標題

"Cargo Securing Arrangement"に関する PSC 集中検査キャンペーンについて

ClassNK
テクニカル
インフォメーション

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各位

Tokyo MOU より、2016 年度の PSC 集中検査キャンペーンを次のとおり実施するとの Press Release がありましたので、お知らせいたします。

1. 集中検査の概要

集中検査項目: Cargo Securing Arrangements
実施期間: 2016 年 9 月 1 日から 2016 年 11 月 30 日

集中検査の対象となる項目につきましては、添付 Press Release 中の質問票フォーム"CIC on Cargo Securing Arrangements"をご参照下さい。

また、Indian Ocean MOU および Black Sea MOU からも、同じ期間に同じ項目（同じ質問票フォームを使用）で集中検査を実施するとの Press Release がありましたので、あわせてお知らせいたします。

2. 弊会からの本集中検査に関する補足説明について
集中検査キャンペーンで PSC 検査官が用いる質問票フォームについて、弊会より幾つかの補足説明をさせていただきますので、質問票のご理解及び事前準備にお役立ていただければ幸甚です。

[質問票 1 関連]
- 固縛を要しない貨物（ばら積み貨物等）運送時においては、貨物固縛マニュアルの所持は不要です。

[質問票 2A 及び 2B 関連]
- MSC.1/Circ.1353 は、2015 年 1 月 1 日より前に起工の現存船において、MSC/Circ.745 に基づき承認されている貨物固縛マニュアルの内容に変更を及ぼすものではございません。（ClassNK テクニカル・インフォメーション No.TEC-0996（2014 年 8 月 1 日付）参照）
- MSC.1/Circ.1353/Rev.1 では、MSC.1/Circ.1353 の適用対象船舶の明確化が行われておりますが、要件自体は MSC.1/Circ.1353 から変更ございません。
- 従いまして、MSC.1/Circ.1353 に基づき承認されている貨物固縛マニュアル、及び 2015 年 1 月 1 日より前に起工の現存船において、MSC/Circ.745 に基づき承認されている貨物固縛マニュアルは、MSC.1/Circ.1353/Rev.1 の関連要件を満足していることとなります。

（次頁に続く）

[質問票 4 関連]
- 貨物固縛に必要な固定式/非固定式設備については、適宜その仕様(配置図/証明書等)を貨物固縛マニュアルに差し込むことで、設備個々に対する承認は要しません。

[質問票 8 関連]
- 2015 年 1 月 1 日以降起工のコンテナ船(コンテナ専用船並びに、その他の船舶で、甲板上にコンテナを積載して輸送する為に特別に設計され、その為の設備を有する船舶)のみが対象となります。

[その他、質問票に特段明記されていないが、関連項目として PSC 検査官が指摘を行う可能性があると考えられる項目]
- (Q1) 上甲板及び/又はハッチカバー上に貨物を固縛して運ぶ場合、On deck 積み Condition がローディングマニュアル内の標準積付状態に含まれているか。
- (補足 1)On deck 積み仕様ではない船舶による On deck 積み Operation に対し、PSC 検査官が何らかの指摘を行う可能性がございます。一般的に、On deck 積み仕様の船舶とは、ローディングマニュアル内に標準積付状態の記載、並びに積付計算機が On deck 貨物の重量や重心位置を考慮可能な仕様となっている船舶を指します。

- (Q2)固定式/非固定式の貨物固縛設備に対して適切な証明書が貨物固縛マニュアルに含まれているか。
- (補足 2)可能な限りそれぞれの装置の証明書が含まれている必要がありますが、ここで言う証明書は船級の発行したものである必要はなく、メーカー発行の証明書等で差し支えありません。

なお、本件に関してご不明な点は、以下の部署にお問い合わせください。

一般財団法人　日本海事協会　（ClassNK）
本部　管理センター別館　検査部
住所:　東京都千代田区紀尾井町 3-3（郵便番号　102-0094）
Tel.:　03-5226-2027
Fax:　03-5226-2029
E-mail:　svd@classnk.or.jp

添付:

1. Tokyo MOU Press Release（含質問票フォーム"CIC on Cargo Securing Arrangements"）
2. MSC.1/Circ.1353/Rev.1

TOKYO MOU SECRETARIAT

Ascend Shimbashi 8F
6-19-19, Shimbashi, Minato-ku
Tokyo 105-0004
Japan

Tel: +81-3-3433-0621
Fax: +81-3-3433-0624
E-mail: secretariat@tokyo-mou.org
Web site: www.tokyo-mou.org

PRESS RELEASE

CONCENTRATED INSPECTION CAMPAIGN (CIC) ON CARGO SECURING ARRANGEMENTS

The Member Authorities of the Tokyo MOU with other co-operating MOUs will carry-out a concentrated inspection campaign on Cargo Securing Arrangements on the 1st September 2016 through the 30th November 2016. The purpose or goal of this year's CIC is to gain knowledge on the compliance of ships with applicable Cargo Securing requirements and the overall safety of ships and seafarers engaged in cargo securing operations. The objectives of the Tokyo MOU member states in the performance the CIC are to:

- measure compliance with the requirements of the applicable international conventions;
- ensure that the Master, Officers, and Crew are familiar with procedures for cargo securing arrangements; and,
- raise awareness of the hazards associated with cargo securing and with safe practices for cargo securing.

During the period of the CIC, member authorities of the Tokyo MOU will inspect cargo securing arrangements during the normal port state control inspections. Port State Control actions associated with this campaign may range from the issuing of deficiencies to more severe control measures such as detaining a ship to prevent it from going to sea in an unsafe condition. However, the purpose of this campaign is not to detain ships, but rather to improve safety and compliance related to cargo securing arrangements. Ships will only be subject to one CIC inspection during the campaign. The Master of the ship will receive a copy of the CIC questionnaire from the port state control officer as evidence that the CIC was performed.

Masters and ship's crew are encouraged to review cargo securing procedures and

arrangements as outlined in their ship's Cargo Securing Manual and ensure they are securing cargo in accordance with the manual and following all applicable safety procedures. Vessel owners and operators are encouraged to review the ship's cargo securing manual to ensure it is up-to-date with ship operations and that it has been approved and updated as necessary by their Administration or the Recognized Organization authorized to act on behalf of the Administration.

The results of this CIC will be analyzed and findings presented to the International Maritime Organization in an effort to measure and/or improve the effectiveness of IMO instruments.

1 August 2016

Contact

Tokyo MOU Secretariat
Ascend Shimbashi 8F
6-19-19, Shimbashi
Minato-ku, Tokyo
Japan 105-0004

Telephone: +81-3-3433 0621
Facsimile: +81-3-3433 0624
E-mail: secretariat@tokyo-mou.org
Web-site: www.tokyo-mou.org

MEMORANDUM OF UNDERSTANDING
ON PORT STATE CONTROL
IN THE ASIA-PACIFIC REGION

CONCENTRATED INSPECTION CAMPAIGN
ON CARGO SECURING ARRANGEMENTS
01/09/2016 to 30/11/2016

CIC on Cargo Securing Arrangements

Inspection Authority:			
Ship Name:		**IMO Number:**	
Date of Inspection		**Inspection Port:**	

No.	Question	Yes	No	N/A
1	Is an approved cargo securing manual onboard?*			
2	Cargo Securing Manual:			
2A	• Does the cargo securing manual meet the guidelines outlined in MSC.1/Circ. 1353/Rev.1?**			
2B	• If the answer to question 2A is "No", does the cargo securing manual meet a standard at least equivalent to the above guidelines?** If the answer to question 2A is "Yes", question 2B should be checked "N/A".			
3	Are the Master and Person in Charge of cargo operations familiar with the cargo securing manual?*			
4	Are the lashings/fittings as per the cargo securing manual?*			
5	Is the condition of the lashings/fittings considered satisfactory for their intended use?*			
6	Are appropriate securing points or fittings being used for cargo securing?*			
7	Is there a sufficient quantity of reserve cargo securing devices onboard?			
8	Is the vessel following the Cargo Safe Access Plan (CSAP)?*			
9	Were deficiencies recorded as a result of this CIC?			
10	Was the vessel detained as a result of deficiencies found during this CIC?			

* If the box "No" is checked off for questions marked with an asterisk, the ship may be considered for detention. PSCOs should take into consideration the severity of the non-compliance when evaluating whether a detention is warranted keeping in mind the purpose of a detention is to keep an unsafe ship from proceeding to sea.

** For Containerships (containership means dedicated container ships and those parts of other ships for which arrangements are specifically designed and fitted for the purpose of carrying containers on deck), constructed on or after 1 January 2015, the ship may be considered for detention if there is no Cargo Safe Access Plan (CSAP).

INTERNATIONAL MARITIME ORGANIZATION

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4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1353/Rev.1
15 December 2014

REVISED GUIDELINES FOR THE PREPARATION OF THE CARGO SECURING MANUAL

1 In accordance with regulations VI/5 and VII/5 of the 1974 SOLAS Convention, as amended, cargo units and cargo transport units shall be loaded, stowed and secured throughout the voyage in accordance with the Cargo Securing Manual approved by the Administration, which shall be drawn up to a standard at least equivalent to the guidelines developed by the Organization.

2 The Maritime Safety Committee, at its eighty-seventh session (12 to 21 May 2010), considered the proposal by the Sub-Committee on Dangerous Goods, Solid Cargoes and Containers, at its fourteenth session (21 to 25 September 2009), and approved the *Revised guidelines for the preparation of the Cargo Securing Manua*l, as set out in the annex.

3 These revised guidelines are based on the provisions contained in the annex to MSC/Circ.745 but have been expanded to include the safe access for lashing of containers, taking into account the provisions of the Code of Safe Practice for Cargo Stowage and Securing (CSS Code), as amended. They are of a general nature and intended to provide guidance on the preparation of such Cargo Securing Manuals, which are required on all types of ships engaged in the carriage of cargoes other than solid and liquid bulk cargoes.

4 Member Governments are invited to bring these guidelines to the attention of all parties concerned, with the aim of having Cargo Securing Manuals carried on board ships prepared appropriately and in a consistent manner, and to:

.1 apply the revised guidelines in its entirety for containerships*, the keels of which were laid or which are at a similar stage of construction on or after 1 January 2015; and

.2 apply chapters 1 to 4 of the revised guidelines to existing containerships*, the keels of which were laid or which were at a similar stage of construction before 1 January 2015.

5 This circular supersedes MSC.1/Circ.1353.

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* As approved by the Maritime Safety Committee at its ninety-fourth session (17 to 21 November 2014), reference to containerships means dedicated container ships and those parts of other ships for which arrangements are specifically designed and fitted for the purpose of carrying containers on deck.

ANNEX

REVISED GUIDELINES FOR THE PREPARATION OF THE CARGO SECURING MANUAL

PREAMBLE

1 In accordance with the International Convention for the Safety of Life at Sea, 1974 (SOLAS) chapters VI, VII and the Code of Safe Practice for Cargo Stowage and Securing (CSS Code), cargo units, including containers shall be stowed and secured throughout the voyage in accordance with a Cargo Securing Manual, approved by the Administration.

2 The Cargo Securing Manual is required on all types of ships engaged in the carriage of all cargoes other than solid and liquid bulk cargoes.

3 The purpose of these guidelines is to ensure that Cargo Securing Manuals cover all relevant aspects of cargo stowage and securing and to provide a uniform approach to the preparation of Cargo Securing Manuals, their layout and content. Administrations may continue accepting Cargo Securing Manuals drafted in accordance with Containers and cargoes (BC) – Cargo Securing Manual (MSC/Circ.385) provided that they satisfy the requirements of these guidelines.

4 If necessary, those manuals should be revised explicitly when the ship is intended to carry containers in a standardized system.

5 It is important that securing devices meet acceptable functional and strength criteria applicable to the ship and its cargo. It is also important that the officers on board are aware of the magnitude and direction of the forces involved and the correct application and limitations of the cargo securing devices. The crew and other persons employed for the securing of cargoes should be instructed in the correct application and use of the cargo securing devices on board the ship.

CHAPTER 1 – GENERAL

1.1 Definitions

1.1.1 *Cargo securing devices* are all fixed and portable devices used to secure and support cargo units.

1.1.2 *Maximum securing load (MSL)* is a term used to define the allowable load capacity for a device used to secure cargo to a ship. *Safe working load (SWL)* may be substituted for MSL for securing purposes, provided this is equal to or exceeds the strength defined by MSL.

1.1.3 *Standardized cargo* means cargo for which the ship is provided with an approved securing system based upon cargo units of specific types.

1.1.4 *Semi-standardized cargo* means cargo for which the ship is provided with a securing system capable of accommodating a limited variety of cargo units, such as vehicles, trailers, etc.

1.1.5 *Non-standardized cargo* means cargo which requires individual stowage and securing arrangements.

1.2 Preparation of the manual

The Cargo Securing Manual should be developed, taking into account the recommendations given in these Guidelines, and should be written in the working language or languages of the ship. If the language or languages used is not English, French or Spanish, a translation into one of these languages should be included.

1.3 General information

This chapter should contain the following general statements:

.1 "The guidance given herein should by no means rule out the principles of good seamanship, neither can it replace experience in stowage and securing practice."

.2 "The information and requirements set forth in this Manual are consistent with the requirements of the vessel's trim and stability booklet, International Load Line Certificate (1966), the hull strength loading manual (if provided) and with the requirements of the International Maritime Dangerous Goods (IMDG) Code (if applicable)."

.3 "This Cargo Securing Manual specifies arrangements and cargo securing devices provided on board the ship for the correct application to and the securing of cargo units, containers, vehicles and other entities, based on transverse, longitudinal and vertical forces which may arise during adverse weather and sea conditions."

.4 "It is imperative to the safety of the ship and the protection of the cargo and personnel that the securing of the cargo is carried out properly and that only appropriate securing points or fittings should be used for cargo securing."

.5 "The cargo securing devices mentioned in this manual should be applied so as to be suitable and adapted to the quantity, type of packaging, and physical properties of the cargo to be carried. When new or alternative types of cargo securing devices are introduced, the Cargo Securing Manual should be revised accordingly. Alternative cargo securing devices introduced should not have less strength than the devices being replaced."

.6 "There should be a sufficient quantity of reserve cargo securing devices on board the ship."

.7 "Information on the strength and instructions for the use and maintenance of each specific type of cargo securing device, where applicable, is provided in this manual. The cargo securing devices should be maintained in a satisfactory condition. Items worn or damaged to such an extent that their quality is impaired should be replaced."

.8 The Cargo Safe Access Plan (CSAP) is intended to provide detailed information for persons engaged in work connected with cargo stowage and securing. Safe access should be provided and maintained in accordance with this plan.

CHAPTER 2 – SECURING DEVICES AND ARRANGEMENTS

2.1 Specification for fixed cargo securing devices

This sub-chapter should indicate and where necessary illustrate the number, locations, type and MSL of the fixed devices used to secure cargo and should as a minimum contain the following information:

2.1.1 a list and/or plan of the fixed cargo securing devices, which should be supplemented with appropriate documentation for each type of device as far as practicable. The appropriate documentation should include information as applicable regarding:

.1 name of manufacturer;

.2 type designation of item with simple sketch for ease of identification;

.3 material(s);

.4 identification marking;

.5 strength test result or ultimate tensile strength test result;

.6 result of non destructive testing; and

.7 Maximum Securing Load (MSL);

2.1.2 fixed securing devices on bulkheads, web frames, stanchions, etc. and their types (e.g. pad eyes, eyebolts, etc.), where provided, including their MSL;

2.1.3 fixed securing devices on decks and their types (e.g. elephant feet fittings, container fittings, apertures, etc.) where provided, including their MSL;

2.1.4 fixed securing devices on deckheads, where provided, listing their types and MSL; and

2.1.5 for existing ships with non-standardized fixed securing devices, the information on MSL and location of securing points is deemed sufficient.

2.2 Specification for portable cargo securing devices

This sub-chapter should describe the number of and the functional and design characteristics of the portable cargo securing devices carried on board the ship, and should be supplemented by suitable drawings or sketches if deemed necessary. It should contain the following information as applicable:

2.2.1 a list for the portable securing devices, which should be supplemented with appropriate documentation for each type of device, as far as practicable. The appropriate documentation should include information as applicable regarding:

.1 name of manufacturer;

.2 type designation of item with simple sketch for ease of identification;

.3 material(s), including minimum safe operational temperature;

.4 identification marking;

.5 strength test result or ultimate tensile strength test result;

.6 result of non destructive testing; and

.7 Maximum Securing Load (MSL);

2.2.2 container stacking fittings, container deck securing fittings, fittings for interlocking of containers, bridge-fittings, etc. their MSL and use;

2.2.3 chains, wire lashings, rods, etc. their MSL and use;

2.2.4 tensioners (e.g. turnbuckles, chain tensioners, etc.), their MSL and use;

2.2.5 securing gear for cars, if appropriate, and other vehicles, their MSL and use;

2.2.6 trestles and jacks, etc. for vehicles (trailers) where provided, including their MSL and use; and

2.2.7 anti-skid material (e.g. soft boards) for use with cargo units having low frictional characteristics.

2.3 Inspection and maintenance schemes

This sub-chapter should describe inspection and maintenance schemes of the cargo securing devices on board the ship.

2.3.1 Regular inspections and maintenance should be carried out under the responsibility of the master. Cargo securing devices inspections as a minimum should include:

.1 routine visual examinations of components being utilized; and

.2 periodic examinations/re-testing as required by the Administration. When required, the cargo securing devices concerned should be subjected to inspections by the Administration.

2.3.2 This sub-chapter should document actions to inspect and maintain the ship's cargo securing devices. Entries should be made in a record book, which should be kept with the Cargo Securing Manual. This record book should contain the following information:

.1 procedures for accepting, maintaining and repairing or rejecting cargo securing devices; and

.2 record of inspections.

2.3.3 This sub-chapter should contain information for the master regarding inspections and adjustment of securing arrangements during the voyage.

2.3.4 Computerized maintenance procedures may be referred to in this sub-chapter.

CHAPTER 3 – STOWAGE AND SECURING OF NON-STANDARDIZED AND SEMI-STANDARDIZED CARGO

3.1 Handling and safety instructions

This sub-chapter should contain:

.1 instructions on the proper handling of the securing devices; and

.2 safety instructions related to handling of securing devices and to securing and unsecuring of units by ship or shore personnel.

3.2 Evaluation of forces acting on cargo units

This sub-chapter should contain the following information:

.1 tables or diagrams giving a broad outline of the accelerations which can be expected in various positions on board the ship in adverse sea conditions and with a range of applicable metacentric height (GM) values;

.2 examples of the forces acting on typical cargo units when subjected to the accelerations referred to in paragraph 3.2.1 and angles of roll and metacentric height (GM) values above which the forces acting on the cargo units exceed the permissible limit for the specified securing arrangements as far as practicable;

.3 examples of how to calculate number and strength of portable securing devices required to counteract the forces referred to in 3.2.2 as well as safety factors to be used for different types of portable cargo securing devices. Calculations may be carried out according to annex 13 to the CSS Code or methods accepted by the Administration;

.4 it is recommended that the designer of a Cargo Securing Manual converts the calculation method used into a form suiting the particular ship, its securing devices and the cargo carried. This form may consist of applicable diagrams, tables or calculated examples; and

.5 other operational arrangements such as electronic data processing (EDP) or use of a loading computer may be accepted as alternatives to the requirements of the above paragraphs 3.2.1 to 3.2.4, providing that this system contains the same information.

3.3 Application of portable securing devices on various cargo units, vehicles and stowage blocks

3.3.1 This sub-chapter should draw the master's attention to the correct application of portable securing devices, taking into account the following factors:

.1 duration of the voyage;

.2 geographical area of the voyage with particular regard to the minimum safe operational temperature of the portable securing devices;

.3 sea conditions which may be expected;

.4 dimensions, design and characteristics of the ship;

.5 expected static and dynamic forces during the voyage;

.6 type and packaging of cargo units including vehicles;

.7 intended stowage pattern of the cargo units including vehicles; and

.8 mass and dimensions of the cargo units and vehicles.

3.3.2 This sub-chapter should describe the application of portable cargo securing devices as to number of lashings and allowable lashing angles. Where necessary, the text should be supplemented by suitable drawings or sketches to facilitate the correct understanding and proper application of the securing devices to various types of cargo and cargo units. It should be pointed out that for certain cargo units and other entities with low friction resistance, it is advisable to place soft boards or other anti-skid material under the cargo to increase friction between the deck and the cargo.

3.3.3 This sub-chapter should contain guidance as to the recommended location and method of stowing and securing of containers, trailers and other cargo carrying vehicles, palletized cargoes, unit loads and single cargo items (e.g. woodpulp, paper rolls, etc.), heavy weight cargoes, cars and other vehicles.

3.4 Supplementary requirements for ro-ro ships

3.4.1 The manual should contain sketches showing the layout of the fixed securing devices with identification of strength (MSL) as well as longitudinal and transverse distances between securing points. In preparing this sub-chapter further guidance should be utilized from IMO Assembly resolutions A.533(13) and A.581(14), as appropriate.

3.4.2 In designing securing arrangements for cargo units, including vehicles and containers, on ro-ro passenger ships and specifying minimum strength requirements for securing devices used, forces due to the motion of the ship, angle of heel after damage or flooding and other considerations relevant to the effectiveness of the cargo securing arrangement should be taken into account.

3.5 Bulk carriers

If bulk carriers carry cargo units falling within the scope of chapter VI/5 or chapter VII/5 of the SOLAS Convention, this cargo shall be stowed and secured in accordance with a Cargo Securing Manual, approved by the Administration.

CHAPTER 4 – STOWAGE AND SECURING OF CONTAINERS AND OTHER STANDARDIZED CARGO

4.1 Handling and safety instructions

This sub-chapter should contain:

.1 instructions on the proper handling of the securing devices; and

.2 safety instructions related to handling of securing devices and to securing and unsecuring of containers or other standardized cargo by ship or shore personnel.

4.2 Stowage and securing instructions

This sub-chapter is applicable to any stowage and securing system (i.e. stowage within or without cellguides) for containers and other standardized cargo. On existing ships the relevant documents regarding safe stowage and securing may be integrated into the material used for the preparation of this chapter.

4.2.1 Stowage and securing plan

This sub-chapter should consist of a comprehensive and understandable plan or set of plans providing the necessary overview on:

.1 longitudinal and athwartship views of under deck and on deck stowage locations of containers as appropriate;

.2 alternative stowage patterns for containers of different dimensions;

.3 maximum stack masses;

.4 permissible vertical sequences of masses in stacks;

.5 maximum stack heights with respect to approved sight lines; and

.6 application of securing devices using suitable symbols with due regard to stowage position, stack mass, sequence of masses in stack and stack height. The symbols used should be consistent throughout the Cargo Securing Manual.

4.2.2 Stowage and securing principle on deck and under deck

This sub-chapter should support the interpretation of the stowage and securing plan with regard to container stowage, highlighting:

.1 the use of the specified devices; and

.2 any guiding or limiting parameters as dimension of containers, maximum stack masses, sequence of masses in stacks, stacks affected by wind load, height of stacks.

It should contain specific warnings of possible consequences from misuse of securing devices or misinterpretation of instructions given.

4.3 Other allowable stowage patterns

4.3.1 This sub-chapter should provide the necessary information for the master to deal with cargo stowage situations deviating from the general instructions addressed under sub-chapter 4.2, including appropriate warnings of possible consequences from misuse of securing devices or misinterpretation of instructions given.

4.3.2 Information should be provided with regard to, inter alia:

.1 alternative vertical sequences of masses in stacks;

.2 stacks affected by wind load in the absence of outer stacks;

.3 alternative stowage of containers with various dimensions; and

.4 permissible reduction of securing effort with regard to lower stacks masses, lesser stack heights or other reasons.

4.4 Forces acting on cargo units

4.4.1 This sub-chapter should present the distribution of accelerations on which the stowage and securing system is based, and specify the underlying condition of stability. Information on forces induced by wind and sea on deck cargo should be provided.

4.4.2 It should further contain information on the nominal increase of forces or accelerations with an increase of initial stability. Recommendations should be given for reducing the risk of cargo losses from deck stowage by restrictions to stack masses or stack heights, where high initial stability cannot be avoided.

CHAPTER 5 – CARGO SAFE ACCESS PLAN (CSAP)

5.1 Ships which are specifically designed and fitted for the purpose of carrying containers should be provided with a Cargo Safe Access Plan (CSAP) in order to demonstrate that personnel will have safe access for container securing operations. This plan should detail arrangements necessary for the conducting of cargo stowage and securing in a safe manner. It should include the following for all areas to be worked by personnel:

.1 hand rails;

.2 platforms;

.3 walkways;

.4 ladders;

.5 access covers;

.6 location of equipment storage facilities;

.7 lighting fixtures;

.8 container alignment on hatch covers/pedestals;

.9 fittings for specialized containers, such as reefer plugs/receptacles;

.10 first aid stations and emergency access/egress;

.11 gangways; and

.12 any other arrangements necessary for the provision of safe access.

5.2 Guidelines for specific requirements are contained in annex 14 to the CSS Code.