



Dienststelle Schiffssicherheit
BG Verkehr

Technical Interpretation by the Administration “to the satisfaction of the administration”

Author: Mr. Holger Steinbock (BG for Transport and Traffic/Ship Safety Division)



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Technical Interpretation by the Administration

Introduction of the Ship Safety Division of the BG for Transport and Traffic

Tasks of the Ship Safety Division

Education and training of Surveyors

Cooperation with other stakeholders

Decision finding and “professional judgment”

Practical examples

Summary



Introduction of the Ship Safety Division of the BG for Transport and Traffic

Ship Safety Division (Dienststelle Schiffssicherheit) is part of the German Flag State Administration and responsible for ship safety and maritime medical service in Germany.

Ship Safety Division reports to the Federal Ministry of Transport and Digital Infrastructure, as well as to the Federal Ministry of Labour and Social Affairs.

For further Information please visit our web side in German and English language under:

www.deutsche-flagge.de

and

www.bg-verkehr.de/dienststelle-schiffssicherheit



Ship Safety

The Ship Safety Division is authorized by the German Government to perform sovereign tasks and monitors compliance of seagoing ships with all relevant international conventions dealing with the safety of life at sea and the protection of the marine environment.

Port State Control

In 2012 the Ship Safety Division inspected 1,208 foreign flag vessels in German ports under the framework of the Paris MOU.

Testing and Certification Body

The Ship Safety Division is licensed to certify life saving appliances, fire protection materials and Equipment and systems for the prevention of marine pollution according to the European Marine Equipment Directive (MED).

Maritime Medical Service

All mariners employed on German flagged ships need a certificate of the Maritime Medical Service attesting their physical and mental fitness for service on board of seagoing vessels.



Organization of the the Ship Safety Divison

The Ship Safety Division has got 7 sections in the Head Office in Hamburg. The head of the Ship Safety Division is Mr. Ulrich Schmidt. These are the sections for nautical equipment, machinery installations, shipbuilding, fire protection, ISM/ILO, legal affairs and medical service.

Total Staff of the Ship Safety Division: 92 Persons

Flag State Officer and Port State Control Surveyor: 45 Person

Further District Offices are in Wilhelmshaven, Bremerhaven, Jagel, Friedrichstadt, Rostock, Brunsbüttel, Lübeck, Kiel, Stralsund and Wolgast.



Education and training of Surveyors

All Flag State and Port State Surveyors have long experience and technical background in the maritime industry.

Most of them were Ships Officers (Navigator or Engineer) on board of seagoing vessels in a leading position as Captain or Chief Engineer

Other Surveyors have longtime experience as naval architects at shipyards or have worked for classification societies.



Cooperation with other stakeholders

The Ship Safety Division has survey contracts with the following classification societies (RO):

DNV-GL, LR, BV, ABS, RS, RINA and NKK

Convention Ships in international trade, above 500 GT and under German Flag need to have on of the above mentioned class.

These classes are allowed to carry out also statutory surveys on Board and are also authorized to issue short term certificates or statement of compliances.

All Full Term International SOLAS and MARPOL are issued by the Ship Safety Division with the exception of the ISPS Certificate which is issued by the German Maritime and Hydrographic Agency (BSH).



Cooperation with other Stakeholder

The Ship Safety Division has also a cooperation with many other stakeholders in the maritime field, e. g.:

International Standard Societies

- Membership in ISO TC 8 and IEC TC 18
- Membership at the German Standard Society NSMT

Other Technical Expert Panels

- Society of Ships Technology (Schiffbautechnische Gesellschaft STG)

Universities and Testing Institutes

- Waste water treatment research projects on passenger ships (NAUTEC) together with the Technical University Hamburg-Harburg
- International Symposium of Treatment of Wastewater and Waste of Ships with the Development and Assessment Institute in Waste Water Technology at the RWTH Aachen University

German Ship Owner Association (Verband Deutscher Reeder, VDR)



Decision finding and “professional judgment”

The wording „to the satisfaction of the administration“ in international Conventions means nothing specific but there should be a well verification of the measures required.

This verification can be done by:

- Consultation with other stakeholders, e.g. RO, Marine Experts,
- Checking of publishes international standards (ISO, IEC) or if not available national standards,
- Compare with other ship installations or arrangements,
- own “professional judgement” base d on practical experience,
- if practicable and reasonable also other measures equally effective can be provided.



Practical examples

1. MARPOL Annex I, Reg. 14.3

- Ships, such as hotel ships, storage vessels, etc., which are stationary except for non-cargo carrying relocation voyages need not be provided with oil filtering equipment. Such ships shall be provided with a holding tank having a volume adequate, ***to the satisfaction of the Administration***, for the total retention on board of the oily bilge water. All oily bilge water shall be retained on board for subsequent discharge to reception facilities.



Practical examples

Solution

- A national standard DIN 86735 “Bilge Tank Systems on Ships” exists.
- The Ship Safety Division has issued the standard letter E16
„Structural Measures on Seagoing Vessels for the Prevention of Marine Pollution by Oil, Sewage, Garbage and Emission”.
- With the national standard and the guidance in the Appendix 1 and 2 of the standard letter of the Ship Safety Division ships yards are able to develop an bilge tank arrangement “to the satisfaction of the administration”.



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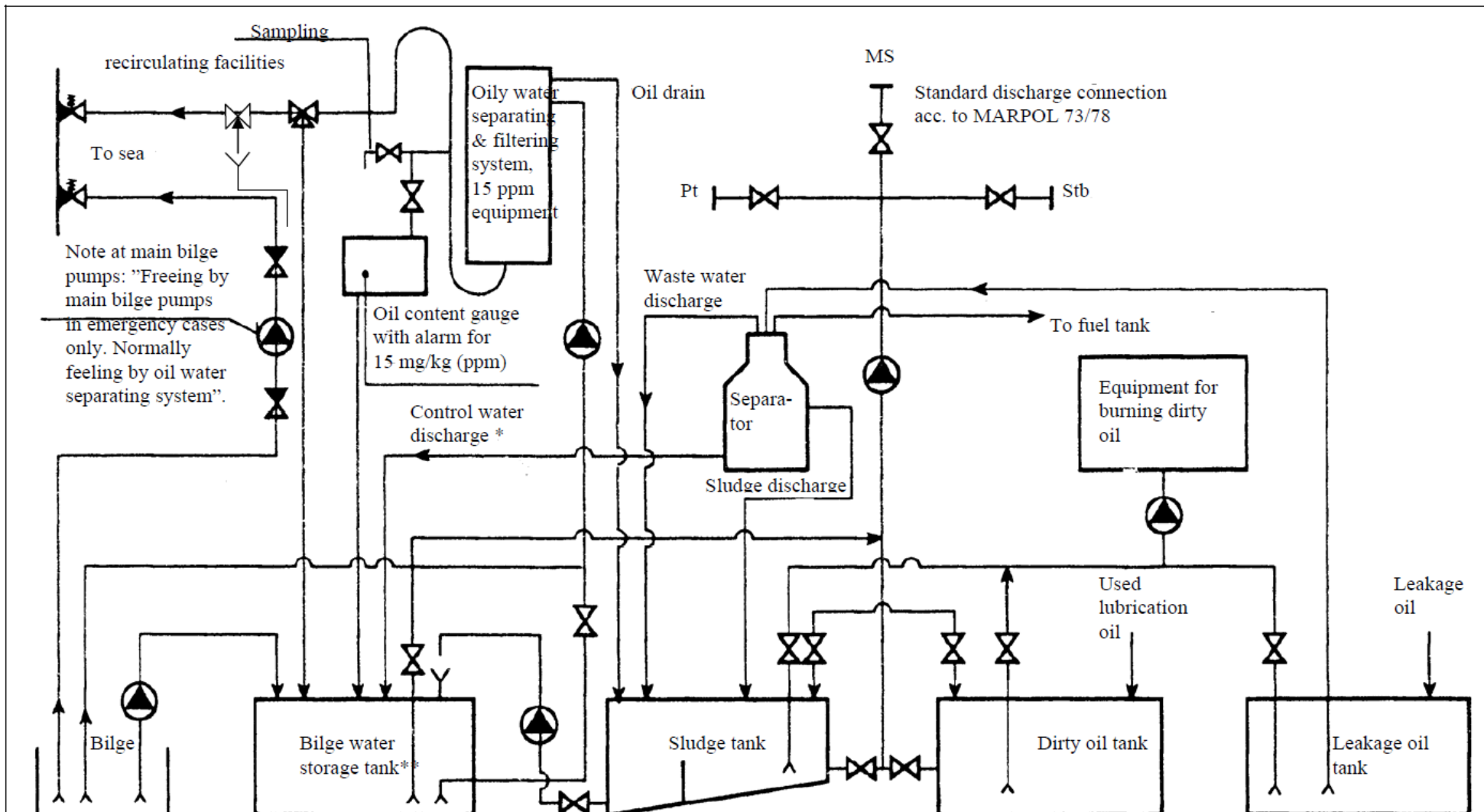
- Dienststelle Schiffssicherheit –

Status: 01.12.2013

Appendix 1

Structural Measures for the Prevention of Marine Pollution by Oil

	Minimum throughput or minimum capacity	up to 400 GT	400 GT up to 1600 GT	1600 GT up to 4000 GT	4000 GT up to 15000 GT	15000 GT and over
15-ppm-equipment for special areas consisting of - 15-ppm-equipment ²⁾ - 15-ppm-alarm ¹⁾ - shut-off device	m ³ /h	0,25	0,5	1,0	2,5	5
Sludge tanks ³⁾	m ³	2 % of the total capacity of all fuel tanks in m ³				
Bilge water holding tanks ^{4) 5)}	m ³	-	-	2	6	15
Leakage oil tanks ⁵⁾	m ³	1	1	1	1,5	2,5
Dirty- and waste-oil Tanks ^{5) 6)}	m ³	1	2	3	8	10
Shore transfer pipeline	-	1 shore connection on the pt or stb side or amidships on the main deck, in accordance with MARPOL 73/78, Annex I, Regulation 13			2 shore connections on the pt or stb side of the main deck, in accordance with MARPOL 73/78, Annex I, Regulation 13	



- Ship Safety Division

Appendix 2

Schematic diagram of the pipe work system for the oily water separating equipment and tanks

*) not applicable for non-self-cleaning separators,

***) the ships Bilge Tank System shall be arranged according to the standard DIN 86735 dated 2013.



Practical examples

2. MARPOL Annex IV, Reg. 9.1.3

- Every ship which, in accordance with regulation 2, is required to comply with the provisions of this Annex shall be equipped with one of the following sewage systems:
- A holding tank of the capacity ***to the satisfaction of the Administration*** for the retention of all sewage, having regard to the operation of the ship, the number of persons on board and other relevant factors. The holding tank shall be constructed to the satisfaction of the Administration and shall have a means to indicate visually the amount of its contents.



Practical examples

Solution

- By consultation with ship owners, ship yards, treatment plant manufactures and port operators the amount of generated wastewater on board depending on the number of passengers and the trade of the ship have been evaluated.
- The Ship Safety Division has issued in the standard letter E16 „*Structural Measures on Seagoing Vessels for the Prevention of Marine Pollution by Oil, Sewage, Garbage and Emission*” in the Appendix 4 the calculation for the size of the waste water holding tank.



Structural Measures for the Prevention of Marine Pollution by Sewage

		up to 400 GT	up to 400 GT and more than 15 Persons ³⁾		Passenger ships from 400 GT up to 1000 GT ³⁾		Passenger ships of 1000 GT and over	Seagoing ships except passenger ships of 400 GT and over ³⁾	
			a	b	a	b		a	b
Approved sewage treatment plants in accordance with IMO Resolution MEPC.2 (VI) or MEPC.159(55) ¹⁾		-	-	x	x	-	x	x	-
Total capacity of sewage collection tanks ^{2) 5)}	Black water	-	70 l per person per day ⁴⁾	-	-	70 l per person and day ⁴⁾	-	-	70 l per person and day ⁶⁾
	Grey- and Black water	-	180 l per person and day ⁴⁾	-	-	230 l per person and day ⁴⁾	-	-	180 l per person and day ⁶⁾
International shore connection for sewage ⁷⁾		-	x	x	x	x	x	x	x

x = available



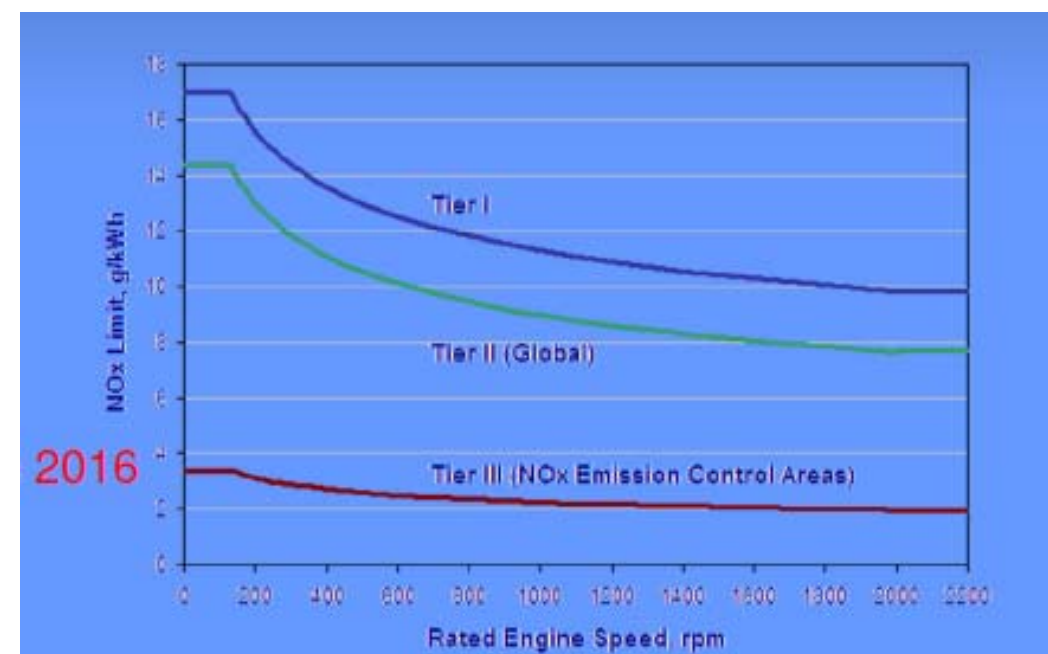
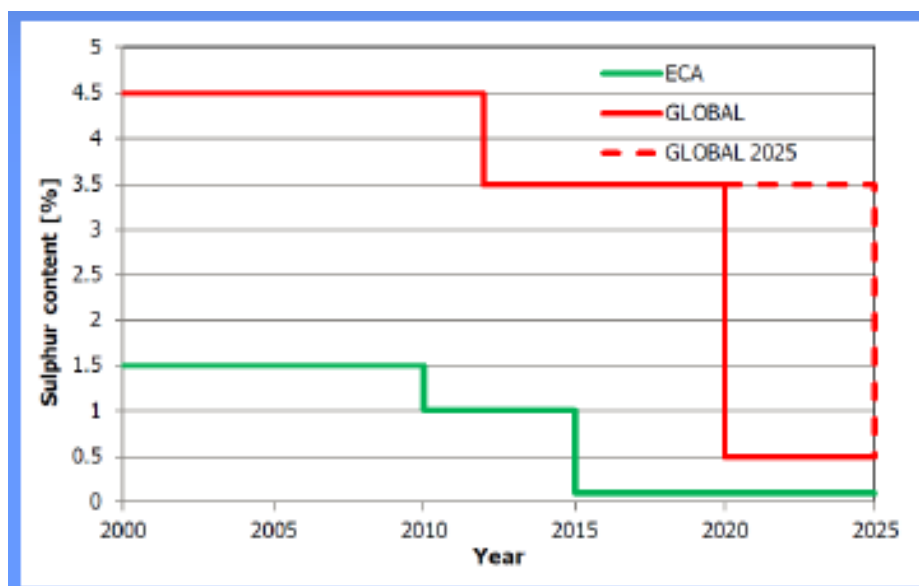
Practical examples

1. MARPOL Annex VI, Reg. 13.5.2.2

- a marine diesel engine installed on a ship with a combined nameplate diesel engine propulsion power of less than 750 kW if it is demonstrated, ***to the satisfaction of the Administration***, that the ship cannot comply with the standards set forth in paragraph 5.1.1 of this regulation because of design or construction limitations of the ship.



Revision of Annex VI, Resolution MEPC.176(58) adopted on 10th October 2008





Practical examples

1. Solution

- Engine manufactures for the availability of Tier III compliant marine diesel engines will be consulted.
- Ship owners and classification societies will also be consulted.
- Further ship safety aspect beside environmental protection will also be considered.
- As the Tier III emission standard will be applicable only for ship new building operating in Emission Control Areas (ECA) with keel laying date on or after 01.01.2016 a decision of a general exemption for marine diesel engines below 750 kW propulsion power has not been made yet.

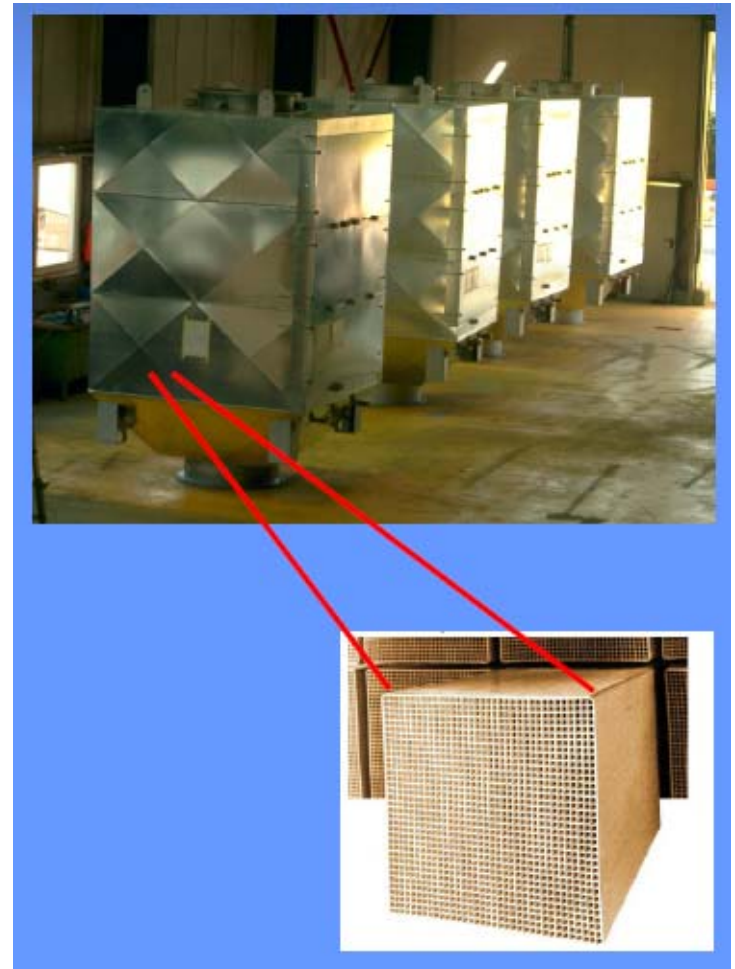
Experience of ship owners with SCR technology

Installed SCR reactor

- use of 40% Urea Solution
- Space needed is approximately 12 m³ for a 4.000 kW Diesel engine
- weight 5 to.

Can the SCR reactor installed
in small ships with an main engine
power below 750 kW?

Are alternatives such as LNG possible?





Summary

In the international conventions which have to be observed by the maritime industry there are many vague expressions such as

- „to the satisfaction of the administration“ or
- „approved by the administration“.

The Flag State Administration has the obligation to find solutions for such expressions and should do this by the following:

- close cooperation other stakeholders in the maritime industry
- well educated own personal (surveyors, engineers, naval architects)
- active participation in international standard committees in IMO committees and working groups
- take decisions by “professional judgment”



Thank You for Your Attention!



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