

نار الخليج Gulf Fire

REPORTING TO THE MIDDLE EAST FIRE PROTECTION INDUSTRY AND FIRE SERVICES

في إعداد التقارير عن الخدمات المتعلقة بصناعة الحماية من الحرائق والإطفاء في منطقة الشرق الأوسط.



Safety Design in Buildings

During the recent Safety Design in Buildings conference held in Jeddah, Gulf Fire took the opportunity to speak with panelist and speaker: Ali Mokhtar, President of Safety Engineering Chapter; Saudi Council of Engineers and SFPE Saudi Arabia on his career in fire safety and recent move into petrochemicals

Gulf Fire: How did you get into fire safety?

Ali: I graduated with a degree in industrial engineering from King Abdul-Aziz University in 1981 and worked with Petrolina (East/West Pipeline Company) as a project engineer. I then went to University of Southern California (USC) to get my Master's degree from '82 to '84, when I returned to Saudi I worked in Riyadh Refinery; started as a Safety Design Engineer with Technical Service & Engineering Department. I stayed almost ten years in this refinery, and during this period I have been promoted to Refinery Safety Superintendent and then

▼ **Discussing retrofitting of cladding on stage with Shamim Rashid Sumar and Jaime Paucar from Jensen Hughes and Craig Ross from Cavendish Maxwell.**



to Safety Manager. In 1994 the Refinery as part of SAMAREC and Petromin, was taken over by Saudi Aramco. I then moved from Safety to the Fire Protection Department as a Superintendent Fire Protection Ras Tanura Area overseeing oil wells, gas plants, RT Refinery, airstrips and residential compounds. I stayed for four years, and from there I had many different assignments within the company including Loss Prevention Department and RT Refinery and Distribution Operation in addition to a one-year assignment in the US with Chevron Refinery and RTFC before I was assigned as Manager Fire Protection Department with 1500 staff and about 36 fire stations. I worked for Aramco for 21 years, and my work experience in fire safety management & engineering and fire operations is over thirty years.

Gulf Fire: What was the most important lesson you learned over all those years about fire safety?

Ali: Fire Safety is a noble and humanitarian profession as its main objective is to protect and save lives and assets. I was fortunate because I started my career in safety engineering and process safety management. When I moved to Saudi Aramco I was assigned to the Fire

Protection Department, despite not liking this assignment at the beginning as I do not have experience in fire operations; it turned out to be a great opportunity for me to learn fire operations and develop fire protection engineering skills and knowledge. I learned that engineers with firefighting and fire operations background and experience will make an excellent fire safety engineers. In the meantime, integrating fire safety engineering with fire operations will enhance and improve firefighting operations and services by designing and specifying better equipment for firefighters and also using performance-based design vs. prescriptive

Gulf Fire: What do you know about the technology and tools available for firefighting in the Gulf?

Ali: We have the most sophisticated firefighting technology and tools in the Gulf area. For example, we built the most advanced fire training ground in the world in Saudi Aramco almost ten years ago in Juaymah Area; also recently private investor built another fire training ground in Jubail Industrial City. In Saudi Aramco, we succeeded well in integrating the engineering concept with the operations. The Fire Department had many engineers that worked to improve on response time and firefighting skills. Designing better trucks and equipment that was specifically adapted to our needs by looking at different scenarios we may come across. Along with the training, this helped improve our performance.

Gulf Fire: You now run a training center, tell us about that.

Ali: After my retirement, I co-founded a company that performs two functions MIT and Fire Safety Training. In Training, we are specialized in Emergency Management, Occupational Safety & Health, and Fire Safety Engineering. We have over 20 plus approved courses by Technical & Vocational Corporation (TVTC) and Civil Defense. Our courses meet internationally recognized standards such as NFPA and OSHA requirements. Also, our trainers are by-lingual Arabic & English.

Gulf Fire: How was it to move from the petrochemicals to the built environment?

Ali: We were fortunate by working in Saudi Aramco because we deal with all types of risks and occupancies; as despite the fact that Saudi Aramco is oil company; however, the company has its compounds, high rise offices & residential buildings, airstrips, oil wells, offshore platforms, refineries and gas plants. The risk analysis is different. Each of these risks and occupancies has its codes and standards to deal with fire safety. With residential buildings, you prioritize evacuation and the safety of the people inside. But I think that having experience in industrial fire safety makes you well prepared because it is more complicated with stakes and risks that are much higher. I'm talking in particular about hazardous chemicals that can cause enormous harm to people in nearby populated areas in the case of fires. Of course, in residential you have a different type of risk to consider with the immediate presence of more people. And the importance of saving people is different from firefighting in industrial parks. Nonetheless, the potential consequences are more severe in industrial plants and installations where damage can spread to hundreds of miles away.

Gulf Fire: How do you carry out the training?

Ali: We do it mostly on-site at the client, but we also have our training facilities with classrooms. It is both practical and theoretical training. Fire management, safety management, and fire safety engineering. Everything from designing safe fire systems in buildings with alarms and fire suppression systems. Our programs and courses are all approved by the TVTC that goes through the Civil Defense.

Gulf Fire: How do you see the future of fire safety as a professional field in the kingdom?

Ali: Safety awareness is growing in the Kingdom, from the highest government officials to the broad public. So many things are happening now to build on this momentum with new declarations where



we are moving towards safety as part of 2030 vision in Saudi Arabian.

Some schools have started offering diplomas in health and fire safety. But there is a need for the higher levels of education to provide a degree in fire safety engineering. Some schools have started talking to us about developing a Master's program, and I hope that can go forward to develop this as a standalone discipline and institution.

Besides having this company, I have also established AMConsult Office; that provides engineering consulting services in fire safety. Besides those two activities; I am the president of the SFPE-SAC (Society of Fire Protection Engineers Saudi Arabian Chapter), established in 2005. The chapter has conducted six bi-annual conferences so far. These conferences are about improving fire safety standards and sharing experiences among professionals.

Also in 2016, I was elected as chairman of the Safety Engineering Chapter of the Saudi Council of Engineers.

Gulf Fire: The cladding is one of the problems, what is your view?

Ali: We are aware of the dangers of sub-standard material. As part of the Safety Engineering Chapter, we have done two workshops on cladding one in AlKhobar,

▲ Eng. Ali A Mokhtar has a career spanning 35 years in the Kingdom with experience in Fire Safety engineering management and Fire & Rescue Services for Oil and Petrochemical facilities.

and the other was in Jeddah with the Civil Defense to address the dangers of the cladding. What is important is to have a high standard of the non-combustible cladding. Also, to put in place exterior fire suppression systems with sprinklers that can quickly put out fires on the exterior of buildings.

Gulf Fire: Ali, thank you very much for your time and for sharing your thoughts with the readership of Gulf Fire magazine.

➔ For more information, go to www.safetydesigninbuildings.com

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The next SDiB conference is taking place on September 5th 2018 at the Crowne Plaza Hotel in Muscat.

For further details and to register, go to www.safetydesigninbuildings.com/Muscat/