OD-2061

Edition 21.01 2020-07-14

IECEE PUBLICATION

IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System)

Industrial Cyber Security Program

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FOREWORD

Document Owner

CMC ~~TF~~ WG 31 "Cyber Security"

History of changes

Date	Brief summary of changes
2016-11-28	N/A, new document
2018-02-07	Clause 2 has been updated to reference the latest edition of IECEE 02. Inclusion of additional standards under subclause 3.2
2020-03-28	Document has been recreated by moving operational content out of IECEE 02. Also created new clause on joint certifications

Effective date	Target revision date
202018-076-014	202331-076-014

IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE)

1. Scope

1.

This Operational Document specifies general requirements for the operation of the Industrial Cyber Security Program as defined in IECEE 02 Annex C.

This publication contains the Rules of Procedure for the IECEE Industrial Cyber Security Program. The service is intended to provide a framework for assessments in accordance with the IEC 62443 Security for industrial automation and control systems series of standards to result in an IECEE Certificate of Conformity - Industrial Cyber Security Capability.

The IEC 62443 series of standards generally specify requirements for security capabilities. These capabilities may be technical capabilities (security mechanisms) or process capabilities (human procedures).

IEC 62443 conformance assessment consists of the evaluation of an Applicant's security capabilities that it uses to develop, integrate and/or maintain specific products or solutions. Two evaluations can be conducted:

1) To evaluate an applicant's ability to provide IEC 62443 compliant security capabilities. This assessment focuses on evidence that supports the Applicant's submittal. This submittal contains the specific requirements and the processes used to implement the security capabilities for which they are requesting to be assessed.
2) To evaluate that these capabilities have been applied to either:
   a) a specific product or
   b) a specific solution.

2. Normative References

The following publication contain provisions which, through reference in this text, constitute modification of these Rules of Procedure.

IECEE 02: Rules of Procedure – CB Scheme of the IECEE for Mutual Recognition of Test Certificates for Electrotechnical Equipment and Components (CB Scheme) and its related services. Edition 17.0 2017-05 *IECEE Rules of Procedure - CB Scheme*

IEC 62443 (series) *Security for industrial automation and control systems*

OD-2037: CB Scheme Test Certificates

3. RulesCertificate of Conformity – Industrial Cyber Security Capability

4. The IECEE Industrial Cyber Security Program is operated following the same basic rules of the CB Scheme as specified in *IECEE 02 Part I* and its related Operational Documents (ODs) and Administrative Documents (ADs) with the following additional considerations.

3.

Note: In this case, Test Results relate to the assessment of supporting evidence for security capabilities required by IEC 62443 and the application of those capabilities.

Certificates are issued in accordance with OD-2037 with special consideration to clause 12 and Annex 3.

In addition, the following apply:

3.1 Participation

Participation in the IECEE Industrial Cyber Security Program does not require NCBs to be Recognizing NCBs before they can become Issuing NCBs. However, NCBs are encouraged to participate as Recognizing NCBs even if they are not Issuing NCBs.

Members and other interested stakeholders may determine the suitability and potential further use of this program. As a result, specification of National differences is not applicable.

3.2 Certificate of Conformity - Industrial Cyber Security Capability

The deliverable to be issued as a result of the IECEE Industrial Cyber Security Program is a Certificate of Conformity – Industrial Cyber Security Capability. A Certificate is associated with a supporting IECEE Test Report. The report is not valid as an IECEE Test Report unless signed by an approved CB Testing Laboratory and appended to a Certificate issued by an NCB in accordance with this operational document.

ThisOperationally, certificates can be issued by an NCB under two scenarios:

1) Scenario 1 – Capability Assessment: An assessment of a set of technical capabilities (IEC 62443-3-3, IEC 62443-4-2) or process-oriented capabilities (IEC 62443-2-4, IEC 62443-4-1)
2) Scenario 2 – Application of Capabilities Assessment: Use of a Scenario 1 technical or process-oriented capability for a specific product or solution

Within this program, the Scenarios apply as follows for the IEC 62443 series of standards (grayed-out cells mean not applicable):

	IEC 62443-2-4	IEC 62443-3-3	IEC 62443-4-1	IEC 62443-4-2 (Future Consideration)
Process	✓ Scenario 1		✓ Scenario 1	
Product	✓ Scenario 1[2*]	✓ Scenario 1[2*] Optionally in conjunction with an IEC 62443-4-1 Scenario 2 certificate[***4]	✓ Scenario 2 possibly in conjunction with an IEC 62443-3-3 Scenario 1 or Scenario 2 certificate or an IEC 62443-4-2 Scenario 1 certificate[**3]	✓ Scenario 1[*2] in conjunction with an IEC 62443-4-1 Scenario 2 certificate[****5]
Solution[1]	✓ Scenario 2 Possibly in conjunction with an IEC 62443-3-3 Scenario 2 certificate[7]	✓ Scenario 2 Optionally in conjunction with an IEC 62443-2-4 or IEC 62443-4-1 Scenario 2 Certificate[6]		

[1] A solution is defined to be a specific implementation of a control system at a specific time and location.

[2*] Note – Product in this instance refers to a product/component as it contributes to a solution.

[3] **Note – An IEC 62443-4-1 Application of Capability certificate of conformity for a product may be issued in conjunction with an IEC 62443-3-3 (Scenario 1 or Scenario 2) or IEC 62443-4-2 Scenario 1 certificate of conformity for that product, or for a product that meets non-IEC 62443 technical security requirements.

[***4] Note – A product certificate of conformity for a control system may optionally be issued in conjunction with an IEC 62443-4-1 Scenario 2 certificate of conformity for that control system.

[****5] Note - A product certificate of conformity for a control system component must be issued in conjunction with an IEC 62443-4-1 Scenario 2 certificate of conformity for that component.

[6] An IEC 62443-2-4 Application of Capability certificate of conformity for solution may optionally be issued in conjunction with an IEC 62443-2-4 or IEC 62443-4-1 Scenario 2 certificate of conformity.

[7] A solution certificate of conformity for a control system may optionally be issued in conjunction with an IEC 62443-3-3 Scenario 2 certificate of conformity for that control system.

In summary, the following types of certificates of conformity are defined:

- Product Capability Assessment (IEC 62443-2-4, IEC 62443-3-3, IEC 62443-4-2)
- Process Capability Assessment (IEC 62443-2-4, IEC 62443-4-1)
- Solution Capability Assessment (future consideration)
- Product Application of Capabilities Assessment (IEC 62443-4-1)
- Process Application of Capabilities Assessment (future consideration)
- Solution Application of Capabilities Assessment (IEC 62443-2-4, IEC 62443-3-3)

3.1 Certificate of Conformity – Certificate References

A Certificate of Conformity may reference other Certificates of Conformity. References fall into two categories:

- Certificates that must include a specific reference or the certificate cannot be issued
- Certificates that may optionally include a reference

3.1.1 Mandatory References

A Product Capability Assessment (62443-4-2) certificate must reference either:

- A Product Application of Capabilities Assessment (62443-4-1) for the same product
- A Process Capability Assessment (62443-4-1), accompanied with verification that the certified processes are applied to the target product.

If either of the above references are not present then the Product Capability Assessment (62443-4-2) certificate cannot be issued.

Note that each of the Product Application of Capabilities Assessment (62443-4-1) and Process Capability Assessment (62443-4-1) certificates may be issued independently without referencing a Product Capability Assessment (62443-4-2).

3.1.2 Optional References

The following table lists example certificate pairs that may reference each other:

Solution Application of Capabilities Assessment (62443-2-4)	Solution Application of Capabilities Assessment (62443-3-3)
Product Capability Assessment (62443-3-3)	Product Application of Capabilities Assessment (62443-4-1)
Solution Application of Capabilities Assessment (62443-3-3)	Product Application of Capabilities Assessment (62443-4-1)

3.2~~3~~ IECEE Industrial Cyber Security Program Operation

3.2~~3~~.1 Scoping of Submittal

The Applicant is responsible for both identifying the standards within the IEC 62443 series to be utilized in their assessment and for selecting the specific security requirements from the identified standards that are to be evaluated within the scope of the assessment. In addition, the Applicant may be required to identify the applicant's role and the product(s) or solution to which the assessment applies.

Note: It is not required to select all security requirements from the identified standard. The Applicant selects the specific requirements for which they are requesting to be assessed.

3.23.2 Supporting Evidence

As part of the submittal, the Applicant completes the applicable portions of a Test Report Form (TRF) and additionally provides evidence in support of the capabilities that are intended to demonstrate compliance to the selected requirement(s).

3.23.3 Assessment

In performing the assessment, each selected IEC 62443 security requirement is evaluated against the supporting evidence supplied by the Applicant to determine compliance.

3.34Expert Task Force (ETF)

The aim of the Committee of Testing Laboratories (CTL) is to achieve reproducibility of test results and to promote a close collaboration between testing laboratories. Based on the needs for specific technical expertise for this service, a CTL ETF 16 for the IEC 62443 series of cyber security standards shall be maintained. has been established.

A primary responsibility of the ETF is to ensure the consistent interpretation and application of IEC 62443 requirements by all NCBs/CBTLs.

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