

**ANNEX 5**

**RESOLUTION MEPC.180(59)**

**Adopted on 17 July 2009**

**AMENDMENTS TO THE SURVEY GUIDELINES UNDER THE HARMONIZED  
SYSTEM OF SURVEY AND CERTIFICATION FOR THE  
REVISED MARPOL ANNEX VI**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by the international conventions for the prevention and control of marine pollution,

RECALLING ALSO that MARPOL Annex VI entered into force on 19 May 2005,

RECALLING FURTHER resolution A.997(25) by which the Assembly adopted the Survey Guidelines under the Harmonized System of Survey and Certification, 2007 (the Survey Guidelines),

NOTING that the Assembly, when adopting resolution A.997(25), requested the Maritime Safety Committee and the Marine Environment Protection Committee to keep the Survey Guidelines under review and amend them as necessary,

NOTING ALSO that the revised MARPOL Annex VI was adopted by resolution MEPC.176(58) which is expected to enter into force on 1 July 2010,

RECOGNIZING the need to amend the Survey Guidelines in accordance with provisions of the revised MARPOL Annex VI,

HAVING CONSIDERED the amendments to the Survey Guidelines for the revised MARPOL Annex VI prepared by the Sub-Committee on Bulk Liquids and Gases at its thirteenth session and reviewed by the Sub-Committee on Flag State Implementation at its seventeenth session,

1. ADOPTS the amendments to the Survey Guidelines under the Harmonized System of Survey and Certification for the revised MARPOL Annex VI, as set out in the Annex to the present resolution;
2. INVITES Governments carrying out surveys required by the revised MARPOL Annex VI, to follow the provisions of the Survey Guidelines, as amended by this resolution, from 1 July 2010; and
3. AGREES that, at a later stage, the amendments to the Survey Guidelines, as adopted by this resolution, be adopted as amendments to those adopted by resolution A.997(25).

ANNEX

**AMENDMENTS TO THE SURVEY GUIDELINES UNDER THE HARMONIZED  
SYSTEM OF SURVEY AND CERTIFICATION FOR THE  
REVISED MARPOL ANNEX VI**

1 In section **GENERAL**:

- .1 in paragraph 2.8.1, the existing text “MARPOL Annex VI, regulation 5(1)(a)” is replaced as follows:

“MARPOL Annex VI, regulation 5.1.1”

- .2 in paragraph 2.8.3, the existing text “MARPOL Annex VI, regulation 5(1)(b)” is replaced as follows:

“MARPOL Annex VI, regulation 5.1.2”

- .3 in paragraph 2.8.4, the existing text “MARPOL Annex VI, regulation 5(1)(c)” is replaced as follows:

“MARPOL Annex VI, regulation 5.1.3”

- .4 in paragraph 2.8.5, the existing text “MARPOL Annex VI, regulation 5(1)(d)” is replaced as follows:

“MARPOL Annex VI, regulation 5.1.4”

- .5 in paragraph 2.8.7, the existing text “MARPOL Annex VI, regulation 5(1)(d)” is replaced as follows:

“MARPOL Annex VI, regulation 5.1.5”

- .6 in paragraph 3.2, the existing text “Annex VI, regulation 19” is replaced as follows:

“Annex VI, regulation 5”

- .7 in paragraph 4.8.1, the existing text “MARPOL Annex VI, regulation 6(1)” is replaced as follows:

“MARPOL Annex VI, regulation 5.3.3”

- .8 in paragraph 5.2:
- .1 in the references, the existing text “MARPOL Annex VI, regulation 9(3)” is replaced as follows:
- “MARPOL Annex VI, regulation 9.3”
- .2 in the guideline, the existing text “MARPOL Annex VI, regulations 9(4) and (5)” is replaced as follows:
- “MARPOL Annex VI, regulations 9.5 and 9.6”
- .3 in the guideline, the existing text “MARPOL Annex VI regulation 9(2)(b)” is replaced as follows:
- “MARPOL Annex VI, regulation 9.2.2”
- .9 in paragraph 5.4, the existing text “MARPOL Annex VI regulation 9(6)” is replaced as follows:
- “MARPOL Annex VI, regulation 9.6”
- .10 in paragraph 5.5, the existing text “MARPOL Annex VI regulation 9(7)” is replaced as follows:
- “MARPOL Annex VI, regulation 9.7”
- .11 in paragraph 5.6, the existing text “MARPOL Annex VI regulation 9(8)(a)” is replaced as follows:
- “MARPOL Annex VI, regulation 9.9.1”

2 In Annex 3 “SURVEY GUIDELINES UNDER THE MARPOL CONVENTION”, section 4 is replaced as follows:

- (A) **4** **GUIDELINES FOR THE SURVEYS FOR THE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE AND THE NO<sub>x</sub> TECHNICAL CODE**
- (AI) **4.1** **Initial surveys** – see part “General”, section 4.1
- (AI) 4.1.1 For air pollution prevention the examination of plans and designs should consist of:
- (AI) 4.1.1.1 examining the arrangements for systems using ozone-depleting substances (regulation 12 of Annex VI);
- (AI) 4.1.1.2 examining the arrangements for NO<sub>x</sub> emission control, if applicable (regulation 13 of Annex VI);

- (AI) 4.1.1.3 examining the arrangements for SO<sub>x</sub> and particulate matter control, if applicable (regulation 14 of Annex VI);
- (AI) 4.1.1.4 examining the arrangements for vapour collection systems, if applicable (regulation 15 of Annex VI and MSC/Circ.585);
- (AI) 4.1.1.5 examining the arrangements for shipboard incinerators, if applicable (regulation 16 of Annex VI).
- (AI) 4.1.2 For air pollution prevention the survey should consist of:
  - (AI) 4.1.2.1 Ozone-depleting substances (regulation 12 of Annex VI):
    - (AI) 4.1.2.1.1 confirming, if applicable, the satisfactory installation and operation of systems using ozone depleting substances;
    - (AI) 4.1.2.1.2 confirming that no installation or equipment containing ozone depleting substances has been installed after 19 May 2005, other than hydro-chlorofluorocarbons (regulation 12.3.1 of Annex VI);
    - (AI) 4.1.2.1.3 confirming that no installation or equipment containing hydro-chlorofluorocarbons are fitted after 1 January 2020 (regulation 12.3.2 of Annex VI).
  - (AI) 4.1.2.2 Nitrogen oxide emissions from marine diesel engines (regulation 13 of Annex VI):
    - (AI) 4.1.2.2.1 confirming that all marine diesel engines which are required to be certified are pre-certified in accordance with section 2.2 of the NO<sub>x</sub> Technical Code to the required Tier and installed in accordance with the approved duty cycle.
      - (AI) 4.1.2.2.1.1 If engine parameter check method is used:
        - (AI) 4.1.2.2.1.1.1 an onboard verification survey in accordance with section 6.2 of the NO<sub>x</sub> Technical Code.
        - (AI) 4.1.2.2.1.2 If the simplified method is used:
          - (AI) 4.1.2.2.1.2.1 an onboard verification survey in accordance with section 6.3 of the NO<sub>x</sub> Technical Code.
        - (AI) 4.1.2.2.1.3 If direct measurement and monitoring method is used (for existing ships only):
          - (AI) 4.1.2.2.1.3.1 an onboard verification survey, in accordance with section 6.4 of the NO<sub>x</sub> Technical Code.

- (AI) 4.1.2.2.1.4 For marine diesel engines of an output more than 5,000 kW and a per cylinder displacement at or above 90 litres/cylinder installed on ships constructed between 1 January 1990 and 31 December 1999, check whether:
- .1 an approved method exists;
  - .2 an approved method is not commercially available; or
  - .3 that an approved method is installed and where this is the case, that there is an approved method file,
- and apply the verification procedures as given in the approved method file.
- (AI) 4.1.2.3 Sulphur Oxides and Particulate Matter (regulation 14 of Annex VI):
- (AI) 4.1.2.3.1 confirming, if appropriate, that:
- .1 satisfactory arrangements are in place for using compliant fuel as required; or
  - .2 satisfactory installation and operation of the fuel switching arrangements are in place when tanks are provided for different grades of fuel; or
  - .3 satisfactory installation and operation of the exhaust gas cleaning system or other technological methods are examined, (regulation 4 of Annex VI).
- (AI) 4.1.2.4 Volatile Organic Compounds (regulation 15 of Annex VI) (if applicable):
- (AI) 4.1.2.4.1 confirming the satisfactory installation of the vapour collection piping;
- (AI) 4.1.2.4.2 confirming the satisfactory installation and operation of the means provided to eliminate the collection of condensation in the system, such as drains in low points of the line end;
- (AI) 4.1.2.4.3 confirming the satisfactory installation and operation of the isolation valves at the vapour manifolds;
- (AI) 4.1.2.4.4 confirming that the ends of each line are properly identified as vapour collection lines;
- (AI) 4.1.2.4.5 confirming that the vapour collection flanges are in accordance with the IMO guidelines and industrial standards.
- (AI) 4.1.2.5 Shipboard Incinerators (regulation 16 of Annex VI) (installed on or after 1 January 2000):
- (AI) 4.1.2.5.1 confirming the satisfactory installation and operation of each incinerator;

- (AI) 4.1.2.5.2 confirming that the manufacturer's name, incinerator model number/type and capacity in heat units per hour is permanently marked on the incinerator.
- (AI) 4.1.3 For air pollution prevention the check that certificates and other relevant documentation have been placed on board should consist of:
  - (AI) 4.1.3.1 the provision of (AA) 4.2.2.2 as applicable except (AA) 4.2.2.2.14.
- (AI) 4.1.4 For air pollution prevention the completion of the initial survey should consist of:
  - (AI) 4.1.4.1 after satisfactory survey, issuing the International Air Pollution Prevention Certificate.
- (AA) **4.2 Annual surveys** – see “General”, section 4.2
- (AA) 4.2.1 For air pollution prevention the examination of current certificates and other records should consist of:
  - (AA) 4.2.1.1 checking the validity, as appropriate, of the Cargo Ship Safety Equipment Certificate, the Cargo Ship Safety Radio Certificate and the Cargo Ship Safety Construction Certificate or the Cargo Ship Safety Certificate;
  - (AA) 4.2.1.2 checking the validity of the Safety Management Certificate (SMC) and that a copy of the Document of Compliance (DOC) is on board, where applicable;
  - (AA) 4.2.1.3 checking the validity of the International Load Line Certificate or International Load Line Exemption Certificate;
  - (AA) 4.2.1.4 checking the validity of the International Oil Pollution Prevention Certificate;
  - (AA) 4.2.1.5 checking the certificates of class, if the ship is classed with a classification society;
  - (AA) 4.2.1.6 checking, when appropriate, the validity of the International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk;
  - (AA) 4.2.1.7 checking that the ship's complement complies with the Minimum Safe Manning Document (SOLAS 74/88, regulation V/13(b));
  - (AA) 4.2.1.8 checking that the master, officers and ratings are certificated as required by the STCW Convention;
  - (AA) 4.2.1.9 checking whether any new equipment has been fitted and, if so, confirming that it has been approved before installation and that any changes are reflected in the appropriate certificate.

- (AA) 4.2.2 For air pollution prevention the annual survey should consist of the following:
- (AA) 4.2.2.1 General:
- (AA) 4.2.2.1.1 confirm that no changes have been made or any new equipment installed which would affect the validity of the certificate;
- (AA) 4.2.2.2 Documentation:
- (AA) 4.2.2.2.1 confirm that there is an Ozone Depleting Substances Record Book, if applicable (regulation 12.6 of Annex VI);
- (AA) 4.2.2.2.2 confirm that there are Engine International Air Pollution Prevention (EIAPP) Certificates for each marine diesel engine, required to be certified, as described in chapter 2.1 of the NO<sub>x</sub> Technical Code;
- (AA) 4.2.2.2.3 confirm that there is on board an approved Technical File for each marine diesel engine required to be certified;
- (AA) 4.2.2.2.4 confirm that there is a record book of engine parameters for each marine diesel engine required to be certified in the case where the engine parameter check method is used as a means of onboard NO<sub>x</sub> verification (NO<sub>x</sub> Technical Code, paragraph 6.2.3);
- (AA) 4.2.2.2.5 confirm that there is an approved onboard monitoring manual for each marine diesel engine required to be certified in the case where the direct measurement and monitoring method is to be used as a means of onboard NO<sub>x</sub> verification (NO<sub>x</sub> Technical Code, paragraph 6.4.17.1);
- (AA) 4.2.2.2.6 confirm that there are written procedures covering fuel change over, where applicable;
- (AA) 4.2.2.2.7 confirm that there is a record of fuel changeover, where applicable, and that this record should take the form of a log-book as prescribed by the Administration (regulation 14.6 of Annex VI)<sup>1</sup>;
- (AA) 4.2.2.2.8 confirm that there is for each Exhaust Gas Cleaning System (EGCS)-SO<sub>x</sub> either a SO<sub>x</sub> Emission Control Area (SECA<sup>2</sup>) Compliance Certificate for the EGCS-SO<sub>x</sub>, or an Onboard Monitoring Manual (OMM) as appropriate, plus in either cases a SECA Compliance Plan (regulation 4 of Annex VI) or approved documentation in respect of other technological means of achieving compliance;

---

<sup>1</sup> When not prescribed by the Administration, this information could be contained in the engine-room log-book, the deck log-book, the official log-book, the oil record book or a separate log-book solely for this purpose.

<sup>2</sup> This will need to be updated when the exhaust gas cleaning system guidelines are updated to take into account the revised Annex VI for consistency against for the terminology used in the revised guideline.

- (AA) 4.2.2.2.9 confirm that there is a VOC Management Plan, if required (regulation 15.6 of Annex VI);
- (AA) 4.2.2.2.10 confirm that there is a transfer procedure, if required, for the VOC collection system;
- (AA) 4.2.2.2.11 confirm that there is, if required, an IMO Type Approval Certificate for each incinerator on board (regulation 16.6.1 of Annex VI);
- (AA) 4.2.2.2.12 confirm that there is an instruction manual for each incinerator if required (regulation 16.7 of Annex VI);
- (AA) 4.2.2.2.13 confirm that records documenting training of the crew in operating each incinerator, if required;
- (AA) 4.2.2.2.14 confirm that there are the required bunker delivery notes on board and the required fuel oil samples are kept under the ships control (regulation 18 of Annex VI) or other relevant documentation.
- (AA) 4.2.2.3 Systems containing ozone-depleting substances, if fitted:
  - (AA) 4.2.2.3.1 confirm that no new installation or equipment containing ozone depleting substances except those covered by (AA) 4.2.2.3.2 have been fitted to the ship after 19 May 2005 (regulation 12.3.1 of Annex VI);
  - (AA) 4.2.2.3.2 confirm that no installations containing hydro-chlorofluocarbons have been fitted after 1 January 2020 (regulation 12.3.2);
  - (AA) 4.2.2.3.3 examine externally any installation or equipment as far as practicable to ensure satisfactory maintenance and that there are no emissions of ozone-depleting substances;
  - (AA) 4.2.2.3.4 confirm through documentary evidence that there has been no deliberate emission of ozone-depleting substance.
- (AA) 4.2.2.4 Nitrogen oxide emissions from each diesel marine diesel engine:
  - (AA) 4.2.2.4.1 confirm that each marine diesel engine has been operated as required in accordance with its applicable NO<sub>x</sub> emission limit(s);
  - (AA) 4.2.2.4.2 confirm that no marine diesel engine been subject to major conversion in the intervening period;
  - (AA) 4.2.2.4.3 if engine parameter check method is used:
    - (AA) 4.2.2.4.3.1 review engine documentation contained in the Technical File and the record book of engine parameters to check, as far as practicable, engine rating, duty and limitation/restrictions as given in the Technical File;

- (AA) 4.2.2.4.3.2 confirm that the engine has not undergone any modifications or adjustments outside the options and ranges permitted in the Technical File since the last survey;
- (AA) 4.2.2.4.3.3 conduct survey as detailed in the Technical File;
- (AA) 4.2.2.4.4 if the simplified method is used:
- (AA) 4.2.2.4.4.1 review engine documentation contained in the Technical File;
- (AA) 4.2.2.4.4.2 confirm that the test procedure is acceptable to the Administration;
- (AA) 4.2.2.4.4.3 confirm that the analysers, engine performance sensors, ambient condition measurement equipment, span check gases and other test equipment are the correct type and have been calibrated in accordance with the NO<sub>x</sub> Technical Code;
- (AA) 4.2.2.4.4.4 confirm that the correct test cycle, as defined in the engine's Technical File, is used for this onboard confirmation test measurements;
- (AA) 4.2.2.4.4.5 ensure that a fuel sample is taken during the test and submitted for analysis;
- (AA) 4.2.2.4.4.6 witness the test and confirm that a copy of the test report has been submitted for approval on completion of the test;
- (AA) 4.2.2.4.5 if the direct measurement and monitoring method is used:
- (AA) 4.2.2.4.5.1 review the Technical File and the onboard monitoring manual that the arrangements are as approved;
- (AA) 4.2.2.4.5.2 the procedures to be checked in the direct monitoring and measure method and the data obtained as given in the approved onboard monitoring manual should be followed (NO<sub>x</sub> Technical Code 6.4.16.1);
- (AA) 4.2.2.4.6 for a marine diesel engine with an output of more than 5,000 kW and a per cylinder displacement at or above 90 litres/cylinder installed on ships constructed between 1 January 1990 and 31 December 1999, check whether:
- .1 an approved method exists;
  - .2 an approved method is not commercially available; or
  - .3 that an approved method is installed and where this is the case, that there is an approved method file,
- and apply the verification procedures as given in the approved method file.
- (AA) 4.2.2.5 Sulphur Oxides and Particulate Matter:
- confirming, if appropriate, that:

- .1 satisfactory arrangements are in place for using compliant fuel as required; or
  - .2 satisfactory installation and operation of the fuel switching arrangements are in place when tanks are provided for different grades of fuel, including records of the changeover to and from low sulphur fuel during transit through an emission control area established for SO<sub>x</sub> and particulate matter control; or
  - .3 satisfactory installation and operation of the exhaust gas cleaning system or other technological methods are examined, (regulation 4 of Annex VI).
- (AA) 4.2.2.6 Volatile Organic Compounds (VOCs):
- (AA) 4.2.2.6.1 confirm that the vapour collect system, if required, is maintained in accordance with its approved arrangement;
- (AA) 4.2.2.6.2 for ships carrying crude oil, confirm the VOC management plan has been implemented as appropriate.
- (AA) 4.2.2.7 Incineration:
- (AA) 4.2.2.7.1 confirm that prohibited materials have not been incinerated;
- (AA) 4.2.2.7.2 confirm that shipboard incineration of sewage sludge or sludge oil in boilers or marine power plants is not undertaken while the ship is inside ports, harbours or estuaries.
- (AA) 4.2.2.8 Incinerators (installed on or after 1 January 2000):
- (AA) 4.2.2.8.1 confirm that operators have been trained as required;
- (AA) 4.2.2.8.2 confirm from an external examination that each incinerator is in a generally satisfactory condition and free from leaks of gas or smoke;
- (AA) 4.2.2.8.3 confirm that combustion chamber outlet temperatures have been maintained as required;
- (AA) 4.2.2.8.4 confirm that each incinerator is maintained according to its approved arrangement.
- (AA) 4.2.3 Fuel Oil Quality:
- (AA) 4.2.3.1 confirm that Bunker Delivery Notes as required conform to the requirements of MARPOL Annex VI, Appendix V;
- (AA) 4.2.3.2 confirm that MARPOL samples as required are retained on board and labels duly completed or otherwise retained under the ship's control;

- (AA) 4.2.3.3 confirm that documentation in lieu of that required by 4.2.3.1 or 4.2.3.2 is available on board.
- (AA) 4.2.4 For air pollution prevention the completion of the annual survey should consist of:
- (AA) 4.2.4.1 after a satisfactory survey, endorsing the International Air Pollution Prevention certificate;
- (AA) 4.2.4.2 if a survey shows that the condition of the ship or its equipment is unsatisfactory – see “General”, section 4.8.
- (AIn) **4.3 Intermediate surveys** – see “General”, section 4.3
- (AIn) 4.3.1 For air pollution prevention the examination of current certificates and other records should consist of:
- (AIn) 4.3.1.1 the provisions of (AA) 4.2.1.
- (AIn) 4.3.2 For air pollution prevention the intermediate survey should consist of:
- (AIn) 4.3.2.1 the provisions of (AA) 4.2.2.
- (AIn) 4.3.3 For air pollution prevention the completion of the intermediate survey should consist of:
- (AIn) 4.3.3.1 after a satisfactory survey, endorsing the International Air Pollution Prevention Certificate;
- (AIn) 4.3.3.2 if a survey shows that the condition of the ship or its equipment is unsatisfactory see “General”, section 4.8.
- (AR) **4.4 Renewal surveys** – see “General”, section 4.5
- (AR) 4.4.1 For air pollution prevention the examination of current certificates and other records should consist of:
- (AR) 4.4.1.1 the provisions of (AA) 4.2.1 except the validity of the International Air Pollution Prevention Certificate.
- (AR) 4.4.2 For air pollution prevention the renewal survey should consist of:
- (AR) 4.4.2.1 the provisions of (AA) 4.2.2;
- (AR) 4.4.2.2 for each incinerator the renewal survey should consist of;
- (AR) 4.4.2.2.1 confirming, if necessary by simulated test or equivalent, the satisfactory operation of the following alarms and safety devices.

- (AR) 4.4.3 For air pollution prevention the completion of the renewal survey should consist of:
- (AR) 4.4.3.1 after satisfactory survey the International Air Pollution prevention Certificate should be issued.

\*\*\*