



SS 600 : Enhanced Bunkering Practice in Singapore

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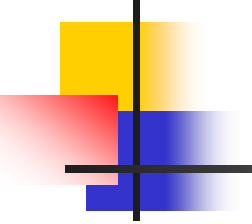
Member, Technical Committee for Bunkering

27 May 2009



Background

- CP 77 and CP 60 were reviewed in 2007
- The 2 CPs were combined into 1 standard
 - SS 600
- Launched at Sibcon 2008
- To be implemented wef 1 July 2009
 - MPA is the implementing authority



Objectives of SS 600 : 2008 (Chapter One)

- In the Foreword
 - Aims to achieve ZERO bunkering dispute
 - Correct quantity & quality bunkers supplied
 - Safe & efficient deliveries, always
- To achieve Best Bunkering Practices



Where are the enhancements?

- Sampling
 - Explicit instructions
 - Specifications for sample bottles
- Documentation
 - Bunker Requisition Form – sampling
 - BDN – sampling, and compliance to Annex VI
- Quantity Measurements
- Safety & Environment

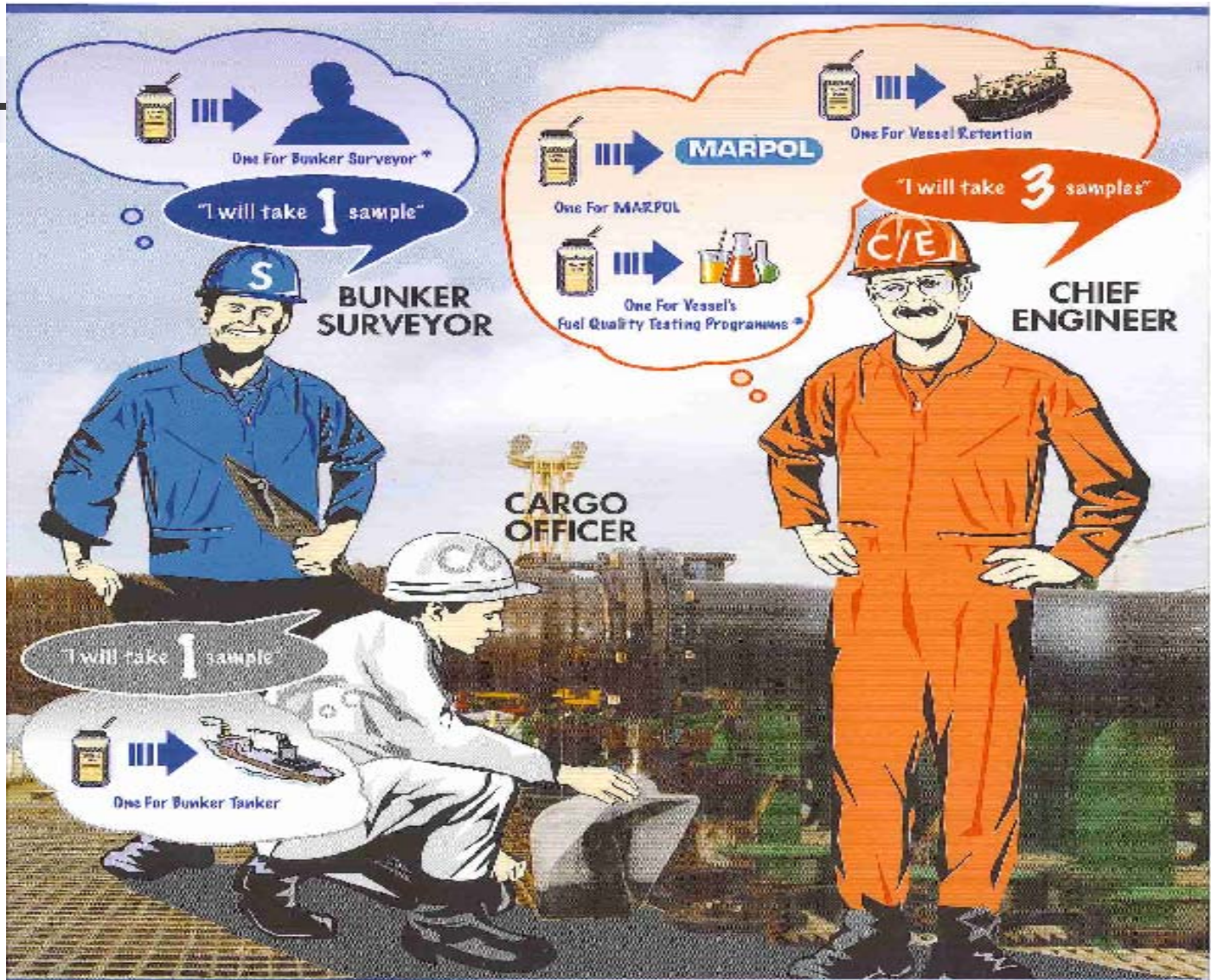


Significant improvement

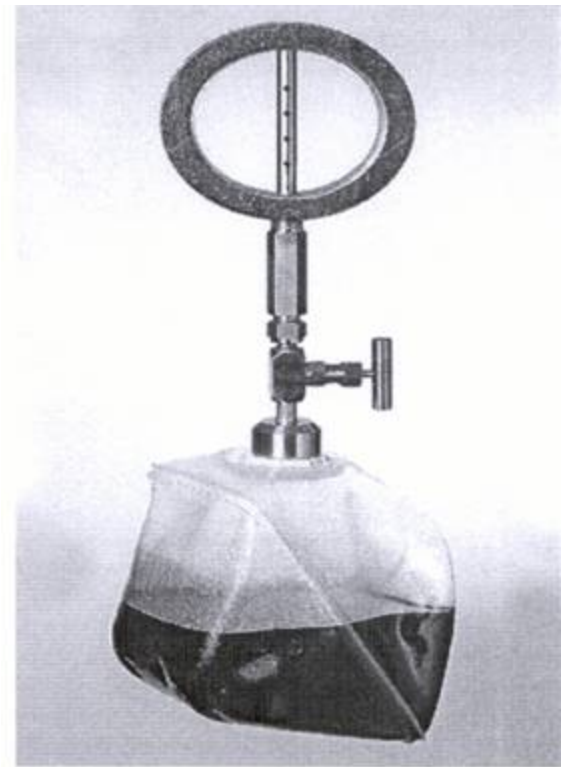
- Sampling

<u>Ref</u>	<u>Changes:</u>
Annex D	Bunker Requisition form – added “Note – For analysis of bunker quality, only the representative sample collected as per SS 600’s sampling procedure shall be used”
1.11.1	Collecting samples (see next slide – placard)
Annex I.4a	Detailed specifications of sample bottles
Annex I.4c	Detailed specifications of seals
Annex M	Example of a sample label

Placard on Sample Collection



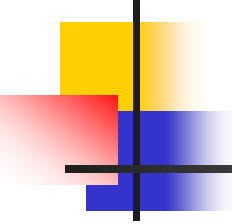
1.11 - Sampling



1.11.1 Samples for Distribution

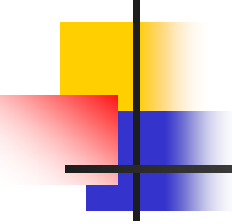
- 1 Marpol sample for ship
- 1 for ship
- 1 for bunker tanker
- 1 for surveyor (if engaged)
- 1 for ship to send to testing lab (if applicable)





Annex I.4 (a) – Sample Bottles specifications

- Made of HDPE
- Min material weight – 8 g/100 ml bottle capacity
- Bottle & cap tamper-proof, can contain min 2 seals



Annex I.4 (c) – Security Seals specifications

- Made of polyamide or polypropylene
- Min ribbon length – 220 mm, min dia – 2.0 mm
- Stainless sprung steel locking mechanism
- Permissible elongation at specified loads
- Company identification & unique serialised numbering

Sample bottle, cap & seals



Enhancements

– Quantity Measurements

<u>Clause</u>	<u>Changes:</u>
1.2	Included ASTM D1250 as the standard guide for use of petroleum measurement tables [Table 54B & Table 56]
1.3.1 to 1.3.19	Added more definitions for comprehensiveness eg 1.3.1 on Authorised verifier ; 1.3.12 on GOV, etc
1.10	Tank gauging instead of tank measurement
1.10.6	Added “Flow meter with broken verification seal is NOT allowed for trade use” – Very clear statement
H4 (e)	Gauging – 3 readings to be within a range of 3 mm (previously was 5 mm)

Enhancements

– Safety & Environment

<u>Clause</u>	<u>Changes:</u>
1.12.9 to 1.12.12	Line clearing process, instead of “purging”
A.2.3	Ensure all (including senior) personnel involved in the bunkering operations are well rested, and not under the influence of alcohol or any controlled drug.
A.4.3.3	Additional clause to require bunker tanker to provide a copy of the MSDS prior to loading bunkers wef 1/7/2009

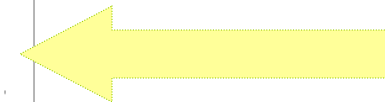


Other Refinements

<u>Clause</u>	<u>Changes:</u>
1.19.1	“Sampling requirements and procedures shall otherwise be in accordance with that stipulated in this standard” – Flexibility in drawing the loading sample at bunker tanker manifold.
1.24.2.3	Quality dispute - “.....quality of the mutually agreed sample analysed by a mutually agreed, independent and certified testing lab ...” – Assurance of the accuracy of the test results.

1.24.2.3 - CoQ from an Accredited Lab

TO WHOM IT MAY CONCERN



Report Number 18814672/09
 Report Date 27-Apr-09

Lab Number PH134V09 **CERTIFICATE OF QUALITY**
 Date of Analysis 26-Apr-09 pg 1 of 1
 Date of Sampling 26-Apr-09
 Date Received 26-Apr-09
 Product HSFO 380oS1
 Source Shore Tank 102
 Location Universal Terminal
 Drawn by Saybot Inspector

TEST	UNIT	METHOD	RESULT
Density @ 15 deg C	kg/l	ISO 3875:85	0.9908
Kinematic Viscosity @ 50 deg C	cSt	ISO 3104:94	352.4
Flash Point, FMCC	deg C	ISO 2719:02	91.0
Pour Point	deg C	ISO 8016:84	Zero
Micro Carbon Residue	wt %	ISO 10370:83	13.4
Ash	wt %	ISO 6245-01	0.081
Water By Distillation	vol %	ISO 3733-89	0.20
Sulphur	wt %	ISO 8764-03	2.95
Total Sediment Potential	wt %	ISO 10307-2:93	In Progress
Aluminium + Silicon	mg/kg	IP 501-05	39
Vanadium	mg/kg	IP 501-05	153
Zinc	mg/kg	IP 501-05	<1
Phosphorus	mg/kg	IP 501-05	<1
Calcium	mg/kg	IP 501-05	4
Sodium	mg/kg	IP 501-05	15

Summary of Changes - clauses

<u>CP 60</u>	<u>SS 600</u>	<u>Contents</u>	<u>Differences (SS 600 over CP 60)</u>
Forword	Forword	Forword	Elaborate on the aims for the standard: - correct quality and quantity of the bunkers is delivered in a safe and efficient manner - to achieve ZERO bunkering dispute.
2	1.2	Normative References	Added "ASTM D1250" as the over-arching standard for the tables 54B and 56
ND	1.3.1	Authorised verifier	Added definition of an "authorised verifier"
ND	1.3.3	Bunker delivery note (BDN)	Added definition of BDN
3.6	1.3.8	Cargo officer	Amended definition of the cargo officer
ND	1.3.11	Free water	Added definition of free water
ND	1.3.12	Gross observed volume (GOV)	Added definition of GOV
ND	1.3.13	Gross standard volume (GSV)	Added definition of GSV
ND	1.3.14	Master	Added definition of master
ND	1.3.15	Oil-indicating paste	Added definition of oil-indicating paste
ND	1.3.16	Sample	Added definition of sample
ND	1.3.17	Sediment	Added definition of sediment
ND	1.3.19	Water-indicating paste	Added definition of water-indicating paste
		ND = Not Defined in CP 60	

Summary of Changes - clauses

<u>CP 60</u>	<u>SS 600</u>	<u>Contents</u>	<u>Differences (SS 600 over CP 60)</u>
4.1	1.4.1	Ethical practices and professionalism	Replaced "invitation" with "inducement"
6.1 c)	1.6.1 c)	Documentation	Replaced "tank measurement" with "tank gauging"
10	1.10	Tank gauging/calculation form	Replaced "tank measurement" with "tank gauging"
10.6	1.10.6	Verificiation of flow meter	Added "authorised verifier" Added "Flow meter with broken verification seal is not allowed for trade use"
ND	1.11.1	Collecting samples	Added this new section on collection & distribution of samples
14.9	1.12.9	Delivery procedure - Line clearing	Replaced "Purging" with "Line Clearing"
16.2	1.14.2	Use of ASTM tables	Elaborate on correct title of ASTM tables - "ASTM D1250 Petroleum measurement Table 54B and Table 56"
21	1.19.1	Loading custody transfer samples (at terminals)	Adopted SS 524 clause 7.3.4 on taking custody transfer sample during loading, and with option to sample at jetty or at barge manifold
21	1.19.2	Loading custody transfer samples (from another bunker tanker)	Added requirement for barge-to-barge loading
26.2.3	1.24.2.3	Testing of mutually agreed sample	Test to be done in a "certified testing lab under the national accredited body"
		ND = Not Defined in CP 60	

Improved Annexes

<u>CP 60</u>	<u>SS 600</u>	<u>CONTENTS</u>	<u>(N/I)</u>	<u>DIFFERENCE (SS 600 over CP60)</u>
A	A	Safety, Health and the Environment	N	A1 – include clause 2.9.2.1 of Chapter Two A2.3 – include senior officers A4.3.3 – additional clause to require bunker tanker to provide a copy of the MSDS prior to loading bunkers wef 1/7/2009
B	B	Examples of hand signals	I	Updated pictorials
C	C	Bunkering pre-delivery safety checklist	I	No change
D	D	Example of a bunkering requisition form	I	Additional question – Is your vessel under any fuel testing programme? Note – only samples collected as per SS 600 sampling procedure shall be used for quality verification
E	E	Example of a non-cargo tank declaration / inspection form	I	Part II changed – (To be completed only in the event of a quality dispute)

Improved Annexes

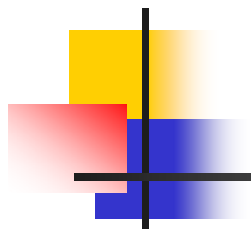
<u>CP 60</u>	<u>SS 600</u>	<u>CONTENTS</u>	(N/I)	<u>DIFFERENCE (SS 600 over CP60)</u>
F	F	Example of a tank gauging (measurement) / calculation form	I	Changed title “Measurement” to “Gauging” Changed ‘delivery tanks’ to ‘nominated tanks’
G	G	Example of a bunker delivery note	I	Added “We declare that the bunker fuel supplied conforms with Regulations 14(1) or 4(a) and Regulation 18(1) of Marpol 73/78 Annex VI” Amended “ ...confirm that the following samples were jointly taken by continuous drip sampler at the vessel’s manifold, sealed and numbered.”
H	H	Tank gauging procedure	N	H4 c) water-finding to water-indicating H4 d) oil-finding to oil-indicating H4 e) range of 3 consecutive gauges within 3 mm (previously 5 mm)
I	I	Sampling requirements	N	I1 b) changed “containers” to “bottles” I4 a) Detailed specifications of the sample bottle I4 c) Security seals to be made of plastic, with properties specified, including requirement for company name or logo & unique serialised numbering

Improved Annexes

<u>CP</u> <u>60</u>	<u>SS</u> <u>600</u>	<u>CONTENTS</u>	(N/I)	<u>DIFFERENCE (SS 600 over CP60)</u>
J	L	Sampling procedure	N	Now 2 procedures – L1 for cargo officer; L2 for surveyor Added “There shall be an agreement by all parties on the sample bottles to be used to avoid any conflicts” L1.2 – added “container with transparent walls.....”
K	J	Diagrams of sampling equipment	I	Previous Annex was Normative. Annex J in SS 600 is now Informative
L	K	Example of the design of sample container neck & cap	I	No change
	M	Example of a sample label	I	New annex
M	N	Example of the daily entries of the stock movement logbook	I	No change

Improved Annexes

<u>CP 60</u>	<u>SS 600</u>	<u>CONTENTS</u>	<u>(N/I)</u>	<u>DIFFERENCE (SS 600 over CP60)</u>
N	O	Example of note of protest	I	No change
O	P	Example of an arbitration clause	I	Changed “SIAC” to Singapore Chamber of Maritime Arbitration (SCMA)
P	Q	Resolution of disputes	I	No change
Q	R	Singapore bunker claims procedure (SBC Terms)	I	No change
	S to AA	Pertaining to surveyor’s work	I	Additional annexes for Chapter Two – Procedures for Bunker Surveying
	AB	Precautions and limitations	I	New annex
	AC	Bibliography	I	New annex



Thank You