

COMMISSION OF INQUIRY
APPOINTED PURSUANT TO SECTION 2 OF THE COMMISSION OF
INQUIRY ORDINANCE (CHAPTER 86) ON 22 OCTOBER 2012

WITNESS STATEMENT OF WONG WING CHUEN

I, WONG WING CHUEN, Senior Surveyor of Ships, Local Vessels Safety Section, Marine Department, 23/F, Harbour Building, 38 Pier Road, Central, Hong Kong, do say as follows: -

1. I am a Senior Surveyor of Ships in the Local Vessels Safety Section (“LVS”), Shipping Division of the Marine Department (“Mardep”). The Local Vessels Safety Section, formerly known as the Local Craft Safety Section (“LCS”), is responsible for the safety inspection of vessels operating within Hong Kong waters and the Pearl River Estuary and new vessels under construction, and the formulation and updating of technical standards and legislation for local licensed vessels. My duties include, amongst other things, supervision and monitoring of the plan approval work, surveys and inspections, and the issuance of certificates of survey for local vessels, and monitoring the performance of the “Authorised Surveyors”, “Authorised Organizations” and “Recognised Authorities” undertaking the survey of local vessels.

2. I received a BSc (Hon) in Naval Architecture & Ocean Engineering from the University of Glasgow in 1985. I am also a Registered Professional Engineer and a Member of the Hong Kong Institution of Engineers. Prior to joining Mardep in 2002, I have worked in A Fai Shiprepairers & Engineers Limited, A Fai Ships Limited and A Fai Southern Shipyard (Panyu) Limited as Marine & Mechanical Manager, Director of Shipbuilding and General Manager respectively. I joined Mardep in 2002 as a Surveyor of Ships, and have been posted to various sections of Mardep including the Government New Construction Section, the Shipping Registry

and Mercantile Marine Office, the Port State Control Section and the LVS. I was promoted to the rank of Senior Surveyor of Ships on 1 November 2011.

3. I make this Witness Statement on behalf of the Director of Marine (“Director”), who has been granted leave to participate in the hearings of the Commission of Inquiry appointed pursuant to section 2 of the Commissions of Inquiry Ordinance, Cap.86, on 22 October 2012 (“Commission”) by the Ruling of the Commission made on 5 December 2012. Save where otherwise appears, the facts deposed hereto are within my personal knowledge or are derived from office files and records and sources to which I have access, and are true to the best of my knowledge, information and belief.

4. The purpose of this Witness Statement is to:-

- (1) explain the role and responsibilities of the LVS/LCS;
- (2) explain the system of vessel survey generally;
- (3) identify the officers and former officers in Mardep involved in the approval of plans and drawings for “Lamma IV”, and the surveys and inspections carried out in respect of the same (i.e. the first or initial survey), as well as those involved in the subsequent periodic surveys of “Lamma IV”;
- (4) explain which edition of the “*Instructions for the Survey of Class I and Class II Launches and Ferry Vessels*” was applicable for the construction and survey of “Lamma IV”, a matter raised in the Expert Report of Dr. Neville Anthony Armstrong dated 3 January 2012 (“**Armstrong Report**”); and
- (5) provide Mardep’s responses in relation to the issue of the thickness of the side and bottom plating of the hull of “Lamma IV” raised in the Armstrong Report.

5. I understand the issues concerning (a) the “access opening” in the bulkhead “Frame 1/2”¹ and (b) the passenger seats, also raised in the Armstrong Report, will be dealt with separately in witness statements to be filed by other officers and former officers of Mardep.

6. Given the short time available (the Armstrong Report was only provided to Mardep on 4 January 2012), Mardep is only able to provide responses to the above mentioned aspects of the Armstrong Report. However they should not be taken to be the totality of Mardep’s responses to the Armstrong Report. Mardep reserves its right to file further evidence to address the other aspects of or matters raised in the Armstrong Report at a later stage.

A. The LVS/LCS

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¹ Identified in “BHD AT FR1/2” in “Sections and Bulkheads” drawing NC-391-5 (SHT 1 of 2) revision 20-3-95 and approved subject to comments by Mardep on 3 May 1995 [Marine 2/5/205].

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B. Vessel Survey System

(B.1) Statutory and Regulatory Regime

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17. Instead, guidelines as to Mardep's practice concerning local vessels were set out in a booklet called "*Instructions for the Survey of*

Launches and Ferry Vessels” (which were updated from time to time), commonly referred to as the “Blue Book” [Marine8/1/1761-1809] and its subsequent replacement entitled “*Instructions for the Survey of Class I and Class II Launches and Ferry Vessels*” (1995) (“1995 Instructions”) [Marine8/2/1810-1872].⁴

18. The survey of Lamma IV was conducted by reference to the Blue Book, since the 1995 Instructions only came into effect on 19 January 1996, by which time Lamma IV (a “new vessel” at the time) had already been keel laid (in June 1995). There is now produced and shown to me marked “WCW-1” copy of Marine Department Notice No.7 of 1996 issued on 19 January 1996, which announced the coming into effect of the 1995 Instructions. See also the exchange between the shipbuilder, Cheoy Lee Shipyards Limited (“Cheoy Lee”) and Mardep on 2 and 12 February 1996 [Marine2/51/296; 53/312] and Mardep’s file note of 7 March 1996 at [Marine4/165/834] which show that the Blue Book as opposed to the 1995 Instructions applied to the approval and initial survey of “Lamma IV”.

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⁴ Since the coming into force of Merchant Shipping (Local Vessels) Ordinance, the 1995 Instructions were replaced by the “Code of Practice – Safety Standards for Classes I, II and III Vessels” [Marine11/3416-3669].

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(B.2) Plan Approval

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(B.3) Inspections in Initial Survey

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(B.4) Inclining Experiment and Stability Calculations

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35. I should point out that 1994 to 1996 was a period of substantial boom in the shipping industry in Hong Kong, and Mardep's records show that there were over 1,600 vessels newly constructed during that period (compared to an average of 30 per year now). These 1,600 newly built vessels entailed the submission of over 48,000 sets (30 sets per vessel) of drawings and calculations to the LCS for consideration, vetting and approval. As explained

above, at that time there were altogether 21 SSIs/SIs and also 2 Surveyors of Ships in the LCS, and the drawing approval as well as initial survey work had to be shared among them, meaning on average, each ship inspector had to check around 2,285 sets of drawings and calculations, in addition to the ship inspection duties they had to undertake (both in relation to initial and annual survey).

(B.5) Periodic Survey

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C. Survey of "Lamma IV"

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D. Thickness of Hull Plating

45. In paragraphs 25, 27 and 28 of the Armstrong Report, Dr. Armstrong expressed the view that the side plating of the hull of "Lamma IV", which was said to have been measured by ultrasound to be around 4.5 mm in May 2011, was "undersized by 0.5 mm" because the 1995 Instructions required side plating to have a thickness of 5 mm and the "Shell Expansion" drawing NC-391-7 also shows side plating of 5 mm. He made a similar observation in relation to the bottom plating of the hull, which was allegedly measured by ultrasound to be around 5.8 mm in May 2011 and the "Shell Expansion"

drawing NC-391-7 shows to have a thickness of 6 mm.

46. As explained in paragraph 18 above, the 1995 Instructions were not applicable to the design and construction of “Lamma IV”; instead the Blue Book applied.

47. The Blue Book did not stipulate any construction standard or guideline regarding plate thickness. Instead, Mardep accepted the hull scantlings of the vessel to be designed in accordance with the accredited classification societies such as Lloyd’s Register of Shipping (“Lloyd’s Register”), the American Bureau of Shipping and the CCS.

48. Although the plan submitted shows a thickness of 5 mm for the side plating, when Cheoy Lee proposed to change the thickness of the plating on 4 April 1995 [Marine2/7/206], the proposal was considered by reference to the “Rules and Regulations for the Classification of Yachts and Small Craft” of the Lloyd’s Register, which stipulate that for a vessel with mean length of 26 m (which applies to “Lamma IV” with a length waterline of 24.89 m and length overall 28m [Marine2/58/322]), the minimum side plate thickness at the range between two speed/length ratios mentioned in the Lloyd’s Register should be between 4.5 mm and 5 mm with a basic stiffener spacing of 480 mm. Since “Lamma IV” had a speed/length ratio falling into the above range and a designed stiffener spacing of 350 mm, once apportioned using 350 mm as a base factor the thickness should be 3.5 mm.

49. Therefore Mardep accepted the proposed change of the side plate thickness from 5 mm to 0.19 inches (4.83 mm) since it is even thicker than the range prescribed by the Lloyd’s Register rules.

50. I should point out that even if the 1995 Instructions had been applicable (which they were not), the table in paragraph 3.2 relied upon by Dr.

Armstrong would not have been applicable in any event since it concerned “steel vessels” [Marine8/2/1820-1821] whereas “Lamma IV” was an aluminium vessel.

51. Further, there was no ultrasonic testing of “Lamma IV”’s hull plating in May 2011 as alleged. According to Mardep’s records, hull gauging was carried out in the periodic survey of “Lamma IV” on 16 June 2005 and 14 August 2009 respectively [Marine4/165/848, 854]. Presumably Dr. Armstrong was referring to those tests. In any event, even though the test recorded the side and bottom plate thickness to be 4.4 mm and 5.8 mm respectively, such reduction in thickness (about 0.4 mm and 0.2 mm respectively, less than 10% of original thickness) was regarded as the result of wear and tear in “Lamma IV”’s 14 years of operation, and was considered to be acceptable by Mardep.

52. Accordingly, Mardep is unable to agree with Dr. Armstrong’s opinion that there was incompliance with the applicable requirements in the design and construction of the hull shell plates.

53. I confirm the contents of this Witness Statement to be true to the best of my knowledge, information and belief.

Dated this 14th day of January 2013.



WONG WING CHUEN

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Dated the 14th day of January 2013

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