



FEC International

fire | safety | emergency management

2017 HCIS SAF DIRECTIVES

Role of Fire Protection Consultant

FEC International

- Offices in Khobar, Riyadh, Jeddah and Nicosia, Cyprus.
- We are an independent consultancy specializing in Fire Engineering, Technical Safety and Emergency Management
- We were the first company in the Kingdom of Saudi Arabia (KSA) to be approved and licensed by HCIS as a Fire Protection Consultant.
- We have been actively involved in HCIS related projects since 2010.

Our Professional Expertise and in-depth knowledge on HCIS related projects within KSA speaks for itself and will be crucial to the success of your projects.

FEC International – Services Provided

FEC provides a full spectrum of services covering:

- Fire Risk Engineering & Consultancy
 - Risk Analysis and Hazard Assessment
 - Fire Risk Assessment
 - Fire safety audits and due diligence
- Fire Protection Engineering & Design
 - Fire Protection, Detection & Alarm Systems Design Basis
 - Design of life and fire safety systems (Concept, FEED and DED)
- Fire Engineering Studies
 - Fire & Smoke Modelling
 - Evacuation Modelling
 - Consequence Modelling
 - Gas dispersion Modelling

FEC International – Services Provided

Continued:

- Emergency Management
 - Emergency Management Compliance
 - Emergency Planning & development of Pre-Incident Plans
 - Development of Evacuation Strategies
 - Development of Fire & Life Safety Management Programs
 - Development of Strategic Training, Fire & Life Safety Plans
- Field Services
 - Fire safety system inspection, review, assessment and certification
 - Testing and Commissioning of Fire Systems
- Design Review and Certification Services
- Installation Supervision, Inspection, Testing & Commissioning

HCIS



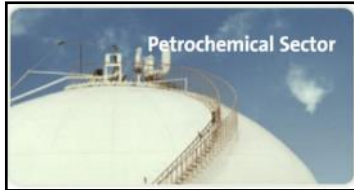
KINGDOM OF SAUDI ARABIA

Ministry Of Interior

High Commission For Industrial Security (HCIS)

The High Commission For Industrial Security is part of the Ministry of Interior. They are responsible for the development and implementation of Security, Safety and Fire Protection strategies kingdom-wide.

Sectors Under HCIS Jurisdiction



Petrochemical Sector



Gas Sector



Port Sector



**Non-Industrial Sector
including Railways**



**Telecommunication
Sector**



Mining Sector



Water Sector



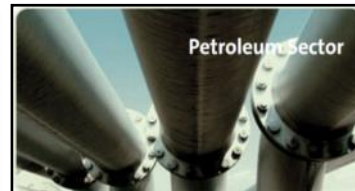
**Civilian Explosives
Sector**



**Chemical Industry
Sector**



Steel Industry Sector



Petroleum Sector



Electricity Sector

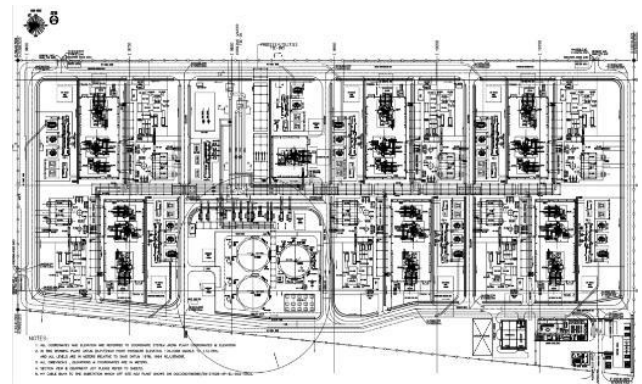
HCIS 2017 Directives

The latest edition came into effect in **April 2017** and consists of:

- 23 Safety & Fire Directives for Industrial Facilities
- 9 Safety & Fire Directives for Light & Non-Industrial Facilities
- 19 Security Directives for Industrial Facilities
- 3 Security Directives for Non-Industrial Facilities

They are applicable to all companies & industrial establishments that fall under the HCIS Jurisdiction including:

- New projects
- The expansion of existing facilities
- Upgrades

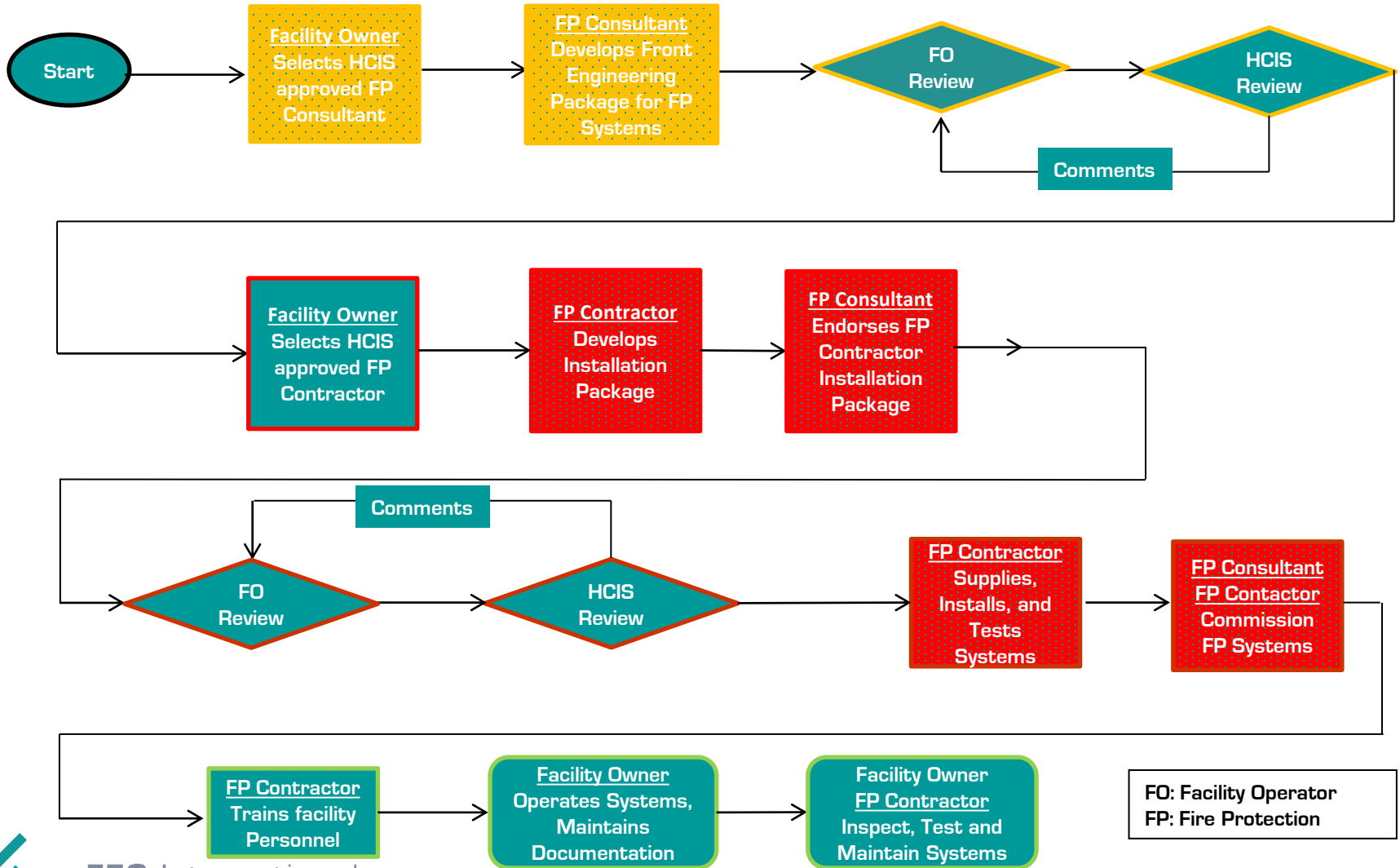


Fire Protection Requirements

As per SAF-01 the following shall be undertaken by an HCIS Approved **Fire Protection Consultant**:

- Fire Hazard Analysis
- Development of Engineering Design Packages
- Approval of FP Contractor's shop drawings for compliance with codes, standards and bid documents
- Troubleshooting during construction/Installation of FP Systems
- Participating in commissioning of the Fire Protection Systems.

2017 HCIS Fire Protection Workflow



FP FEED Stage : FP Consultant Role

- 30% Stage FP FEED Deliverables
 - Design Concepts (SAF 03 / 04 / 08)
 - Risk Assessments (SAF 03 / 04 / 08)
 - Code Analysis (SAF 03)
 - Facility Plan Assessment / Compliance Report (SAF 06 / 08)
 - Facility Access and Egress Assessment / Compliance Report (SAF 06)
- 90% Stage FP FEED Deliverables
 - Engineering Drawings (SAF 04)
 - Hydraulic Calculations (SAF 04)
- 100% Stage FP FEED Deliverable
 - Contractor Scope of Work (SAF 04)
 - Data Sheets (SAF 04)

FP FEED Stage : FP Consultant Role

- 90% Stage FP FEED Deliverables.
 - Fire Suppression (NFPA 2001) Systems Gas Calculation
 - Fire Water Supply Hydraulic Calculations / Modeling
 - Fire Water Supply Design Drawings (Fire Water Tanks + Fire Water Pumps)
 - Fire Water Hydrant System Design Drawings
 - Fire Detection and Alarm System Design Drawings
 - Fire Suppression (NFPA 2001) Systems Design Drawings
 - Hose / Standpipe System Design drawings
 - Fire Protection / Fire Detection Systems Technical Specifications
 - Fire Protection / Fire Detection Systems Data Sheets
 - Fire Detection and Alarm System Cause & Effect Charts

EPC Stage : FP Consultant Role

- EPC Construction Engineering / Installation Stage
 - Technical Review and Approval of FP Contractor Installation Package including Installation / Shop Drawings / Documents / Inspection and Test Plans
 - Technical support during the FP Contractor Scope Deliverable
- EPC Construction / Commissioning Stage
 - Onsite supervision / technical support during construction / installation (Recommend but not required)
 - Attendance at commissioning of the fire protection / alarm systems for Witness and Sign off the Acceptance Testing
 - Preparation and issue of Acceptance Testing Review Report

Thank You

infoksa@fecint.com

www.fecint.com



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