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<p>1 Thursday, 24 January 2013 2 (10.00 am) 3 THE CHAIRMAN: Mr Beresford. 4 MR BERESFORD: Mr Chairman, before I move on with the 5 evidence, may I just mention one matter. 6 THE CHAIRMAN: Yes. 7 MR BERESFORD: I had asked Mr Lo if he was able to assist in 8 explaining why there was that difference in the weight 9 between the inspections when they added the ballast, 10 8.6 tonnes of ballast, and at the same time the weight 11 overall appeared to have increased by 15 tonnes. He 12 said he would look into it. I understand -- 13 THE CHAIRMAN: He gave an explanation on the spot, didn't 14 he, that it was to do with material being loaded onto 15 the vessel, other material? 16 MR BERESFORD: Well, he said, as I recall, that it could be 17 due to material that had accumulated. 18 THE CHAIRMAN: Yes. 19 MR BERESFORD: I understand that some enquiries have been 20 made, and my learned friend Mr Pao can explain what the 21 result is. 22 MR PAO: Mr Chairman, the information I have received from 23 my client is that the calculation of the lightweight of 24 the ship at that time, during the inclining experiment, 25 was calculated on an observation of the draft mark of</p>	<p>1 MR CHAU TO-YUI (on former affirmation) 2 (All answers via interpreter unless otherwise indicated) 3 Examination by MR BERESFORD (continued) 4 THE CHAIRMAN: Good morning, Mr Chau. 5 A. (In English) Good morning. 6 THE CHAIRMAN: Have you had the opportunity to peruse 7 completely the record of interview and your statement 8 now? 9 A. Yes. 10 THE CHAIRMAN: Are you in a position to indicate whether or 11 not it needs to be amended, either of them? 12 A. No. 13 MR BERESFORD: So are the contents of those documents true, 14 Mr Chau? 15 A. Correct. 16 Q. Thank you. Mr Chau, you are currently a ship inspector 17 in team 1 of the Maintenance Section, Government Fleet 18 Division of the Marine Department, and you've held that 19 position since 1993; is that right? 20 A. Correct. 21 Q. You hold a Higher Certificate in Naval Architecture and 22 Shipbuilding from the Hong Kong Polytechnic. When was 23 that awarded, please? 24 A. If I remember correctly, it was in 1983. 25 Q. Thank you. You joined the Marine Department as</p>
<p>1 the vessel. If it's in calm water, that would be fine. 2 But if it's slightly choppy, then that observation of 3 the draft mark might be slightly off. So if the Marine 4 Department surveyor who supervised the experiment said, 5 "Look, that's my observation of the draft mark", then 6 they would have to record the measurement and base the 7 calculation on that. So that may be an additional 8 factor that affected the calculations of the 9 lightweight. 10 THE CHAIRMAN: Thank you. 11 MR BERESFORD: So perhaps that draws a line under that 12 enquiry. 13 There's one other minor matter as well. 14 I understand my learned friend Mr Pao confirms that the 15 contract between Cheoy Lee and Naval-Consult, the copy 16 that is in the possession of Cheoy Lee, is the same as 17 that produced by Naval-Consult. So perhaps there's no 18 necessity for any further document to be produced in 19 that regard. 20 THE CHAIRMAN: Very well. 21 MR BERESFORD: I see Mr Chau has taken his seat again, 22 Mr Chairman. 23 THE CHAIRMAN: Thank you. 24 25</p>	<p>1 an assistant ship inspector in 1990, and in 1993 you 2 became a ship inspector. From 2003 to 2009, you were 3 posted to the Local Vessels Safety Section; is that 4 right? 5 A. Correct. 6 Q. Your duties in the Local Vessels Safety Section 7 included, amongst other things, liaising with 8 shipbuilders or shipowners; vessel inspection; overseas 9 survey; tonnage measurement and valuation of detained 10 craft; witnessing inclining experiments; lightship 11 verifications; and approval of stability calculations? 12 A. Correct. 13 Q. Now, you've made your witness statement to explain your 14 role as a ship inspector in witnessing the inclining 15 experiment of the Lamma IV on 19 July 2005, and the 16 checking of Lamma IV's Stability Booklet dated 21 July 17 2005, which was submitted by Cheoy Lee Shipyards Ltd to 18 the Marine Department. 19 A. Correct. 20 Q. We can see the covering letter from Cheoy Lee to the 21 Marine Department at marine bundle 4, page 667. This 22 refers to the completion of some aluminium frame support 23 works, and it says: 24 "... an inclining experiment on the vessel was 25 carried out. We enclose herewith the 'Stability</p>

<p style="text-align: right;">Page 5</p> <p>1 Booklet' for your reference." 2 The Stability Booklet begins at page 668. 3 A. Correct. 4 Q. We see there a Marine Department stamp marked "seen", 5 dated 6 January 2005. Do you recognise the signature or 6 initials in that stamp? 7 A. No. 8 Q. But is it right that you were assisting Mr Liu Chiu-fai, 9 the surveyor of ships, now senior surveyor of ships, in 10 vetting the Stability Booklet at that time? 11 A. Correct. 12 Q. And can you confirm that this is the Stability Booklet 13 that you checked? 14 A. Correct. 15 Q. Thank you. You've told us at paragraph 7 in your 16 statement: 17 "Before witnessing an inclining experiment, normally 18 I would look at the General Arrangement plan of the 19 vessel concerned to acquaint myself with the basic 20 arrangement of the vessel as well as any previous 21 stability booklet." 22 A. If this information were available, I would check it. 23 Q. You also explained: 24 "... often, due to short notice, we may not be able 25 to access these plans and booklet in our office before</p>	<p style="text-align: right;">Page 7</p> <p>1 calculation such as fire safety equipment, life-saving 2 appliances, persons, the inclining mass on deck, 3 et cetera. In particular, I would ask the conductor to 4 show me that there is no bilge water in the underdeck of 5 the vessel." 6 Is that right? 7 A. Correct. 8 Q. You say: 9 "Sometimes, when I am onboard, the floor plates in 10 compartments are already lifted up so that I can confirm 11 by looking through the manholes on the main deck that 12 there is no bilge water. In [other] cases, it cannot be 13 viewed clearly from the main deck so I have to climb 14 down to the underdeck compartments with the conductor to 15 verify that." 16 A. Normally, if I couldn't see the bilge, I would go down 17 and use a torch to verify whether there is any bilge 18 water. 19 Q. Thank you. You say: 20 "Apart from bilge water, the oil tank and the water 21 tank have to be checked by sounding pipe to confirm 22 whether they are empty." 23 A. We use the sounding method to measure whether there is 24 any water or oil, because it would affect the free 25 surface, and we need to make amendment.</p>
<p style="text-align: right;">Page 6</p> <p>1 going to the shipyard ... In such circumstances, we 2 would ask the shipowner or shipbuilder to provide us 3 with relevant plans on board when conducting the 4 inclining experiment." 5 A. Correct. 6 Q. And even if such a plan was not available, you would 7 record a simple plan and arrangement of the vessel when 8 you were on board? 9 A. Yes, I would perhaps make a sketch. 10 Q. In fact there's a copy of the General Arrangement plan 11 in the Stability Booklet at page 670 of our bundle; is 12 that right? Page 2 of the booklet. 13 A. Correct. 14 Q. Then you turn to tell us about witnessing the inclining 15 experiment, and you say: 16 "After arriving at the shipyard, the conductor of 17 the inclining experiment ('conductor') would check the 18 density of seawater as it is a factor to be considered 19 in the experiment." 20 A. Correct. 21 Q. So the conductor would be an employee of the shipyard, 22 would he, normally? 23 A. Correct. 24 Q. And you say: 25 "Then I would note down objects relevant to the</p>	<p style="text-align: right;">Page 8</p> <p>1 Q. Yes. Could I please show you a larger version of the 2 General Arrangement that you saw on page 2 of the 3 Stability Booklet. This is the General Arrangement at 4 marine bundle 2, page 172. Or perhaps you could be 5 shown a copy of the Cheoy Lee version in its full size. 6 A. Yes, I can see it. 7 Q. You can see the underdeck plan at the bottom. At the 8 stern of the vessel, you can see the tank room 9 containing the fuel oil tank and the freshwater tank. 10 A. Yes. 11 Q. After that, you can see the steering gear compartment, 12 and you can also just about see on that plan an access 13 opening marked to port of the freshwater tank. 14 A. Yes. 15 Q. In order to conduct the sounding tests that you just 16 mentioned on the oil tank and the water tank, would you 17 have had to have entered the tank room? 18 A. No. Because the opening of the sounding pipe was 19 located at the main deck. 20 Q. I see. But you would have had to have looked into the 21 tank room and the steering compartment, and indeed the 22 other compartments of the underdeck plan, in order to 23 determine whether or not there was any bilge water 24 present? 25 A. Would you please repeat the question?</p>

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<p>1 Q. Yes. You would, would you not, have had to look into 2 the tank room and into the steering gear compartment in 3 order to determine whether or not there was any bilge 4 water present in those compartments? 5 A. Yes. 6 Q. We've seen the access opening marked on the General 7 Arrangement. Perhaps I can show you a photograph of 8 that at marine bundle 1, page 162. This is a photograph 9 produced by the Marine Department, and it's been 10 labelled by the Marine Department. Do you see the 11 labelling "Access opening to the steering compartment"? 12 The next arrow points to the tank room aft bulkhead, and 13 the next arrow points to the port side steering gear. 14 A. Yes, I can see them. 15 Q. Thank you. So we can see from that photograph, can we 16 not, that the tank room aft bulkhead is not watertight? 17 A. From this photo, I can see that it is not watertight. 18 Q. Yes. Do you remember whether you could see that at the 19 time? 20 A. I didn't see it. 21 Q. You didn't see it, or you don't remember? 22 A. I couldn't remember. 23 Q. Okay. You go on to explain in paragraph 9 of your 24 witness statement: 25 "The mooring ropes of the vessel will be slackened</p>	<p>1 A. From the draft mark reading, we can see the aft draft 2 and the centre draft and also the left and right reading 3 of the bow. 4 Q. Are you still talking about page 673, Mr Chau? 5 A. Yes. 6 Q. But I'm looking at the heading. It says "Status as 7 inclined". You told me that that was during the 8 experiment. 9 A. Yes. 10 Q. But in your statement, we're on the position before you 11 conduct the experiment, in the preparatory steps. Do 12 you read the draft before you conduct the experiment, as 13 well as during the experiment? 14 A. I would first check all the equipment necessary, which 15 needs to be placed on board the vessel, and then I would 16 check the bilge water. Then after seeing all that, 17 I would slacken the ropes and look at the draft. 18 Q. Yes. And that's before the inclining experiment is 19 carried out; is that right? 20 A. Correct. 21 Q. So where in this booklet do we find the draft as 22 measured, if anywhere, before the inclining experiment 23 is carried out? 24 A. It is in "Draft mark reading". 25 Q. On page 673?</p>
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<p>1 so that the vessel is floating freely on water in 2 lightship condition." 3 A. Correct. 4 Q. And: 5 "Finally, I need to take the reading of the draft 6 mark at the hull of the vessel and agree this with the 7 conductor." 8 A. When the ship is floating freely on the water, and when 9 the ropes are slack, I, together with the staff of the 10 shipyard, would go ashore. But two other persons will 11 board the ship to maintain the actual weight. After we 12 go ashore, I and the person who conducted the experiment 13 would look at the draft. I, together with the 14 conductor, would look at the draft of the bow and the 15 stern. 16 Q. Can you tell us, please, where in the Stability Booklet 17 that we were looking at beginning at page 668 -- do you 18 have that in front of you? Where in this booklet will 19 we find your draft measurement? 20 A. On page 673. 21 Q. Thank you. This says "Status as inclined". 22 A. It is during the experiment. 23 Q. Yes. We're on the preparatory steps before you 24 conducted the experiment, so is that reading recorded 25 here?</p>	<p>1 A. Yes. 2 Q. Even though that says "Status as inclined"? 3 A. Correct. 4 Q. I see. Then in paragraph 10 of your witness statement, 5 you say: 6 "After these preparatory steps, the mooring ropes of 7 the vessel will be loosened again so that the vessel is 8 floating freely on water." 9 A. Correct. 10 Q. "Then the pendulum measuring equipment will be set up." 11 A. Correct. 12 Q. And you describe this as a plumb-line with a heavy bob 13 weight at the end. 14 A. The most desirable position for placing this pendulum is 15 in the midship. 16 Q. Yes. 17 A. (Chinese spoken). 18 Q. Don't give us too much at once, because the interpreter 19 has to interpret what you're saying. So if you can do 20 it in chunks, that would be very helpful. 21 A. The rope could be fixed on the top with a screw, with 22 something like a screw, and a string would hang down -- 23 a string with heavy bob weight would hang down from that 24 string and then there is a rectangular box with lube oil 25 inside. After placing the rectangular box, I would</p>

<p style="text-align: right;">Page 13</p> <p>1 check whether the bob weight would hit. The purpose of 2 putting lube oil in the box is to prevent the pendulum 3 from swinging at an acute angle. 4 Q. Thank you. Then you say: 5 "An inclining mass is moved in a transverse movement 6 on the deck through a known distance." 7 A. This is an important part in the inclining experiment. 8 Q. Yes. So in layman's terms, you move a heavy object from 9 one side of the deck to the other and measure the 10 distance, do you? 11 A. We move the object from the left to the right. We call 12 it moving the object from the port to the starboard, or 13 from the starboard to the port side. 14 Q. Yes. And then you measure the deflection of the 15 pendulum against a horizontal batten. 16 A. The horizontal batten was in fact put on top of the 17 rectangular box. 18 Q. Yes. Sorry, Mr Chau, do go on. 19 A. When the weight is moved from the left to the right, it 20 will form an angle and we would measure the angle to 21 arrive at the GMT. 22 Q. So let me try and see if I can put this into words. 23 If you have a point G, which I take it is the centre 24 of gravity, and a point M, which is a point vertically 25 above the centre of gravity, above the vessel, then when</p>	<p style="text-align: right;">Page 15</p> <p>1 I can measure the M and will get a KM. 2 MR BERESFORD: Yes. I don't want to get too technical. I'm 3 just trying to visualise the angle that you're 4 measuring. So we have a line from G to M, and when you 5 incline the vessel, that will deflect the pendulum? 6 A. In order to get the GM, we need several data. The first 7 one is the lightship weight; the second one, the 8 inclining mass; and the third one the is the distance 9 between the port side and the starboard side; and the 10 fourth one is the angle of the deflection. 11 THE CHAIRMAN: And that's what you're being asked about: 12 what is the angle you're measuring? Isn't that a simple 13 question? 14 A. When the weight is moved from one side of the vessel to 15 the other side, the vessel would incline and the angle 16 we measure is the angle of inclination. 17 THE CHAIRMAN: That's from the vertical? 18 A. Correct. 19 THE CHAIRMAN: Thank you. 20 Yes, Mr Beresford. 21 MR BERESFORD: Thank you, Mr Chairman. 22 And that is to discover, is it not, the transverse 23 stability of the vessel? 24 A. Correct. 25 Q. Thank you. And you say in your statement, in the last</p>
<p style="text-align: right;">Page 14</p> <p>1 M is inclined over at an angle, the plumb-line dropping 2 down from M will form an angle with the line G to M. Is 3 that right? Do you follow me? 4 A. There is a slight difference. In fact, the M was fixed 5 on the top. 6 Q. Of the mast? 7 A. No. 8 Q. No. All right. So M is fixed on the top, vertically 9 above -- before the ship is inclined, M is vertically 10 above G; is that right? 11 A. G is under it. 12 Q. Yes. Is G the centre of gravity? 13 A. Yes. Vertical. 14 A. (In English) Vertical centre of gravity. 15 Q. Vertical centre of gravity, thank you. 16 A. (Chinese spoken). 17 Q. Just do it in stages, please, Mr Chau. 18 A. Usually, after -- 19 THE INTERPRETER: Sorry. 20 (Chinese spoken). 21 A. Usually I, together with the conductor -- 22 THE INTERPRETER: Sorry. 23 A. After finding the reading of the draft with the 24 conductor, I would find the weight and KM from 25 a hydrostatic property. K represents keel and from that</p>	<p style="text-align: right;">Page 16</p> <p>1 line of paragraph 10: 2 "There will be different combinations of the 3 movement of the inclining mass and it will take a few 4 hours to complete the whole experiment." 5 A. Correct. 6 Q. Thank you. We then turn from the general to the 7 specific, and you talk about this specific inclining 8 experiment in paragraph 11 of your statement. 9 A. Correct. 10 Q. You tell us you remember that the procedure conducted by 11 you was more or less the same as you have described the 12 general procedure to be. 13 A. Correct. 14 Q. And then you refer to the record at page 848 of marine 15 bundle 4. 16 A. Correct. 17 Q. This is one of the survey reports on the Marine 18 Department's file, is it not? 19 A. Yes, it is a survey record. 20 A. (In English) Inspection record. 21 A. It is an inspection record. 22 Q. You say that it's shown from the record that before 23 starting the experiment, you had checked the position of 24 the lead ballast first as you understood that the 25 shipowner had asked for the lead ballasts at the tank</p>

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<p>1 room and the steering gear compartment to be raised by 2 10 inches. 3 THE CHAIRMAN: Can you just help me with dates, 4 Mr Beresford. This inspection record is described as 5 a quadrennial survey taken on 16 June 2005. Are we not 6 concerned with an inclining experiment that was done on 7 21 July? 8 MR BERESFORD: Yes, Mr Chairman. 9 THE CHAIRMAN: So what's the relevance of this document? 10 MR BERESFORD: This document showed the witness that the 11 owner had asked for lead ballast to be raised. 12 THE CHAIRMAN: Can you show us where that is? 13 MR BERESFORD: I believe you're referring to note 32 at the 14 bottom of the page, are you not, Mr Chau? 15 A. Yes. 16 Q. Yes. Thank you. So if I've understood your evidence 17 correctly, Mr Chau, it was apparent from this record 18 that the owner had asked for the ballast to be raised, 19 and so you believe that you had checked the position of 20 the lead ballast first before conducting the inclining 21 experiment; is that right? 22 A. From this record, I can see that the owner has requested 23 lifting up the weight for 10 inches, and my colleague 24 noted that he had seen that in item 32, dated 13 July. 25 THE CHAIRMAN: Sorry, where do we find that?</p>	<p>1 A. Yes, correct. 2 Q. So that's what you're referring to when you say item 32 3 appears to have been checked on 13 July? 4 A. Yes. 5 THE CHAIRMAN: What it states is that items 32 and 33 had 6 been checked, not 32 and 23. 7 A. Correct. 8 MR BERESFORD: And you say in your statement that you 9 remember entering these two compartments to confirm the 10 positions of these lead ballasts? 11 A. Because the lead ballast was supposed to lift for 12 10 inches. So I went down and checked whether there is 13 a ballast, and I also did some spot-check on the weight 14 and count the ballast, and these were done with the 15 conductor bringing me down there. After counting the 16 ballasts, I went up and reviewed and checked whether 17 there is any discrepancy. 18 THE CHAIRMAN: But where did you go down to do this? 19 A. I don't have a clear recollection, but I followed the 20 conductor. 21 THE CHAIRMAN: You've dealt with it in your statement, have 22 you not, at paragraph 11? The two compartments, you say 23 there, that were concerned were the tank room and the 24 steering gear compartments. 25 A. Correct. And when I went down, I also checked whether</p>
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<p>1 A. Below "some location" of item 33. 2 THE CHAIRMAN: Yes. Read out what you think you can see 3 there. 4 A. (In English) "item 32 &amp; 23 checked". 5 MR BERESFORD: Do you recognise that signature or initial, 6 Mr Chau? 7 A. (In English) Yes. 8 Q. And whose is it, please? 9 A. Louk Hon-ying, HY Louk. You can refer to the survey of 10 ship. 11 Q. So the same HY Louk that has signed the main part of the 12 survey report? 13 A. Yes. 14 MR BERESFORD: I just want to clarify this using the cursor, 15 if I may, Mr Secretary. There's a space for signature, 16 "Surveyor of Ships/Ship Inspector", and above that there 17 is a signature. Yes, where the cursor is pointing now. 18 By that there's a name, "HY Louk". That's what I call 19 the main signature. Do you see that? 20 A. Yes. 21 Q. Then underneath that there's a line going across the 22 page, and underneath that line in the centre there's 23 another signature and the date, "13/7/2005". 24 If the cursor can just point there -- yes. 25 That signature is the same signature, is it?</p>	<p>1 there is any bilge water, and I had to carry a watch to 2 conduct the check. 3 THE CHAIRMAN: Let's just concentrate on the question. Do 4 you confirm that you went into both the steering gear 5 compartment and the tank room in order to check the 6 location and then perhaps the weight of the ballast? 7 A. Correct. 8 THE CHAIRMAN: Thank you. 9 MR BERESFORD: It may be a point of translation, but I think 10 you said you would have looked with a torch, not 11 a watch? 12 THE INTERPRETER: Yes, Mr Beresford, I said a torch. 13 MR BERESFORD: Thank you. 14 A. Yes, a torch. 15 MR BERESFORD: I'm sure you did, but it came out in the 16 transcript as a watch. 17 Now, you've seen the plans. We looked at the plans 18 earlier, and you've seen the photograph. So in order to 19 get from the tank room to the steering gear compartment, 20 or from the steering gear compartment to the tank room, 21 it seems likely that you would have had to have gone 22 through that access opening, doesn't it, Mr Chau? 23 A. I don't remember what I did at that time, but usually 24 I went down from the main deck. 25 Q. Yes. But you wouldn't have gone down twice, would you?</p>

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<p>1 You wouldn't have gone down from the deck into the tank 2 room and then down again from the deck into the steering 3 gear compartment? 4 MR MOK: I think the translation is "you would do that", 5 whereas the question is "you wouldn't do that". 6 THE CHAIRMAN: Yes. Thank you for that, Mr Mok. 7 A. If there is a manhole on top, then of course I would 8 have gone down from the manhole. 9 THE CHAIRMAN: No, the point is, having come down through 10 the manhole, clambered down a ladder into one of the 11 compartments and then finding an access door which 12 permitted you to go from, say, tank room to steering 13 room, you wouldn't climb back up to the deck and go down 14 through another manhole; isn't that the likelihood? 15 You'd use the access hole. 16 A. I don't have a clear recollection of this, but 17 usually -- 18 THE INTERPRETER: Sorry. 19 A. Usually I went down from the main deck to the 20 independent compartment. 21 MR BERESFORD: Mr Chau, you say: 22 "After checking the position of the lead ballasts, 23 the procedure of experiment was conducted and I remember 24 that it took about 2 hours to complete the whole 25 experiment including the preparation work [we've just</p>	<p>1 miscalculation in the Stability Booklet? 2 A. Basically it was not a significant discrepancy. 3 MR BERESFORD: Unless anybody wants me to, I don't propose 4 to go into those in detail. 5 Mr Chau, did you check the damage stability 6 calculations from page 695 of the Stability Booklet? 7 A. I had checked the data against the previous one, which 8 was in 1998. 9 Q. You see it starts at page 695 under the heading 10 "Stability after damage"? 11 A. Correct. 12 Q. At page 697, we see the heading "Damage Case 1: After 13 Peak damaged". 14 A. Correct. 15 Q. So that's basically a calculation of the position on the 16 assumption that the steering gear compartment is 17 flooded; is that right? 18 A. Correct. 19 Q. Then at page 698 at the bottom, going on to pages 699 20 and 670, we see "Damage Case 2: Tank Space damaged". 21 A. Correct. 22 Q. That, similarly, is a calculation of what the position 23 would be if the tank compartment were flooded; is that 24 right? 25 A. Correct.</p>
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<p>1 been discussing]." 2 A. Correct. 3 Q. And then: 4 "After the ... experiment was completed, Cheoy Lee 5 gave me a photocopy of the draft measurement and reading 6 of the deflection of the pendulum for record." 7 A. Usually, after that, I would go to the office of the 8 shipyard and they would provide me with the data. But 9 I also marked down some reading and checked against the 10 data they provided. After verifying the data, the 11 shipyard would give me a photocopy. 12 Q. I see. Then you tell us: 13 "Cheoy Lee sent the Stability Booklet to the Marine 14 Department on 21 September 2005." 15 A. Yes. 16 Q. "Upon receipt of the Stability Booklet, since this was 17 the third stability booklet of Lamma IV [that you knew 18 about], I checked the figures and the calculations 19 therein against the previous stability booklet in 1998." 20 A. Correct. 21 Q. And you tell us about a minor discrepancy that you 22 discovered in the lightship weight and vertical centre 23 of gravity, which you reported to Mr Liu Chiu-fai. 24 A. Yes. 25 Q. Apart from that, you didn't notice any discrepancy or</p>	<p>1 Q. At page 700, we see "Damage Case 3: Engine Room 2 damaged". 3 A. Correct. 4 Q. From page 702, we see "Damage Case 4: Void fr.9-fr.13 5 damaged". 6 A. Correct. 7 Q. I think if we look at the General Arrangement on 8 page 670, that's what is normally referred to as the 9 crew space, is it not? You can see the frame numbers on 10 the profile at the top, Mr Chau. The labels of the 11 compartment are on the underdeck plan. 12 If you'd like to look at a larger version of the 13 General Arrangement, I'm sure it can be provided. 14 A. Yes, I can see it. 15 Q. You can see it? 16 A. I don't need to refer to the larger version. I am 17 referring to the report submitted. 18 Q. So 9-13 is the crew space, isn't it? 19 A. Yes. 20 Q. Then from page 703, we can see the heading "Damage 21 Case 5: Void fr.13-fr.18 damaged". 22 At page 705, we see "Damage Case 6: Fore Peak 23 damaged", going on to page 706 and page 707. 24 Those calculations are calculations for six separate 25 compartments, are they not?</p>

<p style="text-align: right;">Page 25</p> <p>1 A. Correct. 2 Q. They are based on the assumption that each of those six 3 compartments is watertight? 4 A. Correct. 5 Q. In particular, it is based on the assumption that the 6 bulkhead between the after peak and the tank space is 7 watertight, is it not? 8 A. According to the plan submitted, there are six 9 compartments and they should be watertight. 10 Q. Including the bulkhead – 11 MR MOK: I'm sorry. "According to the submitted report", 12 not the plan, I think. 13 THE INTERPRETER: "According to the submitted report". 14 MR BERESFORD: Including the bulkhead between the after peak 15 and the tank room? 16 A. Correct. 17 THE CHAIRMAN: Have a look at page 670, please, which you 18 drew our attention to earlier, described as the General 19 Arrangement. If you look at the underdeck plan, that is 20 illustrated there, is it not, the six compartments, by 21 solid lines being drawn? 22 A. Correct. 23 MR BERESFORD: It's a convention, is it not, Mr Chau, that 24 the solid line indicates a watertight bulkhead? 25 A. Correct.</p>	<p style="text-align: right;">Page 27</p> <p>1 experiment? 2 A. Correct. 3 Q. When you do that experiment, you also have to check the 4 bilge water condition in the hull? 5 A. Correct. 6 Q. You just told us that one method of doing that is to use 7 a sounding pipe. 8 A. This sounding pipe method is only used in the oil tank 9 and water tank. 10 THE CHAIRMAN: Yes, that's what I understood. But bilge 11 water is checked visually, is it not? 12 A. Correct. 13 MR MOK: And the question I wish to ask you is, in relation 14 to a newly built vessel, do you normally expect that 15 there would be electricity-generated lighting inside the 16 hull when you check the bilge water condition, or do you 17 normally have to use a torch to check the bilge water 18 visually? 19 A. Which stage are you referring to? 20 Q. At the first stage; that is, the first inclining 21 experiment after the vessel has been built. 22 A. The situation is just the same, because when the 23 experiment was conducted, it was conducted in static 24 water and all the engines and lighting were shut off. 25 Usually it was very dark, so we would carry a torch, or</p>
<p style="text-align: right;">Page 26</p> <p>1 Q. The watertight bulkhead between the tank room and the 2 steering gear compartment is the bulkhead that you must 3 have stepped through when you conducted your experiment, 4 wasn't it? 5 A. As I have mentioned before, I don't have a clear 6 recollection of what I did at that time. I am just 7 referring to the plans. And the number of compartments 8 that the calculation was based according to the report 9 they submitted. 10 MR BERESFORD: Okay. Thank you, Mr Chau. I have no further 11 questions. 12 THE CHAIRMAN: Mr Grossman? 13 MR GROSSMAN: No, thank you, Mr Chairman. 14 MR SUSSEX: Mr Chairman, I have no questions for Mr Chau. 15 MR PAO: No questions, Mr Chairman. 16 THE CHAIRMAN: Mr Mok? 17 MR MOK: I have one general question about the lighting 18 condition inside the hull. 19 THE CHAIRMAN: Yes. 20 Examination by MR MOK 21 MR MOK: Mr Chau, I have one question for you in relation 22 not to this particular inclining experiment that you 23 participated in, but generally in relation to a newly 24 built vessel. Is it correct that in relation to a newly 25 built vessel, you also have to undertake an inclining</p>	<p style="text-align: right;">Page 28</p> <p>1 the conductor of the shipyard would also bring a torch. 2 MR MOK: Thank you. 3 THE CHAIRMAN: Mr Beresford? 4 MR BERESFORD: No further questions, Mr Chairman. 5 THE CHAIRMAN: Thank you, Mr Chau, for coming to assist us 6 by giving your evidence, but that evidence is now 7 complete and you're free to leave. You may, of course, 8 if you wish, remain and listen to the other evidence. 9 A. (In English) Thank you. 10 (The witness withdrew) 11 THE CHAIRMAN: Mr Beresford? 12 MR BERESFORD: Mr Chairman, if I may just have a word about 13 the order of witnesses now. 14 THE CHAIRMAN: Yes. 15 MR BERESFORD: The next witness in the list is Dr Cheng 16 Yuk-ki, and he is followed in the list by Mr Tang 17 Wan-on, the marine manager of Hongkong Electric. After 18 that, there is Mr Tam Yun-sing, who is another ship 19 inspector from the Marine Department who dealt with the 20 change in the manning requirement of the Lamma IV's 21 licence. 22 THE CHAIRMAN: Yes. 23 MR BERESFORD: Then we get to Dr Armstrong. 24 THE CHAIRMAN: Yes. 25 MR BERESFORD: It would perhaps be most convenient if</p>

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<p>1 Dr Armstrong could commence on Monday morning, if that 2 would be acceptable, and perhaps if we can rearrange the 3 order slightly so that if we deal with Mr Tam next, then 4 that would finish with the ship inspectors from the 5 Marine Department. 6 THE CHAIRMAN: Yes. 7 MR BERESFORD: Then I would be in your hands, Mr Chairman, 8 as to whether Mr Tang Wan-on might just be dealt with 9 before we come to Dr Cheng, or -- 10 THE CHAIRMAN: I think we prefer to hear from Dr Cheng next. 11 MR BERESFORD: So that would be my proposed order, 12 Mr Chairman. 13 THE CHAIRMAN: Very well. It may or may not be, if that's 14 the schedule you're suggesting, we are able to 15 accommodate Mr Tang in that batting order, before 16 Dr Armstrong, if you are, as you've suggested, minded to 17 begin his evidence on Monday? 18 MR BERESFORD: Well, it would have the advantage of getting 19 Mr Tang's evidence dealt with, and he's obviously 20 been -- 21 THE CHAIRMAN: Yes. Mr Tang deals with a completely 22 different subject -- 23 MR BERESFORD: He's coming out of order because he's come 24 late. 25 THE CHAIRMAN: -- and frankly can be dealt with at any time.</p>	<p>1 Q. Is there any amendment that you would like to make? 2 A. No. 3 Q. So are the contents of this statement true? 4 A. Yes, it's true. 5 Q. Thank you. Mr Tam, you tell us that you're a shipping 6 safety officer in the Marine Industrial Safety Section 7 of the Local Vessels Safety Branch, Shipping Division of 8 the Marine Department; is that right? 9 A. Some amendment. Now my position is marine industrial 10 safety officer in the Marine Industrial Safety Section. 11 MS SIT: The witness also said "What I do now is different 12 from what I did before". 13 THE INTERPRETER: Yes, "My position is different from my 14 previous position". 15 THE CHAIRMAN: Thank you. 16 MR BERESFORD: Yes, we'll come to that in a moment, Mr Tam. 17 The Marine Industrial Safety Section is, you have 18 told us, the enforcing agency for various pieces of 19 legislation. You have identified part V of the Shipping 20 and Port Control Ordinance and one of its subsidiary 21 regulations; part VIII of the Merchant Shipping (Local 22 Vessels) Ordinance and one of its subsidiary 23 regulations; and the Freight Containers (Safety) 24 Ordinance and its four subsidiary regulations. Is that 25 right?</p>
Page 30	Page 32
<p>1 MR BERESFORD: Yes, it can, Mr Chairman. 2 THE CHAIRMAN: We'll take a 20-minute break now then. 3 (11.28 am) 4 (A short break) 5 (11.46 am) 6 THE CHAIRMAN: Yes, Mr Beresford. 7 MR BERESFORD: Mr Chairman, the next witness is Mr Tam 8 Yun-sing. 9 MR TAM YUN-SING (sworn in Puntì) 10 (All answers via interpreter unless otherwise indicated) 11 Examination by MR BERESFORD 12 MR BERESFORD: Good morning, Mr Tam. Thank you for coming 13 along this morning to assist this Commission with its 14 Inquiry. I have some questions to ask you on behalf of 15 the Commission. 16 Mr Tam, you have made a witness statement dated 17 23 January 2013 which may be found in our marine 18 bundle 11 at pages 4035 to 4039. Do you have a copy of 19 your statement in front of you? 20 A. Yes. 21 Q. Do you recognise your signature at page 4038? 22 A. Yes, it's my signature. 23 Q. Have you had an opportunity today to remind yourself of 24 what this statement says? 25 A. Yes, I have read it this morning.</p>	<p>1 A. Some amendment. I am only responsible for enforcing the 2 regulation -- the Shipping and Port Control Ordinance 3 and its subsidiary regulation, which is 313X, and one of 4 its subsidiary legislations. 5 MR MOK: He is emphasising that he's only responsible for 6 part V of the Ordinance, and only one of the provisions 7 in the subsidiary regulation. 8 MR BERESFORD: I'm grateful to my learned friend. In fact 9 the statement refers to the safety section is the 10 enforcing agency, but I was passing over that. 11 THE CHAIRMAN: I think we can pass over this whole topic and 12 get to the issue -- 13 MR BERESFORD: Indeed. 14 THE CHAIRMAN: -- which is the change in the manning level, 15 is it not? 16 MR BERESFORD: Yes, Mr Chairman. 17 Can we please have a look at the Lamma IV 18 certificate of survey at page 760. 19 We see there, Mr Tam, the certificate of survey 20 valid from 16 July 2007 to 25 July 2008. And we see in 21 the top right that the manning requirement was "2"; do 22 you see that? 23 A. Yes. 24 Q. Then can we please turn to page 775. This is the 25 certificate of survey valid from 2 June 2008 to 25 July</p>

<p style="text-align: right;">Page 33</p> <p>1 2009, and the minimum safe manning of crew is specified 2 on this certificate as being "4". 3 A. Correct. 4 Q. You were the officer, were you not, who changed the 5 requirement from a crew of two to a crew of four; is 6 that right? 7 A. According to the record, I am the one who changed the 8 requirement. 9 THE CHAIRMAN: Which record is that? 10 A. I have stated in my statement that it was according to 11 the computer record, but my name did not appear on the 12 certificate. 13 MR MOK: Mr Chairman, in his earlier answer, what he was 14 saying, I believe, is that according to the record, he 15 was the person who was conducting the inspection on that 16 day, so he takes it that he was the person who changed 17 the requirement. 18 THE CHAIRMAN: Thank you. Do we have this record, is really 19 what I'm asking? 20 MR BERESFORD: I don't believe we, do Mr Chairman. 21 THE CHAIRMAN: Mr Mok, where is this record to which he 22 is -- 23 MR MOK: I'll take instructions. 24 THE CHAIRMAN: Yes. 25 What was the nature of this inspection that you were</p>	<p style="text-align: right;">Page 35</p> <p>1 THE CHAIRMAN: I'm just putting on the record what it is 2 that you're asking him to look at, because page 3 references by themselves do not achieve that. 4 MR BERESFORD: Thank you, Mr Chairman. 5 COMMISSIONER TANG: Perhaps you can look at page 856. Is 6 that signature yours, Mr Tam? 7 A. This is my signature, dated 27 October 2009. I can find 8 on page 855, the page before that, in the column of the 9 year 2008 in the periodic survey report, and the date of 10 final survey is recorded as 2 June and the signature of 11 the inspector is "YS Tam", which is me. 12 MR BERESFORD: Does that serial number, certificate of 13 survey serial No. 128A0801393 correspond to the 14 certificate of survey that we saw at page 775? 15 A. The number of the certificate was recorded under my 16 signature. 17 Q. Yes. 18 A. It should correspond to the number on the certificate on 19 page 775. 20 THE CHAIRMAN: Read out the number, if you would. 21 A. "12A080", and then it's not very clear, and then "1393". 22 THE CHAIRMAN: Yes. And that accords with the number on the 23 top right-hand corner of page 775, which is the 24 certificate of survey for the period June 2008 to July 25 2009?</p>
<p style="text-align: right;">Page 34</p> <p>1 conducting? 2 A. On that day, I was conducting the last inspection of the 3 annual survey. I was conducting the final inspection of 4 the annual survey. 5 THE CHAIRMAN: We have inspection records, do we not, 6 Mr Beresford? Is there one that's relevant to this? 7 MR BERESFORD: I don't believe so, Mr Chairman, but perhaps 8 we can have a look at the 2008 record, which is at 9 page 853 of marine bundle 4. 10 THE CHAIRMAN: No reference to you on that document, is 11 there? 12 A. There is no reference of me. It is another colleague. 13 THE CHAIRMAN: Yes. 14 MR BERESFORD: Would you have completed any part of the 15 document in this file commencing at page 831 and running 16 through to page 864? 17 THE CHAIRMAN: So you're inviting the witness to look, 18 amongst other things, at the inspection records for the 19 period from February 1996 through until May 2012? 20 MR BERESFORD: Yes, Mr Chairman. It's my understanding that 21 this is one document. It's one file. 22 THE CHAIRMAN: Yes. 23 MR BERESFORD: There are some documents, for example there's 24 a survey report at page 849 which appears to refer to 25 different years. So I just want to clarify --</p>	<p style="text-align: right;">Page 36</p> <p>1 A. Correct. 2 MR BERESFORD: There's an asterisk by the expiry date that 3 appears to refer to a note -- sorry, I'm looking at 4 page 855. 5 A. Yes, correct. 6 Q. That appears to refer to a footnote at the bottom of the 7 page. 8 A. Correct. 9 Q. Does that footnote relate to fire extinguishers? 10 A. It is related to fire extinguishing system and not fire 11 extinguishers. 12 Q. Then just above your signature, above the solid line 13 there's a reference to an inspection record number. 14 A. I'm not sure where you referring to. 15 Q. Above your signature, immediately above your signature 16 there is the date of the final survey, and then above 17 that there is the date of the slip survey, and above 18 that there's an inspection record number: 025321. 19 A. And your question is? 20 Q. My question is, does that refer to the inspection record 21 at page 853? 22 A. Correct. 23 Q. And that's the one we just looked at that makes no 24 reference to you; is that right? 25 A. Correct.</p>

<p style="text-align: right;">Page 37</p> <p>1 Q. Thank you. So the upshot, Mr Tam, is that it appears 2 that you were the person who changed the crew 3 requirement from two to four on 2 June 2008; is that 4 right? 5 A. Correct. 6 Q. But you don't have any memory now, due to the lapse of 7 time, of the activities that you conducted during the 8 final inspection? 9 A. I would like to add some supplementary information. As 10 I have mentioned in my statement, I have conducted many 11 surveys on ships and I have also worked in two different 12 posts. So it is impossible for me to have 13 a recollection of this. 14 THE CHAIRMAN: Did you document the reasons why you changed 15 the minimum safe crew manning level? 16 A. I didn't make any record. 17 THE CHAIRMAN: Nowhere at all? 18 A. I have reviewed my inspection file, and I didn't see 19 such record. Also, if there is a slight amendment of 20 the certificate, usually it would not be recorded. 21 THE CHAIRMAN: You were doubling the safe manning number for 22 the vessel. That's not a "slight amendment", is it? 23 A. In fact there were at least two vessels that had the 24 minimum safe manning requirement changed from two to 25 four crew. If Mr Chairman would like to review, I could</p>	<p style="text-align: right;">Page 39</p> <p>1 conducted the survey. 2 THE CHAIRMAN: Would it normally be representatives of the 3 owner of the vessel? 4 A. It is possible, but when the survey was conducted, it 5 was quite chaotic, the people were running around. So 6 if there's any change afterwards, then I would inform 7 one of the representatives on the vessel. 8 THE CHAIRMAN: Did you ever alert any of your superior 9 officers about what you'd done? 10 A. What are you referring to? 11 THE CHAIRMAN: Doubling the number of minimum safe crew 12 members on Lamma IV. Did you ever tell them that you'd 13 found it necessary to do that? 14 A. No. 15 THE CHAIRMAN: Did you not think it necessary, so that they 16 could consider whether or not the minimum safe number of 17 crew on like vessels should be doubled as well? 18 A. As I have mentioned in my statement, this was done in 19 accordance with the code of practice regarding -- the 20 amendment of the minimum safe manning requirement was 21 done in accordance with our code of practice and 22 I considered the requirement of the crew independently. 23 THE CHAIRMAN: Now would you answer the question: did you 24 not think it relevant, so that they could consider 25 whether or not the manning levels of other like vessels,</p>
<p style="text-align: right;">Page 38</p> <p>1 provide you with such information. In the same way, 2 such change was not recorded. 3 THE CHAIRMAN: I'm not interested in that. But what I am 4 interested in is why you didn't record it, this change. 5 A. Because the change was recorded on the certificate. 6 THE CHAIRMAN: What about the reasons for the change? Why 7 was that not recorded? 8 A. Sometimes when we note some inaccurate information in 9 the information, we would make amendments. But usually 10 we wouldn't record the reasons. 11 THE CHAIRMAN: Was a representative of Hongkong Electric 12 present at the final survey on 2 June 2008? 13 A. I have no recollection. 14 THE CHAIRMAN: Do you know Mr Tang Wan-on? 15 A. No. 16 THE CHAIRMAN: You've never met anyone of that name? 17 A. I have no recollection. 18 THE CHAIRMAN: Were you ever asked by anyone to give 19 an explanation, reasoning, for why you had doubled 20 minimum safe manning levels of Lamma IV? 21 A. As I have mentioned in my statement, usually if I have 22 made any change, I would inform the persons at the site 23 who were present. This is my usual practice. 24 THE CHAIRMAN: Who would they be? What category of person? 25 A. There is no fixed rule, but it depends on who I met who</p>	<p style="text-align: right;">Page 40</p> <p>1 that is like Lamma IV, should be increased? 2 A. Each survey is different. It depends on the colleague 3 who conducted the survey at the site to decide whether 4 he sees from the drill that there is a necessity to 5 change the manning requirement. 6 THE CHAIRMAN: Did you know that this vessel had been in 7 service for 12 years at the time of your inspection? 8 A. During the inspection, I would refer to the previous 9 survey certificate which shows the date of manufacture 10 of the vessel. 11 THE CHAIRMAN: Did that lead you to know that the vessel had 12 been in service for about 12 years? 13 A. Yes, from the record. 14 THE CHAIRMAN: Did you think it odd that no-one else on 15 previous inspections had found it necessary to double 16 the minimum number of crew for safe manning? 17 A. The new legislation came into effect on 2 January, and 18 the certificate we issued in the year 2007 was the first 19 new certificate we issued. I have referred to the 20 previous certificate, which was issued in 2005 and 2006, 21 and the minimum safe manning requirement was not shown 22 on this certificate; it only showed that the number of 23 crew members was eight. 24 THE CHAIRMAN: Yes, Mr Beresford. 25 MR BERESFORD: Can we have a look at page 760, which was the</p>

<p style="text-align: right;">Page 41</p> <p>1 first document we looked at, please. 2 This is the previous certificate, is it not, Mr Tam? 3 A. This is the certificate issued in 2007. 4 Q. Yes. And this shows the minimum safe manning of crew 5 as "2"? 6 A. Yes. 7 MR BERESFORD: Thank you, Mr Tam. 8 Mr Chairman, I have no further questions for this 9 witness. 10 THE CHAIRMAN: Mr Grossman? 11 MR GROSSMAN: Mr Chairman, I'd like to ask a few questions 12 about the system that was adopted and also about the 13 fire-fighting matters that are referred to in the 14 statement. 15 THE CHAIRMAN: Yes, very well. 16 MR GROSSMAN: Thank you. 17 Examination by MR GROSSMAN 18 MR GROSSMAN: Mr Tam, I represent Hongkong Electric. There 19 are a few questions I'd like to ask you. 20 First of all, just to take a bit further from what 21 the Chairman was asking you, do I understand this: once 22 you make a decision as to the proper number of people, 23 the minimum number required of crew, it's something you 24 decide alone, you don't make any record of it, you don't 25 give any reason for it, and no-one above you is</p>	<p style="text-align: right;">Page 43</p> <p>1 hand, I am of the opinion that two crew members is not 2 enough to handle the situation in case of fire or 3 emergency. 4 THE CHAIRMAN: Mr Grossman, can you give me the reference in 5 the statement where he says that he couldn't remember 6 this? 7 MR GROSSMAN: Yes. Paragraph 4. 8 THE CHAIRMAN: Would you read it out. 9 MR GROSSMAN: "Due to the lapse of time, the vast number of 10 vessels I have inspected over the years and the previous 11 change of post, I cannot recall purely by memory the 12 activities I conducted during the final inspection ... 13 which led to my decision of changing the minimum safe 14 manning of crew requirement of Lamma IV from two to 15 four ... I tried my best to work out the reason by 16 studying the relevant certificate of survey issued by me 17 on 2 June 2008 and recalling the usual practice adopted 18 by me when conducting final inspections in the annual 19 surveys ... back in those years." 20 Then it goes on -- 21 THE CHAIRMAN: That was all for my purposes. By all means, 22 go on later. 23 Do you accept that that is what is said in your 24 statement? 25 A. I agree.</p>
<p style="text-align: right;">Page 42</p> <p>1 approached about it? Am I right? 2 A. According to the code of practice, I was required to 3 inspect the fire drill and emergency drill once, and if 4 I -- I have the right to judge with my professional 5 knowledge whether there is enough personnel to handle 6 such situation. And if I decided that the crew members 7 are not enough to deal with the situation, I have the 8 right to make such change. 9 In the case of Lamma IV, it has two decks and with 10 a substantial number of passengers, I believe that two 11 crew members is not enough to handle the fire or 12 emergency situations. 13 Q. You remember that now, do you? Because in your 14 statement, you said you didn't remember why you 15 increased it to four. 16 MR MOK: He didn't say he remembered it, but he says that's 17 his view. 18 THE CHAIRMAN: Yes. Very well. 19 MR GROSSMAN: All right. That's your view now, is it? 20 A. This is my view in reference to the information recorded 21 on the certificate. 22 Q. In your statement, you said you couldn't remember why 23 you'd increased it. 24 A. I have no independent recollection in respect of 25 Lamma IV, but according to the information I have on</p>	<p style="text-align: right;">Page 44</p> <p>1 MR GROSSMAN: Thank you. The Chairman asked you why there 2 was no record of the reasons for the change. 3 Mr Chairman, if this needs to be looked at, it's on 4 page 38, line 8. 5 THE CHAIRMAN: Yes. 6 MR GROSSMAN: Your answer was: 7 "... [if there is] some inaccurate information in 8 the information, we would make amendments." 9 Do you remember that? 10 A. As I have said, I said that the amendment was recorded 11 on the certificate. 12 Q. Yes. What was the inaccuracy that you amended? 13 MR MOK: I think he was not referring to any inaccuracy in 14 this particular case; he was just talking generally. 15 THE CHAIRMAN: Yes, but the answer was non-responsive and 16 irrelevant, and that's the point Mr Grossman is making. 17 MR GROSSMAN: Thank you, Mr Chairman. 18 Then let me restate the Chairman's question: why was 19 there no record made of the reasons for doubling the 20 manning requirement? 21 A. Because it is our usual practice not to make such 22 record. There were also other cases in which the 23 manning requirements were also changed from two to four, 24 and in the same way, no records were made. Among these 25 cases, some were done by me and some by my other</p>

<p style="text-align: right;">Page 45</p> <p>1 colleagues. So this is our usual practice. 2 THE CHAIRMAN: Really? 3 MR GROSSMAN: Surely if the shipowner wants to -- 4 A. If necessary, I can produce two certificates which were 5 issued in 2007 and 2008. I have got the copies of them. 6 Q. But surely if the shipowner wants to challenge the 7 reasons for the increase in the manning levels, he's 8 entitled to know the reasons? 9 A. As I have mentioned in my statement, they have the 10 reason to know and if they have any objection to what -- 11 MS SIT: Not "they have the reason to know", but "they would 12 know the reason". "(Chinese spoken)", that's what he 13 said. 14 THE INTERPRETER: "They would know the reason and if they 15 had any objection, they could also raise their 16 objection." 17 MR GROSSMAN: I see. And giving them the reasons is all 18 done verbally? Nothing in writing? 19 A. We don't do this, put that down in writing. We usually 20 tell them verbally. If they found it necessary, they 21 could contact my superior at that time. 22 Q. But your superior wouldn't know the reason, because you 23 hadn't told him. 24 A. In fact I hadn't finished just now. I would also like 25 to add some information.</p>	<p style="text-align: right;">Page 47</p> <p>1 consult our superior every time we make such judgment, 2 then it would jeopardise our independence. 3 Q. You're employed by the Marine Department. That doesn't 4 make you independent. Independent of whom? 5 A. Can we refer to our code of practice first, which is in 6 the statement? 7 Q. I'm simply not interested in what your code of practice 8 says. 9 A. I think I can more clearly express what I mean after 10 referring to the code of practice. 11 THE CHAIRMAN: Well, if it's necessary, Mr Mok, who appears 12 for the Marine Department, will take you to that. But 13 Mr Grossman is conducting this questioning, and you're 14 to answer his questions. 15 A. Would you please repeat your question? 16 MR GROSSMAN: My question was, of whom are you independent? 17 You're a civil servant employed by the Marine 18 Department. You're not independent of your superiors. 19 A. There might be some misunderstanding. What I mean is 20 not I'm independent; I just mean that I assess 21 individually. If you refer to the code of practice, as 22 I have mentioned in my statement: 23 "Marine Department will prescribe the minimum safe 24 manning requirement individually ..." 25 Q. Yes, we see this in paragraph 7 of your statement. I'm</p>
<p style="text-align: right;">Page 46</p> <p>1 In fact, they could either ask my superior, by 2 writing or by phone call at the site or afterwards, 3 about the reason. In fact, in my experience, I have 4 received such phone calls and some of them have been 5 changed -- 6 A. (In English) Not "I received"; my senior. 7 THE INTERPRETER: Sorry. 8 A. My senior had received such phone calls, and some have 9 been amended and some not. 10 MR GROSSMAN: So sometimes your superior would disagree with 11 your decision? 12 A. There is such a chance. It did happen once, I mean, 13 that he didn't agree with my decision. 14 Q. Surely if he has the power to overrule you, all the more 15 reason why you should give your decision to him first to 16 see if he agrees with it or not? 17 A. As I said just now, if there is any change to be made, 18 I would inform them at the site before I issue the 19 certificate. 20 Q. Inform who? 21 A. The persons present at the site. 22 Q. I'm talking about your superior. You wouldn't inform 23 your superior before you made the decision? 24 A. Because we all work independently and we make our 25 technical or professional judgment. If we were to</p>	<p style="text-align: right;">Page 48</p> <p>1 going to turn to something else now. 2 Mr Tam, from a fire-fighting or fire safety 3 perspective, what's the difference between Lamma II and 4 Lamma IV? 5 A. According to the record, I was not the one responsible 6 for the fire drill for Lamma II, but I was responsible 7 for the fire drill on Lamma IV. So I have no 8 information to provide in respect of Lamma II. 9 Q. All right. Take it from me, then, that Lamma II is 10 almost the same size as Lamma IV, in fact slightly 11 bigger. If you accept that, what would be the reasons 12 for having a minimum of two on Lamma II, and four on 13 Lamma IV? 14 A. I don't know the reason why my colleague had made some 15 decisions in respect of Lamma II, but in accordance with 16 the code of practice, such decision was assessed 17 individually in reference to the fire drill and 18 emergency drill. 19 Q. So there are no real standards, are there? Some people 20 might say, "Well, for this size vessel, just two is the 21 minimum required", some people might say four. There 22 doesn't appear to be any code, any standard. 23 A. (Chinese spoken). 24 COMMISSIONER TANG: Sorry, if I can interject here. It 25 probably will help if you look at page 3745, which is</p>

<p style="text-align: right;">Page 49</p> <p>1 Lamma II's certificate. 2 A. In fact there are many different situations. For 3 instance, it depends on the sophistication of the crew 4 and also the layout of the vessel. I don't know what is 5 the case with Lamma II, but when I assessed Lamma IV, 6 I should have come to the decision that two crew is not 7 enough to handle the fire and emergency drill, and so 8 I made such decision. 9 MR GROSSMAN: Mr Commissioner, you asked a question; I'm not 10 sure if that's been answered. 11 COMMISSIONER TANG: I just provided some information. 12 THE CHAIRMAN: Details of the vessel so that the witness can 13 see proof of what it is you asserted, really. 14 MR GROSSMAN: Yes. Thank you. 15 So I'm right in saying, therefore, there are no 16 standards; each person decides according to his own 17 views? 18 A. The standard is the code of practice. According to the 19 situation of the fire drill, we have to decide whether 20 there is enough crew to handle the situation, and in the 21 case of emergency such as abandoning the ship, whether 22 there is enough crew to handle. I am not in a position 23 to comment on the reason why two crew members were 24 required for Lamma II, because that was not done by me. 25 Q. Now that you know that the vessels are, to all intents</p>	<p style="text-align: right;">Page 51</p> <p>1 MR GROSSMAN: My recollection is that Francis Cheng gave 2 that evidence, but I'll check it. 3 THE CHAIRMAN: Yes, please do. 4 MR GROSSMAN: If I'm wrong -- I'll check it. I won't take 5 that point any further. 6 THE CHAIRMAN: Very well. 7 MR GROSSMAN: Has it been any part of your function since 8 2008 to check the annual fire-fighting capacities of the 9 Lamma II or the Lamma IV? 10 A. I don't quite understand your question, but what I mean 11 is that I performed the final survey, and the fire drill 12 and the emergency drill were only part of the final 13 survey. 14 THE CHAIRMAN: I think all that you're being asked is since 15 then, June 2008, have you done that on either of the 16 vessels, Lamma IV or Lamma II? It's as simple as that. 17 A. I have reviewed the file and I note that the fire drill 18 for Lamma IV in 2009 was done by me. As for Lamma II, 19 I need to refer to the file. 20 MR GROSSMAN: Well, are you aware that since 2008, the 21 annual fire drill on Lamma IV, and for that matter 22 Lamma II, has been carried out by three persons only, 23 and to the satisfaction of the Marine Department? 24 THE CHAIRMAN: May I invite you to deal with the one that he 25 says he was involved in, which is 2009.</p>
<p style="text-align: right;">Page 50</p> <p>1 and purposes, similar, does it make any sense to you 2 then that only two people are required, that somebody 3 has said only two people are required, a minimum of two? 4 THE CHAIRMAN: For Lamma II? 5 MR GROSSMAN: For Lamma II. 6 A. I can see from the certificate that there are 7 differences between the two vessels. One of them is 8 made by steel and the other by aluminium, and there are 9 also other factors. It depends on whether there are 10 enough crew members to handle the fire drill or the 11 abandoning of ship. And in dealing with Lamma II, 12 I should have noted that two crew members is not enough 13 to handle the situation, which led to my decision as 14 such. 15 MS SIT: Lamma IV. 16 A. (In English) Not Lamma II; Lamma IV. 17 THE INTERPRETER: "Lamma IV". 18 MR GROSSMAN: Are you aware that Hongkong Electric have 19 commissioned two new vessels which will be sailing this 20 year? 21 A. No. 22 Q. Well, I can tell you they are and they're similar, and 23 the minimum crew requirement is three. 24 THE CHAIRMAN: Do you have any documents to support that, 25 Mr Grossman?</p>	<p style="text-align: right;">Page 52</p> <p>1 MR GROSSMAN: Very well. 2 THE CHAIRMAN: Because he can then speak to that personally. 3 MR GROSSMAN: Thank you. 4 In the 2009 fire-fighting demonstration as part of 5 the annual survey, I understand only three people were 6 involved from Lamma IV, three crew members. 7 A. I haven't got such information on hand. 8 Q. Are you aware that since then, only three people have 9 been used every year, and the certificate has been 10 issued annually? 11 THE CHAIRMAN: Only three people have taken part in the 12 fire-fighting part of the final survey -- 13 MR GROSSMAN: Correct. 14 THE CHAIRMAN: -- on each of the surveys in the years 15 following. 16 MR GROSSMAN: That's correct. 17 THE CHAIRMAN: Are you aware of that? Three crew, that is. 18 A. I have no such information. 19 MR GROSSMAN: Thank you. I have no further questions, 20 Mr Chairman. 21 THE CHAIRMAN: Thank you. 22 MR SUSSEX: Mr Chairman, with your permission I'd like to 23 ask a very few questions about the enforcement of 24 manning requirements. 25 THE CHAIRMAN: Very well.</p>

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<p>1 Examination by MR SUSSEX 2 MR SUSSEX: Mr Tam, after a shipping safety officer such as 3 yourself has prescribed the minimum safe manning 4 requirements of any given vessel, does the Marine 5 Department thereafter take any steps to ensure that that 6 minimum safe manning requirement is being observed? 7 A. Normally this is checked by other sections, such as the 8 Patrol personnel or the Marine Police. But as for the 9 actual situation, you have to consult the Harbour Patrol 10 Section of the Marine Department. 11 Q. The minimum safe manning requirement becomes a condition 12 of licence, does it not? It's a licence requirement. 13 A. Since it is prescribed on the certificate, so they have 14 to comply with such requirement. 15 Q. As far as you know, what is the consequence to 16 a shipowner or operator of failing to observe the 17 minimum safe manning requirement? 18 A. I have no such information on hand, but you may refer 19 to 548G concerning the survey regulation. I am not sure 20 whether this was stipulated in this document. 21 MR SUSSEX: Thank you, Mr Tam. 22 MR PAO: No questions, Mr Chairman. 23 THE CHAIRMAN: Thank you, Mr Pao. 24 Mr Mok? 25 MR MOK: Mr Chairman, I have a few questions to follow up on</p>	<p>1 there was no specific stipulation as to the minimum 2 manning requirement; is that correct? 3 A. Yes. 4 Q. Thirdly, you refer -- 5 THE CHAIRMAN: Before you move on. 6 The requirement was dealt with generally, was it 7 not, at item (10): 8 "That the crew is sufficient for the requirements of 9 the vessel and both the master and engineer are in 10 possession of the appropriate certificates of competency 11 issued by the Director of Marine." 12 So it's dealt with generally, but not specifically. 13 A. The regulation is stipulated as such. 14 THE CHAIRMAN: Thank you. 15 MR MOK: Thirdly, you referred to the code of conduct. 16 THE CHAIRMAN: Code of practice? 17 MR MOK: Sorry, it's code of practice. 18 I believe that the provision you wish to refer to is 19 the one that is set out in paragraph 7 of your witness 20 statement; correct? 21 A. Correct. 22 Q. You have already explained the word "individually" in 23 that paragraph. 24 A. Correct. 25 Q. This paragraph also has the words "operational needs":</p>
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<p>1 Mr Grossman's questions. 2 THE CHAIRMAN: Yes, very well. 3 Examination by MR MOK 4 MR MOK: First of all, may I correct the record on page 39, 5 line 22. 6 Do you have it before you, Mr Tam? 7 I should have mentioned it earlier, but I wish to 8 correct it now. There is an answer given to the 9 Chairman's question at lines 10 to 15 of page 40. 10 I believe that the word at line 22, "independently", 11 should have been "individually". Can you re-read that 12 answer and see if you can confirm that? 13 A. Yes, it should be "individually". 14 Q. Thank you. Secondly, I would like to refer to a matter 15 which you refer to, and I would like to ask you to 16 confirm by reference to a document. You said that the 17 form of the certificate of survey had been changed 18 between 2006 and 2007. I would like you to look at the 19 one in 2006 at marine bundle 4, page 726. 20 Do you see the date at the bottom, 29 June 2006? 21 A. Yes. 22 Q. Then you see in item (12) there's a reference to 23 "Crew: 8"? 24 A. At that time, I was talking about this. 25 Q. The point you are trying to make is that before 2007,</p>	<p>1 "... the manning requirements would depend on their 2 operational needs." 3 A. Yes, it is written as such. 4 Q. I believe you gave further explanation in paragraph 8, 5 which has not been referred to or read out in your 6 initial examination by Mr Beresford. To be fair to 7 you -- Mr Chairman, may I read that out for the record? 8 THE CHAIRMAN: Yes, please do. 9 MR MOK: Paragraph 8 says: 10 "During the final inspection, I would usually 11 request a fire drill of engine room fire to be conducted 12 and would pay particular attention to the performance of 13 the crew in the fire drill in order to assess whether 14 there were sufficient crew members to handle emergency." 15 A. Correct. 16 Q. You go on to say: 17 "For example, if in the circumstances of 18 a particular vessel the fire drill required a crew 19 (usually the coxswain) to be the commander in the 20 wheelhouse to monitor the situation, to control of 21 vessel and to communicate with Mardep and the Fire 22 Services Department, et cetera and other crew members to 23 operate the manual fire pump, to hold the nozzle to 24 provide water spray to cool down the main deck and to 25 take appropriate steps to activate the CO2 fire</p>

<p style="text-align: right;">Page 57</p> <p>1 extinguishing system, I would decide that two members 2 were insufficient to efficiently carry out the said 3 emergency steps." 4 Pausing there. Would it be correct to say that in 5 respect of different vessels, there would be different 6 crew members who may have different experiences and 7 skills, so even though two vessels may be alike, the 8 performance of the crew during the drill may be very 9 different? 10 THE CHAIRMAN: I think, given that we're already five 11 minutes past the hour, that's a matter that may involve 12 further exploration and we'll take that after lunch. 13 MR MOK: Thank you. 14 THE CHAIRMAN: Mr Tam, we're going to take our lunch break 15 now and we'll resume at 2.30 this afternoon. So be kind 16 enough to be back here so that we can start on time at 17 2.30. 18 A. (In English) Okay. Thank you. 19 THE CHAIRMAN: Thank you. 20 (1.06 pm) 21 (The luncheon adjournment) 22 (2.30 pm) 23 THE CHAIRMAN: Mr Tam, good afternoon. 24 A. (In English) Good afternoon, sir. 25 THE CHAIRMAN: May I remind you that you continue to testify</p>	<p style="text-align: right;">Page 59</p> <p>1 Q. What are you referring to by "remark (1)"? 2 A. Please refer to U-4 of the code of practice. 3 MR MOK: May we refer to bundle 11, tab 29, page 3661. 4 Can you see remark (1) there? 5 A. Yes. 6 Q. Is there any particular point that you wish to draw to 7 our attention from that? 8 A. In the second paragraph, in the middle of line 1. 9 Q. May I read that to you. It says: 10 "The minimum safe manning scales are prescribed for 11 practical guidance of owners and coxswains to ensure 12 sufficient crew onboard with appropriate skills and 13 experience, having regard to vessel size, speed, power, 14 duration and nature of voyage or trade area, equipment 15 and machinery commonly adopted for different types of 16 vessels, for the purpose of maintaining general 17 surveillance and safe navigation, mooring and unmooring 18 operation safety, safe of carriage of cargo during 19 transit, measures on prevention of fire and pollution of 20 environment and the handling of general emergency 21 situation." 22 The point you wish to make is that that supports the 23 point that you earlier made; is that right? 24 A. Just now, the question you asked is whether the 25 experience and skill of the crew members would affect</p>
<p style="text-align: right;">Page 58</p> <p>1 according to your original oath. 2 A. I understand. 3 THE CHAIRMAN: Mr Mok. 4 MR MOK: Thank you. 5 Mr Tam, can I remind you of the last question that 6 I asked of you before the lunch. I refer you to 7 paragraph 8 of your witness statement. I have gone 8 through almost the whole of paragraph 8, except the last 9 sentence. Then I asked a question, and I will read it 10 again from the transcript. The question was this: 11 Would it be correct to say that in respect of different 12 vessels, there would be different crew members who may 13 have different experiences and skills, so even though 14 two vessels may be alike, the performance of the crew 15 during the drill may be very different? 16 A. Correct. 17 Q. And according to you, the crew's performance during that 18 drill would be one of the relevant considerations in 19 deciding whether the manning position was satisfactory? 20 A. Correct. This is one of them. 21 Q. Would this matter, this particular factor, fall within 22 the wording in the code of practice of "operational 23 needs"? 24 A. Correct. And in fact remark (1) in the code of practice 25 is also one of the conditions.</p>	<p style="text-align: right;">Page 60</p> <p>1 the result, and in fact these factors should also be 2 considered, even though the vessels are alike. 3 Q. Earlier on in your evidence, you also mentioned the 4 layout of the vessel. 5 A. The factor at the site is very important. 6 THE CHAIRMAN: I'm sorry, could you repeat that? 7 A. We need to see whether they could actually perform the 8 fire drill and emergency drill on site. 9 THE CHAIRMAN: Well, there are no less than 16 different 10 categories of what they are required to have, according 11 to this remark (1), are there not? 12 A. In fact all these are factors for consideration in 13 determining the minimum safety staff requirement. 14 MR MOK: Would it be fair to say that of all these different 15 activities or operations, what would be most demanding 16 are situations where there are emergencies or fire on 17 board? 18 A. For me, the most important factors for consideration are 19 fire drills, abandonment of ship -- 20 THE INTERPRETER: Sorry. 21 A. In the case of fire, abandonment of ship, evacuation of 22 passengers and saving of life. 23 MR MOK: So in your experience, let's say two vessels with 24 only two crew members, would it be possible that these 25 two crew members may perform very differently where</p>

<p style="text-align: right;">Page 61</p> <p>1 different vessels are concerned? Assuming that these 2 are different crew. 3 A. I am unable to answer your question. I can only make 4 assessment when I could see the performance on site. 5 Q. You were also asked questions concerning the making of 6 objection to your decision. You have explained that 7 matter in paragraph 9 of your witness statement, which 8 has not been read out. Can I read that out to you and 9 ask for your confirmation. 10 You say in paragraph 9: 11 "If I decided to change the manning requirement 12 after observing the fire and emergency drills during the 13 final inspection, my usual practice was to verbally 14 inform the parties at the spot (usually they were crew 15 performing the drills, the shipowner or their 16 representative) before issuing the certificate of survey 17 with the requirement amended." 18 THE CHAIRMAN: Well, Mr Mok, that may not have been read out 19 but that evidence has been led in effect. 20 MR MOK: Correct, yes. Can I finish this paragraph just for 21 the record? 22 THE CHAIRMAN: If you feel it's necessary. 23 MR MOK: You go on to say: 24 "If the operator of a vessel is dissatisfied with 25 the change, they can raise objection to my seniors at</p>	<p style="text-align: right;">Page 63</p> <p>1 manning number, and you increase it, for example, from 2 two to four, do you explain why it is you're doing that 3 to the owner's representative or the owner at the time? 4 A. Yes. I will explain to them that this cannot be handled 5 by two crew; it has to be handled by four. 6 MR MOK: And if they subsequently, either before or after 7 the issue of the certificate of survey, make 8 an objection or ask for reasons either orally or in 9 writing, would you give them the reason for the change 10 on that occasion? 11 A. Sometimes I do, but if they come in and -- 12 MS SIT: I'm sorry, that's not the answer. It's "(Chinese 13 spoken)": "I always do", not "Sometimes I do". 14 MR MOK: Maybe the witness can answer again so we can get 15 the full answer. 16 THE CHAIRMAN: Yes, if you would. 17 A. Would you please repeat your question. 18 THE CHAIRMAN: If an objection comes in after you've dealt 19 with the owner or his representative at the time, later 20 on an objection comes in -- I think the first question 21 really is this: are you involved in dealing with the 22 owner or his representative directly, first of all? 23 Answer that. 24 A. If they raise the objection in writing, the section head 25 would appoint a staff to handle the objection, and if he</p>
<p style="text-align: right;">Page 62</p> <p>1 any stage, whether before or after the certificate of 2 survey is issued, and my seniors will handle the 3 objection. If their objection is justified, my senior 4 would review the case and adjust the 'MSM' requirement 5 as appropriate." 6 Do you confirm that? 7 A. Yes, I confirm it. 8 Q. You were also asked the question: if the owner wishes to 9 challenge the decision, they are entitled to know the 10 reason. 11 A. Yes, they have the right to know the reason. 12 Q. The question I wish to ask is this: if you verbally 13 inform the parties on the spot that the manning 14 requirement was to be changed, would it be possible for 15 the reasons for changing the manning requirement to be 16 explored on the spot as well? 17 A. When the final survey was conducted, it has already been 18 done and we were there to confirm it. And if they find 19 that they could do it with three men, they could manage 20 with three crew, then they could say in the next survey 21 that they were able to handle it with three crew. So 22 either they could do it or not. 23 A. (In English) No, no. 24 THE CHAIRMAN: That's not what you're being asked. Just 25 listen to the question for once. If you change the</p>	<p style="text-align: right;">Page 64</p> <p>1 called me directly, I will explain once again. And if 2 they still object to it, then I will refer the case to 3 my superior. 4 THE CHAIRMAN: So you wouldn't be involved in dealing with 5 the owner or his representative? 6 MR MOK: I think it's except when they call him. 7 THE CHAIRMAN: Yes, very well. 8 MR MOK: Thank you. 9 Mr Tam, you were also asked about the 2009 final 10 survey or inspection. I believe that you were involved 11 in that inspection? 12 A. Yes, according to the record. 13 Q. I think it was earlier also suggested to you that on 14 that occasion, there were only three crew members 15 involved in the drill exercise? 16 The question I wish to ask you is this. You said 17 earlier that when you conduct a survey on board, you 18 would have with you the relevant certificate of survey; 19 correct? 20 A. Usually it was provided to us by the shipowner. 21 Q. Can I ask you to identify the document that you would 22 have with you during the 2009 inspection. This is 23 bundle 4, tab 159, page 775. 24 MR BERESFORD: I think my learned friend may want the one at 25 page 760.</p>

<p style="text-align: right;">Page 65</p> <p>1 THE CHAIRMAN: That's the 2008-2009 one? 2 MR BERESFORD: 2007-2008. The one at page 776 is -- 3 THE CHAIRMAN: I think he wants the one with 2008-2009. 4 MR MOK: Correct, yes. 5 MR BERESFORD: Very well. My apologies. 6 MR MOK: Mr Tam, can you identify this document as being the 7 relevant certificate of survey that you would have with 8 you at the time of the 2009 inspection? 9 A. I don't remember whether this is the one, but it should 10 be. 11 Q. You note in item (4) that it is stated: 12 "That the minimum safe manning of crew: 4." 13 A. Yes. Yes, I can see it. 14 Q. If during the drill in 2009 only three crew members were 15 involved, would you have noticed the discrepancy between 16 that situation and what is stated on this certificate of 17 survey? 18 A. I have no recollection of the situation at that time. 19 Q. Yes, but what I'm asking you is would you, say, look at 20 the certificate which you had to see whether or not the 21 crew members involved matched the minimum requirement on 22 the certificate? 23 A. During the inspection, the location for the drill is 24 different every time. It could be a fire in the engine 25 room, and I will see how they deal with it. Or I may</p>	<p style="text-align: right;">Page 67</p> <p>1 A. There is such a case. 2 Q. Yes. The certificate of survey is issued in respect of 3 a vessel, wouldn't you agree, and not the crew? 4 A. It was stipulated in the code of practice that the MSM 5 was to be prescribed in accordance with the performance 6 of the crew in the fire drill and emergency drill. 7 Q. All right, Mr Tam. Perhaps that's a submission of law. 8 THE CHAIRMAN: No, it's a perfectly commonsense submission. 9 This is not a certificate that's issued for 10 a particular crew to be on the vessel; it's for the 11 vessel itself, is it not? 12 A. In fact a lot of information has been available on the 13 file for the issuing of certificate, and when I went 14 there in August 2007, there is a lot of stipulations. 15 For instance, when I did the survey, I had to consider 16 various factors such as the fire equipment, the adequacy 17 of life-saving equipment, and the minimum manning of 18 crew, et cetera. This is part of my work. 19 THE CHAIRMAN: Did you document who the crew were when you 20 performed the test in 2008 and changed the manning level 21 from two to four? 22 A. I didn't record who the crew were, but I did check 23 whether they have the coxswain licence and the chief 24 engineer licence. 25 THE CHAIRMAN: Did you copy them?</p>
<p style="text-align: right;">Page 66</p> <p>1 say the passenger cabin in the main deck is on fire, and 2 I will see how they deal with it. 3 THE CHAIRMAN: Mr Tam, the question is very simple. 4 A. (In English) Okay. 5 THE CHAIRMAN: If the survey says there should be four crew, 6 do you notice that there are only three, or not? That's 7 the question. 8 A. There is a chance. There is such a chance. 9 MR MOK: All right. I don't think I wish to take this much 10 further. 11 THE CHAIRMAN: I'm not surprised. 12 MR MOK: Thank you. 13 THE CHAIRMAN: Thank you, Mr Mok. 14 MR BERESFORD: Just two questions, Mr Chairman. 15 Further examination by MR BERESFORD 16 MR BERESFORD: Mr Tam, you said that the crew's performance 17 during the drill was a relevant factor in deciding 18 whether the manning was sufficient; do you remember 19 that? 20 A. Yes, this is one of the factors, but it is not 21 a determining factor. 22 Q. Well, you might witness the performance of the day crew 23 and then if you grant the certificate, the vessel might 24 be sailed by the night crew, whose performance you have 25 not seen; isn't that the case?</p>	<p style="text-align: right;">Page 68</p> <p>1 A. I didn't make a copy of these. 2 THE CHAIRMAN: Thank you. 3 Yes, Mr Beresford. 4 MR BERESFORD: Thank you, Mr Chairman. 5 Mr Tam, you agreed, I think, that if the owner 6 wishes to challenge your decision, then they are 7 entitled to know the reasons? 8 A. Yes. 9 Q. So how is the owner to know the reasons if you can't 10 remember them? 11 MR MOK: I'm sorry, Mr Chairman, I don't understand what my 12 learned friend is -- 13 THE CHAIRMAN: I think it's a perfectly simple question. 14 His witness statement says he can't understand the 15 reasons. 16 MR BERESFORD: Can't remember the reasons. 17 THE CHAIRMAN: Can't remember the reasons. 18 MR MOK: I think he can't remember the reason now. 19 THE CHAIRMAN: Yes. We don't know when his memory failed 20 him. 21 But it wouldn't be a problem if you documented it, 22 would it? 23 MR BERESFORD: I have no further questions. 24 THE CHAIRMAN: Thank you. 25 Questions by THE COMMISSION</p>

<p style="text-align: right;">Page 69</p> <p>1 COMMISSIONER TANG: Mr Tam, I just want to follow up on 2 an answer that you gave this morning. This is recorded 3 on page 42, and I quote: 4 "In the case of Lamma IV, it has two decks and with 5 a substantial number of passengers, I believe that two 6 crew members is not enough to handle the fire or 7 emergency situations." 8 I think from what you said this morning, that number 9 is important in terms of handling a ferry or vessel of 10 that size. If you look at Lamma IV, it is permitted to 11 carry 232 persons. 12 A. (Witness nods). 13 COMMISSIONER TANG: And Lamma II is permitted to carry 244, 14 and they both are double-decked. So would you think 15 that the number of two crew members for Lamma II should 16 be reviewed? 17 A. I am not the one who did the survey for Lamma II, nor 18 did I witness the fire drill and emergency drill. So 19 I am not in a position to answer this question. It 20 depends. I need to be at the spot to see how it was 21 conducted, and so I am not in a position to comment on 22 what my other colleagues have done. But as far as 23 Lamma IV is concerned, the number of passengers and the 24 number of decks is one of the factors that I considered. 25 THE CHAIRMAN: Thank you, Mr Tam, for testifying before the</p>	<p style="text-align: right;">Page 71</p> <p>1 Mr Beresford? 2 MR BERESFORD: Sir, my learned leader is going to take over 3 the next witness. 4 THE CHAIRMAN: Thank you. 5 MR SHIEH: Mr Chairman, we are now going to call Dr Cheng 6 Yuk-ki, one of the two Dr Chengs. 7 THE CHAIRMAN: Thank you very much. 8 DR CHENG YUK-KI (affirmed) 9 Examination by MR SHIEH 10 MR SHIEH: Dr Cheng, welcome, and thank you for coming here 11 to assist the Commission by providing us with your 12 evidence. 13 Could I ask you to have a look at the expert 14 evidence bundle 1, page 362. It is a statement given by 15 you. You can see on the third line your name, can you, 16 "Cheng Yuk-ki"? 17 A. Yes. 18 Q. It is a statement that you made on 12 December, 19 consisting of 18 pages. You can see that on the first 20 line? 21 A. Yes, correct. 22 Q. Can I ask you to look at the last page of the bundle, 23 page 379. You can recognise your signature at the 24 bottom of that page? 25 A. Yes, I recognise. It's signed by me.</p>
<p style="text-align: right;">Page 70</p> <p>1 Commission. Your evidence is complete and you are free 2 to go. You may, of course, stay and listen to the other 3 evidence if you wish. 4 A. (In English) Thank you, sir. 5 (The witness withdrew) 6 THE CHAIRMAN: Mr Mok, I think we ought to deal with it now. 7 The evidence of Mr Tam, of course, dealt with events in 8 2008 that are now over four years later. 9 MR MOK: Yes. 10 THE CHAIRMAN: Or rather, we are now over four years later. 11 It may be that Mr Tam's approach, idiosyncratic as it 12 appears to be, may be simply individual. But we think 13 the Commission would benefit from having evidence put 14 before it as to what the current position is. What 15 we're concerned about is the fact that a change in 16 minimum crewing level appears -- not "appears". 17 According to the witness, it was simply not documented 18 and his superior not informed. This is a matter that is 19 frankly dysfunctional, and we'd like assistance as to 20 whether that's a personal practice of his, or, if it was 21 a departmental practice, whether it obtains today. 22 MR MOK: Yes. 23 THE CHAIRMAN: So would you address that for us. 24 MR MOK: We will address that. 25 THE CHAIRMAN: Thank you.</p>	<p style="text-align: right;">Page 72</p> <p>1 Q. Right. What I propose to do in relation to your 2 evidence, Dr Cheng, is to take you through your report 3 in sequence, page by page. I'm not going to read out 4 each and every paragraph or each and every line, but 5 I would pause and I would ask you to identify 6 photographs or to elaborate on particular paragraphs 7 which we believe would be of particular assistance to 8 the Commission and also to the public. Do you follow 9 that? 10 A. Okay. I understand. 11 Q. Because you have already written out your views, and in 12 the absence of any express qualifications or amendments, 13 it is going to be presented as your evidence in this 14 Inquiry. 15 A. Okay. 16 Q. At page 362, you set out your background and 17 qualifications. You obtained a Bachelor of Science 18 degree in Chemistry and a PhD in the Faculty of Science 19 at the University of Hong Kong; that's correct? 20 A. Yes. 21 Q. The rest of that paragraph basically sets out the 22 training that you have received and the experience that 23 you have gathered over the years, and also the fact that 24 you have given expert evidence in the courts of Hong 25 Kong.</p>

<p style="text-align: right;">Page 73</p> <p>1 A. Correct.</p> <p>2 Q. Can you explain to us or tell us in very brief terms the</p> <p>3 types of subject matter that you have been involved in</p> <p>4 as an expert witness in the courts of Hong Kong?</p> <p>5 THE CHAIRMAN: I think what might help the Commission most</p> <p>6 is your experience in the fields that are allied to what</p> <p>7 you've been doing in this report.</p> <p>8 A. Okay.</p> <p>9 THE CHAIRMAN: For example, examining possible evidence of</p> <p>10 collision between different parts of cars, vessels,</p> <p>11 paints, and so on. That kind of thing.</p> <p>12 A. Okay, I understand.</p> <p>13 I have handled a lot of, numerous, traffic accident</p> <p>14 cases which were quite serious, and a lot of fatalities.</p> <p>15 For that case, I will examine the damage to the</p> <p>16 vehicles. From the damage of the vehicles, I will</p> <p>17 reconstruct how the accident happened and what is the</p> <p>18 configuration on impact, and this thing that I will use</p> <p>19 to interpret what I have found in this vessel collision</p> <p>20 case.</p> <p>21 Also, I have experience of collecting physical</p> <p>22 evidence from the scene, which I have also done --</p> <p>23 I have collected some paint sample from two vessels to</p> <p>24 establish if they have a contact and which part they are</p> <p>25 contacted to each other. This is what is relevant to</p>	<p style="text-align: right;">Page 75</p> <p>1 Q. So you had experience of, for example, investigating</p> <p>2 where parts of one vessel could be found in the parts of</p> <p>3 the other vessel, how paint could be found, angle of</p> <p>4 collision, that sort of matter?</p> <p>5 A. Yes.</p> <p>6 THE CHAIRMAN: Were those cases that went to trial?</p> <p>7 A. I have prepared a statement, but I did not request to</p> <p>8 testify at the court.</p> <p>9 THE CHAIRMAN: Thank you.</p> <p>10 MR SHIEH: At paragraph 1.4, you mention that you have taken</p> <p>11 a number of photographs. Can I ask you to look at the</p> <p>12 bundle at page 382 onwards, up to page 398.</p> <p>13 Of course I will be taking you through these photos</p> <p>14 in greater detail in due course, but you can confirm</p> <p>15 that you personally took these photographs?</p> <p>16 A. Yes, these photographs are taken by me, and this album</p> <p>17 was prepared by me.</p> <p>18 Q. Thank you. In fact, Dr Cheng, in the course of your</p> <p>19 evidence, insofar as there may be parts of the vessels</p> <p>20 which have not been captured by your album, I may have</p> <p>21 to refer you to photographs taken by others and ask you</p> <p>22 to comment on them from time to time.</p> <p>23 A. Okay. No problem.</p> <p>24 Q. At paragraph 2.1, you describe Sea Smooth. It is</p> <p>25 divided into three decks: underdeck, main deck and upper</p>
<p style="text-align: right;">Page 74</p> <p>1 me, the experience I need to prepare this report.</p> <p>2 THE CHAIRMAN: Thank you.</p> <p>3 MR SHIEH: Thank you.</p> <p>4 Could I ask you to turn over to page 362.</p> <p>5 Paragraph 1.1 of your report basically sets out the</p> <p>6 background to the accident, which I won't trouble you</p> <p>7 with.</p> <p>8 Paragraph 1.2 sets out the details of the various</p> <p>9 visits that you made to the two vessels; that's correct?</p> <p>10 A. Yes.</p> <p>11 Q. The reference to "Government Dockyard" which we can see</p> <p>12 in relation to Lamma IV, that's the government dockyard</p> <p>13 at Stonecutters Island; that's correct?</p> <p>14 A. Yes.</p> <p>15 Q. At paragraph 1.3, you set out the purpose of your</p> <p>16 inspection and examination of the two vessels?</p> <p>17 A. Correct.</p> <p>18 Q. Could you assist us. When you mentioned earlier that</p> <p>19 you have been involved in investigating traffic</p> <p>20 accidents with casualties or fatalities, have you been</p> <p>21 involved in investigating marine casualties?</p> <p>22 A. Yes, I have. About three occasions. It involved</p> <p>23 exactly the same, a vessel collision case, and the</p> <p>24 police requested me to reconstruct the accident, how the</p> <p>25 vessels collided with each other.</p>	<p style="text-align: right;">Page 76</p> <p>1 deck. It will be helpful for you to help us identify</p> <p>2 the various decks by reference to the photos.</p> <p>3 Can we have page 382 on the screen.</p> <p>4 A. Yes.</p> <p>5 Q. The underdeck -- could I have the cursor pointing at the</p> <p>6 bit -- yes, here.</p> <p>7 Would that correspond to what you would call the</p> <p>8 underdeck?</p> <p>9 A. Correct.</p> <p>10 Q. Basically as we will come to it in due course, the</p> <p>11 underdeck was divided into two hulls, port and</p> <p>12 starboard?</p> <p>13 A. Yes.</p> <p>14 THE CHAIRMAN: I think the lower photograph perhaps shows</p> <p>15 that more graphically, if we can scroll down.</p> <p>16 MR SHIEH: Yes. The port and starboard hull, that's what</p> <p>17 you would refer to as the underdeck?</p> <p>18 A. That's correct.</p> <p>19 Q. The port hull was the one that was damaged; that's</p> <p>20 correct?</p> <p>21 A. Yes.</p> <p>22 MR SHIEH: Could we have the photograph at the top of that</p> <p>23 page.</p> <p>24 The upper deck was where the wheelhouse was located;</p> <p>25 that's correct?</p>

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<p>1 A. Yes, the wheelhouse is situated in the front of the 2 boat, in front of the upper-deck cabin. 3 Q. Yes, it's part of the upper deck but it's in the front 4 of the upper deck? 5 A. Yes. 6 Q. And the deck right below the upper deck is what you 7 could call the main deck? 8 A. Correct. 9 Q. Where the cursor is pointing now; that's correct? 10 A. Yes. 11 Q. Behind the upper deck cabin was what you would call the 12 weather deck? 13 A. Yes. 14 Q. It's on the same level as the upper deck? 15 A. Correct. 16 Q. In fact it's part of the upper deck, except that it's 17 not a cabin, it's open-air; that's correct? 18 A. Yes, it is open. 19 Q. Thank you. And you refer to the number of crew and 20 passengers that Sea Smooth could carry, at the end of 21 that paragraph. 22 A. Mm'hm. 23 Q. At paragraph 2.2, you describe the composition of the 24 hulls of Sea Smooth. They are composed mainly of strong 25 fibreboard; correct?</p>	<p>1 Q. At paragraph 2.3, you refer to contact damage to Sea 2 Smooth, which was confined to the port side, 3 specifically the port hull and the port side of the 4 foredeck. You refer to the bow of the port hull being 5 badly damaged and the planking missing, leaving a breach 6 with a maximum extent of about 2.4 metres high, 7 4.3 metres long by 1.5 metres wide. 8 Could we have photograph 4 at page 383. 9 That is a close-up of what you have described as 10 "the breach"; that's correct? 11 A. Correct. 12 Q. The breach is basically what one might colloquially call 13 the wound, the part where it's cut off, the open area? 14 A. Yes. 15 Q. You mentioned some measurements. 2.4 metres high. That 16 would be where the cursor is now moving, the vertical. 17 Vertically measured, that's 2.4 metres; correct? 18 A. Correct. 19 Q. Horizontally measured, it's 1.5 metres? 20 A. Yes, this is the one. 1.5. 21 Q. Yes. You said: 22 "The structural members reinforcing the fibreboard 23 planking near the breach were broken and bending 24 inwards." 25 Could I have the photograph again, and perhaps you</p>
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<p>1 A. Correct. 2 Q. At photo 3, you describe the pointed protrusion at the 3 corner of the bow of the starboard hull. 4 Can we have page 383. Yes. 5 The red line or the red pointer, does that point to 6 that protrusion that you refer to? 7 A. Yes. "The L-shaped metal plating", the protrusion is 8 near the bottom. 9 Q. Yes. Could we have the cursor pointing down. 10 A. Lower. 11 Q. Down, down, down. Yes. 12 A. Lower. To the right. To the right more. 13 Q. That is the protrusion, right? 14 A. Yes. 15 Q. It's a sharp protrusion pointing out? 16 A. Yes. 17 Q. You further refer to the paintwork of the hulls. We can 18 see near the numbers 1.4, there is a line. Basically 19 above that line it's blue and below that line it's 20 brown; that's correct? 21 A. Yes. 22 Q. And that is where the waterline would be -- 23 A. Yes. 24 Q. -- when the vessel was in water? 25 A. Yes.</p>	<p>1 can identify for us where the broken members were which 2 bent inwards. 3 We can find on the left-hand side, you can see two 4 red lines saying "Structural members"? 5 A. Yes. 6 Q. Those are the structural members that you refer to? 7 A. Correct, and you can see from the photograph, it's bent 8 inward. 9 Q. Yes. And then you say: 10 "Scratches with white smears were found on the bow 11 of the middle hull, the open section between the two 12 hulls above the water." 13 Then there is a reference to photo 2, and we can go 14 back to page 382. The photograph at the bottom. 15 The red line identified "The middle hull", and there 16 is a red line also which identified "The scratches with 17 white smears". Those are the white smears that you 18 mention in that paragraph; that's correct? 19 A. Correct. 20 Q. "[They] started from the top of the breach on the 21 starboard side of the port hull, travelled upwards and 22 aft, crossed to the middle hull and ended at the bow 23 near the centreline. [They] were continuous and mostly 24 travelling in a single direction." 25 That's not entirely visible in this photograph, but</p>

<p style="text-align: right;">Page 81</p> <p>1 that's what you had observed; that's correct? 2 A. Correct. 3 Q. At paragraph 2.4, you refer to the foredeck of Sea 4 Smooth. 5 Could we have photo 5, which is at page 384. 6 In your report, you mentioned that there was 7 a missing triangular side panel. We can see in this 8 photograph that there is a notional triangle in red. We 9 can see that? 10 A. Yes. 11 Q. That is where the missing side panel was supposed to be; 12 correct? 13 A. Correct. 14 Q. That was really by comparison with what you could see on 15 the starboard side? 16 A. Exactly. 17 Q. If I could maybe jump ahead. At page 396, at the top of 18 that page, this was actually on the weather deck of 19 Lamma IV. There is this piece of fibreboard fragment 20 that was found when you inspected the Lamma IV. 21 A. Yes. 22 Q. We'll come to that later, but you have come to the view 23 that this is actually the missing side panel that one 24 would suppose to find on that photograph at page 384, 25 the missing side panel?</p>	<p style="text-align: right;">Page 83</p> <p>1 with white and red paint smears were found on the 2 leading edge of the foredeck at the bow; the direction 3 of the scratches ran aft towards the port side." 4 You will have to assist me here. If we look at the 5 photograph at page 384, the photograph itself does not 6 actually identify where the debris with foreign white, 7 blue and red paint fragments could be seen. Were they 8 such that it could not be captured by your photo? 9 We can see the debris, the panel of Sea Smooth -- 10 A. Yes. 11 Q. But the foreign white, blue and red paint fragments 12 which were scattered -- 13 A. From this photograph, I think on the left side of the 14 left corner, the left bottom corner, the arrow now 15 indicates -- just cover that. That one should be the 16 blue fragment. 17 Q. Yes. 18 A. And we can see a lot of white fragments. 19 Q. Yes. Close up, maybe. 20 A. Yes, close. But for the red fragment -- yes, here, just 21 on the left bottom corner, we can see the blue. 22 Q. Yes. 23 A. Near the handrail, there was a red fragment between the 24 two rails. Yes. 25 Q. Right.</p>
<p style="text-align: right;">Page 82</p> <p>1 A. Yes, correct, because they agree in size. 2 Q. And I assume also in colour? 3 A. Yes. 4 Q. And you compared it with the one that was still there at 5 the Sea Smooth starboard side? 6 A. Yes. 7 Q. Thank you. At paragraph 2.4 of your report, you also 8 mentioned that there was a dislodgment of the handrail. 9 You said there was a missing triangular side panel, and 10 dislodgment of the handrail. Do you see that? If we 11 look at page 384, photo 5, we can see the handrail 12 having been dislocated and being on the foredeck. 13 A. Yes. 14 Q. Again, were you able to form the view that it was 15 dislocated from the port bow because of an equivalent 16 that you saw on the starboard bow? 17 A. Yes. 18 Q. Thank you. Could we now go back to paragraph 2.4 of 19 your report at page 364. 20 You gave the measurement of the missing panel. We 21 have seen graphically what it actually looked like on 22 Lamma IV, so I'll skip over that. 23 "Debris, including the panel of Sea Smooth and some 24 foreign white, blue and red paint fragments, was 25 scattered on the foredeck. In addition, fresh scratches</p>	<p style="text-align: right;">Page 84</p> <p>1 A. This one. 2 Q. Right, okay. 3 A. Because this photograph just mainly to illustrate the 4 damage to the side panel, so it is not clear. 5 Q. Yes, thank you. Because there wasn't a particular arrow 6 pointing to a particular fragment. That is why I wanted 7 to you to assist us in pointing that out. Thank you. 8 When you say "the direction of the scratches ran aft 9 towards the port side", could we see that? 10 A. No. I didn't show this photo. 11 Q. Right. The scratches would be where? Because you say 12 "scratches with white and red paint smears were found on 13 the leading edge of the foredeck at the bow". 14 A. Yes. 15 Q. That would not be captured by a photograph taken at this 16 angle; right? 17 A. Yes. 18 Q. Perhaps we could try the next paragraph, 2.5: 19 "Behind the foredeck, about 3.5 metres from the bow, 20 was the front panel of the main deck cabin. Fresh 21 horizontal scratches with blue smears were found on the 22 front panel at a height of about 0.9 metres from the 23 deck and about 1.3 metres from the port side end (see 24 photo 6)." 25 Could we have page 384.</p>

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<p>1 Perhaps we should visualise where this part 2 corresponds to by look at the port view of Sea Smooth. 3 Could we have page 382. The top photo. 4 Which part of Sea Smooth did that photo, photo 6, 5 correspond to? 6 A. Near the bow. The foredeck. 7 Q. Up? Yes. 8 A. Yes. 9 Q. That is the foredeck? 10 A. Yes, here is the foredeck. 11 Q. Yes. 12 A. And the front panel of the passenger cabin should be the 13 vertical broken edge. Here. This part. Correct. 14 Q. Right. Okay. 15 So we turn to page 384. I take it that this would 16 be taken actually on the foredeck? 17 A. Correct. 18 Q. And the camera would be facing the port side? 19 A. You can see from the photograph on the left bottom 20 corner, that is the door to the main deck cabin. 21 Q. Yes. The lens of the camera was facing port side? 22 A. Facing port side to the stern, yes, correct. 23 Q. That's right. 24 Here you say: 25 "The blue smears (red circled) on the outer front</p>	<p>1 the cross-wrench that one would need to open the 2 manhole? 3 A. Yes. 4 Q. In your report, you mention that a crew member took less 5 than half a minute to open one manhole; correct? 6 A. Correct. 7 Q. I'm in the middle of paragraph 2.7. Compartments 1 to 3 8 were void spaces; compartments 4 and 5 were tank and 9 engine. They all were divided by watertight bulkheads; 10 correct? 11 A. Correct. 12 Q. Compartments 6 and 7 were not examined because they were 13 near the stern, and there's no damage to the stern so 14 you didn't inspect them? 15 A. Yes. 16 Q. Paragraph 2.8, you refer to the damage. First of all, 17 you mention damage to compartment 1 of the port hull, 18 being badly damaged and almost lost, and that is the 19 photograph we see at page 386, top of that page. That's 20 correct? 21 A. Correct. 22 Q. We have seen a close-up at page 383, bottom. 23 Could we see that again. 24 That is where compartment 1 used to be. 25 A. Situated, yes.</p>
<p>Page 86</p> <p>1 panel of the main deck cabin of Sea Smooth at the port 2 side." 3 Yes, that is what you refer to, the blue smears; 4 correct? 5 A. Correct. 6 Q. At a height of about 0.9 metres from the deck and 7 1.3 metres from the port side end. The port side end is 8 where you find the damage? 9 A. Yes. 10 Q. Thank you. Paragraph 2.6. Could we go back to 11 page 365: 12 "The damage to the main deck cabin was confined to 13 the corner at the port bow, including minor deformation 14 and cracking of the fibreboard panel. No damage to the 15 upper deck cabin was noted. All the fixtures ... 16 remained in their respective positions." 17 Then at paragraph 2.7, we come to the underdeck. 18 You refer to the two hulls, divided into seven 19 compartments. You refer to the first five compartments 20 being accessible through manholes inside the main deck 21 cabin. 22 Could we have photo 7 at page 385. 23 So those are the manholes and manhole lids; correct? 24 A. Correct. 25 Q. At the bottom of that page, page 385, photo 8, that's</p>	<p>Page 88</p> <p>1 Q. In fact in this photograph, you refer to "Damaged 2 watertight bulkhead". You can see that? 3 A. Yes, I can. 4 Q. That was the watertight bulkhead on Sea Smooth which 5 separated compartment 1 and compartment 2; correct? 6 A. Correct. 7 Q. But because this bulkhead was damaged, water actually 8 flooded compartment 2 as well? 9 A. Yes. 10 Q. Which you mentioned in your report at paragraph 2.8. 11 You can see: 12 "The bulkhead between compartments 1 and 2 was also 13 damaged, causing flooding in compartment 2 ..." 14 Do you see that? 15 A. Yes. 16 Q. You went on to say: 17 "Compartments 3 and 4 of the port hull showed no 18 visible damage but some water estimated roughly 10-20 cm 19 deep was found in the bilges. No damage and water 20 ingress were noted in compartment 5 of the port hull." 21 Can I ask you this. If these compartments were 22 supposed to be watertight, where would the bilge water 23 come from in compartments 3 and 4? 24 A. I don't know. 25 Q. Paragraph 2.9, you refer to the wheelhouse, but because</p>

<p style="text-align: right;">Page 89</p> <p>1 nothing really happened to the wheelhouse, it wasn't 2 damaged, so it didn't really feature much in your 3 investigation; correct? 4 A. Yes. 5 Q. We can skip over that. 6 Paragraph 2.10 over the page, at page 366. At the 7 time of your inspection, the two side lights were 8 working properly; correct? 9 A. Mm'hm. 10 Q. In the next section, you performed the exercise of 11 setting out and calculating drafts measured at various 12 points on the vessel -- 13 A. Yes. 14 Q. -- and with various loadings. 15 THE CHAIRMAN: When you say that you checked or had the 16 lights turned on and you saw the green and red side 17 lights, what was the date of that inspection? 18 A. It just confirms that the light can work properly. 19 THE CHAIRMAN: I follow that, but what was the date? When 20 did you do that? 21 A. The date -- 22 THE CHAIRMAN: I see you examined Sea Smooth on two 23 different occasions. 24 A. This was done on 3 October. 25 THE CHAIRMAN: Thank you.</p>	<p style="text-align: right;">Page 91</p> <p>1 A. Correct. 2 Q. The weather deck is actually on the same level as the 3 upper deck, but it's open-air; correct? 4 A. Correct. 5 Q. We have the main deck in the middle, and then there is 6 the underdeck; yes? 7 A. Yes. 8 Q. At the bottom of this page, you said: 9 "According to the deck plan, the total passenger 10 capacity was 224, of which 146 seats were on the main 11 deck cabin, 64 seats on the upper deck cabin, and 12 14 seats on the weather-deck." 13 You mentioned this thing called "the deck plan". Is 14 it a document -- who showed this document to you? 15 A. Police. 16 Q. The police? 17 A. Marine Police. 18 Q. Do you remember what it looked like? Was it a plan with 19 rows of chairs, or was it a document which simply sets 20 out the number of seats? 21 A. Just a paper that we can find inside the cabin that 22 showed the two decks, the upper deck and the main deck, 23 with the seats. 24 Q. So it's a piece of paper with drawings as to how various 25 seats are actually laid out?</p>
<p style="text-align: right;">Page 90</p> <p>1 MR SHIEH: You could remember that because that was the sort 2 of thing that you naturally would ask for? 3 A. Yes. 4 Q. Is that the reason why you could remember that? 5 A. Because this is what I have done on the first day of 6 inspection. I just turned to the page, to see which day 7 is the first day. 8 Q. Thank you. 9 I was asked to clarify the heading of the table, 10 because while I could -- I think on the left-hand side 11 column, it actually says "load weight". 12 A. Yes. 13 Q. But "load weight" doesn't actually describe that 14 particular column, but "load weight" describes that 15 row being -- 16 A. The row. 17 Q. -- only two types of load weight: one is nil, the other 18 104 passengers; is that correct? 19 A. Correct. 20 Q. Thank you. Then we move on to examination of Lamma IV. 21 Could we have the photograph at page 386. The 22 bottom photograph shows Lamma IV. In fact there's 23 a model in front of us that is divided into three decks. 24 The upper deck is where the top left-hand arrow is 25 pointing at; correct?</p>	<p style="text-align: right;">Page 92</p> <p>1 A. Yes, correct. 2 Q. Right. 3 A. And also this figure, I also find it on Lamma IV on each 4 cabin which have printing on the side panel. I can just 5 read it out, how many passenger over there, and I make 6 the record in my own document. 7 Q. Right. Thank you. But I don't seem to be able to find 8 a document resembling a plan with various rows of chairs 9 set out. Apart from the General Arrangement, but I'm 10 not sure whether that's -- 11 THE CHAIRMAN: Were there not photographs taken of the 12 layout of the vessel from notices that were on the 13 board? Are there not police photographs of that? 14 MR SHIEH: There are, but I'm just trying to identify and 15 ascertain what is the piece of paper that this 16 witness -- 17 THE CHAIRMAN: Is this something that was affixed to one of 18 the walls in the vessel itself, Lamma IV? 19 A. This is some printing, just on the wall. 20 THE CHAIRMAN: On the wall of the vessel? 21 A. Yes, on the wall of the vessel. And I have taken some 22 photograph, and I can show it if you need. 23 THE CHAIRMAN: Yes. I think we've seen photographs of 24 exactly this. 25 MR SHIEH: If it's actually a deck plan that is actually</p>

<p style="text-align: right;">Page 93</p> <p>1 affixed on the wall of the cabin of the vessel, then we 2 think we could identify it. I was just thinking whether 3 it could well be some other piece of paper that some 4 other people have given to you, that's why I wanted to 5 ascertain that. 6 A. Okay. 7 Q. But it was actually something that was actually affixed 8 on the vessel? 9 A. Yes. 10 Q. Thank you. I think we can identify that. It's in the 11 process of being identified, but I won't take up time; 12 I'll move on. 13 Mr Chairman, insofar as may become necessary, we'll 14 actually locate the relevant photograph of that, but 15 I'll move on for the time being. 16 THE CHAIRMAN: Yes. There's no need to delay now. 17 MR SHIEH: Yes, I'll move on. 18 Paragraph 3.2.1: 19 "The hull of Lamma IV was constructed of probably 20 aluminium alloy, having a flat-bottom chined hull with 21 an almost flat bottom and near-vertical hull above the 22 bottom." 23 We could actually see the chine in the photograph we 24 have seen at page 386. 25 A. Yes. Photo 10.</p>	<p style="text-align: right;">Page 95</p> <p>1 Q. We cannot see the slit on the photograph -- well, we can 2 see the slit perhaps rather vaguely. If we can look at 3 page 386. The slit was actually very much near the 4 stern; correct? 5 A. Yes. 6 Q. If we look at some photographs later on, perhaps we will 7 be able to -- 8 A. In this photograph it is obvious -- 9 Q. It's barely visible. 10 A. On the right-hand side, it's -- 11 Q. Right-hand side, that's near the stern? 12 A. Near the stern, you can see -- 13 THE CHAIRMAN: As perhaps you were adverting to, Mr Shieh, 14 it's graphically demonstrated in the marine bundle of 15 photographs that begin at page 184, and it's 16 photograph 11. 17 It may be something like 135 or something like that. 18 MR SHIEH: Yes. There are a number of photographs depicting 19 the damaged state. For example, 133, MB1/133. 20 THE CHAIRMAN: That's the photograph? 21 A. Yes. 22 MR SHIEH: On the right-hand side, the far right of that, 23 you can even still see the cable? 24 A. Yes, the steel cable wedged between the slit. This is 25 the slit I'm referring to.</p>
<p style="text-align: right;">Page 94</p> <p>1 THE CHAIRMAN: We can see it perhaps better in 2 photograph 11, page 387. 3 MR SHIEH: Yes. 4 That's what you refer to as the chine: a sharp angle 5 in the hull? 6 A. Yes, exactly. 7 Q. At paragraph 3.2.1 you set out the height from the chine 8 to the main deck, and you describe the colouring, 9 basically blue above waterline, and brown below 10 waterline. We can see that again at photo 11, page 387. 11 A. Yes. 12 Q. Unfortunately the two big holes were in the brown part, 13 as we subsequently came to find out. 14 A. Yes. 15 Q. Those two holes were actually below the waterline? 16 A. Yes. 17 Q. Paragraph 3.2.2 of your report, page 367: 18 "There was no fresh damage to the bow and the stern. 19 The two slits on both sides of the hull were consistent 20 with that the piece of steel cable used to tow the 21 vessel from the water to the dock had damaged the hull. 22 Therefore, the slits were not examined further. Apart 23 from the slit, no other damage of significance was found 24 on the starboard side." 25 A. Correct.</p>	<p style="text-align: right;">Page 96</p> <p>1 Q. Yes. Thank you. 2 At paragraph 3.2.3, coming back to your report in 3 the expert bundle, page 367: 4 "A gash and a jagged hole were found on the port 5 side of the hull ..." 6 Coincidentally, it's also photo 11 which we can find 7 at page 387 of this bundle. The top part. Yes. 8 The gash measured 0.3 metres wide, extended from the 9 gunwale at a position of about 10 metres from the 10 transom. The transom is really the back of the vessel? 11 A. Yes, the back. 12 Q. The far back of the vessel. Running about 3.3 metres 13 aft towards the chine. 14 So basically the length of that diagonal slit -- 15 A. Slit, yes. 16 Q. -- was said to be 3.3 metres. You've measured it. 17 About 3.3? 18 A. Yes, correct. 19 Q. That's the length of that diagonal gash, the slanted 20 gash. 21 "When the gash reached the chine, it ran parallel to 22 the chine for a distance of about 1.1 metres ..." 23 Could I have the cursor -- yes. 24 So the length of this part was 1.1 metres? 25 A. Correct.</p>

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<p>1 Q. "... and ended at a position about 6.1 metres from the 2 transom ..." 3 We can't see the transom on this photograph but 4 basically if you measure from this point to the very 5 back, it would be 6.1 metres; correct? 6 A. Correct. 7 Q. The point where it stopped, where the cursor is, was 8 where you found a bulkhead, correct, which separated two 9 watertight compartments; correct? 10 A. Yes, correct. The bulkhead separates the engine room 11 and -- 12 Q. And the tank room? 13 A. -- the tank room. 14 Q. Yes, you saw that because you were able to go in and 15 identify where the bulkhead was -- 16 A. Exactly. 17 Q. -- and which two compartments, et cetera, et cetera? 18 A. Yes. 19 Q. "Horizontal scratches, some with deep blue smears 20 running aft, were found on the hull behind the gash." 21 The bottom figure. The horizontal scratches are 22 those circled in red? 23 A. Yes. 24 Q. You said "some with deep blue smears". That part of the 25 vessel was already coloured blue, so you're referring to</p>	<p>1 but you can confirm if we were to close-up of the brown 2 part, we could see very deep scratches. 3 A. On this photograph we still see the scratches, but it 4 cannot show it very clear. It is much, much deeper. 5 Q. Right. Okay. 6 Could you assist us in identifying perhaps where 7 those deep scratches might be, from your recollection? 8 A. Just on the brown hull between the hole and the gash. 9 This part, yes. 10 Q. Right. 11 A. Yes, here. 12 Q. Yes. That would be the deep blue scratches? 13 A. No, no. These are just scratches. 14 Q. Just scratches? Just scratches? 15 A. Yes. 16 Q. Right. Not necessarily deep blue, but just scratches? 17 A. Yes. 18 Q. Right. Thank you. Your report went on to say: 19 "These scratches appeared smoothly and 20 uninterrupted, suggested at that an object, which was 21 subsequently confirmed to be the broken keel of the port 22 hull of Sea Smooth, had moved from the gash towards the 23 hole in a single swipe." 24 We'll come to that in due course. 25 Paragraph 3.2.4:</p>
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<p>1 scratches which were of a different shade of blue. 2 A. Yes. 3 Q. I think we can actually just make out a different shade 4 of colour. 5 A. Yes. 6 Q. For example, the bottom one there, we can perhaps see 7 a different shade of blue. 8 A. Yes. 9 Q. A darker shade of blue. 10 A. I can, yes, a little bit. 11 Q. Thank you. Can we go back to the report, page 367: 12 "Of these scratches, those on the brown-painted hull 13 were the deepest, running towards the hole and ending 14 there." 15 But we don't actually have a photo depicting such 16 scratches on the brown-painted hull. 17 A. Maybe photo 11, but it is not very clear. 18 Q. One would need a close-up. 19 A. Yes, we need a close-up -- 20 Q. Because you are focusing on obviously the -- 21 A. The overall view, yes. 22 Q. Sorry? 23 A. Photo 11 just focused on the overall view. 24 Q. That's what I was going to say. The focus of photo 11 25 was not to highlight the scratches on the brown part,</p>	<p>1 "The hole, measuring 0.4 metres high by 0.6 metres 2 wide ..." 3 Could we go back to page 387, the top one. 4 When you talk about the hole, you are talking about 5 the one described as the jagged hole, this one? 6 A. Yes. 7 Q. Correct? 8 A. Correct. 9 Q. 0.6 metres wide -- so the horizontal measurement is 0.6; 10 correct? 11 A. Correct, yes. 12 Q. And the vertical -- 13 A. With the vertical. 14 Q. -- measurement, 0.4; correct? 15 A. Yes. 16 Q. Thank you. 17 "... about 5.5 metres from the transom ..." 18 Again, if we imagine the transom being on the far 19 right of this photograph, then that hole was 5.5 metres 20 from the transom, which we imagine on the far right of 21 this screen; correct? 22 A. Correct. 23 THE CHAIRMAN: And did that place the hole in the tank room? 24 A. Yes, the hole is in the tank room. 25 MR SHIEH: "The deformed hull of the hole was mostly bent</p>

<p style="text-align: right;">Page 101</p> <p>1 inwards. A piece of internal framing immediately behind 2 the hole was badly distorted and buckled inwards to the 3 stern." 4 Could we close-up on that hole to see whether or not 5 we can identify what you were discussing, a piece of 6 framing badly distorted and buckled inwards? 7 A. It is difficult to observe this from this photograph. 8 But at the scene -- I have another set of photographs 9 which can show it much more clear. 10 Q. Right. 11 A. But at the scene, we can see the hull was bent inwards. 12 Q. Would it suggest that the force actually came -- 13 A. From the outside, towards -- 14 Q. Towards the stern to? 15 A. Yes, towards the Lamma IV. 16 Q. Yes. Not just towards Lamma IV, but at an angle towards 17 the stern? 18 A. It is difficult to determine the angle, but we know the 19 direction is -- 20 Q. Yes, I'm not talking about the precise angle but the 21 direction was towards the stern? 22 A. Correct, yes. 23 Q. Because I'm going to ask about the angle, because you 24 estimated about 30 degrees, I take it? 25 A. Yes, from the other part.</p>	<p style="text-align: right;">Page 103</p> <p>1 A. Yes, yes. 2 THE CHAIRMAN: Mr Shieh, might I suggest we have a look at 3 the Marine Department's photograph. 4 MR SHIEH: Yes. 5 THE CHAIRMAN: Photograph 5 shows it graphically, beginning 6 at page 124. 7 MR SHIEH: Marine bundle 1. 8 THE CHAIRMAN: But at photograph 5. 9 MR SHIEH: Yes. Marine bundle 1, page 130. 10 THE CHAIRMAN: Is that what you're describing? 11 A. Yes, that is the largest pieces of fibreboard finally 12 retrieved from the gash and just put it on the floor, 13 then I make the measurement. 14 MR SHIEH: This was what eventually was found out to be the 15 bow of the Sea Smooth? 16 A. Correct. 17 Q. Because there are a number of photographs taken from 18 different angles and perspectives. Because if you look 19 at the -- thank you, Mr Chairman, for directing our 20 attention to photo 5. 21 In fact, if we look at photo 6, that's taken from, 22 again, a different angle at the same gash. 23 A. Yes. 24 Q. There is probably a bit of reflection there, but we can 25 also see the gash actually filled up --</p>
<p style="text-align: right;">Page 102</p> <p>1 Q. Yes. Paragraph 3.2.4, back to your report: 2 "The thickness of the aluminium alloy hull at the 3 hole and the gash was measured to be about 5-6 mm. 4 3.2.5. A piece of fibreboard with deep blue paint 5 at the top and brown paint at the bottom was found to 6 have been wedged in the gash. The recovered largest 7 piece of fibreboard, measuring about 2.6 metres high and 8 1.3 metres wide, having deep blue and brown paintwork, 9 had originated from the bow of the port hull ... Close 10 examination of the fibreboard fragments revealed an 11 imprint having size and shape, partially agreeing with 12 the L-shipped metal plating on the bow of the starboard 13 hull ..." 14 Could we see photo 13 at page 388. 15 Could you explain to us this paragraph. First of 16 all, you said at the beginning: 17 "A piece of fibreboard with deep blue paint at the 18 top and brown paint at the bottom was found to have been 19 wedged in the gash." 20 From the photographs, were you able to identify this 21 piece of fibreboard? 22 A. From this photograph, it shows the largest pieces of 23 fibreboard. Near the top we can see the deep blue 24 colour. 25 Q. The deep blue colour at the top?</p>	<p style="text-align: right;">Page 104</p> <p>1 A. With the fibreboard. 2 Q. -- by the remains of the fibreboard. 3 A. Yes. 4 Q. Then what I want you to help us with is to look at 5 page 388 of the expert bundle, at the bottom. There is 6 a notation there saying "The gash" and "The fibreboard 7 fragment". Was this taken from inside? 8 A. Yes. 9 Q. It was taken from inside? 10 A. Yes, from the -- yes? 11 Q. The tank room? 12 A. No, this is the engine room. 13 Q. I think that's the engine room, closer to where the gash 14 was. 15 So this is taken from inside the engine room? 16 A. Yes. So we can still see the deep blue colour part of 17 the fragment. 18 THE CHAIRMAN: Again, Mr Shieh, this is shown in 19 photograph 13 of the marine bundle. 20 MR SHIEH: Mr Chairman, photograph 13 is not -- 21 THE CHAIRMAN: This is marine bundle 1. 22 MR SHIEH: It's marine bundle 1, but photograph 13 is 23 actually the starboard -- 24 THE CHAIRMAN: I think the different parts of the vessel are 25 numbered differently, and this is probably at about</p>

<p style="text-align: right;">Page 105</p> <p>1 page 155. 2 MR SHIEH: Yes. 3 THE CHAIRMAN: Yes. There it is. 4 MR SHIEH: Marine bundle 1, page 155. 5 THE CHAIRMAN: So that's the part of the port hull of Sea 6 Smooth that's broken off inside the engine room -- in 7 the hull, into the engine room? 8 A. Correct. 9 MR SHIEH: Thank you. Could we go back to the report at 10 paragraph 3.2.5. 11 At the end of that paragraph, you said: 12 "In addition, the draft marks on the fibreboard 13 fragment match with those on the starboard hull of Sea 14 Smooth, particularly the mark of '1.2' straddling the 15 waterline." 16 Then there's a reference to photo 3 which we can 17 find at page 383. 18 A. Yes. 19 Q. Of course here, we are talking about the 1.2 mark on the 20 broken hull. 21 A. Yes. 22 Q. This one showed 1.2 on the starboard -- 23 A. Yes, just straddling the waterline. 24 Q. Yes. Thank you. 25 Then we move on to the underdeck.</p>	<p style="text-align: right;">Page 107</p> <p>1 seen. These are the photos taken from inside the engine 2 room. You mentioned the piece of fibreboard wedged in 3 the gash. The bulkhead separating D from E, that's the 4 bulkhead between the engine room and the tank room, 5 appear to be watertight as well; correct? 6 A. Correct. 7 Q. Paragraph 3.3.6: 8 "Compartment E [the tank room] and compartment F 9 [the steering gear compartment] were separated by 10 a non-watertight (open) bulkhead, having an opening of 11 0.6 metres wide and 1.2 metres high." 12 There are a number of photographs of that. Page 389 13 is the photograph that you took. That's the access 14 opening without a door; correct? 15 A. Correct. 16 Q. In marine bundle 1 at page 162 -- first of all we'll 17 look at the expert bundle, page 389. Yes. Then we move 18 to marine bundle 1, page 162. That's the access opening 19 that you observed? 20 A. Yes. 21 Q. 0.6 metres wide and 1.2 metres high. You say: 22 "Both compartments had deposited with a layer of 23 mud. Compartment E was the tank room and the jagged 24 hole was situated in compartment E on the port side ..." 25 You refer to photograph 16 at page 389. This is</p>
<p style="text-align: right;">Page 106</p> <p>1 "The interior area of the hull, the underdeck, was 2 divided transversely into a total of six compartments 3 ... arbitrarily named as compartment A to 4 compartment F ... 5 Compartment A was a space beneath the foredeck. The 6 manhole to compartment A was bolted tightly ... probably 7 a void space ..." 8 In this case I don't believe that there is 9 a particular significance in compartment A, so I will 10 skip over that, unless you have anything to add. 11 Compartment A is relatively insignificant in the 12 investigation. 13 A. Yes, I agree. 14 Q. "Compartment B was a void space, which still had water 15 ... No damage to the bulkheads ... 16 Compartment C, having been filled with water, was 17 the room for the crew. No damage ... and the hull was 18 [sound] ... Compartments A to D were independent 19 watertight sections. 20 Compartment D was the engine room and the entire 21 compartment ... was covered in a layer of mud. The 22 identified gash was found in compartment D ..." 23 Being the engine room. 24 A. Yes. 25 Q. Yes. Page 388. Again, these are the photos we have</p>	<p style="text-align: right;">Page 108</p> <p>1 a photograph that was taken from inside the tank room; 2 correct? 3 A. Correct. 4 Q. But we know what the hull looked like from the outside. 5 A. Yes. 6 Q. We have seen pictures of that. 7 A. From this picture, you can see the broken edge of the 8 hull bent inward, particularly the top one. Yes, this 9 one. 10 Q. Yes. That shows it bent inwards. That was the one that 11 was not very well captured in the picture that was taken 12 outside. 13 A. Yes, correct. 14 Q. This one taken on the inside, you can see the bending 15 inwards? 16 A. Yes, so that's the force originally from the outside of 17 the boat towards the inside of the boat. 18 Q. Thank you. 19 Footnote 10 on this page, you mentioned: 20 "According to Police information, the metal plating 21 on the port hull of Sea Smooth was reportedly dismantled 22 for maintenance and no substitute was reportedly 23 installed at the time of the accident." 24 This was the information you were given in the 25 course of your investigation?</p>

<p style="text-align: right;">Page 109</p> <p>1 A. Yes. 2 THE CHAIRMAN: Is that accurate? 3 MR SHIEH: Well, Dr Armstrong certainly accepted that as 4 accurate in his supplemental report. 5 THE CHAIRMAN: He does? Yes. It is Dr Armstrong who 6 describes this best of all, I think. 7 MR SHIEH: Dr Armstrong in his supplemental report referred 8 to this. 9 THE CHAIRMAN: I'm looking at his appendix 4, photograph 1, 10 where he describes the stem bar and keelson. Is this 11 what we're talking about? 12 MR SHIEH: He came back to this theme at expert bundle, 13 page 474. It is Dr Armstrong's second report where at 14 paragraph 9 he referred to this particular footnote as 15 having resolved the query that he had in paragraph 20 of 16 his first report. 17 THE CHAIRMAN: Thank you. 18 MR SHIEH: Because if we were to look at Dr Armstrong's 19 first report in the expert bundle at paragraph 20, 20 page 408 of the expert bundle: 21 "As well as the bow structure of Sea Smooth 22 previously described, the starboard bow of the craft is 23 also fitted with what appears to be a stainless steel 24 stem plate on the outside of the bow in the area known 25 as the forefoot. Such stainless steel plates are</p>	<p style="text-align: right;">Page 111</p> <p>1 THE CHAIRMAN: At all events, in Dr Armstrong's first 2 report, referring to internal pagination, page 49, does 3 that show the stem bar and the keelson, as he thought it 4 was? 5 MR SHIEH: Where they were supposed to be? 6 THE CHAIRMAN: Yes. 7 MR SHIEH: Yes. 8 THE CHAIRMAN: Can we put that up on the screen. 9 MR SHIEH: Page 447 of the expert bundle. 10 Perhaps I could ask the witness about this point. 11 Dr Cheng, can you look at this photograph. This 12 depicts the port hull, the damaged port hull -- 13 A. Yes. 14 Q. -- of the Sea Smooth. This is part of Dr Armstrong's 15 first report. Now that we are on this point, I may be 16 asking you to comment on certain parts of Dr Armstrong's 17 first report. So I might as well ask you whether you 18 have had a chance of looking at Dr Armstrong's first 19 report. 20 A. No. 21 Q. Right. I'd like you to finish your evidence today, so 22 perhaps overnight could I ask trouble you to have a look 23 at Dr Armstrong's first report, and I can leave it to my 24 learned friend on Mr Mok's side to provide the report to 25 Dr Cheng.</p>
<p style="text-align: right;">Page 110</p> <p>1 commonly fitted for the purpose of dissipating loads 2 resulting from striking floating debris during normal 3 operation, and it appears reasonable to assume that 4 a similar stainless steel plate was fitted to the 5 destroyed port bow. This stainless steel plate is of 6 itself a very strong structure, closely fitted to the 7 vessel forefoot by screws. Whether this stainless steel 8 plate played any part in the damage resulting from the 9 collision is not known, as I have not seen any part of 10 this structure. It is not evident in any of the 11 pictures of the debris removal, and it may have become 12 detached and lost at the scene of the accident." 13 So this is what Dr Armstrong had alluded to in his 14 report. 15 THE CHAIRMAN: Yes. Where is the evidence that it was 16 dismantled for maintenance and not installed -- 17 MR SHIEH: That was according to police information. We can 18 follow up with those instructing Mr Mok, because this 19 witness referred to what he was told by the police. 20 THE CHAIRMAN: I follow that. I'm looking for chapter and 21 verse. We don't know; is that the answer? 22 MR SHIEH: We do not know. 23 THE CHAIRMAN: Yes. 24 MR SHIEH: I do not believe there is actually primary 25 evidence, for example from a police statement.</p>	<p style="text-align: right;">Page 112</p> <p>1 But, Dr Cheng, take it from me, this is a photograph 2 in Dr Armstrong's first expert report and you can see 3 where he had reconstructed where the stem bar was 4 supposed to be, and where the keelson was supposed to 5 be. 6 A. Okay. 7 THE CHAIRMAN: I'd ask that both Dr Armstrong's reports be 8 provided to the witness. 9 MR SHIEH: Yes. 10 THE CHAIRMAN: It's regrettable they weren't provided 11 earlier. 12 MR SHIEH: Could I ask those instructing my learned friend 13 Mr Mok to perhaps provide the first report and the 14 supplemental report to Dr Cheng so that I won't have to 15 catch this witness cold tomorrow. 16 Dr Cheng, could you look at -- by reference to this 17 photograph and by reference to footnote 10 of your own 18 report at expert bundle 368, you see at footnote 10 you 19 are making an annotation to your report, to the text of 20 your report at the top of this page, when you said: 21 "Close examination of the fibreboard fragments 22 revealed an imprint having size and shape, partially 23 agreeing with the L-shipped metal plating on the bow of 24 the starboard hull of the Sea Smooth, but no metal 25 plating was recovered inside the hull of Lamma IV."</p>

<p style="text-align: right;">Page 113</p> <p>1 Then at footnote 10, you said: 2 "According to Police information, the metal plating 3 on the port hull of Sea Smooth was reportedly dismantled 4 for maintenance and no substitute was reportedly 5 installed at the time of the accident." 6 Do you see that was your annotation? 7 A. Yes. 8 Q. By reference to the photograph at page 447, where would 9 that metal plating be expected to be found? 10 A. Let me see. I think the metal plating should start from 11 a position near the letter E, between the position at 12 letters E and M. It should be starting from here, going 13 downward, protecting this area. 14 Q. Yes. 15 A. Because this is what I make reference to, my 16 photograph 3. Because we see the metal plating starting 17 from a position -- 18 Q. Yes. 19 A. -- at the draft mark 1.4. 20 Q. Your photo 3 is at page 383. 21 A. Yes, page 383. So this is -- the starting position is 22 a little bit -- just above from the waterline. This is 23 the metal plating. 24 MR SUSSEX: Mr Chairman, Dr Cheng's footnote 10 accords with 25 my instructions. If it would assist the Commission, we</p>	<p style="text-align: right;">Page 115</p> <p>1 Q. Yes. Here. 2 A. So when we go to page 447, the photograph, that position 3 should be -- I just take a guess -- around letter E. 4 Q. Basically transposing that position to the port side? 5 A. Yes, exactly. 6 Q. Thank you. Perhaps we have to leave that point until we 7 actually see chapter and verse from the Sea Smooth as to 8 the absence of this part. 9 So basically what you have been given to understand 10 is that there was actually no metal plating on the 11 corresponding location on the port side? 12 A. Yes. 13 Q. At the time of the accident? 14 A. Yes. 15 Q. Therefore, looking at the text of your report, the 16 imprint having size and shape which partially agreed 17 with the L-shaped metal plating was not -- if that 18 footnote is correct, then that imprint was not the 19 result of that metal plate coming into contact or 20 hitting the relevant part? 21 A. This imprint just indicates something has been installed 22 over there. 23 Q. Yes. 24 A. So that result a different colour, then I can find 25 an imprint on that part.</p>
<p style="text-align: right;">Page 114</p> <p>1 can obviously try and obtain evidence to substantiate 2 that. I imagine that the police must have got their 3 information from my clients in any event. 4 THE CHAIRMAN: I'd have thought it was documented by now. 5 It's a question of locating it. 6 MR SUSSEX: Yes, quite. 7 THE CHAIRMAN: If the police have passed that on to 8 an expert witness, they'll have a reason for doing so, 9 and I'm sure it's a documented one. 10 MR SUSSEX: Yes. 11 THE CHAIRMAN: So if we can see if we can locate it. 12 MR SUSSEX: We can both try. 13 MR SHIEH: So the paper trail is complete, rather than to 14 rely on what is reported to have been said to this 15 witness. 16 THE CHAIRMAN: We're looking for chapter and verse, 17 documentary. 18 MR SHIEH: Yes. 19 THE CHAIRMAN: Or a witness statement. 20 MR SHIEH: So, Dr Cheng, coming back to this photograph, you 21 are saying that that part of the metal plating or that 22 part of the stem bar, where one would expect to find the 23 metal plating -- 24 A. Yes, starting from the draft mark, 1.4, it is the 25 position a little bit above the waterline.</p>	<p style="text-align: right;">Page 116</p> <p>1 Q. Yes. But it doesn't necessarily mean that there was in 2 fact an object there at the time of the collision? 3 A. Correct. 4 Q. Thank you. So the explanation that had been given to 5 you is consistent or not inconsistent with what you had 6 observed by way of the imprint? 7 A. I note down this information because it's just 8 consistent with my finding. 9 Q. Thank you. We looked at the rest of this page 10 previously, so could we move on to paragraph 3.3.7: 11 "The substantial damage to the port side of 12 compartments D and E suggests that water ingress into 13 them was sudden and unstoppable. As the bulkhead 14 between compartments E and F was not watertight, three 15 out of six compartments in the underdeck could have 16 flooded rapidly after the vessel sustained the damage." 17 Correct? 18 A. Correct. 19 Q. So what started off as two holes from the outside 20 resulted in the flooding of three compartments on the 21 inside -- 22 A. Correct. 23 Q. -- because of the interconnection between the steering 24 compartment and the tank room caused by the existence of 25 the access opening which had no watertight door?</p>

<p style="text-align: right;">Page 117</p> <p>1 A. Correct. 2 Q. Thank you. Moving on. Paragraph 3.4: 3 "The main deck cabin was encircled by a passageway 4 of 0.9 metres wide along the rub rail, and the 5 passageway was further enclosed by railing." 6 Page 390 of the bundle, please, shows that 7 passageway. 8 That's the passageway that you referred to? 9 A. Yes. 10 Q. "The cabin had 8 rows and 11 rows of seats respectively 11 situated ..." 12 We're back at page 369 of the bundle. Yes. 13 "In addition, there were two rows of seats 14 amidships. Each leg of the seats had a rectangular 15 mounting plate, which was found to have been secured on 16 the metal deck with a pair of 2.7 cm bolts." 17 Could we have page 390 of the bundle. The bottom 18 photograph shows the metal deck, the metal mounting 19 plate and also the bolt. 20 A. Yes. 21 Q. Correct? Thank you. 22 Paragraph 3.4.2: 23 "There was a staircase in the middle of the main 24 deck cabin leading to the upper deck cabin. Another 25 staircase was found at the stern connected the</p>	<p style="text-align: right;">Page 119</p> <p>1 A. No, this one. 2 MR SHIEH: Mr Chairman, Mr Beresford has drawn my attention 3 to this. In this paragraph 3.4.3, it mentions the 4 number of sliding windows and fixed windows. 5 THE CHAIRMAN: Yes, it does, but it doesn't say which 6 ones -- 7 MR SHIEH: There isn't a plan which describes which are 8 fixed and which are -- 9 THE CHAIRMAN: No, but we've got a plan and if the witness, 10 as he's just told me, knows which ones are sliding -- 11 MR SHIEH: He can actually mark on the plan. 12 THE CHAIRMAN: -- he can mark it. 13 A. Yes, I can do it. 14 THE CHAIRMAN: We can do that overnight or after we adjourn 15 in a few minutes. 16 A. Sure. Maybe I can do it overnight. 17 THE CHAIRMAN: Yes. 18 MR SHIEH: Could I ask that to be done and maybe copies made 19 in advance. 20 THE CHAIRMAN: Can we provide the witness, Dr Cheng, with 21 a version of this now? Yes, it shows the port side and 22 the starboard side of Lamma IV. 23 A. Thank you. 24 THE CHAIRMAN: It's one that was used by the divers to tell 25 us which windows they broke into and which ones they got</p>
<p style="text-align: right;">Page 118</p> <p>1 passageway on the main deck leading to the weather deck 2 on the upper deck." 3 I believe all that is familiar because we have heard 4 a good deal of evidence from the passengers and 5 survivors. 6 Paragraph 3.4.3, you describe the doors and exits on 7 the main deck cabin. Again, I believe that we have 8 actually heard a good deal of evidence about the layout. 9 You had actually observed the window panes on the 10 main deck cabin, near the end of this paragraph. 11 THE CHAIRMAN: Do we have marked anywhere which windows were 12 sliding windows? 13 MR SHIEH: I can cause that to be checked, Mr Chairman, and 14 follow that up. 15 THE CHAIRMAN: Yes. I don't think even here we're told 16 which ones. We're told the number -- 17 MR SHIEH: The numbers. We don't have the actual location 18 of which ones were tested to be sliding windows. We can 19 follow that up, Mr Chairman. 20 THE CHAIRMAN: Did you make any note of which ones were 21 sliding windows and which ones were not? 22 A. Yes, I have. 23 THE CHAIRMAN: Have you ever been shown the profile of the 24 Lamma IV which shows windows marked red for port and 25 "G", for green, for starboard? Have you ever seen that?</p>	<p style="text-align: right;">Page 120</p> <p>1 out of. 2 MR SHIEH: It's in Fire Services Department bundle 3, I've 3 been reminded. 4 THE CHAIRMAN: Thank you. Yes. 5 So when we adjourn in a few minutes, perhaps you 6 could spend five minutes and just mark down as against 7 which window is sliding and which is -- well, just mark 8 the sliding ones. 9 A. Okay, no problem. 10 MR SHIEH: By default the rest will be fixed. 11 Dr Cheng, paragraph 3.4.4, you describe: 12 "The side panel of the main deck cabin was made up 13 of fibreboards sandwiched with a layer of foam in the 14 middle. The port quarter of the main deck cabin had 15 sustained severe impact damage, causing collapse of 16 about 5.6-metre side panel and the nearby ceiling frame 17 as well as crushing of the last five row of seats. The 18 impact damage to the ceiling frame had reached a 19 position near the centreline, where deep blue paint 20 smears, agreeing in colour with the hull of Sea Smooth, 21 were found." 22 Could we now have page 391. Here we can see the 23 broken ceiling. Can we see part of the broken ceiling? 24 A. Yes, here, on the top. The ceiling frame has already 25 fallen. So you can see the remains of the ceiling</p>

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<p>1 frame.</p> <p>2 Q. You have particularly highlighted that area which showed</p> <p>3 deep blue paint smears.</p> <p>4 A. Yes, and this colour agrees with the hull of Sea Smooth</p> <p>5 and suggests that the bow at the moment of contact has</p> <p>6 already reached this position.</p> <p>7 Q. Within Lamma IV?</p> <p>8 A. Yes, within Lamma IV.</p> <p>9 Q. Can we go back to paragraph 3.4.4 of the report at</p> <p>10 page 369.</p> <p>11 "The fallen ceiling frame was heavy and large,</p> <p>12 measuring about 4.8 metres long and 2 metres wide.</p> <p>13 Behind the last row of seats on the port side was the</p> <p>14 central unit of the air-conditioning system, of which</p> <p>15 the housing was badly deformed and collapsed rearwards."</p> <p>16 If we could have page 391, photo 20.</p> <p>17 The circle refers to the crushed air-conditioning</p> <p>18 system?</p> <p>19 A. Yes.</p> <p>20 THE CHAIRMAN: So from what you are setting out here, in</p> <p>21 paragraph 3.4.4, how far into the main deck of Lamma IV</p> <p>22 had Sea Smooth penetrated?</p> <p>23 A. Sea Smooth?</p> <p>24 THE CHAIRMAN: Sea Smooth having struck the port side of</p> <p>25 Lamma IV, how far had she travelled inside the main deck</p>	<p>1 MR SHIEH: That is what you meant by "reached a position</p> <p>2 near the centreline"?</p> <p>3 A. Yes.</p> <p>4 Q. Because that's where the deep blue paint smears</p> <p>5 appeared?</p> <p>6 A. Yes, and the paint agreed with the hull of Sea Smooth.</p> <p>7 Q. Thank you. Paragraph 3.4.5, at the bottom of that page:</p> <p>8 "The gash on the port side of the hull could be</p> <p>9 observed on the passageway amidships, which existed as</p> <p>10 a straight cut of about 50 cm wide and ended by the side</p> <p>11 panel of the main deck cabin. The angle of the gash on</p> <p>12 the passageway was found to be about 30 degrees from the</p> <p>13 bow (see photo 17)."</p> <p>14 So we have page 390. Could you help us. The gash</p> <p>15 is pointed out by a red angle.</p> <p>16 A. Yes.</p> <p>17 Q. When you say, "The angle of the gash on the passageway</p> <p>18 was found to be about 30 degrees from the bow", what</p> <p>19 angle were you referring to?</p> <p>20 A. The length of the vessel, from the bow, it is</p> <p>21 30 degrees.</p> <p>22 THE CHAIRMAN: So on photograph 17, we see the gash --</p> <p>23 A. Yes.</p> <p>24 THE CHAIRMAN: -- and we see the white wall of the cabin?</p> <p>25 A. Yes.</p>
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<p>1 of Lamma IV?</p> <p>2 A. The distance should be -- just an estimation -- about</p> <p>3 the length of the damage on the side panel. So</p> <p>4 I think -- there are two dimensions, because when the</p> <p>5 two actually came into contact they make an angle.</p> <p>6 THE CHAIRMAN: Yes, I understand that.</p> <p>7 A. So if we're just talking about how far inside on this</p> <p>8 horizontal direction --</p> <p>9 THE CHAIRMAN: I'm thinking about it from a passenger's</p> <p>10 point of view on Lamma IV. You've got the passengers</p> <p>11 who are on the port side window, then you've got the one</p> <p>12 on the next seat, the one on the next seat.</p> <p>13 A. Yes.</p> <p>14 THE CHAIRMAN: How far into the vessel has --</p> <p>15 A. To the middle.</p> <p>16 THE CHAIRMAN: To the middle?</p> <p>17 A. Yes. That is what I call the centreline, because --</p> <p>18 MR SHIEH: The fifth line of your paragraph 3.4.4.</p> <p>19 A. Yes. Because the blue smear indicates the bow of Sea</p> <p>20 Smooth reached that position.</p> <p>21 THE CHAIRMAN: Yes.</p> <p>22 A. That indicates Sea Smooth at that time at least reached</p> <p>23 that position, and then made a contact, left a sign</p> <p>24 there.</p> <p>25 THE CHAIRMAN: Thank you for that.</p>	<p>1 THE CHAIRMAN: And the angle between the two is about</p> <p>2 30 degrees?</p> <p>3 A. Yes, correct.</p> <p>4 MR SHIEH: That's what you mean by "30". Right.</p> <p>5 I have some questions about Dr Armstrong's report to</p> <p>6 ask you about angle, but given that you had indicated</p> <p>7 that you have not yet had a chance of reading</p> <p>8 Dr Armstrong's report, I'll save that for tomorrow.</p> <p>9 A. Okay.</p> <p>10 Q. There is a part in Dr Armstrong's report about angle of</p> <p>11 impact. Perhaps I would particularly ask you to look at</p> <p>12 that.</p> <p>13 A. No problem.</p> <p>14 Q. Thank you.</p> <p>15 Paragraph 3.4.6, over the page at page 370 of the</p> <p>16 bundle:</p> <p>17 "The passageway on either side was covered by porch.</p> <p>18 On the port side under the ceiling of the porch were</p> <p>19 U-shaped pipe mounting brackets, which were painted in</p> <p>20 red (see photo 21)."</p> <p>21 We can see at page 392 of the bundle, the circle</p> <p>22 shows us the U-shaped mounting brackets; correct?</p> <p>23 A. Correct.</p> <p>24 Q. "A horizontal strip of red paint smears was found on the</p> <p>25 top of the broken side panel.</p>

<p style="text-align: right;">Page 125</p> <p>1 THE CHAIRMAN: Just before you move on. 2 When you describe a porch, do you mean that there 3 was a little roof area next to the wall, over what was 4 the walking area round the outside of the hull? 5 A. Yes. 6 THE CHAIRMAN: Thank you. 7 MR SHIEH: "A horizontal strip of red paint smears was found 8 on the top of the broken side panel. These findings 9 suggest that a red pipe probably mounted below the porch 10 on the port side could have been detached from its 11 mounted and pushed towards the cabin before it was lost. 12 The red paint fragments on the foredeck of Sea Smooth 13 were found to agree in colour with the red paint of the 14 U-shaped pipe mounting brackets." 15 A. Correct. 16 THE CHAIRMAN: Where do we see them? 17 MR SHIEH: The red paint fragments, do I understand that to 18 be a reference back to paragraph 2.4 of your report, 19 page 364? At the bottom, where you refer to "fresh 20 scratches with white and red paint smears were found on 21 the leading edge of the foredeck at the bow"; is that 22 a reference back to that part of your report? 23 A. Yes, and also the previous sentence: that is, "some 24 foreign white, blue and red paint [smear], was scattered 25 on the fore deck".</p>	<p style="text-align: right;">Page 127</p> <p>1 THE CHAIRMAN: Well, I'm going to ask that they're made 2 available to you in case you're able to find something 3 that better illustrates a point that you're trying to 4 make with one of your own photographs. If that's of any 5 help to you, of course you can refer us to them. 6 A. Okay. 7 MR SHIEH: I was about to ask for the police album to be 8 shown to the witness, and also marine bundle 1. 9 THE CHAIRMAN: Yes. I don't want to bury you with 10 photographs, because we've got a lot. But the bundle 11 that I've found very useful is marine bundle 1, which 12 begins at page 124, because it's got useful diagrams and 13 illustrations of what we're looking at. 14 A. Okay. 15 THE CHAIRMAN: So you might start with that. 16 It now being 4.30, we're going to adjourn, Doctor, 17 and I'm going to ask you first of all to read 18 Dr Armstrong's report, mark that plan with the sliding 19 windows for us, if you would, and be ready to continue 20 with your testimony tomorrow at 10 o'clock. 21 A. Okay. No problem. 22 THE CHAIRMAN: Thank you. 10 o'clock tomorrow. 23 (4.32 pm) 24 (The hearing adjourned until 10 am on the following day) 25</p>
<p style="text-align: right;">Page 126</p> <p>1 THE CHAIRMAN: Yes. 2 MR SHIEH: So are you suggesting that the red material, the 3 red fragments that one can find on the foredeck of the 4 Sea Smooth could possibly have come from the U-shaped 5 pipe mounting brackets that one could find on the 6 passageway? 7 A. It may be from the bracket, or the missing pipe. 8 Q. The missing pipe? 9 A. Yes. Because I suppose that it should be painted in the 10 same colour. 11 Q. And the inference that the pipe was red in colour was 12 based on the existence of the horizontal strip of red 13 paint smear on the top of the broken side panel? 14 A. Yes. 15 Q. Were you able to locate any red pipe in the remnants on 16 the Lamma IV? 17 A. I couldn't. 18 MR SHIEH: Mr Chairman, I wonder whether that would be 19 an appropriate moment. 20 THE CHAIRMAN: Yes, that's convenient. 21 Dr Cheng, have you had sight of the various bundles 22 of photographs that the Marine Department and perhaps 23 the Fire Department and the Police have taken? Have you 24 ever seen them? 25 A. No.</p>	<p style="text-align: right;">Page 128</p> <p style="text-align: center;">INDEX</p> <p>1 2 MR CHAU TO-YUI (on former affirmation) .....3 3 Examination by MR BERESFORD (continued) .....3 4 Examination by MR MOK .....26 5 (The witness withdrew) .....28 6 MR TAM YUN-SING (sworn in Puntì) .....30 7 Examination by MR BERESFORD .....30 8 Examination by MR GROSSMAN .....41 9 Examination by MR SUSSEX .....53 10 Examination by MR MOK .....54 11 Further examination by MR BERESFORD .....66 12 Questions by THE COMMISSION .....68 13 (The witness withdrew) .....70 14 DR CHENG YUK-KI (affirmed) .....71 15 Examination by MR SHIEH .....71 16 17 18 19 20 21 22 23 24 25</p>