigation.



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## Fire Prevention Report

Inspection

011

Fire Prevention Inspection

Place:  
Panama, Panama City, Building 680

Incident Date:  
June 23-4, 2023

Reclamo No.  
00000000

Prepared to:  
Insurance Agency

Attention:  
Carl Malone

Reporte de inspección en prevención de incendios

Panamá, June 23rd, 2023

**Assignment**  
This part describes the company that hires us and the assignment of the fire according to the dates and general details.

**The scope of this assignment and subsequent instructions were:**

- Prevent the fire risks.
- Guarantee the human safety.
- Verify the correct installation, function, and maintenance of the fire protection system.

**Conclusion and recommendations**  
This section describes the results of the inspection. The findings, codes or standard considerations and recommendations to each finding found in the inspection.

**General description**  
This section describes the structure of the establishment, the number of architectural levels, total area in square meters (m<sup>2</sup>), and the utility of each of these areas for the operation of the company.

**Type of building**  
This section describes the type of building using as reference NFPA 5000 building construction safety code.

**Occupancy Classification**  
This section describes the purpose for which a building or structure or part thereof is used or intended to be used.

**Hazard of contents**  
This section describes the different type of hazard of contents exist in different part of a building or structure. It will be classified as low, ordinary, or high hazard contents.

**Fuel load**  
This section describes the kind of materials found into the establishment, its fuel classification and chemical composition.

**Fire inspection report:** This report points out risks that could represent a hazard to any commercial. These risks are noted in order to be remedied.

# Sample Reporting

<b>Incident Name</b> Fire TESACO Co.	<b>Date of Incident</b> May 20th, 2023	<b>File Number</b> 000023
<b>Prepared for</b> Mario Ramirez	<b>Date of Assignment</b> May 24th, 2023	<b>Insurance Company</b> Global Secure
<b>Prepared by</b> Global Secure	<b>Date of Examination</b> May 25th, 2023	<b>Claim Number</b> 985647828

**Summary**

**Background**

This section describes and establishes the context underlying the investigation. It contains the summary of the fire extinguisher operation, an overview of the fire scene and a brief of events that happened in the incident until the fire was totally extinguished.

**Examination**

Short summarize your scene investigation and any relevant supporting data and analysis. Only include additional interview information that is directly relevant to origin and cause and summarize it in context with investigation, this information will typically be in the Background, not necessary to repeat information so there will typically not be any additional interview information here.

**Evidence or finding**

Provide a summary of your findings, evidence, or any picture to demonstrate a fire pattern.

**Important point**

A preliminary summary, opinions should be very limited (original origin, potential sources for evaluation, no cause determination), and recommendations for future work addressed.

Ornel Ramirez Arana  
Fire Investigator Technician  
LSM-VT, 9846

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**Preliminary Fire Report:** Is a report prepared prior to writing the fire investigation report. It includes basic information regarding the fire scene.

**CERTIFICATE OF INSPECTION**

This is to certify that Fire & Chem Panama Consultants has examined this establishment for fire protection and human safety in compliance with NFPA Codes and Standards and certifies that this certificate holder has eliminated or reduced the risks of fire.

**CERTIFICATION** Nestle Panama

**HOLDER:** Warehouse #3  
Building 740, vía España, Bella vista,  
Provincia de Panamá, República de Panamá

**DESCRIPTION OF ESTABLISHMENT**

**Occupancy classification:** Storage occupancy  
**Hazard of contents:** Ordinary Hazard  
**Special hazard:** No.  
**Issue date:** June 23rd, 2023  
**Expiry date:** June 23rd, 2024

Mario E. Ramirez  
NFPA Certified Fire Inspector  
Region: CT-19-98-070

Certificate number: FIREIDEM-000A-2023PTV

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**Approval Certification:** Is a written authorization or permit that is issued certifying compliance with mandatory regulations.



# Professional affiliations





# Affiliations





# FIRE & CHEM

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