

**Report of the 2018 Concentrated Inspection Campaign (CIC)
on MARPOL ANNEX VI**

EXECUTIVE SUMMARY

From 1st September 2018 to 30th November 2018, the BS MOU carried out a Concentrated Inspection Campaign (CIC) on MARPOL Annex VI throughout the region. This campaign involved member States of the BS MOU, parties to the MARPOL ANNEX VI, and was conducted in conjunction with the Tokyo MOU and Paris MOU and other MOUs. The campaign was conducted under the campaign coordination of the Republic of Turkey. Paris and Tokyo MOUs guidelines and questionnaire were used.

During the campaign, a total of 781 inspections were carried out with the CIC questionnaire involving 781 individual ships. Of this quantity 55 ships were detained without detentions were being within the CIC scope.

A total of 139 questionnaires had at least a non-compliance to any of the requirements, resulting 17.8 per cent of CIC inspections. The overall average per cent of non-conformities was 6.6 which means that “unsatisfactory” answer was given to a question on 6.6 % of occasions.

The most un-favourable results are questions 4, 6 and 7, which asked whether the ships which have rechargeable systems containing ozone-depleting substances (refer to the supplement to the IAPP Certificate, item 2.1), have the ozone-depleting substances record book maintained Q4(46.2%); whether alternative arrangements, (e.g. scrubbers) installed on board according to regulation 4.1 approved by the flag State Q6 (30.5%) and where an Approved Method in accordance with Annex VI, is installed, confirmed by a survey using the verification procedure specified in the Approved Method File, appropriate notation on the ship’s International Air Pollution Prevention Certificate of the presence of the Approved Method Q7 (21.16%)

A total of 139 questionnaires had at least a non-compliance to a requirement, resulting 17.8 per cent of CIC inspections. The overall average per cent of non-conformities was 6.6.

A total of 271 (33.8%) CIC inspections concerned bulk carriers ships, followed by general cargo/multi-purpose ships with 264 (33.8%) inspections, oil tankers with 122 (15.6%) inspections and chemical tankers with 52 (6.6%) inspections, which comprises 736 (94.2%) total CIC inspections.

Inspected ships not detained for CIC-related deficiencies which comprises no CIC topic related detentions. The CIC topic related deficiencies were not considered serious enough to detention the ship.

Most inspections were carried out on board ships flying the flags of Panama with 128 (16.39%) inspections, Marshall Islands with 90 (11.5%) inspections, Malta with 80 (10.2%) inspections and Turkey with 70 (7.1%) inspections.

A total of 24 flags, covering 9.8% of the total CIC inspections, had no CIC topic non-conformities.

REPORT OF THE 2018 CONCENTRATED INSPECTION CAMPAIGN (CIC) ON MARPOL ANNEX VI

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
1 INTRODUCTION	4
1.1 PURPOSE OF THE REPORT	4
1.2 OBJECTIVE OF THE CIC	4
1.3 SCOPE OF THE CIC	4
1.4 GENERAL REMARKS	4
2 SUMMARY ANALYSIS, CONCLUSIONS AND RECOMMENDATIONS	5
2.1 SUMMARY ANALYSIS	5
2.2 CONCLUSIONS	6
2.3 RECOMMENDATIONS	6
3 ANALYSIS	7
3.1 GENERAL	7
3.3 ANALYSES BY SHIP TYPES	9
3.4 ANALYSES BY SHIP AGE	9
3.5 ANALYSES BY SHIP FLAG	9
3.6 ANALYSES BY SHIP RISK GROUP	11
3.7 ANALYSES OF THE MAJOR NON-COMPLIANCES	11
4 COMPARISON OF THE RECORDED DEFICIENCIES	13
LIST OF TABLES	
TABLE 1 SUMMARY OF INSPECTIONS DURING THE CIC	7
TABLE 2 RESPONSES CIC QUESTIONNAIRE ON CIC ON MARPOL ANNEX VI*	8
TABLE 3 RESULTS BY SHIP TYPES	9
TABLE 4 RESULTS BY SHIP AGE	10
TABLE 5 RESULTS BY SHIP FLAG	10
TABLE 6 CIC INSPECTION DATA BY SHIP RISK GROUPS	11
TABLE 7 QUESTIONS NON-COMPLIANT RESPONSES AND RECORDED DEFICIENCIES	13
LIST OF FIGURES	
FIGURE 1 RESPONSES FOR EACH OF THE 11 QUESTIONS COMPLIANCE TO THE REQUIREMENTS	7

1 INTRODUCTION

1.1 Purpose of the report

This report documents the results of the Concentrated Inspection Campaign (CIC) on MARPOL Annex VI, which was carried out by BS MOU Member Authorities between September 1st and November 30th, 2018; which was conducted in conjunction with the Paris and Tokyo MOUs as well as other MOUs.

1.2 Objective of the CIC

The objective of the Campaign on the MARPOL Annex VI aimed at checking the level of compliance with the requirements of MARPOL Annex VI within the shipping industry, create awareness amongst ships' crew and ship owners with regard to the importance of compliance with the provisions of MARPOL Annex VI and the prevention of air pollution.

1.3 Scope of the CIC

The campaign targeted 10 aspects to verify compliance provisions of MARPOL ANNEX VI to assure that:

- .1 For ships all types the sulphur content of any fuel oil used on board ships must not exceed 3.50% m/m.
- .2 For ships operating within an emission control area, the sulphur content of fuel oil used on board ships must not exceed 0.10% m/m. (Annex VI, regulation 18.5/18.6).
- .3 Whether the quality of fuel oil used on board the ship has a sulphur content of or below 3.50% m/m (MARPOL Annex VI, regulation 14.1.2) or 0.10% depending on the sailing area.
- .4 Whether the ship's Administration has allowed an alternative arrangement that may be equivalent to the standards in MARPOL Annex VI, regulations 13 and 14 (MARPOL Annex VI, regulation 4.1).
- .5 Whether an alternative arrangement has been communicated to the Organization/IMO (MARPOL Annex VI, regulation 4.2).
- .6 Existence on board a Ship Energy Efficiency Management Plan (SEEMP).

1.4 General remarks

This report presents analysis of the responses to the CIC Questionnaire submitted during the campaign period. Thereby, for the purpose of this report:

- *Inspection:* An inspection with a completed CIC Questionnaire with applicable response (Except Table 1);
- *Non-compliant response:* a "NO" response to any of the questions 1-10 which indicates non-compliance to a requirement in the questionnaire;
- *CIC inspection with non-compliant response:* Questionnaire with at least one "NO" response to any question 1-10;
- *Non-compliant response:* "NO" response to a question, indication non-compliance of a requirement;

- *CIC Detention: a CIC-topic related detention which is indicated by a “YES” response to Question 11, which also coincides with recorded detentions; and*
- *Total applicable responses: Total number of “YES-Compliant” plus “NO-Non compliant” answers to the questions. i.e. “N/A” responses filtered out from the result.*

2 SUMMARY ANALYSIS, CONCLUSIONS AND RECOMMENDATIONS

2.1 Summary analysis

During the campaign, a total of 781 inspections were carried out with the CIC questionnaire involving 781 individual ships. Only one CIC inspection has been carried out on board of an individual vessel.

The results of the CIC, which reveals that a total of 316 non-conformities and 139 CIC inspections with at least one non-compliant response recorded, as a direct result of this campaign on board 781 individual vessel subjected to CIC inspections.

Analysis of the results of the CIC revealed the following:

- .1 A total 139 questionnaires had at least one non-compliant response, which resulted 17.8 per cent of CIC inspections not conforming the requirements set out in questionnaire. The overall average per cent of non-conformities was 6.6.
- .2 CIC inspected ships not detained for CIC-related deficiencies which comprises no CIC topic related detentions.
- .3 A total of 271 (33.8%) CIC inspections concerned bulk carriers ships, followed by general cargo/multi-purpose with 264 (33.8%) inspections, oil tankers with 122 (15.6%) inspections and chemical tankers with 52 (6.62%) inspections, which comprises 736 (94.2%) total CIC inspections.
- .4 Most inspections were carried out on board ships flying the flags of Panama with 128 (16.4%) inspections, Marshall Islands with 90 (11.5%) inspections, Malta with 80 (10.2%) inspections and Turkey with 70 (7.1%) inspections.
- .5 A total of 24 flags, covering 9.8% of the total CIC inspections, had no CIC topic non-conformities.
- .6 The most favourable results related to whether bunker delivery notes indicate that fuel oils delivered and used on board is not exceeding the maximum allowed sulphur content appropriate Q2 (0.3%); whether bunker delivery notes kept available on board for the required period of 3 years Q1 (1.2%); and whether the ships which are using separate fuel oils to comply with the maximum sulphur content of 0.10% m/m in fuel oil and entering or leaving SOx emission control areas record detailed information showing that the ship has completed/initiated the change-over in the logbook prescribed by the Administration Q5 (1.2%).
- .7 The most un-favourable results are: 4, 6 and 7, which asked for:

Question 4: Are alternative arrangements, (e.g. scrubbers) installed on board according to regulation 4.1 approved by the flag State? (46.3%)

Question 6: Do ships which have rechargeable systems containing ozone-depleting substances (refer to the supplement to the IAPP Certificate, item 2.1) have the ozone-depleting substances record book maintained? (30.5%)

Question 7: Where an Approved Method in accordance with Annex VI, regulations 13.7.1-13.7.5 (refer to the supplement to the IAPP Certificate, item 2.2.1) is installed, has such an installation been confirmed by a survey using the verification procedure specified in the Approved Method File, including appropriate notation on the ship's International Air Pollution Prevention Certificate of the presence of the Approved Method? (21.2%).

.8 A total of 206 (65.2%) non-conformities out of 319 total non-conformities due to Q4: 63 (46.3%); Q6: 92 (30.5%) and Q7: 51 (21.6%).

.9 Compliance to the requirements which non-compliance might be considered detentions:

Question 2: Do bunker delivery notes indicate that fuel oils delivered and used on board is not exceeding the maximum allowed sulphur content, as appropriate? (99.9%)

Question 4: Are alternative arrangements, (e.g. scrubbers) installed on board according to regulation 4.1 approved by the flag State? (53.7%)

Question 9: Are the master and crew familiar with essential shipboard procedures in the approved VOC Management Plan relating to the prevention of air pollution from ships? (82.2%).

.10 A total of 271 (38.2%) CIC inspections concerned bulk carriers ships, followed by general cargo/multi-purpose with 264 (33.8%) inspections, oil tankers with 122 (15.6%) inspections and chemical tankers with 52 (6.6%) inspections, which comprises 736 (94.24%) total CIC inspections.

.11 By ship age, ships under 15 years reported the most favourable results, but the situation worsened as the age of ships increased.

.12 Older ships, particularly those 30 years and older, reported the least favourable results. Although they comprised 20.6% of the total non-compliant they accounted for 10.8% of total inconvenience of 315.

.13 A total of 24 flags, which cover 9.8% of the total CIC inspections, had no non-conformities.

.14 Breakdown of major non-conformities as indicated by "NO" responses have been studied by ship flag, ship type presented in **Section 3.7**

2.2 Conclusions

The most favourable results, related to whether bunker delivery notes indicate that fuel oils delivered and used on board is not exceeding the maximum allowed sulphur content appropriate Q2 (0.3%); whether bunker delivery notes kept available on board for the required period of 3 years Q1 (1.2%); and whether the ships which are using separate fuel oils to comply with the maximum sulphur content of 0.10% m/m in fuel oil and entering or leaving SOx emission control areas record detailed information showing that the ship has completed/initiated the change-over in the logbook prescribed by the Administration Q5 (1.2%).

Lack of alternative arrangements, (e.g. scrubbers) installed on board according to regulation 4.1 approved by the flag State (46.32%); lack of rechargeable systems containing ozone-depleting substances, have the ozone-depleting substances record book maintained (30.46%) raise concerns.

2.3 Recommendations

Non-compliance of the exhibition of navigation/signal lights in accordance with the requirements of MARPOL ANNEX VI is a significant potential danger to the environment.

Thereby, it is recommended:

1. Basic findings of the report in general, analysis of the responses to the questionnaire and breakdown of major non-conformities by ship flag, ship type to be submitted IMO III Sub-Committee.
2. Master and crew familiarity with essential shipboard procedures in the approved VOC Management Plan relating to the prevention of air pollution from ships.
3. PSC Officers should be instructed to submit CIC Questionnaire for each initial PSC inspection during the campaign; and
4. Continue to put emphasis on the vital requirements of the MARPOL ANNEXES when performing PSC inspections, particularly the requirements that raised the most concern in the CIC MARPOL ANNEX VI.

3 ANALYSIS

3.1 General

The total number of ships inspected and the total number of inspections performed during the CIC are presented in Table 1.

Table 1 Summary of inspections during the CIC

	No. of individual ships with CIC Questionnaire	No. of inspections with a CIC questionnaire	No. of inspections without CIC questionnaire
Total	781	781	452
Total number of detentions	55	55	13
Detentions with CIC-topic deficiencies	0	0	N/A

Looking at the number of inspections performed with a CIC questionnaire (Column 2&3 of Table 1), there is no detentions during CIC inspections were CIC topic related Questionnaire submission rate was 63.3 per cent which around six out of ten initial inspections were accompanied with a CIC questionnaire.

Table 1 also illustrates that all individual ships that were involved with this CIC underwent only one CIC inspection. Thereby number of individual ship inspected for CIC are not incorporated in the inspection and detention data presented in this report.

Figure 1 Responses for each of the 10 questions compliance to the requirements

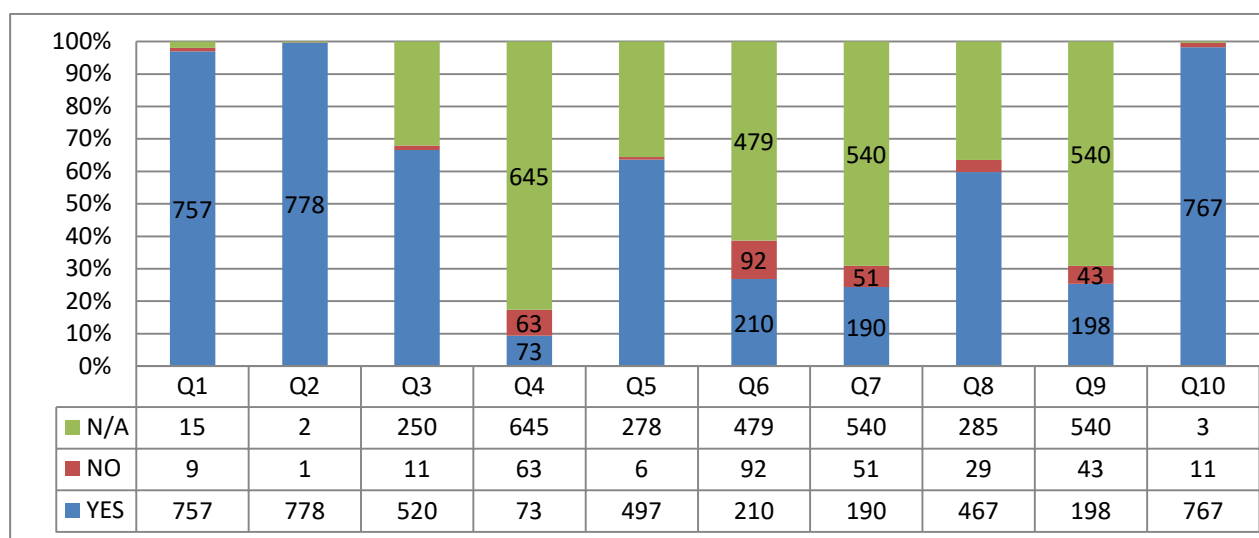


Table 2 presents response to the questionnaire. In order to analyse results on an individual question basis all Not Applicable (N/A) responses are filtered and total relevant/applicable responses compliances to the requirement presented in the last column of the **Table 2**.

Table 2 Responses CIC Questionnaire on CIC on MARPOL Annex VI*

Nr.	Questions	YES Nr.	NO Nr.	Total Nr. of applicable responses	Compliance	
					YES %	NO %
1	Are bunker delivery notes, with details of fuel oil for combustion purposes, kept available on board for the required period of 3 years	757	9	766	98.83	1.17
2*	Do bunker delivery notes indicate that fuel oils delivered and used on board is not exceeding the maximum allowed sulphur content, as appropriate?	778	1	779	99.87	0.13
3	Do ships which are using separate fuel oils to comply with the maximum sulphur content of 0.1% m/m in fuel oil while operating in SOx emission control areas, have a written procedure showing how fuel oil change-over is to be done for achieving compliance with the above requirements when entering SOx emission control areas?	520	11	531	97.93	2.07
4*	Are alternative arrangements, (e.g. scrubbers) installed on board according to regulation 4.1 approved by the flag State?	73	63	136	53.68	46.32
5	Do ships which are using separate fuel oils to comply with the maximum sulphur content of 0.10% m/m in fuel oil and entering or leaving SOx emission control areas, record detailed information showing that the ship has completed/initiated the change-over in the logbook prescribed by the Administration?	497	6	503	98.81	1.19
6	Do ships which have rechargeable systems containing ozone-depleting substances (refer to the supplement to the IAPP Certificate, item 2.1), have the ozone-depleting substances record book maintained?	210	92	302	69.54	30.46
7	Where an Approved Method in accordance with Annex VI, regulations 13.7.1-13.7.5 (refer to the supplement to the IAPP Certificate, item 2.2.1) is installed, has such an installation been confirmed by a survey using the verification procedure specified in the Approved Method File, including appropriate notation on the ship's International Air Pollution Prevention Certificate of the presence of the Approved Method?	190	51	241	78.84	21.16
8	For ships equipped with a shipboard incinerator or thermal waste treatment device installed as an alternative arrangement, is the ship's crew responsible for the operation of the equipment familiar with, properly trained in, and capable of implementing the guidance provided in the manufacturer's operating manual?	467	29	496	94.15	5.85
9*	Are the master and crew familiar with essential shipboard procedures in the approved VOC Management Plan relating to the prevention of air pollution from ships?	198	43	241	82.16	17.84
10	Does the ship keep on board a Ship Energy Efficiency Management Plan (SEEMP)?	767	11	778	98.59	1.41
	TOTAL	4457	316	4773	93.38	6.62
11	Was the ship detained as a result of the Inspection Campaign?	0	781			

* Includes Bulgaria and Romania data which are submitted also to the Paris MOU. Russian Federation and Turkey data includes only Black Sea ports.

It indicates that the requirements that reported the most favourable results related to the ship's fuel oil delivered and used on board is not exceeding the maximum allowed sulphur content Q2 (0.13%); are bunker delivery notes, with details of fuel oil for combustion purposes, kept available on board for the required period of 3 years Q1 (0.17%); and Do ships which are using separate fuel oils to comply with the maximum sulphur content of 0.10% m/m in fuel oil and entering or leaving SOx emission control areas Q5 (1.19%).

The CIC questionnaire indicate that “unsatisfactory” answer was given to a question on 6.62% of occasions. It is average per cent of unsatisfactory responses indicating overall compliance of the requirements. Number of “NO” responses to the Question 11 coincides with the recorded CIC topic related detentions as a result of an observed non-conformity (“NO” response) to any of the questions (1-10) in the questionnaire.

Breakdown CIC inspections, inspections with non-conformities to the requirements set out in the questionnaire questions 1-10, average per-cent of non-conformities, number of unfavourable responses/non conformities and CIC topic related detentions by ship type, ship age, ship flag and ship risk profiles presented in **Section 3.3 - Section 3.6**. Breakdown of the major non-conformities by ship flag, ship type and ship age are presented in **Section 3.7**.

3.3 Analyses by Ship types

A total of 271 (38.2%) CIC inspections concerned bulk carriers ships, followed by general cargo/multi-purpose with 264 (33.2%) inspections, oil tankers with 122 (15.6%) inspections and chemical tankers with 52 (6.6%) inspections, which comprises 736 (94.2%) total CIC inspections.

Majority of inspection with non-conformities observed were general cargo/multi-purpose ship with 102 (56.7%) inspections, bulk carriers with 48 (13.7%). Although they constituted only 81.3% of all inspections they accounted for 85.7% of CIC-topic related detentions and 88.1% of related non-conformities.

Table 3 Results by ship types

Ship Type	Nr. of CIC inspections	Nr. of CIC inspection with non-compliant responses	% non-compliant CIC inspections	Total Nr. of applicable responses	Nr. of non-compliances	% of non-compliance	% total non-compliances	CIC topic related detentions
Bulk carrier	271	45	16.6	1764	116	6.6	44.1	0
Chemical tanker	52	13	25.0	408	27	6.6	10.3	0
Container	27	3	11.1	166	6	3.6	2.3	0
General cargo/multipurpose	264	49	18.6	1240	114	9.2	43.3	0
Oil tanker	122	19	15.6	6	0	0.0	0.00	0
Ro-Ro cargo	19	5	26.3	5	0	0.0	0.00	0
Others	16	5	31.2	1184	4	0.3	0.00	0
TOTAL	781	139	17.8	4773	316	6.4	100.0	0

3.4 Analyses by ship age

By ship age, ships under 15 years reported the most favourable results but the situation worsened as the age of ships increased. Per-cent of total non-compliances younger 0-5 age ships higher 20.25%. Older ships 25-29 ages lower per cent of total non-compliances. Percent of non-compliant CIC inspections is higher 22.4% ships over age30 years old. Results by ship age presented in **Table 4**.

3.5 Analyses by ship flag

The following Table 5 presents the results of the CIC in accordance by ship flag. A total of 781 individual ships from 55 flag administration subjected CIC inspection during the campaign.

Most inspections were carried out on board ships flying the flags of Panama with 128 (16.39%) inspections. Marshall Islands with 90 (11.52%) inspections, Malta with 80 (10.24%) inspections.

Table 4 Results by ship age

Ship Age	Nr. of CIC inspections	Nr. of CIC inspection with non-compliant responses	% non-compliant CIC inspections	Total Nr. of applicable responses	Nr. of non-compliances	% of non-compliance	% total non-compliances	CIC topic related detentions
0-5	117	25	21.37	828	55	6.64	17.41	0
6-10	183	26	14.21	1244	64	5.14	20.25	0
11-15	151	19	12.58	994	49	4.93	15.51	0
16-20	84	18	21.43	546	28	5.13	8.86	0
21-24	55	11	20.00	326	33	10.12	10.44	0
25-29	52	7	13.46	233	22	9.44	6.96	0
30-34	49	13	26.53	220	28	12.73	8.86	0
35+	90	20	22.22	382	37	9.69	11.71	0
Totals	781	139	17.80	4773	316	6.62	100.00	0

Table 5 Results by ship flag

Ship Flag	Nr. of CIC inspections	Nr. of CIC inspection with non-compliant responses	% non-compliant CIC inspections	Total Nr. of applicable responses	Nr. of non-compliances	% of non-compliance	% total non-compliances	CIC topic related detentions
Bahamas	16	2	12.5	116	5	4.3	1.6	0
Belize	15	1	6.8	77	1	1.3	0.3	0
Comoros	12	4	33.3	46	5	10.9	1.6	0
Cook Islands	13	6	46.1	68	10	14.7	3.2	0
Greece	24	4	16.7	195	9	4.6	2.8	0
Hong Kong. China	24	4	16.7	160	10	6.2	3.2	0
Italy	11	2	18.2	80	9	11.2	2.8	0
Liberia	68	10	14.7	473	19	4.0	6.0	0
Malta	80	14	17.5	565	28	4.7	8.9	0
Marshall Islands	90	19	21.1	622	39	6.3	12.3	0
Moldova, Republic of	16	3	18.7	64	6	9.4	1.9	0
Panama	128	25	19.5	720	76	10.7	24.0	0
Russian Federation	42	4	9.5	191	6	3.1	1.9	0
Sierra Leone	18	6	33.3	93	12	12.9	3.8	0
Singapore	25	4	16.0	190	9	4.7	2.8	0
Tanzania. United Republic of	18	4	22.2	78	7	9.0	2.2	0
Togo	19	6	31.6	96	7	7.3	2.2	0
Turkey	50	6	12.0	274	20	7.3	6.3	0
Vanuatu	12	1	8.3	52	6	11.5	1.9	0
Others	100	14	14.0	613	32	5.2	10.1	0
Totals	781	139	17.80	4773	316	6.6	100.0	0

A total of 24 flags, which cover 9.8% of the total CIC inspections had no non-conformities. When compared by ship flag. Antigua and Barbuda Bahama, Norway and Netherland showed best results because with 11; 6 and 5 CIC questionnaire recorded without any non-compliance to the CIC topic requirements.

3.6 Analyses by ship risk group

Table 6 presents CIC data by ship risk group indicates that higher risk ships have consistently attracted more non-compliant responses per inspection than lower risk ships is considered to be validation of the BS MOU ship risk profile system to identify sub-standard vessels for inspection.

HRS and SRS comprised majority of non-compliances 60 (19.0%) and 212 (67.1%). and high per cent of average non-compliance per applicable question 10.91% and 6.32% respectively.

Table 6 CIC inspection data by ship risk groups

SHIP RISK PROFILE	Nr. of CIC inspections	Nr. of CIC inspection with non-compliant responses	Nr. of non-compliances	Total Nr. of applicable responses	% of non-compliance	% of non-compliant cic inspections	% total non-compliances	CIC topic related detentions
HRS	119	32	60	550	10.9	26.9	19.9	0
SRS	543	88	212	3355	6.3	16.2	67.1	0
LRS	117	19	44	857	5.1	16.2	13.9	0
UNKOWN	2	0	0	11	0.0	0.0	0.0	0
Totals	781	139	316	4773	6.6	17.8	100.0	0

3.7 Analyses of the major non-compliances

In this part of the report breakdown of the major non-compliances by ship flag, ship type and ship age are presented below for Questions 4, 6 and 7; with 63 (46.3%), 92 (30.5%) and 51 (21.2%) unsatisfactory responses.

Question 4 which asked whether are alternative arrangements. (e.g. scrubbers) installed on board according to regulation 4.1 approved by the flag State?

Of 136 applicable inspections 63 were unsatisfactory in this area. This represents 46.32% non-compliance 20.06% of the total unsatisfactory responses. Breakdown of the compliance to the **Question 4** by ship flag, ship type are presented below.

SHIP FLAG	Total Nr. of compliance response	Total Nr. of Non-compliance response	Total Number of applicable response	% of compliance	% of non-compliance
Liberia	8	4	12	66.7	33.3
Malta	8	8	16	50.0	50.0
Marshall Islands	9	10	19	47.4	52.6
Panama	8	13	21	38.1	61.9
Other	40	31	71	56.3	43.7
TOTAL	73	63	136	53.7	46.3

32 (50.8%) of unsatisfactory responses to this question observed on board of ships flying four flag States. 31 (49.2%) unsatisfactory responses spreads over ships flying other flags.

Ship Type	Total Nr. of compliance response	Total Nr. of Non-compliance response	Total Number of applicable response	% of compliance	% of non-compliance
Bulk carrier	18	27	45	40.0	60.0
Chemical tanker	12	6	18	66.7	33.3
General cargo/multipurpose	14	16	30	46.7	53.3
Oil tanker	25	10	35	71.4	28.6
Other	4	4	8	50.0	50.0
TOTAL	73	63	136	53.7	46.3

Question 6 which asked whether do ships which have rechargeable systems containing ozone-depleting substances (refer to the supplement to the IAPP Certificate, item 2.1), have the ozone-depleting substances record book maintained? The recorded the second highest number of unsatisfactory results.

Out of 302 total applicable responses to this question 92 (30.46%) were unsatisfactory in this area. This represents % 30.46 of CIC inspections. Breakdown of the compliance to the **Question 6** by ship flag, ship type presented below.

SHIP FLAG	Total Nr. of compliance response	Total Nr. of Non-compliance response	Total Number of applicable response	% of compliance	% of non-compliance
Liberia	21	7	28	75.0	25.0
Malta	18	9	27	66.7	33.3
Marshall Islands	16	12	28	57.1	42.9
Panama	33	19	52	63.5	36.5
Other	122	45	167	73.0	27.0
TOTAL	210	92	302	69.5	30.5

Breakdown of total 92 unsatisfactory responses to the **Question 6** observed on board three ship types is indicated below. Bulk carrier general cargo ships least favourable leading with high rate non-compliance responses.

Ship Type	Total Nr. of compliance response	Total Nr. of Non-compliance response	Total Number of applicable response	% of compliance	% of non-compliance
Bulk carrier	74	31	105	40.0	60.0
General cargo/multipurpose	73	33	106	46.7	53.3
Oil tanker	28	13	41	71.4	28.6
Other	35	15	50	70.0	30.0
TOTAL	210	92	302	69.5	30.5

Question 7

Where an Approved Method in accordance with Annex VI, regulations 13.7.1-13.7.5 (refer to the supplement to the IAPP Certificate, item 2.2.1) is installed, has such an installation been confirmed by a survey using the verification procedure specified in the Approved Method File, including appropriate notation on the ship's International Air Pollution Prevention Certificate of the presence of the Approved Method?

Of 241 applicable inspections 51 were unsatisfactory in this area. This represents 21.2% non-compliance 16.1% of the total unsatisfactory responses. Breakdown of the compliance to the **Question 7** by ship flag, ship type are presented below.

30 (58.8%) of unsatisfactory responses to this question observed on board of ships flying four flag States. 21 (41.2%) unsatisfactory responses spreads over ships flying other flags.

SHIP FLAG	Total Nr. of compliance response	Total Nr. of Non-compliance response	Total Number of applicable response	% of compliance	% of non-compliance
Liberia	26	4	30	86.7	13.3
Malta	29	7	36	80.6	19.4
Marshall Islands	20	7	27	74.1	25.9
Panama	16	12	28	57.1	42.9
Other	99	21	120	82.5	17.5
TOTAL	190	51	241	78.8	21.2

Breakdown of total 51 unsatisfactory responses to the **Question 7** observed on board three ship types indicated below. Bulk carrier, general cargo/multipurpose ships, chemical tankers least favourable leading with high rate non-compliance responses, Oil tankers high compliance.

SHIP TYPE	Total Nr. of compliance response	Total Nr. of Non-compliance response	Total Number of applicable response	% of compliance	% of non-compliance
Bulk carrier	58	18	76	76.3	23.7
Chemical tanker	19	8	27	70.4	29.6
General cargo/multipurpose	37	14	51	72.5	27.5
Oil tanker	62	8	70	88.6	11.4
Other	14	3	17	82.4	17.6
TOTAL	190	51	241	78.8	21.2

4 COMPARISON OF THE RECORDED DEFICIENCIES

Difference between the non-compliant response to the CIC topic requirements with the recorded deficiencies indicated in the CIC Guidelines, presented below, has been studied.

Table 7 Questions non-compliant responses and recorded deficiencies

QUESTION	Code	Nature of Deficiency	Nr. of NO response to this question	Nr. of CIC inspection with this deficiency	Nr. of deficiency	Nr. of detainable deficiency	Nr. of CIC inspection with detentions including this detainable deficiency
Q1	14604	Bunker delivery notes	9	11	11	0	0
Q2*	14617	Sulphur content of fuel used	1	0	0	0	0
Q3	14615	Fuel change-over procedure.	11	10	10	0	0
Q4*	14699	Other (MARPOL Annex VI).	63	1	1	0	0
Q5	14612	Sox records recording	6	1	1	0	0
Q6	14611	Annex VI, regulation 12.6.	92	25	25	0	0
Q7	14601	NOx Technical Code 2.3.6, 6.2.3.3, Annex VI, regulation 13.3, 13.4, 13.5,	51	0	0	0	0
	14602			0	0	0	0
	14613			2	2	0	0
Q8	10136	Establishment of working language on-board	29	5	5	0	0
Q9*	14609	Volatile Organic Compounds in tankers	43	0	0	0	0
Q10	01328	Ship Energy Efficiency Management plan	11	12	12	0	0
TOTAL			316	67	67	0	0

Response to questionnaire indicates compliance to the requirements on the CIC requirements better than the CIC topic related deficiencies.

Q1 : **14604** Bunker delivery notes and Q10 : **01328** Ship Energy Efficiency Management plan clearly coincides with the nature of deficiencies.