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CARGOES AND CONTAINERS
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PREPARATION OF DRAFT AMENDMENT 04-17 TO THE IMSBC CODE

New proposals of amendments to the Code, new individual schedules or amendments to existing ones

Proposed editorial amendments and some other remarks

Submitted by Finland

SUMMARY

<i>Executive summary:</i>	This document proposes to harmonize some of the texts in the IMSBC Code. In addition, some other remarks are provided.
<i>Strategic direction:</i>	5.2
<i>High-level action:</i>	5.2.3
<i>Output:</i>	5.2.3.3
<i>Action to be taken:</i>	Paragraph 29
<i>Related document:</i>	CCC 2/5

Introduction

1 As stated in paragraph 5.35 of the report of E&T 22 (CCC 2/5), in considering the overall discussions of the E&T group during that session, it was noted that there is a need for wording harmonization within the sections of both existing and future individual schedules of the IMSBC Code, which deal with similar safety issues. Noting that this is a major task, the group agreed to recommend the CCC Sub-Committee to invite interested Member States and international organizations to submit concrete proposals in this regard.

2 Finland has embarked on the task of wording harmonization of certain texts of the individual schedules of the IMSBC Code. During the execution of this task, some other observations have been made which might be worth to consider.

Proposed amendments and some other remarks

3 A standard text is used in the section for "Loading" in the individual schedules of the IMSBC Code which states: "Trim in accordance with the relevant provisions required under sections 4 and 5 of the Code." However, it has been agreed that in order to point out more clearly that the reference is made to the IMSBC Code, the standard text should be amended as follows: "Trim in accordance with the relevant provisions required under sections 4 and 5 of this Code." If an individual cargo is non-cohesive, the corresponding text is: "Trim in accordance with the relevant provisions required under sections 4, 5 and 6 of the Code." It has also been agreed that with regard to non-cohesive cargoes, it is not necessary to refer to section 6 of the IMSBC Code. Thus, the same proposed new standard text should be used for non-cohesive cargoes as well: "Trim in accordance with the relevant provisions required under sections 4 and 5 of this Code." The following list indicates the individual schedules which should be amended accordingly. The schedules which are highlighted with bold face are for non-cohesive cargoes.

ALFALFA
ALUMINA
ALUMINA, CALCINED
ALUMINA HYDRATE
ALUMINA SILICA
ALUMINA SILICA, pellets
ALUMINIUM FERROSILICON POWDER UN 1395
ALUMINIUM NITRATE UN 1438
ALUMINIUM SILICON POWDER, UNCOATED UN 1398
ALUMINIUM SMELTING BY-PRODUCTS or
ALUMINIUM REMELTING BY-PRODUCTS UN 3170
ALUMINIUM SMELTING/REMELTING BY-PRODUCTS, PROCESSED
AMMONIUM NITRATE UN 1942
AMMONIUM NITRATE BASED FERTILIZER UN 2067
AMMONIUM NITRATE BASED FERTILIZER UN 2071
AMMONIUM NITRATE BASED FERTILIZER (non-hazardous)
AMMONIUM SULPHATE
ANTIMONY ORE AND RESIDUE
BARIUM NITRATE UN 1446
BARYTES
BAUXITE
BIOSLUDGE
BORAX (PENTAHYDRATE CRUDE)
BORAX, ANHYDROUS (crude or refined)
CALCIUM NITRATE UN 1454
CALCIUM NITRATE FERTILIZER
CARBORUNDUM
CASTOR BEANS or CASTOR MEAL or CASTOR POMACE or CASTOR FLAKE UN 2969
CEMENT CLINKERS
CHAMOTTE
CHARCOAL
CHOPPED RUBBER AND PLASTIC INSULATION
CHROME PELLETS
CHROMITE ORE
CLAY
CLINKER ASH
COAL
COAL SLURRY

COAL TAR PITCH
COARSE CHOPPED TYRES
COARSE IRON AND STEEL SLAG AND ITS MIXTURE
COKE
COKE BREEZE
COLEMANITE
COPPER GRANULES
COPPER MATTE
COPRA (dry) UN 1363
CRUSHED CARBON ANODES
CRYOLITE
DIAMMONIUM PHOSPHATE (D.A.P.)
DIRECT REDUCED IRON (A) Briquettes, hot-moulded
DIRECT REDUCED IRON (B) Lumps, pellets, cold-moulded briquettes
DIRECT REDUCED IRON (C) (By-product fines)
DISTILLERS DRIED GRAINS WITH SOLUBLES
DOLOMITE
FELSPAR LUMP
FERROCHROME
FERROCHROME, exothermic
FERROMANGANESE
FERRONICKEL
FERROPHOSPHORUS (including briquettes)
FERROSILICON UN 1408 with 30% or more but less than 90% silicon (including briquettes)
FERROSILICON with 25% to 30% silicon, or 90% or more silicon (including briquettes)
FERROUS SULPHATE HEPTAHYDRATE
FERTILIZERS WITHOUT NITRATES (non-hazardous)
FISH (IN BULK)
FISHMEAL (FISHSCRAP), STABILIZED UN 2216 Anti-oxidant treated
FLUORSPAR
FLY ASH, DRY
FLY ASH, WET
GRAIN SCREENING PELLETS
GRANULAR FERROUS SULPHATE
GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT)
GRANULATED SLAG
GRANULATED TYRE RUBBER
GYPSUM
GYPSUM GRANULATED
ILMENITE CLAY
ILMENITE (ROCK)
ILMENITE SAND
ILMENITE (UPGRADED)
IRON ORE PELLETS
IRON OXIDE, SPENT or IRON SPONGE, SPENT UN 1376 obtained from coal gas purification
IRONSTONE
LABRADORITE
LEAD NITRATE UN 1469
LEAD ORE
LIME (UNSLAKED)
LIMESTONE
LINTED COTTON SEED with not more than 9% moisture and not more than 20.5% oil
MAGNESIA (DEADBURNED)
MAGNESIA (UNSLAKED)

MAGNESITE, natural

MAGNESIUM NITRATE UN 1474

MAGNESIUM SULPHATE FERTILIZERS

MANGANESE ORE

MARBLE CHIPS

MONOAMMONIUM PHOSPHATE (M.A.P.)

NICKEL ORE

PEANUTS (in shell)

PEAT MOSS

PEBBLES (sea)

PELLETS (concentrates)

PERLITE ROCK

PETROLEUM COKE (calcined or uncalcined) (The text used for this cargo is at the moment: "The cargo shall be trimmed in accordance with the cargo information required by section 4 of this Code")

PHOSPHATE (defluorinated)

PHOSPHATE ROCK (calcined)

PHOSPHATE ROCK (uncalcined)

PIG IRON

PITCH PRILL

POTASH

POTASSIUM CHLORIDE

POTASSIUM NITRATE UN 1486

POTASSIUM SULPHATE

PUMICE

PYRITE (containing copper and iron)

PYRITES, CALCINED (Calcined Pyrites)

PYROPHYLLITE

QUARTZ

QUARTZITE

RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I), non-fissile or fissile – excepted UN 2912

RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I), non-fissile or fissile – excepted UN 2913

RASORITE (ANHYDROUS)

RUTILE SAND

SALT

SALT CAKE

SALT ROCK

SAND

SAND, HEAVY MINERAL

SAWDUST

SEED CAKE, containing vegetable oil UN 1386 (a) mechanically expelled seeds, containing more than 10% of oil or more than 20% of oil and moisture combined.

SEED CAKE, containing vegetable oil UN 1386 (b) solvent extractions and expelled seeds, containing not more than 10% of oil and when the amount of moisture is higher than 10%, not more than 20% of oil and moisture combined.

SEED CAKE UN 2217 with not more than 1.5% oil and not more than 11% moisture

SEED CAKE (non-hazardous)

SILICOMANGANESE (low carbon)

SILICON SLAG

SODA ASH (Dense and light)

SODIUM NITRATE UN 1498

SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE UN 1499

SOLIDIFIED FUELS RECYCLED FROM PAPER AND PLASTICS
STAINLESS STEEL GRINDING DUST
STONE CHIPPINGS
SUGAR
SULPHUR (formed, solid)
SULPHUR UN 1350 (crushed lump and coarse grained)
SUPERPHOSPHATE
SUPERPHOSPHATE (triple, granular)
TACONITE PELLETS
TALC
TANKAGE
TAPIOCA
UREA
VANADIUM ORE
VERMICULITE
WHITE QUARTZ
WOODCHIPS
WOOD PELLETS CONTAINING ADDITIVES AND/OR BINDERS
WOOD PELLETS NOT CONTAINING ANY ADDITIVES AND/OR BINDERS
WOOD PRODUCTS – GENERAL
WOOD TORREFIED
ZINC ASHES UN 1435
ZIRCONSAND

4 It has been agreed to use a standard text in the section for "Loading" when the stowage factor of an individual cargo is 0.56 m³/t or less: "As the density of the cargo is extremely high, the tank top may be overstressed unless the cargo is evenly spread across the tank top to equalize the weight distribution. Due consideration shall be paid to ensure that the tank top is not overstressed during voyage and during loading by a pile of the cargo." The following schedules seem to miss this standard text even though the stated stowage factor of these cargoes is 0.56 m³/t or less. Thus, it is proposed to add the said standard text for these schedules:

CARBORUNDUM
DIRECT REDUCED IRON (A) Briquettes, hot-moulded
DIRECT REDUCED IRON (C) (By-product fines)
MAGNESIA (DEADBURNED)
PELLETS (concentrates)
PYROPHYLLITE
VANADIUM ORE

5 It has also been agreed to use a corresponding standard text in the section for "Loading" when the stowage factor of an individual cargo can vary so that it can be more or less than 0.56 m³/t: "When the stowage factor of this cargo is equal to or less than 0.56 m³/t, the tank top may be overstressed unless the cargo is evenly spread across the tank top to equalize the weight distribution. Due consideration shall be given to ensure that the tank top is not overstressed during the voyage and during loading by a pile of the cargo." Some schedules seem to miss this standard text. Some other schedules seem to have the standard text for cargoes whose stowage factor is 0.56 m³/t or less (i.e. the above-mentioned text in the previous paragraph) even though their stowage factor can vary on both sides of 0.56 m³/t. Thus, there is a need to add the new standard text for some schedules while some schedules need to be amended in order to include the right text for them. The schedules in question are:

DIRECT REDUCED IRON (B) Lumps, pellets, cold-moulded briquettes
 FERROSILICON UN 1408 with 30% or more but less than 90% silicon (including briquettes)
 FERROSILICON with 25% to 30% silicon, or 90% or more silicon (including briquettes)
 FLUORSPAR
 LEAD ORE
 MANGANESE ORE
 MINERAL CONCENTRATES
 SAND

6 The standard text used for Group A cargoes in the section for "Hazard" is: "This cargo may liquefy if shipped at moisture content in excess of its transportable moisture limit (TML). See sections 7 and 8 of this Code." There is a need to amend the following schedules in order to harmonize them in this regard. It should be noted that the amendments that are required for some schedules are very minor in nature.

ALUMINIUM SMELTING/REMELTING BY-PRODUCTS, PROCESSED
 CLINKER ASH
 COAL SLURRY
 COKE BREEZE
 FLUORSPAR
 FLY ASH, DRY
 FLY ASH, WET
 ILMENITE CLAY
 ILMENITE SAND
 MINERAL CONCENTRATES
 PEAT MOSS
 PYRITES, CALCINED (Calcined Pyrites)
 SAND, HEAVY MINERAL

7 There is also a text for Group A cargoes in the section for "Carriage" that is used regularly: "The appearance of the surface of this cargo shall be checked regularly during voyage. If free water above the cargo or fluid state of the cargo is observed during voyage, the master shall take appropriate actions to prevent cargo shifting and potential capsize of the ship, and give consideration to seeking emergency entry into a place of refuge." The following Group A cargoes do not contain the said text. Thus, it should probably be considered to amend these schedules accordingly:

COPPER SLAG
 FISH (IN BULK)
 FLUORSPAR
 PEAT MOSS
 PYRITES, CALCINED (Calcined Pyrites)
 ZINC SLAG

8 In 1.4.2 of the IMSBC Code, it is stated that the texts in the sections for "Description", "Characteristics (other than CLASS and GROUP)", "Hazard" and "Emergency procedures" of individual schedules of solid bulk cargoes in appendix 1 are recommendatory or informative in nature. In 9.3.1.1 of the Code, it is stated that the segregation of Group B cargoes shall also take account of any identified subsidiary risk. Subsidiary risk is indicated in the table under "Characteristics" of the relevant individual schedules, e.g. ALUMINIUM FERROSILICON POWDER UN 1395. However, subsidiary risk seems to have been omitted from 1.4.2 of the Code, provided that the corresponding indication in the "Characteristics" table is meant to be legally mandatory. Thus, it is proposed to amend the above-mentioned sentence in 1.4.2 of

the Code: "The texts in the sections for "Description", "Characteristics (other than CLASS, SUBSIDIARY RISK and GROUP)", "Hazard" and "Emergency procedures" of individual schedules of solid bulk cargoes in appendix 1."

9 It is also stated in 1.4.2 of the IMSBC Code that appendices other than appendix 1 of the Code are recommendatory or informative. In 4.1.4 of the Code, it is stated that in the absence of test procedures approved by a competent authority in the country of origin, the various properties of a solid bulk cargo shall be determined, as appropriate to that cargo, in accordance with the test procedures prescribed in appendix 2 of the IMSBC Code. If the aim of that provision is to make the use of test procedures in appendix 2 of the Code mandatory in such cases, there would seem to be a slight contradiction with regard to 1.4.2 of the Code. If, however, the above-mentioned provision is meant to be recommendatory, it might be worth to consider amending it slightly in order to better reflect its recommendatory nature. This is especially because the word "shall" with the phrase "in accordance with" is used consistently in IMO instruments when referring to provisions which are meant to be legally mandatory.

10 With regard to the individual schedule for CLINKER ASH, it has recently been agreed to insert the words "or a ship complying with the requirements in subsection 7.3.3" under the section for "Weather precautions", indicating that CLINKER ASH can be carried in a specially constructed cargo ship for dry powdery cargoes without complying with the standard provisions under "Weather precautions" for Group A cargoes. In the absence of a specific definition for dry powdery cargoes, it is quite hard to try to identify if there are any other cargoes which could potentially be carried in such a ship without complying with the standard weather precautions. Solely by examining the descriptions for the individual schedules, it can be noticed that at least ALUMINA HYDRATE, ALUMINIUM FLUORIDE, CHEMICAL GYPSUM and COKE BREEZE are Group A cargoes which are both dry and powdery. It might be preferable to try to provide a bit more clarity by, for example, trying to further define what is meant by dry powdery cargoes in this regard.

11 In 4.3.3 of the IMSBC Code, it is stated that when a concentrate or other cargo which may liquefy is carried, procedures for sampling, testing and controlling moisture content to ensure the moisture content is less than the TML when it is on board the ship shall be established by the shipper, taking account of the provisions of the Code. This requirement was incorporated in the amendment 02-13 of the Code. This is reflected in the section for "Weather precautions" of some schedules of Group A cargoes which use a standard text: ".4 the cargo may be handled during precipitation under the conditions stated in the procedures required in paragraph 4.3.3 of this Code; and". However, an older standard text in .4 of many other Group A cargoes is used which states: ".4 the cargo may be handled during precipitation provided that the actual moisture content of the cargo is sufficiently less than its TML so that the actual moisture content is not liable to be increased beyond the TML by the precipitation; and". It might be worth to consider if some of the following schedules should be amended in order to use the standard text which makes a reference to 4.3.3 of the IMSBC Code:

COAL
COAL SLURRY
COKE BREEZE
FLUORSPAR
FLY ASH, DRY
ILMENITE CLAY
METAL SULPHIDE CONCENTRATES
MINERAL CONCENTRATES

12 The standard text used in the section for "Weather precautions" for Group A cargoes is nowadays:

"When a cargo is carried in a ship other than a ship complying with the requirements in subsection 7.3.2 of this Code, the following provisions shall be complied with:

- .1 the moisture content of the cargo shall be kept less than its TML during loading operations and the voyage;
- .2 unless expressly provided otherwise in this individual schedule, the cargo shall not be handled during precipitation;
- .3 unless expressly provided otherwise in this individual schedule, during handling of the cargo, all non-working hatches of the cargo spaces into which the cargo is loaded or to be loaded shall be closed;
- .4 the cargo may be handled during precipitation under the conditions stated in the procedures required in paragraph 4.3.3 of this Code; and
- .5 the cargo in a cargo space may be discharged during precipitation provided that the total amount of the cargo in the cargo space is to be discharged in the port."

Some schedules for Group A cargoes contain a different text in the section for "Weather precautions". It might be worth to consider harmonizing these schedules by incorporating the above-mentioned standard text. These schedules are:

ALUMINIUM FLUORIDE (in .1 the reference to loading operations is missing)
 ALUMINIUM SMELTING/REMELTING BY-PRODUCTS, PROCESSED
 COAL (in .1 the reference to loading operations is missing)
 COAL SLURRY (in .1 the reference to loading operations is missing)
 COKE BREEZE (in .1 the reference to loading operations is missing)
 FLUORSPAR (in .1 the reference to loading operations is missing)
 FLY ASH, WET (in .1 the reference to loading operations is missing)
 ILMENITE CLAY (in .1 the reference to loading operations is missing)
 ILMENITE SAND
 METAL SULPHIDE CONCENTRATES (in .1 the reference to loading operations is missing)
 MINERAL CONCENTRATES (in .1 the reference to loading operations is missing)
 NICKEL ORE (a different text in .1)
 PEAT MOSS
 PYRITES, CALCINED (Calcined Pyrites)

13 There are, at the moment, footnotes in the individual schedules for COAL and SULPHUR (formed, solid) which refer to Revised recommendations for entering enclosed spaces aboard ships, adopted by the Organization by resolution A.1050(27). It might be worth considering if it would be useful to make a corresponding reference in some other schedules as well. The following schedules have explicit provisions related to entering enclosed spaces. The location of these provisions is indicated in brackets after the individual BCSNs:

BROWN COAL BRIQUETTES ("Discharge")
 COPRA (dry) UN 1363 ("Precautions")
 DIRECT REDUCED IRON (A) Briquettes, hot-moulded ("Precautions")
 DIRECT REDUCED IRON (B) Lumps, pellets, cold-moulded briquettes ("Precautions")
 DIRECT REDUCED IRON (C) (By-product fines) ("Precautions")

FERROSILICON UN 1408 with 30% or more but less than 90% silicon (including briquettes) (Appendix – "Operational requirements")

FERROSILICON with 25% to 30% silicon, or 90% or more silicon (including briquettes) (Appendix – "Operational requirements")

FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS UN 2793 in a form liable to self-heating ("Carriage" and "Discharge")

LINTED COTTON SEED with not more than 9% moisture and not more than 20.5% oil ("Precautions")

METAL SULPHIDE CONCENTRATES ("Precautions")

PEAT MOSS ("Precautions")

SEED CAKE, containing vegetable oil UN 1386 (a) mechanically expelled seeds, containing more than 10% of oil or more than 20% of oil and moisture combined. ("Precautions")

SEED CAKE, containing vegetable oil UN 1386 (b) solvent extractions and expelled seeds, containing not more than 10% of oil and when the amount of moisture is higher than 10%, not more than 20% of oil and moisture combined. ("Precautions")

SEED CAKE UN 2217 with not more than 1.5% oil and not more than 11% moisture ("Precautions")

SILICOMANGANESE (low carbon) ("Precautions")

SOLIDIFIED FUELS RECYCLED FROM PAPER AND PLASTICS ("Precautions")

WOODCHIPS ("Precautions")

WOOD PELLETS CONTAINING ADDITIVES AND/OR BINDERS ("Precautions")

WOOD PELLETS NOT CONTAINING ANY ADDITIVES AND/OR BINDERS ("Precautions")

WOOD PRODUCTS - GENERAL ("Precautions")

WOOD TORREFIED ("Precautions")

14 The DIRECT REDUCED IRON schedules (A, B and C) refer to "LEL" in the sections for "Carriage" and "Discharge". Presumably, "LEL" in this regard is meant to refer to lower explosion limit. However, "LEL" is not defined anywhere in the text. It might be useful, from the point of view of clarity, to consider adding the words "lower explosion limit" into those relevant sentences.

15 The appendix of the individual schedule for BROWN COAL BRIQUETTES refers to "the company's designated person" in 8.1 of the section for "Carriage". The appendix of COAL refers to "the company" in .5 of the section for "Self-heating coals". Presumably, "the company's designated person" and "the company" are meant to refer to the concepts defined in SOLAS Chapter IX and the ISM Code. It might be useful, from the point of view of clarity, to consider making these references explicit in the said schedules of the IMSBC Code.

16 Right under the BCSN of the individual schedule for FISHMEAL (FISHSCRAP), STABILIZED UN 2216 Anti-oxidant treated, there is a text which states: "*The provisions of this entry should **not** apply to consignments of fishmeal, Group C, which are accompanied by a certificate issued by the competent authority of the country of shipment, stating that the material has no self-heating properties when transported in bulk.*" That text is probably slightly confusing because there is no individual schedule for Group C fishmeal at the moment in the IMSBC Code.

17 The individual schedule for ILMENITE SAND is perhaps slightly unorthodox with regard to the fact that it is stated right under the BCSN that: "This cargo can be categorized as Group A or C." This is amplified in the "Characteristics" table where the Group is indicated as A or C. Further, in the section for "Hazard", it is stated that: "This cargo in Group C has no special hazards. This cargo in Group A may liquefy if shipped at a moisture content in excess of its TML. See section 7 of this Code." If it is accepted as a premise that a Group A cargo, by definition and because of its characteristics, is liable to liquefy if it is transported at moisture content in excess

of its TML, it is perhaps slightly misleading to label this same cargo as Group C. That is why it might be worth to consider if removing the references to Group C in the schedule for ILMENITE SAND would be in line with the categorization used in the IMSBC Code.

18 Right under the BCSN for PYRITE (containing copper and iron), it is also stated that: "This cargo can be categorized as Group A or C." Further, it is stated that: "This cargo entry is for cargo in Group C." One may notice that there is, at least at the moment, no Group A entry for PYRITE (containing copper and iron). Hence, the said statement is perhaps a bit misleading.

19 In the section for "Carriage" in the individual schedule for ALUMINIUM FERROSILICON POWDER UN 1395, there is a provision which states: "For quantitative measurements of hydrogen, phosphine and arsine and silane, suitable detectors for each gas or combination of gases shall be on board while this cargo is carried." In the section for "Hazard", there is a corresponding text on the hazards of gases: "In contact with water may evolve hydrogen, a flammable gas which may form an explosive mixture in air. Impurities may, under similar conditions, produce phosphine and arsine, which are highly toxic gases." Notably, silane is missing from that text. In the section for "Hazard" in the individual schedule for ALUMINIUM SILICON POWDER, UNCOATED UN 1398, there is this kind of text: "In contact with water may evolve hydrogen, a flammable gas which may form explosive mixtures with air. Impurities may, under similar circumstances, produce phosphine and arsine, which are highly toxic gases. May also evolve silanes, which are toxic and may ignite spontaneously." So, silane is mentioned in that text. However, silane is missing from the section for "Carriage", as the text in that section is: "For quantitative measurements of hydrogen, phosphine, arsine, suitable detectors for each gas or combination of gases shall be on board while this cargo is carried." Hence, it might be worth to consider if harmonizing, with regard to silane, the schedules for ALUMINIUM FERROSILICON POWDER UN 1395 and ALUMINIUM SILICON POWDER, UNCOATED UN 1398 would be a good idea.

20 In a similar vein, the "Carriage" section of the individual section for ALUMINIUM SMELTING/REMELTING BY-PRODUCTS, PROCESSED states that: "For quantitative measurements of hydrogen, ammonia and acetylene, suitable detectors for each gas or combination of gases shall be on board while this cargo is carried." However, the "Hazard" section seems to omit acetylene as it is stated there that: "This cargo may develop small amount of hydrogen, a flammable gas which may form explosive mixtures with air, and of ammonia, which is a highly toxic gas." Perhaps acetylene should be mentioned in the section for "Hazard" as well.

21 Again, correspondingly, the "Hazard" section of the individual section for IRON OXIDE, SPENT or IRON SPONGE, SPENT UN 1376 obtained from coal gas purification states that: "Toxic gases: hydrogen sulphide, sulphur dioxide, and hydrogen cyanide may be produced." However, the "Carriage" section seems to omit hydrogen sulphide and sulphur dioxide by stating that: "For quantitative measurements of oxygen and hydrogen cyanide, suitable detectors for each gas or combination of gases shall be on board while this cargo is carried." Perhaps detectors for hydrogen sulphide and sulphur dioxide should be required as well, and thus they should be mentioned in the section for "Carriage".

22 In the section for "Characteristics" in the individual schedule for SULPHUR UN 1350 (crushed lump and coarse grained), it is stated that this cargo belongs to Class 4.1. According to 9.2.2.1 of the IMSBC Code, Class 4.1 materials are flammable solids which are readily combustible solids and solids which may cause fire through friction. However, in the section for "Hazard" in the SULPHUR UN 1350 (crushed lump and coarse grained) schedule, it is stated that: "This cargo is non-combustible or has a low fire-risk." Taking into account that SULPHUR UN 1350 (crushed lump and coarse grained) belongs to Class 4.1, the said text in the "Hazard" section should probably be deleted.

23 In the section for "Hazard" in the individual schedule for PETROLEUM COKE (calcined or uncalcined), it is stated that: "Uncalcined petroleum coke is liable to heat and ignite spontaneously when not loaded and transported under the provisions of this entry." It is also stated that: "This cargo is non-combustible or has a low fire-risk." There might be a need to consider if there is an inherent contradiction between those two statements.

24 According to 1.4.2 of the IMSBC Code, the texts in the sections for "Description", "Characteristics (other than CLASS and GROUP)", "Hazard" and "Emergency procedures" of the individual schedules of solid bulk cargoes in appendix 1 are legally recommendatory or informative. Thus, all the other sections of the individual schedules are legally mandatory. With this in mind, it is perhaps slightly confusing that the word "should" is used in some of the texts which belong to the legally mandatory sections of the individual schedules. The word "should" would seem to imply that the texts in which that word is used are meant to be legally recommendatory. Perhaps this really is what is meant by those texts, but as these texts are located in the otherwise legally mandatory sections of the individual sections, there is this slight inherent contradiction. In the following, these texts are indicated by referring to the BCSNs and the relevant sections in brackets. If it turns out that some of these texts should actually be legally mandatory, the word "should" should probably be replaced with the word "shall".

ALUMINIUM SMELTING/REMELTING BY-PRODUCTS, PROCESSED ("Clean-up")

"Prior to using water for hold cleaning, holds should be swept to remove as much cargo residues as practicable."

AMMONIUM NITRATE BASED FERTILIZER (non-hazardous) ("Stowage and segregation")

"The compatibility of non-hazardous ammonium nitrate based fertilizers with other materials which may be stowed in the same cargo space should be considered before loading."

CALCIUM NITRATE UN 1454 (right under the BCSN)

"The provisions of this Code should not apply to the commercial grades of calcium nitrate fertilizers consisting mainly of a double salt (calcium nitrate and ammonium nitrate) and containing not more than 10% ammonium nitrate and at least 12% water of crystallization."

CARBORUNDUM ("Precautions")

"Personnel involved in cargo handling should wear protective clothing and dust filter masks."

CHARCOAL ("Loading")

"Hot charcoal screenings in excess of 55°C should not be loaded."

DIRECT REDUCED IRON (A) Briquettes, hot-moulded ("Clean-up")

"Hosing with seawater should be avoided."

DIRECT REDUCED IRON (B) Lumps, pellets, cold-moulded briquettes ("Clean-up")

"Hosing with seawater should be avoided."

FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS UN 2793 in a form liable to self-heating (right under the BCSN)

"This schedule should not apply to consignments of materials which are accompanied by a declaration submitted prior to loading by the shipper and stating that they have no self-heating properties when transported in bulk."

LINTED COTTON SEED with not more than 9% moisture and not more than 20.5% oil ("Carriage")

"Hatches should be weathertight to prevent the ingress of water."

METAL SULPHIDE CONCENTRATES ("Precautions")

"When a Metal Sulphide Concentrate is considered as presenting a low fire-risk, the carriage of such cargo on a ship not fitted with a fixed gas fire-extinguishing system should be subject to the Administration's authorization as provided by SOLAS regulation II-2/10.7.1.4."

PEAT MOSS ("Loading")

"Peat moss having a moisture content of more than 80% by weight should only be carried on a ship complying with the requirements in subsection 7.3.2 of this Code."

SEED CAKE, containing vegetable oil UN 1386 (b) solvent extractions and expelled seeds, containing not more than 10% of oil and when the amount of moisture is higher than 10%, not more than 20% of oil and moisture combined. (right under the BCSN)

"When, in solvent-extracted seed cake, the oil or oil and moisture content exceeds the percentages stated above, guidance should be sought from the competent authorities."

SEED CAKE UN 2217 with not more than 1.5% oil and not more than 11% moisture ("Ventilation")

"Surface ventilation, either natural or mechanical, should be conducted, as necessary, for removing any residual solvent vapour."

SUPERPHOSPHATE (triple, granular) ("Precautions" and "Clean-up", respectively)

"Hold trimming plates and tank tops should be lime-washed to prevent corrosion."

"After discharge of this cargo, particular attention should be paid to bilge wells of the cargo spaces."

VANADIUM ORE ("Precautions")

"Exposure of persons to dust should be minimized."

WOODCHIPS ("Precautions")

"Entry of personnel into cargo and adjacent confined spaces should not be permitted until tests have been carried out and it has been established that the oxygen level is 20.7%. If this condition is not met, additional ventilation should be applied to the cargo hold or adjacent enclosed spaces and re-measuring shall be conducted after a suitable interval."

25 In the section for "Hazard" in the individual schedule for SUGAR, there is a mention on "formation of a liquid base" in brackets. In 7.2.3 of the Code, it is stated that: "Some cargoes are susceptible to moisture migration and may develop a dangerous wet base even if the

average moisture content is less than the TML." Provided that SUGAR is a kind of cargo that may develop a dangerous wet base as stated in 7.2.3 of the Code, the word "liquid" in the "Hazard" section could probably be replaced with the word "wet", in order to be consistent.

26 In the section for "Clean-up" in the individual schedule for FLY ASH, DRY, it is stated that: "After complying with the foregoing requirements, the cargo spaces shall be washed out and the water for washing out shall be pumped out in an appropriate manner, except in the case that the BCSN of the cargo to be loaded subsequent to discharge is FLY ASH." In this regard, it should be noted that there is no such BCSN as FLY ASH in the IMSBC Code. Instead, there are separate schedules for FLY ASH, DRY and FLY ASH, WET. Hence, there is probably a need to be more precise with regard to the above-mentioned provision in the section for "Clean-up".

27 It is stated under the section for "Description" of the individual schedule for SEED CAKE UN 2217 with not more than 1.5% oil and not more than 11% moisture that: "The provisions of this entry should not apply to solvent-extracted rape seed meal pellets, soya bean meal, cotton seed meal and sunflower seed meal containing not more than 1.5% oil and not more than 11% moisture and being substantially free from flammable solvent. A certificate from a person recognized by the competent authority of the country of shipment should be provided by the shipper, prior to loading, stating that the provisions for the exemption are met." As the BCSN states in legally mandatory way the maximum oil and moisture content of this cargo, it is perhaps slightly inconsistent to state these same limits in a legally non-mandatory section for "Description". Perhaps it is also slightly odd to use the word "should" with regard to the requirement to have a certificate given by a person recognized by the competent authority of the country of shipment. Perhaps a possible solution would be to move these provisions right under the BCSN so as to make them legally mandatory, and replace the "should" words with "shall".

28 There would seem to be some inconsistencies with regard to the usage of the words "section", "subsection" and "paragraph" throughout the IMSBC Code. For example, in 1.2.1 of the Code, there is a reference which states: "see section 4.2". In 5.3.1 it is stated that: "...the general provisions in subsection 5.1 shall apply." Those two references would seem to point to provisions which are on the same hierarchical level, but in the first one the word used is "section", whereas in the second one it is "subsection". To provide another example, in the section for "Weather precautions" in the individual schedules, in .4 for Group A cargoes, there is sometimes a reference to "subsection 4.3.3 of this Code", whereas for some other schedules the reference is made to "paragraph 4.3.3 of this Code". Here, the reference is clearly made to the same 4.3.3 of the Code, but the words differ. There are perhaps two alternative ways to harmonize the relevant texts of the Code in this regard. One option is to reserve the word "section" for referring to "section x", while all the other references would be to "paragraphs", i.e. "paragraph x.x", "paragraph x.x.x", "paragraph x.x.x.x", etc. Another option is to refer to "section x", "subsection x.x", "paragraph x.x.x" and "subparagraph x.x.x.x" consistently throughout the Code.

Action requested of the group

29 The group is invited to consider the proposals and comments provided above, and take action as appropriate.