Safeboards Certification Standards – Version 1.0

November 26, 2021

NETWORK FOR CERTIFICATION AND CONSERVATION OF FORESTS

CONTENTS

A. INTRODUCTION

Network for Certification and Conservation of Forests (NCCF), a not for profit organization of India, was established in January 2015 and registered under the Societies Registration Act, 1860. NCCF is actively engaged in diverse conservation activities including development of globally benchmarked and India specific sustainability certification standards for various constituents of our natural resource base, *viz;* forests, trees outside forests, non-wood forest produce, protected areas and wetlands, quality planting material, ecotourism, biomass and biofuels, land degradation neutrality, *etc.,* as its core working areas, and also addressing the needs for policy advocacy in natural resource management, awareness raising, capacity building in and multi-stakeholders engagements.

NCCF's has already developed Certification Standards for Forest Management, Trees outside Forests (ToF) and also working for developing certification schemes for Protected Areas and Wetlands (PAWs), Non-Wood Forest Products (NWFP), Quality Planting Material (QPM), Ecotourism, Biofuel and Biomass and Carbon Registry, a platform for tracking and trading the verified GHG emissions reductions and removal enhancement.

Composite wood products have emerged as the most widely used and dominant building materials over the last three decades owing to their characteristics, *viz*; light weight, corrosion-free, insulation and cost-effectiveness. The boards, however, do not provide a healthy indoor air quality to the occupants owing to the resins and chemicals used in their production and continuous emissions from their usage even after years of installation.

Formaldehyde emissions are a threat to all the stakeholders of plywood industry in terms of economic development, health effects and foreign trade. Sustainable and low-emitting furniture products have high demand in international markets and huge potential for domestic consumption as well.

To cater to the growing needs and demands for 'safe' and 'responsibly sourced composite boards', the NCCF has taken this initiative to develop, with utmost diligence, certification standards which could demonstrate the 'environmental-health' of composite wood panel products.

B. PURPOSE

Safeboards Certification Standards are developed to provide certification to composite wood product manufacturers.

These Standards are developed in a way to ensure that the product in scope, whenever and wherever passes through a process in value chain, is compliant with the requirements of these Standards.

The implementation of the Standards aims to enable the organisations to provide accurate and verifiable information that the product has been certified by an accredited/approved third party certification body.

Their development aims to encourage the composite wood products exports and compliance required towards human health regulations in the country and at the international levels.

These have been developed through an open, consultative and consensus based approach including a broad range of stakeholders. While these Standards are intended to be recognized by the various regulatory authorities, it is not intended, and should not be construed as a legal advice. Organizations seeking legal advice on compliance with any law, regulations or other requirements should consult with qualified legal professionals.

The version posted on the NCCF website supersedes all other versions.

These are voluntary Standards.

C. SCOPE

The Standards will apply to all types of manufacturing units, traders, distributors of composite-wood products (coated or uncoated), *viz*;

1. Plywood
2 Particleboards
3. Medium Density Fibreboards
4. Oriented Strand Boards
5. Laminated Veneer Lumber
6. Blockboards
7. Flush Doors
8. Engineered Bamboo Wood Composites/Bamboo-based Composites

and fabricators using the above-mentioned products in any form in their final product.

The proposed Standards shall be driven by a certification process to fix capping limits on formaldehyde emissions from the composite-wood products.

It defines the applicable requirements for units manufacturing such items to produce and label products as low-emitting (within the specified range of these Standards).

The organizations that choose to get their products assessed against these Standards must achieve third-party conformance against all the requirements.

The specified requirements shall be verified and documented with evidences by an accredited/authorized Certification Body (CB), at least annually.

Each qualifying manufacturing unit shall certify and simultaneously also label the certified products (each as specified under its scope). Compliance of each product shall be demonstrated on an individual plant/site/unit and management system basis.

D. TERMS AND DEFINITIONS

The relevant terms used in these Standards are as stated in ISO 9000-2015, ISO/IEC 17011:2004, ISO 17021-1, ISO/IEC 17065, ISO 19011:2002, ISO/IEC Guide 2:1991, ISO/IEC Guide 2:2004, together with the following definitions:

1. **Activity:** Smallest identified object of work in a project.

2. **Audit:** Systematic, independent and documented process for obtaining objective evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.

3. **Calibration:** Set of operations that establish the relationship between the dispensed volume and the corresponding nominal or selected volume of the apparatus

4. **CB-Certification body:** A third party that performs conformity assessment services

5. **Certificate:** A document issued under the rules of a certification system, indicating that adequate confidence is provided that a duly identified product, process or service is in conformity with a specific standard or other normative document.

6. **Certification:** Third-party attestation related to products, processes, systems or persons.

7. **Consensus**: general agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests.

8. **Correlation:** Relationship between two or several random variables within a distribution of two or more random variables

9. **Customer:** Person or organization that could or does receive a product or a service that is intended for or required by this person or organization.

10. **Document:** Information and the medium on which it is contained

11. **Emission:** Discharge of substances into the air

12. **Equipment:** In general, the apparatus required for any operation. More specifically, the analytical measurement hardware.

13. **Health:** The state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity

14. **Information:** Meaningful data.

15. **Stakeholder/Interested Party:** Person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity.

16. **Labels:** A sign carrier made from flexible material

17. **Laboratory:** Facilities where analyses are performed by qualified personnel and with adequate equipment.

18. **Management:** Coordinated activities to direct and control an organization.

19. **Management system:** Set of interrelated or interacting elements of an organization to establish policies and objectives, and processes to achieve those objectives.

20. **Non-complying:** A non-complying product/batch is a product/batch that has a test value in excess of the prescribed limits of applicable Standards.

21. **Organization:** Person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives.

22. **Outsource:** Make an arrangement where an external organization performs part of an organization's function or process.

23. **Process:** Set of interrelated or interacting activities which transforms inputs into outputs.

24. **Procedure:** Specified way to carry out an activity or a process.

25. **Product:** Result of a process

26. **Raw Material:** Any raw material that is purchased and the organization uses it to realize the product.

27. **Record:** Document stating results achieved or providing evidence of activities performed

28. **Requirement:** Need or expectation that is stated, generally implied or obligatory.

29. **Resin:** solid, semi-solid or pseudo-solid organic material that has an indefinite and often high relative molecular mass, exhibits a tendency to flow when subjected to stress, usually has a softening or melting range, and usually fractures conchoidally

30. **Sample:** Set of one or more items taken from a lot and intended to provide information on the lot.

31. **Scope:** The organization's product groups, sites, and activities that are included in the evaluation by an accredited certification body, together with the certification standard(s) against which these have been audited.

32. **Service:** Output of an organization with at least one activity necessarily performed between the organization and the customer.

33. **Site:** A single functional unit of an organization situated at one physical location, which is geographically distinct from other units of the same organization.

34. **Standards**: A document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules or characteristics for products, services or related activities, processes and methods, aimed at the achievement of the optimum degree of order in a given context

35. **Supplier:** An individual, company, or other legal entity providing input materials to the organization.

36. **Surveillance:** Systematic repetition of conformity assessment activities as a basis for maintaining the validity of certification.

E. REQUIREMENTS

These Standards will have the following 'seven' basic elements comprising requirements needed to be met by an organization to be certified against Safeboards Certification Standards:

I. MANAGEMENT SYSTEM

1.1 Legality

The organization shall be a legitimate body and is authorised to conduct business in accordance with the legal requirements of the country and the legally defined locality boundaries of the locality in which it operates and can be held legally responsible and accountable for all its activities.

1.2 Responsibilities of the Personnel

The organisation shall assign authority and responsibility to a staff member(s) for the organisation's compliance with all applicable requirements of the Standards.

Staff members shall be delegated with authorities with defined roles and responsibilities on various duties to comply with Standards' requirements.

1.3 Training and Awareness

The organisation shall establish and implement relevant training plan and procedures for all the members of the staff and outsourcing units/organisations concerned in accordance with their responsibilities as specified by the organisation in its written procedures.

1.4 Maintenance of Records

The organisation shall maintain records and/or documents covering all applicable requirements of the Standards and shall retain them for a minimum period of five years.

1.5 Complaints Mechanism

The organization shall have a well documented plan and procedures for redressal of all types of complaints and grievances, internal and external, with regard to the certified products. The elements shall include:

1.5.1 Acknowledging receipt of the complaint

1.5.2 Taking cognizance of the complaint

1.5.3 Fair and judicious evaluation of the complaint within a specific time frame

1.5.4 Corrective and preventive measures

1.5.5 Communicate outcome to the complainant

2. QUALITY CONTROL

2.1 Sourcing of Raw Materials

Raw materials including wood, resin, resin raw materials, coating materials, adhesives, equipment, and any other material which is used as an ingredient of the final product.

2.1.1 Supplier Information

The organization shall maintain up-to-date information about the suppliers who are supplying raw materials to be used for Safeboards certified products, including but not limited to:

2.1.1.1 Name of the supplier
2.1.1.2 Name of the material
2.1.1.3 Purity/formulation of chemicals
2.1.1.4 Equipment or apparatus calibration status

2.1.2 Supplier's Documents

The organization shall have possession of supplier's sale and/or delivery documentation to confirm that the supplied material type, purity, calibration and quantities are in coherence to the supplied material's purchase order or purchase requisition.

2.2 Processing of Materials

The organisation shall ensure complete tracking, identification and segregation of certified products from those of non-certified materials at all stages of production and processing through one of the following methods:

2.2.1 Physically
2.2.2 Temporally
2.2.3 Identification Marking

2.3 Quality Control Laboratory

The organisation shall appoint or assign a quality control representative who shall be responsible for conducting the sampling, tests and other relevant activities of the in-house laboratory of the organisation.

The in-house laboratory shall be fully equipped and kept up-to-date with all chemicals, reagents and equipment, as required and given at Annexe to these Standards.

2.4 Testing of Products (Annexe)

The organisation shall test the products at stated frequency and sampling methods as per the requirements given at Annexe.

The organisation shall ensure that all products meet all requirements as given at Annexe to qualify products as per these Standards.

2.5 Batch Accounting

The organization shall maintain up-to-date batch accounting records in the form of spreadsheets or any accounting software of certified products including:

2.5.1 date of procurement of raw materials for certified products
2.5.2 inventory keeping of raw materials
2.5.3 processing steps identification and relevant dates of each batch
2.5.4 inventory keeping of sold products
2.5.5 **annual volume summary** in the measurement unit commonly used by the organization including date of production, quantity of certified materials consumption and balance quantity of certified materials.

The batch accounting shall be maintained along with certified product's chain of custody from purchase to sale. This shall be done by documenting purchase (*e.g.* purchase order/ supplier's invoice/delivery document) and sales documents (*e.g.* sales invoice and transport documents).

3. EMISSION LIMITS

3.1 Rank 1

3.2 Rank 2

3.3 Rank 3

3.4 Rank 4

3.5 Rank 5

Note: Please refer to Section 'F'

4. CORRELATION ESTABLISHMENT

4.1 Correlation is established between the results of the first party testing and third party testing before certification and every twelve months of continued certification.

4.2 For correlation establishment, five pairs of testing results of respective composite wood products are taken from the same batch of production.

4.3 Correlation values are as mentioned for quality control testing:

4.3.1 Rank 1, Quality control limit value should be ≤3mg/100g.
4.3.2 Rank 2, Consistent low emissions/quality control limit values from the products for a year under the emission limits for Rank 3
4.3.3 Rank 3, Quality control limit value should be ≤5mg/100g
4.3.4 Rank 4, Quality control limit value should be ≤8mg/100 g
4.3.5 Rank 5, Quality control limit value should be ≤30 mg/100g

5. NON-COMPLYING PRODUCTS

A non-complying product or batch is the one that exceeds the standard value of formaldehyde emission in first party and/or third-party test results.

5.1 Non-complying first party test results

5.1.1 The organization shall record, document and notify (within a maximum of 96 hours), in writing, the appropriate party, of the non-complying test results and shall appropriately dispose off the product as non-certified product.
5.1.2 The product and or batch shall not be sold and/or labelled as certified product.

5.2 Non-complying third party test results

5.2.1 The third party laboratory shall notify (within 96 hours of testing), in writing, the appropriate party (certification body), of the non-complying test results. The certification body shall notify, within 72 hours, the NCCF in writing, with the evidence about the non-complying test results.

5.3 A corrective action response with evidence on the disposition or any other mitigation measure taken to keep the product separated and isolated within 30 days from the date of non-complying test results shall be prepared and submitted to the certification body.

5.4 The organization shall isolate non-complying product(s) from certified batch at all times.

5.5 If any of the panel or bundle of panels has been dispatched/sold to another party from the non-complying batch, the organization shall notify, within 72 hours of non-complying test result, the party in writing, about the non-complying product(s).

5.6 The organization shall maintain batch accounting records of non-complying products.

5.7 If random testing of a certified product is done by any third-party and that third party gets non-compliant test results, it may then send a formal notification to the organization and/or certification body and/or NCCF, about the non-conforming product(s). The certification body/NCCF shall take appropriate action against the organization and may terminate or temporarily suspend certificate of the organization as per their procedures.

6. OUTSOURCING

6.1 Any job-work or activity which precedes the process to manufacture the products shall be considered a contracted activity. The contractual process shall at all times follow the requirements as laid down in these Standards to keep the products segregated and identified as certified at all times. This includes but not limited to:

Through all stages of outsourcing, the organisation shall be responsible for ensuring that all outsourced activities and items meet the requirements of these Standards, including management system requirements. The organisation shall have a written agreement to this effect with all entities to whom activities have been outsourced.

7. PRODUCTS LABELLING

7.1 All the certified products intended to be sold as Safeboards certified must ensure on-product or on-package labelling or both.

7.2 The organization shall apply the respective certification labels covering minimum of the following information:

7.2.1 Organization's name and contact details

7.2.2 Batch number

7.2.3 Certificate number

7.2.4 Volume of the product

F. RANKS

The following rankings will be assigned to the products based on their consistent first and third party test results:

1. **Rank 1** – Almost zero emitting products with no formaldehyde in the resin, ≤ 0.03 ppm formaldehyde which is the naturally present in air.

No testing of products, but the resin.

2. **Rank 2** – Consistent low emissions from the products for a year under the emission limits for Rank 3. This would qualify a product to get tested just once a year.

3. **Rank 3** – Meeting the emission capping limit for this category. Third party testing required every six months. *(Reference point E1/2)*
   E1/2 value of formaldehyde emissions: ≤ 0.05ppm

4. **Rank 4** – Meeting the emission capping limit for this category. Third party testing required every six months. *(Reference point E 1)*
   Current E1 value of formaldehyde emissions:
   i. ≤ 0.14 ppm for all products in scope except MDF
   ii. ≤ 0.10 ppm for MDF

5. **Rank 5** – Meeting the emission capping limit for this category. Third party testing required every six months. *(Reference point E2)*
   Current E2 value ≤ 0.38 ppm

G. SURVEILLANCE REQUIREMENTS

Products once certified against these Standards have to undergo assessment annually (within twelve months) to continue their certification over the period. Short-term assessments have to be conducted for the products and the respective organizations which need a scope change in the middle of surveillance audits/assessments.

ANNEXE: TESTING OF PRODUCTS

1. **First Party: In-house Testing**
   1.1 Frequency of the testing – Per batch
   1.2 Sampling norms
   1.2.1 Random, the samples shall not be chosen from top or bottom of the production batch
   1.2.2 Expiry: the samples shall be considered expired after thirty days of production and no testing can be performed on such samples.

1.2.3 Edges of the selected samples shall be cut off. The size of the sample shall be then cut to specified sizes.

1.3 Size of the samples – TBD

1.4 Test method (s):

i. Perforator Method (EN 120);
ii. Gas Analysis Method (EN ISO 12460-3:2015);
iii. Desiccator Method (JIS A 1460/JANS 16/ISO 12460-4);
iv. Chamber Method (EN 717-1:2004 and/or ASTM E1333/ASTM D6007)

1.5 Emission limits – Rank 3, Rank 4 and Rank 5

2. Third Party: External Testing

2.1 Frequency of the testing – Once in every six months

2.2 Sampling norms

2.2.1 Random, the samples shall not be chosen from top or bottom of the production batch

2.2.2 Expiry: the samples shall be considered expired after thirty days of production and no testing can be performed on such samples.

2.2.3 Edges of the selected samples shall be cut off. The size of the sample shall be then cut to specified sizes.

2.3 Size of the samples – To be decided (TBD)

2.4 Test methods – Chamber Method (EN 717-1:2004 and/or ASTM E1333/ASTM D6007)

2.5 Emission Limits – Rank 3, Rank 4 and Rank 5

H. REFERENCES

1. **EUROPE**: EN13986:2005

2. **GERMANY:** Chemikalien-Verbotsverordnung, Section 3

3. **AUSTRIA**: Formaldehyde Regulation (BGBl. Nr. 194/1990) § 1

4. **DENMARK**: Statutory Order No. 289 of June 22, 1983

5. **SWEDEN**: KIFS 2008:2), Sections 19 and 20

6. **CALIFORNIA**: CARB ATCM 93120

7. **USA/CANADA**: EPA TSCA Title VI

8. **JAPAN**: JIS A 5905/5908

9. CHINA: GB/T9846.3-2004 and GB18580-2001: Indoor decorating and refurbishing materials

10. AUSTRALIA/NEW ZEALAND: AS/NZS 1859-1 and 2