

CHARTING THE FUTURE 

ClassNK

Guidelines for Excellent Living and Working Environment
(Edition 1.0)

[English]



ClassNK

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Introduction

In recent years, international efforts have been made to improve the living and working environments of seafarers. The Maritime Labour Convention (MLC, 2006) was adopted in 2006 to improve working environment on board and to promote proper competition in the shipping industry, and it entered into force on 20 August 2013. In addition, amendments to the SOLAS Convention were adopted in 2012 to make compliance with the *Code on Noise Levels On Board Ships* mandatory in order to minimise harmful noises to seafarers and disruptions of communication of instructions, and these amendments entered into force on 1 July 2014.

In October 2010, ClassNK also established its *Rules for Centralized Cargo Monitoring and Control Systems* to specify function and inspection related requirements for centralised cargo monitoring and control systems for safe and efficient cargo handling on oil tankers and other ships carrying liquid cargo in bulk. The installations character “Centralized Cargo Monitoring and Control Systems” (abbreviated as *CCM*) is added to the register for those systems that comply with the above rules. In addition, the first edition of the *Noise and Vibration Guideline* was published in July 2011 so that the notation “Noise and Vibration Comfort” (abbreviated as *NVC*) could be affixed to the classification characters of ships which have adopted noise and vibration control measures to improve the working and living environments for seafarers. Furthermore, the second edition of the *Guidelines for Container Stowage and Securing Arrangements* was published in December 2014 so that the notation “Safe Design for Container Lashing” (abbreviated as *SDCL*) could be affixed to the classification characters of ships in compliance with Annex 14 of the CSS Code, a non-mandatory code developed to ensure that the persons engaged in carrying out container securing operations on deck have safe working environments.

Although these efforts and other efforts have been made to improve conditions for seafarers, there are still shortages of seafarers being experienced worldwide for a variety of reasons. In Japan, for example, the aging of seafarers combined with the difficulty in retaining newly hired seafarers has made this shortage acute, particularly with respect to coastal shipping. Many newly hired seafarers are dissatisfied with factors such as their work schedule (one month off after three months on board), their living environment (accommodation, meals, limited access to private telephones and the Internet), and the huge amount of on board work they have to perform. While some countries, such as the Republic of the Philippines, have produced a large number of seafarers for ocean-going ships, the need to be able to continuously employ seafarers in their own countries is also recognised from the perspective of stable maritime transport.

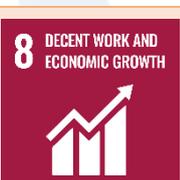
Against this background, some ships have begun to go beyond the regulations of the aforementioned conventions to further improve their working environment so that they are more attractive as workplaces for seafarers. The effects of these efforts are expected to not only create attractive working environments, but also to reduce seafarer fatigue and contribute to safe navigation.

Furthermore, such efforts are also expected to contribute to the achievement of “Sustainable Development Goals” (SDGs).

In order to respond to such social trends, ClassNK developed this Guidelines for Excellent Living and Working Environment (hereinafter referred to as the “Guidelines”) so that the notation “Excellent Living and Working Environment” (abbreviated as *ELW*) can be affixed to the classification characters of the ships to identify those ships where efforts are being made to improve the living and working environments on board. In addition, as part of the “Innovation Endorsement” a certification service offered by ClassNK to support the spread and development of innovative technologies, this Guidelines also covers advanced initiatives utilising digital technologies and other means for certification.

ClassNK hopes that this Guidelines will lead to further improvements in the living and working environments on board ships.

Sustainable Development Goals (SDGs) relating to this Guidelines

Related SDGs	Goals	Related Targets
 <p>2 ZERO HUNGER</p>	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.
 <p>3 GOOD HEALTH AND WELL-BEING</p>	Ensure healthy lives and promote well-being for all at all ages	3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.
 <p>5 GENDER EQUALITY</p>	Achieve gender equality and empower all women and girls	5.1 End all forms of discrimination against all women and girls everywhere.
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all. 9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.

ClassNK Innovation Endorsement Approach

As companies pursue ESG management and the SDGs to realise a sustainable society, various innovations have been vital to resolve challenges.

ClassNK has offered “Innovation Endorsement (IE) Approach” as a framework to support innovative initiatives through third-party certification. The basic concept of IE is introduced below.



Background

IE is ClassNK’s initiative as a third-party certification body to create new value based on “Third party certification/ evaluation/ rating”, and it is one of the three business pillars on which “ClassNK Digital Grand Design 2030”^{*1} (announced in February 2020) is based. It describes the future shape required to be taken by a classification society within a digital society.

(*1) Related press release: [“ClassNK develops its Digital Grand Design 2030”](#)

Policy

The principle policy of IE is as follows

- Speed-focused: As the innovation progresses rapidly, ClassNK focus on the speed to fully follow its pace, establish evaluation technologies as a third party, and then certify such innovation.
- Cooperation with front runners: Since a clear evaluation standard is unlikely to have yet been established for innovative technologies, ClassNK examines and develops evaluation standards in collaboration with pioneering front runners.
- Certification expected by customers and society: In response to the expansion of the scope of

innovative initiatives, the scope and target of certification will be also expanded based on customer needs and social conditions.

Scope of certification

The scope of IE covers four categories: Digital^{*2}, Environment, Safety, and Labour. In addition, “Yours” demonstrates ClassNK’s commitment to work to meet any needs of customers and society.

(*2) IE was launched focusing on digital innovation in July 2020.

Target of certification

IE covers three categories as the target of certification: Ships, Products & Solutions, and Providers.

- Notation: For ships, notations such as “DSS”^{*3}, “a-EA”^{*4}, “a-SAFE”^{*5}, and “ELW”^{*6} indicating advanced initiatives related to the digitalisation, environment, safety, and living and working environment on board have been incorporated to the ship, are added in its class certificate and support the enhancement of ship’s value.
- P&S certification: For products and solutions (P&S), ClassNK examines and verifies their innovative functions based on our knowledge and experience as a third-party certification body and issue certificates for supporting the deployment of products and services.
- Provider certification: For organisations (providers) engaging in innovative initiatives, ClassNK provides flexible supports from the early stage with three levels of certification, (1) Conception (Class C), (2) Development (Class D), and (3) Sustainable implementation (Class S).

ClassNK is committed to contributing to the sustainable evolution of maritime and offshore business by actively supporting innovative technologies through IE, and monitoring to innovation trends, and continues its innovation ecosystem to respond quickly to customers’ advanced initiatives.

(*3) DSS: Abbreviation for Digital Smart Ship. Refer to ClassNK’s Guidelines for Digital Smart Ships.

(*4) a-EA: Abbreviation for Advanced Environmental Awareness. Refer to Chapter 5 of ClassNK’s Environmental Guidelines.

(*5) a-SAFE: Abbreviation for Advanced Safety. Refer to ClassNK’s Guidelines for Advanced Safety Measures.

(*6) ELW: Abbreviation for Excellent Living and Working Environment. Refer to ClassNK’s Guidelines for Excellent Living and Working Environment.

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Revision History

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Guidelines for Excellent Living and Working Environment

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Chapter 1 GENERAL

1.1 General

1.1.1 Application

This “Guidelines for Excellent Living and Working Environment” (hereinafter referred to as the “Guidelines”) apply to ships registered with the Nippon Kaiji Kyokai (hereinafter referred to as “the Society”) that have facilities to improve the living and working environments on board (hereinafter referred to as “facilities for working environment”), and for which applications for the affixation of special class notation to classification characters are submitted. It is assumed that the verification of the safety aspects of the ships to which this Guidelines applies has been carried out in the process required for classification in accordance with the *Rules for the Survey and Construction of Steel Ships*, etc.

1.1.2 Class Notations

1 For ships provided with the relevant facilities for working environment, the notation “Excellent Living and Working Environment(XX)” (abbreviated as *ELW(XX)*) is to be affixed to the classification characters of the ships in accordance with this Guidelines. The relevant facilities for working environment are described in “XX”.

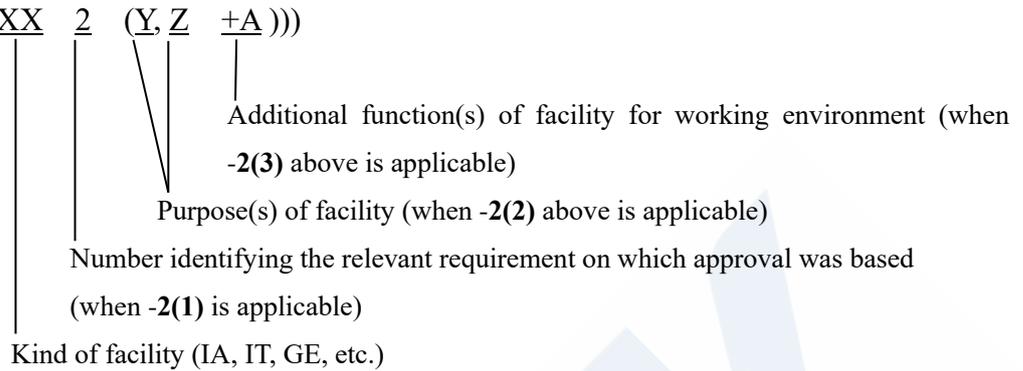
2 In the following three cases, the notation “XX” defined in -1 above is to be affixed with additional numbers or letters respectively.

- (1) In cases where the relevant requirements for a facility for working environment specified in **3.2** to **3.4** are amended as technology advances and it is considered appropriate by the Society that the facility approved according to amended requirements should be identified from those approved according to previous requirements, the notation “XX” is to be affixed with an additional number to be separately specified by the Society at some future date. (e.g. “Excellent Living and Working Environment(XX2)”)
- (2) In cases where a facility for working environment specified in **3.2** to **3.4** can be used for multiple purposes specified by the Society, the notation “XX” is to be affixed with additional letters in order to identify the purpose(s) of the smart system. (e.g. “Excellent Living and Working Environment(XX(Y, Z))”)
- (3) In cases where a facility for working environment specified in **3.2** to **3.4** has additional functions specified by the Society, the notation “XX” is to be affixed with additional letters in order to identify the additional function(s) of the smart system. (e.g. “Excellent Living and Working Environment(XX+A)”) or “Excellent Living and Working Environment (XX(Y+A))”)

3 In cases where a ship is provided with a facility for working environment that is not specified in this Guidelines, relevant class notation may be affixed to the classification characters of the ships based on the application for said notation.

e.g.

NS*(...)(ELW(XX 2 (Y, Z +A)))



1.1.3 Termination of Class Notation

The Society will delete relevant class notation in cases where a facility for working environment in accordance with this Guidelines is not properly maintained. Compliance with this Guidelines, however, is optional and not a condition of class maintenance.

Chapter 2 SURVEYS

2.1 General

2.1.1 Kinds of Surveys

The kinds of surveys are specified in the following (1) to (3).

- (1) Initial Surveys
- (2) Periodical Surveys
- (3) Occasional Surveys

2.1.2 Timing of Surveys

The timing of surveys is as specified in the following (1) to (3).

- (1) Initial Surveys are to be carried out at the time the application for the survey is made.
- (2) Periodical Surveys are to be carried out at the times of Annual Surveys, Intermediate Surveys and Special Surveys for Classification (i.e. those times given in **1.1.3-1(1) to (3), Part B of the Rules for the Survey and Construction of Steel Ships**).
- (3) Occasional Surveys are to be carried out on the following occasions at times other than Initial Surveys or Periodical Surveys.
 - (a) In cases where the facilities for working environment of ships are changed or replaced.
 - (b) In cases where any conversions affecting the facilities for working environment of ships are carried out.
 - (c) In cases where any applications for surveys are submitted by owners.
 - (d) Other occasions when Occasional Surveys are considered to be necessary.

2.1.3 Periodical Surveys Carried Out in Advance or Postponed

The requirements for the carrying out in advance or postponement of Periodical Surveys are to be in accordance with the requirements for Periodical Surveys for Classification (i.e. **1.1.4 or 1.1.5, Part B of the Rules for the Survey and Construction of Steel Ships**).

2.1.4 Ships Laid-up

Ships laid-up are not subject to the Periodical Surveys specified in **2.1.1(2)**.

2.1.5 Preparation for Surveys and Other Related Issues

1 In cases where ships are to be surveyed in accordance with this Guidelines, it is the responsibility of the Owners to notify Surveyors of the locations where they wish to undergo such surveys. Surveyors are to be advised of surveys a reasonable time in advance so that such surveys can be carried out at proper times.

2 All such preparations as required for registration, periodical and other surveys specified in this Guidelines as well as those which may be required by Surveyors in accordance with this Guidelines are the responsibility of Owners or their representatives.

3 Applicants for surveys are to arrange supervisors who are well conversant with all of the survey items required for the preparation of such surveys and who are able to provide all necessary assistance to the Surveyor according to their requests during such surveys.

4 Surveys may be suspended in cases where necessary preparations have not been made, any appropriate supervisor is not present, or the Surveyor considers that the safety needed for the execution of the survey is not ensured.

5 In cases where repairs are considered to be necessary as a result of surveys, Surveyors notify survey applicants of their findings. Applicants, upon receiving such notification, are to obtain Surveyor verification after carrying out any necessary repairs.

2.1.6 Other

For the facilities specified in **3.2.4**, relevant surveys are to be conducted in accordance with **the Guidelines for Installation for Infection Control** in place of this chapter.

2.2 Initial Surveys

2.2.1 General

During Initial Surveys, the facilities for working environment of ships are to be examined and surveyed in order to ascertain whether this Guidelines is satisfied.

2.2.2 Submission of Plans and Document

1 For ships intending to undergo Initial Surveys, the relevant plans and documents specified in **Chapter 3** are to be submitted to the Society.

2 Notwithstanding **-1** above, it is not necessary to submit a separate set of such documents for Initial Surveys at Classification Surveys During Construction.

3 Submission of additional plans and documents may be required in cases where deemed necessary by the Society.

2.2.3 Survey Items

During Initial Surveys, the following items are to be confirmed:

- (1) The appropriate installation of all relevant facilities.
- (2) The proper provision on board of all relevant documents, procedures manuals and record books.
- (3) In cases where Initial Surveys are carried out at times other than at Classification Surveys During Construction, proper maintaining on board of all relevant facilities, documents, procedural manuals, and record books, etc. In addition, required record keeping is being carried out for record books, etc.

2.3 Periodical Surveys

2.3.1 General

During Periodical Surveys, the facilities for working environment of ships are to be surveyed in order to ascertain whether this Guidelines is satisfied.

2.3.2 Survey Items

During Periodical Surveys, the following items are to be confirmed.

- (1) The condition of relevant facilities is in good order.
- (2) Relevant documents, procedures manuals, etc. are being appropriately maintained.
- (3) Relevant record books, etc. are being appropriately maintained, and required record keeping is being carried out.

2.4 Occasional Surveys

2.4.1 General

In cases where facilities for working environment of ships are changed or replaced, Occasional Surveys are to be carried out and such facilities are to be confirmed as complying with this Guidelines.

Chapter 3 FACILITIES FOR WORKING ENVIRONMENT

3.1 General

3.1.1 Submission of Plans and Documents

During Initial Surveys, the plans and documents specified in **Table 3.1** are to be submitted to the Society in order to examine those items specified in **3.2** to **3.4**.

3.2 Living and Sanitary Facilities

3.2.1 Seafarer Internet Facilities (Internet Access)

1 For ships provided with the facilities specified in **-2**, and **-3** or **-4** in order to provide Internet access for the private use of seafarers, the class notation “Excellent Living and Working Environment(Internet Access)” (abbreviated as *ELW(IA)*) may be affixed to the classification characters of the ship.

2 Wireless LAN facilities are to be provided so that seafarers can access the Internet using smartphones, tablets, etc. in their respective cabins, mess rooms, rest rooms, etc. At least one access point shall be provided on each deck where the above rooms are arranged, taking into consideration the shape of the accommodation and the location of fire doors, etc.

3 For ships provided with communication facilities using mobile phone lines and contracted for related communication services, the notation “+Mobile Communication(+M)” may be added to the class notation specified in **-1** above. (e.g. “Excellent Living and Working Environment(Internet Access +Mobile Communication)” (abbreviated as *ELW(IA+M)*))

4 For ships provided with communication facilities using satellite communication lines and contracted for related communication services, the notation “+Satellite Communication(+S)” may be added to the class notation specified in **-1** above. (e.g. “Excellent Living and Working Environment(Internet Access+Satellite Communication)” (abbreviated as *ELW(IA+S)*))

5 The communication service described in **-4** above shall have a maximum data rate of 2 Mbps or higher in the land to ship direction (downstream) assuming the use of SNS and web pages containing photos.

3.2.2 Air Conditioners and Heating Systems with Independent Temperature Control for Each Cabin (Independent Temperature Control)

For ships provided with air conditioners and heating systems with independent temperature control functions for their respective cabins, the class notation “Excellent Living and Working Environment(Independent Temperature Control)” (abbreviated as *ELW(IT)*) may be affixed to the classification characters of the ship.

3.2.3 Gender Equality in Cabin and Sanitary Facilities (Gender Equality)

1 For ships provided with cabin and sanitary facilities that comply with the following -2 and -3 assuming that a small number of seafarers are of a different sex from other seafarers, the class notation “Excellent Living and Working Environment(Gender Equality)” (abbreviated as *ELW(GE)*) may be affixed to the classification characters of the ship.

2 All cabins are to be equipped with sanitary facilities (toilets, wash basins, and bathrooms) or an independent sanitary facility is to be provided for the seafarers referred to in -1 above.

3 An independent laundry room is to be provided for the seafarers referred to in -1 above.

3.2.4 Installation of Infection Control(Infection Control)

For ships provided with isolation rooms and air conditioners, etc. as separately specified by the Society to prevent the spread of infectious diseases, the class notation “Excellent Living and Working Environment(Infection Control)” (abbreviated as *ELW(IC)*) with relevant additional letters may be affixed to the classification characters of the ship.

(Refer to the **Guidelines for Installation for Infection Control** for further information.)

3.3 Foods

3.3.1 Freshness Preservation Equipment (Freshness Preservation)

1 For ships, in addition to refrigeration and freezing facilities, provided with equipment leading to further freshness preservation of fresh foodstuffs, the class notation “Excellent Living and Working Environment(Freshness Preservation)” (abbreviated as *ELW(FP)*) may be affixed to the classification characters of the ship.

2 Test results showing that the installation of the equipment improves the freshness preservation function of refrigeration and freezing facilities are to be submitted to the Society.

3.4 Occupational Safety and Health

3.4.1 Water Mist Facilities for Heat Stroke Prevention (Water Mist Facilities)

1 For ships provided with fixed facilities on exposed decks which generate mist to prevent heat stroke during cargo loading/unloading operations, the class notation “Excellent Living and Working Environment(Water Mist Facilities)” (abbreviated as *ELW(WM)*) may be affixed to the classification characters of the ship.

2 Piping is to be arranged to supply water of the quality specified by the manufacturer of the facilities.

3 The material of such facilities shall be suitable for maritime application.

3.5 Other

1 In cases where ships are provided with other facilities for working environment deemed appropriate by the Society, relevant class notation may be affixed to the classification characters of the ships.

2 The installation character or affixation to the classification characters for centralized cargo monitoring and control systems for safe and efficient cargo handling on oil tankers, etc., ships adopt noise and vibration control measures, and safe design for container lashing are to be in accordance with *Rules for Centralized Cargo Monitoring and Control Systems*, *Noise and Vibration Guideline*, and *Guidelines for Container Stowage and Securing Arrangements*, respectively.

Table 3.1 Plans and Documents to Be Submitted

Reference	Class notation	Plans and documents to be submitted	Related SDGs
3.2.1	<i>ELW(LA)</i>	(1) Network diagrams (2) Drawings showing facility locations (3) Service agreements	9.1, 9.c
3.2.2	<i>ELW(IT)</i>	(1) System outlines (2) Drawings showing facility locations (3) Piping diagrams (if applicable) (4) Duct diagrams (if applicable)	8.5
3.2.3	<i>ELW(GE)</i>	General arrangements (Accommodations)	5.1
3.2.4	<i>ELW(IC)</i>	Refer to the <i>Guidelines for Installation for Infection Control</i>	3.3
3.3.1	<i>ELW(FP)</i>	(1) System outlines (2) Drawings showing equipment locations (3) Test reports showing equipment performance	2.1
3.4.1	<i>ELW(WM)</i>	(1) System outlines (2) Drawings showing facility locations (3) Piping diagrams (4) Wiring diagrams	8.5

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