

Proposal for Amendments to the Legal Inspection Requirements for Power Supply Equipment, Including Power Conversion System

By the Bureau of Standards, Metrology and Inspection (BSMI), Ministry of Economic Affairs

Introduction:

To support the goal of achieving net-zero carbon emissions by 2050, renewable energy power generation equipment and energy storage systems are expected to be increasingly deployed not only at outdoor sites but also in indoor environments, including households and factories. As Power Conversion Systems (PCS) and Photovoltaic (PV) inverters are critical components for energy conversion, system control, and stable operation of energy storage and solar photovoltaic systems, their safety and reliability are essential to protecting users and maintaining system stability. In view of these developments, the Bureau of Standards, Metrology and Inspection (BSMI) proposes to expand the mandatory inspection scope for PCS and PV inverters to cover models with a rated capacity not exceeding 360 kW. This measure is intended to strengthen product safety management, ensure consumer safety, and enhance the safe and stable operation of renewable energy and energy storage systems. Applicants may choose either of the following two conformity assessment procedures: Registration of Product Certification (RPC) or Type-Approved Batch Inspection (TABI).

Proposed date of implementation:

Please refer to the section on related requirements.

Scope of covered products:

Item	Description of Goods	Inspection Standards*	C.C.C. Code (the first 6 digits are the same as HS Code) (For reference)	Conformity Assessment Procedures
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1	Power Conversion System (inspection scope: rated capacity not exceeding 360 kW)	1、For those equipped with solar photovoltaic module input: CNS 15426-1: 2011 CNS 15426-2: 2013 For those not equipped with solar photovoltaic module input: CNS 62477-1: 2023 2、For those used only in industrial environments: CNS 14674-2: 2023 & CNS 14674-4: 2023 For those not used only in industrial environments: CNS 14674-1: 2023 & CNS 14674-3: 2022 3、For those with the function of transmitting power to the grid of Taiwan Power Company (hereinafter referred to as grid-connected function): (1)Products with a rated capacity not exceeding 20 kW: CNS 15382: 2018 or CNS 16280: 2026 (2)Products with a rated capacity exceeding 20 kW but not exceeding 360 kW: CNS 16280: 2026 4、Products with a rated capacity exceeding 20 kW but not exceeding 360 kW: CNS 16281: 2026 5、CNS 15663: 2013, Section 5 “Marking of Presence”	8504.40.92.00.6C 8504.40.93.00.5C 8504.40.99.50.8	RPC Scheme (Modules II+IV or II+V or II+VII) or TABI Scheme
2	PV Inverters(inspection scope: rated capacity not exceeding 360 kW)	1、CNS 15426-1: 2011 & CNS 15426-2: 2013 2、Electromagnetic Compatibility: Choose one of the following two options: (1)For those used only in industrial environments: CNS 14674-2: 2023 & CNS 14674-4: 2023 For those not used only in industrial environments: CNS 14674-1: 2023 & CNS 14674-3: 2022 (2)CNS 62920: 2023 3、For those with the function of transmitting power to the grid of Taiwan Power Company (hereinafter referred to as grid-connected function): CNS 15382: 2018 4、CNS 16279: 2026 5、CNS 15663: 2013, Section 5 “Marking of Presence”	8504.40.99.40.1	RPC Scheme (Modules II+IV or II+V or II+VII) or TABI Scheme

Note:

1. The import regulation codes for all of the listed products are C02.
2. For products listed under item 1 that are tested in accordance with on the standard CNS 62477-1 may be exempted from the tests specified in Section 4.9, “Mechanical Active Substances - Dust and Sand,” and Section 5.2.6.6, “Dust and Sand Test.”
3. For products that are tested based in accordance with CNS 14674-2 and CNS 14674-4, the precautionary statement “This product is intended for use in industrial environments only.” shall be indicated in Chinese on the product itself, its packaging, or in the instructions.
4. For products that do not have grid-connected functions, technical documents demonstrating the absence of such functions shall be submitted.

Description of the conformity assessment procedures:

1. Registration of Product Certification (RPC) Scheme: Modules II+IV, II+V, or II+VII

Under the RPC scheme, a combination of modules is applied to ensure that products comply with the applicable inspection standards at both the design and production stages. Module II requires products to undergo type testing by testing laboratories designated by the BSMI. In addition, the production premises must undergo assessment to ensure that products manufactured at those premises conform to the type-tested prototypes submitted under Module II. Depending on the applicable procedure, the assessment may cover the full quality management system under Module IV, the production quality management system under Module V, or factory inspection under Module VII.

For Module IV and Module V, a registration certificate in accordance with the CNS 12681, which is equivalent to ISO 9001, must be obtained from a certification body recognized by the BSMI. For Module VII, a factory inspection report issued by the BSMI or a BSMI-recognized factory inspection body is required.

In addition, a declaration of conformity-to-type is also required to ensure that the mass-produced commodities conform to the types specified in the type-test report.

Once a product has been certified and registered by the BSMI, it will be allowed to use the Commodity Inspection Mark, which is comprised of a graphic symbol with an identification number. The identification number shall consist of the Roman letter “R” and a designated code (five digits) given by the BSMI. Unless selected by RPC border checks, such products can clear customs directly without any further inspection. The application fee and annual fee for RPC are both NT\$5,000 per product type, and an RPC certificate is valid for three years. If there are any serial products, an extra NT\$3,000 is charged for each type in a series. The fees for type testing vary by products and are determined in accordance with the fee schedule of the relevant testing laboratories.

2. Type-Approved Batch Inspection (TABI) Scheme

Under this scheme, manufacturers or importers are required to have their products undergo type testing by the BSMI or by designated testing laboratories recognized by the BSMI, and to submit an application for Type Approval to the BSMI or its branches.

After obtaining a Type Approval certificate, manufacturers or importers are required to apply to the BSMI for batch inspection each time before the products are released from the production premises or arrive at the port of entry. The BSMI will then review the application and supporting documents, and may require additional samples for further testing where necessary.

Once the products have passed inspection, they will be allowed to use the Commodity Inspection Mark, which is comprised of a graphic symbol with an identification number. The identification number shall consist of the Roman letter “T” and a designated code (five digits) given by the BSMI. The application fee for a Type Approval is NT\$3,500, and the certificate remains valid for three years. The fees for type testing vary by products and are determined in accordance with the fee schedule of the relevant testing laboratories.

*Further information about the scheme is available on the BSMI website at <https://www.bsmi.gov.tw/wSite/lp?ctNode=9846&CtUnit=4208&BaseDSD=7&mp=2>

Locations to apply for Type Testing:

The BSMI designated testing laboratories.

Locations to apply for Registration of Product Certification:

The BSMI or its branches.

Locations to apply for Batch Inspection:

1. Domestic manufacturers or commissioned manufacturers: applications for inspection shall be submitted to the BSMI or its branches having jurisdiction over the place of production. Where necessary, applications may be submitted across jurisdictions.
2. Importers or entrusted importers: applications for inspection shall be submitted to the BSMI or its branches having jurisdiction over the port of entry. Where necessary, applications may be submitted across jurisdictions.

Time required for Type Approval / Registration of Product Certification:

Fourteen working days. (This period pending submission of supplementary documents or samples shall not be included in the calculation. In cases where samples are selected for testing, an additional seven working days shall be added after the samples have been delivered.)

Related requirements:

1. For products listed under item 1 with a rated capacity not exceeding 20 kW:
 - (1) The inspection requirements shall apply to both imported and domestically manufactured products from 1 July 2026. From the date of this notice, the BSMI will accept applications for TABI or RPC for the above-mentioned products.
 - (2) Applicants submitting applications to the BSMI on or after the date of this notice shall provide a type-test report demonstrating compliance with the applicable inspection standards. A certificate will be issued upon approval by the BSMI and shall remain valid for three years from the date of issuance. However, if the certificate is issued on or before 30 June 2026, its validity period shall commence on 1 July 2026 and expire on 30 June 2029.
2. For products listed under Item 1 with a rated capacity exceeding 20 kW but not exceeding 100 kW, and products listed under Item 2 with a rated capacity not exceeding 100 kW:
 - (1) The inspection requirements shall apply to both imported and domestically manufactured products from 1 July 2027. From the date of this notice, the BSMI will accept applications for TABI or RPC for the above-mentioned products.
 - (2) Applicants submitting applications to the BSMI on or after the date of this notice shall provide a type-test report demonstrating compliance with the applicable inspection standards. A certificate will be issued upon approval by the BSMI and shall remain valid for three years from the date of issuance. However, if the certificate is issued on or before 30 June 2027, its validity period shall commence on 1 July 2027 and expire on 30 June 2030.
3. For products listed under Items 1 and 2 with a rated capacity exceeding 100 kW but not exceeding 360 kW:
 - (1) The inspection requirements shall apply to both imported and domestically manufactured products from 1 July 2028. From the date of this notice, the BSMI will accept applications for TABI or RPC for the above-mentioned products.
 - (2) Applicants submitting applications to the BSMI on or after the date of this notice shall provide a type-test report demonstrating compliance with the applicable inspection standards. A certificate will be issued upon approval by the BSMI and shall remain valid for three years from the date of issuance. However, if the certificate is issued on or before 30 June 2028, its validity period shall commence on 1 July 2028 and expire on 30 June 2031.
4. For the listed products, the inspection standards listed above shall come into force from the date of this notice, and the previous versions shall cease to apply from 1 July 2028. Applications for TABI or RPC shall

be processed in accordance with the following from the date of adoption:

(1) For certified products:

- Type Approval certificates and RPC certificates obtained on or before 30 June 2028 may continue to be used until their expiration date. During the validity period, additional series products may be added in accordance with the original inspection requirements.
- From 1 July 2028, applicants applying to the BSMI for certificate extension shall provide type-test reports and technical documents based on the revised inspection standards.

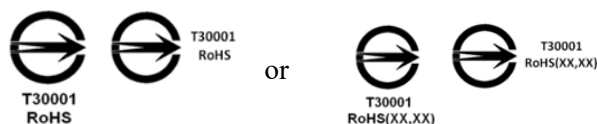
(2) For new applicants:

- For products already included in the inspection scope before these amendments, namely products with a rated capacity not exceeding 100 kW: applicants applying to the BSMI on or before 30 June 2028 may provide type-tested reports based on either the pre-revised or revised inspection standards and technical documents. Certificates shall be valid for three years from the date of issuance. From 1 July 2028, applicants shall provide type-test reports based on the revised inspection standards and technical documents. Certificates shall be valid for three years from the date of issuance.
 - For products newly added to the inspection scope, namely products with a rated capacity exceeding 100 kW but not exceeding 360 kW: applicants shall provide type-test reports based on the revised inspection standards and technical documents when applying for a certificate.
5. For products that comply with the above standards and have been certified under the Voluntary Product Certification (VPC) system, the type-test report may be issued by the original BSMI-designated testing laboratory after supplementary testing has been conducted to verify compliance with any differences in the product or the applicable standard.
 6. The technical documents required for type testing shall comply with the requirements specified in the "Directions Governing Type Approval of Electrical and Electronic Commodities."
 7. Fees for RPC and TABI shall be charged in accordance with the relevant provisions of the "Regulations Governing Fees for Commodity Inspection."
 8. The listed products shall, in accordance with Section 5 "Marking of Presence" of CNS 15663 (2013), indicate the presence of restricted substances in the format prescribed in Table 1 and Table 2 on the product body, packaging, labels, or instructions. Where the information on the presence of restricted substances is provided by way of a webpage, the relevant URL shall be clearly indicated on the product body, packaging, labels, or instructions. The requirements of Section 5.3 of CNS 15663 regarding the marking location shall not apply.
 9. After the listed products are approved by the BSMI for certificate issuance, the labeling requirements shall be as follows:
 - (1) In accordance with the "Regulations Governing the Use of Commodity Inspection Mark," the identification number of the Commodity Inspection Mark shall consist of a Roman letter "R," a designated code (five digits), and "the presence conditions of the restricted substance" (e.g., RoHS or RoHS (XX,XX)).
 - (2) The identification number shall be placed below or to the right of the graphic symbol and "the presence conditions of the restricted substance" shall be indicated in the second row.
 - (3) No fixed dimensions are prescribed for the Commodity Inspection Mark. However, it shall be affixed, in an appropriately proportioned size, at a conspicuous place on the product body. The mark shall be made of material not liable to deterioration, and its content shall be clear and legible, not easily effaced, and permanently affixed.

(4) Examples of the Commodity Inspection Mark under the RPC scheme are shown below:



(5) Examples of the Commodity Inspection Mark under the TABI scheme are shown below:



(6) “RoHS” indicates that, except for the exemptions specified in CNS 15663, the content of restricted substances in the product does not exceed the reference percentage value.

“RoHS(XX,XX)” indicates that, except for the exemptions specified in CNS 15663, the content of restricted substance(s) (element XX, element XX, ...) in the product exceeds the reference percentage value.

Restricted substances: Pb, Cd, Hg, Cr⁺⁶, PBB, and PBDE.

Examples:

RoHS (Pb) indicates that the percentage content of Pb in certain parts of the commodity exceeds the reference percentage value specified in Annex A to CNS 15663.

RoHS (Cd, Cr⁺⁶, PBB) indicates that the percentage content of Cd, Cr⁺⁶, and PBB in certain parts of the commodity exceeds the respective reference percentage value specified in Annex A to CNS 15663.

10. The inspection standards of the listed products shall be based on the version specified in this notice. Where a new or updated version is issued, the BSMI shall announce its implementation date in a separate notice.
11. The C.C.C. Codes listed in the table are for reference only. Where a listed product is determined by the Customs Administration of the Ministry of Finance or the International Trade Administration of the Ministry of Economic Affairs not to fall within the listed reference C.C.C. Code, the product shall nevertheless complete the applicable inspection procedures before being placed on the market.
12. Where a listed product is a combined-function or multifunction product and falls within the scope of mandatory inspection, it shall comply with the requirements of the relevant inspection standards and conformity assessment procedures.

Table 1. Example of markings where the presence conditions of the restricted substances exceed the reference percentage value

Equipment name: Power Conversion System, Type:XXX*						
Unit	Restricted substances and its chemical symbols					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr ⁺⁶)	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Circuit	Exceeding 0.1 wt %	○	○	○	○	○
Case	○	○	Exceeding 0.1 wt %	○	○	Exceeding 0.1 wt %
Control Board	—	○	○	○	○	○
Accessory	—	○	○	○	○	○
Note 1: “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value. Note 2: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value. Note 3: The “—” indicates that the restricted substance is exempted.						

Table 2. Example of markings where, except for the exempted substances, the content of the restricted substances does not exceed the reference percentage value of presence condition.

Equipment name: Power Conversion System, Type: YYY*						
Unit	Restricted substances and its chemical symbols					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr ⁺⁶)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Circuit	○	○	○	○	○	○
Case	○	○	○	○	○	○
Control Board	—	○	○	○	○	○
Accessory	—	○	○	○	○	○
Note 1: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value. Note 2: The “—” indicates that the restricted substance is exempted.						

* Where the location of the marking in the sample label is sufficient to clearly indicate its correspondence to the product, the field for equipment name and type may be omitted. Where the same sample label applies to multiple types, their types can be indicated in the same field.