

RE-SP-0005

Edition May 2019

Manufacturing Evaluation Procedures
for Wind Turbine Supporting Structures

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Attachment: Example Statement

1. Revision Record

Revision Number	Revision Date	Revised Parts	Reason for Revision
0	01.05.2019	-	Newly established

2. Application

2.1 General

- 1. These procedures specify the manufacturing evaluation for wind turbine supporting structures.
- 2. In principle, wind power plants in Japan with an output of 500 kW or more than 500 kW, in which one or more wind turbines are installed under the Electric Utility Industry Law, shall be subject to manufacturing evaluation for wind turbine supporting structures that is required in order to receive the construction plan notification.
- 3. It is assumed that the wind turbine supporting structure to be evaluated is designed appropriately based on the site conditions of the proposed construction site, and that the wind farm certification by Nippon Kaiji Kyokai (hereafter referred to as "ClassNK") has been obtained or that the design evaluation by a third-party organization has been completed.
- 4. In cases where the provisions mentioned above are not applicable, those that ClassNK deems appropriate separately shall apply.

3. Terms and Definitions

3.1 General

- 1. The major terms and definitions used in this procedures are as follows:
 - (1) "Wind turbine supporting structure" refers to the tower and the foundation that support the wind turbine.
 - (2) "Requester" refers to a person who applies for the manufacturing evaluation of the wind turbine supporting structure.
 - (3) "Manufacturer" refers to the manufacturer of the wind turbine supporting structure.
 - (4) "NK-PASS" refers to the document submission and management system available on the website of ClassNK.
 - (5) "Witness inspection and test" refers to the case where the inspectors of ClassNK visit the manufacturers' factory, etc., and attend inspections and tests to directly confirm the results.

4. General

4.1 Language and units

- 1. Japanese shall be used in principle for communication with ClassNK and in the documents to be submitted. English is acceptable if ClassNK determines it appropriate. Other languages shall not be accepted.
- 2. The SI unit system shall be used in principle for communication with ClassNK and in the documents to be submitted.
- 3. The statement concerning the manufacturing evaluation for wind turbine supporting structures issued by ClassNK shall be written in both Japanese and English.

4.2 Provision of information

- 1. The requester shall provide adequate and accurate information (documents, records, etc.) that are deemed necessary by ClassNK concerning the provision of manufacturing evaluation services for the wind turbine supporting structure (hereinafter, "the Services").

4.3 Submission of documents from the requester

- 1. The documents requested by ClassNK shall be submitted through NK-PASS in principle, and may also be submitted by postal mail and/or e-mail if determined appropriate by ClassNK.

5. Terms and Conditions of Providing Services

5.1 General

- 1. The terms and conditions set forth in this Article shall apply to all services provided by ClassNK regarding the Services and shall be deemed to form part of all contracts and other agreements concluded by ClassNK in connection with the Services.
- 2. ClassNK shall perform the services with adequate care and in an appropriate manner as an expert.
- 3. The services shall be provided in accordance with these procedures, on the premise of the conditions described in (1) and (2) below:
 - (1) The document related to the Services issued after the work has been performed by ClassNK shall indicate the state of the wind turbine supporting structure manufactured, which is to be reviewed when the Services have been performed. In addition, the document shall not be intended to certify or report beyond the matters and the scope stated therein.
 - (2) The document issued by ClassNK in connection with the Services is intended for use by its requesters or duly authorized persons, and is not intended for use by any other third party.
- 4. Nothing in the conditions of providing services or in any documents issued by ClassNK related to the services shall excuse the requester or any other parties from any product warranty, other contractual obligations that they are obliged to assume, or negligence, nor shall it grant any claim for reimbursement, compensation, or any other claim against any third party.
- 5. Fees and expenses pertaining to the Services shall be paid on the premise of the following conditions:
 - (1) Fees and expenses shall be paid in accordance with the provisions stipulated separately by ClassNK. ClassNK shall have the right to arbitrarily change the provisions on fees and expenses.
 - (2) The estimate presented by ClassNK is based on the provisions of fees and expenses made at the time of issuance. If the fees and expenses change or the number of manhours changes significantly from the original estimate, a revised estimate shall be prepared and presented to the requester.
 - (3) The fees and expenses shall be claimed in accordance with the provisions stipulated separately by ClassNK after the evaluation work is completed and shall be paid by the requester within 60 days from the date of issue of the invoice.
 - (4) In case of a delay in payment, we shall charge a delay loss of 5% per year.
 - (5) If the requester withdraws the request for the evaluation services for their convenience, we shall charge the requester for the fee and expenses related to the portion of the services already performed.

5.2 Confidentiality

- 1. All documents and information provided to ClassNK are confidential and shall not be disclosed to any third party for purposes other than those offered, unless the person who provided the document or information agrees in advance. The results of the services performed by ClassNK shall be treated as confidential in the same way. However, the details or copies of documents, or information or results of the services performed shall be disclosed only if duly requested under the law by a court order, legal proceedings, or by official authorities such as a national government.

5.3 Interpretation

- 1. The conditions and rules of providing services, and the effect, application, and interpretation of the documents issued by ClassNK shall be determined by ClassNK.

6. Responsibilities

6.1 Responsibilities

-1. ClassNK or its officers, employees, agents, or subcontractors shall not be liable in any way for any losses, damages, or expenses incurred by any person as a result of any act, omission, or negligence during the provision of the services.

6.2 Compensation

-1. Despite the provisions defined in Article 6.1-1, if it is demonstrated that a loss, damage, or expense incurred by the requester is attributed to any action or omission resulting from the negligence of any officer, employee, agent, or subcontractor of ClassNK, ClassNK shall compensate for the loss, damage, or expense so demonstrated up to the amount of the fee requested and received by ClassNK for the services performed.

6.3 Claim for compensation

-1. Any claim for the compensation for loss, damage or expense as stipulated in Article 6.2-1 shall be made in writing to ClassNK within six months from the date on which the service was first performed. If no claim for compensation is made within this period, any claim for the compensation shall be deemed waived.

7. Miscellaneous Provisions

7.1 General

-1. ClassNK may conclude a non-disclosure agreement upon request of the requester. The details of such agreement shall be determined upon separate deliberation.

8. Governing Law and Agreed Jurisdiction, etc.

8.1 Governing Law and Agreed Jurisdiction, etc.

-1. The interpretation of the procedures shall be in compliance with the laws of Japan, and the Tokyo District Court shall be the exclusive agreement jurisdictional court of the first instance for all disputes related to the procedures.

9. Implementation of Manufacturing Evaluation

9.1 Items of implementation

-1. ClassNK shall perform the following items listed in (1) and (2) as manufacturing evaluations. The relationships between individual items are shown in Figure 1.

- (1) Kick-off-Meeting(KOM)
- (2) Document review
- (3) Approval of the Inspection and Test Plan (ITP)
- (4) Witness test and witness inspection
- (5) Review of manufacturing records
- (6) Issuance of Statement of Fact

-2. Depending on the subject for evaluation, items other than those listed in Item 9.1-1 above may be implemented.

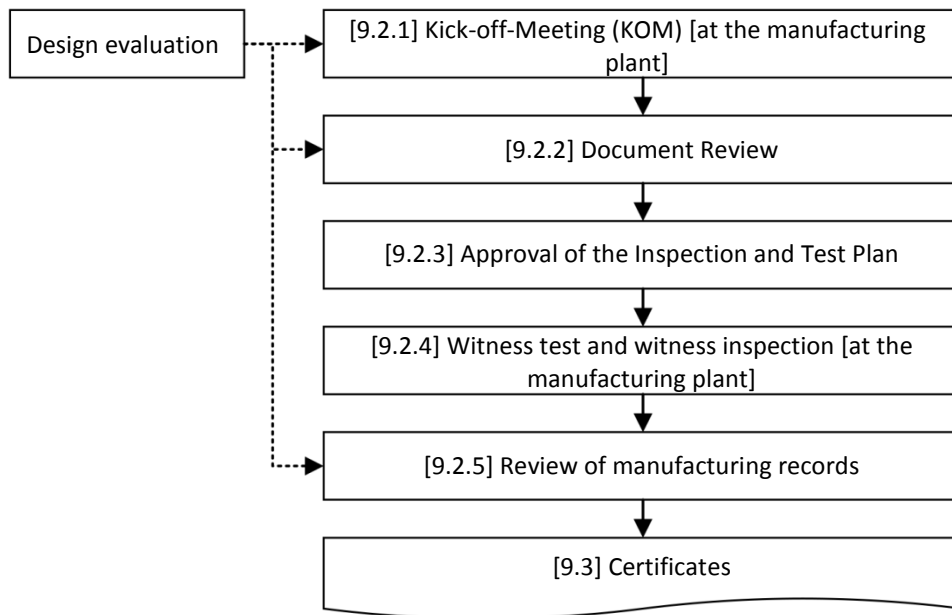


Fig. 1: Items to be implemented in Manufacturing Evaluation

9.2 Specific details of implementation

9.2.1 Kick-off-Meeting(KOM)

-1. A Kick-off Meeting (KOM) is conducted prior to the manufacturing of the items to be evaluated. The purpose of this KOM is to agree on the specifics in (1) to (4) below:

- (1) Items to be evaluated and items to be implemented in the manufacturing evaluation
- (2) Details of the document review
 - Confirmation of the documents required for manufacturing evaluation
 - Quality control documents
 - Welding procedures
 - Nondestructive inspection procedures
 - Inspection and test procedures
 - Material certificate
 - Other
 - Confirmation of the submission schedule for documents
- (3) Items subject to witness inspection
 - Timing of witness inspection in the manufacturing process
 - Parts to be inspected, inspected details, inspected frequency, etc.
- (4) Preparation of an inspection and test plan (ITP)

9.2.2 Document review

-1. After conducting the KOM and before starting manufacturing of the items to be evaluated, ClassNK reviews the following documents listed in (1) to (6), which are submitted by the requester or the manufacturer.

- (1) Applicable criteria, standards, etc.
- (2) Purchase order specifications for the manufacturer
- (3) Quality control system
- (4) Qualifications of manufacturing workers
- (5) Order management system for materials
- (6) Other documents deemed necessary by ClassNK

9.2.3 Approval of the Inspection and Test Plan (ITP)

-1. ClassNK approves the inspection and test plan (ITP) prepared by the manufacturer based on the outcome of the KOM and the document review

9.2.4 Witness test and witness inspection

-1. In accordance with the provisions specified in the approved ITP, ClassNK attends the manufacturing plant to confirm the items listed in (1) through (4) below:

- (1) Workmanship
- (2) Visual inspection
- (3) Dimensional inspection
- (4) Nondestructive test

9.2.5 Review of manufacturing records

-1. ClassNK reviews the manufacturing records provided by the manufacturer as described in (1) and (2) below:

- (1) Material certificate
- (2) Quality control records (manufacturing number, non-destructive inspection results, confirmation of the finished state, defect records, etc.)

9.3 Issuance of statement

- 1. When it is confirmed that no problems were found with the results of the review or the evaluations described in Article 9.2 above, ClassNK issues a statement for each item evaluated.
- 2. An example of a statement to be issued (item evaluated: tower) is given in Attachment 1.

End

Statement of Fact

- Site Specific Manufacturing Evaluation -

SSME-xxxx-T-19RExxxx

本証明書は、次のサイトに設置される製品に対して発行された。

This statement is issued to the following products

Tubular Steel Tower for Wind Turbine of ClassNK1899

at the site

日本海事協会風力発電所 Nippon Kaiji Kyokai Wind Power Plant

この風力発電施設に建設予定の付属書 1 に記載の製品に係るサイト固有の設計仕様に対する製造評価は、本会が適当と認める規格及び要求仕様に基づいて実施された。

This conformity evaluation for the products stated in Annex 1 which are to be installed at the site was carried out according to the industrial standards / requested specification deemed by ClassNK concerning the manufacturing evaluation based on site specific design specification.

この製品の製造評価の実施内容及びその結果を以下に示す。

The implementation items and their results of the manufacturing evaluation against the products are stated below.

申請者 Applicant	日本海事協会 Nippon Kaiji Kyokai
製造者 Manufacturer	ClassNK Co., Ltd.
検査地 Place of Inspection	中華人民共和国 CHINA
検査日 Date of Inspection	2019 年 m 月 dd 日 dd mmm 2019
製品識別番号 Product Identification No.	5226-2032 [NK]
書類審査 Document review	: 良好 : Good
- 品質管理図書 - QC Documents	- 溶接施工要領書 - WPS Documents
	- 非破壊検査要領書 - NDT Control Documents
	- 材料証明書 - Material Certificates
立会試験及び立会検査 Witness Test & Inspection	: 良好 : Good
- 施工技量 - Workmanship	- 外観検査 - Visual Inspection
	- 寸法検査 - Dimensional Inspection
	- 非破壊試験 - NDT

Tokyo, 13 March 2019

適合証明書：SSME-xxxx-T-19RExxxx に対する付属書 1
Annex 1 of Statement of Fact SSME-xxxx-T-19RExxxx

評価対象製品のサイト固有の設計仕様

Site specific design specification for evaluation object products

評価対象製品 : Tubular Steel Tower for Wind Turbine of ClassNK1899
Evaluation object products

図面番号 : 5226-2060
Drawing No.

部品数 : 3
Number of component

部品識別番号
Component ID Number

- Upper Section : U-0001
- Middle Section : M-0001
- Lower Section : L-0001

部品寸法
Component Dimension

- Upper Section : 1) 直径
Diameter
2) 高さ
Height
3) 板厚
Plate thickness
: 1) 3,000mm – 4,000mm
2) 20,000mm
3) 15mm - 20mm
- Middle Section : 1) 4,000mm – 4,500mm
2) 25,000mm
3) 13mm - 15mm
- Lower Section : 1) 4,500mm – 5,000mm
2) 25,000mm
3) 15mm - 20mm

--- End of Annex 1 ---