

Equipment Approval - Industry Standards Recognized by ESA

Distribution Company Awareness

This bulletin contains direction on how an LDC may demonstrate compliance with Regulation 22/04, Section 6 with respect to equipment approval, when using “Industry Standards Recognized by ESA”. More information exists on using the “Industry Standards Recognized by ESA” option, in the Technical Guideline (Version 1.2), in section 2.7.3.

For the ESA Direction and ESA Recommendation below, the following definitions are used:

- “Type Tests” can prove the ratings and design characteristics of the equipment; these tests are not intended to be used as a part of normal production.
- “Routine Tests” can demonstrate operational performance and safety; these are intended to verify each piece of equipment manufactured.

ESA Direction

When using the “Industry Standards Recognized by ESA” option and the industry standard has “Type Tests” or equivalent (e.g. “Design Tests”, “Qualification Test”); these tests demonstrate compliance with Regulation 22/04 for this equipment approval option.

As a minimum, the mandatory “Type Test” or equivalent test results shall be used to form a “Certified Test Report”, that would be deemed compliant with the “Industry Standards Recognized by ESA” option.

“Routine Tests” alone are not typically acceptable to demonstrate compliance with Regulation 22/04. Some standards, such as CSA C88 (“Power Transformers and Reactors”), have tests of the design characteristics contained within “Routine Tests”. The Electrical Distributor’s competent person is expected to determine if the tests and test results meets the intent of a “Type Test” equivalent.

ESA accepts that the “Type Test” data may be provided from tests performed on other units whose equivalence, with regard to each required test, is acceptable to the purchaser.

A statement on the nameplate stating “built to ...” is neither a certification mark nor verification that the unit passed the requirements of the “Type Tests” or equivalent.

Technical Guideline for Equipment, Design and Construction - Excerpt

2.7.3 Industry Standards - How are industry standards used under the Rule of the Distributor?

Industry standards include equipment standards that are generally recognized as being appropriate for distribution equipment. Equipment standards recognized by ESA include those prepared by industry groups such as CSA, ASTM, NEMA, IEEE, ANSI, IEC, AEIC, CEA and others.

Where applicable industry standards exist, the distributor may use equipment that has been manufactured and tested in accordance to the applicable industry standards. Where required, the distributor is to obtain the applicable Certified Test Report from the manufacturer and make them available to ESA upon request.

ESA Recommendation

ESA recommends specifying that sufficient information relating to “Type Tests” or equivalent, be added to most major equipment specifications when submitting equipment specifications to vendors for tendering. Many standards identify the “Type Tests” or equivalent and some highlight the need to provide such data to the purchaser. (See Examples – Transformers and CSA Standards below)

Examples – Transformers and CSA Standards

C2.1, C2.2, C227.3, C227.4, C227.5, C199 - Includes or references the following requirement within the standard

Upon request, the manufacturer shall provide a record of type tests to the purchaser at the time of order. These test data may be provided from tests performed on other units whose equivalence, with regard to each required test, is acceptable to the purchaser.

C88 – Includes the following requirement within the standard

The following tests shall be conducted on all transformers except as specifically stated...