Eco Mark Product Category No.131
"Products for Civil Engineering Version 1.21" Certification Criteria
B. Steel construction materials

Japan Environment Association
Eco Mark Office

1. Purpose of Establishing Certification Criteria

In civil engineering/construction-related business that is implemented as part of social infrastructure development, ripple effects in the economy are expected, but at the same time a significant environmental load is imposed on the natural environment of the oceans, rivers and land as well as the living environment. New forms of civil engineering-/construction-related business based on the principles of the "Basic Environmental Law," such as through harmonization with the natural environment, formation of a good living environment, prevention of global warming by improving energy efficiency, etc., are therefore being explored.

In addition to these kinds of environmental conservation efforts, it was also determined that in the civil engineering/construction-related business it is necessary to promote the control of waste generation (reduction), secondary uses (reuse) and recovery for further use (recycling) in accordance with the "Waste Disposal and Public Cleansing Law," the "Basic Law for Establishing a Recycling-Based Society," the "Law Concerning Promotion of the Procurement of Eco-friendly Goods and Services by the State and Other Entities (Green Procurement Law)" and the "Law for Recycling Materials for Construction (Construction Recycling Law)." Furthermore, independent efforts by civil engineering/construction enterprises for reduction of the environmental load, the "Guidelines for Green Procurement in the Construction Industry" were formulated in 2002.

In Japan's material balance, the proportion attributable to civil engineering and construction-related business accounts for approximately 40% of new resources (2002 White Paper on a Recycling-Oriented Economic System; FY2001 Major Construction Materials Demand Forecast), approximately 20% of industrial wastes and approximately 40% of wastes collected at final landfill sites (2002 Environmental White Paper). It can therefore be expected that an environmentally-sound materials cycle to promote reduction, reuse and recycling will have a major impact on the structure of society.

The load placed on elements of the environment by the civil engineering and construction-related business varies according to many environmental factors such as the site of the business and the methods and types of materials used. As the environmental load may be reduced by applying Eco Mark Product Certification to construction materials, one of the factors affecting this, the Eco Mark Certification Criteria for newly applied products, shall be established to certify such materials as 'construction products' after organizing and integrating them with products that are already certified.

The new certification criteria, in addition to minimizing the consumption of new materials and the generation of wastes on the basis of using recycled materials, as has been recommended, and taking into consideration the reduced use of hazardous substances, energy saving, the impact on the ecosystem, etc., that are intended to reduce the environmental load imposed by construction work and long-term use, both of which may be characteristic of construction products, aim at the same time to achieve a symbiotic relationship with nature by creating a secondary natural environment. The concept of the life cycle of materials and products will be introduced into the evaluation, taking into consideration the life stage when the construction work is commenced as a construction product, and as many concrete environmental load items as possible have been selected.

2. Applicable Scope

Permeable steel sheet piles, Low displacement steel piles

3. Terminology

None

4. Certification Criteria and Certification Procedure

Any certification verifying conformity with the criteria shall be signed by the applicant and submitted.

4-1. Environmental Criteria and Certification Procedure

(1) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the "Environmental Laws, etc.") must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous substances in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the past five years from the date of application (whether there is any violation) must be reported. If there is any violation, proper remedies and preventive measures shall have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the relevant plant manager (entry or Attachment of a list of names of the Environmental Laws, etc.) must be submitted.

In addition, the applicants shall report whether there is any violation in the past five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b

must be submitted:

a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (clearly indicating a series of communication);
b. Following materials (copies of recording documents, etc.) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):
   1) List of the Environmental Laws, etc. related to the area where the plant is located;
   2) Implementation system (organization chart with roles, etc.);
   3) Bylaws stipulating retention of recording documents;
   4) Recurrence prevention measures (future preventive measures)
   5) State of implementation based on the recurrence prevention measures (check results of on-site inspection, etc. as compliance condition).

(2) Consideration to the reduction of waste generation at the production stage of the product shall be given.

[Certification Procedure]
A document shall be submitted describing the waste reduction per ton of the crude steel generated in the production process.

(3) The production stage of the product shall give consideration to the quantity of new resources used, energy consumption and CO2 emissions.

[Certification Procedure]
A document shall be submitted stating the quantity of new resources used, energy consumption and CO2 emissions per ton of the crude steel in the production process.

(4) As for Permeable steel sheet piles, steel sheet piles (permeable steel sheet piles) pre-perforated with percolation holes, which are designed to facilitate hydrological circulation between land and water (groundwater flow) without the loss of structural functions required for revetment, such as vibration proofing, corrosion proofing, durability, etc.

[Certification Procedure]
The following shall be certified:

- A document shall be submitted specifically describing the product specifications, including the dimensions, shape and materials.
- A document shall be submitted specifically describing the construction method; if multiple methods are used, each of such methods shall also be indicated.
- A document shall be submitted specifically providing evidence that hydrological circulation between land and water is made possible

(groundwater flow); if construction methods are used with different evidence, the evidence for each of such methods shall also be indicated.

(5) As for low displacement steel piles, steel piles suitable for construction work with low vibration/low noise, with a displacement volume to the surface at the pile body construction stage which shall be 30% or less of the pile body volume (blocked area x pile length).

[Certification Procedure]
The following shall be certified:
- A document shall be submitted specifically describing the product specifications, including the dimensions, shape and materials.
- A document specifically describing the construction method shall be submitted; if multiple methods are used, each of such methods shall also be indicated.
- A document specifically indicating the evidence of reduction of displacement shall be submitted. If multiple construction methods are used with different evidence, the evidence for each of such methods shall also be indicated.
- A document which quantitatively confirms the displacement amount to the surface at the pile body construction stage shall be submitted.

4-2. Quality Criteria and Certification Procedure

(6) Quality requirements for products, for which JIS or other equivalent standards have been established, shall conform to the relevant standards.
Other products, for which JIS or the equivalent has established measuring methods for quality requirement items, shall conform to the relevant similar JIS or its equivalent.

[Certification Procedure]
A certificate shall be submitted verifying conformity with the relevant quality standards.

5. Product Classification, Indication and Others

(1) The products shall be classified according to each applicable product in “2. Applicable Scope” (Attached table 1) and brand of the product. The product is not classified by size or color.

(2) Regarding products which correspond to designated procurement items under the "Act on Promotion of Procurement of Eco-friendly Goods and Services by the State and Other Entities (Green Purchasing Law)", conformity status for evaluation criteria will be announced on the website of the Eco Mark Office.

(3) In principle, Eco Mark shown as below shall be indicated on the product main body. The licensees of Eco Mark Utilization Contract who own the Eco Mark products shall also be allowed to use the indication and the certification number as before.

(Note for the indication)

*For indicating the logo, Eco Mark certification number (eight-digit number) or the name of the licensee using the logo shall be appeared.

* Such expression as “Eco Mark product” can be used following the 2.(2) of the Guide to Eco Mark Usage.

“Eco Mark product”, “#Eco Mark”, “www.ecomark.jp”, “Eco Mark Certificate”

* In accordance with “Environmental Labeling Guidelines” of the Ministry of the Environment of Japan, etc., the environmental claims of certified products may be indicated in association with Eco Mark.

(https://www.env.go.jp/policy/hozen/green/ecolabel/guideline/)

* The Guide to Eco Mark Usage shall be followed for any cases not listed above. (https://www.ecomark.jp/office/guideline/guide/)

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February 23, 2005	Revised (4-1-3.L(75)、(76))
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March 15, 2024	Extension of Expiration date

January 31, 2031 Expiration date

The Certification Criteria for the Product Category will be revised when necessary

Attached table 2 -- Omitted --
Attached table 3 -- Omitted --