ESL
EMIRATES SAFETY LABORATORY
DIRECTORATE GEN. OF DUBAI CIVIL DEFENSE

UAE COC
DXB SPECIFIC

Information Pack -

DXB New Regulation

Commencement: Jan 2024

New Regulation Outline

DXB-specific UAE COC prepared by ESL must accompany all applications to DCD for product registration.

ESL will prepare DXB-specific UAE COC for products/systems certified by ESL or any of the certification body that is approved by the UAE GHQ CD. Different requirements are set for doors, cladding, roofing, duct work, pumps cables and wireless detectors

Steps To Be Followed:

- Client will apply for DXB-specific COC

- ESL will review the submitted application along with supporting required documents

- ESL will evaluate and verify the submitted documents

Scenario 1
Product/System-Meeting The Evaluation Criteria

- ESL will prepare DXB-specific COC and send to client.

- Client will apply for product registration with DCD.

Evaluation Criteria:

- Lab and CB are approved and listed by UAE GHQ CD.
- Meeting the requirements of UAE Fire & Life Safety (FLS) code - 2018

Required Documents

- Product technical datasheet
- Drawings
- Sampling evidence-if applicable
- Test reports
- Product certificate
- Previous COC
- Any assessment reports

Scenario 2
Product/System-Not Meeting The Evaluation Criteria

- Client will retest and recertify for the missing criteria
- Client will reapply for DXB-specific COC and include the updated documents.
- ESL will review the submitted documents for product evaluation & verification.
- ESL will prepare DXB-specific COC and send to client.
- Client will apply for product registration with DCD.

FAÇADE & EXTERIOR WALL COVERINGS (CLADDING)

Information Pack -

DXB New Regulation

Commencement: Jan 2024

Testing
Certifying
DXB-Specific COC

UAE Fire & Life Safety Code of Practice - 2018

According to the UAE Fire and Life Safety (FLS) Code of Practice-2018, Chapter 1 Section 4 of the code, specifies the minimum requirements for the classification, combustibility, surface burning and flame spread ratings, design, installation, inspection, and maintenance of exterior façade wall cladding, balcony coverings and components such as:

- Metal composite panels (MCM)
- Aluminum composite panels (ACP)
- Sandwich panels
- Polycarbonate panels
- EIFS, ETICS, GRC, GRFC, GRP, PEWFS
- Glazing system
- Insulation, sealants

New Regulation Outline

All facades & cladding intended to be sold in the Emirate of Dubai must be tested & certified by ESL.

Where other UAE approved/listed CB historically certified façade or cladding system, ESL will evaluate the technical documents along with test reports in compliance with the UAE FLS code & subject to ESL certification requirements and accordingly ESL will issue a product / system certificate.

For new products/system, client will conduct the fire tests at ESL Lab for Dubai projects and ESL will certify the product/system for Dubai projects.
Materiality fingerprinting is part of ESL certifying process to allow traceability and future validation by AHJs.

ESL will prepare the DXB-specific COC for the client to submit to DCD for product registration.

Required Documents

Historically Tested:
- Product data; manufacturers specification, tech data and material SDS and limitations
- Technical datasheets for all components
- Design listing & certification – core test report, product test report, assembly test report, system design listing
- Drawings
- Sampling evidence
- Test reports
- Any assessment reports
- Method Statement & Manufacturer installation instructions

Approval For New System:
- Product/system specifications
- Technical datasheet for all components
- Drawings

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Steps To Be Followed:

- Client will apply for DXB-specific COC for cladding system

- ESL will review the submitted application along with supporting required documents–either having historical testing evidence or requiring new approval

- ESL will evaluate and verify the submitted documents

Scenario 1

Tested Cladding system–Meeting The Evaluation Criteria

- ESL will submit quotation
- Client will confirm order & make payment
- ESL will prepare product system certificate
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

Scenario 2

Tested Cladding system–Not Meeting The Evaluation Criteria

- ESL will submit quotation
- Client will confirm order & make payment
- Sampling by ESL
- Testing at ESL lab
- Certifying by ESL
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

Scenario 3

Approval For New Cladding System

- ESL will submit quotation
- Client will confirm order & make payment
- Sampling by ESL
- Testing at ESL lab
- Certifying by ESL
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

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UAE Fire & Life Safety Code of Practice - 2018

According to the UAE Fire and Life Safety (FLS) Code, fire door sets and assemblies must undergo testing & certification according to specific standards

These standards are identified in:

Chapter 1 – Section 7
Clause 7.1.30- Doors assembly

Chapter 3 – Section 7
Clause 7.1.3 – Fire resistance rated Door Assemblies

FIRE-RATED DOOR ASSEMBLIES

Information Pack -

DXB New Regulation

Commencement: Jan 2024

Testing
DXB-Specific
COC

New Regulation Outline

All fire doors assemblies intended to be sold in the Emirate of Dubai must be tested at ESL and can be certified by ESL or other Approved Certifying Bodies

Evaluation Criteria:

- Lab and CB are approved and listed by UAE GHQ CD
- Meeting the requirements of UAE FLS code - 2018

Required Documents

Historically Tested & Certified:
- Door specifications
- Technical datasheets for all components
- Drawings
- Sampling evidence
- Test reports
- Product certificate
- Previous COC
- Any assessment reports

Approval For New Door:
- Door specifications
- Technical datasheets for all components
- Drawings

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Steps To Be Followed:

- Client will apply for DXB-specific COC for fire door assembly

- ESL will review the submitted application along with supporting required documents–either having historical testing & certification evidence or requiring new approval

- ESL will evaluate and verify the submitted documents

Scenario 1

Tested & Certified Doors –
Meeting The Evaluation Criteria

- ESL will submit quotation

- Client will confirm order & make payment

- ESL will prepare DXB-specific COC & submit to client

- Client will submit for product registration with DCD

Scenario 2

Tested & Certified Doors –
Not Meeting The Evaluation Criteria

- ESL will submit quotation
- Client will confirm order & make payment
- Sampling by ESL or any other listed CB
- Testing at ESL lab
- Certifying by ESL or any other listed CB
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

Scenario 3

Approval For New Door

- ESL will submit quotation
- Client will confirm order & make payment
- Sampling by ESL or any other listed CB
- Testing at ESL lab
- Certifying by ESL or any other listed CB
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

UAE Fire & Life Safety Code of Practice - 2018

Chapter 10 – Smoke Control and Smoke Management System

New Regulation Outline

All fire-rated & Pre-insulated Duct Systems intended to be sold in the Emirate of Dubai must be tested at ESL

All UAE Approved Certification Bodies will conduct their fire-rated and pre-insulated Duct Systems tests at ESL

For products intended to be sold in Dubai, ESL will prepare DXB-specific COC identifying approved system configurations and ancillary items for the client to submit to DCD for product registration

Evaluation Criteria:

- Lab is approved and listed by UAE GHQ CD
- Meeting the requirements of UAE FLS code - 2018

DUCTWORK

Information Pack -

DXB New Regulation

Commencement: Jan 2024

Testing
DXB-Specific COC

Required Documents

Historically Tested & Certified:
- Products/ System specification
- Technical datasheet for all components
- Sampling evidence
- Drawings
- Test reports
- Product/system certificate
- Previous COC
- Any assessment reports

Approval For New Ductwork System:
- Product/system specification
- Technical datasheet for all components
- Drawings

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Steps To Be Followed:

- Client will apply for DXB-specific COC for Duct work and pre-insulated ducts

- ESL will review the submitted application along with supporting required documents–either having historical testing & certification evidence or requiring new approval

- ESL will evaluate and verify the submitted documents

Scenario 1

Tested & Certified Ductwork System – Meeting The Evaluation Criteria

- ESL will submit quotation
- Client will confirm order & make payment
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

Scenario 2

Tested & Certified Ductwork System – Not Meeting The Evaluation Criteria

- ESL will submit quotation
- Client will confirm order & make payment
- Sampling by ESL or any other listed CB
- Testing at ESL lab
- Certifying by ESL or any other listed CB
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

Scenario 3

Approval For New Ductwork System

- ESL will submit quotation
- Client will confirm order & make payment
- Sampling by ESL or any other listed CB
- Testing at ESL lab
- Certifying by ESL or any other listed CB
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

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مختبر الإمارات للسلامة
EMIRATES SAFETY LABORATORY

الإدارة العامة للدفاع المدني - دبي
DIRECTORATE GEN. OF DUBAI CIVIL DEFENSE

WIRELESS INTERCONNECTED DETECTORS FOR VILLAS
Information Pack -
DXB New Regulation

Commencement: Jan 2024

Testing
Certifying
DXB-Specific COC

New Regulation Outline

All wireless interconnected detectors for villas intended to be sold in the Emirates of Dubai must be certified by ESL

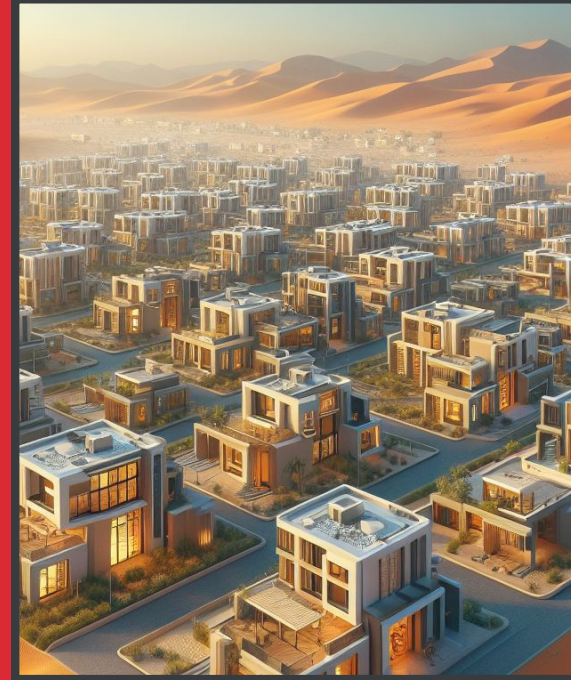ESL to verify the connectivity of the wireless mesh systems

Evaluation Criteria:

- Lab is approved and listed by UAE GHQ CD.
- Meeting the requirements of UAE Fire & Life Safety (FLS) code

Required Documents

- Product Datasheets
- Product Manuals
- Product catalogue
- Drawings
- Test reports
- Accreditation details of the lab where the products are tested

Specification

- Smoke detector: EN 14604:2005 + AC:2008
- Heat detector: BS 5446-2:2003
- Installation position: ceiling
- Battery life: 10 Years
- Number of connected units: minimum 15
- Connectivity range: minimum 35meters
- Remote controller: Portable / Wall Mount
- Test function: to test all interlinked alarms from one centralized location
- Silence function: to silence all interlinked smoke and heat alarms and/or silence all wirelessly interlinked alarms except the initiating alarm
- Locate: to locate the device in alarm(automatically or manually)

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Steps To Be Followed:

- Client will apply for DXB-specific COC for interconnected wireless detectors

- ESL will review the submitted application along with supporting required documents–either having historical testing evidence or requiring new approval

- ESL will evaluate and verify the submitted documents

Scenario 1
Wireless Detectors - With Historical Reports

- ESL will submit quotation for certification based on the requirements
- Client will confirm order & make payment
- ESL will evaluate product & historical test report
- ESL will perform additional wireless verification tests
- If historical test report are not satisfactory ESL will provide additional quotation for retesting:
  - Samples will be sent to ESL facility or any other ESL authorised lab for testing.
  - Testing by ESL or ESL authorised lab
- Certifying by ESL
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

Scenario 2
Wireless Detectors - New Approvals

- ESL will submit quotation for testing & certification based on the requirements
- Client will confirm order & make payment
- ESL will evaluate product
- ESL will perform additional wireless verification tests
- Samples will be sent to ESL facility or any other ESL authorised lab for testing.
- Testing by ESL or ESL authorised lab
- Certifying by ESL
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

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ROOFING SYSTEMS
Information Pack -
DXB New Regulation

Commencement: Jan 2024

Testing
Certifying
DXB-Specific COC

UAE Fire & Life Safety Code of Practice - 2018

According to the UAE Fire and Life Safety (FLS) Code of Practice-2018, Chapter 1 Section 6 of the code, specifies the minimum requirements for certification and listing, design, installation, inspection, and maintenance of roofing system to achieve acceptable levels of fire safety of buildings

New Regulation Outline

All roofing systems intended to be sold in the Emirate of Dubai must be tested & certified by ESL

Where other UAE approved/listed CB historically certified roofing system, ESL will evaluate the technical documents in compliance with the UAE FLS code & subject to ESL certification requirements and accordingly ESL will issue a certificate

For new products/system, client will conduct the fire tests at ESL Lab for Dubai projects and ESL will certify the product/system for Dubai projects.
Materiality fingerprinting is part of the certifying process to allow traceability and future validation by AHJs

ESL will prepare the DXB-specific COC for the client to submit to DCD for product registration

Evaluation Criteria:

- Lab is approved and listed by UAE GHQ CD
- Meeting the requirements of UAE FLS code - 2018

Required Documents

Historically Tested:
- Product / system specifications
- Technical datasheets for all components
- Drawings
- Sampling evidence
- Test reports
- Any assessment reports

Approval For New Roofing System:
- Product / system specifications
- Technical datasheets for all components
- Drawings

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Steps To Be Followed:

- Client will apply for DXB-specific COC for roofing system

- ESL will review the submitted application along with supporting required documents–either having historical testing evidence or requiring new approval

- ESL will evaluate and verify the submitted documents

Scenario 1

Tested Roofing System – Meeting The Evaluation Criteria

- ESL will submit quotation
- Client will confirm order & make payment
- ESL will prepare product system certificate
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

Scenario 2

Tested Roofing System - Not Meeting The Evaluation Criteria

- ESL will submit quotation
- Client will confirm order & make payment
- Sampling by ESL
- Testing at ESL lab
- Certifying by ESL
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

Scenario 3

Approval For New Roofing System

- ESL will submit quotation
- Client will confirm order & make payment
- Sampling by ESL
- Testing at ESL lab
- Certifying by ESL
- ESL will prepare DXB-specific COC & submit to client
- Client will submit for product registration with DCD

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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

Initial Stage
- Product catalogs, technical specs, pump manuals, assembly and part drawings with component identification
- A copy of the manufacturer's certified pump performance test curve for each pump

After Kick-Off
Requirements as per NFPA 20 :
- 14.1.3 The installing contractor shall furnish a certificate for flushing and hydrostatic test prior to the start of the fire pump field acceptance test
- 14.2.3 Confirmation by electrical contractor that all electric wiring to the fire pump motor(s), including control (multiple pumps) inter-wiring, normal power supply, alternate power supply where provided, and jockey pump, shall be completed and checked by the electrical contractor
- 14.2.3.1 Arc flash risk assessment must be performed on the fire pump controller. Part of the pre-test check by the electrical contractor should include making sure the assessment has been performed

Special Cases:
- 14.2.4.1.2 For multistage multiport pumps, a copy of the manufacturer's certified shop test data for each discharge outlet shall be available for comparison with the results of the field acceptance test
- 14.2.4.1.3 For self-regulating variable speed fire pump units, a copy of the manufacturer's test curves for self-regulating variable speed constant boost mode, self-regulating variable speed constant discharge mode, and bypass constant speed mode shall be available

Steps To Be Followed:

- Before DC inspection, client will submit necessary documents to ESL after the consultant's final completion
- ESL will submit quotation
- Client will confirm order & make payment
- 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

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