Information bulletin

Approved Testing Entity for DC Isolator testing

STANDING COMMITTEE OF OFFICIALS (SCO)
Secretariat: c/o Electrical Safety Office Queensland
GPO Box 69, Brisbane QLD 4001
eess.secretariat@oir.qld.gov.au

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General

Currently, under the Equipment Safety Rules, test facilities issuing test reports to AS 60947-3 that are used for certification in the EESS are required to have accreditation from:

- national body that is part of the International Laboratory Accreditation Cooperation (ILAC) (e.g. NATA in Australia or IANZ in New Zealand or similar in other countries); or
- have IECEE CB accreditation and accompanying CB test certificate; or
- be an "approved testing entity" accepted by EESS electrical safety regulators.

This information bulletin states the requirements for a testing facility to become an "approved testing entity" for DC Isolator certification – that is, for where the testing entity does not have AS 60947.3:2018 accreditation by an ILAC signatory member.

Note: Even though IECEE CB accreditation and accompanying CB test certificate is a listed acceptance criterion of an "approved testing entity" in the Equipment Safety Rules, this information bulletin applies even if the test facility issues an IECEE CB scheme test report which has associated IEC EE CB Certificate. This is in place as regulators are reviewing the test accreditation requirements of IECEE CB. That is, for DC Isolator certification, this information bulletin clarifies the test facility must have the appropriate ILAC accreditation, not just IECEE CB.

Requirement

A certifier wishing to issue a certificate for a DC Isolator for uploading on to the EESS certification database must either:

1. use a test report from an approved testing entity test facility as listed on the EESS website as suitable for issuing test reports for DC isolators to AS 60947-3 to issue the certificate; or
2. make application to EESS regulators for regulators to consider the test facility the certifier supports to be an approved testing entity, and if accepted by regulators the certifier can use that test facility test report to issue a certificate.

The Certifier must ensure the test facility accepted as an 'approved testing entity' has issued test reports to AS 60947-3 based on their ILAC member body IEC 60947.3 accreditation and in accordance with the requirements of their 'approved testing entity' status. The test facility must supply separate test reports to IEC 60947.3 with their ILAC member body accreditation logo, and a report to the national variations for Australia as listed in AS 60947-3.

This requirement applies to situations including enclosed indoor DC Isolators with dedicated enclosure, enclosed indoor without dedicated individual enclosure, Enclosed outdoor DC Isolators with dedicated individual enclosures (in shade or full sun locations) and DC Isolators within PCE (inverters and the like) – that is it applies to any DC Isolator certification.

For a test facility to become an "approved testing entity" for issuing test reports to AS 60947-3 for use to certify DC Isolators in the EESS the following is required:

Certifiers issuing certificates for uploading onto the EESS will need to make an application to the regulator to have the test facility to be considered for being an 'approved testing entity'.

EESS Electrical Equipment Safety System

A test facility does not make the application directly to the regulator as the certifier has to review and verify the suitability of the test facility test report and documentation first and also make a recommendation to the regulator to accept the test facility as an 'approved testing entity".

The application and recommendation by the certifier are made via the regulator email address provided for correspondence between certifiers and the regulator who accredits the certifier.

The application and recommendation from the certifiers shall have evidence to show at least:

1. testing facility issuing the test report has full* accreditation to IEC 60947-3 (to the same edition or later to that AS 60947.3:2018 is based on) with no exclusions# related to DC isolator requirements and ratings#, and
2. testing facility issuing the test report has full* accreditation to related standards referenced in AS 60947.3, e.g.: IEC 60529 /AS 60529 latest edition, and
3. the IEC 60947-3 tests and the separate Australian variations tests are completed by the one test facility that has that full* IEC 60947-3 accreditation, and
4. test reports are supplied separate (accredited IEC 60947-3 test report and separate Australian variations test report) and are in accordance with Appendix B of the Equipment Safety Rules, and
5. relevant tests are conducted and documented in accordance with latest issued Information Bulletins #20-018 and #21-038, and
6. test report requirements of the Equipment Safety Rules are met, subject to the clarifications provided below.

* As a transitional arrangement up until 19 December 2021 a test facility that has accreditation to IEC 60947.3, but not to full requirements for tests related to DC Isolators, can be accredited as an 'approved testing entity' to issue a test report to the accreditation they have (they can obtain a limited 'approved testing entity' accreditation), subject to the certifier making application to the regulator with justification as to why the test facility should be accepted. In this instance for a certifier to issue a certificate any tests that are not within the test facility accreditation must be clearly referenced in the test report. For a certifier to issue a certificate there must be other test reports, for the tests not included in the first test entity's 'approved testing entity' accreditation, from another 'approved testing entity" (approved for the tests performed) or from a test entity that has the ILAC accreditation to AS 60947-3 for the tests listed. Any such temporary acceptance will cease on 19 December 2021.

The ratings referred to are ratings applicable to DC isolators, so if the test facility has limitations to their IEC 60947.3 accreditation for currents or voltages above ratings applicable to DC Isolators, or other test requirements of IEC 60947.3 not related to test requirements for DC Isolators, they still have full accreditation to IEC 60947.3 for purposes of this information bulletin and DC Isolator testing.

Clarifications for DC Isolator test report requirements.

In addition of the requirements included in Appendix B of the Equipment Safety Rules, the following is required:

1. Details of the enclosure and switch disconnector subject to the tests
2. Full reporting of temperature test results (for example, all terminal temperatures, not just max terminal temperature)
3. Test Reports must include detailed colour photographs. The photographs shall include:
   a. Details and multipole angles (sides, top, bottom) of the switch disconnector
   b. Location and mounting within the enclosure tested with switch disconnector
   c. Name plate of product,
   d. Other warning labels on product or indicator marks, cable entry points into product, connectors, etc,
   e. Internal overall layout including wiring and component locations,
   f. Test room and test equipment set up as well as complete close-up view of the product set-up for temperature rise verification with solar effects – Enclosed outdoor units (including thermocouple locations, loading conditions, ambient temperature sensors, etc.),
   g. Test room set up for testing for Degree of protection (IP tests), as well as complete Close-up view of the product set up - (external side, top and bottom),
   h. Close-up view (external and internal) at the end of the test for Degree of protection (IP tests), showing compliance or failure.

Applications from a certifier for a test facility to be an “approved testing entity” will be reviewed by all regulators participating in EESS discussion and agreed by all those regulators before any decision to accept the recommendation is made.

Any acceptance of an approved testing entity is at the discretion of the regulator and may have additional conditions or time limitations applied.

The ‘approved testing entity’ acceptance will be a temporary provision for maximum of three months at any time. The testing facility must be acquiring formal accreditation from their ILAC accreditation body to AS 60947.3 to have this temporary provision considered for renewal after the three months. To renew the temporary provision the certifier must make a new application and recommendation to the regulator, inducing evidence the test facility is in process of obtaining AS 60947-3 accreditation.

Once a testing facility is accepted as ‘approved testing entity’ it will be displayed in the EESS website, however certifiers must check website to verify the test facility is still listed and is within the 3 months of its initial listing (or within 3 months of any re-listing) before proceeding with any new application for certification using that test facility.

Any certificate issued via this “approved testing entity” process can only be issued for a maximum of 12 months.