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Jensen Hughes + Middle East Region

Providing life safety services to the Middle East region for more than 40 years

For decades, Jensen Hughes has provided engineering services for thousands of projects in the Middle East, demonstrating both our technical expertise and ongoing commitment to the region. With a current staff of over 75 permanent employees in the Middle East, our dedicated engineers, scientists and consultants work to address the complexities of safety and security. We help clients protect what matters and support their initiatives in meaningful and significant ways.

Although our history in the region began with Rolf Jensen & Associates (RJA), the 2006 opening of our first UAE branch office in Dubai ushered in a new era of partnership and commitment to the Middle East. Our work in the region continues today through our offices in Al Khobar and Riyadh, KSA (Jensen Hughes Saudi Arabia), Dubai and Abu Dhabi, UAE (Schirmer Safety Consultants), and Doha, Qatar (Jensen Hughes Consulting WLL). Our global presence also includes more than 90 offices and 1,400 staff worldwide.

Along with a history of successfully managing complex projects in the Middle East, we offer the technical expertise, required certifications and licenses necessary for providing client-specific performance-based solutions. Jensen Hughes remains one of the few fire protection engineering firms to hold all of the following licenses/qualifications:

- Saudi Civil Defence (GDCD)
- The Higher Commission for Industrial Security (HCIS)
- Fire Protection and MEP Licenses with the Saudi Council of Engineers
- House of Expertise (HoE) engineering firm by Dubai and Abu Dhabi Civil Defence

Jensen Hughes provides services and solutions in more than 100 countries to help meet the growing needs of our clients. With offices in nearly every corner of the world, and local staff on the ground in key regions, we’re anywhere you need us to be.
Our Services

Jensen Hughes has earned a reputation as a trusted expert among regulators, legislators, and inspectors. As members of the National Fire Protection Association (NFPA), the International Code Council (ICC) and other regulatory organizations, our engineers actively participate in the development of building and fire safety requirements.

ACCESSIBILITY CONSULTING

Laws, codes and standards that govern accessibility compliance can be complex and subject to broad interpretation. We help you understand the accessibility scoping and criteria applicable to your projects to achieve compliance and manage the risk of future claims. With more than 20 personnel specifically trained in accessibility consulting, we provide peer reviews of design plans for new construction and alterations, assessments of existing buildings, properties and public right-of-way and recommendations for barrier removal. We also assist clients with accessibility assessments like ADA Transition Plans and Self Evaluations and deliver solutions for compliance which consider all applicable local and federal accessibility laws, codes and standards.

BUILDING + FIRE CODE CONSULTING

For 80+ years, we’ve partnered with architects, design teams, developers and owners to help navigate code compliance. Our multi-disciplined team, many of whom are active participants in committees related to building and fire code and standard development, get involved early in the design process. We identify code requirements, interpret code requirements and identify potential compliance issues that may need further discussion with the authority having jurisdiction. By performing periodic drawing reviews at key design stages, we can resolve issues and develop solutions to save time and cost in the design and construction phases, all while maintaining intended form and function. We also conduct third-party plan reviews to independently assess code compliance.

+ Accessibility Consulting
+ Building and Fire Code Consulting
+ Construction Support Services
+ Commissioning
+ Developing Comprehensive Fire and Life Safety Standards
+ Emergency Management and Response Planning
+ Fire Performance-Based Design (PDB) and Egress Modelling
+ Fire Research, Development and Testing
+ Forensic Engineering and Consulting
+ Life Safety Systems Design and Consulting
+ Hazard Analysis and Risk Management
+ Property Condition Assessments
+ Security Consulting and Design
+ Smoke Control Engineering
+ Training and Learning Management Systems
COMMISSIONING
Without the right commissioning, it is challenging to ensure that your fire alarm, fire suppression, smoke control and other fire protection and life safety systems will meet code-minimum, performance-based design and end-user requirements. Our systematic commissioning and integrated testing approach for fire protection and life safety systems helps you document, verify and sustain performance of the facility assets that are critical to your business.

CONSTRUCTION SUPPORT SERVICES
We work seamlessly alongside the construction management team to make sure the fire, life safety, mechanical, electrical, structural (MES) and security systems installations are fully coordinated across all other disciplines. Our construction support services include Request for Information (RFI) support to address questions or unforeseen construction circumstances as they arise. When faced with unique jobsite conditions, we prepare Engineering Judgments (EJs) using a comparative analysis of the installed condition and recognized compliance conditions, such as those outlined in building code requirements and UL Tested designs.

DEVELOPING COMPREHENSIVE FIRE + LIFE SAFETY STANDARDS
Our firm has developed comprehensive fire and life safety standards for various clients who handle custom and border standards. These standards include detailed requirements pertaining to building design features including means of egress, fire detection and alarm/evacuation, fire suppression, smoke management, emergency power/lighting, wayfinding, and interior finish. Operations and maintenance standards include detailed requirements and guidance for the inspection, testing and maintenance of fire protection systems.

FIRE PERFORMANCE-BASED DESIGN (PBD) + EGRESS MODELLING
Our services range from the application of computer-based fire models and egress models to fire alarm and fire suppression systems design, smoke control system design, fire-structural analysis and other specialized applications. Advanced computer models analyze fire, smoke, pedestrian movement and structural consequence to develop performance-based fire protection and life safety solutions. PBD solutions can achieve compliance with the intent of prescriptive building codes for available safe egress time compared to the required safe egress time.
HEALTH + SAFETY

Our team of certified health and safety professionals bring extensive experience and best practices related to preparing, evaluating and implementing a thorough and informed set of health and safety policies, procedures, and corporate safety plans, focusing on human behavior, safety culture development and effective incident investigation techniques for when things don’t go as expected, as well as the experience to implement efficient auditing and assessment strategies across a range of facility types. Our expertise includes global management systems, risk assessment, incident investigation, safety culture development, fire protection, air quality, hazardous materials, safety engineering technology and process safety, our team brings specific expertise to support your safety journey across all sectors and disciplines.

SMOKE CONTROL ENGINEERING

Our team of scientists, engineers and technicians have earned us a reputation worldwide for solving smoke movement and smoke control system engineering problems with state-of-the-art scientific, engineering, and decision-analysis techniques and technologies. Our engineers are highly experienced and skilled in smoke control including movement analysis, control system design, movement testing and control system commissioning.

SECURITY DESIGN + CONSULTING

We are a leader in security consulting and design, and related safety disciplines. We perform a wide range of services for commercial, industrial, institutional, and government organizations worldwide. We provide comprehensive, high-quality solutions to building and personnel security challenges. Our staff is comprised of individuals who are Board certified in Security Management and have the experience to maintain the relationships to develop proactive solutions for your potential uncertainties.

EMERGENCY MANAGEMENT + RESPONSE PLANNING

When a crisis arises, minimizing the response time is critical and any delay can have significant and even fatal implications. In today’s business, political, environmental and social realities, it is imperative for every business or facility to plan for the worst-case scenario and be prepared for any emergency. Understanding the scope of emergency response and management as it relates to every individual facility is also critical as no two plans will be exactly alike. We are here to help you understand every facet of emergency management, from action plans to mass notification system design, to post-event response and collaborate on a plan that will be the right scale for your needs.
LIFE SAFETY SYSTEMS DESIGN + CONSULTING

Working with building owners, designers, and architects, we provide fire alarm, mass notification, smoke control, and other life safety system designs for new and existing facilities, including non-buildings such as outdoor campus installations. We determine system performance requirements, produce detailed design drawings and documents, perform manufacturer specific calculations and evaluate the installation of systems.

FORENSIC ENGINEERING + CONSULTING

We are globally recognized in the forensics field with expertise in all types of event and failure scenarios. We focus on delivering scientifically based analysis and meeting a broad range of clients’ investigative requirements. Our team can provide field investigation and supporting analysis in our state-of-the-art fire, chemical, dust and metallurgical laboratories as well as engineering simulation using modern fire, explosion, collision, CFD and FEA computer models.

TRAINING + LEARNING MANAGEMENT SYSTEMS (LMS)

For any professional involved in fire protection and life safety systems, training should include more than the basics. It should encompass knowledge of codes and standards, fire prevention and protection measures, and address electrical safety hazards.

Ranging from fire suppression systems safety and installation to electrical safety, smoke control and emergency communications, our online training platform, JH Academy (JHA) and Learning Management System (LMS) provides unmatched knowledge sharing in the industry.

Our experts are consistently involved in developing and delivering programs developed for the National Fire Protection Association (NFPA). We also provide continuing education credits for the International Association of Continued Education (IACET) and the American Institute of Architects (AIA).
Case Studies + Featured Projects
Case Study

Marriott International

Global Locations

Fire Protection and Life Safety Consulting Services

Opportunity

In 2017, following the merger of Starwood Hotels (SPG) with Marriott International, the Marriott International Fire and Life Safety (FLS) team initiated a legacy audit program of all managed SPG properties in the European, Middle East and Africa regions, including both new buildings and conversions.

Challenge

The client required that hundreds of facilities around the world be audited quickly, accurately and in accordance their demanding expansion schedule.

Our Solution + Benefit to the Client

We provided life safety reviews, plan and design reviews, construction management, system pre-testing, system commissioning and fire and life safety audits on hundreds of Marriott International properties and delivered these services in a highly responsive and technically sound manner.

To meet the Client’s specific needs, our Advanced Solutions group developed customized inspection and reporting software tools. These enabled us to bring state-of-the-art efficiency to Marriott’s global needs and provide high quality, consistent and technically superior deliverables for over 300 properties, including the audit of the 113-hotel Protea portfolio throughout Africa as part of Project Gold.

Our relationship with the chain began in 2005 and was initially staffed out of Seoul, Korea to support the opening of over 600 Marriott International properties in the Asia Pacific region. We subsequently opened offices in Shanghai and Hong Kong to support the Marriott China expansion and continue to be involved in expansion efforts to this day.
Case Study

Emaar Hospitality and Mall Properties
Dubai, UAE

Opportunity
As one of the world’s most valuable and admired real estate development companies, Emaar Properties has created iconic real estate assets in Dubai and has expanded to various markets not only in the EMEA region but also in the North America.

Challenge
Our relationship with Emaar Properties started in 2003 when we provided site-wide crisis response planning management for Burj Dubai.

Our Solution + Benefit to the Client
Since then, we have continued to serve Emaar Properties providing crises response plans for some of the world’s iconic buildings and architecture such as the Burj Khalifa, Dubai Mall, Dubai Marina Mall and the Gold and Diamond Park.

In 2008, we developed fire evacuation plans for seven (7) retail community centers in Dubai and health and safety program for the Dubai Mall. We created Emaar’s Crisis Management Standard, the framework requirements which will be utilized during the development of Crisis Management Plans for any type of property owned and operated by Emaar Properties. We also conducted fire and life safety audits for various retail centers.

Since 2015, our firm has been developing the Crowd Management and Life Safety Plan for Downtown Dubai during the celebration of the New Year’s Eve event and since 2016, our team has conducted fire and life safety audits and inspections for various Emaar hospitality and mall properties.
Case Study

General Entertainment Authority
Kingdom of Saudi Arabia

Development of Rules and Requirements for Amusement Attractions

Opportunity

The objective of this project is to identify appropriate codes, standards and regulations to ultimately recommend a unified set for KSA’s use and implementation for Amusement Attractions. This selection of standards will cover site safety, building safety, installation of systems, workplace safety and public safety. Where applicable, maintenance procedures for the recommended measures will be outlined. Our recommendations and deliverables will be based on diverse and extensive experience, industry best practices and internationally recognized codes standards.

Challenge

A unified set of standards for Amusement Attractions does not currently exist. The project delivery method will need to consider the existing codes and standards, the enforcing entities and the existing government infrastructure, amongst other considerations. Rules and requirements have been categorized as follows:

+ Design and Construction Requirements/Maintenance Codes (DCS)
+ Controllers and Operators Requirements, Standards and Regulations – Occupational Safety Code (OSC)
+ Public Code of Conduct and Safety Regulations – Public Safety Code (PSC)

For example, DCS rules and regulations are likely implemented by Civil Defence, architectural and engineering firms and developers while OSC are likely enforced by the Ministry of Labor and the Ministry of Health.

Our Solution + Benefit to the Client

Our firm is currently developing specific rules, requirements and guidelines of the amusement attractions industry for the Kingdom of Saudi Arabia. The project consists of developing guidelines, rules and regulations for the construction, operations and inspection of the safe use of amusement attractions by the public, operators and assets. As part of the project, we will develop inspection formats, guidelines and approach.

Deliverables

+ Development of Rules and Requirements
+ One (1) Introductory Guidebook
+ All categories of amusement attractions
+ Three (3) Governing Codes and Regulations Documents
+ One (1) for each category of amusement attraction
+ Nine (9) Inspection Manuals and Guides
Case Study

King Abdullah Financial District
Riyadh, Kingdom of Saudi Arabia

Fire Protection and Life Safety Consulting, Design Review and Validation Services

Opportunity

The King Abdullah Financial District (KAFD) is a development currently under construction in Riyadh, Saudi Arabia.

Challenge

The master plan calls for over 60 residential, office, and retail towers, several schools and parking garages, a medical clinic, civic buildings and three hotels. It is slated to house 50,000 residents when complete.

Our Solution + Benefit to the Client

Jensen Hughes has provided fire protection, life safety consulting, design review, security and validation services for multiple projects within the KAFD.

Our firm has completed and continues to contribute to a variety of projects including:

- The Public Investment Fund (PIF) Tower
- Experience Centre
- Science Museum – Geoclimate Centre
- Aquarium Attractor
- Parcels 2.05, 4.121

The following page provides a representative sampling of our work in the KAFD.
King Abdullah Financial District, Continued

Project Highlights

The Public Investment Fund (PIF) Tower

Previously known as The Capital Market Authority (CMA) Tower, PIF Tower is a super high-rise office building under construction with four basement levels, three podium levels and 73 upper levels. The project had previously obtained Riyadh Civil Defence (RCD) approval in September 2010 based on the project design and drawing status at the end of the project's Design Development phase. However, between the original RCD approval and the status of the project, numerous modifications were incorporated into the project design. Our firm was retained to provide fire and life safety consulting services responsible for the review and validation of the modifications in the design to ensure compliance with the fire and life safety codes and with the project's fire and life safety strategy. We were also responsible for the development of fire protection strategies based on international code requirements and life safety enhancements. We assisted in developing cost effective and safe fire strategies and implementing them into the design of the building.

Aquarium Attractor (Parcel A.03)

The Aquarium attractor will be designated as the National Aquarium of Saudi Arabia. The Aquarium will include exhibits, functional areas, a feature restaurant and a 4-D submersed theatre. The project shares a combined entry and events plaza with the swim, spa portal and monorail station. We provided fire and life safety consulting services during the various phases/stages of the project, assisting the client during the conceptual design stage, schematic design stage, preliminary and final design development stages of the project.

Science Museum – Geoclimate Centre

This is being designed as separate assembly buildings with office support areas retail areas and parking. The museum will occupy approximately 16,500 square meters, the Geoclimate building will occupy approximately 11,000 square meters. We provided fire protection consulting services and proposed to use the Saudi Building Code. Where aspects of the design were not addressed by the local code, our firm proposed to use NFPA 101 Life Safety Code - 2009 for egress and life safety related issues and the International Building Code (IBC) - 2009 for all other fire protection related design features of the building (structural fire resistance, fire and smoke barriers, interior finishes, fire detection, alarm, suppression and smoke control systems) along with the referenced standards.

KAFD Experience Centre (Parcel 1.05)

We provided security and fire life safety consultancy services for a master plan development. Our firm developed a design report that provided the operational functionalities of our proposed security system, physical measurements and architecture of the proposed security system design.

KAFD Parcels 2.05 and 4.12

Parcels 2.05 and 4.12 are being designed as mixed-use buildings housing office spaces, residential units and retail with four levels of below grade parking. Parcel 2.05 will occupy approximately 43,000 square meters and Parcel 4.12 will occupy approximately 47,500 square meters. As part of our scope, our firm was responsible for ensuring the project meets the applicable international and local code requirements and making presentations to the Civil Defence authority.
Case Study

Hamad Medical Corporation

Doha, Qatar

Fire Protection and Life Safety Consulting Services

Opportunity

Hamad Medical Corporation (HMC) is the main healthcare provider for the state of Qatar – delivering at least 80% of secondary and tertiary care to the population in Qatar. Employing around 19,000 staff, HMC is a government owned corporation established in 1979. HMC consists of a network of many hospitals, a national ambulance service and home healthcare services on which a major proportion of Qatar’s population – citizens, expatriate workers and their dependents, visitors and tourists – rely for medical care including emergency care. HMC is the first healthcare provider in the region to have its hospitals reaccredited by the Joint Commission International.

Challenge

HMC’s hospitals are grouped into three areas – the Tertiary Hospitals Group, the Continuing Care Hospital Group and the General Hospitals Group. Hospitals included in the Tertiary Group are Hamad General Hospital, Women’s Hospital, Heart Hospital and National Centre for Cancer Care and Research (NCCCR); Hospital under the Continuing Care Hospital Group is the Rumailah Hospital; and Under General Hospitals Group are Al Wakra Hospital, Al Khor Hospital and The Cuban Hospital. In addition to the above, HMC operates/owns a total of 108 buildings, both clinical and non-clinical across five (5) separate campuses with planned openings of an additional six (6) hospitals.

Our Solution + Benefit to the Client

We were the fire consultant experts hired by the Client responsible for providing engineering and technical support to the HMC Life Safety Management Team for routine inspection of fire and life safety conditions/systems and implementation of corrective actions to enhance and maintain the fire and life safety conditions of the hospitals. We also performed plan reviews during the design stages of new hospitals and non-hospital buildings, and the existing facilities owned/operated by HMC that alter or add-on to the existing facility. Part of our scope was to review the fire and life safety aspects of the contractors’ submittals and to conduct inspections of contractors’ work. We were also assigned to develop and maintain HMC’s Fire and Life Safety Programs.
Case Study

ABH District
Doha, Qatar


**Opportunity**

Originally known as Barwa Financial District and Qatar Petroleum Headquarters, this mega project started in 2009 and was completed in 2016, transitioning to Qatar Petroleum (QP) in 2015. Uniquely designed and iconic, this project created a new business community within Doha, and a new landmark for the city symbolizing modern Qatar while integrating traditional influences and materials with the modern structure.

**Challenge**

The project consisted of 10 high-rise buildings that included 9 high-rise towers dedicated to office use. These towers all share a common podium and common parking structure. It also contains mercantile, assembly occupancies such as restaurants, banquet and exhibition halls, and a Mosque. The mixed-use facility had an estimated gross built-up area of approximately 710,180 square meters.

**Our Solution + Benefit to the Client**

Our team provided fire protection master planning, building code analysis, Computational Fluid Dynamic fire/smoke modelling and security risk and vulnerability consulting, including a regional threat assessment. We also coordinated the perimeter protection program for the ABH District site, including planning for active and passive vehicle barriers.

Our other responsibilities included consulting for VIP security, guests screening, and delivery and parking security operations. Jensen Hughes provided security design services to include a TCP/IP-based video surveillance system, electronic access control, and an advanced monitoring command center.
Case Study

Confidential Master Plan Development
Riyadh, Kingdom of Saudi Arabia

Fire and Life Safety Consulting, Computational Fluid Dynamics (CFD) Analysis and Crowd Safety Study

Our firm developed the masterplan Fire and Life Safety Strategy to provide an integrated approach which relies on a combination of exterior and interior fire protection features to protect occupants as they evacuate a building or infrastructure facility and First Responders as they conduct firefighting operations. Although the FLS design in KSA is regulated on the basis of a prescriptive building and fire code including SBC 201/801 and others, the FLS strategy has also been developed on the basis of a Risk-Based engineering assessment to ensure all city-wide fire hazards and resulting risks and mitigation measurements were considered. This level of Fire Safety engineering assessment at Master Plan level will serve as guidance and coordination documentation for the integration of asset specific strategies design for the city as a whole.

The masterplan has been developed with a road network that provides vehicle access through the different building typologies, clusters and recreational areas. The fire apparatus access road consists of internal road networks which include primary and secondary roads. Fire Apparatus Access will be provided in accordance with SBC 801 and enhanced within the old-style Najdi architecture based on the results of the risk assessment. The road networks are designed to accommodate a 45-meter travel distance from the staging area to all portions of the facility and exterior walls of the first story. This limit has been increased to 137 meters in the buildings protected with sprinkler system within old-style Najdi architecture residential assets based on discussions with Riyadh Civil Defence (RCD).

There are a series of road tunnels serving as main access, communication and service network roads as well as other secondary access and supply distribution roads within the city. Road tunnels are to comply with the fundamental fire and life safety requirements of the NFPA502 for means of egress, ventilation and fire resistance ratings. Similarly, a series of deep underground public car parks are included and will require specific fire protection features such as smoke and heat venting, automatic fire protection and sufficient means of egress to comply with the SBC 801 requirements.

The development is planned to be provided with three strategically located firefighting water storage and pumping facilities which will supply a dedicated combined potable + fire hydrant + residential sprinkler systems network serving the entire city development. Two Civil Defence fire station plot facilities are included within the development. The project will also benefit from the provision of a centralized Emergency Command and Control Center. Every individual plot and special asset such as road tunnels and metro stations will have their own Emergency Command Centre (ECC) and dedicated Fire Fighting Water Supplies (FFWSS) systems.

Special Studies Conducted as part of the Master Plan Development

+ Access strategy from fire truck staging area
+ Jet fans for ventilation, CFD and evacuation modelling
+ CFD and evacuation modelling for road tunnels
+ Large event crowd safety and pedestrian modelling
+ Water supply connection
+ Metro system
+ Automatic sprinkler systems exemption
Confidential Master Plan Development, Continued

Project Highlights

Access Strategy from Fire Truck Staging Area

Civil Defence access (Emergency Vehicle Access, EVA) strategy for the project is driven by city specific architectural and design challenges between the Najdi heritage type of architecture and modern architecture, dividing the strategy into these two approaches. SBC requires road networks to be designed to accommodate a 45-meter travel distance. This limit was increased in residential buildings protected with automatic sprinkler systems based on the discussions with RCD.

Jet Fans for Ventilation, CFD and Evacuation Modelling

Conducted and presented to RCD, providing a technical comparison between ducted and jet fans for underground car park ventilation systems. A trial CFD and evacuation modelling study was performed to further validate performance. RCD accepted the use of jet fans for underground car park ventilation systems for the project.

Automatic Sprinkler Systems Exemption

According to SBC 801, section 903.2.8, Group R occupancies shall contain an automatic sprinkler system throughout the building. However, it has been agreed with RCD to not provide sprinkler system in residential occupancies subjected to all other FLS requirements being met. The traditional Nadji architecture residential clusters do not qualify for this exemption because of extension of travel distance from the fire truck access road from 45 meters to 137 meters. Hence, these residential clusters were protected with automatic sprinkler system in accordance with NFPA13D and NFPA13R.

Metro System

The fire and life safety provisions for the metro system were established based on NFPA 130, Fixed Guideway Transit and Passenger Rail Systems, 2017 edition and Riyadh Metro standards.

CFD and Evacuation Modelling for Road Tunnels

A series of road tunnels provide access to underground service entrances for buildings, underground car parks and service zones to Retail and F&B areas. As the SBC 201 and SBC 801 do not provide requirements for tunnels, NFPA 502, Standard for Road Tunnels, Bridges, and other Limited Access Highways, 2017 Edition was followed. A performance-based analysis requiring the application of specific fire risk and fire engineering calculations for establishing the fire and life safety and fire protection criteria of road tunnels was conducted, documented and approved by local Civil Defence authorities.

Water Supply Connection

The water supply of fire hydrant and potable water systems for the development is a combined-type system. An engineering study was conducted to document the reliability, redundancy and availability of the combined system to supply residential sprinkler systems directly for assets to be connected to the main potable water system directly i.e., without the need to provide plots with individual systems. The design approach was discussed and agreed with local Amana and RCD.

Large Event Crowd Safety and Pedestrian Modelling

The study focused on providing the initial concept and basis of design for crowd safety during normal operation of events with large assemblies as well as egress and evacuation scenarios ranging from 30,000 to +50,000 people per day. A pedestrian simulation study for three (3) of the main public events was performed. The study used Pathfinder pedestrian simulation software to evaluate pedestrian movement in and out of the sites during high-occupancy scenarios and provide information to assist in the development of crowd management and emergency response plans.
Case Study

Saudi Telecom Company
Various Locations, Kingdom of Saudi Arabia

Fire Protection and Life Safety Consulting Services

Opportunity

Saudi Telecom Company (STC) is a pioneer digital champion, focused on innovation and evolution and a truly meaningful and purposeful organization. STC offers variety of ICT solutions and digital services in several categories including telecommunication, IT, financial technology, digital media, cybersecurity and other advanced digital solutions. STC leads digital transformation both nationally and regionally.

Our relationship with STC started in 2019, when we were appointed as a fire and life safety specialist, responsible for design reviews, detailed site inspections and preparation of findings reports, liaison with contractors, re-inspection of facilities and assisting the client in obtaining Saudi Civil Defence approval for many significant STC facilities across the Kingdom.

Challenge

The range of facilities vary in size, in use and in age, with some facilities being built a number of years ago. A number of the buildings were not constructed under the current local and international code and standards, and for older buildings some of the Operation and Maintenance documents and As-Built information was not readily available.

Our Solution + Benefit to the Client

We are working alongside STC to develop information in line with Civil Defence requirements, guiding on requirements and are able to provide drawings and calculations where required. Our partnership ensures the project progresses successfully and will ultimately be fully compliant with local and international standards and obtain Civil Defence approval.

Services Provided

- Fire protection and life safety design review
- Code consulting
- Site inspections and commissioning
- Report preparation
- Meetings with local Authorities Having Jurisdiction (AHJs)
**Additional Project Experience**

**Muscat International Airport**  
*Muscat, Oman*

*Fire Protection and Life Safety Consulting Services*

We provided fire protection and life safety consulting for the Main Passenger Terminal Building; North, West and South Piers; and additional ancillary facilities at the Muscat International Airport. We performed third-party review of design submittals, liaised with Civil Defence and provided construction inspections and acceptance testing witnessing.

![Muscat International Airport Terminal 2, Oman](https://example.com/muscat-airport-terminal2)

**Kuwait Investment Authority**  
*Kuwait City, Kuwait*

*Security Consulting Services*

Our firm provided security consulting and design services for the new headquarters for the KIA, one of the largest sovereign wealth fund management groups in the world. Consisting of a 200m tall tower, four levels of underground parking, and an event and conference center, the KIA headquarters stand as one of the most prominent structures in Kuwait City.

We conducted a threat and vulnerability study, concluding in a design-basis guideline for the implementation of security countermeasures for the site. We also provided design services for an advanced TCP/IP-based surveillance and recording system, electronic access control, license plate recognition and video analytics systems. We also coordinated the perimeter protection planning, including the use of vehicle impact-resistant barriers for enhanced security to the site.

**Bahrain Financial Harbour**  
*Manama, Bahrain*

*Fire and Life Safety Consulting Services*

Our firm was retained as the fire consultant of the Bahrain Financial Harbour, a master planned development which covers an area of 380,000 square meters on prime seafront property in Manama. It is comprised of 30 individual development parcels including the Financial Centre which has three components: The Dual Towers, the Financial Mall and the Harbour House. Our team was responsible for the preparation of the master fire strategy for the project.

![Bahrain Harbour Towers](https://example.com/bahrain-harbour-towers)
Confidential Future Business Development
Cairo, Egypt

Fire and Life Safety Consulting Services

Our firm was retained as the fire safety engineer responsible for review of the architectural and fire safety drawings and preparation/development of the fire safety strategy and design brief report for several towers in the district including, but not limited to, a super tall mixed-use tower, one residential tower, one office tower and one mall with hotel. Our firm was also responsible for the review of the masterplan site drawings of the 20-tower site area during the concept and schematic design stages of the project.

Al Maktoum International Airport
Dubai, UAE

Fire Protection Engineering

Al Maktoum International Airport is being designed to accommodate approximately 400 aircraft gates, distributed around four concourses served by two terminal buildings. Phase 1 includes construction of two concourses and one terminal building.

We provided engineering consulting, plan review and construction period inspection services for Phase 1.

Scope of services included third-party review of fire and life safety system design submittals; concourse and terminal occupant evacuation modelling; construction inspections and acceptance testing witnessing; coordination of fire and life safety system compliance for system integration and liaison with Civil Defence to assist in the approval of design documentation.
Firm Overview
We know that nothing is more important to you than the safety and security of what matters most in your world. That's why we've been protecting lives, property and reputation since 1939.

We are a global team of engineers, scientists and consultants dedicated to carrying on a rich legacy of our founders who believed in advancing the science of safety to protect what matters most through technical excellence. Our roots were planted 80 years ago, and we have remained committed to earning our clients' trust when it comes to addressing the complexities of safety and security.

We have since expanded to operate in more than 100 countries to help meet the growing needs of our clients. We have also over the years, and through additions of specialized, industry-leading firms, continued to build on our core strengths in code consulting, fire protection engineering and risk analysis to now expand our expertise in areas such as forensics, emergency management and security to better support the spectrum of our clients’ priorities from risk mitigation to compliance and resilience.

**Our Expertise**

- FIRE AND BUILDING SAFETY
- RISK AND HAZARDS
- EMERGENCY MANAGEMENT
- SECURITY RISK CONSULTING
- FORENSICS

**Our Global Reach**

90+ Offices

1400+ Employees

40,000+ Global Projects

Expertise from A to Z

Our broad range of expertise helps clients maintain safety, minimize risk and save time and money in the design, management and construction of buildings, systems and solutions to protect against the cost of potential losses. We also ensure that our solutions easily fit into our clients’ business objectives, culture and priorities. Having completed tens of thousands of projects worldwide on behalf of our clients, we can create, evaluate, test, assess and implement solutions for a wide range of safety, security and risk-related challenges. From airports, nuclear power plants and museums to laboratories, historic buildings, oil refineries and some of the world’s tallest buildings, we offer comprehensive services.
Making Your World Safe, Secure + Resilient

We have dedicated our mission to driving our industry forward through technology, knowledge, and best-in-class research and development capabilities to provide the very best solutions for our clients. Our strength lies in the linkage of data and expertise across the life cycle, from failure analysis to modelling, enabling us to bring forward innovative and compliant solutions that preserve architectural and design vision as well as define the critical variables for risk analysis. This shapes our code, design and commissioning approach, and because we have many team members who are deeply engaged and involved in developing regulations and codes, we are consistently at the forefront of change in setting the standards.

EXTENDING THE CULTURE OF SAFE + COMPLIANT OUTCOMES

To share the knowledge of our engineers, research scientists and code experts, we created the JH Academy (JHA) to offer online safety training for industry peers, partners and clients. Additionally, JHA can serve as part of a new hire onboarding process using our proprietary learning management system. Benefits include:

- Training partner of the Automatic Fire Alarm Association (AFAA)
- Instructors for National Fire Protection Association (NFPA) programs
- JHA courses are accredited by The International Association for Continuing Education and Training (IACET)
**Company History**

**OUR PAST, PRESENT + FUTURE**

Our clients benefit from our years of experience in the fire protection engineering, building and life safety code consulting, and security consulting and design services. Through a series of mergers and acquisitions, we have expanded its geographic footprint and its service offerings to include a broad range of specialty engineering services. With this growth, we have increased our technical expertise and the resources available to provide our clients with solutions that encompass fire protection, life safety, security and related disciplines. Our services include fire protection and forensic engineering, risk analysis and fire modelling, system design, code consulting, commissioning, research and testing and project management solutions.

Today, we offer a comprehensive, integrated set of engineering and risk management services for every building type and on every continent. We collaborate with building owners, architects, developers and construction teams, real estate property and facility managers, and institutions and government agencies to build long-term relationships based on a proven approach to risk prevention and reduction.

We measure success by the positive response and repeat business of our clients — and ultimately by the performance of our projects in protecting people and property. We have dedicated our mission to driving our industry forward through technology, knowledge, and best-in-class research and development capabilities to provide the very best solutions for our clients. Our strength lies in the linkage of data and expertise across the life cycle, from failure analysis to modelling, enabling us to bring forward innovative and compliant solutions that preserve architectural and design vision as well as define the critical variables for risk analysis. This shapes our code, design and commissioning approach, and because we have many team members who are deeply engaged and involved in developing regulations and codes, we are consistently at the forefront of change in setting the standards.

We re-branded in January 2015 after the historic merger of two of the most experienced and respected specialty fire and life safety engineering and consulting firms, Hughes Associates (Hughes), founded in 1980, and Rolf Jensen & Associates (RJA), founded in 1969. Both Hughes and RJA exhibited the highest level of technical excellence, offered proven on-time and on-budget performance on projects, and developed long-term client relationships. The merger brought together Hughes’ strengths in areas such as research, testing, forensic engineering and risk analysis, and the complementary strengths of RJA in the areas of code consulting, performance-based design and security system design.