

Subject :

Examination and certification
of shipboard incinerators

NK TECHNICAL INFORMATION

No. : 350

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To shipowners and shipbuilders concerned,

Shipboard incinerators installed on board ships on or after 1 January 2000 are required to be of those approved by the flag administration taking into account the *Standard Specification for Shipboard Incinerators* (MEPC.76(40)) under Regulation 16 of Annex VI to MARPOL73/78 subject to the Annex coming into force.

In view of the above, the Society conducts type examinations, product verifications and installation examinations of incinerators, and issues certificates at the requests of manufacturers, shipbuilders or shipowners as appropriate in accordance with the attached guidance.

When Annex VI to MARPOL73/78 becomes effective as it is, the Society would accept the incinerators issued with installation examination certificates as complying with the requirements of the regulation 16 of Annex VI within the scope of authorization given by the ships' flag administrations and subject to their approval. (Incinerators issued with product verification certificates would be accepted as such subject to installation examination.)

Should you have any question on this matter, please contact Material and Equipment Department at TEL: 81-3-5226-2020, FAX: 81-3-5226-2019.

Attachment: Guidance for Examination and Certification of Shipboard Incinerators

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Guidance for Examination and Certification of shipboard incinerators

1. Type examination

The Society conducts examination to confirm that a specific type of shipboard incinerator is in conformity to the requirements of the *Standard Specification for Shipboard Incinerators*, and issues a type examination certificate as follows.

1.1 Application

The manufacturer or their representative (applicant) should submit an application for type examination providing the items of information listed in the following (1) together with each two copies of documents listed in (2) to Material and Equipment Department (EQD) directly or through the local office. The submission of additional documents may be required as considered necessary by the Society.

- (1) Information to be provided in the application
 - (a) Type name of the incinerator
 - (b) Name and address of the manufacturer
 - (c) Name and address of the applicant, and a contact point
- (2) Documents to be submitted
 - (a) Specification of the incinerator
 - (b) Drawings of general arrangement, components, electric diagrams
 - (c) List of materials used in the individual parts
 - (d) Instruction and maintenance manual with drawings, electric diagrams, spare parts list, etc.
 - (e) Test program (See 1.3.1 below.)
 - (f) Brochure containing the description of the manufacturer
 - (g) Procedures of manufacture, and inspection and testing by the manufacturer

1.2 Examination of documents

EQD should examine the documents to ascertain that the proposed design meets the requirements of the Standard, and inform the applicant and the local office of its results.

1.3 Tests

1.3.1 The applicant should carry out tests as specified in paragraphs 7.3, and A1.2, A1.3, A1.4 and A1.5 of the Standard, as applicable to the specific incinerator, in accordance with the approved test program. A surveyor to the local office should attend the tests to ascertain as far as practicable that the test specimen is manufactured in accordance with the submitted specifications and drawings, and to witness the tests.

1.3.2 The applicant should prepare a report of the tests. The surveyor should ascertain the contents and sign the report. Then the applicant should submit each one copy of the report to the local office and EQD.

1.3.3 In case where the same tests as required in 1.3.1 above were conducted being witnessed by a competent organization, all or part of the tests may be dispensed with so far as the compliance with the criteria prescribed in the Standard is confirmed through review of the test report by EQD.

1.4 On-site survey of manufacture system

The local office should carry out an on-site survey of manufacture system including an audit of the quality system and ascertaining of facilities for manufacture, test and storage of products, and should send a report of the survey to EQD. This survey may be dispensed with in case where such an on-site survey was conducted by the Society for another type of shipboard incinerator with satisfactory results.

1.5 Issue of certificates

EQD should review the results of the testing and the survey, and, if they were found satisfactory, issues a type examination certificate in the form given in the Appendix 2 with the duration of five years.

2. Product verification

The Society conducts a product verification of an individual product of the shipboard incinerator that has been issued with a type examination certificate, and issues a product verification certificate as follows.

2.1 Application

The manufacturer should submit an application for the product verification providing the below listed items of information to the local office. The submission of additional documents may be required as considered necessary by the Society.

- (a) Type name of the incinerator
- (b) Number of incinerators to be certified with the identification number of each one
- (c) Date and place on which and where the product verification is to be carried out
- (d) Name and address of the applicant (the manufacturer) with a contact point

2.2 Inspection and tests

2.2.1 The applicant should carry out tests as specified in paragraph 7.3 of the Standard for individual product. A surveyor to the local office should attend the tests to ascertain, as far as practicable, that the individual product is manufactured in accordance with the specifications and drawings, that the product has been marked as specified in paragraph 9 of the Standard, and to witness the tests to verify satisfactory operation of the incinerator as specified in paragraph 7.3.

2.2.2 In case where the manufacturer has been approved under the Society's *Rules for Approval of Manufacturers of Marine Equipment*, or certified to *ISO 9001* or *ISO 9002*, the witnessing by the Society's surveyor may be dispensed with so far as the compliance with the criteria prescribed in the appendix 4 is confirmed through review by the surveyor of reports of testing carried out by the manufacturer.

2.3 Marking of verification mark

The manufacturer should mark the product, if it passed the verification, with "[NK]" in addition to the items required in the Standard.

2.4 Issue of certificates

The Surveyor should issue a product verification certificate in the form given in the appendix 2.

3. Installation examination

The Society conducts an installation examination of a shipboard incinerator that has been issued with a product verification certificate and installed onboard a ship classed with the Society and issues an installation examination certificate as follows.

3.1 Application

The shipbuilder, or the shipowner or their representative should submit an application for installation examination providing the below listed items of information to the local office. The submission of additional documents may be required as considered necessary by the Society.

- (a) Hull number or ship's name
- (b) A copy of the product verification certificate
- (c) Test program (See 3.2 below.)
- (d) Location of the emergency stop switch required in paragraph 5.2 of the standard
- (e) Date and place on which and where the installation examination is to be carried out
- (f) Name and address of the applicant with a contact point

3.2 Inspection and tests

The applicant should carry out tests as specified in paragraph 7.3 of the Standard. A surveyor to the local office should attend onboard the ship to ascertain the incinerator with the product verification certificate, to confirm that the emergency stop switch required in paragraph 5.2 of the standard is located outside the compartment where the incinerator is located, and to witness the tests to verify satisfactory operation of the incinerator as specified in paragraph 7.3.

3.3 Issue of certificates

The Surveyor should issue an installation examination certificate in the form given in the appendix 3.

Appendix 1

Type Examination Certificate of Shipboard Incinerator

Type	:	
Manufacturer	:	
Max. capacity	:	kW
	:	kg/h of specified waste
	:	kg/h per burner
O ₂ Average in combustion chamber/zone	:	%
CO Average in flue gas	:	mg/MJ
Soot number average	:	Bacharach or ringelman scale
Combustion chamber flue gas outlet temperature average	:	°C
Amount of unburned components in ashes	:	% by weight
Documentation	:	

THIS IS TO CERTIFY that the prototype of the above shipboard incinerator has been examined and tested in accordance with the requirement of the *Standard Specification for Shipboard Incinerators* set out at Annex to the Resolution MEPC.76(40), the text of which supersedes Appendix 2 to the Revised Guidelines for the Implementation of Annex V of MARPOL 73/78.

A copy of this certificate should be carried on board a vessel where this type of incinerator is fitted.

Issued at (*place of issue*) on (*date of issue*)

NIPPON KAIJI KYOKAI

(Signature) _____
(*Name*)
General Manager
Material and Equipment Department

Appendix 2

Product Verification Certificate of Shipboard Incinerator

Type :
Manufacturer :
Max. capacity : kW
: kg/h of specified waste
: kg/h per burner
Type examination
certificate number :
Number of products : :
Identification of product :
(serial manufacture numbers)

THIS IS TO CERTIFY that the undersigned surveyor did, at the request of Messrs. (*the applicant's name*), attend (*place*) on (*date*) in order to carry out verification of the above product/products* by a visual inspection and tests in accordance with paragraph 7.3 of the *Standard Specification for Shipboard Incinerators* in Annex to the Resolution MEPC.76(40), that the results of the verification were satisfactory, and that it has/they have* been marked with Society's verification mark [NK].

Issued at (*place of issue*) on (*date of issue*)

NIPPON KAIJI KYOKAI

(Signature) _____
(*Name*)
Surveyor to (*name*) office

* Delete as appropriate.

Appendix 3

**Installation Examination Certificate
of Shipboard Incinerator**

Hull number/Ship name and Class number* :
Shipbuilder/Shipowner* :
Type of incinerator :
Manufacturer :
Product verification
certificate number :
Identification of product :
(serial manufacture numbers)

THIS IS TO CERTIFY that the undersigned surveyor did, at the request of Messrs. *(the applicant's name)*, attend onboard the above ship at *(place)* on *(date)* in order to carry out an installation examination of the above incinerator including the confirmation of the location of the emergency stop switch in accordance with paragraph 5.2 of the *Standard Specification for Shipboard Incinerators* set out at Annex to the Resolution MEPC.76(40) and the tests specified in paragraph 7.3 of the standard and found the requirements provided in the paragraphs were met.

Issued at *(place of issue)* on *(date of issue)*

NIPPON KAIJI KYOKAI

(Signature) _____
(Name)
Surveyor to *(name)* office

* Delete as appropriate.