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JIG Joint Inspection Group

The international Standard for Aviation Fuel Infrastructure

Currently over 2500 airports around the world follow the JIG Standard.

The importance of jet fuel is in its inherent power: No fuel- no flight.

With $139 billion in 2010, fuel is the second highest cost factor for airlines. Due to its chemophysical properties, fuel is a major environmental risk factor (explosion, leakage).

Fuel quality results in a major flight safety element for passengers and crew as there is no parking once airborne. These characteristics affect all parties getting in tauch directly and indirectly with fuel: Airport authorities, airlines, airport operators, passengers, residents and the environment.

The significant growth forecasted for emerging markets the aviation industry initiates expansion projects to meet increasing requirements. The global changeover in the market trend affects the local fuel handling with major oil companies reducing their operational involvement and international airport operators or new players entering and expanding in this segment.

JIG (Joint lnspection Group) and IATA are the two regulating bodies monitaring quality of fuel and aviation fuel infrastructure. The Joint Guidelines were originally developed in 1974 for Joint depots and into-plane fuelling pools of oil companies to deliver on-specification aviation fuel safely to airline customers through aviation fuel storage, hydrant and lntoplane fuelling Operations. Since 1974 many updates were added to ensure safety, constantly considering technical progress and developments.

Therefore, JIG developed from simple guidelines to internationally enforced standards. IATA Fuel Quality Pool (IFQP) has synchronized their Guidelines *I* Standards with JIG. All main IATA member airlines enforce JIG in their fuel supply contracts (LH, AF, Kl, BA, EK ...). Further national suppliers cooperate with JIG members through Technical Services Agreements.

In general, the established trend is to separate construction from operations during the life cycle of fuel infrastructure. This is due to the competing interests between the parties involved at those two stages.

Many airports have faced this involved risk through unplanned actions that have led to excessive investment, fatal product quality, fuel leakages and long delayed projects.

On the other hand, successfully run airports that have achieved a successful outcome have specific approaches in common:

- Airport Authorities have adapted governance of JIG (Joint lnspection Group),all the way from the Design phase into Operations, reflecting comprehensive Total Quality Management (TQM);
- Airport Authorities took clear steps to integrate planning for Design, EPC and Operations;

- Airport Authorities decided to adopt a competitive, Open Access Infrastructure in compliance with JIG as the international standard;
- Airport Authorities established an international fuel committee to supervise the design, the construction and the subsequent operations with a minimum of 5 JIG 'inspections per year;
- Airport Authorities have entered into strategic partnerships with local and international aviation fuel industry experts;
- Airport Authorities have opted for a professional and independent management of fuelling infrastructure.

Recommendations

Civil Aviation and Airport Authorities should consider JIG compliance as a mission-critical safety factor, and assume professional control.

A JIG Compliance Team should be established to steer and accompany any airport development program.

All aviation fuel projects should be reviewed for compliance to JIG. As TQM starts with the design, the EPC Contractor should provide proof of JIG compliance. Commissioning and handover shall be performed by an accredited JIG Inspector.

Over the life cycle of fuel infrastructure JIG compliance and competence shall be maintained through a continuous monitoring of technological progress in compliance to JIG.

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