

FIRE PUMPS

Information Pack - DXB New Regulation

Commencement: Jan 2024

UAE Fire & Life Safety Code of Practice - 2018

According to Chapter 9 of UAE Fire and Life Safety(FLS) Code of Practice – 2018 Edition, “Fire Pumps shall be restricted to a centrifugal or Horizontal Displacement, single stage and multistage pumps of Horizontal or Vertical Turbine shaft type only”.

“All fire pumps, complete with driver, control panel and fuel supply shall be tested as an assembly as per Section 6 of chapter 09 and registered and listed by Civil Defence. The complete fire pump unit shall be field acceptance tested for proper and intended performance.

According to UAE Fire Code, Chapter 9, the fire pump assembly, consisting of Pump, Driver, Controller, Automatic Transfer Switch and Accessories shall perform in accordance with the requirements of this Code and the manufacturer's specifications, as an entire unit when installed or when components are replaced or when repairs are performed on installed system.

**Project Based
Verification Certificate**

New Regulation Outline

All fire pumps with a 500 US GPM capacity & above installed in Dubai Projects are to be certified by UAE Approved Certification Body, more over, for these fire pumps the skids must be specifically validated to ensure they meet fire pump performance standards and are verified for particular project by ESL

Required Documents

- Product catalogs, technical specs, pump manuals, assembly and part drawings with component identification, and pump range list
- Material grade for bolts, studs, cap screws, gland swing bolts, etc. for water pressure and pump water exposure components
- Bolt stress calculations for pressure holding castings
- Pump shaft stress calculations for maximum combined shear stress
- Impeller balancing report (Static/Dynamic) as per ISO 21940-Part 11
- Flange dimension drawings, bolt layouts, and threaded openings for pipe connections
- Material grade documents for impellers, wearing rings, shaft sleeves, guide rings, lantern rings, drain plugs, etc.
- L-10 rating calculations for ball & roller bearings with material grade data sheet for bearings and races
- Stuffing box and packing assembly drawings and material grade documents



Steps To Be Followed:

- Before DC inspection, client will submit necessary documents to ESL after the consultant's final completion
- ESL Certification Team will assess and advise the ESL Testing Team based on submitted documents
- ESL Testing Team will conduct a site visit with the consultant and pump supplier to verify:
 - Pipeline connections
 - Flow test results
 - Electrical wiring
 - Pump drive alignment
- Criteria for approval or retesting:
 - If onsite test passes, ESL will issue verification certificate and will provide verification labels to be affixed on pumps
 - If onsite test fails, the main contractor will rectify, followed by a re-evaluation by ESL
- ESL will provide a verification certificate to the consultant for submission to DCD