

SUB-COMMITTEE ON POLLUTION  
PREVENTION AND RESPONSE  
3rd session  
Agenda item 3

PPR 3/3/6  
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**SAFETY AND POLLUTION HAZARDS OF CHEMICALS AND PREPARATION OF  
CONSEQUENTIAL AMENDMENTS TO THE IBC CODE**

**Analysis of impacts to carriage requirements based on application  
of the new draft chapter 21 of the IBC Code**

**Submitted by IPTA, ICS and INTERTANKO**

**SUMMARY**

<i>Executive summary:</i>	This document comments on document PPR 3/3/1 and draws attention to the consequences of some of the proposed amendments to chapter 21 of the IBC Code
<i>Strategic direction:</i>	7.2
<i>High-level action:</i>	7.2.2
<i>Output:</i>	7.2.2.1
<i>Action to be taken:</i>	Paragraph 12
<i>Related documents:</i>	PPR 3/3/1 and PPR 3/3/2

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the *Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies*. This document comments on the issues raised in document PPR 3/3/1 (Secretariat) and related matters.

2 Document PPR 3/3/1 contains the results of analysis performed by the Secretariat of the impacts on products in chapters 17 and 18 of the IBC Code of the proposed changes to the criteria for assigning carriage requirements found in the revised draft chapter 21 of the Code. It was noted that there is likely to be a general move towards more restrictive carriage requirements for a significant array of products, including increases in the number of products requiring controlled venting and closed gauging.

3 The most significant change will be in the number of products considered to be toxic (T or FT in column k of chapter 17), with an increase of 81%. Classification as Toxic triggers a number of additional requirements under the IBC Code for the carriage of these products.

4 Regulation 13.2 of the IBC Code requires vapour detection equipment capable of testing for toxic concentrations or, if not available, an exemption from the Administration and provision of an additional air breathing supply. A number of issues arise in this regard.

5 Firstly, the ship's crew must know what component to test for, which is not always clear from the name of the product. Where the vapour pressure of the product is low, detection may not be possible. In such circumstances an exemption must be obtained from the Administration and an entry made on the CoF, drawing attention to the provisions of regulations 14.2.4 and 16.4.2.2 of the IBC Code, which require the use of breathing apparatus in cargo spaces where vapour detection equipment is not available. As well as creating additional administrative burden, this can lead to crews wearing breathing apparatus for long periods of time, which brings its own safety hazards.

6 The co-sponsors would suggest that the Sub-Committee give further consideration to the issue of vapour detection, including how to make clear exactly what component is to be checked for and how to deal with products with low vapour pressure. We would further suggest that the wording of regulations 14.2.4 and 16.4.2.2 is reviewed in order to clarify exactly what equipment is deemed necessary.

7 In addition to the above, some or all of the special requirements in regulation 15.12 of the IBC Code will apply, namely:

15.12.1 Exhaust openings of tank vent systems shall be located:

- .1 at a height of B/3 or 6 m, whichever is greater, above the weather deck or, in the case of a deck tank, the access gangway;
- .2 at less than 6 m above the fore-and-aft gangway, if fitted within 6 m of the gangway;
- .3 15 m from any opening or air intake to any accommodation and service spaces; and
- .4 the vent height may be reduced to 3 m above the deck or fore-and-aft gangway, as applicable, provided high-velocity vent valves of an approved type, directing the vapour/air mixture upwards in an unimpeded jet with an exit velocity of at least 30 m/s, are fitted.

15.12.2 Tank venting systems shall be provided with a connection for a vapour-return line to the shore installation.

15.12.3 Products shall:

- .1 not be stowed adjacent to oil fuel tanks;
- .2 have separate piping systems; and
- .3 have tank vent systems separate from tanks containing non-toxic products.

15.12.4 Cargo tank relief-valve settings shall be a minimum of 0.02 MPa gauge.

8 The above requirements, particularly those in regulation 15.12.3, may reduce the cargo carrying capacity of ships and/or lead to requirements for retrofit.

9 The special requirements in 15.12 of the IBC Code in turn trigger requirements under regulations 3.7.2 and 7.1.6 of the IBC Code:

3.7.2 ... Bow and stern loading and unloading lines shall not be used for the transfer of cargoes emitting toxic vapours required to comply with 15.12.1, unless specifically approved by the Administration.

7.1.6 When products for which 15.12, 15.12.1 or 15.12.3 are listed in column o in the table of chapter 17 are being heated or cooled, the heating or cooling medium shall operate in a circuit:

- .1 which is independent of other ship's services, except for another cargo heating or cooling system, and which does not enter the machinery space; or
- .2 which is external to the tank carrying toxic products; or
- .3 where the medium is sampled to check for the presence of cargo before it is recirculated to other services of the ship or into the machinery space. The sampling equipment shall be located within the cargo area and be capable of detecting the presence of any toxic cargo being heated or cooled. Where this method is used, the coil return shall be tested not only at the commencement of heating or cooling of a toxic product, but also on the first occasion the coil is used subsequent to having carried an unheated or uncooled toxic cargo.

10 There are a number of ports, particularly in the Mediterranean, where bow or stern loading and unloading is the only option. Once again, therefore, it would be necessary to apply for an exemption, creating additional administrative burden. The requirements under regulation 7.1.6 of the IBC Code again have the potential to lead to reduced cargo carrying capacity or the need to retrofit.

11 Under the proposed amendments some or all of these requirements will apply to more than 60% of the products in the Code, including a number of extremely high volume products and some that are currently in chapter 18 and therefore not subject to any carriage requirements at all. While clearly safety must always be of paramount importance, it is nevertheless also important to ensure that no unnecessary burden is placed on ships' crews or, indeed on Administrations. The co-sponsors would therefore suggest that the Sub-Committee give further consideration to the criteria for assigning carriage requirements in the proposed amendments to chapter 21 to ensure that the requirement for toxic vapour detection equipment in column k is appropriate for the products in question and examine the link between this and the other measures triggered to determine whether they remain necessary and suitable for the hazards in question.

#### **Action requested of the Sub-Committee**

12 The Sub-Committee is invited to consider the points raised above and take action as appropriate.