

GUIDANCE NOTES

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China Classification Society

CCS

**GUIDELINES FOR AUDIT OF SAFETY
MANAGEMENT SYSTEM OF SHIPS
ENGAGED ON DOMESTIC VOYAGES**

2006

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CHAPTER 1 GENERAL

Section 1 GENERAL PROVISIONS

1.1.1 Scope of application

1.1.1.1 The Guidelines apply to mandatory and voluntary certification of safety management system of ships engaged on domestic voyages and subjected to CCS classification and/or mandatory surveys. CCS will issue/endorse Safety Management Certificate on behalf of the Administration as a Recognized Organization authorized by it.

1.1.1.2 CCS will carry out certification of safety management system of ships engaged on domestic voyages upon application by the Company.

1.1.2 Definitions

1.1.2.1 For the purpose of the Guidelines, unless otherwise stated:

(1) “National Safety Management Code” (NSM Code) means the Code of Management for Safe Operation of Ships and Pollution Prevention of the People’s Republic of China (Interim) promulgated by (2001) JIAOHAIFA No.383.

(2) “Mandatory certification” means NSM certification of ships for the purpose of implementation of NSM Code as stipulated by the Administration.

(3) “Voluntary certification” means NSM certification of ships other than mandatory certification.

(4) “Company” means any of the following companies which is in control of the ships subject to the safety management system (SMS), as specified in 1.1.2 of the NSM Code:

- ① a shipowner, ship operator, bareboat charterer or any other organization or person who has assumed the responsibility of operation of ship and who on assuming such responsibility has agreed to take over all relevant duties and responsibilities imposed by laws and regulations; or
- ② a department which is an integral part of organization and which assumes the responsibility of ship management, and in this case, the department(s) is responsible for all managerial activities, such as ship operation, maintenance and manning. A organization which only performs part of managerial activities is not in conformity with the definition of “company”;
or
- ③ an independent organization or person assuming the responsibilities of ship operation, maintenance and manning in accordance with a managerial contract or a bareboat charterer with the ship owner.

(5) “Administration” means the maritime administrative organ of the People’s Republic of China.

(6) “Safety management system” (SMS) means a structured and documented system enabling Company personnel to effectively implement the Company Safety and environmental protection policy.

- (7) “Audit” means a systematic and independent examination to determine whether the SMS activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.
- (8) “Auditor” means a person who is competent to perform verification of compliance with the requirements of the NSM Code.
- (9) “Lead auditor” means a competent auditor who is authorized to lead a team of two or more auditors.
- (10) “Observation” means a statement of fact made during a safety management audit and substantiated by objective evidence. It may also be a statement made by the auditor referring to the SMS which, if not corrected, may lead to non-conformity in the future.
- (11) “Objective evidence” means qualitative or quantitative information, records or statements of fact pertaining to the existence and implementation of an SMS element, which is based on observation, measurement or test and which can be verified.
- (12) “Non-conformity”^① means an observation where objective evidence indicates the non-fulfillment of a specified requirement.
- (13) “Major non-conformity” means an identifiable deviation that poses a serious threat to the safety of personnel or the ship or a serious risk to the environment that requires immediate corrective action and includes the lack of effective and systematic implementation of a requirement of NSM Code. Any one of these situations may be considered a major non-conformity.
- (14) “Safety Management Manual” means the documentation used to describe and implement the Safety Management System (SMS).
- (15) “Technical Deficiency” means a defect in, or failure in the operation of, a part of the ship’s structure or its machinery, equipment or fittings.
- (16) “Anniversary Date” means the day and month of each year that corresponds to the date of expiry of SMC.

Section 2 APPLICATION AND FEES

1.2.1 Application

1.2.1.1 The Company requesting certification or maintenance of the Safety Management System of its ship is to submit a written application to CCS or its local branches or the locations designated by it.

1.2.1.2 To ensure a smooth and timely certification, the Company is to provide CCS auditors with a safe and convenient environment for the audit, including the access to locations and ships necessary for the implementation of the audit.

1.2.2 Fees

1.2.2.1 The Company is to pay audit fees, traffic fees and other relevant expenses in accordance with the Provisions of Survey Fees of CCS or agreements on services, to the location responsible for the audit.

1.2.2.2 The applicant is to pay relevant fees should the audit be terminated due to the applicant.

Section 3 RESPONSIBILITIES AND LIMITATION OF LIABILITY

1.3.1 Responsibilities of Parties Pertaining to Certification

1.3.1.1 Responsibilities of the Company

(1) The certification of Safety Management System or verification of compliance with the requirements of the NSM Code conducted by CCS does not relieve the Company, management, officers or seafarers of their obligation to comply with national legislation related to safety and protection of the environment.

(2) During the certification, the Company is responsible for:

- ① informing relevant employees or organizational units about the objectives and scope of the audit;
- ② appointing responsible members of staff to accompany auditor(s);
- ③ providing the resources needed by auditor(s) to ensure an effective and efficient audit process;
- ④ providing access and objective evidence as requested by auditor(s);
- ⑤ cooperating with auditor(s) to permit the audit objectives being achieved;
- ⑥ assigning internal audit teams such that persons in the same department ashore or persons onboard the same ship cannot audit their respective departments or ships; and
- ⑦ conducting annual^① audits ashore and on board.

(3) After the certification, the Company is responsible for:

- ① maintaining the effective functioning of the SMS of both the Company and its ships;
- ② immediately notifying CCS when substantial modifications to the SMS are introduced;
- ③ applying for audits in accordance with requirements prescribed in the Guidelines to maintain the validity of the certificate.

1.3.1.2 Responsibilities of CCS

(1) When on behalf of the Administration to carry out certification of compliance with the requirements of the NSM Code, CCS ensures that the certification is carried out in accordance with the requirements of the NSM Code and the Guidelines and related requirements of the Administrations, if any.

(2) In order to provide effective certification services, CCS is to have, within its organization, competence on:

- ① rules and regulations;
- ② approval, survey and certification activities relevant to maritime certificates;
- ③ terms of reference of the SMS required by the NSM Code;
- ④ practical experience of ship operation;
- ⑤ assessment of management systems.

① Annual means the maximum interval of 12 months.

- (3) CCS is responsible for the control of certification process and the management of auditor(s) as described in the Guidelines and ensures that independence exists between personnel providing consultancy services and those providing the certification.
- (4) CCS management of SMS certification services is to:
- ① be carried out by those who have practical knowledge of SMS certification;
 - ② ensure that the auditor(s) meet the relevant education, training, work experience and audit experience specified;
 - ③ ensure that the qualification and experience of auditor(s) is adequate and appropriate for the size and/or complexity of the ship to be audited.
- (5) CCS has established and implemented a documented system for qualification and continuous updating of the knowledge and competence of personnel who are to perform SMS certification as follows:
- ① theoretical training, covering all the competence requirements and the appropriate procedures relevant to the certification process;
 - ② practical tutored training; and provide documented evidence of satisfactory completion of the above.
- (6) CCS has established and implemented a documented system ensuring that the certification process is performed in accordance with the requirements of the Guidelines.

1.3.1.3 Responsibilities of the audit team

- (1) The auditor is responsible for:
- ① planning and carrying out assigned responsibilities effectively and efficiently;
 - ② ensuring compliance with the applicable requirements and other appropriate directives;
 - ③ reporting any major obstacles affecting the audit process encountered in performing the audit;
 - ④ organizing specialist technical assistance required to fulfill the competence requirements of the audit as and when appropriate;
 - ⑤ communicating and clarifying the non-conformities to the Company and/or the ship immediately;
 - ⑥ communicating any observations;
 - ⑦ reporting the audit results clearly, conclusively and without undue delay;
 - ⑧ submitting the audit report to the Company;
 - ⑨ verifying the effectiveness of corrective actions taken by the Company.
- (2) Personnel participating are to ensure confidentiality of documents pertaining to the certification and treating privileged information with discretion.
- (3) If the audit team comprises two or more auditors, the lead auditor is to be nominated to be responsible for managing the team and controlling the audit.

1.3.1.4 Limitation of Liability

- (1) CCS will sufficiently ensure the integrity and effectiveness of ship's SMS certification, and when authorized to act on behalf of the Administration, accept supervision of the Administration.

(2) A certificate issued by CCS is only a statement by CCS that at the time of audit the ship had established and implemented a ship safety management system in accordance with the requirements in the Guidelines. It is possible that change(s) made by the Company and the ship in the ship safety management system or their failure in effective implementation of the system due to subjective reasons thereafter will lead to noncompliance with the certificate issued. The certificate itself does not demonstrate that the Company and the ship always act in compliance with the safety management system or that the safety management system addresses all contingencies. Compliance with all applicable requirements of the NSM Code and the Guidelines remains the responsibility of the Company and/or the ship.

(3) The maintenance of the certificate is conditional upon the ship's continued compliance with the requirements of the Guidelines. CCS reserves the right to withhold or cancel the certificate for noncompliance with the requirements when the Company or the ship refuses the auditor(s) of CCS access to the ship for audit, or fails to pay fees due on account of certification and other services, or there is evidence for failure of the Company or the ship in fulfilling their responsibilities and obligations as required by the Administration.

Section 4 COMPLAINTS AND APPEAL

1.4.1 Complaints

1.4.1.1 When the Company and/or a ship has any complaint against the ship's SMS audit performed by the auditor(s) of CCS, the Company and/or ship may appeal in writing to the location where the auditor(s) serve. Where the opinion expressed by the location is still not considered satisfactory by the interested party, the latter may appeal in writing to the Headquarters of CCS giving detailed reasons for its request. The Headquarters will decide on the matter, and this ruling will be final.

1.4.2 Appeal

1.4.2.1 When the Company and/or a ship has any complaint against the conclusion drawn by an audit unit of CCS, the Company and/or a ship may appeal in writing to the Headquarters of CCS giving detailed reasons for its request. The Headquarters will decide on the matter, and this ruling will be final.

Section 5 AVAILABILITY AND CONFIDENTIALITY OF INFORMATION

1.5.1 Availability of Information

1.5.1.1 Sufficient and correct information necessary for certification of the ship's Safety Management System is to be made available to CCS by the parties concerned.

1.5.1.2 The ship obtaining ship's SMS certification from CCS are to immediately advise CCS with accidents threatening the safety of the ship and ship's personnel and water pollution incidents within the validity of the certificate.

1.5.2 Confidentiality

1.5.3 CCS will not disclose sensitive and proprietary information, to which it has access during certification of ship safety management system, to individuals and organizations not specified in the contract, except as required by laws and regulations.

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CHAPTER 2 CERTIFICATION OF SAFETY MANAGEMENT SYSTEM OF SHIPS ENGAGED ON DOMESTIC VOYAGES

Section 1 GENERAL PROVISIONS

2.1.1 General Requirements

2.1.1.1 CCS carries out certification of the SMS for applicable ships prescribed by the Guidelines for the following purposes:

- (1) to determine the compliance with the SMS in respect of safety and pollution prevention control and with the requirements of the NSM Code;
- (2) to facilitates Companies and ships to improve their ability of ship safety management;
- (3) to encourage the Company to adopt and implement, within the SMS, codes, guidelines and standards recommended by the International Maritime Organization, the Administration, ship survey organizations and maritime industry organizations.

2.1.1.2 Conditions for ship certification of SMS

- (1) The Company to which the ship applying for certification belongs has been approved by the Administration in respect of SMS and has a valid Document of Compliance (DOC).
- (2) DOC of the Company covers the type of ship applying for certification.
- (3) For a ship which applies for certification, the responsibilities of control of safety and pollution prevention stipulated in NSM are in reality assumed by the Company holding the DOC.
- (4) The SMS of the Company to which the ship belongs, except for interim audits, has been implemented and maintained onboard the ship which applies for certification for three months.

2.1.1.3 The SMS Certification of ships engaged on domestic voyages by CCS is composed of the following steps:

- (1) ship audit, to verify that safety management activities of the ship comply with the approved ship's SMS;
- (2) after compliance is confirmed, and when CCS acts on behalf of the Administration, a Safety Management Certificate (SMC) will be issued to a ship to demonstrate that the ship's safety management and operation ability meet the requirements of the NSM Code;
- (3) periodical audit, to verify the ability of the ship's safety management and operation in continuously satisfying the requirements of the NSM Code.

2.1.2 Types of audit

2.1.2.1 Initial audit

- (1) The initial audit of any Company, which has applied to CCS for Safety Management Certificate, is to be carried out by CCS.

(2) The initial audit of any ship is to be carried out after the Company operating the ship has obtained DOC and met the conditions for certification of the SMS as specified in 2.1.1.2. Unless evidence indicating otherwise, CCS accepts a valid DOC issued by the Administration as evidence of compliance with the NSM Code.

2.1.2.2 Intermediate audit

(1) All ships holding SMC issued by CCS are to be subjected to at least one intermediate audit within the validity of SMC.

(2) The intermediate audit is to be carried out between the second and third anniversary dates from the issue of the SMC.

(3) The SMC will be endorsed by CCS upon satisfactory completion of the intermediate audit to show that the SMS of the verified ship is maintained continuous effectiveness and in compliance with the requirements of the NSM Code.

2.1.2.3 Renewal audit

(1) If the Company holding SMC issued by CCS, would continue to apply for certification by CCS after its SMC expires, it is to apply for renewal audit before the expiry date of the certificate; otherwise, the SMC would be invalidated automatically.

(2) The SMC will be renewed by CCS after satisfactory completion of the renewal audit.

2.1.2.4 Additional audit

(1) An additional audit for a ship holding SMC issued by CCS is to be requested if:

- ① a major accident, serious casualties and water pollution occur to a ship, and when deemed necessary by CCS based on the Company's report;
- ② defects are reported by surveyors/inspection officers during classification and/or mandatory surveys or during safety inspection by the Administration and when deemed necessary by a managing department of CCS;
- ③ SMS certification of the ship changes to CCS from other auditing bodies;
- ④ a ship with more than 3 months out of service and with its certificate valid for this period re-enters into operation;
- ⑤ applying for re-issue of SMC after it has been withdrawn (to be in compliance with requirements of 2.2.5.2);
- ⑥ there is need of field verification of the effectiveness of corrective actions for non-conformities;
- ⑦ a major conversion or change of other statutory certificates occurs;
- ⑧ so required by the Administration;
- ⑨ deemed necessary by CCS.

(2) According to the conditions described in the above (1), an additional audit could be a complete or partial audit of SMS. The SMC will be issued or endorsed upon satisfactory completion of an additional audit.

2.1.2.5 Interim audit

(1) For the purpose of facilitating the implementation of the NSM Code, special transitional arrangements for the following cases are to be made, whereby the Company may apply for an interim audit for the issue of an interim SMC:

- ① a new ship or a ship which is put for the first time into service, after completion of her construction or alteration resulting in change of type;
- ② a ship which is new to the Company;
- ③ a ship the certificate of which is not maintained valid during the out-of-service period re-enters into operation.

Section 2 CERTIFICATES

2.2.1 Certificates

2.2.1.1 Safety Management Certificate (SMC)

(1) An SMC is to be issued to a ship when the ship's safety management is found in compliance with the approved SMS of the Company and the requirements of 3.3.1 of the Guidelines after initial or subsequent renewal audits.

(2) An interim SMC is to be issued to a ship by CCS when it is found in compliance with the requirements prescribed in 3.3.2 of the Guidelines after an interim audit.

2.2.1.2 Short Term certificates

(1) Before a full term certificate is issued, a short-term SMC the valid duration of which is not to exceed five months may be issued after initial and subsequent renewal audits, provided during audits no major non-conformities are found or major non-conformities have been downgraded and provided conclusion has been made by the auditor to issue an SMC.

2.2.2 Validity of Certificates

2.2.2.1 Validity of SMC

(1) The certificates are to be valid for a period not exceeding five years from the date of completion of initial audit, but to be subjected to periodical audits prescribed in the Guidelines during this period.

(2) When a renewal audit is completed within three months before the expiry date of the existing certificate, the new certificate is to be valid from the date of completion of the renewal audit for a period not exceeding five years from the date of expiry of the existing certificate.

(3) When a renewal audit is completed more than three months before the expiry date of the existing certificate, the new certificate is to be valid from the date of completion of the renewal audit for a period not exceeding five years.

2.2.2.2 Validity of Interim SMC

(1) The validity of an interim SMC is not to exceed six months from the date of the audit.

2.2.3 Extension of Certificates

2.2.3.1 In special cases, CCS may, upon request, extend the validity of an Interim SMC for a further period of not exceeding six months.

2.2.4 Invalidation of Certificates

2.2.4.1 Reasons for which an SMC may become invalid include:

- (1) any condition in paragraph 2.2.1.1(1) is not met;
- (2) invalidation of DOC;
- (3) corrective actions are not completed within the agreed time schedule;
- (4) amendments to the NSM Code are not taken into account;
- (5) there is evidence of an unresolved major non-conformity;
- (6) the intermediate audit is not completed;
- (7) the Company to which a ship belongs has not performed in essence the responsibilities of management as required of the NSM Code, or has ceased to assume the responsibility;
- (8) payment of certification fees is not made in time and no appropriate action is taken either.

2.2.4.2 In case the certificate is invalid, CCS will immediately notify the Company and the Administration.

2.2.4.3 Where a ship's SMC has been withdrawn, CCS will not accept the ship's application for issue of an interim SMC.

2.2.5 Availability, Re-issue and Amendments of Certificates

2.2.5.1 Availability of certificates

(1) The original SMC is to be kept onboard the ship, and a copy thereof is to be available at the Company.

2.2.5.2 Re-issue of Certificates

(1) Applications to CCS for re-issuing a certificate are immediately to be made by the Company in case of the certificate being lost or damaged.

(2) Where an SMC of a ship becomes invalid, a new SMC is to be issued following an additional audit to the extent and scope of an initial audit being carried out. The new SMC is to have the same expiry date as the SMC invalidated.

2.2.5.3 Amendments of certificates

(1) Whenever any amendment occurs to the content of a certificate, the Company is to immediately apply to CCS for amending or re-issuing the certificate.

CHAPTER 3 SAFETY MANAGEMENT AUDIT OF SHIPS ENGAGED ON DOMESTIC VOYAGES

Section 1 GENERAL PROVISIONS

3.1.1 Application for the Audit

3.1.1.1 The Company applying for the certification of the SMS or maintenance of SMS is to submit to CCS applications and the following information and documentation as necessary:

- (1) a valid DOC of the Company which covers the ship type applying for certification;
- (2) if the entity who is responsible for the operation of the ship is other than the owner or bareboat charterer, the applicant is to identify the ship's management company and the ship's owner in the application, and the copy of the report relating to the full name and details of the management company submitted by the owner to the Administration and the copy of the management agreement are to be attached.
- (3) the current valid Safety Management Manual;
- (4) other documents related to the SMS required by CCS.

3.1.2 Preparing the Audit

3.1.2.1 CCS, on receipt of an application, is immediately to nominate an audit team consisted of qualified auditors to carry out an audit.

3.1.2.2 The audit team is to liaise with the Company and/or ship and produce an audit plan on the basis of review and/or familiarization of the audited SMS documentation. The audit plan is to be designed to be flexible in order to permit changes in emphasis based on information gathered during the audit, and to permit the effective use of resources.

3.1.2.3 Initial, intermediate and renewal shipboard audits are to be performed only under normal operating conditions. When the ship is in dry dock or laid up, these audits are not to be performed.

3.1.2.4 Interim audits may be conducted in circumstances other than normal operation conditions, provided that the ship is fully manned in accordance with its Minimum Safe Manning Certificate.

3.1.3 Executing the Audit

3.1.3.1 The audit is to start with an opening meeting presided by the lead auditor to:

- (1) introduce the auditor(s) to the ship's management;
 - (2) explain the scope and objective of the audit;
 - (3) provide a short summary of the methods and procedures to be used to conduct the audit;
 - (4) establish the official communication line between the auditor(s) and the ship;
 - (5) confirm that resources, documentation and facilities needed to perform the audit are available;
- and
- (6) confirm the time and date of the closing meeting and any possible interim meetings.

3.1.3.2 Appropriate working documents^① are to be used to facilitate the audit and to document the results. In order to gather information for the assessment of the ship's SMS, pre-established working documents are not to restrict activities or investigations that are carried out by the auditor(s) during the audit.

3.1.3.3 The auditor(s) is to determine the effectiveness of the SMS in meeting the specific standards of safety and protection of the environment required by the ISM Code, on the basis of:

- (1) the SMS documentation presented by the Company;
- (2) the objective evidence of effective implementation of the SMS, which is to be collected through interviews, examination of documents, and observation of activities and conditions.

3.1.3.4 During the audit, the verification of compliance with mandatory rules and regulations neither duplicates nor substitutes surveys for other maritime certificates.

3.1.3.5 Audit findings are to be documented in a clear, concise manner and supported by objective evidence. These are to be reviewed by the auditor(s) in order to determine which are to be reported as major non-conformities, non-conformities, or observations.

3.1.3.6 At the end of the audit, prior to preparing the audit report, the auditor(s) is to hold a closing meeting to present major non-conformities, non-conformities and observations.

3.1.3.7 The SMS audit is based upon a sampling process. When no non-conformities have been reported, it does not mean that none exist.

3.1.4 Audit Report

3.1.4.1 The audit report is to be prepared by the leader auditor, based on the information gathered by and discussed with the audit team members. It must be accurate and complete, reflecting the content of the audit.

3.1.4.2 The audit report is to be submitted to the Company, which is to provide a copy of the audit report to the ship being audited.

3.1.4.3 The Company and a ship are to maintain ship audit reports.

3.1.5 Corrective Action Follow-up

3.1.5.1 Non-conformity report

(1) The non-conformity report (NCR) is to clearly state the fact identified as noncompliant with a requirement of the Company's SMS or the NSM Code.

(2) The content of the non-conformity report is to be complete and concise, and written in such a manner to be easily understood. Clarity is not to be sacrificed for the sake of brevity.

(3) Whenever possible auditors are to endeavor to write NCRs in reference to a requirement of the Company's SMS for the sake of clarity.

(4) Non-conformities are to be classified against the pertinent requirement of the NSM Code.

① Working documents can be checklists used for evaluating SMS elements, forms for reporting observations and documenting supporting evidence.

3.1.5.2 An SMC is not to be issued and/or endorsed if a major non-conformity exists. Immediate corrective action is necessary to downgrade the major non-conformity to a non-conformity and is to be such as to remove the serious threat to personnel or ship or a serious risk to the environment. If a non-conformity remains after downgrading, a schedule not exceeding three months is to be agreed by CCS auditor for completion of the necessary corrective actions. At least one additional audit is to be carried out within the time frame indicated in the agreed corrective action plan to verify effective actions are taken.

3.1.5.3 A short term certificate may be issued and/or an SMC may be endorsed before the non-conformities have been closed out, provided that a schedule for completion of the corrective actions prepared by the Company and/or a ship has been confirmed by the auditor(s). The Company is responsible to apply for any follow-up audit required by the auditor.

3.1.5.4 The Company and/or the ship is responsible for determining and implementing corrective actions for non-conformities. A schedule not exceeding three months is to be agreed for completion of the corrective actions.

3.1.5.5 Verification of the effectiveness of the corrective actions is to be done not later than the next audit coming due (intermediate or renewal).

3.1.5.6 The Company is to be requested to immediately notify CCS when modifications to the Company and/or shipboard SMS are introduced. CCS is to determine the necessity of additional audit(s) to confirm the validity of an SMC depending on the nature of modifications to the Company and/or shipboard SMS.

3.1.5.7 Observations

(1) Any observation related to SMS during audit process is to be documented and entered as an integral part of the audit report. The observations are not considered as a fact that will affect the issue or endorsement of SMC.

(2) Corrective actions are to be taken by the Company and/or a ship to guard against non-conformities.

(3) The shipboard operation and locations where there exist observations are to be included in the audit range of the next audit coming due.

3.1.6 Technical Deficiency

3.1.6.1 The auditor identifying a technical deficiency deemed to present a serious threat to safety or harm to the environment is to:

(1) establish if the Company has taken appropriate actions to correct the technical deficiency. In every case the auditor is to report technical deficiencies to the responsible survey organization for dealing with; and

(2) establish whether the technical deficiency constitutes a non-conformity within the SMS and, if so, follow the requirements of 3.1.5 of the Guidelines.

3.1.7 Suspension of Audit

3.1.7.1 The audit may be suspended in case a ship is lack of necessary preparations or the audit team assesses that the audit will not reach the intended purpose, and the Company and/or a ship will be notified of the reasons.

3.1.7.2 The audit may be suspended in case that technical deficiencies are not dealt with by the survey organizations, and the Company and/or a ship will be notified of the reasons.

Section 2 SHIP AUDIT

3.2.1 Initial Audit

3.2.1.1 The initial audit of the ship's SMS includes a necessary verification of the documents and a shipboard audit.

3.2.1.2 Verification of documents

(1) Before a shipboard audit, the verification of documents consists of the following steps:

- ① verification that the Company's full term DOC is valid and relevant to that type of the ship;
- ② verification that the effective SMS documents are available on board;
- ③ classification and/or mandatory certificates and survey reports, including manning and validity of qualification certificate.

3.2.1.3 Shipboard audit

(1) At least, the following objective evidence is to be collected during a shipboard audit:

- ① the effective functioning of the SMS;
- ② the SMS has been in operation for at least three months on board the ship;
- ③ records from the internal audits performed by the Company.

(2) Initial audit of the ship is to verify all elements of the SMS and the effectiveness of the SMS in meeting the requirements of the NSM Code.

3.2.2 Interim Audit

3.3.2.1 An interim SMC may be issued to a ship if the ship's SMS is found in compliance with the conditions described in 2.1.2.6 (1) as well as the following requirements:

- (1) the Company's DOC, including interim DOC, is relevant to the ship;
- (2) the SMS provided by the Company for the ship includes all elements of the NSM Code, and has been assessed during the audit for issuance of the DOC or demonstrated for issuance of the interim DOC;
- (3) the master and senior officers are familiar with the SMS and the planned arrangements for its implementation;
- (4) instructions which have been identified as essential to be provided prior to sailing have been given, including responsibilities of emergency post;

- (5) plans exist for internal audit of the ship within three months;
- (6) the relevant information on the SMS is given in a working language or languages understood by the ship's personnel.

3.2.3 Intermediate Audit

3.2.3.1 All companies obtaining SMS certification from CCS are to apply for an intermediate audit as prescribed in 2.1.2.3 within the validity period of the DOC in order to maintain the validity of the SMC.

3.2.3.2 At least, the audit is to verify:

- (1) the effective functioning of the SMS;
- (2) that possible modifications of the SMS comply with the requirements of the NSM Code;
- (3) that corrective actions have been implemented and their effectiveness verified;
- (4) that statutory and/or classification certificates are valid and no survey items are overdue.

3.2.3.3 Intermediate audit of the ship is to verify all elements of the SMS and the effectiveness of the SMS in meeting the requirements of the NSM Code.

3.2.4 Renewal Audit

3.2.4.1 The Company is to notify modifications to its SMS when applying for a renewal audit.

3.2.4.2 During renewal audit, shipboard audit is to be performed to the extent and scope of an initial audit being carried out.

3.2.5 Additional Audit

3.2.5.1 If any circumstance described in 2.1.2.4 (1) of the Guidelines takes place, the Company is to apply to CCS for an additional audit for the ship to confirm its compliance with the requirements of CCS and the validity of the SMC.

3.2.5.2 CCS is to define scope and extent of the additional audit depending on its nature.

CHAPTER 4 IMPLEMENTATION OF NSM CODE

Section 1 GENERAL PROVISIONS

4.1.1 Purpose and scope

4.1.1.1 Unless otherwise stated by the Administration, the purpose of this Chapter which includes specific requirements for implementation of the NSM Code is to provide guidance for:

- (1) the Company and/or a ship in establishing and implementing ship's SMS; and
- (2) CCS auditor(s) in carrying out certification of compliance with NSM to promote uniformity in performing NSM audit.

4.1.1.2 Non in this Chapter is to replace the NSM Code. If in this Chapter there is any inconsistency in expression with NSM Code, the latter is always to be followed.

4.1.2 Application of NSM Code by Company

4.1.2.1 The Company is to implement the NSM Code to support and encourage the development of a safety culture in shipping. To ensure the effectiveness of SMS, the Company is to ensure that:

- (1) its top management is committed to safety management;
- (2) its staff at all levels have their commitment, competence, attitude and motivation enhanced.

4.1.2.2 It is encouraged that risk assessment method be employed to identify potential risks and environmental elements, so as to establish and implement a SMS suitable for a certain ship.

4.1.3 Principle of preparing this Chapter

4.1.3.1 To facilitate use, this Chapter is prepared by combining the content of the Guidelines with the clauses of the NSM Code which appear in the boxes.

Section 2 REQUIREMENTS FOR IMPLEMENTATION OF NSM CODE

Code of Management for Safe Operation of Ships and Pollution Prevention of the People's Republic of China (Interim)

(NSM Code in abbreviation)

Preamble:

- 1 The Code has been prepared taking into account of the actual national situations, for the purpose of safeguarding safety of water traffic, protecting water environment, and applying the principles of International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code).
- 2 The purpose of this Code is to provide a standard for the safe management and operation of ships and for pollution prevention.
- 3 Considering that no two shipping companies or shipowners are the same, the Code is based on general principles and objectives of ship safety and pollution prevention.
- 4 The Code is expressed in broad terms. Different levels of management, whether shore-based or at sea, will require varying levels of knowledge and awareness of the items outlined that is needed for his post.
- 5 The cornerstone of good safety management is commitment from the top. In matters of safety and pollution prevention it is the commitment, competence, attitudes and motivation of individuals at all levels that determines the end result.

Part 1 Implementation

1 General

1.1 Definitions

The following definitions are applicable to part 1 and part 2.

- 1.1.1 "The Code" means National Management Code for the Safe Operation of Ships and for Pollution Prevention of People's Republic of China promulgated by the Ministry of Communications of P.R.C.
- 1.1.2 "Company" means the Owner of the ship flying the flag of P.R.C. or any other organization or person such as the Manager, or the Bareboat Charterer, who has assumed the responsibility for operation of the ship from the Shipowner and who on assuming such responsibility has agreed to take over all the duties and responsibility imposed by the Code.
- 1.1.3 "Administration" means the maritime administrative organ of P.R.C.
- 1.1.4 "Safety management system" (SMS) means a structured and documented system enabling Company personnel to effectively implement the Company safety and environmental protection policy.
- 1.1.5 "Document of compliance" (DOC) means a document issued to a company which complies with the requirements of the Code.
- 1.1.6 "Safety management Certificate" (SMC) means a document issued to a ship which signifies that the company and its shipboard management operate in accordance with the approved safety management system (SMS).
- 1.1.7 "Objective evidence" means qualitative or quantitative information, records or statements of fact pertaining to a safety or SMS element, which is based on observation, measurement or test and which has been verified.
- 1.1.8 "Non-conformity" means an observation where objective evidence indicates the non-fulfillment of a specified requirement.
- 1.1.9 "Major non-conformity" means an identifiable deviation that poses a serious threat to the safety of personnel or the ship or a serious risk to the environment that requires immediate corrective action and includes the lack of effective and systematic implementation of a requirement of the Code. Any one of these situations may be considered a major non-conformity.
- 1.1.10 "Anniversary Date" means the day and month of each year that corresponds to the date of expiry of the relevant documentation.

1.2 Objectives

1.2.1 The objectives of the Code are to ensure safety at sea, prevention of human injury or loss of life, and avoidance of damage to the environment, in particular, to the marine environment, and to property.

4.2.1 Objectives

4.2.1.1 Objectives of the NSM Code

(1) The objectives specified in 1.2.1 have defined the application of SMS for ships as required by the NSM Code, that is, for the safety management of a ship and its crew and for the protection of water environment.

(2) A ship's SMS is to at least cover the scope specified by the objectives of the NSM Code. Scope of audit for mandatory certification is not to go beyond the scope covered by the objectives of the NSM Code, unless otherwise stated by the Administration.

1.2.2 Safety management objectives of the Company are to:

- .1 provide for safe practices in ship operation and a safe working environment;
- .2 establish safeguards against all identified risks; and
- .3 continuously improve safety management skills of personnel ashore and aboard ships, including preparing for emergencies related both to safety and environmental protection.

4.2.1.2 Safety management objectives of the Company

(1) For the establishment of safe practices, SMS is to be capable of ensuring that ships, ship operation and manning of crew are in compliance with mandatory technical regulations and rules, tanking into account of the recommendations by the Administration, ship survey organizations and the industry.

(2) For the identified risk specific to a ship, safeguards are to be established which is to also cover the risks identified in mandatory rules, regulations and standards, taking into account of the risks identified by shipping industry.

(3) The Company is to effectively implement following safety management function to promote the continuous improvement of safety management skills of personnel both ashore and aboard:

- ① reporting and analysis of non-conformities, accidents and dangerous situations;
- ② internal audit;
- ③ review of SMS by the master;
- ④ assessment of efficiency and review of management, etc.

1.2.3 The safety management system of the Company is to ensure:

- .1 compliance with mandatory rules and regulations; and
- .2 applicable codes, guidelines and standards recommended by the Organization, the Administration, ship survey organizations and maritime industry organizations are fully taken into account.

4.2.1.3 Objectives of SMS

(1) Compliance with mandatory rules and standards

- ① The Company is to establish and carry out the relevant procedures and instructions to ensure ships, crew and ship operation are in compliance with mandatory rules and standards and substantiate that:
 - a. all applicable statutory and/or classification certificates are valid and statutory and/or classification records are authentic and veracious;
 - b. the outstandings raised by ship survey organizations are corrected within the specified time period and in compliance with requirements;
 - c. documents necessary for ship operation are provided and in compliance with mandatory requirements and standards.
 - ② Companies are to take measure to ensure:
 - a. that offices ashore and ships are in control of classification and mandatory certificates and reports;
 - b. that the designated personnel, key onshore personnel affecting the safety of ship and ship officer are conversant with classification and mandatory requirements;
 - c. the establishment of procedures and/or instructions to have in control of the process which is in compliance with the mandatory requirements.
- (2) Applicable codes, guidelines and standards recommended by the Organization, the Administration, ship survey organizations and maritime industry are to be taken into account
- ① Measures are to be taken by companies to ensure that applicable codes, guidelines and standards recommended by the Organization, the Administration, ship survey organizations and maritime industry are identified and applied where necessary.
 - ② The designated personnel, key onshore personnel affecting the safety of ship, master and ship officer are conversant with applicable codes, guidelines and standards.

1.3 Application

The Code is applicable to ships engaged on non-international voyages and the companies operating such ships.

4.2.2 Application of NSM Code

4.2.2.1 See 1.1.1 of Chapter 1 of the Guidelines.

1.4 Functional requirements of SMS

Companies are to establish, implement and maintain a SMS covering following functional requirements:

- .1 a safety and environmental protection policy;
- .2 working procedures and instructions to ensure safety of ships and pollution prevention operation are in compliance with relevant regulations and standards;
- .3 responsibilities, level of authority and lines of communication between, and amongst, shore and shipboard personnel;
- .4 procedures to report accidents and non-conformities;
- .5 procedures to prepare for and respond to emergency situations;
- .6 procedures of internal audit, assessments of efficiency and review of management.

4.2.3 Safety Management System (SMS)

4.2.3.1 For the establishment and implementation of SMS which is in compliance with NSM, Companies are to:

- (1) identify all key onboard operation (including equipment and spaces) affecting safety and environmental protection covered by SMS;
- (2) identify key onboard operations which encompass potential risks relating to safety and environment protection;
- (3) determine the measures and methods necessary for ensuring effective operation and control of key onboard operation;
- (4) monitor, verify and analyze key onboard operation and activities;
- (5) take measures to ensure continuous improvement of safety.

4.2.3.2 SMS documentation

(1) SMS documentation is to include:

- ① safety and environmental protection policy of the Company;
- ② procedures required by the NSM Code;
- ③ manuals and/or procedures required by mandatory rules;
- ④ documents necessary for ensuring that risks of activities and shipboard operation are under control, including safety procedures and instructions, notes for key equipment operation, checklist, and other standards and guidelines, etc.

(2) Degree of details of the documentation depends on managerial practices of the Company and the knowledge and competence of the employees.

2 Safety and Environmental Protection Policy

2.1 The Company is to establish a safety and environmental protection policy which describes how the objectives, given in paragraph 1.2, will be achieved.

2.2 The Company is to ensure that the policy is implemented and maintained at all levels of the organizations both ship based as well as shore based.

4.2.4 Safety and environmental protection policy

4.2.4.1 It is the responsibility of companies to define and document the safety management policy, which is to describe how the objectives stated by the 1.2 of NSM Code are to be achieved.

4.2.4.2 The safety and environmental protection policy is to:

- (1) be the integral part and basis of the Company's SMS;
- (2) provide a framework for the establishment of safety management procedures and safety management objectives.

4.2.4.3 Companies are to ensure that all personnel at all levels of the organization both ship based as well as shore based and outside institutions involved in SMS operation, e.g. crew agent:

- (1) are aware of the safety and environmental protection policy;
- (2) understand the safety and environmental protection policy.

4.2.4.4 The implementation and maintenance of safety and environmental protection policy of the Company is to be assessed through

- (1) internal audit;
- (2) management review;
- (3) corrective and preventive measures; and
- (4) other managerial process.

<p>3 Company Responsibilities and Authority</p> <p>3.1 If the entity who is responsible for the safety operation of the ship and pollution prevention is other than the owner, the owner must contract with the entity a ship management agreement which should meet the following requirements, and report details of both sides to the Administration.</p> <ol style="list-style-type: none"> .1 Safety and pollution prevention are always to be the first priority and always be stuck to when they clash with production, operation or benefits; .2 Contractors who operate the ship undertake to perform the responsibilities and duties stipulated in the Code; .3 The contractors have the overriding authority to make decisions with respect to safety and pollution prevention, provided this does not provide any obstacles to the master in his performing duties and independently assuming the authority; <p>3.2 The Company is to define and document the responsibility, authority and interrelation of all personnel who manage, perform and verify work relating to and affecting safety and pollution prevention;</p> <p>3.3 The Company is responsible for ensuring that adequate resources and shore based support are provided to enable the designated person or persons to carry out their functions.</p>

4.2.5 Responsibilities and authority

4.2.5.1 If the entity who is responsible for the safety operation of the ship and pollution prevention is other than the owner or bareboat charterer (subject to the demonstration of registration at the Administration), the owner must contract with the entity (Company) a ship management agreement, and

- (1) keep on files of official documents submitted to the Administration by the owner relating to ship operation and technical delegation to the entity(Company);
- (2) full details of the entity (Company) are to be included in the SMS, which is to be in agreement with those carried in valid DOC and SMC;
- (3) the ship management agreement is to define clearly that the subcontractor is responsible for ship operation, maintenance and manning.

4.2.5.2 Structure of the Company, principal manning and qualification is to be in compliance with Regulations for the Management of Domestic Ships ([2001]Decree of the Ministry of the Communications No.3).

4.2.5.3 Companies are to at least define and document the responsibilities and interrelationship relating to the following personnel or posts specified in SMS:

- (1) those having the overriding authority in preparing, implementing and maintaining SMS;
- (2) those bearing the full responsibilities and authority in ensuring safety and environmental protection;
- (3) those responsible for the routine safety and environmental protection.

4.2.5.4 The Company is to define the personnel or posts specified in 4.2.5.3, which are to at least include:

- (1) posts and qualification requirements thereof;
- (2) ship type;
- (3) relationship, including designated personnel;

- (4) general responsibilities relating to safety and environmental protection;
- (5) special duties;
- (6) emergency duties;
- (7) substitution.

4.2.5.5 The Company is to stipulate the level of knowledge necessary for the management of the corresponding ship type, and qualification of related managerial personnel is to be in compliance with relevant national laws and regulations and requirements of the Administration.

4.2.5.6 The Company is to identify in SMS any subcontract in relation to ship management (e.g. crew training, technical support and ship repair and maintenance), and is to be responsible for effective control of suppliers.

4.2.5.7 The Company is to provide necessary objective evidence to substantiate that the relevant outside institutions meet the requirements of SMS.

4.2.5.8 The designated personnel may ask the highest management level for support of resources, when considered necessary for performing the duty. The highest management level is to assess the request and make a decision.

4.2.5.9 The Company is to undertake to ensure that adequate resources and shore based support are provided to the ship in need, and such undertaking is to be reflected in the Company's safety and environmental protection policy or supporting documents.

4.2.5.10 The Company is to establish procedures to ensure the ship is provided with the following resources necessary for its safe operation:

- (1) human resources;
- (2) training and exercises;
- (3) technical support;
- (4) supply of ship spares and stores.

4 Designated Person(s)

4.1 The company is to designate a person or persons having direct access to the highest level of management to provide communication between the company and ship.

4.2 The responsibility and authority of the designated person or persons are to be documented and include

- .1 monitoring the safety and pollution prevention aspects of the operation of ship and offices;
- .2 to ensure that adequate resources and shore based support are applied.

4.2.6 Designated person or persons

4.2.6.1 The Company is to designate one or more persons to carry out monitoring of safety and pollution prevention aspects of the operation of ship. Such person(s) is to

- (1) have appropriate responsibility and authority corresponding to performance of the duty;
- (2) have good personal and professional competency and possess appropriate knowledge and experience in the marine field;
- (3) be conversant with Company's SMS and the documents thereof;

(4) have duties not in collision with other responsibilities.

The Company is to keep on file the qualification, experiences and training records of the designated person to substantiate their competence.

4.2.6.2 It is to be specified in the SMS the process of direct communication of designated person(s) with the highest level of management of the Company, which is to at least include:

- (1) participation in safety management meeting;
- (2) submission of a report on SMS operational condition and recommendations on its improvement;
- (3) investigation and handling of accidents.

4.2.6.3 The designated person(s) may perform the duty with regard to ship monitoring and communication between ship and shore by the following activities:

- (1) onboard inspection and internal audit;
- (2) assessment and analysis of reports on accidents, dangerous situations and non-conformities, internal audit reports, ship inspection reports, shipboard safety and management minutes, as well as trainings and drills reports, the information of which is to be communicated to relevant locations and personnel.

4.2.6.4 The Company of ship owner–master mode of management, the following two ways may be accepted in nominating designated person(s):

- (1) designated person(s) nominated by the master;
- (2) designated person(s) from outside nominated by employment contract.

5 Master's Responsibility and Authority

5.1 The Company is to clearly define and document the Master's responsibility with regard to:

- .1 implementing the safety and environmental protection policy of the Company;
- .2 motivating the crew in the observation of that policy;
- .3 issuing appropriate orders and instructions in a clear and simple manner;
- .4 verifying that specified requirements are observed; and
- .5 reviewing the SMS and reporting its deficiencies to the shore-based management.

4.2.7 Master's responsibility and authority

4.2.7.1 The Company, taking into account its organization, type of ships and service, is to clearly define in the documented SMS^① the responsibilities and methods expected by the Master to carry out these functions.

4.2.7.2 The Company and the master are to at least ensure the implementation of the following activities as per the requirements in order to carry out safety and environmental protection policy in an effective manner:

- (1) reporting of accidents, dangerous situations and non-conformities to be followed up by the Company;

① The master's responsibility may be found in any part of the documented SMS, including the safety management manual, procedures, instructions or any other official document.

- (2) effective safety management meetings as per plans, emergency drills, trainings in safety aspects;
- (3) understanding by the crew of the Company's safety and environmental protection policy;
- (4) a safe working environment and safety practice onboard.

4.2.7.3 The master or the delegated officers is to convey the importance of carrying out the Company's safety and environmental protection policy through meetings, drills and trainings etc., and motivate the crew to participate in the implementation of the objectives and continuous improvement of SMS.

4.2.7.4 The master is to issue effective standing orders and bridge night order in accordance with the requirements of watchkeeping rules and SMS documents.

4.2.7.5 The master or the delegated officers is to check using methods stipulated by the Company's SMS the key operations onboard, in order to ensure the compliance with mandatory requirements of SMS. The check is to as far as practical be carried out by means of checklists.

4.2.7.6 The master is to report deficiencies in the SMS relevant to the ship's operation to the Company. The information on SMS deficiencies is to include proposals for corrective action and recommendations for improving the SMS, as far as possible. The review reporting of SMS is to contain clear description of the general situation of SMS implementation and necessary improvement of SMS.

4.2.7.7 Review of SMS is not to exceed 12 months, and is to be carried out when:

- (1) the master disembarks the ship; and
- (2) an accident or dangerous situation takes place.

4.2.7.8 The Company is to analyze the SMS review report and take necessary measures.

5.2 The Company is to ensure that the SMS operating on board the ship contains a clear statement emphasizing the Master's authority. The Company is to establish in the SMS that the Master has the overriding authority and the responsibility to make decisions with respect to safety and pollution prevention and to request the Company's assistance as may be necessary.

4.2.8 Master's overriding authority

4.2.8.1 Master's overriding authority means the authority of master to make any decision favorable to the crew, passengers, ship and environment and not bounded by the Company, charter or any other person. Master's overriding authority which is to at least include the requirements included in IMO Resolution A.443 (XI) and be stated in SMS and be carried out.

4.2.8.2 The overriding authority of the Master applies to all circumstances.

6 Resources and Personnel

6.1 The Company is to ensure that the Master is:

- .1 properly qualified for command;
- .2 fully conversant with the Company's SMS; and
- .3 given the necessary support so that the Master's duties can be safely performed.

4.2.9 Competency of master

4.2.9.1 The Company is to stipulate the minimum requirements for qualifications and experiences of the master.

4.2.9.2 The Master's qualification for command to be verified by the Company before assignment to a ship may be determined according to the following information, where applicable:

(1) certificates of competency complying with the following requirements:

- ① Regulations for examination, assessment and certification of seafarers of sea-going ships of the People's Republic of China;
- ② Regulations for examination and certification of seafarers of inland water ships of the People's Republic of China;
- ③ Regulations for special training, examination and certification of seafarers of high-speed ships of the People's Republic of China;
- ④ Regulations for special training, examination and certification of seafarers of passenger ships and ro-ro ships of the People's Republic of China;
- ⑤ Regulations for special training, examination and certification of seafarers of ships carrying liquid cargo in bulk of the People's Republic of China;
- ⑥ Regulations for special training, examination and certification of seafarers of inland ro-ro passenger ships of the People's Republic of China;
- ⑦ Regulations for speciality training, examination and certification of seafarers of Hong Kong – Macao liner of the People's Republic of China;
- ⑧ Regulations for training, examination and certification of seafarers and mechanists of sea-going ships of the People's Republic of China;

(2) previous seagoing experience on the same type of ship;

(3) performance reports, including those from previous employers, if available;

(4) additional specific Company requirements.

4.2.10 Master's conversance with SMS

4.2.10.1 The master's full conversance with SMS is to be ensured through one or combination of the following:

- (1) participating in the Company's safety management meeting periodically;
- (2) participating in SMS seminars and/or trainings;
- (3) provision of SMS information.

4.2.10.2 The master's conversance with SMS is to be monitored, assessed and substantiated by the Company.

4.2.11 Support to the master

4.2.11.1 The Company is to reply in a swift manner to the request of the master in respect of technical support, spare parts, removal of deficiencies, training and emergency response, etc.

4.2.11.2 The Company is expected to reply in a swift manner to the report by the master in relation to SMS deficiencies.

6.2 The Company is to ensure that each ship is manned with qualified, certificated and medically fit seafarers.

4.2.12 Manning

4.2.12.1 The Company is to ensure that the ship is manned during navigation not inferior to the requirements specified in Regulations for the Minimum Manning of Ships of the People's Republic of China, and Regulations for the Safe Management of High Speed Ships.

4.2.12.2 The ship is to have a valid Certificate of Minimum Manning, and the total number of persons onboard are not to be more than the quotas as decided by the lifesaving equipment.

4.2.12.3 Shipboard crew are to be subjected to training and examination as required by 4.2.9.2(1) of the Guidelines and to have effective certification or documentation issued by the Administration.

4.2.12.4 If the Company delegates an agent the recruitment of seafarers for its ship, the Company is to have under its control the agent in respect of the competence of selection and recruitment of seafarers, review, testing and assessment of the qualification and competency of seafarers as a minimum, to ensure the seafarers have valid certificates and subjected to trainings appropriate to the duties they are expected to perform.

4.2.12.5 The Company is to specify and implement the following activities:

- (1) medical examination prior to and during employment;
- (2) seaman living and working safeguards;
- (3) provision of medical equipment and medicines;
- (4) seaman medical system;
- (5) control of seaman alcohol consumption during duty performance onboard.

6.3 The Company is to establish procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarization with their duties. Instructions which are essential to be provided prior to sailing are to be identified, documented and given.

4.2.13 Familiarization

4.2.13.1 The Company is to ensure that each shipboard crew member is to be familiar with relevant equipment and his assignment as per regulations for crew watch keeping and is to be ready to carry out effectively safety and pollution prevention undertakings in emergency.

4.2.13.2 New personnel and transferred personnel include:

- (1) those newly employed onboard for the first time; and
- (2) those taking up an assignment onboard for the first time.

4.2.13.3 As a minimum, the following instructions or information are to be made available to new personnel and transferred personnel prior to sailing:

- (1) posts and duties related to lifesaving and fire protection;

- (2) information and documents required in the training manual, including location for the lifesaving and fire protection equipment and their usage;
- (3) emergency evacuation routes and escape routes;
- (4) methods and identification of alarming;
- (5) operational methods of fire doors (dampers or boards) and water-tight doors;
- (6) critical orders, including responsibilities and authorities of crew members, as well as relationship between other personnel referred to in SMS.

4.2.13.4 One or combination of the following measures is to be taken by the Company to ensure that a person embarking for the first time on a ship or transferred to new assignments is familiar with that ship, its machinery, systems, equipment and operations:

- (1) embarking as supernumerary;
- (2) receiving essential information;
- (3) exchange and shift taking;
- (4) visual aids such as videos, manuals and operating instructions.

4.2.13.5 The Company is to specify in the SMS the methods for familiarization and instructions corresponding to crew experiences and duties.

6.4 The Company is to ensure that all personnel involved in the Company's SMS have an adequate understanding of relevant rules, regulations, standards and guidelines.

4.2.14 Understanding of codes and standards

4.2.14.1 The Company is to have a plan on how to provide all personnel both onboard and shore based involved in safety and pollution prevention with information on mandatory requirements of applicable codes, guidelines and standards through one or more of the following:

- (1) establishment and circulation of documented instructions;
- (2) specification of job responsibilities;
- (3) communication with company representatives.

4.2.14.2 The Company and a ship are to identify the channel through which relevant codes, standards and guidelines are available. Relevant procedures are to be established and kept to ensure the documentation and information are put into practice, under control and updated and valid.

6.5 The Company is to establish and maintain procedures for identifying any training which may be required in support of the SMS and ensure that such training is provided for all personnel concerned.

4.2.15 Training

4.2.15.1 The Company is to identify the individual(s), ashore and onboard, having responsibility to define training needs appropriate for specific tasks, taking into account factors such as:

- (1) previous training and experience;
- (2) required proficiency in operation of equipment;

- (3) familiarity with new equipment;
- (4) familiarity with equipment when transferred to different type vessel;
- (5) drills for emergencies;
- (6) results of internal auditing.

4.2.15.2 Training may be supplemented by using visual aids, such as videos, manuals and operating instructions, or direct supervision by a superior.

6.6 The Company is to establish procedures by which the ship's personnel receive relevant information on the SMS.

4.2.16 SMS information

4.2.16.1 The SMS information is to include the following in relation to ship safety and pollution prevention:

- (1) ship's SMS documents, including safety management manual, operational procedures, operational instructions, including those posted onboard, checklist, master's standard orders, night orders, working instructions and emergency arrangement;
- (2) mandatory provisions and applicable guidelines;
- (3) written documents and information, e.g. circulars, telegrams and faxes in relation to ship safety.

4.2.16.2 The details and the amount of documentation are to be determined by what is necessary to ensure all appropriate shipboard personnel can understand their respective roles.

6.7 The Company is to ensure that the ship's personnel are able to communicate effectively in the execution of their duties related to the SMS.

4.2.17 Communications

4.2.17.1 Shipboard crew is to be capable of communicating with each other, with passengers, onshore institutions, e.g. maritime administrative departments and ports etc. The master and officers onboard ship engaged on inter-province navigation are to be capable of communicating in Mandarin Chinese.

4.2.17.2 Those responsible for the care of passengers during shipboard emergencies are to be able to communicate with them effectively.

7 Development of Plans for Shipboard Operations

The Company is to establish procedures for the preparation of plans and instructions for key shipboard operations concerning the safety of the ship and the prevention of pollution. The various tasks involved are to be defined and assigned to qualified personnel.

4.2.18 Preparation of plans for shipboard operations

4.2.18.1 "Key shipboard operations" in the safety and pollution prevention context mean:

- (1) all those operations for which mandatory rules and regulations prescribe performance requirements or specific requirements for plans, procedures, instructions, records and checklists;

- (2) those connected to the particular ship's type and which may affect safety and pollution prevention, to the extent established by the Company;
- (3) those for which safe practices in ship operations and a safe working environment have been recommended by the IMO, the Administration, ship survey organizations and other industry bodies;
- (4) those which the Company considers may create hazardous situations if not controlled by plans and instructions;
- (5) those in compliance with ship operation requirements.

4.2.18.2 The following table contains the minimum required key operations:

Ship type Key onboard operations	Passenger ship	Ro-ro passenger ship	Bulk carrier	Oil tanker	Chemical carrier	Gas carrier	Other cargo tanker	<i>High speed passenger ship</i>
Watch keeping, including for navigation, anchoring and docking	X	X	X	X	X	X	X	X
Cargo handling			X	X	X	X	X	
Navigation, including navigation in restricted water areas, in poor visibility condition and in poor weather condition (e.g. typhoon)	X	X	X	X	X	X	X	X
operations when ship entering and leaving port	X	X	X	X	X	X	X	X
Entering enclosed spaces	X	X	X	X	X	X	X	X
elevated/overboard operations	X	X	X	X	X	X	X	X
Naked fire operation	X	X	X	X	X	X	X	X
Storage and usage of combustibles and danger goods	X	X	X	X	X	X	X	X
Fuel oil bunkering and barging	X	X	X	X	X	X	X	X
Sewage and oily water handling	X	X	X	X	X	X	X	X
Tank washing/air exchange operation				X	X	X		
Securing of goods (vehicles)		X	X				X	
Control of passengers	X	X						X
Updating of navigation information	X	X	X	X	X	X	X	X
<i>Ballast water operation</i>	X	X	X	X	X	X	X	X

4.2.18.3 The following national mandatory regulations are to be complied with as a minimum in preparing shipboard operation plans:

- (1) Regulations for management of safe operation of oil tankers;
- (2) Regulations for prevention of poisoning of oil gas on oil tanker and on oil dock;
- (3) Regulations for monitoring and control of safety of liquid cargo lightering operation;

- (4) Regulations for management of safety of high speed crafts;
- (5) Regulations for monitoring and control of safety of ro-ro sea-going ships;
- (6) Regulations for control of fire safety of ships;
- (7) Regulations for control of safety of repair operation against fire and explosion;
- (8) Regulations for monitoring and control of safety of ships carrying dangerous cargoes;
- (9) Interim provisions for prevention of suffocation resulting from operation in an oxygen-deficient space or tank environment;
- (10) Regulations for monitoring and control of containerized dangerous cargoes;
- (11) Regulations for monitoring and control of safety of fine ore powder and hydro-ore products at sea;
- (12) Regulations for monitoring and control of the safety and pollution prevention of oil cargo in bulk in ships;
- (13) Regulations for navigation in fog at sea;
- (14) Regulations for technical operation against typhoon;
- (15) Regulations for safety management of dangerous chemicals;
- (16) Technical regulations for the statutory surveys of sea-going ships engaged on domestic voyages;
- (17) Technical regulations for the statutory surveys of ships engaged on inland waterways.

8 Emergency Preparedness

8.1 The Company is to establish procedures to identify, describe and respond to potential emergency shipboard situations.

4.2.19 Emergency plan

4.2.19.1 The Company is to identify all potential emergency scenarios for all ships under its control, taking into consideration of ship type, cargoes to be loaded and shipping lines. The emergency plan is to generally include following emergency situations:

- (1) structural deficiencies/bad weather induced damages;
- (2) steering gear malfunction;
- (3) power malfunction;
- (4) collision;
- (5) grounding;
- (6) cargo shift (normally not applicable to passenger ships);
- (7) jettison of cargoes/oil overflow;
- (8) flooding of ship;
- (9) fire/explosion;
- (10) ship abandonment;
- (11) overboard;
- (12) search operation;
- (13) serious injury or poisoning;
- (14) emergency public health incident;
- (15) helicopter assistance operation;

4.2.19.2 Shipboard marine pollution emergency plan and shipboard oil pollution emergency plan are to be subject to approval by the Administration.

8.2 The Company is to establish programs for drills and exercises to prepare for emergency actions.

4.2.20 Drills and exercises

4.2.20.1 The Company is expected to develop plans of drills and exercises appropriate to potential emergency scenarios possibly encountered by ships, including plans for onboard, shore-based and ship-shore joint exercises, and to specify frequency and mode of drills and/or exercises.

4.2.20.2 The following is to be verified during emergency drills and exercises:

- (1) familiarization of crew members with duties relating to emergency response;
- (2) ready availability of emergency equipment;
- (3) capabilities of crew members of correct employment of safety equipment and emergency equipment;
- (4) capabilities of crew members to take appropriate measures;
- (5) support to be provided by the Company;
- (6) corresponding reporting procedures.

4.2.20.3 The effectiveness of emergency drills and exercises is to be assessed and analyzed and any deficiency identified be corrected.

8.3 The SMS is to provide for measures ensuring that the Company's organization can respond at any time to hazards, accidents and emergency situations involving its ships.

4.2.21 Emergency plan of the Company

4.2.21.1 Emergency plans for both ship and shore based office are to be coordinated and be kept in integrity.

4.2.21.2 Emergency plans for shore based office are to include:

- (1) procedures for mobilizing emergency response team members;
- (2) constitution of emergency response team members and the their corresponding duties;
- (3) procedures/checklists for emergency situations;
- (4) means of 24-hour contact between shore and ship, ship particulars, drawings, stability and cargo information, and availability of equipment onboard used for safety and environmental protection;
- (5) contact information of all relevant parties, including suppliers, the Administration, port, and emergency service organization etc., which may need be informed or consulted;
- (6) procedures for contacting relatives of shipboard crew members; and
- (7) procedures for information publication and addressing questions raised by media.

9 Reports and Analysis of Non-conformities, Accidents and Hazardous Occurrences

9.1 The Company is to include procedures ensuring that non-conformities, accidents and hazardous situations are reported to the Company, investigated and analyzed with the objective of improving safety and pollution prevention.

4.2.22 Reporting and analysis of non-conformities, accidents and dangerous situations

4.2.22.1 Records of non-conformities, accidents, hazardous situations and relevant investigations produced by shipboard personnel and/or by the Company are to be recorded and maintained to demonstrate effective functioning of the SMS.

4.2.22.2 Non-conformities may be identified through the following activities:

- (1) internal audit;
- (2) external audit;
- (3) statutory and classification surveys of ship survey organizations;
- (4) safety inspection of the Administration;
- (5) self-review and monitoring by the ship.

4.2.22.3 Non-conformities include non-performance of technical and operational requirements.

4.2.22.4 Accident means unexpected hurt or damage, e.g. death of person, injuries, pollution or damage to properties.

4.2.22.5 Analysis of non-conformities, accidents and dangerous situations is to lead to the identification of their fundamental causes, including the identification of improvement.

4.2.22.6 Corrective actions include the actions taken for immediate application and those for the purpose of prevention and mitigation of reoccurrence.

9.2 The Company is to establish procedures for the implementation of corrective action.

4.2.23 Implementation of corrective actions

4.2.23.1 The Company is to have procedures for carrying out the corrective actions suggested by analysis relevant to non-conformities, accidents and hazardous situations identified and the effectiveness of the correction is to be verified.

10 Maintenance of the Ship and Equipment
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10.1 The Company is to establish procedures to ensure that the ship and equipment is maintained in conformity with the provisions of the relevant rules and regulations and with any additional requirements which may be established by the Company.

4.2.24 Maintenance of procedures

4.2.24.1 The following procedures are to be established and carried out in the Company's SMS, in order that the ship and its equipment may be inspected, serviced and maintained in accordance with regulations for statutory technical survey, relevant rules and requirements which may be additionally imposed by the Company:

- (1) procedures for routine inspection of hull, machinery and electrical equipment;
- (2) procedures for routine servicing of hull, machinery and electrical equipment.

4.2.24.2 The following are to be included in routine inspection, servicing and maintenance of ships:

- (1) hull, deck and superstructure;

- (2) internal bulkhead, frames, etc;
- (3) ballast tanks/double bottom tanks and pumping;
- (4) water-tight door, ventilator and air pipes etc;
- (5) accommodation ladder, pilot ladder and other ladders;
- (6) fuel oil system and oily water separation system;
- (7) cargo loading space and ventilation arrangement;
- (8) piping and valves;
- (9) fire-fighting equipment, system and appliances;
- (10) fire detection system;
- (11) lifeboat and other life-saving appliances and equipment;
- (12) pollution prevention equipment and arrangement;
- (13) navigation, radio and internal communication equipment;
- (14) mooring and anchoring appliances;
- (15) main engine and generator;
- (16) emergency and spare equipment or system;
- (17) lighting equipment;
- (18) medicines and medical apparatus and instruments;
- (19) space for dangerous stores;
- (20) sewages and dirty water handling equipment or system;
- (21) securing and lifting equipment.

4.2.24.3 High speed passenger ships are in addition to be maintained subjected to Ship Maintenance Manual and Servicing Manual specified in High Speed Ship Safety Management Code.

4.2.24.4 In addition to the items specified in 4.2.24.2, the following is also to be included in ro-ro passenger ships:

- (1) stem, stern and water side tight doors;
- (2) fire fighting system and circuitry in essential spaces including ro-ro space and passenger's cabins, etc;
- (3) vehicle securing equipment, including wire mooring line, deck rings and other appendices;
- (4) monitoring system.

- 10.2 In meeting the requirements, the Company is to ensure that
- .1 inspections are held at appropriate intervals;
 - .2 any non-conformity is reported with its possible cause, if known;
 - .3 appropriate corrective action is taken; and
 - .4 records of these activities are maintained.

4.2.25 Control of maintenance

4.2.25.1 Procedures of examination are to specify the range and circle of examination, the responsible person and requirements for reporting. Procedures of maintenance are to specify routine maintenance circle, the responsible person and requirements for reporting.

4.2.25.2 The examination and maintenance are to be carried out by an experienced person and records are to be kept onboard. The Company is to review and monitor the onboard examination and maintenance at regular intervals.

4.2.25.3 The examination and maintenance records are to include defects, deficiencies and non-conformities and possible or known causes, as well as corrective actions taken, or an adjustment or suggestions, and be reported to the Company.

4.2.25.4 The Company office is to analyze defects, deficiencies and non-conformities and take corrective actions as appropriate where necessary and notify the master in this regard. Corrective actions for those defects which affect the safe navigation of the ship are to be taken prior to sailing, and for those defects which will not affect the safe navigation are to be recorded by the ship and by shore office.

4.2.25.5 Corrective actions for defects, deficiencies and non-conformities are to be completed within a defined period of time, and

(1) where corrective actions are to be carried out by the ship, the master is to ensure that such corrective actions are to be done by a competent officer; and

(2) where corrective actions are to be carried out onboard by onshore personnel, the master is to ensure that a competent officer is assigned with the duty to monitor the process and check and accept the outcomes. Meanwhile, relevant safety and anti-pollution procedures as specified in the SMS are to be complied with, e.g. working permission procedures.

4.2.26 Control of ship's stores and spare parts

4.2.26.1 Procedures for provision to ships of adequate stores and spare parts are to be included in the SMS, and checklist of stores and spare parts on deck and in engine room is to be established, kept and such stores and spare parts are to be filed with the Company at regular interval. The ship is to be equipped with the stores and spare parts appropriate to its maintenance, including tools needed.

10.3 The Company is to establish procedures in the SMS to identify equipment and technical systems the sudden operational failure of which may result in hazardous situations. The SMS is to provide for specific measures aimed at promoting the reliability of such equipment or system. These measures are to include the regular testing of stand-by arrangements and equipment or technical systems that are not in continuous use.

10.4 The examination specified in 10.2 and the measures referred to in 10.3 are to be included in the ship's routine operation maintenance.

4.2.27 Control of critical equipment and technical system

4.2.27.1 The "critical shipboard equipment and technical system" include in general steering gear, power supply equipment, power mechanical equipment and system, automation equipment and system etc.

4.2.27.2 The SMS is to provide for regular testing and inspection of the following equipment and systems which are to be included in ship's routine operation and maintenance procedures to promote the reliability of such equipment or system, but not limited to the following:

- (1) alarming for steering gear and communication between wheelhouse and steering gear room;
- (2) lifeboat engine;
- (3) emergency generator;
- (4) emergency fire pump;
- (5) all dampers and closing appliances;
- (6) sewage well high level alarming;
- (7) sea suction valve controlled by engine room;
- (8) pump limit switches;
- (9) main engine local control;
- (10) emergency stop system of main manoeuvring engine in wheelhouse;
- (11) main engine overspeed limit and restoration installations;
- (12) fuel oil quick closing valves (wind oil shut off mechanism);
- (13) lub. oil alarming;
- (14) boiler high level and low level alarming;
- (15) generator lub. oil alarming;
- (16) Stem and stern water tight doors of ro-ro ships;
- (17) fixed fire fighting system.

11 Documentation

11.1 The Company is to establish and maintain procedures to control all documents and data which are relevant to the SMS.

11.2 The Company is to ensure that:

- .1 valid documents are available at all relevant locations;
- .2 changes to documents are reviewed and approved by authorised personnel; and
- .3 obsolete documents are promptly removed.

11.3 The documents used to describe and implement the SMS may be referred to as the "Safety Management Manual". Documentation is to be kept in a form that the Company considers most effective. Each ship is to carry on board all documentation relevant to that ship.

4.2.28 Management of documents

4.2.28.1 The following documents and information relevant to the SMS are to be provided onboard and subjected to control:

- (1) Safety and environmental protection policy of the Company.
- (2) Safety management manual of the Company, including safety management system procedures, operational instructions, schemes and checklist required by the NSM Code.
- (3) Manuals and information required by regulations and codes, if applicable:
 - ① loading and intact stability information and manual;
 - ② damage control plan and manual;
 - ③ ship maneuvering information and manual;
 - ④ fire control plan;
 - ⑤ muster list and emergency instructions;

- ⑥ training manual;
 - ⑦ maintenance instructions for shipboard life saving equipment;
 - ⑧ instructions for steering gear transform procedures;
 - ⑨ cargo securing manual;
 - ⑩ emergency response plan for oil pollution by ship;
 - ⑪ procedures and arrangement manual;
 - ⑫ sea chart, route guides, light station list, navigation notice and tide list.
- (4) Mandatory regulations, voluntary regulations, guidelines and standards included in the safety management manual.
- (5) Ship's statutory and/or classification certificate and survey report, and ship's technical data including plans of ship, shipyard instructions.
- (6) Company's documents and technical circulars, etc. relevant to the SMS.
- 4.2.28.2 All documents and information are to be in an identifiable valid condition, and obsolete documents are to be promptly removed.
- 4.2.28.3 The Company and a ship are to specify duties of control of documents and data to ensure that they are available to relevant personnel and that addition of pages, rectification, amendment and obsolete and change in relation to the SMS documents are carried out in accordance with the requirements of the Company and/or the order of ship master.

12 Internal audit, effectiveness evaluation and management review

12.1 The Company is to carry out internal safety audits to verify whether safety and pollution prevention activities comply with the SMS. Personnel carrying out audits are to be independent of the areas being audited unless this is impracticable due to the size and the nature of the Company.

12.2 The Company should periodically evaluate the efficiency and when needed review the SMS.

12.3 The results of the audits and reviews are to be brought to the attention of all personnel having responsibility in the area involved.

12.4 The management personnel responsible for the area involved are to take timely corrective action on deficiencies found.

12.5 The audits, effectiveness evaluation, management review and possible corrective actions are to be carried out in accordance with documented procedures.

4.2.29 Internal audit

- 4.2.29.1 Internal audits are important to demonstrate the effective functioning and continuous implementation of the SMS in relation to both ship and the Company. Internal audit of each ship and the Company ashore is to be carried out at the intervals of 12 months as a minimum.
- 4.2.29.2 Each internal audit is to be planned and the range of audit and auditors be decided. Results of audits are to be documented which may include checklists, non-conformity reports, audit reports and corrective actions.
- 4.2.29.3 The auditor may be one of the following:
- (1) a designated person and a company administrative person, but technical attendant and mariner are as far as possible to be avoided to audit the ship under their management;
 - (2) a successive master, chief engineer and other officers (before turning on duty);

(3) mutual audits by masters, chief engineers and other officers of two ships.

4.2.30 Effectiveness evaluation

4.2.30.1 Effectiveness of the SMS refers to the degree in relation to the objectives of safety and environmental protection policy achieved to by means of activities required by the SMS. Purpose of the evaluation is to compare the expected SMS objectives with results of implementation of the SMS.

4.2.30.2 Generally, the evaluation is to be carried out every 6 months and is to be carried out by personnel at a management level or those capable of evaluating the SMS. One or more of the following may be subjected to evaluation:

- (1) Company's safety and environmental protection policy;
- (2) review by the master and audit results (inter alia non-conformities);
- (3) analysis of incidents, accidents and dangerous situations;
- (4) effectiveness of shipboard procedures, instructions and checklist;
- (5) shipboard survey results (outstandings and recommendations);
- (6) overall effectiveness of the SMS in achieving safety management objectives;
- (7) influence of change to the fleet and new regulation on SMS.

4.2.30.3 Reports of SMS effectiveness evaluation are to be submitted to the Company's management level.

4.2.31 Management review

4.2.31.1 The purpose of management review is to assess the consistent appropriateness and effectiveness of the SMS to verify whether the NSM code and the Company's safety and environmental protection policy and management objectives are achieved and to identify where is in need of improvement.

4.2.31.2 The review is to be carried out on the basis of effectiveness evaluation of the SMS aiming to prepare for corrective actions. Management review and effectiveness review may be carried out simultaneously.

4.2.32 Implementation of corrective actions

4.2.32.1 Corrective actions are to be applied in accordance with the procedures to any defect identified during internal audits, effectiveness evaluation and management reviews.