

ANNEX 2

**RESOLUTION MSC 78(70)
(adopted on 9 December 1998)****ADOPTION OF AMENDMENTS TO THE SEAFARERS' TRAINING,
CERTIFICATION AND WATCHKEEPING (STCW) CODE**

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING FURTHER article XII and regulation I/1.2.3 of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, hereinafter referred to as "the Convention", concerning the procedures for amending Part A of the Seafarers' Training, Certification and Watchkeeping (STCW) Code,

BEING DEEPLY CONCERNED at the continued loss of ships carrying solid bulk cargoes, sometimes without a trace, and the heavy loss of life incurred,

RECOGNIZING the urgent need to further improve minimum standards of competence of crews sailing on ships carrying solid bulk cargoes, to avoid recurrence of such casualties,

HAVING CONSIDERED the report of the *ad hoc* Working Group on Bulk Carrier Safety convened by the Committee during its sixty-seventh and sixty-eighth sessions,

HAVING ALSO CONSIDERED, at its seventieth session, amendments to Part A of the STCW Code proposed and circulated in accordance with article XII(1)(a)(i) of the Convention,

1. ADOPTS, in accordance with article XII(1)(a)(iv) of the Convention, amendments to the STCW Code, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article XII(1)(a)(vii)(2) of the Convention, that the said amendments to the STCW Code shall be deemed to have been accepted on 1 July 2002, unless, prior to that date more than one third of Parties or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant shipping of ships of 100 gross tonnage or more, have notified their objections to the amendments;
3. INVITES Parties to the Convention to note that, in accordance with article XII(1)(a)(ix) of the Convention, the annexed amendments to the STCW Code shall enter into force on 1 January 2003 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article XII(1)(a)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to the Convention; and
5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization, which are not Parties to the Convention.

ANNEX

AMENDMENTS TO THE SEAFARERS' TRAINING, CERTIFICATION AND WATCHKEEPING (STCW) CODE

In tables A-II/1 and A-II/2, under the respective functions: Cargo handling and stowage at the operational and management levels, the existing text is replaced by the following:

"Table A-II/1

Function: Cargo handling and stowage at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes	<p><i>Cargo handling, stowage and securing</i></p> <p>Knowledge of the effect of cargo including heavy lifts on the seaworthiness and stability of the ship</p> <p>Knowledge of the safe handling, stowage and securing of cargoes including solid bulk cargoes and dangerous, hazardous and harmful cargoes and their effect on the safety of life and of the ship</p> <p>Ability to establish and maintain effective communications during loading and unloading</p>	<p>Examination and assessment of evidence obtained from one or more of the following:</p> <p>1 approved in-service experience</p> <p>2 approved training ship experience</p> <p>3 approved simulator training, where appropriate</p>	<p>Cargo operations are carried out in accordance with the cargo plan or other documents and established safety rules/regulations, equipment operating instructions and shipboard stowage limitations</p> <p>The handling of dangerous, hazardous and harmful cargoes complies with international regulations and recognized standards and codes of safe practice</p> <p>Communications are clear, understood and consistently successful</p>

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<p>Inspect and report defects and damages to cargo spaces, hatch covers and ballast tanks</p>	<p>Knowledge¹ and ability to explain where to look for damages and defects most commonly encountered due to:</p> <ol style="list-style-type: none"> 1 loading and unloading operations 2 corrosion 3 severe weather conditions <p>Ability to state which parts of the ship shall be inspected each time in order to cover all parts within a given period of time</p> <p>Identify those elements of the ship structure which are critical to the safety of the ship</p> <p>State the causes of corrosion in cargo spaces and ballast tanks and how corrosion can be identified and prevented</p> <p>Knowledge of procedures on how the inspections shall be carried out</p> <p>Ability to explain how to ensure reliable detection of defects and damages</p> <p>Understanding of the purpose of the "Enhanced Survey Programme"</p> <p>¹It should be understood that deck officers need not be qualified in the survey of ships.</p>	<p>Examination and assessment of evidence obtained from one or more of the following:</p> <ol style="list-style-type: none"> 1 approved in-service experience 2 approved training ship experience 3 approved simulator training, where appropriate 	<p>The inspections are carried out in accordance with laid down procedures and defects and damages are detected and properly reported</p> <p>Where no defects or damages are detected, the evidence from testing and examination clearly indicates adequate competence in adhering to procedures and ability to distinguish between normal and defective or damaged parts of the ship</p>

Table A-II/2

Function: Cargo handling and stowage at the management level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes	<p>Knowledge of and ability to apply relevant international regulations, codes and standards concerning the safe handling, stowage, securing and transport of cargoes</p> <p>Knowledge of the effect on trim and stability of cargoes and cargo operations</p> <p>Use of stability and trim diagrams and stress-calculating equipment, including automatic data-based (ADB) equipment, and knowledge of loading cargoes and ballasting in order to keep hull stress within a acceptable limits.</p> <p>Stowage and securing of cargoes on board ships, including cargo-handling gear and securing and lashing equipment</p> <p>Loading and unloading operations, with special regard to the transport of cargoes identified in the Code of Safe Practice for Cargo Stowage and Securing</p> <p>General knowledge of tankers and tanker operations</p> <p>Knowledge of the operational and design limitations of bulk carriers</p> <p>Ability to use all available shipboard data related to loading, care and unloading of bulk cargoes</p> <p>Ability to establish procedures for safe cargo handling in accordance with the provisions of the relevant instruments such as BC Code, IMDG Code, MARPOL 73/78 Annexes III and V and other relevant information</p> <p>Ability to explain the basic principles for establishing effective communications and improving working relationship between ship and terminal personnel</p>	<p>Examination and assessment of evidence obtained from one or more of the following:</p> <p>1 approved in-service experience</p> <p>2 approved simulator training , where appropriate</p> <p>using: stability, trim and stress tables, diagrams and stress- calculating equipment</p>	<p>The frequency and extent of cargo conditions monitoring is appropriate to its nature and prevailing conditions</p> <p>Unacceptable or unforeseen variations in the condition or specification of the cargo is promptly recognized and remedial action is immediately taken and designed to safeguard the safety of the ship and those on board</p> <p>Cargo operations are planned and executed in accordance with established procedures and legislative requirements</p> <p>Stowage and securing of cargoes ensures that stability and stress conditions remain within safe limits at all times during the voyage</p>

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Assess reported defects and damages to cargo spaces, hatch covers and ballast tanks and take appropriate action	<p>Knowledge of the limitations on strength of the vital constructional parts of a standard bulk carrier and ability to interpret given figures for bending moments and shear forces</p> <p>Ability to explain how to avoid the detrimental effects on bulk carriers of corrosion, fatigue and inadequate cargo handling</p>	<p>Examination and assessment of evidence obtained from one or more of the following:</p> <p>1 approved in-service experience</p> <p>2 approved simulator training , where appropriate</p> <p>using: stability, trim and stress tables, diagrams and stress- calculating equipment</p>	<p>Evaluations are based on accepted principles, well-founded arguments and correctly carried out. The decisions taken are acceptable, taking into consideration the safety of the ship and the prevailing conditions</p>
Carriage of dangerous goods	<p>International regulations, standards, codes and recommendations on the carriage of dangerous cargoes, including the International Maritime Dangerous Goods (IMDG) Code and the Code of Safe Practice for Solid Bulk Cargoes (BC Code).</p> <p>Carriage of dangerous, hazardous and harmful cargoes; precautions during loading and unloading and care during the voyage</p>	<p>Examination and assessment of evidence obtained from one or more of the following:</p> <p>1 approved in-service experience</p> <p>2 approved simulator training where appropriate</p> <p>3 approved specialist training</p>	<p>Planned distribution of cargo is based on reliable information and is in accordance with established guidelines and legislative requirements</p> <p>Information on dangers, hazards and special requirements is recorded in a format suitable for easy reference in the event of an incident</p>
