



All respectful ICS surveyors

With gratitude, respectfully,
According to authenticity & delicacy issuance of ICSs' Certificates, attached guideline of issuance of CARRIAGE OF DANGEROUS GOODS Certificate (CDG Cert.) is being sent hereby.

Obviously, preparation manual for all convention certificates can be found in Instruction for Convention Survey.

The document related to the above mentioned subject and also the supplementary attachments are accessible through the following address on ICS Network (ICS-WAN):

<\\server\ICS Organization\Convention and LegislationDepartment\Publication\tech\2014\01>

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کلیه بازرسان محترم ICS

با سلام و احترام
باتوجه به لزوم دقت و صحت گواهینامه های صادره از موسسه رده بندی ایرانیان، به پیوست راهنمای صدور گواهینامه حمل کالاهای خطرناک (CDG Cert.) حضورتان ارسال می گردد.

بدیهی است نسخه اصلی راهنمای صدور کلیه گواهینامه های قانونی در Instruction For Convention Survey قابل دسترس می باشد.

این بخشنامه به انضمام پیوست های تکمیلی آن در بخش CLD از شبکه داخلی موسسه با آدرس ذیل قابل دسترسی می باشد.

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ع. غلام ابوالفضل
سرپرست واحد کنوانسیون ها و مقررات دریایی
موسسه رده بندی ایرانیان

ترک دعوی: اگرچه در گردآوری کلیه راهنماهای فنی ارائه شده توسط موسسه رده بندی ایرانیان، تا حد ممکن تلاش در دقت و صحت محتوا صورت گرفته است، این موسسه متحمل مسئولیتی در قبال هرگونه اشتباهات، خسارت های احتمالی و جزائمی که ممکن است در ارتباط با بکارگیری مفاهیم و مطالب ارائه شده رخ دهد، نمی باشد.

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1. GENERAL:

The carriage of goods by sea mainly focuses on loss of or damage to goods. There are voluminous discussions and texts on this issue. By contrast, the issue of loss or damage from goods has been paid little attention. Ever-increasing numbers of dangerous goods are carried by sea today. This increase draws attention to explosions or fire on ships, spillages, pollution, accidents and potential danger. Worldwide concern with the risk posed by the increased frequency in the carriage of dangerous goods has led to the adoption of international technical standards to promote maritime safety and the insertion of special provisions in the carriage contracts. Moreover, growing environmental awareness and concern with the economic cost implications of maritime casualties have given rise to the regulation of liability and compensation in respect of damage caused by hazardous and noxious substances.

2. HISTORY:

The UN Recommendations on the Transport of Dangerous Goods are contained in two documents prepared by the Sub-Committee of Experts on the Transport of Dangerous Goods of the United Nations Economic and Social Council (ECOSOC). They cover the transport of dangerous goods by all modes of transport except by bulk tanker. They are not obligatory or legally binding on individual countries, but have gained a wide degree of international acceptance: they form the basis of several international agreements and many national laws (MARPOL Protocol) was adopted at a Conference on Tanker Safety and Pollution Prevention in February 1978 held in response to a spate of tanker accidents in 1976-1977. The

first version of the Recommendations on the Transport of Dangerous Goods was produced by the ECOSOC in 1956.[1] From 1996, the Recommendations were effectively split into two parts: the Model Regulations, which form a suggested drafting for laws and regulations on the transport of dangerous goods; and the Manual of Tests and Criteria, which contains technical information about methods of testing products to ascertain their hazards. The 15th edition of the Recommendations was published in 2007

3. APPLICATION:

3-1) The following ships intended for carriage of dangerous goods according to SOLAS Reg.II-2/19:

- All passenger ships engaging in international voyages which constructed on or after 1 September 1984.*
- All cargo ships of 500 GT or above engaging in international voyages which constructed on or after 1 September 1984.*
- All cargo ships of less than 500 GT constructed on or after 1 February 1992*, but administration may reduce the requirements and such reduced requirements shall be recorded in the document of compliance.
- If requested by the ship owner, a document of compliance may be issued to ships irrespective of size and built year.

* In order to consider that SOLAS amendments are made for the safety of ships and crews and measurements are to be made for PSC inspection, this Society advises the ships not applied like as above but carrying CDG cargoes would be better have the document of compliance.

3-2) Drawings and data to be approved for CDG certificate (Document of Compliance). Following drawing and data are to be submitted to Machinery Department of Head Office by ship's owner:

- Stowage location of dangerous goods to be carried.
- Kind of dangerous goods to be carried (class No. of IMDG Code to be included).
- Fire Control Plan (Fire Protection & Fire Fighting) - 3 copies
- Hull Bilge Piping Diagram - 3 copies

3-2) Certificates (Document of Compliance)

3-2-1) Application for Revised (new) Certificate (DOC) format (specified in MSC.1/Circ.1266):

- For ships being constructed on or after 1 January 2011, and.
- For ships constructed on or after 1 September 1984 but before 1 January 2011 should be used not later than the date of the first renewal survey on or after 1 January 2011 according to amended SOLAS Reg.II-2/19.

3-3) The issuing condition, validity and etc. of the conditional certificate(DOC) to be input at column "Remarks other than above".

3-4) The valid term of CDG certificate (Document of Compliance) shall not exceed 5 years and that of SC certificate.

3-5) The survey completion date as follows should be taken in the column of "Completion date of survey on which this certificate is based: dd/mm/yyyy";

3-5-1) Survey completion date of latest Initial or renewal survey.

3-5-2) But in the following cases, to be filled with survey completion date at this time.

I) Flag change if holding the certificate(s) issued by authority or organization (society) not holding a QSCS certificate for registered vessel.

II) Convention survey without flag change in case of a ship which is holding convention certificate issued by authority or organization (society) not holding a QSCS certificate.

III) In the case of TOC from an organization (society) not holding a QSCS certificate. (CSD other than TOC)

3-5-3): Preparation the appendix of CDG certificate (DOC)

I) Appendix 1:

(a) Selection of 'ON DECK SPACES' and 'UNDER DECK SPACES'

The appendix of the CDG certificate is to be marked for the location of each cargo hold and E/R and spaces stowable for dangerous goods

on deck to be easily identified after review of G/A and stowage plan for reference.

(b) Marking the stowable spaces for dangerous goods

(i) The plans of Appendix 1

The stowable spaces are to be exactly marked on and /or under deck plans.

(ii) The table of Appendix 1

- For each space, the following indication should be marked for the stowage of dangerous goods, and if stowage not allowed for any space which exists on board, "X" should be necessarily marked:

P: Packed goods permitted.

B: Bulk goods allowed.

(See Appendix 2.)

A: Packed and bulk goods allowed

(see Appendix 2.)

X: Stowage not permitted or allowed.

- Stowage of class 2.3 having subsidiary risk class 2.1, class 4.3 liquid having a flashpoint less than 23 degree centigrade and class 5.2 dangerous goods under or in enclosed ro-ro spaces is prohibited.

(c) Remark of Appendix 1

Information and concerned notice which are different to be indicated on the table should be described as remarks under the table of Appendix 1, and the followings in general written:

- "For solid dangerous goods in bulk, A or B in the table above doesn't mean all kinds of the goods of each class, so the cargo list of Appendix 2 shall be referred."

- When dangerous goods of class 1.1-1.6 except 1.4S are stowed in hold near machinery spaces of category A, the following remarks shall be noted:

"Goods of class 1 except class of 1.4S shall be stowed 3m horizontally away from the machinery space boundaries in all cases".

- Other special notes.

II) Appendix 2:

a) List of individual cargoes in bulk of Appendix 2

i) Individual cargoes in bulk marked with B or A on the table of Appendix 1 should be listed with cargo name, UN No., IMO class No. and stowable spaces.

ii) For dangerous goods having a subsidiary risk class under the provisions of the IMDG Code, the subsidiary risk class shall also be started together:

- Aluminum Ferrosilicon Power UN 13954.3(6.1)
- Barium Nitrate UN 14465.1(6.1)
- Ferrosilicon UN 1408..... 4.3(6.1)
- Lead Nitrate UN 1469..... 5.1(6.1,P)

3-5-4) Use of revised (new) DOC (CDG Certificate)

a) Comparison of existing DOC format with new one according to MSC.1/Circ.1266 required by SOLAS Reg.II-2/19

CLASS	Existing DOC	New DOC
2.3(Toxic gases)	2.3	(2.3 divided into two) 2.3 flammable : - 3.2(Sources of ignition) added. - 3.3(Detection system) and 3.4.1(Power ventilation in enclosed cargo spaces) deleted. - Stowage of class 2.3 having subsidiary risk class 2.1 under deck or in enclosed ro-ro spaces is prohibited. 2.3 non-flammable : same as existing 2.3

3(Flammable liquids)	3 liquids $\leq 23^{15}$ 3 liquids $\geq 23^{15} \leq 60^{15}$	3 FP ¹⁵ <23 ¹⁵ 3 FP ¹⁵ $\geq 23^{15} \leq 60^{15}$
4.3(Substances Which, in Contact with water, emit flammable gases)	4.3	4.3 liquids : - 3.2(Sources of ignition) added : Only applicable to flashpoint less than 23 ¹⁵ . - Stowage of class 4.3 liquids having a flashpoint less than 23 ¹⁵ under deck or in enclosed ro-ro spaces is prohibited. 4.3 solid : same as existing 4.3
5.2(Organic peroxides)	5.2 - 3.10.1(Separation of enclosed and adjacent open ro-ro spaces) and 3.10.2(Separation of enclosed ro-ro spaces and ; Adjacent weather decks): Stowage under deck or in enclosed ro-ro spaces is prohibited-	5.2 Stowage under deck or in enclosed ro-ro spaces is prohibited. - 3.8(Insulation of machinery space boundaries) added
6.1(Toxic substances)	6.1 liquids $\leq 23^{15}$ 6.1 liquids $\geq 23^{15} \leq 61^{15}$	6.1 liquids FP ¹⁵ <23 ¹⁵ 6.1 liquids FP ¹⁵ $\geq 23^{15} \leq 61^{15}$
8(Corrosive)	8 liquids $\leq 23^{15}$ 8 liquids $\geq 23^{15} \leq 61^{15}$ - 3.5(Bilge pumping (8 liquids FP ¹⁵ <23 ¹⁵ 8 liquids FP ¹⁵ $\geq 23^{15} \leq 61^{15}$ -3.5(Bilge pumping) : Only applicable to dangerous goods having a subsidiary risk class 6.1.

8(Corrosive)	8 liquids	8 liquids - 3.5(Bilge pumping) added : Only applicable to dangerous goods having a subsidiary risk class 6.1
9(Miscellaneous dangerous substances and articles)	9	9 - 3.2(Sources of ignition) and 3.4.2(Fans and wire mesh guards) added: Only applicable to dangerous goods evolving flammable vapor.

4. APPENDIX:

1- The examples of a container & bulk ship

b) Procedure for issuance of new DOC

(a) New DOC format is made for SOLAS Reg.II-2/19 (effective from 1 Jan. 2011) adopted by Res.MSC.269(85).

(b) To (re)issue a DOC with new format, the requirements in the table above should be considered.

(c) For the dangerous goods with mark (refer to table of sub –part “a” of part 3-5-4 column for materials of 4.3) in the table above, the limitations should be stated as remarks under the table of Appendix 1 of the DOC.

e.g.) For a class 2.3 flammable and having subsidiary risk class 2.1(it can be confirmed in IMDG Code), it should be stated as follow:

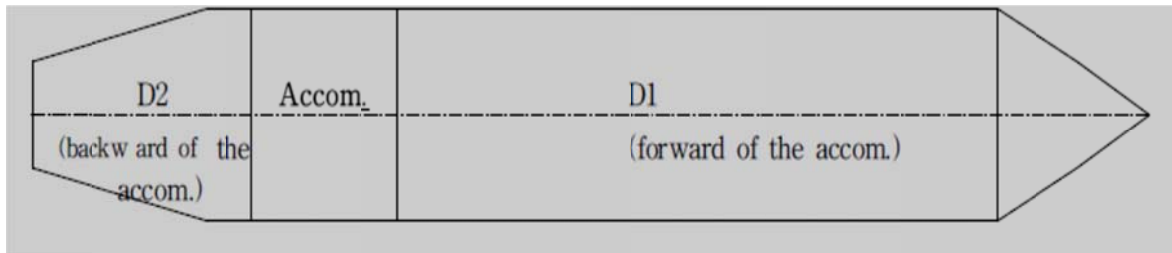
"Stowage of class 2.3 having subsidiary risk class 2.1 under deck or in enclosed ro-ro spaces is prohibited."

(Example 1: Container ship):

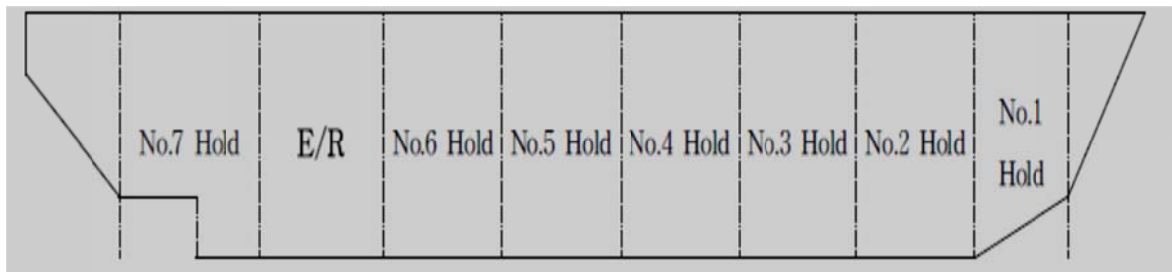
APPENDIX 1

SPACES TO BE INDICATED IN THE PLANS WITH NUMBERS CORRESPONDING WITH THE TABLE BELOW

ON DECK SPACES:



UNDER DECK SPACES:



CLASS	SPACE		HOLD										P Indicates Packaged Goods Permitted
	ON DECK		1	2	3	4	5	6	7	8	9	10	
1.1 - 1.6	P	P	P	P	X	X	X	X	X	-	-	-	B Indicates BULK GOODS ALLOWED (For allowable goods in bulk, see Appendix 2)
1.4S	P	P	P	P	X	X	X	X	X	-	-	-	
2.1	P	P	P	P	X	X	X	X	X	-	-	-	
2.2	P	P	P	P	P	P	P	P	X	-	-	-	A Indicates Packaged and Bulk Goods Allowed (For allowable goods in bulk, see Appendix 2)
2.3 flammable	P	P	P	P	X	X	X	X	X	-	-	-	
2.3 non-flammable	P	P	P	P	X	X	X	X	X	-	-	-	
3 FP<23°C	P	P	P	P	X	X	X	X	X	-	-	-	X Not Allowed
3 FP≥23°C to ≤60°C	P	P	P	P	P	P	P	P	X	-	-	-	
4.1	P	P	P	P	P	P	P	P	X	-	-	-	
4.2	P	P	P	P	P	P	P	P	X	-	-	-	X Not Allowed
4.3 liquids	P	P	P	P	P	P	P	P	X	-	-	-	
4.3 solid	P	P	P	P	P	P	P	P	X	-	-	-	
5.1	P	P	P	P	P	P	P	P	X	-	-	-	X Not Allowed
5.2	X	X	X	X	X	X	X	X	X	-	-	-	
6.1 liquids FP<23°C	P	P	P	P	X	X	X	X	X	-	-	-	
6.1 liquids FP≥23°C to ≤60°C	P	P	P	P	X	X	X	X	X	-	-	-	X Not Allowed
6.1 liquids	P	P	P	P	X	X	X	X	X	-	-	-	
6.1 solid	P	P	P	P	P	P	P	P	X	-	-	-	
8 liquids FP<23°C	P	P	P	P	P	P	P	P	X	-	-	-	X Not Allowed
8 liquids FP≥23°C to ≤60°C	P	P	P	P	X	X	X	X	X	-	-	-	
8 liquids	P	P	P	P	P	P	P	P	X	-	-	-	
8 solid	P	P	P	P	P	P	P	P	X	-	-	-	X Not Allowed
9	P	P	P	P	P	P	P	P	P	-	-	-	

Remarks related to the information in the table above as applicable:

1. For solid dangerous goods in bulk, A or B in the table above doesn't mean all kinds of the goods of each class, so the cargo list of Appendix 2 shall be referred.
2. Goods of class 1 except class of 1.4S shall be stowed 3 m horizontally away from the machinery space boundaries in all cases.
3. Stowage of class 2.3 having subsidiary risk class 2.1 under deck or in enclosed ro-ro spaces is prohibited.
4. Stowage of class 4.3 liquids having a flashpoint less than 23°C under deck or in enclosed ro-ro spaces is prohibited.

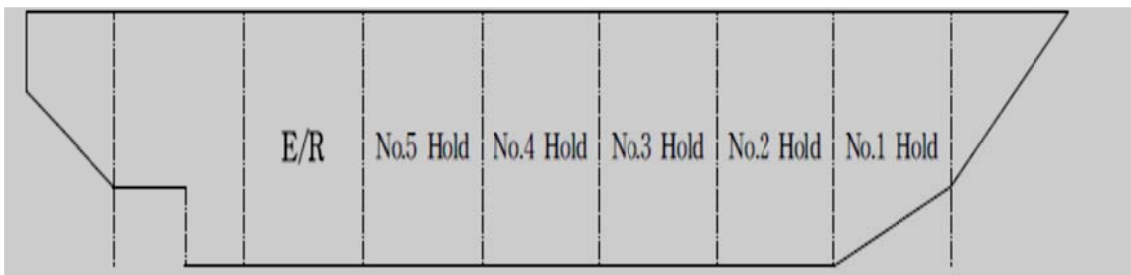
(Example 2: Bulk Carrier)

APPENDIX 1
SPACES TO BE INDICATED IN THE PLANS WITH NUMBERS CORRESPONDING
WITH THE TABLE BELOW

ON DECK SPACES:



UNDER DECK SPACES:



CLASS	SPACE		HOLD										P Indicates Packaged Goods Permitted	
	D1	D2	1	2	3	4	5	6	7	8	9	10		
1.1 - 1.6	-	-	X	X	X	X	X	-	-	-	-	-	-	B Indicates BULK GOODS ALLOWED (For allowable goods in bulk, see Appendix 2)
1.4S	-	-	X	X	X	X	X	-	-	-	-	-		
2.1	-	-	X	X	X	X	X	-	-	-	-	-		
2.2	-	-	X	X	X	X	X	-	-	-	-	-		
2.3 flammable	-	-	X	X	X	X	X	-	-	-	-	-		
2.3 non-flammable	-	-	X	X	X	X	X	-	-	-	-	-		
3 FP<23°C	-	-	X	X	X	X	X	-	-	-	-	-		
3 FP≥23°C to ≤60°C	-	-	X	X	X	X	X	-	-	-	-	-		
4.1	-	-	B	B	B	B	B	-	-	-	-	-		
4.2	-	-	B	B	B	B	X	-	-	-	-	-	A Indicates Packaged and Bulk Goods Allowed (For allowable goods in bulk, see Appendix 2)	
4.3 liquids	-	-	X	X	X	X	X	-	-	-	-	-		
4.3 solid	-	-	B	B	B	B	X	-	-	-	-	-		
5.1	-	-	B	B	B	B	B	-	-	-	-	-		
5.2	-	-	X	X	X	X	X	-	-	-	-	-		
6.1 liquids FP<23°C	-	-	X	X	X	X	X	-	-	-	-	-		
6.1 liquids FP≥23°C to ≤60°C	-	-	X	X	X	X	X	-	-	-	-	-		
6.1 liquids	-	-	X	X	X	X	X	-	-	-	-	-		
6.1 solid	-	-	X	X	X	X	X	-	-	-	-	-		
8 liquids FP<23°C	-	-	X	X	X	X	X	-	-	-	-	-		X Not Allowed
8 liquids FP≥23°C to ≤60°C	-	-	X	X	X	X	X	-	-	-	-	-		
8 liquids	-	-	X	X	X	X	X	-	-	-	-	-		
8 solid	-	-	X	X	X	X	X	-	-	-	-	-		
9	-	-	B	B	B	B	B	-	-	-	-	-		

Remarks related to the information in the table above as applicable:

For solid dangerous goods in bulk, A or B in the table above doesn't mean all kinds of the goods of each class, so the cargo list of Appendix 2 shall be referred.

(Example 2: List of individual cargoes in bulk for Bulk Carrier)

List of individual cargoes in bulk which are marked as B or A in Appendix 1.

APPENDIX 2
LIST OF INDIVIDUAL CARGOES IN BULK

Cargo Name	UN No.	IMO Class No.	Towable Spaces
Aluminum Nitrate	UN 1438	5.1	All Cargo Holds
Ammonium Nitrate Based Fertilizer	UN 2071	9	All Cargo Holds
Potassium Nitrate	UN 1486	5.1	All Cargo Holds No. 1,2,3,4
Seed Cake, containing vegetable oil (a)	UN 1386	4.2	
Sulphur	UN 1350	4.1	All Cargo Holds No. 1,2,3,4
Zinc Ashes	UN 1435	4.3	

