

ClassNK

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Wind Turbine Type Certification



Revision History

Revision No.	Revision Date	Revised Sections	Reasons for Revision
0	10.01.2025	-	Newly enacted

Table of Contents

1.	Applicability	5
2.	Definition of Terms	5
3.	Certification Standard	6
4.	General	6
4.1	Language and unit	6
4.2	Provision of information	6
4.3	Submission of documents from the client.....	6
4.4	Agreement upon request of the client	7
5.	Terms and Conditions of Providing Services	7
5.1	General	7
5.2	Confidentiality	7
5.3	Interpretation.....	8
6.	Responsibilities.....	8
6.1	Responsibilities.....	8
6.2	Compensation.....	8
6.3	Claim for compensation.....	8
7.	Miscellaneous Provisions	8
7.1	Appeal.....	8
7.2	Others	8
8.	Governing Law and Agreed Jurisdiction, etc.....	8
8.1	Governing Law and Agreed Jurisdiction, etc.....	8
9.	Exclusion of Anti-Social Forces	8
10.	Management of Certification System	9
10.1	Evaluation module and classification of certification	9
10.2	Certification document and symbols	9
10.3	Register	10
10.4	Annual Reports	10
11.	Initial Certification	10
11.1	General	10
11.2	Prior consultation	10
11.3	Application	10
11.4	Evaluation of each module	10
11.5	Certification decision	11
12.	Preservation of certification	13
12.1	Surveillance	13
12.2	Changes	13
12.3	Re-Certification for Renewal.....	14



12.4 Occasional Surveillance 14

12.5 Temporary suspension of certification..... 14

12.6 Expiration of certification 15

1. Applicability

- 1. This guideline sets forth the provisions on type certification of wind power generation facilities used in product certification operations.

2. Definition of Terms

- 1. The terms used in this guideline and their definitions shall be in accordance with JIS Q 17065, JIS C 1400-22, as well as the following terms.

Terms	Definition
Small wind turbine	Wind turbines with a wind receiving area of 200 m ² or less.
Wind turbine	Wind turbines with a rotor swept area exceeding 200 m ² .
Register	Documents that register and publish products that have been confirmed to conform to ClassNK's certification standards.
Registrant	A manufacturer that manufactures wind turbine types and shall indicate clients registered on the register who have been granted ClassNK's type certification among the clients who have requested provision of ClassNK's type certification operations.
NK-PASS	Document submission and management system available on the ClassNK's website
Certification record date	A day each year designated to be the certification date after issuance of a certification document. For example, it refers to September 30 each year from 2017 onward if the issuance date of the certification document is September 30, 2016.
IAF	International Accreditation Forum, the international organization of an institution that grants accreditation to product certifying institution, etc.
MLA	Multilateral Recognition Arrangement.
Accreditation agency	An institution that grants accreditation after evaluation of conformity to standards applicable to the certification operations provided by the accreditation agency.
ILAC	International Laboratory Accreditation Cooperation, an international organization of institutions that certify laboratories and inspection agencies.
MRA	Mutual Recognition Arrangement.
Laboratory	Institutions capable of providing testing operations in accordance with the provisions set forth in product specifications. In particular, an accredited laboratory shall refer to a laboratory that has been evaluated for its conformity to testing operation standards and has been granted certification.
Type certification	Procedure by which a ClassNK gives written assurance that a wind turbine type conforms to specified requirements
Component certification	Procedure to certify that a major component of a specific type is designed, documented and manufactured in conformity with design assumptions, specific standards and other technical requirements
Prototype certification	Procedure to enable testing of a new wind turbine type and to evaluate that the prototype is safe during the specified period in order to obtain type certification in accordance with specified standard
Conformity assessment	Systematic examination of the extent to which a product, process or service fulfils specified requirements

3. Certification Standard

-1. ClassNK shall carry out evaluation for type certification of wind turbines according to the following specifications as well as the specifications quoted therein. As a general rule, the latest versions of the specifications shall be applicable, but only when found to be appropriate by ClassNK, specifications that are not the latest version may be applied. In addition, identical international standards may also be applied.

- (1) NKRE-GL-WT01: Certification of Wind Turbine System
- (2) JIS C 1400-1: Design requirements
- (3) JIS C 1400-2: Design requirements for small wind turbines
- (4) JIS C 1400-3: Design requirements for offshore wind turbines
- (5) IEC 61400-4: Design requirements for wind turbine gearboxes
- (6) JIS C 1400-11: Acoustic noise measurement techniques
- (7) JIS C 1400-12-1: Power performance measurements of electricity producing wind turbines
- (8) IEC 61400-13: Measurement of mechanical loads
- (9) JIS C 1400-21: Measurement and assessment of power quality characteristics of grid connected wind turbines
- (10) JIS C 1400-22: Conformity testing and certification
- (11) IEC 61400-23: Full-scale structural testing of rotor blades
- (12) JIS C 1400-24: Lightning protection
- (13) JEC-2130: Synchronous Motor
- (14) JEC-2137: Induction Motor
- (15) JSWTA0001: Specifications on the Performance and Safety of Small Wind Turbines (Japan Small Wind Turbines Association Standards)
- (16) Germanischer Lloyd (GL) Guideline for the Certification of Wind Turbines
- (17) Germanischer Lloyd (GL) Guideline for the Certification of Offshore Wind Turbines

-2. When ClassNK finds it to be appropriate, international specifications, national specifications, rules of certifying institutions and the like other than the above may be applied as certification standards.

4. General

4.1 Language and unit

- 1. All communications and books submitted to ClassNK shall be in Japanese or English. Communications and books in other languages shall not be accepted unless otherwise approved by ClassNK.
- 2. All communications and documents submitted to ClassNK shall use the SI base units.
- 3. The certification documents issued by ClassNK shall be written in both Japanese and English.
- 4. The evaluation reports issued by ClassNK shall be created in Japanese.

4.2 Provision of information

- 1. The client shall provide sufficient and accurate information (documents, records, etc.) deemed necessary by ClassNK for the provision of certification operations.
- 2. The client shall make sure that ClassNK can use the records of all communication in accordance with applicable specifications or other relevant specifications as well as records of measures taken as necessary.

4.3 Submission of documents from the client

- 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.

4.4 Agreement upon request of the client

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

5. Terms and Conditions of Providing Services

5.1 General

- 1. The conditions set forth in this article shall apply to any and all services provided by ClassNK related to type certification of wind turbines (herein, “services”), and shall be deemed to form part of all contracts and other agreements concluded by ClassNK with regard to 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 concerning the type certification of wind turbines, which is issued after ClassNK has performed the services, is to indicate the state of the type at the time when the services were performed. In addition, the document shall not be intended to certify or report beyond the matters and the scope stated therein.
 - (2) Documents issued by ClassNK related to the type certification services are intended for use by its clients or duly authorized persons, and are 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 clients 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 for providing services shall be paid on the following conditions:
 - (1) Fees, etc. for the certification service provided by ClassNK shall be in accordance with the stipulations established separately by ClassNK. ClassNK shall have the right to change the provisions on fees, etc. voluntarily.
 - (2) The estimate for the certification services issued by ClassNK is based on the provisions of the fee, etc. made at the time of issuance. If the fee, etc. is changed or the number of man-hours involved is significantly changed from the original estimate, a revised estimate shall be prepared and presented to the requester.
 - (3) Fees, etc. related to the certification services provided by ClassNK shall be claimed in accordance with the provisions separately defined by ClassNK after the relevant certification service is completed, and shall be paid by the client within 60 days from when the invoice is issued.
 - (4) In case of a delay in payment, we shall charge a delay loss of 5% per year.
 - (5) If the client withdraws the request for the certification services for their convenience, we shall charge the requester for the fee of 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 for which they were offered, unless the party 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, 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 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 Appeal

- 1. If the client is dissatisfied with the result of the type certification service performed in accordance with these procedures, they may request that ClassNK investigate the type certification of wind turbine concerned within 30 days from the day following the date of decision of the certificate in writing, according to the "NKRE-AP-0002 Process for Filings of Complaints and Objections".

7.2 Others

- 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. Exclusion of Anti-Social Forces

- 1. If any of the following is applicable, or if it is generally recognized from news, etc. that there is a high probability that such a case is applicable, ClassNK may suspend the provision of certification service without requiring any notice.
 - (1) If the client, an officer of the client or a person with substantial management rights of the client, or an employee, etc. (hereinafter referred to as "officers, etc.") is or was anti-social force, such as an organized crime group, a member of an organized crime group, a person related to an organized crime group, a racketeer, or any other anti-social forces (Hereinafter referred to as "anti-social forces").
 - (2) If the client or officers, etc. has invested, loaned, provided funds or services to anti-social forces, or has any dealings with anti-social forces

- (3) If the client or officers, etc. is associated with anti-social forces
- (4) In addition to the cases listed in (1) to (3) above, if the client or officers, etc. has any relationship with anti-social forces

10. Management of Certification System

10.1 Evaluation module and classification of certification

- 1. The certification operations provided by ClassNK shall, as a case in point, be carried out through a combination of all evaluation modules indicated in Figure 1. The required evaluation modules and combinations are based on the certification scheme specified by the applied certification standard.
- 2. ClassNK shall provide the following types of certification operation.
 - (1) Type certification
 - (2) Component certification
 - (3) Prototype certification
 - (4) Conformity assessment

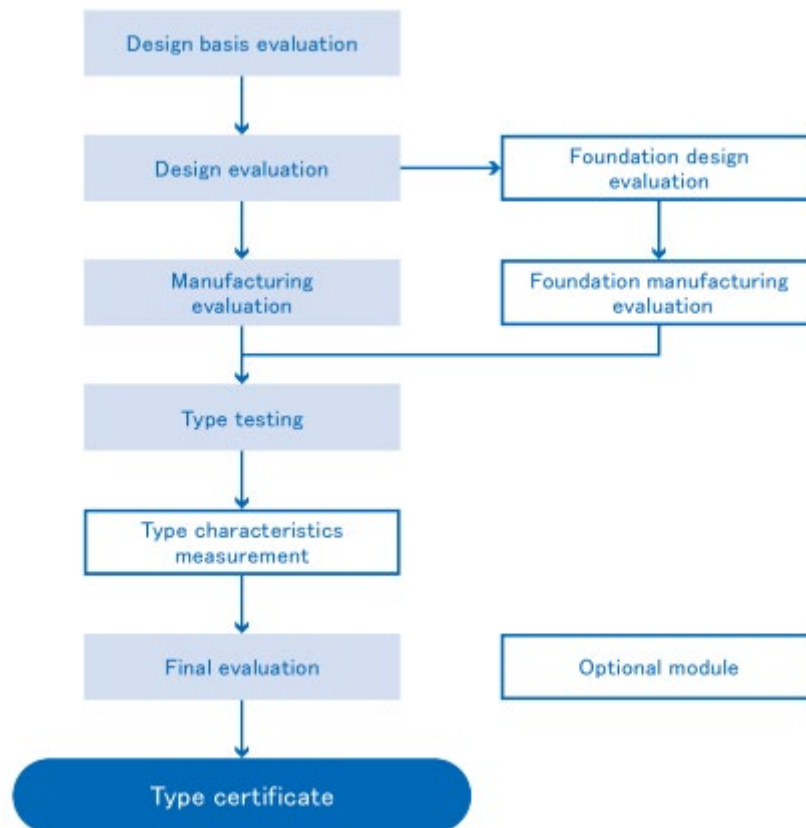


Figure 1. Representative Process of Type Certification and Evaluation Modules

10.2 Certification document and symbols

- 1. The effective period of certification documents issued by ClassNK shall be as follows.
 - (1) Type certification document: 5 years
 - (2) Component certification document: 5 years
 - (3) Prototype certification document: 3 years
 - (4) Conformity assessment document: 5 years
- 2. ClassNK shall issue a certification document to the client after checking that the wind turbine submitted for

application conforms to the certification standards and the granting of the certification document is approved.

-3. The validity of the certification document shall only be applicable to products manufactured on or after the issuance date of the certification document.

-4. Registrants may use symbols. For more details on use, they shall follow the provisions in “NKRE-AP-0001 Guidelines on the Use of Certification Documents and Symbols.”

10.3 Register

-1. ClassNK shall register and publish at least the “certification number,” “type number,” “registrant name,” “certification standard,” “small wind turbine class,” “certification document issuance date,” “certification document expiration date,” and “registered PCS type number” when deciding to grant a type certification document.

-2. ClassNK shall promptly renew the register and publish the renewed version when deciding on changes to the certification content, temporary suspension of certification, removal of temporary suspension of certification, or expiration that has an impact on the register.

10.4 Annual Reports

-1. The registrant shall compile an annual report published by ClassNK on the trends in certified product and registrant during the last year (January ~ December) and submit it to ClassNK by the end of March each year.

11. Initial Certification

11.1 General

-1. The flow of initial certification is shown in Figure 2.

11.2 Prior consultation

-1. Clients who would like ClassNK to provide them with certification operations may consult ClassNK by phone or in person with regards to the certification operations in advance. However, they shall check the content of the documents that ClassNK publishes prior to the consultation.

-2. Clients may check ClassNK’s interpretation on the provisions of certification standards during the prior consultation or evaluation. However, ClassNK does not provide advice on design or requests for consulting or the like.

11.3 Application

-1. Application for the initial certification shall be accepted upon receipt of the submitted "Application for Wind Turbine Type Certification". The client shall be deemed to have agreed with the description of the procedures that are valid as of the application date, upon submission of the application form.

-2. When the client submits an application for certification review, ClassNK shall accept the application after confirming that there are no defects in the description of the application, and send the application form for certification review with a seal of acceptance to the client.

-3. If there is any change in the items described after submitting the application form, ClassNK shall be notified of the change immediately.

-4. As for the fee of certification, the quotation shall be presented to the client in the form of an estimate prepared in accordance with the provisions of Item 5.1-5 upon receipt of the submitted "Request for Quotation, Wind Turbine Type Certification". In addition, an order or the like shall be processed separately in response to a request from the client.

11.4 Evaluation of each module

-1. The client shall submit to ClassNK the necessary documents for its evaluation in accordance with the requirements of applicable standards.

- 2. If a non-conformity is found in ClassNK's evaluation, ClassNK shall notify the client to that effect, and the client shall take corrective measures.
- 3. Type tests shall be carried out, in principle, by one of the following methods.
 - (1) (Recommended) Testing at a testing site of a laboratory by a laboratory that has been accredited by an accreditation agency that is an ILAC MRA member
 - (2) (Recommended) Testing at a testing site provided or designated by the client under the supervision of a laboratory that has been accredited by an accreditation agency that is an ILAC MRA member
 - (3) Testing by a laboratory that is not accredited under ClassNK's supervision and presence
- 4. In principle, manufacturing evaluation is for the client and suppliers of main components or process. However, in the case of small wind turbines, it may be for the client only if ClassNK considers it appropriate.
- 5. In the case of small wind turbines, the wind turbine certification committee is held to review the evaluation.

11.5 Certification decision

- 1. ClassNK shall make a certification decision based on the final evaluation results.
- 2. ClassNK shall issue a certificate to the client if it decides to award certification. In addition, if there are any conditions attached to the certification document, the registrant shall eliminate the conditions by the due date.
- 3. If ClassNK decides to refuse certification, it shall notify the client of the reason for the decision.

Flow of Initial Certification Review for Wind Turbine Type Certification

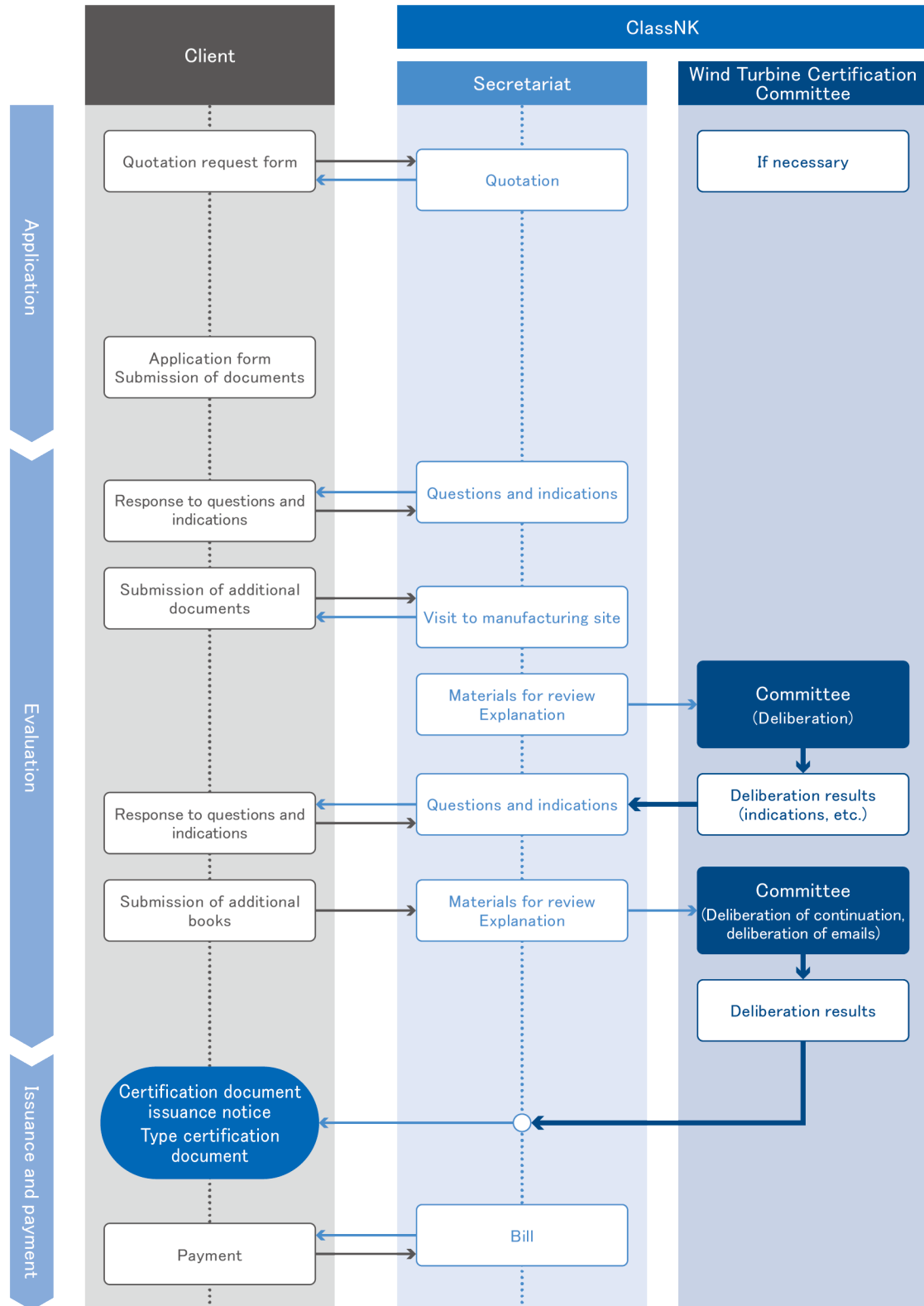


Figure 2 Flow of Initial Certification

12. Preservation of certification

12.1 Surveillance

-1. Registrants shall apply to ClassNK for implementation of surveillance within the designated period in the frequency of either item (1) or (2) below to maintain certification.

- (1) If the registrant has obtained ISO 9001 certification from a certifying institution that has been accredited by an accreditation agency that is a member of IAF MLA, the registrant shall apply for and complete surveillance once during the effective period between two and three years after the certification date (i.e. third year after certification). An example is shown in Figure 3.

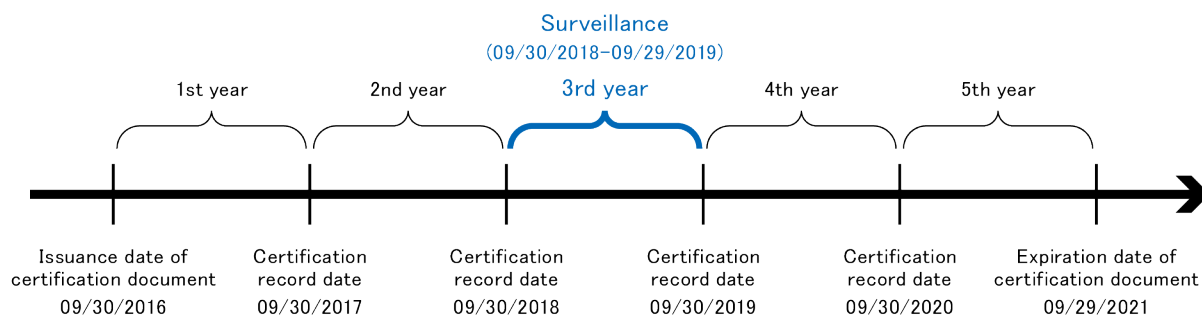


Figure 3 Frequency of Implementing Surveillance in the Case of Possessing ISO 9001 Certification

- (2) If the registrant has not obtained ISO 9001 certification from a certifying institution that has been accredited by an accreditation agency that is a member of IAF MLA, the registrant shall apply for and complete surveillance once every year (four times during the effective period) within three months before or after the certification record date. An example is shown in Figure 4.

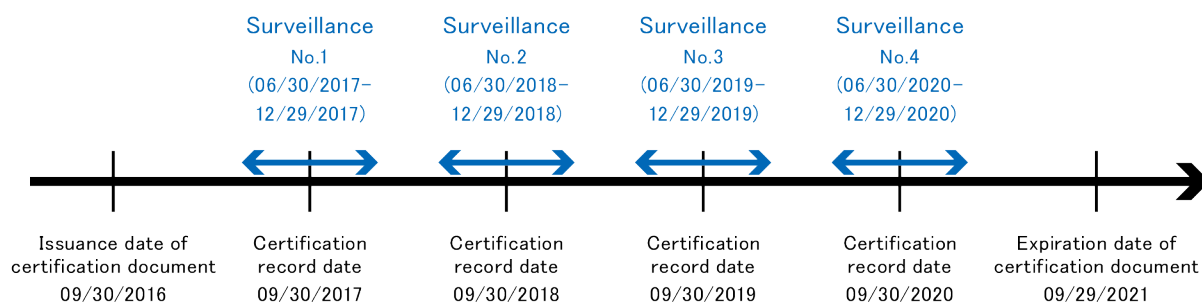


Figure 4 Frequency of Implementing Surveillance in the Case of Not Possessing ISO 9001 Certification

12.2 Changes

-1. If the registrant plans to make any of the following changes that may affect the content of the certification, the registrants shall promptly apply to ClassNK and undergo ClassNK's review. The application shall be in accordance with Section 11.3.

- (1) Changes in the registrant (The following example):
 - Changes due to business transfer
 - Changes due to business succession
 - Changes due to merger and acquisition
- (2) Changes in design of products (The following example):

- Changes in design of major components (Dimensions, structures, materials, joining methods, etc.)
- Addition and abolition of major components (Product type, manufacturing site, etc.)
- Changes in control and safety system
- Addition and abolition of specification (cold climate area, typhoon, etc.)
- (3) Significant changes in manufacturing methods of products
- (4) Significant changes in quality management system
- 2. ClassNK does not deal with the following changes:
 - (1) Changes in the individual products installed (requests by product uses, requests by electric power companies, etc.)
 - (2) Changes outside the scope of the certification standard

12.3 Re-Certification for Renewal

- 1. The registrant shall apply to ClassNK for re-certification for renewal of the certification and undergo ClassNK's review from 6 months prior to the expiration date of the certification document until the expiration date of the certification document. The application shall be in accordance with Section 11.3.

12.4 Occasional Surveillance

- 1. The registrant shall promptly report to ClassNK (within 1 week) any of the following matters regarding the certified product, when the registrant finds or receives a report from outside.
 - (1) Any information indicating that the product may not comply with the requirements of the certification standard
 - (2) Damage or accident which may cause harm to the user of the product or to the surroundings (The following example)
 - Overspeed of the rotor
 - Cracks, opening, buckling scattering, fire damage of blades, etc.
 - Scattering, fire damage of nacelles, etc.
 - Buckling, collapsing of tower, etc.
 - (3) Any defect in the product
- 2. If the preceding -1.(2) applies, the registrant shall submitted the report containing the following contents:
 - (1) Name of damage accident
 - (2) Date and time of accident damage
 - (3) Location of accident damage
 - (4) Overview of weather and wind conditions at the time of accident damage and before the accident
 - (5) Description of accident damage (including effects on the surrounding area)
 - (6) Current status of accident damaged wind turbine
 - (7) Response to accident damage (including response to the same type in Japan)
 - (8) Photo (Details before, at and after accident damage)
- 3. If ClassNK judges that occasional surveillance is necessary for the reported content, the registrant shall apply to ClassNK for occasional surveillance and undergo ClassNK's review. The application shall be in accordance with Section 11.3

12.5 Temporary suspension of certification

- 1. If the certified product or registrant falls under any of the following matters, ClassNK shall temporarily suspend certification and notify registrant to that effect, including the period of suspension.
 - (1) If the matters relating to Section 12.4-1. are not reported within the due date (1 week)
 - (2) If occasional surveillance is judged to be necessary

- (3) If incidental conditions for issuing certification documents have not resolved by the due date
- (4) If the annual report has not submitted by the due date
- (5) If the registrant has not paid the fees for the certification operations by the due date
- (6) If the registrant has not applied for re-evaluation for surveillance or renewal during the applicable period
- (7) If the surveillance or re-certification for renewal is not completed within the deadline
- (8) If there is a serious non-conformity during re-evaluation for surveillance or renewal
- (9) In the case that any fraudulent behaviour by requester or registrant has become apparent
- (10) If the registrant acts, speaks, or publishes on his/her print materials or website in a way such that ClassNK's status, honor, and legitimacy would be impugned because of the registrant's lack of understanding toward certification
- (11) If the registrant uses the certification document or symbols in ways that would cause misunderstanding

12.6 Expiration of certification

- 1. If the registrant does not complete ClassNK's specified measures by the deadline with regards to the temporary suspension of certification, ClassNK shall cancel the certification and notify the cancellation to the registrant. The period of suspension of certification shall be a maximum of six (6) months or until the expiration date of certification, whichever is shorter.
- 2. If the registrant's legal personality ceases due to company liquidation, ClassNK promptly cancel the certification.
- 3. The registrant may offer to terminate (expire) the certification even if the certificates is still valid.

SERVICE PROCEDURE

NKRE-SP-0001 / October 2025

ClassNK

Wind Turbine Type Certification

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