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<p>1 Wednesday, 23 January 2013</p> <p>2 (10.00 am)</p> <p>3 THE CHAIRMAN: Mr Beresford?</p> <p>4 MR BERESFORD: Mr Chairman, before we begin with the</p> <p>5 evidence, Messrs Lo &amp; Lo have received an application</p> <p>6 from DLA Piper to become an involved party to the</p> <p>7 Inquiry.</p> <p>8 THE CHAIRMAN: Yes, I have a copy of a letter dated</p> <p>9 22 January which, amongst other things, deals with that</p> <p>10 issue.</p> <p>11 MR BERESFORD: Yes.</p> <p>12 THE CHAIRMAN: I've asked for some material to be gathered</p> <p>13 together for me that is relevant to that issue, and it's</p> <p>14 a matter that I'll deal with at a later stage this</p> <p>15 morning.</p> <p>16 MR BERESFORD: Very well, Mr Chairman.</p> <p>17 THE CHAIRMAN: But before we get started, Mr Mok --</p> <p>18 MR MOK: Yes.</p> <p>19 THE CHAIRMAN: -- you had indicated to the Commission some</p> <p>20 days ago now that you would be serving upon the</p> <p>21 Commission a report by Dr Peter Cheng, in respect of</p> <p>22 whom you'll be making an application that you be</p> <p>23 permitted to call him.</p> <p>24 MR MOK: That's right.</p> <p>25 THE CHAIRMAN: When might be expect that report?</p>	<p>1 also related to the watertight door.</p> <p>2 THE CHAIRMAN: Yes, very well. Please ask that.</p> <p>3 Examination by MR MOK</p> <p>4 MR MOK: Mr Ho, can I refer you to your own statement at</p> <p>5 paragraph 12(5) on page 4012, please. In line 5, after</p> <p>6 the word "but", can I read that part to you. You said:</p> <p>7 "... at that time (in 1995 and 1996) I had not had</p> <p>8 any experience or involvement in the plan approval work</p> <p>9 of LVS (which looks at the design of the vessel)."</p> <p>10 Can you confirm that?</p> <p>11 A. What I mean here is that I was promoted to ship</p> <p>12 inspector in 1993, and I was still junior in 1995. In</p> <p>13 my opinion, the approval of plans are done by my</p> <p>14 colleagues who are more experienced and more senior than</p> <p>15 me.</p> <p>16 Q. Would it be correct that you were not involved in the</p> <p>17 plan approval process in relation to Lamma IV, in this</p> <p>18 case?</p> <p>19 A. Absolutely.</p> <p>20 Q. And would it be fair to say that you did not at any</p> <p>21 point in time examine -- sorry, I'll put the question</p> <p>22 again.</p> <p>23 Would it be fair to say that you did not examine the</p> <p>24 drawings for the purposes of your work in the Marine</p> <p>25 Department, to determine the question whether there</p>
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<p>1 MR MOK: I understand that it is ready this morning. Yes,</p> <p>2 it is with those instructing me now.</p> <p>3 THE CHAIRMAN: So we can expect it during the course of this</p> <p>4 morning?</p> <p>5 MR MOK: Yes. So maybe once you've received it, we'll make</p> <p>6 an application.</p> <p>7 THE CHAIRMAN: Very well.</p> <p>8 MR MOK: Thank you.</p> <p>9 THE CHAIRMAN: Mr Ho, may I remind you that you continue to</p> <p>10 give your evidence in accordance with the affirmation</p> <p>11 that you took at the outset.</p> <p>12 MR HO KAI-TAK (on former affirmation)</p> <p>13 (All answers via interpreter unless otherwise indicated)</p> <p>14 THE CHAIRMAN: Mr McGowan is not here?</p> <p>15 MR GROSSMAN: Mr McGowan is in another court, and I've</p> <p>16 decided not to pursue the last question. So we've</p> <p>17 nothing else.</p> <p>18 THE CHAIRMAN: Thank you very much.</p> <p>19 Mr Sussex, welcome back.</p> <p>20 MR SUSSEX: Thank you very much. I have no questions for</p> <p>21 Mr Ho.</p> <p>22 THE CHAIRMAN: Mr Pao?</p> <p>23 MR PAO: I have no questions, Mr Chairman.</p> <p>24 THE CHAIRMAN: Mr Mok?</p> <p>25 MR MOK: I have one question relating to the background and</p>	<p>1 should be a watertight door between the steering gear</p> <p>2 compartment and the tank room?</p> <p>3 A. You shouldn't put it that way, because even though I was</p> <p>4 not involved in the approval of plan, but with my</p> <p>5 experience, I was able to tell whether it was watertight</p> <p>6 or not.</p> <p>7 Q. Mr Ho, I don't doubt your experience, but my question</p> <p>8 was that you did not examine the drawings in order to</p> <p>9 determine that question. Would it be fair to say that?</p> <p>10 A. I don't quite understand.</p> <p>11 Q. Well, you said that the door between the steering gear</p> <p>12 compartment and the tank room should be a watertight</p> <p>13 door; right?</p> <p>14 A. Yes.</p> <p>15 Q. You also said that one of the bases for your coming to</p> <p>16 this view was because of the calculation which you saw</p> <p>17 in the Damage Stability Booklet.</p> <p>18 A. Correct.</p> <p>19 Q. And when you were undertaking that exercise, would it be</p> <p>20 correct to say that you did not need to, and did not,</p> <p>21 examine the drawings for that purpose?</p> <p>22 A. I did not examine the drawings, but I saw that it was</p> <p>23 watertight, so for me, it was watertight.</p> <p>24 Q. When you say you saw that it was watertight, what did</p> <p>25 you see?</p>

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<p>1 A. Because I saw from the Profile and Deck drawing that it 2 was watertight, and also from the section drawing, 3 a door has been drawn there with an access opening. 4 Even though it didn't indicate that it was watertight, 5 and there was two interpretations, the two drawings had 6 two different interpretations, but if a hatch is added 7 to it then it would become a watertight access. 8 Q. So you adopted the interpretation that there should have 9 been a watertight door because you thought that a door 10 would be affixed there; is that right? 11 A. Yes, this is one of the bases. And also, because from 12 the drawing submitted by the shipyard, the -- from 13 damage stability calculation of the shipyard, it also 14 indicated that it was a watertight compartment. That 15 means they also admit it as a watertight compartment. 16 MR MOK: In the last answer, I think the witness was 17 indicating that he was not referring to the drawing but 18 to the Damage Stability Booklet. 19 THE CHAIRMAN: Yes. That was obviously corrected by the 20 witness. 21 MR MOK: Thank you. 22 THE CHAIRMAN: By that you mean that the damage stability 23 calculations were done compartment-by-compartment, 24 including the steering gear compartment as a separate 25 compartment?</p>	<p>1 Q. Mr Ho, are you saying that you remember now that you did 2 check the drawings when you undertook that calculation? 3 A. I think so. 4 Q. Why do you say so? 5 A. Usually we need to check the data before we could do the 6 calculation. 7 Q. Is that right? Can I ask you to please look at 8 page 479. You see on this page there is a mistake in 9 the figures either of minus 12.445 -- 10 THE CHAIRMAN: Just tell us what page we're looking at, for 11 the record at least. 12 MR MOK: This is one of the pages of the Damage Stability 13 Booklet. 14 THE CHAIRMAN: Thank you. 15 MR MOK: Earlier on, I think your attention was drawn to the 16 figures of minus 12.445, and minus 11.575; do you see 17 that? 18 A. Yes. 19 Q. You see that, right? 20 A. Yes. 21 Q. And you accept that at least one of those figures is 22 a mistake? 23 A. Yes, I have probably made a wrong measurement. 24 Q. What do you mean by "measurement"? What did you 25 measure?</p>
<p>Page 6</p> <p>1 A. (In English) Yes. 2 THE CHAIRMAN: Thank you. 3 MR MOK: Mr Ho, can I refer you back to paragraph 10(1) of 4 your statement, please. In subparagraph (1), you 5 indicated that for the purposes of the inclining 6 experiment, you looked at the General Arrangement plan. 7 A. Yes. 8 Q. In paragraph 12(1) you said that in relation to the 9 Inclining Experiment Booklet and the Damage Stability 10 Booklet, you said: 11 "I checked the calculations in the Inclining 12 Experiment Booklet by reference to my notes taken during 13 the inclining experiment and the calculations done by me 14 by hand." 15 A. Yes. 16 Q. Then in paragraph 12(4), the third line, you said: 17 "... I would use the data there [meaning in the 18 booklet] to check the calculations in the Damage 19 Stability Booklet ..." 20 A. Yes. 21 Q. Would it be correct to say that in doing this particular 22 exercise, you did not have to refer to the drawings 23 which were approved by the Marine Department? 24 A. I don't think so, because we need to check the data 25 submitted by them before we could do the calculations.</p>	<p>Page 8</p> <p>1 A. Because if you subtract 11.575 from 12.445, you will get 2 about 0.9. The figure shouldn't be that small. 3 Q. Would it be fair to say that if you had checked the 4 figures or the data in the Profile and Deck drawing, you 5 would have found out that this was an error? 6 A. Yes. 7 Q. Would it be fair to say that now, looking back, you 8 really can't remember whether in fact you did or did not 9 check those drawings when you did the calculation in 10 relation to damage stability? 11 THE CHAIRMAN: Your question is for all purposes, not merely 12 for this arithmetic calculation? 13 MR MOK: Yes, for all purposes in relation to his work in 14 relation to this vessel. 15 THE CHAIRMAN: Yes. 16 Do you understand that, Mr Ho? Not just this 17 calculation, but for all purposes? 18 MR MOK: Should I repeat the question to you? 19 A. Yes. 20 Q. Bearing in mind this error which was not discovered by 21 you, would it be fair to say that now you really cannot 22 remember what took place in 1995 or 1996, whether or not 23 you did examine the drawings when you performed your 24 duties in checking various matters concerning Lamma IV? 25 A. I think you are right, but now I feel quite confused</p>

<p style="text-align: right;">Page 9</p> <p>1 because it seems like this is similar in this way and in 2 the other ways. 3 THE CHAIRMAN: I'm sorry, I don't understand that. What is 4 "similar in this way and in the other ways"? 5 A. Because now that I have seen -- because when I see these 6 figures recently, I find that it is not reasonable. But 7 I am not sure whether I have seen it at that time. 8 MR MOK: All right. 9 Mr Chairman, I think that's as far as I can go with 10 this. 11 THE CHAIRMAN: Thank you. 12 MR MOK: Thank you. 13 THE CHAIRMAN: Yes, Mr Beresford. 14 Further examination by MR BERESFORD 15 MR BERESFORD: Mr Ho, it's a small point but you've just 16 been shown page 479, which is page 6 of the Damage 17 Stability Booklet beginning at page 473. You can see 18 from page 473 that that was marked as "seen" on 19 13 January 1999. The Damage Stability Booklet that you 20 approved was the 1996 one, which commences at page 338. 21 Perhaps the page you should have been looking at was 22 page 344. Do you agree with that? 23 A. Would you please repeat your question? 24 Q. Yes. We have a series of damage stability reports here 25 from different years, and my understanding of your</p>	<p style="text-align: right;">Page 11</p> <p>1 THE CHAIRMAN: Thank you, Mr Ho, for coming to assist the 2 tribunal with your evidence, but that evidence is now 3 complete and you're free to go. You may, of course, if 4 you wish, remain in the hearing room and listen to the 5 other evidence. But thank you for helping us. 6 A. (In English) Okay. 7 (The witness withdrew) 8 MR BERESFORD: Mr Chairman, Mr Commissioner, the next 9 witness is Mr Leung Wai-hok. 10 MR LEUNG WAI-HOK (affirmed in Punti) 11 (All answers via interpreter unless otherwise indicated) 12 Examination by MR BERESFORD 13 MR BERESFORD: Good morning, Mr Leung. Thank you very much 14 for attending this morning to assist this Commission 15 with its Inquiry. I have some questions to ask you on 16 behalf of the Commission. 17 A. Yes. 18 Q. Mr Leung, you have made a previous statement and given 19 an interview to the Marine Department. The notes of the 20 interview can be found in our marine bundle 8 at 21 pages 1934 to 1941. The English translation is at pages 22 1941-1 to 1941-8. The witness statement that you made 23 may be found in marine bundle 11 at pages 3954 to 3962. 24 Do you have a copy of those notes of interview, and 25 the witness statement, in front of you, Mr Leung?</p>
<p style="text-align: right;">Page 10</p> <p>1 evidence is that the one that you examined, which you 2 refer to in paragraph 5 of your witness statement, is 3 the Damage Stability Information Booklet at pages 338 4 to 344. 5 A. I can only see the one at page 338. 6 Q. Yes. I don't think it makes any difference, Mr Ho; the 7 figures that we were looking at are the same. The 8 figures on page 344, at least as far as the aft and 9 forward bulkheads of the steering gear compartment are 10 concerned, are the same as those shown on page 479. But 11 page 479 is a 1999 booklet. The 1999 booklet, 12 commencing at page 473, is not the booklet that you 13 examined, is it? 14 A. Yes, because I was not working in this department in 15 1999, so I shouldn't have seen this booklet. 16 Q. Thank you. One other question, Mr Ho. Your attention 17 was drawn to your statement at paragraph 12(5), in which 18 you said that in 1995 and 1996, you had not had any 19 experience or involvement in the plan approval work of 20 the Local Vessels Safety Section. Do you remember that? 21 A. Yes. I have answered this question previously. 22 Q. Yes. But your duties did include the approval of damage 23 stability calculations, did they not? 24 A. Yes. 25 MR BERESFORD: Thank you, Mr Ho.</p>	<p style="text-align: right;">Page 12</p> <p>1 A. Yes. 2 Q. Do you recognise your signature on those documents? 3 A. Yes. 4 Q. Have you had an opportunity to review those documents 5 today? 6 A. I have been reading them for several days in a row. 7 Q. Do you have any amendment you wish to make, Mr Leung? 8 A. In the first paragraph of my first Chinese witness 9 statement, it says I have worked in the Local Craft 10 Section from 1996 to 1999. It should be amended to read 11 "from 1996 to 1997". 12 Q. Thank you. Any other amendments that you wish to make? 13 A. No. 14 Q. So, subject to that amendment, are the contents of these 15 documents true? 16 A. Yes. 17 Q. Thank you. Mr Leung, you are a senior surveyor of ships 18 in the Government New Construction Section, Government 19 Fleet Division, of the Marine Department and you've held 20 that position since 1 February 2012; is that right? 21 A. Correct. 22 Q. And you have a Bachelor in Naval Architecture and Ocean 23 Engineering which was awarded by the University of 24 Glasgow in 1985? 25 A. Correct.</p>

<p style="text-align: right;">Page 13</p> <p>1 Q. And then in 1989, you joined Lloyd's Register of 2 Shipping as a ship surveyor and remained in their employ 3 for four years, until you joined Mardep in 1993 as 4 a surveyor of ships in Mardep's Convention Ships 5 Section. 6 A. Yes. 7 Q. As you've just told us, from 1996 to 1997, you were 8 posted to the Local Craft Safety Section, and that was 9 as a surveyor of ships. 10 A. Yes. 11 Q. You've told us: 12 "At the time the Local Craft Safety Section had 13 a senior surveyor of ships, 2 surveyors of ships and 14 a number of ship inspectors ..." 15 A. Yes. 16 Q. Who was the senior surveyor of ships at that time? 17 A. Ho Wing-shing. 18 Q. Thank you. Your duties at that time included, amongst 19 other things, supervision of the ship inspectors, final 20 vetting of plans and stability calculations, and 21 certification work in connection with the initial and 22 periodic surveys of local vessels? 23 A. Yes. 24 Q. You refer to two documents, the first of which is 25 contained in our marine bundle 2 at tab 58, page 322.</p>	<p style="text-align: right;">Page 15</p> <p>1 Q. Okay. You then go on to tell us about the Inclining 2 Experiment Booklet, and in paragraph 7(1) of your 3 statement, you tell us: 4 "The calculations are stability calculations 5 submitted by the shipowner or shipbuilder to demonstrate 6 the buoyancy and safety of the vessel." 7 Is that right? 8 A. Yes. 9 Q. And you say: 10 "Within the Local Craft Safety Section, a ship 11 inspector and a surveyor of ships would be responsible 12 for checking these calculations." 13 A. Yes. 14 Q. If we look at page 338 and the Marine Department "seen" 15 stamp, are those the initials of the ship inspector to 16 the right of the stamp that we see there? 17 A. Yes. 18 Q. And that was Mr Ho Kai-tak in this case, was it not? 19 A. I'm not sure. 20 Q. Then you tell us: 21 "The ship inspector ... would first attend and 22 witness the inclining experiment of the vessel, which is 23 done on water after completion of construction." 24 Is that right? 25 A. Yes.</p>
<p style="text-align: right;">Page 14</p> <p>1 This is an Inclining Experiment and Stability 2 Calculation Booklet for the Lamma IV. Is that your 3 signature in the Marine Department stamp marked "seen"? 4 A. Yes. 5 Q. Then the other document you -- 6 THE CHAIRMAN: Well, before we get to that. This document 7 is dated 1996, and the stamp 26 July 1996; is that 8 correct? 9 A. Yes, it is shown here as such. 10 THE CHAIRMAN: Thank you. 11 MR BERESFORD: The other document you mention is a Damage 12 Stability Information Booklet for the Lamma IV at 13 pages 338 to 344 of that same bundle. We see on the 14 front page, page 338, the Marine Department Shipping 15 Division "seen" stamp, dated 26 July 1996. Is that your 16 signature in that box? 17 A. Yes. 18 Q. You've told us that you no longer have any independent 19 recollection of the circumstances in which you vetted 20 these booklets and appended your signature, due to the 21 passage of time; is that right? 22 A. Yes. 23 Q. And that remains the position, does it, even after 24 refreshing your memory these last few days? 25 A. Yes.</p>	<p style="text-align: right;">Page 16</p> <p>1 Q. "Thereafter the shipowner/shipbuilder would submit the 2 inclining experiment records and the intact stability 3 calculations (ie the Inclining Experiment Booklet) and 4 where applicable the damage stability calculations (ie 5 the Damage Stability Booklet)." 6 A. Yes. 7 THE CHAIRMAN: Would you just assist me, at least, in 8 understanding the nature of this inclining experiment. 9 Where is it done, who attends, what is done, and what is 10 the purpose? 11 A. Yes. Usually the experiment was done when the vessel 12 was nearly completed, and the parties attended including 13 the naval architect of the shipyard, and the inspector 14 or surveyor of Mardep who was responsible for 15 certification. The location -- usually the experiment 16 was done in a place where the water was static; that is, 17 usually at the dockyard of the shipyard. The purpose of 18 this experiment was to find out the final lightship 19 displacement and the LCG and the KG, the KG meaning the 20 vertical centre of gravity. 21 THE CHAIRMAN: Thank you. 22 MR BERESFORD: Mr Leung, the Chairman also asked what was 23 done. Could you explain briefly what was done? 24 A. (Chinese spoken). 25 Q. Just take it in stages, please, Mr Leung, to give the</p>

<p style="text-align: right;">Page 17</p> <p>1 interpreter time to do it in chunks. 2 A. Because, as I have explained, the purpose of this 3 experiment is to find the lightship displacement. So 4 since the ship was already completed at that time, we 5 need to decide the weight of the ship. Since during the 6 course of construction, a lot of equipment has been 7 installed onto the lightship, so we need to decide -- 8 before we do the experiment, we need to decide which 9 items should belong to the ship, before we could find 10 the lightship weight. 11 Q. Is it right that the weight of the ship and the centre 12 of gravity is called the lightship condition, with no 13 cargo, passengers or consumables, such as fuel and 14 freshwater, on board? 15 A. Yes. 16 Q. Is it also correct to say that the inclining experiment 17 is concerned with intact stability calculations; that 18 is, with no damage assumed? 19 A. Correct. 20 Q. Is it also right to say that those calculations are 21 primarily concerned with transverse stability? 22 A. Correct. 23 Q. So when the ship is rolling, it's a question of how it 24 is able to right itself, and you're concerned with the 25 danger of its possibly capsizing one side or the other;</p>	<p style="text-align: right;">Page 19</p> <p>1 "The surveyor would not carry out the calculations 2 afresh since that was already been done by the ship 3 inspector, but would look at the calculations presented 4 and form a view on whether they were acceptable." 5 A. Yes. 6 Q. So how would you form that view, if you didn't do the 7 calculations afresh? 8 A. First of all, I need to identify the purpose submitted; 9 that is, to satisfy some specific criteria. 10 Q. So you would compare them to a mental checklist, so to 11 speak, would you? 12 A. Yes. 13 Q. So it was more a question of checking to see that 14 a calculation had been done for each element that was 15 necessary to calculate; is that right? 16 A. First of all, we take a look at the Intact Stability 17 Booklet. It includes the Intact Stability Booklet and 18 the Damage Stability Booklet. There are international 19 stipulations in regard to the loading or damaged 20 condition. 21 Q. All right. Then you say that if you were satisfied that 22 the calculations were acceptable, then you would date 23 and stamp "seen" on the calculations, and you and the 24 ship inspector responsible would also append your 25 signatures on these calculations.</p>
<p style="text-align: right;">Page 18</p> <p>1 is that right? 2 A. Yes. 3 Q. Thank you. Is it also right to say that the lightship 4 weight and the position of the centre of gravity are 5 used as the starting point for any watertight 6 subdivision calculation? 7 A. Yes. 8 Q. Thank you. You were telling us about the procedure to 9 do with inclining experiments and damage stability 10 calculations, and we had just got to the point of the 11 attendance on the experiment. You told us that the 12 shipowner or shipbuilder would submit the calculations, 13 and then I was going to go on to say that it would be 14 the ship inspector who attended the inclining experiment 15 who would normally be responsible for checking the 16 calculations; is that right? 17 A. Yes, this is the usual practice of the office. 18 Q. Yes. Then you say: 19 "If the ship inspector was satisfied with those 20 calculations, they would then be submitted to a surveyor 21 of ships for final vetting." 22 A. Yes. 23 Q. And that was you, in the present case? 24 A. Yes, I was the ship surveyor in the present case. 25 Q. Yes. You say:</p>	<p style="text-align: right;">Page 20</p> <p>1 A. We will append our signature if we have checked that 2 they have satisfied our criteria and we find that there 3 is no problem. Then we would append our signature. 4 Q. Yes. In paragraph 8 of your witness statement, you say: 5 "In the present case, based on the documents 6 provided to me ... I believe that the ship inspector 7 involved was Mr Ho Kai-tak ... [His] signatures could be 8 seen on the respective front covers of the Inclining 9 Experiment Booklet and the Damage Stability Booklet ..." 10 Do you see that in paragraph 8 of your witness 11 statement, Mr Leung? 12 A. I believe it was Mr Ho Kai-tak. 13 Q. Yes. But a moment ago you told me that you didn't 14 recognise his signature and you couldn't remember who it 15 was. Do you remember that? 16 A. I'm not sure whose signature it was. 17 Q. And do you remember or do you not remember who the ship 18 inspector was? 19 A. I cannot recall it now. 20 Q. In your statement you note that various changes had been 21 made by hand to the data in the Inclining Experiment 22 Booklet. I think we can pass over that. 23 Then at paragraph 12 of your statement, you say: 24 "For the purpose of carrying out the final vetting 25 of the calculation, I would have the Inclining</p>

<p style="text-align: right;">Page 21</p> <p>1 Experiment Booklet and the Damage Stability Booklets 2 before me. I believe I would usually have looked at the 3 main hull drawings of the vessel before this 4 exercise ..."</p> <p>5 Is that right? Is that right; is that your usual 6 practice, Mr Leung?</p> <p>7 A. This is our usual practice, but I'm not sure whether 8 I have seen that at that time.</p> <p>9 Q. Yes. Thank you. I was coming to that. I'm just trying 10 to deal with this in stages.</p> <p>11 So your usual practice is to look at the hull 12 drawings, but you can't remember whether or not you did 13 in this specific case?</p> <p>14 A. Yes.</p> <p>15 Q. You say:</p> <p>16 "... if any matter arose in the course of my vetting 17 which required special attention, I would call for the 18 entire file or any relevant plans or documents to that 19 end."</p> <p>20 Is that right?</p> <p>21 A. Yes.</p> <p>22 Q. I wonder if you can just help us identify what you mean 23 by "main hull drawings". I'll show you a few, and 24 perhaps you can tell us whether they are or they are not 25 within that category.</p>	<p style="text-align: right;">Page 23</p> <p>1 (1) The watertight subdivision of a vessel ... had 2 to comply with the requirement colloquially known as 3 '0.1L' ..."</p> <p>4 Is that right? And you refer to paragraph 15 of the 5 Blue Book, which we can see at page 1770 of marine 6 bundle 8. That incorporates, by reference -- it says 7 "regulation 5" but we've heard evidence that that's 8 a misprint for regulation 6 of the Merchant Shipping 9 (Passenger Ship Construction and Survey) Regulations 10 1984.</p> <p>11 But essentially, and you summarise this at the last 12 sentence of paragraph 13(1) of your witness statement: 13 "This means that even if the 2 bulkheads of 14 a particular compartment are watertight, if the length 15 of that compartment is less than [10 per cent of the 16 length of the vessel] only one of those 2 bulkheads 17 would be regarded as watertight for the purpose of the 18 stability calculations."</p> <p>19 Is that right?</p> <p>20 A. Yes.</p> <p>21 Q. You then say:</p> <p>22 "If damage stability calculations were required to 23 be submitted, they would have to satisfy the 24 'one-compartment flooding' criterion ... Essentially, 25 the shipowner/shipbuilder has to ascertain each of the</p>
<p style="text-align: right;">Page 22</p> <p>1 Can we start with the General Arrangement at 2 page 172 of marine bundle 2. Is this a drawing that you 3 would include in that class of "main hull drawings" that 4 you refer to, Mr Leung?</p> <p>5 A. Yes.</p> <p>6 Q. And what about the Shell Expansion at page 202?</p> <p>7 A. Yes.</p> <p>8 Q. And the Profile and Deck at page 204?</p> <p>9 A. Yes.</p> <p>10 Q. And what about the Sections and Bulkheads at page 205?</p> <p>11 A. Yes.</p> <p>12 Q. Okay. Then perhaps if we look at the contents of the 13 drawing box. I'll give you the reference in just 14 a moment. It's at bundle R, page 5505. Are there any 15 other drawings listed there that you would look at as 16 being "main hull drawings" of the vessel?</p> <p>17 A. The Sections and Bulkheads, which was item 6.</p> <p>18 Q. Yes. We just looked at that, didn't we?</p> <p>19 THE CHAIRMAN: We did. I don't think there's any need to go 20 back.</p> <p>21 MR BERESFORD: Very well. Thank you, Mr Chairman.</p> <p>22 Anything else, Mr Leung?</p> <p>23 A. That's all. There's only one page.</p> <p>24 Q. Yes. You say:</p> <p>25 "At that time, I was aware that:</p>	<p style="text-align: right;">Page 24</p> <p>1 watertight compartments, and then assume, in respect of 2 each of them, that it is flooded upon damage, and 3 calculate the sufficiency of stability in damaged 4 condition (reflected in the value of the residual 5 transverse metacentric height (GMT)) in each case."</p> <p>6 A. Since we require them to submit the damage stability 7 calculation, of course there are criteria that need to 8 be fulfilled. But as for the degree to which they need 9 to satisfy, it depends on the requirement.</p> <p>10 Q. So is that a modification of your statement in 11 paragraph 13(2), Mr Leung?</p> <p>12 A. No. It is only supplementary information.</p> <p>13 Q. Then in your last sentence of that subparagraph, you 14 say:</p> <p>15 "The residual GMT in any case must be a positive 16 figure equals to or in excess of 0.05 metres."</p> <p>17 A. Yes, this is in accordance with our requirement at that 18 time.</p> <p>19 Q. Thank you. You then say that you've been shown a copy 20 of the Marine Department's letter dated 1 August 1994 21 which we can find at marine bundle 8, page 2081.</p> <p>22 This is a fax to a designer in Singapore, I believe, 23 nothing to do with this case, setting out the stability 24 requirements for passenger vessels operating in 25 Hong Kong waters. You've told us:</p>

<p style="text-align: right;">Page 25</p> <p>1 "I have no recollection of seeing this document 2 before, though I note that the requirements stipulated 3 there in relation to watertight subdivision and the 4 one-compartment requirement in damage stability 5 calculation are consistent with my recollection above." 6 A. Yes. 7 Q. We can see from paragraph 3 of that fax, it says: 8 "For every vessel carrying more than 100 passengers, 9 the watertight subdivision (one-compartment flooding) 10 requirements are to be complied with (see attached 11 copies, schedules 1 and 3)." 12 What is attached is schedules 1 and 3 to Legal 13 Notice 325 of 1991, which was the original number of the 14 Merchant Shipping (Safety) (Passenger Ship Construction 15 and Survey) (Ships Built On or After 1 September 1994) 16 Regulations, Cap 369AM. Do you agree with that? 17 A. I'm not sure about this. 18 Q. All right. But it doesn't really matter, does it, 19 Mr Leung, because local vessels were not regulated by 20 regulation; this was just a matter of Marine Department 21 practice? 22 A. As I have mentioned, the Marine Department has no 23 particular regulation in respect of local vessels. But 24 in the course of licensing, we could apply certain 25 regulations or ordinances that are appropriate.</p>	<p style="text-align: right;">Page 27</p> <p>1 condition of the ship ..." 2 And then it sets out various conditions. 3 Subparagraph (1) deals with the event of symmetrical 4 flooding at three different stages: firstly, at all 5 stages of flooding, paragraph 1(a); paragraph 1(b), at 6 intermediate stages of flooding; and at paragraph 1(c), 7 at the final stage of flooding. 8 A. Yes. 9 Q. If we can just focus on paragraph 2(1)(c) for the 10 moment: 11 "at the final stage of flooding the margin line 12 shall not be submerged and there shall be a positive 13 residual metacentric height of at least 50 mm as 14 calculated by the constant displacement method." 15 A. Are you referring to paragraph (1)(c)? 16 THE CHAIRMAN: Yes, Mr Beresford is. Although he said 2. 17 MR BERESFORD: Mr Leung, there's a number 2 missing from the 18 photocopy. You can see by the first heading in 19 schedule 3 at number 1, "Calculations of stability in 20 damaged condition". 21 There should be a number 2 by the next subheading, 22 "Sufficiency of stability in damaged condition". You 23 can see that the subparagraph numbering begins again. 24 A. Yes, I understand what you mean. 25 Q. Right. Anyhow, I'm focusing on that paragraph (c) that</p>
<p style="text-align: right;">Page 26</p> <p>1 Q. Yes. As I understand your evidence, you agree that this 2 fax represents what was applied to local vessels, at any 3 rate in relation to passenger vessels carrying more than 4 100 passengers? 5 A. I think it was referring to Lamma IV. 6 Q. You mean these applied to Lamma IV? 7 A. It is not specified here, but since we are talking about 8 Lamma IV, I believe that it is related to Lamma IV. 9 Q. Yes. We can see at page 2082 of the bundle schedule 1, 10 dealing with the calculation of maximum length of 11 watertight compartments. 12 A. Yes. 13 Q. At page 2085, we see schedule 3, dealing with stability 14 in damaged condition. 15 A. Yes. 16 Q. Paragraph 1(3)(a) in schedule 3 has been deleted in this 17 copy and replaced with an annotation saying 18 "(one-compartment flooding)". 19 A. Yes, I can see it. 20 Q. If we go on to the next part, dealing with sufficiency 21 in damaged condition, which is part 2 of schedule 3, we 22 see there: 23 "The intact stability of the ship shall be deemed to 24 be sufficient if the calculation specified in 25 paragraph 1 shows that, after the assumed damage, the</p>	<p style="text-align: right;">Page 28</p> <p>1 you can see on the screen, at the top of page B2263 of 2 this page from the gazette. 3 This has two separate conditions at the final stage 4 of flooding, does it not? Firstly, that "the margin 5 line shall not be submerged", and secondly, that "there 6 shall be a positive residual metacentric height of at 7 least 50 mm as calculated by the constant displacement 8 method." 9 Do you agree with that, Mr Leung? 10 A. Yes, it was clearly written. 11 Q. In your statement at paragraph 13(2) -- 12 THE CHAIRMAN: Before you embark on an examination of that 13 topic, I think this is probably a moment at which we 14 could take our mid-morning break. 15 MR BERESFORD: If you would just give me the three minutes, 16 Mr Chairman -- I'm finishing a topic rather than 17 starting a new topic. 18 THE CHAIRMAN: Very well. 19 MR BERESFORD: Mr Leung, in paragraph 13(2) of your 20 statement, you have said, as we have noted: 21 "The residual GMT in any case must be a positive 22 figure equal to or in excess of 0.05 metres." 23 A. Correct. 24 Q. That refers to the second condition in paragraph 2(1)(c) 25 of schedule 3, does it not?</p>

<p style="text-align: right;">Page 29</p> <p>1 A. Yes. 2 Q. But you have not mentioned anything about the first, 3 namely the requirement that the flooding of the margin 4 line shall not be submerged? 5 A. I think this has been omitted. 6 MR BERESFORD: Thank you. 7 That would be a convenient moment, Mr Chairman. 8 THE CHAIRMAN: Very well. 9 Mr Leung, we're going to take a break for 10 20 minutes. Be kind enough to be back in your seat so 11 we can resume in 20 minutes' time. Thank you. 12 (11.30 am) 13 (A short break) 14 (11.53 am) 15 THE CHAIRMAN: Mr Beresford, before we proceed with the 16 evidence that we've been receiving, I'm going to deal 17 with the application that you adverted to at the 18 commencement of proceedings this morning -- 19 MR BERESFORD: Yes, Mr Chairman. 20 THE CHAIRMAN: -- and make a ruling. 21 Ruling 22 THE CHAIRMAN: By a letter dated 22 January 2013, 23 Messrs DLA Piper, acting on behalf of the China 24 Classification Society, has made an application to the 25 Commission that they become an involved party in the</p>	<p style="text-align: right;">Page 31</p> <p>1 "We write to let you know of the above [and of 2 course other matters were dealt with in the letter] in 3 order that you may seek independent legal advice as 4 necessary or appropriate, and so that you can decide 5 whether any (and if so, what) steps need to be taken by 6 you." 7 There was other correspondence in the interim, that 8 is to say before the first letter of 9 January and the 9 application that is made by this letter of 22 January 10 2013, but there is no need at this stage to go into 11 those matters. 12 Suffice it to say that the Commission is satisfied 13 that the conditions set out in paragraph 6(1) and (2) of 14 the Commissions of Inquiry Ordinance Cap 86 are 15 satisfied so that China Classification Society may 16 become an involved party; that is to say, to participate 17 and be represented in these proceedings. 18 That being the case, we would ask that those 19 assisting the Commission, our solicitors and our 20 counsel, ensure that DLA Piper are provided with the 21 material provided to the other involved parties in the 22 hearing. 23 The other matters in the letter are matters that do 24 not need to trouble us at this stage, but we wanted to 25 make this ruling as soon as possible so that there is no</p>
<p style="text-align: right;">Page 30</p> <p>1 Inquiry, adding that if the Commission is minded to 2 accept that application, that they be provided with what 3 they call "the Inquiry bundles". 4 They make other references to other matters which it 5 is not necessary to deal with at this stage. 6 The matter was drawn to China Classification 7 Society's attention in the first place by what is 8 usually termed a Salmon letter written by the 9 Commission's solicitors, dated 9 January 2013. That is 10 to say, in these terms, where relevant: 11 "On the basis of the information received to date, 12 we consider it only fair to give you notice that the 13 expert naval architect retained to advise the 14 Commission, Dr Neville A Armstrong, has formed the view 15 that it is most likely that Lamma IV was constructed 16 with a side plating of 4.5 mm thickness rather than 17 5.0 mm and a bottom plating of 5.5 mm instead of 6 mm as 18 required under the drawings approved by the Marine 19 Department in Hong Kong (Drawings No. NC-391), and that 20 the thinner side plating size might have contributed to 21 the extent of the damage to Lamma IV in the incident, as 22 plating of a greater thickness would have reduced the 23 size of the damaged hole and provided more time for the 24 passengers to escape before the vessel sank." 25 The letter culminates with this sentence:</p>	<p style="text-align: right;">Page 32</p> <p>1 further delay, there already having been the delay from 2 9 January to date, 23 January, before that step has been 3 taken. 4 Mr Beresford? 5 MR GROSSMAN: May I ask a clarification question from that? 6 Do you intend, if asked, to recall witnesses? 7 THE CHAIRMAN: That is a matter that's adverted to in the 8 letter I've just cited. It's not a matter that, as 9 I indicated, I intend dealing with now, but it's 10 a matter that's been marked by DLA Piper. It's one 11 reason why I've adverted to the chronology. 12 MR GROSSMAN: Yes. Thank you very much. 13 MR MOK: Mr Chairman, would this be an opportunity to also 14 deal with Dr Peter Cheng's expert report? The reason 15 I ask is whether or not this application should be dealt 16 with before the report is circulated to the parties? 17 THE CHAIRMAN: May I ask that you deal with that at a later 18 stage today and before that takes place; that is to say, 19 circulation. Perhaps at 1 o'clock. 20 MR MOK: That is the only point. Thank you. 21 MR LEUNG WAI-HOK (on former affirmation in Punti) 22 THE CHAIRMAN: Mr Leung, we'll come back now to the 23 continuation of your evidence, and it is for me to 24 remind you that you continue to give your evidence 25 according to your original affirmation. Do you</p>



<p style="text-align: right;">Page 33</p> <p>1 understand? 2 A. Yes. 3 THE CHAIRMAN: Mr Beresford. 4 Examination by MR BERESFORD (continued) 5 MR BERESFORD: Thank you, Mr Chairman. 6 We have been dealing in general terms with the 7 applicable regulation and the practice of the Marine 8 Department, and you turn in paragraph 14 in your witness 9 statement to the particular matters concerning Lamma IV. 10 In paragraph 14, you emphasise that you no longer have 11 any independent recollection of the circumstances in 12 which you vetted the Damage Stability Booklet. 13 You were asked to look at the Damage Stability 14 Booklet at pages 338 to 344 of our bundle, which is the 15 one that you identified earlier as being dated 26 July 16 1996 and signed by you as having been "seen". 17 Your first observation is that the steering gear 18 compartment at the aft of the vessel, as it appears from 19 page 344, would not have satisfied the 0.1L requirement 20 because the ship length is stated to be 24.89 metres, as 21 appears from page 338, and 10 per cent of that is 22 2.489 metres, and the steering gear compartment 23 portrayed on page 344 would not meet that requirement. 24 Mr Leung, we can see what the length is shown to be 25 on that page by subtracting the forward bulkhead</p>	<p style="text-align: right;">Page 35</p> <p>1 question was, do you agree that there is a discrepancy? 2 A. Yes, obviously. 3 Q. Yes. And you say you were not aware at that time. Are 4 you able to explain why there is such a discrepancy? 5 A. As I have said, this is only basic data and it is not 6 for me to check against this data at the final stage. 7 Of course I would still try my best to do so, but it 8 should have been checked by my colleagues when they 9 dealt with the Stability Booklet. For example, the 10 principal dimension. 11 THE CHAIRMAN: I think perhaps the question is broader. Can 12 you explain how this error comes about? It may be you 13 can't, but perhaps you can. 14 MR BERESFORD: Don't speculate, Mr Leung. If you don't 15 know, just say. 16 A. I cannot explain this. 17 Q. Nevertheless, whether it's 1.625 metres or 0.87 metres, 18 it's still less than 10 per cent of the length of the 19 vessel, isn't it? 20 A. Yes. 21 Q. Your point is that in those circumstances, the steering 22 gear compartment and the adjacent compartment, the tank 23 room in this case, should be considered together as one 24 compartment for the purpose of the damage stability 25 calculations?</p>
<p style="text-align: right;">Page 34</p> <p>1 measurement of 11.575 from the aft bulkhead measurement 2 of 12.445; is that right? 3 A. Yes. 4 Q. And that's 0.87 metres, is it not? 5 A. Yes. 6 Q. Are you aware that that's not the length shown on the 7 drawings? According to the drawings, it's 1.625 metres. 8 A. At that time I didn't pay attention to this, because 9 this is basic data. 10 Q. Do you mean you relied upon the data in the Damage 11 Stability Booklet? 12 A. I was mainly focused on whether or not the criteria have 13 been fulfilled. 14 THE CHAIRMAN: Which criteria? 15 A. The criteria in schedule 1 and schedule 3 of 1984. 16 THE CHAIRMAN: Thank you. 17 MR BERESFORD: Can I just show you, please, the Profile and 18 Deck drawing at page 204. You see at the top left the 19 distance from the transom to the 1/2 bulkhead is shown 20 as being 1 metre plus 625 millimetres. 21 Do you agree, first of all, that there is 22 a discrepancy between the drawing and the Damage 23 Stability Booklet? 24 A. At that time, I didn't realise that. 25 Q. That was my next question, Mr Leung. But my first</p>	<p style="text-align: right;">Page 36</p> <p>1 A. Yes. 2 Q. Then you go on to observe: 3 "... the Damage Stability Booklet submitted by the 4 shipbuilder did not consider the steering gear 5 compartment and the tank room as one compartment in its 6 calculations; instead they were assessed on the basis 7 that they were 2 watertight compartments." 8 Is that right? 9 A. Yes. 10 Q. That may be right, but we know now that the bulkhead 11 between those compartments was not watertight. 12 A. I didn't know that it was not watertight. 13 Q. Should it have been checked? 14 A. According to the stability calculation submitted, it was 15 considered as two individual, independent compartments. 16 So of course I assumed it to be watertight. 17 Q. But my question is, should it have been checked? 18 A. No. 19 Q. So you're saying that you could just rely upon the 20 information provided to you by the shipbuilder? 21 A. This is only one of them, but my colleagues should have 22 already checked it, and I am only responsible for the 23 final step, which is concerning the licensing. 24 I believe that when the Stability Booklet was submitted 25 to us, our colleagues would follow up again and also</p>

<p style="text-align: right;">Page 37</p> <p>1 when the Damage Stability Booklet was submitted, our 2 colleagues would also check them again. 3 Q. Mr Leung, you've told us about the overall process in 4 the Local Craft Safety Section, and you were a surveyor 5 of ships at that time. We've seen from the drawings 6 that this bulkhead was marked as "watertight", albeit 7 that it had an access opening. At what stage in the 8 process should it have been checked that it was actually 9 watertight? 10 A. During the construction or at any circumstances before 11 the licensing. 12 Q. You see, we've had one surveyor at the beginning say he 13 was only required to check the hull, and the watertight 14 door might not have been submitted yet. And we've had 15 another surveyor at the end saying that he was only 16 required to check certain things and he wasn't required 17 to check the hull. So, where does the buck stop? 18 A. I have no supplementary information to provide in 19 relation to this matter. 20 Q. You then say at paragraph 17 of your statement: 21 "... when I encountered such situations, 3 options 22 would have been open to me." 23 Do I understand this to be hypothetical; in other 24 words, if you were to encounter such a situation, or are 25 you telling us that you have in fact encountered such</p>	<p style="text-align: right;">Page 39</p> <p>1 A. Yes. 2 Q. Another option would be just to form a view on the basis 3 of the information available to you? 4 A. Yes. 5 Q. That being the information available to you in the 6 Damage Stability Booklet? 7 A. Yes. 8 Q. So even though you noticed this error, you wouldn't -- 9 or even if you were to notice such an error, it wouldn't 10 prompt you to look further and check other matters? 11 A. As I have said previously, and according to the record, 12 I haven't done that. 13 Q. Well, this is hypothetical anyway, isn't it, Mr Leung? 14 A. Yes. 15 Q. Then you say: 16 "... looking at the following information disclosed 17 in the Damage Stability Booklet [even though we know 18 it's inaccurate] I would have come to the conclusion 19 that Lamma IV should be able to satisfy the stability 20 requirement of not less than 0.05 metres by way of 21 transverse metacentric height." 22 Is that right? 23 A. Yes. 24 Q. You give three reasons for that view. The first reason 25 is, you say:</p>
<p style="text-align: right;">Page 38</p> <p>1 situations before? 2 A. I don't remember what was the decision I made, but since 3 I had to do the vetting, I had certainly assessed the 4 situation and had made a decision. 5 THE CHAIRMAN: The question being asked is, are you 6 addressing hypothetical situations in paragraph 17(1), 7 (2) and (3), or have these actually happened to you in 8 your working life? 9 A. It has never happened before. 10 THE CHAIRMAN: Thank you. 11 MR BERESFORD: So we are to understand this, are we, 12 Mr Leung, as saying what you would do if you noticed 13 such a mistake? 14 A. What mistake are you referring to? Is it the one we 15 mentioned previously? 16 Q. The treating two compartments as separate compartments 17 instead of one compartment, when one of them doesn't 18 meet the 0.1L requirement. 19 A. Yes. 20 Q. So one option, if you noticed that, would be to direct 21 the shipowner or shipbuilder to resubmit the 22 calculations; is that right? 23 A. This is one of the options. 24 Q. And another option would be to ask the ship inspector to 25 do the calculations?</p>	<p style="text-align: right;">Page 40</p> <p>1 "... there is a lot of reserve margin in the GMT for 2 the steering gear compartment and the tank room." 3 A. Yes. 4 Q. And you say: 5 "The GMT for the tank room (0.636 metres) is more 6 than 12 times of the requirement whereas that for the 7 steering gear compartment (1.299 metres) is close to 8 26 times that of the requirement." 9 A. Yes. 10 Q. But are you still comfortable with that, now that you 11 know that the measurement of the tank room and steerage 12 gear compartment does not accord with the plans? 13 A. Yes. 14 Q. Well, it can't be right, can it? 15 A. It is correct as far as the two individual compartments 16 were concerned, the one that I referred to in the 17 statement. 18 Q. But you've just seen that the measurement of the two 19 individual compartments is inconsistent with the 20 drawings. 21 A. This was only discovered afterwards. 22 Q. Yes. Your calculation in paragraph 19(1) is only 23 discovered now. So, in the light of the information 24 that you now know, do you still insist on these figures 25 in paragraph 19(1)?</p>

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<p>1 A. It is not correct.</p> <p>2 Q. Thank you. And then your second reason is that the</p> <p>3 added volume -- that is, of the water in the assumed</p> <p>4 damaged compartment -- of the steering gear compartment</p> <p>5 and the tank room when added together would come to</p> <p>6 around 29 cubic metres. You compare that, in the case</p> <p>7 of the engine room compartment, where the added volume</p> <p>8 exceeds 30 cubic metres, and where the GMT is</p> <p>9 0.462 metres or more than nine times the requirement.</p> <p>10 That suggests to you, you say, that even where the added</p> <p>11 volume comes to around 30 cubic metres, there is still</p> <p>12 a significant reserve margin.</p> <p>13 Firstly, Mr Leung, do you agree that this is not</p> <p>14 accurate as a result of the information you know now?</p> <p>15 A. It is obviously not accurate.</p> <p>16 Q. Thank you. Secondly, would you also agree that the</p> <p>17 volume of water in an assumed damaged compartment at the</p> <p>18 aft of the vessel would have a greater moment than the</p> <p>19 volume of water in a compartment near the centre of the</p> <p>20 vessel?</p> <p>21 A. Agree.</p> <p>22 Q. And that is of significance in the present case, is it</p> <p>23 not, Mr Leung, because the Lamma IV did indeed sink</p> <p>24 stern-first?</p> <p>25 MR MOK: I'm sorry, perhaps it would be fair for my learned</p>	<p>1 statement to pages 343 to 344. There is a drawing of</p> <p>2 the margin line on the drawing. Is it that that you're</p> <p>3 referring to, or are you referring to something else?</p> <p>4 A. The one on page 5 of the Damage Stability Booklet.</p> <p>5 Q. Yes, that would appear to be page 343 of our bundle.</p> <p>6 A. Yes.</p> <p>7 Q. And are you just looking at the drawing, or are you</p> <p>8 looking at figures as well?</p> <p>9 A. The drawing as well as the figures.</p> <p>10 Q. Which figures tell you about the margin line</p> <p>11 requirement?</p> <p>12 A. In the draft --</p> <p>13 A. (In English) Sketch.</p> <p>14 A. In the sketch.</p> <p>15 Q. I see. So you're relying upon the sketch, with the</p> <p>16 figures in the sketch, but not on any calculations; is</p> <p>17 that right?</p> <p>18 A. No. It was done according to some calculation.</p> <p>19 Q. Yes, but how can you tell, Mr Leung?</p> <p>20 A. It shows on the sketch that it was 75 mm, which was</p> <p>21 a minimum requirement.</p> <p>22 Q. Yes. That's the margin line, isn't it, Mr Leung?</p> <p>23 A. (In English) Yes.</p> <p>24 Q. Yes, go on.</p> <p>25 A. There are three figures on the sketch which indicate</p>
Page 42	Page 44
<p>1 friend to put also an additional fact -- that the engine</p> <p>2 room was also flooded in this particular case -- in</p> <p>3 inviting a response from this witness.</p> <p>4 THE CHAIRMAN: Mr Beresford?</p> <p>5 MR BERESFORD: Well, the point of referring to Lamma IV</p> <p>6 sinking stern-first is that the rear compartments were</p> <p>7 full of water. That's why it sank, isn't it?</p> <p>8 A. (In English) Please repeat.</p> <p>9 Q. Are you aware, Mr Leung, that the Lamma IV was holed in</p> <p>10 its engine room and tank room, which meant that those</p> <p>11 compartments flooded, together with the steerage gear</p> <p>12 compartment, because that had an open access door,</p> <p>13 an open access opening?</p> <p>14 A. Yes.</p> <p>15 Q. In simple terms, the boat filled up at the rear, which</p> <p>16 caused it to tilt and sink stern-first?</p> <p>17 A. This is possible.</p> <p>18 Q. The third reason that you gave for your conclusion that</p> <p>19 the Lamma IV should be able to satisfy the stability</p> <p>20 requirement is that there appeared to be a significant</p> <p>21 reserve margin in freeboard, which was much higher than</p> <p>22 the margin line requirement.</p> <p>23 A. Agree.</p> <p>24 Q. Can you help us, please: where do you see that in the</p> <p>25 Damage Stability Booklet? You've referred in your</p>	<p>1 draft. It shows the value for the front, the back and</p> <p>2 the average.</p> <p>3 THE INTERPRETER: Sorry.</p> <p>4 A. (In English) Forward, after and mean.</p> <p>5 THE INTERPRETER: "It shows the figures for forward, after</p> <p>6 and mean."</p> <p>7 A. Comparing this with the midship --</p> <p>8 THE INTERPRETER: Sorry.</p> <p>9 A. If we minus the aft draft from the midship, we can get</p> <p>10 the damage condition, as to the amount of freeboard</p> <p>11 remaining.</p> <p>12 MR BERESFORD: So can you help us, please, Mr Leung. Just</p> <p>13 go through that. On page 343, or page 5 of the</p> <p>14 booklet --</p> <p>15 A. Yes.</p> <p>16 Q. -- the draft aft is stated to be 1.569 metres; is that</p> <p>17 right?</p> <p>18 A. Yes.</p> <p>19 Q. And the mean is stated to be 1.229 metres?</p> <p>20 A. Yes.</p> <p>21 Q. But you say the aft draft should be subtracted from the</p> <p>22 midship. By the midship, do you mean the mean or some</p> <p>23 other figure?</p> <p>24 A. I only mean subtracting the after draft from the</p> <p>25 designed depth.</p>

<p style="text-align: right;">Page 45</p> <p>1 Q. From the design depth? So that's the depth as shown on 2 page 338? 3 A. Yes. 4 Q. And that's 2.88 metres? 5 A. Yes. 6 Q. So if you subtract 1.569 metres from 2.88 metres, then 7 you get more than 75 millimetres; is that right? 8 A. Yes. 9 MR BERESFORD: Okay. Thank you, Mr Leung. Please wait 10 there. 11 Questions by THE COMMISSION 12 THE CHAIRMAN: So, Mr Leung, it's your evidence, as 13 I understand the way you've taken us through it, that 14 you didn't ask the shipyard to redo the calculations? 15 A. Yes. 16 THE CHAIRMAN: You didn't ask your subordinate, Mr Ho, 17 I think it was, to do calculations himself? 18 A. I'm not sure. There's no record. 19 THE CHAIRMAN: I'm reading from your statement. This is 20 what you say, is what you conclude at paragraph 18. So 21 you think, as a result, that you had, as you put it, 22 formed a view? 23 A. As mentioned before, this is only a hypothetical 24 situation. 25 THE CHAIRMAN: That's what you conclude, having considered</p>	<p style="text-align: right;">Page 47</p> <p>1 COMMISSIONER TANG: So is it the practice now? 2 A. I'm not sure, but now we have an internal audit. 3 COMMISSIONER TANG: So what does the internal audit look at? 4 A. (Chinese spoken). 5 COMMISSIONER TANG: I know you have them, but what functions 6 do they perform? 7 A. Because now I'm no longer working in the Local Craft 8 Safety Section, but when I was working in the Government 9 New Construction Section, there were internal audits 10 which were done by ourselves and there were also 11 external audits. 12 COMMISSIONER TANG: Thank you, but what do the two 13 organisations perform, the internal audit and the 14 external audit? What do they do? 15 A. Now I am citing the example of the Cargo Ships Safety 16 Section. 17 There is a procedure which is ISO system manual and 18 they would monitor and check whether our colleagues 19 comply with the stipulations therein. 20 COMMISSIONER TANG: Thank you. I'm actually more interested 21 in the licensing of vessels. Can you tell us something 22 more about that? 23 A. I would like to clarify that the Cargo Ships Safety 24 Section mainly deals with ocean-going vessels, and the 25 local vessels were dealt with by the Local Vessels</p>
<p style="text-align: right;">Page 46</p> <p>1 the matter? 2 A. This is the way that the thing should be dealt with. 3 THE CHAIRMAN: The information had been wrongly presented to 4 you in the damage stability document, had it not? 5 A. Are you referring to the situation at that time? 6 THE CHAIRMAN: The steering compartment should not have been 7 considered by itself; it should have been considered 8 together with the tank room. That was a mistake in the 9 calculations submitted by the shipyard. Is that not 10 your evidence? 11 A. No. I think it is only an omission in their 12 calculation. 13 THE CHAIRMAN: Well, let's call it an omission then. Did 14 you document anywhere that this was an omission, that 15 you were proceeding on a different basis? Anywhere? 16 A. I don't think so. 17 THE CHAIRMAN: Why not? 18 A. As mentioned in item 3 of my statement, it has already 19 been hypothesised. 20 COMMISSIONER TANG: Mr Leung, can you tell us whether the 21 Marine Department management conduct any quality control 22 by, say, for example, doing random checks on completed 23 surveys? 24 A. I'm not sure how that was done at that time, but as far 25 as I'm concerned, I'm not aware of this.</p>	<p style="text-align: right;">Page 48</p> <p>1 Safety Section. Since I have left the section for 2 a long time, I don't know what standard they are 3 applying now, so I am unable to provide you with any 4 information in this respect. 5 COMMISSIONER TANG: Okay. Thank you. 6 THE CHAIRMAN: Thank you, Mr Leung, for assisting the 7 Commission with your evidence. 8 I beg your pardon. That's premature. 9 MR BERESFORD: My learned friends may or may not have some 10 applications. 11 THE CHAIRMAN: Mr Grossman? 12 MR GROSSMAN: I have no application, thank you. 13 THE CHAIRMAN: Mr Sussex? 14 MR SUSSEX: Mr Chairman, I have no application, thank you. 15 THE CHAIRMAN: Mr Pao? 16 MR PAO: I have no questions, Mr Chairman. 17 THE CHAIRMAN: Mr Mok? 18 MR MOK: I have one question. 19 THE CHAIRMAN: Almost right. 20 Examination by MR MOK 21 MR MOK: Mr Leung, your attention was drawn to the Profile 22 and Deck drawing. Can I put that up again for you to 23 look at. 24 THE CHAIRMAN: That's page 204. 25 MR MOK: Yes. Thank you.</p>

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<p>1 Can we focus on the side shell profile at the top 2 and near the stern area. 3 We know that each frame is exactly 1 metre wide, is 4 it not? 5 MR BERESFORD: That's not right. 6 A. Only the last one is 1 metre wide. 7 MR MOK: Thank you. Can you assist us: the frame between 8 1 and 2, how wide is that frame? 9 A. 1,250 mm. 10 Q. So can you assist us with the length between the transom 11 and also the bulkhead between the engine room and the 12 tank room, please? 13 A. It should be 3.5 frame spacing times 1,250. 14 MR MOK: Do we have a number for that? 15 MR BERESFORD: It will be 3,750, I think, Mr Chairman. 16 THE CHAIRMAN: Thank you. 17 MR MOK: It should be more than that, shouldn't it? 18 THE CHAIRMAN: It sounds as though it should be. 19 MR MOK: It's 3.5 times -- 20 MR BERESFORD: I'm sorry, 3.5. I did 3. 21 MR MOK: Yes. 22 MR BERESFORD: Let me do it again. 3.5 times 1,250 is 23 4,375. 24 MR MOK: What I'm inviting you to do, actually, if it may 25 assist, is to compare the actual length between those</p>	<p>1 Further examination by MR BERESFORD 2 MR BERESFORD: Mr Leung, can we just clarify this, please. 3 If we look at the plan, the drawing at page 204, the 4 Profile and Deck drawing, and going from the transom -- 5 well, we see underneath the side shell profile drawing 6 it says "frame spacing 1,250 mm apart throughout". 7 That's on a line reaching back to frame 0; is that 8 right? Do you agree with that? 9 A. Agree. 10 Q. And then behind that, we see the distance between 11 frame 0 and the transom as being 1,000 mm. 12 A. Yes. 13 Q. We also see the difference marked between frame 0 and 14 frame 1/2, the watertight bulkhead, as being 625 mm. 15 A. Yes. 16 Q. So the distance between the transom and frame 1/2 is 17 1,625 mm; is that right? 18 A. Yes. 19 Q. And 625 mm being half of 1,250 mm, we can infer or 20 calculate that the distance between the watertight 21 bulkhead at frame 1/2 and frame 1 is 625 mm also; is 22 that right? 23 A. The distance between frame 1/2 and frame 1 should be 24 625 mm. 25 Q. Thank you. Then going from the watertight bulkhead</p>
<p>Page 50</p> <p>1 two areas and the Damage Stability Booklet figures. Can 2 I ask you to go back to pages 343 and 344, please. 3 We know on page 344 that there is a mistake there, 4 and the mistake is that either the distance of the after 5 bulkhead or the forward bulkhead was a mistake. Are you 6 aware which one was a mistake? 7 A. At the time, I don't know. 8 Q. Do you know now? 9 A. I haven't made a calculation. 10 MR MOK: All right. I won't take this further. 11 THE CHAIRMAN: Very well. 12 Mr Beresford? 13 MR BERESFORD: Can I just ask if my learned friend was 14 calculating the length of the tank room or the engine 15 room? Because the tank room is 3.5 frames and the 16 engine room appears to be 5 frames. If it's the tank 17 room, then there's nothing further that we need to ask. 18 THE CHAIRMAN: Well, the calculation was the distance 19 between the transom to the aft engine room bulkhead, as 20 I understood it. 21 MR BERESFORD: In that case I better clarify it, 22 Mr Chairman. 23 THE CHAIRMAN: That's my note. 24 Was that your question, Mr Mok? 25 MR MOK: Yes, Mr Chairman.</p>	<p>Page 52</p> <p>1 marked at frame 1/2, and the watertight bulkhead marked 2 at frame 4, there are 3.5 frames distant; is that right? 3 A. Yes. 4 Q. So the distance between those two watertight bulkheads 5 is 3.5 frames, or 3.5 times 1,250, which is 4,375? 6 A. Yes. 7 Q. And that corresponds to the tank room, does it not? 8 A. Yes. 9 Q. Then the next space is from frame 4 to the watertight 10 bulkhead at frame 9; do you see that? 11 A. Yes. 12 Q. That corresponds to the engine room, does it not? If 13 you're not sure, I'll take you to another plan in 14 a moment. But just focusing for the moment on the 15 distance between the bulkheads. That is a distance of 16 five frames, is it not? 17 A. Yes. 18 Q. And five frames is 5 times 1,250, which is 6,250 mm? 19 A. Yes. 20 Q. If we look, please, at the General Arrangement plan 21 which is at page 172, you can see from the profile at 22 the top the frames are marked, and you can see the space 23 between frame 4 and frame 9. If you look down the 24 drawing to the underdeck plan at the bottom, you see 25 that that corresponds to the engine room. Do you agree</p>

<p style="text-align: right;">Page 53</p> <p>1 with that, Mr Leung? 2 A. Agree. 3 Q. So is it fair to say that the engine room, according to 4 these drawings, was 6.25 metres in length? 5 A. Yes. 6 Q. The tank room was 4.375 metres in length? 7 A. Yes. 8 Q. And the steerage gear compartment was 1.625 metres in 9 length? 10 A. Yes. 11 MR BERESFORD: Thank you very much, Mr Leung. 12 THE CHAIRMAN: Thank you, Mr Leung, for coming to assist us 13 with your evidence, which is now complete. You are free 14 to go. You may, of course, if you wish, remain in the 15 hearing this afternoon; that's entirely up to you. 16 Thank you for assisting us. 17 A. Thank you. 18 (The witness withdrew) 19 THE CHAIRMAN: Mr Mok, we'll take your application at 2.30. 20 MR MOK: Yes. 21 THE CHAIRMAN: 2.30. 22 (1.03 pm) 23 (The luncheon adjournment) 24 (2.32 pm) 25 THE CHAIRMAN: Yes, Mr Mok.</p>	<p style="text-align: right;">Page 55</p> <p>1 margin line is concerned, whether or not it is complied 2 with or not complied with, it also sets out the degree 3 or the level of discrepancy there, and no doubt backed 4 up by the calculation in the attachment. So that is, in 5 my respectful submission, a very valuable contribution 6 to this Inquiry. 7 Secondly, this report also focuses not only on the 8 equilibrium or the GMT, but also the margin line 9 question which my learned friend Mr Beresford focused on 10 in some of his questions to the witnesses. So in this 11 regard, I think it also provides a perspective which of 12 some value to the Inquiry. 13 There is also another part of this report which is 14 of some value. If the Commission can look at the table 15 starting on page 26, where Dr Cheng has set out the 16 regime in a number of major countries besides 17 Hong Kong -- 18 THE CHAIRMAN: Yes. 19 MR MOK: -- and all the different requirements, not just the 20 one-compartment flooding requirement but all the 21 requirements, which I believe would be of some value 22 when the Commission considers, for example, the second 23 part of the Inquiry. 24 On this issue, in relation to one-compartment 25 flooding, Dr Armstrong has also flagged up this point in</p>
<p style="text-align: right;">Page 54</p> <p>1 Application by MR MOK 2 MR MOK: Mr Chairman, I trust that the Commission has a copy 3 of the expert report of Dr Peter Cheng? 4 THE CHAIRMAN: Well, we've got a copy of the text of the 5 report. 6 MR MOK: Yes. 7 THE CHAIRMAN: We've asked to see the only copy there 8 currently is of the data that supports it, and we've 9 just had a quick look at that now. But we have a copy 10 of the report itself. 11 MR MOK: Thank you. Mr Chairman and Commissioner Tang, my 12 application is on the following basis, that the 13 information and opinion expressed by Dr Peter Cheng in 14 this report will be of some value to this particular 15 Inquiry. In particular Dr Cheng has performed a fairly 16 comprehensive calculation based on all the different 17 scenarios, including the scenario where the tank room 18 and the steering gear compartment have both been 19 flooded. 20 If I may say, one of the most valuable contributions 21 of this report to this Inquiry is the summary which is 22 set out on page 16, which actually is a more refined 23 version of the sheet of paper which the witness, Mr Wong 24 Chi-kin, had handed up to the Commission. 25 In particular, the Commission can see that where the</p>	<p style="text-align: right;">Page 56</p> <p>1 paragraph 59. After observing that one-compartment 2 floodability is a common standard, he goes on to say: 3 "However, with large passenger numbers (say greater 4 than 100) there becomes a need to consider the risk 5 imposed by 'one-compartment floodability' on such 6 a large number of persons." 7 So he is in fact inviting the Commission to consider 8 this standard, and it will be of value to the Commission 9 to look at the standard which is applied in other 10 countries. 11 Mr Chairman and Mr Commissioner, for all of these 12 reasons I respectfully submit that it does add value to 13 the Inquiry, and I therefore apply for this report to be 14 received as part of the evidence of this Inquiry. 15 THE CHAIRMAN: And, I take it, the oral testimony of 16 Dr Cheng? 17 MR MOK: Yes. 18 THE CHAIRMAN: The matters you've dealt with address the 19 report from pages 1 to 27, but page 28 stands out as 20 being different. 21 MR MOK: Page 28, yes. 22 THE CHAIRMAN: Why are we to be assisted by what is 23 expressed here? It seems to me, if I may say so, to 24 have been stuck on at the end by somebody. 25 MR MOK: No, I think it is his own work, Mr Chairman.</p>

<p style="text-align: right;">Page 57</p> <p>1 THE CHAIRMAN: Right. But why do we need this assistance? 2 MR MOK: I think one of the issues which is touched on but 3 is not all that clear from Dr Armstrong's report is what 4 is the effect of the flooding of the steering gear 5 compartment and the tank room together. 6 THE CHAIRMAN: Isn't that addressed in pages 1 to 27? 7 MR MOK: It is, but I think he is attempted to summarise it, 8 particularly in paragraph 4. 9 THE CHAIRMAN: Why do we need his views upon Mr Leung's 10 witness statement? 11 MR MOK: We don't. 12 THE CHAIRMAN: I'll tell you what we have in mind, subject 13 to submissions from other counsel. We de bene esse are 14 in favour of your application -- 15 MR MOK: Thank you. 16 THE CHAIRMAN: -- but not in respect of page 28. 17 MR MOK: Yes. 18 THE CHAIRMAN: But I'll hear from other counsel now. 19 MR MOK: Yes. May I just say, Mr Chairman, so long as that 20 issue, which I just flagged up, which is the effect of 21 the flooding of the steering gear compartment and tank 22 room together is being canvassed -- 23 THE CHAIRMAN: That certainly is material where we would -- 24 MR MOK: Yes, it's canvassed in the body of the report 25 itself. Thank you.</p>	<p style="text-align: right;">Page 59</p> <p>1 MR SHIEH: In which case -- 2 THE CHAIRMAN: If there is a controversy, then I think we'll 3 be assisted by the receipt of evidence from both sides 4 of the controversy. That's how I'm minded to 5 approach it. 6 MR SHIEH: Yes. That is our position, in fact. Yes. 7 THE CHAIRMAN: Mr Grossman? 8 MR GROSSMAN: We haven't received it yet, Mr Chairman, but 9 having listened to the exchange between your good self 10 and my learned friends, I would respectfully adopt, 11 Mr Chairman, what you have said as being the way 12 forward. 13 THE CHAIRMAN: I'm surprised that you haven't received it. 14 Is there any reason for that? 15 MR GROSSMAN: Three of us haven't. 16 MR MOK: I think the procedure we canvassed before lunch was 17 that I would make the application first before the 18 circulation. I think maybe that was the basis -- 19 THE CHAIRMAN: I think you're right, but that clearly can't 20 proceed on that basis. I think it has to be disclosed 21 to the other parties so that they can make informed 22 submissions. So I think what should happen now is that 23 at least the text part of the report -- because the rest 24 of it is page after page of mathematic calculations -- 25 ought to be given to you now, and I'll hear from you</p>
<p style="text-align: right;">Page 58</p> <p>1 THE CHAIRMAN: Mr Beresford, let me ask you first: is there 2 anything you wish to say about the application? 3 MR BERESFORD: My learned leader is going to deal with this. 4 THE CHAIRMAN: Mr Shieh? 5 MR SHIEH: Mr Chairman, Mr Commissioner, we only received 6 this sometime before lunch. Obviously Dr Armstrong has 7 yet to look at it. On the face of it, if it's simply 8 a matter of placing the information before the 9 Commission de bene esse, then we do not have any 10 positive submissions to make because they do appear to 11 address various scenarios and perform various 12 calculations. But in terms of oral testimony, it may 13 well be that we can usefully defer that consideration 14 until at least the Commission's expert has had a chance 15 to look at it, because, for example -- 16 THE CHAIRMAN: No, no. Let me make it clear: we wish to 17 hear from Dr Armstrong first. 18 MR SHIEH: Yes. 19 THE CHAIRMAN: Currently we are minded to afford Mr Mok the 20 opportunity to, as it were, respond through Dr Cheng, 21 after Dr Armstrong. That's how we're minded to proceed. 22 It may be that when Dr Armstrong has seen this report, 23 that there is no controversy. 24 MR SHIEH: Maybe. Maybe. 25 THE CHAIRMAN: That may be the case.</p>	<p style="text-align: right;">Page 60</p> <p>1 later in the afternoon -- 2 MR MOK: Yes. 3 THE CHAIRMAN: -- and we'll defer the ruling. 4 MR MOK: Of course. 5 (Handed). 6 THE CHAIRMAN: Yes, Mr Beresford? 7 MR BERESFORD: Mr Chairman, Mr Dominic Yeung of counsel is 8 here on behalf of the China Classification Society to 9 make a short application. 10 THE CHAIRMAN: Yes. 11 Mr Yeung? 12 Application by MR YEUNG 13 MR YEUNG: Mr Chairman, Commissioner Tang, those instructing 14 me have written to the Commission to make three 15 applications, and I understand two of those are granted, 16 ie that our client, the China Classification Society, is 17 now an involved party -- 18 THE CHAIRMAN: Yes. 19 MR YEUNG: -- and they will be legally represented. And 20 also that the relevant documents would be provided to 21 them in due course, and I understand that is actually 22 being done. 23 It comes to the third application, which concerns 24 with an order by this Commission that my clients should 25 provide a witness statement.</p>

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<p>1 THE CHAIRMAN: No, it wasn't an order; it was a request. 2 MR YEUNG: Then I misunderstood. Requested a witness 3 statement. 4 THE CHAIRMAN: The two are distinct. 5 MR YEUNG: I'm here to apply for time. 6 THE CHAIRMAN: Let me just go through the chronology and see 7 if you can agree with this. 8 MR YEUNG: Yes. 9 THE CHAIRMAN: On 9 January, a letter was sent to the China 10 Classification Society informing them that the 11 Commission was receiving material that might result in 12 them being criticised and they might wish to take steps 13 as they thought fit. They were asked in that letter to 14 provide a statement and related documents by 16 January. 15 MR YEUNG: Yes. 16 THE CHAIRMAN: On 15 January, DLA Piper wrote to the 17 Commission's solicitors, indicating that they expected 18 to be able to comply with the request for a statement 19 and documents on or before 30 January. 20 MR YEUNG: Correct. 21 THE CHAIRMAN: On the following day, the 16th, the 22 Commission responded, saying that in all the 23 circumstances, it wished to receive the material by noon 24 today. So that time has come and gone. 25 MR YEUNG: Yes. Also, if I may supplement. Actually in the</p>	<p>1 provided to them to assist them in identifying other 2 relevant documents that might still be in their custody. 3 That is why there is this delay, and why they can 4 only realistically provide the witness statement as 5 requested by 30 January. 6 THE CHAIRMAN: How is that date happened upon? How was the 7 30th chosen, rather than tomorrow or Monday? 8 MR YEUNG: Because they thought, with all the documents 9 provided, and they will try -- because very soon, if we 10 have the documents, then very soon they would be able to 11 identify whether or not there are documents to assist 12 them. If no, then that's the end of it; if yes, then of 13 course they will try their very best to ... 14 THE CHAIRMAN: Yes. So what is your application? 15 MR YEUNG: The application is that the witness statement as 16 requested by the Commission to be provided on or before 17 30 January 2013. And they do apologise for not being 18 able to comply with the request today. 19 THE CHAIRMAN: Do any counsel wish to make any submission? 20 I see a shaking of heads. 21 Mr Yeung, the requests that we make -- and we've 22 made this with other parties, because they all have 23 similar difficulties -- is that the documents are 24 provided as soon as practicable. That's all we'll 25 specify. What we ask is if some documents are</p>
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<p>1 letter from DLA Piper to Lo &amp; Lo, it's pointed out that 2 the China Classification Society needs documents in 3 order to assist them to provide that witness statement. 4 It was in the reply of the 16th that China 5 Classification Society applied to become an involved 6 party, before documents could be provided to them. 7 THE CHAIRMAN: Yes, and that application was only made 8 today. 9 MR YEUNG: Yes, together with the first application of being 10 an involved party. 11 THE CHAIRMAN: Yes. 12 MR YEUNG: The reason being, if I may, Mr Chairman, is that 13 actually Mr Su, the one who signed off the survey 14 report, retired some 10 years ago and he is now aged 15 around 70 -- we are not quite sure, but around 70. And 16 it is the company's policy that documents will only be 17 kept for five years. China Classification Society has 18 their headquarters in Beijing. They do have a branch 19 office in Guangzhou. So during this time, those 20 instructing me have made more than three trips to 21 Shenzhen to take instructions, and they only communicate 22 in Chinese, and there's a lot of translation needed to 23 be done. 24 The main problem is that there is this lack of 25 documents, and they do need documents that could be</p>	<p>1 available, they be made available sooner rather than 2 later. But we're moving into a part of the evidence 3 which will take expert testimony, and what we have tried 4 to do is to put factual evidence into place first. So 5 all we ask is that your lay clients provide us with the 6 assistance they can, as best they can, as soon as they 7 can. 8 MR YEUNG: I'm sure they will certainly do that and we will 9 certainly impress this upon our client. 10 THE CHAIRMAN: Thank you. 11 MR YEUNG: Thank you. May I be excused? 12 THE CHAIRMAN: Yes, of course. Thank you for attending. 13 MR YEUNG: Thank you. 14 THE CHAIRMAN: Mr Beresford? 15 MR BERESFORD: Mr Chairman, the next witness is Mr Mak 16 Yat-wai. 17 MR MAK YAT-WAI (affirmed in Punti) 18 (All answers via interpreter unless otherwise indicated) 19 Examination by MR BERESFORD 20 MR BERESFORD: Good afternoon, Mr Mak. Thank you for 21 attending this afternoon to assist the Commission with 22 its Inquiry. I have some questions to ask you on behalf 23 of the Commission. 24 Mr Mak, you have previously made some statements and 25 I think given an interview to the Marine Department, and</p>



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<p>1 we have the notes of your interview with the Marine 2 Department in our marine bundle 10 at pages 2936 to 3 2943, the translation is at pages 2943-1 to 2943-9; and 4 a witness statement at marine bundle 11 at pages 4029 to 5 4034. 6 Do you have those documents in front of you, Mr Mak? 7 A. Yes. 8 Q. Do you recognise your signature on those documents? 9 A. Yes. 10 Q. Have you had an opportunity to review those documents 11 today? 12 A. Yes. 13 Q. And do you have any amendment you would wish to make? 14 A. In general, they are okay. 15 Q. So are the contents of these documents true? 16 A. Yes. 17 Q. Thank you. Mr Mak, you were formerly a senior ship 18 inspector with the Marine Department until you retired 19 from the Government in May 2001; is that right? 20 A. Yes. 21 Q. You had a Higher Certificate in Naval Architecture 22 granted by the Hong Kong Polytechnic in 1987? 1977, 23 that should be. 24 A. The year should be 1977. 25 Q. Yes. Thank you. And you joined the Marine Department</p>	<p>1 Q. Are they the initials to the right? 2 A. Yes. 3 Q. Thank you. And then the Damage Stability Information -- 4 in your statement, it gives the same reference, 5 pages 456 to 471, but it's a different booklet, isn't 6 it? If you look at page 473, that is a document headed 7 "Damage Stability Information" with a Marine Department 8 "seen" stamp, also dated 13 January 1999. 9 Is that the document you're referring to when you 10 refer to the Damage Stability Information Booklet? 11 A. Yes. 12 Q. Thank you. Do you recognise your signature in or around 13 that Marine Department "seen" stamp? 14 A. Yes. 15 Q. Thank you. You've told us: 16 "Since the events in question took place a long time 17 ago, I no longer have any independent recollection of 18 the circumstances in which they took place." 19 A. Yes. 20 Q. "Nor do I have a clear recollection of the relevant 21 requirements for stability or how those calculations 22 were done, since I have not referred to [any such 23 things] since ... 2001." 24 A. Yes. 25 Q. Nevertheless:</p>
<p>Page 66</p> <p>1 in 1978 as a naval architectural design draftsman in the 2 Government New Vessel Division? 3 A. Yes. 4 Q. You were posted to the Local Vessels Safety Section, 5 then known as the Local Craft Safety Section, between 6 1989 and 1991, and 1995 and 2001, as a ship inspector; 7 is that right? 8 A. Yes. 9 Q. Your duties in the Local Vessels Safety Section included 10 witnessing inclining experiments, lightship 11 verifications and the approval of stability 12 calculations; is that right? 13 A. Yes. 14 Q. In the statement that you've provided to the Commission, 15 you have explained your role as ship inspector in 16 witnessing the inclining experiment of Lamma IV on 17 2 April 1998, and the checking of the Inclining 18 Experiment and Stability Booklet, and the Damage 19 Stability Information Booklet as well. 20 A. I did participate in the Damage Stability Booklet. 21 Q. These are to be found in our marine bundle 3 at tab 83, 22 starting from page 456. This has a Marine Department 23 "seen" stamp dated 13 January 1999. Do you see your 24 signature or initials in or about that stamp? 25 A. Yes.</p>	<p>Page 68</p> <p>1 "Based on the records provided by the Marine 2 Department, I am able to confirm that I was the ship 3 inspector who attended the inclining experiment and 4 checked the stability calculations for Lamma IV." 5 A. Yes. 6 Q. Those, of course, being the 1999 calculations that we've 7 just looked at. 8 If we could just have a look at the other document 9 you refer to, which is in marine bundle 4, tab 165, 10 starting at page 831. We see at page 834, by the date 11 2 April 1998, "Inclining Experiment witnessed" -- is 12 that "record enclosed"? 13 A. Yes. 14 Q. And is that "81" in brackets? 15 A. The survey records were enclosed in 81. 16 Q. Is that a reference to the booklets that we've just 17 looked at? 18 A. Those are the records of the inclining experiment. 19 Q. That's the document beginning at page 456 of marine 20 bundle 3, is it? 21 A. Yes, correct. 22 THE CHAIRMAN: Mr Beresford, is there some mistake about the 23 date? Because the inclining booklets weren't provided 24 until October 1998, and the experiment is said to have 25 taken place on 2 April 1998.</p>

<p style="text-align: right;">Page 69</p> <p>1 MR BERESFORD: I'll have to clarify that with the witness, 2 Mr Chairman. 3 THE CHAIRMAN: Yes. 4 MR BERESFORD: Mr Mak, I don't know if you heard the 5 Chairman's question but he points out that at page 455, 6 the covering letter is dated 20 October 1998, and it 7 says: 8 "With reference to the captioned project [ie the 9 Lamma IV], we are pleased to submit herewith three 10 copies of the inclining experiment and stability 11 calculation (with trimming lead ballast) for your 12 approval." 13 That, of course, is dated sometime after the date 14 that you witnessed the experiment. 15 I should also draw your attention to the document at 16 tab 79 of the bundle. The covering letter is at 17 page 428. It's dated 10 March 1998. It's from Cheoy 18 Lee to the Marine Department, saying, "We wish to keep 19 you informed that the shipowner is going to install 20 vessel trimming ballast of 8.25 tonnes of lead in 21 a fibreglass container sometime next week." 22 They submitted copies of the Revised Stability 23 Booklet, Damage Stability Information (Revised B), and 24 Arrangement of Lead Ballast, and those documents would 25 appear to be behind that letter in that bundle.</p>	<p style="text-align: right;">Page 71</p> <p>1 and as you note in paragraph 8 of your witness 2 statement, "in 1998 Cheoy Lee requested for trimming 3 ballast of 8.25 tonnes of lead to be placed in the 4 steering gear compartment and the tank room of 5 Lamma IV." 6 Is that right? 7 A. You mean a letter has been sent to us? 8 Q. Yes. 9 A. Where is the letter? 10 Q. It's the letter of 10 March 1998 that we just looked at 11 a moment ago, at page 428 of the bundle. 12 A. This letter was addressed to the section head for 13 acceptance. It was -- 14 A. (Chinese spoken). 15 Q. Mr Mak -- 16 A. It says we make a request to Mr WS Ho, our section head, 17 and says that it has been installed. 18 Q. Yes, Mr Mak. We can all read the correspondence. 19 Can I refer you to paragraph 8 of your witness 20 statement, please. This is the witness statement you 21 just told me the content of which was true. You've said 22 in your witness statement: 23 "I note from Mardep's records that in 1998, Cheoy 24 Lee requested for trimming ballast of 8.25 tonnes of 25 lead to be placed in the steering gear compartment and</p>
<p style="text-align: right;">Page 70</p> <p>1 So are you able to recall what happened or explain 2 what happened then? 3 THE CHAIRMAN: There is another document that might help, 4 and that's at page 457, in which the inclining 5 experiment is described as being carried out in the 6 presence of this witness and two Cheoy Lee Shipyards 7 employees, and then a time is given on 2 April 1998 at 8 Lai Chi Kok. 9 MR BERESFORD: Thank you, Mr Chairman. 10 MR SHIEH: I think the question also mentioned "in the 11 presence of this witness". I think that is what 12 Mr Chairman said. 13 THE CHAIRMAN: Yes. Perhaps if you could just translate 14 that. We're just reading at page 457 -- you can 15 probably follow it in the English: conducted in your 16 presence. 17 Yes, Mr Beresford. 18 MR BERESFORD: So can you explain, please, what happened 19 there? 20 A. On 2 April, the inclining experiment was done. 21 Q. And why is it that the booklet comes so late? 22 A. It is normal for the booklet to come later, because it 23 was only after the experiment was done that the 24 calculation could be worked out. 25 Q. I see. Thank you. As we've seen in the correspondence,</p>	<p style="text-align: right;">Page 72</p> <p>1 the tank room of Lamma IV." 2 Do you see that, Mr Mak? 3 A. Yes. 4 Q. Is that true or is it not true? 5 A. I don't know. 6 Q. This is your statement, is it? 7 A. I haven't signed this letter. 8 Q. No, but you've signed your statement, Mr Mak, at 9 page 4033. 10 A. It sent us the revised calculation, telling us that the 11 ballast has been installed and that the stability is 12 already revised. 13 Q. Mr Mak, would you look at your statement, please. Can 14 you see paragraph 8 of your statement? 15 A. (Chinese spoken). 16 Q. Mr Mak, answer the question, please. Can you see 17 paragraph 8 of your statement? 18 A. Yes. 19 Q. Is that your statement, or did somebody else write it? 20 A. It's not written by me. You can see the Chinese here. 21 A. (In English) Chinese? 22 A. Where is the Chinese? 23 Q. Your statement is written in English, Mr Mak. Do you 24 not speak English? 25 THE CHAIRMAN: Perhaps to help Mr Mak, Madam Interpreter,</p>

<p style="text-align: right;">Page 73</p> <p>1 you could just translate for him what is in paragraph 8. 2 It's only three lines. 3 THE INTERPRETER: Okay. Yes, Mr Chairman. 4 THE CHAIRMAN: Listen, Mr Mak. 5 All counsel is trying to do is to help you by 6 referring you to the documents. We've seen a letter 7 from Cheoy Lee to the Marine Department dated 10 March, 8 in which they were informing the Marine Department that 9 their client wished to add 8.25 tonnes of trimming 10 ballast to the vessel. Do you understand? 11 A. Yes. 12 THE CHAIRMAN: We're just trying to understand the story as 13 it unfolded. That seems to explain why on 2 April 1998 14 you were involved in an inclining experiment. 15 A. Yes. 16 THE CHAIRMAN: Yes, Mr Beresford. 17 MR BERESFORD: You say, Mr Mak, that you can no longer 18 recall whether you were responsible for checking the 19 arrangement of the lead ballast; is that right? 20 A. Yes. 21 Q. You say: 22 "I also cannot recall whether and if so what 23 drawings or documents I consulted before attending the 24 inclining experiment." 25 A. Yes.</p>	<p style="text-align: right;">Page 75</p> <p>1 particular inclining experiment what you did on that 2 occasion. 3 A. Yes. 4 Q. But that: 5 "... generally, before the inclining experiment the 6 shipyard would provide a set of measurements prepared by 7 them [that is, the shipyard], and during the inclining 8 experiment we would note down the measurements on or 9 make changes to that draft by hand eg the draught marked 10 as observed." 11 A. These are the information in enclosed 81, in the 12 enclosure 81. 13 Q. I see. Thank you. So, you say -- in fact, you're 14 slightly ahead of me, Mr Mak, because you say: 15 "After the inclining experiment was completed, the 16 shipyard would give me a photocopy of the draft 17 measurements as amended for the record. I would file 18 that copy in the Mardep's files and use it as the basis 19 of my checking of the stability calculations." 20 A. Yes. 21 Q. So that's what would be found at number 81 on the file; 22 is that right? 23 A. I believe so. 24 Q. Yes. Thank you. 25 Then you tell us:</p>
<p style="text-align: right;">Page 74</p> <p>1 Q. But you say: 2 "Generally, in the case of new vessels I would have 3 consulted the drawings referred to in answer (4) of my 4 statement given to Mardep on 6 December 2012 ..." 5 A. Yes. 6 Q. And you have helpfully given the reference there: marine 7 bundle 10, page 2937. We can see the English 8 translation at page 2943-2. That's showing on the 9 screen now, Mr Mak. That says: 10 "Before assisting in the examination and approval of 11 stability booklets (and) damage stability booklets at 12 that time, I would consult the approved drawings, such 13 as 'General Arrangement', 'Lines Plan', 'Midship 14 Section' (and) 'Profile and Deck'. Other (approved 15 drawings, such as) 'Sections and Bulkheads' could be 16 consulted if necessary. Likewise, when assisting in the 17 examination and approval of the Stability Booklet and 18 Damage Stability Booklet of Lamma IV in respect of the 19 addition of 'permanent lead ballast', (I) consulted the 20 above approved drawings such as 'General Arrangement', 21 'Lines Plan', 'Midship Section', 'Profile and Deck'. 22 The (drawing on) 'Sections and Bulkheads' could be 23 consulted if necessary." 24 A. Yes. 25 Q. And you say that you cannot recall in the case of this</p>	<p style="text-align: right;">Page 76</p> <p>1 "After the shipyard submitted the stability 2 calculations, they would be assigned to the ship 3 inspector who witnessed the inclining experiment for 4 checking." 5 That, of course, in the case of Lamma IV in 1998, 6 was you. 7 A. There is no record to the effect that I was the witness 8 of the experiment. 9 A. (In English) Witness of the ballast installation. 10 (Chinese spoken). 11 A. I witnessed the inclining experiment. 12 A. (In English) Yes. 13 Q. Yes. You've already told us that you witnessed the 14 inclining experiment on 2 April 1998; is that right? 15 A. Yes. 16 THE CHAIRMAN: Have a look at page 452 of that marine 17 bundle 3, please. That seems to be a record of the fact 18 that you were a witness. 19 Is that your writing? 20 A. Are you referring to this document? 21 THE CHAIRMAN: Page 452 on the screen. Is that your 22 writing? 23 A. These were done by me in collaboration with the staff of 24 the shipyard. 25 THE CHAIRMAN: So it's your writing on the document? "Yes"</p>

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<p>1 or "no", Mr Mak?</p> <p>2 A. It is possible that part of them were written by me, but</p> <p>3 most of them were provided to me.</p> <p>4 THE CHAIRMAN: I'm not talking about the source of the</p> <p>5 information. It's simply a question about the</p> <p>6 handwriting. Is that your handwriting or not?</p> <p>7 A. (In English) No.</p> <p>8 THE CHAIRMAN: Thank you.</p> <p>9 MR BERESFORD: That shows your name at the top of the page,</p> <p>10 does it not?</p> <p>11 A. Yes.</p> <p>12 Q. And the date, 2 April 1998?</p> <p>13 A. Yes.</p> <p>14 Q. And it records the sounding of the tanks?</p> <p>15 A. Yes.</p> <p>16 Q. And it records the bilge conditions in each of the six</p> <p>17 compartments, does it not?</p> <p>18 A. Yes.</p> <p>19 Q. Fore peak, dry; void space, dry; crew space, dry; engine</p> <p>20 room, dry; steering compartment, dry; tank space, dry.</p> <p>21 A. Yes.</p> <p>22 Q. So you would have had to have gone into those</p> <p>23 compartments to satisfy yourself that that was correct,</p> <p>24 would you not?</p> <p>25 A. Yes. I only need to enter into some of the</p>	<p>1 Q. This shows the fore peak compartment flooded at page 1</p> <p>2 of the booklet, page 443 of the bundle; the void space</p> <p>3 flooded at page 2 of the booklet, page 444 of the</p> <p>4 bundle; the crew space flooded at page 3 of the booklet,</p> <p>5 page 445 of the bundle; the engine room compartment</p> <p>6 flooded at page 4 of the booklet, page 446 of the</p> <p>7 bundle; the tank space flooded at page 5 of the booklet,</p> <p>8 page 447 of the bundle; and the steering gear</p> <p>9 compartment flooded at page 6 of the booklet, page 448</p> <p>10 of the bundle.</p> <p>11 Then attached to this booklet is a drawing which is</p> <p>12 entitled, top right-hand corner, "Arrangement of Lead</p> <p>13 Ballast".</p> <p>14 So we see in that booklet one page for each of the</p> <p>15 six compartments dealing with the assumption that</p> <p>16 they're flooded, the same six compartments that you</p> <p>17 inspected on 2 April 1998. Do you agree, Mr Mak?</p> <p>18 A. Yes.</p> <p>19 Q. And these --</p> <p>20 A. I didn't inspect, but to check if they are dry.</p> <p>21 Q. Yes.</p> <p>22 A. I would like to say something.</p> <p>23 Q. Yes, Mr Mak.</p> <p>24 A. This damage stability calculation submitted by the</p> <p>25 shipyard shows that all the compartments are independent</p>
Page 78	Page 80
<p>1 compartments, but for the compartments which could be</p> <p>2 observed, there is no need to go in.</p> <p>3 Q. But that means you saw all the compartments, does it?</p> <p>4 A. I verified them.</p> <p>5 Q. By sight?</p> <p>6 A. Yes.</p> <p>7 Q. You tell us:</p> <p>8 "Upon receipt of the Inclining Experiment Booklet</p> <p>9 and the Damage Stability Booklet, I would have extracted</p> <p>10 the relevant data and information from (a) the</p> <p>11 measurements taken from the inclining experiment set out</p> <p>12 in the copy given by the shipyard and filed by me; (b)</p> <p>13 the data provided in those booklets, eg the weights and</p> <p>14 their location; and (c) the data in the 'Lines Plan'</p> <p>15 drawing into a computer software maintained by the</p> <p>16 Mardep, which would then generate results in the form of</p> <p>17 computer printouts showing whether the intact and damage</p> <p>18 stability requirements had been complied with."</p> <p>19 A. The enclosure 81 was used as a basis for checking the</p> <p>20 inclining experiment. As for the damage stability, we</p> <p>21 used the software of the Marine Department to calculate</p> <p>22 the criteria of the requirement.</p> <p>23 Q. And we can see the Damage Stability Booklet commencing</p> <p>24 at page 442 of the bundle, can we not?</p> <p>25 A. Yes.</p>	<p>1 and not combined. This indicates that the bulkheads are</p> <p>2 watertight.</p> <p>3 (Chinese spoken) --</p> <p>4 Q. Thank you, Mr Mak. That was going to be my question.</p> <p>5 But they weren't watertight, were they?</p> <p>6 A. They are watertight.</p> <p>7 Q. The bulkhead between the tank space and the steering</p> <p>8 gear compartment was not watertight, was it?</p> <p>9 A. (Chinese spoken).</p> <p>10 Q. Mr Mak, can you either keep your answers short or else</p> <p>11 a pause and deliver it in chunks so that the interpreter</p> <p>12 can interpret it.</p> <p>13 A. It was not watertight during the course of construction,</p> <p>14 but the shipyard should make it watertight for the sake</p> <p>15 of damage stability, because during the course of work,</p> <p>16 it was not permanent because it was there to facilitate</p> <p>17 the workers to go in and out of it.</p> <p>18 THE CHAIRMAN: By that are you referring to an access door,</p> <p>19 or access hole? Is that what you mean?</p> <p>20 A. Anyway, it is -- in any case, it is an opening. But the</p> <p>21 size would depend on the scale of the project. It just</p> <p>22 to facilitate the work.</p> <p>23 MR BERESFORD: Let me show you a photograph, Mr Mak.</p> <p>24 Could we please have a look at marine bundle 1,</p> <p>25 page 162.</p>

<p style="text-align: right;">Page 81</p> <p>1 This is a photograph taken by the Marine Department, 2 Mr Mak. Do you see that it's labelled "Access opening 3 to the steering compartment", and the bulkhead is 4 labelled "Tank room aft bulkhead". And the third arrow 5 points to the port side steering gear inside the 6 steering gear compartment. 7 A. On the left-hand side. Yes. 8 Q. So the bulkhead in that picture can't be described as 9 watertight, can it, Mr Mak? 10 A. Yes. 11 Q. And you would have seen that when you inspected the 12 vessel, wouldn't you? 13 A. I didn't see it while I performed the inclining 14 experiment. 15 Q. Well, you've made a note here in your note at page 452, 16 that both the tank space and the steering compartment 17 bilge conditions were dry. 18 A. I did not necessarily go in through that access. 19 I might enter through the deck. 20 Q. But you would still have seen that access opening, 21 wouldn't you, Mr Mak? 22 A. I don't remember. I have no recollection. 23 Q. Because, according to the figures on page 448, the 24 steerage compartment is only 0.87 of a metre long. And 25 according to the drawing --</p>	<p style="text-align: right;">Page 83</p> <p>1 A. According to this figure, then this is correct. 2 Q. Yes. Then can I please show you page 204 in marine 3 bundle 2, which is the Profile and Deck drawing. If you 4 look at the side shell profile, at the stern, you see 5 that the distance from the transom to the first 6 watertight bulkhead at frame 1/2 is measured at 7 1.625 metres. 8 A. Yes. 9 Q. So there is a discrepancy there, is there not, Mr Mak? 10 A. Yes. 11 Q. Are you able to explain that discrepancy? 12 A. I cannot give an explanation. 13 Q. Fair enough. But I think you said you thought that the 14 measurement in the Damage Stability Booklet was 15 unreasonable. 16 A. I didn't say that. When did I say that? 17 THE CHAIRMAN: That's my note of what you said. No doubt 18 that was a reference to the fact that a steering 19 compartment was less than a metre. 20 A. Sorry, I said the wrong thing. 21 MR BERESFORD: What did you mean to say, Mr Mak? 22 A. I don't remember. 23 Q. Well, would you agree that 0.87 of a metre is obviously 24 wrong? 25 A. This is from computer software, and I don't understand</p>
<p style="text-align: right;">Page 82</p> <p>1 THE CHAIRMAN: Do you see that, first of all? Page 448, 2 from the figures "Aft BHD" to "Fwd BHD", one can 3 calculate that the compartment was only 0.87 metres 4 long. Do you see that? According to this. 5 A. Is it 12.445 to 11.572? 6 MR BERESFORD: That's what the document says, Mr Mak, yes. 7 THE CHAIRMAN: I think it's 11.575 rather than 11.572. 8 MR BERESFORD: So the aft bulkhead of the steering gear 9 compartment is shown on page 448 as being 12.445 metres 10 aft of the midship line. Do you agree with that? 11 A. Yes. 12 Q. And the forward bulkhead of the steering gear 13 compartment is shown as being 11.575 metres aft of the 14 midship line. Do you agree with that? 15 A. Agree. 16 Q. So if you subtract the 11.575 from the 12.445, you get 17 0.87, don't you? 18 A. Yes. 19 Q. So, according to that document, the length of the 20 steering compartment is only 0.87 of a metre; do you 21 agree with that? 22 Do you agree with that, Mr Mak? 23 A. This is not reasonable. 24 Q. That may be right, but I'm asking you if you agree with 25 what that document says.</p>	<p style="text-align: right;">Page 84</p> <p>1 how the convention was. 2 THE CHAIRMAN: But 0.87 of a metre for the length of 3 a steering compartment is clearly a wrong calculation, 4 is it not? 5 A. Personally, I suspect that this might be the LCG of the 6 tank. 7 MR BERESFORD: Be that as it may, Mr Mak, because I'm not 8 asking you to speculate, just to tell us what you know. 9 A. Okay. Thank you. 10 Q. But whether the steering compartment was 0.87 of a metre 11 long, or whether it was 1.625 metres long, you could not 12 have missed the fact that it had a large access opening 13 as we saw in the photograph at marine bundle 1, 14 page 162, could you? 15 A. I really have no recollection. 16 Q. Anyway, you approved the Damage Stability Booklet on the 17 basis that the vessel had six watertight compartments; 18 is that right? 19 A. Yes. 20 Q. And it didn't occur to you that you might need to 21 measure the tank room and the steering gear compartment 22 together; is that right? 23 A. But because when it was provided to us, each of them has 24 to be done individually, and no request was made. But 25 here, it says that it has to be watertight.</p>

<p style="text-align: right;">Page 85</p> <p>1 Q. Yes. Thank you. Can I draw attention to answer 8 in 2 the notes of your interview. The English translation is 3 at page 2943. The Chinese begins at page 2936. 4 You were asked this question at question 7: 5 "In relation to maximum permissible length of 6 compartment in question 5, please advise whether there 7 is any special treatment in the calculation of damage 8 stability if the length of the space is less than 0.1L 9 in the Local Craft Safety Section/Local Vessels Safety 10 Section. If so, is there any policy documentation that 11 explains this requirement?" 12 You answered: 13 "As far as I can recall, I have never come across 14 any requirements for compartment (space) which is less 15 than 0.1 of the length. I cannot quite recall if there 16 was any policy documentation." 17 A. I have no recollection. 18 Q. Finally, Mr Mak, I've been showing you -- we've been 19 looking at the damage stability calculation which is 20 dated 25 March 1998. That was the estimated version 21 that first came in from the shipyard, which can be seen 22 from page 442. But we can see the final version, the 23 October version, at pages 473 to 479. 24 THE CHAIRMAN: Perhaps we could go to page 472 first, 25 because that makes clear what then follows.</p>	<p style="text-align: right;">Page 87</p> <p>1 THE CHAIRMAN: Very well. 2 Examination by MR PAO 3 MR PAO: Mr Mak, do you remember in paragraph 13 of your 4 witness statement, you said that you extracted various 5 data -- well, you would have extracted various data and 6 fed it into the Marine Department computer to generate 7 certain results in relation to damage stability 8 requirements? 9 A. The various data refers to the line plans and the GA 10 compartments. 11 Q. That's what I mean, yes. You remember giving that 12 statement? 13 My question is, at the time when you fed that data 14 into the computer, were you aware that data relating to 15 the steering gear compartment and the tank room, tank 16 compartment, had to be considered as one compartment so 17 far as damage stability requirements are concerned? 18 A. Yes. 19 Q. So you have done that calculation? 20 A. The program was run by the software. 21 Q. So you are satisfied the requirement has been complied 22 with, and that's why you stamped the stamp on it, the 23 "seen"? 24 A. Yes. 25 MR PAO: Thank you, Mr Mak.</p>
<p style="text-align: right;">Page 86</p> <p>1 MR BERESFORD: Certainly, Mr Chairman. Thank you. 2 At page 472, we see the covering letter from Cheoy 3 Lee Shipyards to the Marine Department. It says: 4 "... we are pleased to submit herewith three copies 5 of the (Final) Damage Stability Information booklets for 6 your kind approval." 7 Then behind that letter, we see a copy of the Final 8 Damage Stability Information Booklet. 9 A. Yes. 10 Q. And there's no significant change there, is there, in 11 relation to the matters that we've been discussing? 12 A. Yes. 13 Q. Is that right, Mr Mak? No difference in relation to any 14 of the matters that we've been discussing, is there? 15 A. In comparison to what? 16 Q. In comparison to the draft. You've got one starting at 17 page 473, and one starting at page 442. 18 A. Yes. 19 MR BERESFORD: Thank you, Mr Mak. I have no further 20 questions. Please wait there. 21 MR GROSSMAN: I have no application, thank you. 22 MR SUSSEX: Mr Chairman, I have no questions. 23 MR PAO: Mr Chairman, I do have one question for this 24 witness in relation to the calculations of the damage 25 stability before he put the "seen" stamp on the report.</p>	<p style="text-align: right;">Page 88</p> <p>1 THE CHAIRMAN: Yes, Mr Mok? 2 MR MOK: Just one question on the inspection of the bilge 3 condition. 4 THE CHAIRMAN: Yes. 5 Examination by MR MOK 6 MR MOK: Mr Mak, one of the matters that you looked at was 7 the bilge condition, in the course of performing your 8 inclining experiment. 9 A. Yes. 10 Q. Can you explain what the bilge condition is? What were 11 you checking? 12 A. Whether there is water or not. 13 Q. That would be called bilge water, would it? 14 A. Yes. 15 Q. Can you inform the Commission, when you were checking 16 for the bilge water condition, what was the lighting 17 condition inside those compartments? 18 A. Just the ordinary one that allows you to see. 19 Q. My question is, was there electricity so that there were 20 some lightbulbs being lit up, or did you have to use 21 a torch to look at the bilge condition? 22 A. I have no recollection. 23 Q. Not in relation to this particular vessel, but what 24 about the -- is there any general situation, or they're 25 all different?</p>

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1 A. If there is water in the free surface, it will affect 2 the GM because the water will flow and it will affect 3 the collection, and it is -- 4 (Chinese spoken). 5 A. If they don't have to do the collection, it will be less 6 confusing because it won't affect the GM. 7 Q. Let me try once more to ask this question. In the 8 general case when you were checking the bilge condition 9 in a vessel, would you find in the compartment where the 10 bilge water was to be found, whether or not there would 11 be electricity so the compartment would be lightened by 12 a lightbulb, or would you normally have to carry a torch 13 in order to give yourself lighting in the compartment? 14 A. Both are possible. 15 MR MOK: Thank you. 16 THE CHAIRMAN: Mr Beresford? 17 Further examination by MR BERESFORD 18 MR BERESFORD: Mr Mak, you told me that you have never come 19 across any requirements for compartment space which is 20 less than 0.1L. And you told my learned friend Mr Pao 21 that you were aware of a requirement in relation to 22 compartment space that was less than 0.1L, and that you 23 left it to the computer to work out. 24 THE CHAIRMAN: No, I don't think it was dealt with in terms 25 of 0.1L; it was dealt with on the basis that he	1 that in the course of construction or was that after 2 construction was completed? 3 THE CHAIRMAN: This is on 2 April 1998? 4 MR BERESFORD: Yes. I should perhaps make it clear that I'm 5 talking about the addition of the ballast. 6 THE CHAIRMAN: Yes. 7 A. It is one of the construction items to be done. 8 THE CHAIRMAN: But by 2 April 1998, this was a certified 9 vessel that was in service, was it not? 10 A. It should be. 11 MR BERESFORD: The only issue of construction was the 12 installation of the additional ballast. 13 A. That should be the case. 14 Q. And surely that had been completed when you witnessed 15 the inclining experiment? 16 A. It is because the ballast has been added, so the 17 inclining experiment has been done. So during the 18 inclining experiment, the ballast must have been in 19 place. 20 Q. Yes. So it wasn't in the course of construction. When 21 you witnessed the inclining experiment on 2 April 1998, 22 the vessel was not in the course of construction, was 23 it, Mr Mak? 24 A. But there might be other works to be done, but I have no 25 idea about this.
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1 understood that the steering compartment and the tank 2 room had to be considered together. 3 MR BERESFORD: I see. 4 THE CHAIRMAN: That may or may not have its foundations in 5 what you're putting, but that's not the basis on which 6 he answered the question. 7 MR BERESFORD: Thank you, Mr Chairman. Perhaps I can 8 rephrase my question. 9 You told me that the damage stability calculation 10 was performed on the basis that all six compartments 11 were watertight and separate. 12 A. Yes. 13 Q. And you told my learned friend Mr Pao that the steering 14 gear compartment and the tank room had to be computed as 15 though they were one compartment. 16 A. My understanding is that these two compartments were 17 independent and there was no need to treat them as 18 combined. But a watertight bulkhead has to be in place. 19 Q. Yes. Okay. Thank you. 20 A. But, of course, during the course of construction, it is 21 allowed. 22 Q. When you say "it", you are referring to the access 23 opening without a watertight door; is that right? 24 A. An opening for going in and out. 25 Q. Yes. When you witnessed the inclining experiment, was	1 MR BERESFORD: I'll leave it there, Mr Chairman. 2 Thank you, Mr Mak. 3 THE CHAIRMAN: The ballast, Mr Mak, that was added to the 4 tank compartment; is that correct? 5 A. From the record, yes. According to the record. 6 THE CHAIRMAN: Yes. 7 Yes, Mr Mak. Thank you for coming to assist the 8 Commission with your evidence, but your evidence is now 9 complete and you are free to go. On the other hand, if 10 you wish to stay and listen to evidence, you're welcome 11 to do so, as any other member of the public. 12 A. Thank you. 13 (The witness withdrew) 14 THE CHAIRMAN: Mr Beresford? 15 MR BERESFORD: Mr Chairman, the next witness is Mr Chau 16 To-yui. 17 MR MOK: Mr Chairman, if we could deal with the application 18 for Dr Cheng's -- is this an appropriate time? Because 19 I see we only have -- 20 THE CHAIRMAN: We'll start the witness. I like to encourage 21 a witness who has been kept waiting all day by at least 22 getting him started. 23 MR MOK: Yes. 24 25

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<p>1 MR CHAU TO-YUI (affirmed in Puntì)</p> <p>2 (All answers via interpreter unless otherwise indicated)</p> <p>3 Examination by MR BERESFORD</p> <p>4 MR BERESFORD: Good afternoon, Mr Chau, and thank you very</p> <p>5 much for coming and assisting this Commission with its</p> <p>6 Inquiry. I have some questions to ask you on behalf of</p> <p>7 the Commission.</p> <p>8 A. I understand.</p> <p>9 Q. Mr Chau, you have previously given an interview to the</p> <p>10 Marine Department, I understand, and you've also made</p> <p>11 a witness statement. The notes of your interview are</p> <p>12 contained in marine bundle 8 at pages 1942 to 1948, with</p> <p>13 a translation into English at pages 1948-1 to 1948-9.</p> <p>14 Your witness statement may be found in our marine</p> <p>15 bundle 11 at pages 4003 to 4008.</p> <p>16 Do you have copies of those two documents, even the</p> <p>17 originals, before you, Mr Chau?</p> <p>18 A. Correct.</p> <p>19 Q. Do you recognise your signature on those documents?</p> <p>20 A. Yes.</p> <p>21 Q. Have you had an opportunity to remind yourself of their</p> <p>22 content today?</p> <p>23 A. No.</p> <p>24 Q. Would you like to look at them now and just remind</p> <p>25 yourself of what they say? Tell me if there's any</p>	<p>1 (The witness stood down)</p> <p>2 THE CHAIRMAN: Gentlemen, are there any submissions arising</p> <p>3 in respect of Mr Mok's application in respect of</p> <p>4 Dr Peter Cheng?</p> <p>5 Mr Grossman?</p> <p>6 MR GROSSMAN: Not from me, thank you.</p> <p>7 THE CHAIRMAN: Mr Sussex?</p> <p>8 MR SUSSEX: Nothing from me, Mr Chairman.</p> <p>9 THE CHAIRMAN: Mr Pao?</p> <p>10 MR PAO: No strong views, Mr Chairman.</p> <p>11 THE CHAIRMAN: I'm only asking for submissions. Whether</p> <p>12 they're strong or otherwise is entirely a matter for</p> <p>13 you.</p> <p>14 MR PAO: Nothing from me, Mr Chairman.</p> <p>15 THE CHAIRMAN: Thank you.</p> <p>16 Is there anything further you wish to say, Mr Shieh?</p> <p>17 MR SHIEH: No, nothing to add.</p> <p>18 THE CHAIRMAN: Very well. I'll deal with Mr Mok's</p> <p>19 application in respect of Dr Peter Cheng.</p> <p>20 Ruling</p> <p>21 THE CHAIRMAN: We will receive Dr Peter Cheng's report,</p> <p>22 pages 1 to 27, not page 28, together with the</p> <p>23 accompanying calculations which form the basis of the</p> <p>24 opinions that he has expressed there. That report is</p> <p>25 dated 21 January 2013. If necessary, we will receive</p>
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<p>1 amendment that you wish to make. Take your time.</p> <p>2 I'll sit down while you do that. Just tell Madam</p> <p>3 Interpreter when you've been through them.</p> <p>4 A. I understand.</p> <p>5 THE CHAIRMAN: How far have you got with this task, Mr Chau?</p> <p>6 You're about halfway through?</p> <p>7 A. More than halfway through.</p> <p>8 THE CHAIRMAN: Right. I think the better way to deal with</p> <p>9 this is for us to invite you to continue to look at this</p> <p>10 a little later, after we've risen, and then you can tell</p> <p>11 us tomorrow whether or not there are any amendments; do</p> <p>12 you understand?</p> <p>13 A. I understand.</p> <p>14 THE CHAIRMAN: In order to do that, I'm going to ask you to</p> <p>15 return tomorrow to continue with your testimony, and to</p> <p>16 be here so that you can resume at 10 o'clock tomorrow</p> <p>17 morning.</p> <p>18 A. I understand.</p> <p>19 THE CHAIRMAN: But for current purposes, you can leave the</p> <p>20 witness box. You can sit in the public gallery and no</p> <p>21 doubt someone will provide you with a copy of the</p> <p>22 material you're looking at now.</p> <p>23 A. I understand.</p> <p>24 THE CHAIRMAN: Thank you. So you can leave the witness box.</p> <p>25 A. (In English) Thank you.</p>	<p>1 his oral evidence, confined to the subject matter</p> <p>2 addressed in the report. We will address that</p> <p>3 eventuality, if it occurs, later.</p> <p>4 Housekeeping</p> <p>5 THE CHAIRMAN: Mr Mok?</p> <p>6 MR MOK: Yes, just one housekeeping matter.</p> <p>7 Dr Peter Cheng is an 82-year-old gentleman --</p> <p>8 THE CHAIRMAN: Yes, I saw that he was at university in 1950.</p> <p>9 MR MOK: That's right, and he is due to leave Hong Kong on</p> <p>10 31 January for an important family reunion. I just wish</p> <p>11 to inform the Commission that this trip has been planned</p> <p>12 months ahead, so it is apparently something quite</p> <p>13 important to him and his family personally.</p> <p>14 THE CHAIRMAN: Yes.</p> <p>15 MR MOK: He hasn't booked the return flight yet, but I think</p> <p>16 he's hoping to be able to return to Hong Kong after</p> <p>17 13 February; that's after the Chinese New Year.</p> <p>18 THE CHAIRMAN: Yes. Thank you for informing us about that.</p> <p>19 We will do what we can to assist him within the</p> <p>20 schedules and the confines of the Commission's work, as</p> <p>21 we would for anyone, but particularly for</p> <p>22 an octogenarian who is prepared to assist us.</p> <p>23 MR MOK: Thank you.</p> <p>24 THE CHAIRMAN: Mr Beresford, are there any matters that can</p> <p>25 be dealt with as to what lies ahead tomorrow?</p>



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<p>1 MR BERESFORD: What lies ahead tomorrow is, after Mr Chau, 2 we have Mr Tang Wan-on, who is the marine officer of 3 Hongkong Electric. 4 THE CHAIRMAN: And? 5 MR BERESFORD: And then Mr Tam Yun-sing, a ship inspector 6 who deals with the change of condition, change of 7 licence condition for the Lamma IV in terms of manning 8 requirements. 9 Mr Tang Wan-on may be a little while. I imagine 10 Mr Tam will be fairly short. 11 And then there is Dr Cheng, the other Dr Cheng. 12 THE CHAIRMAN: Yes, the forensic scientist? 13 MR BERESFORD: Yes. 14 THE CHAIRMAN: I'd ask counsel to give thought -- counsel 15 would be in a better position to know how long that 16 evidence will take. But in the flow of the evidence, as 17 Mr Grossman has already pointed out, Mr Tang Wan-on 18 deals with a separate subject matter and it might be 19 more convenient to have the forensic scientist give 20 evidence, certainly so that he's given evidence before 21 Dr Armstrong gives evidence. 22 MR BERESFORD: Yes. Well, for my part I'd be very happy for 23 him to be put in before Mr Tang Wan-on. It makes -- 24 THE CHAIRMAN: Well, I leave that with counsel. But it does 25 seem that Mr Tang Wan-on, as it were, is tangential to</p>	<p style="text-align: center;">I N D E X</p> <p>2 MR HO KAI-TAK (on former affirmation) .....2 3 Examination by MR MOK .....3 4 Further examination by MR BERESFORD .....9 5 (The witness withdrew) .....11 6 MR LEUNG WAI-HOK (affirmed in Puntì) .....11 7 Examination by MR BERESFORD .....11 8 Ruling .....29 9 MR LEUNG WAI-HOK (on former affirmation in .....32 Puntì) 10 Examination by MR BERESFORD (continued) .....33 11 Questions by THE COMMISSION .....45 12 Examination by MR MOK .....48 13 Further examination by MR BERESFORD .....51 14 (The witness withdrew) .....53 15 Application by MR MOK .....54 16 Application by MR YEUNG .....60 17 MR MAK YAT-WAI (affirmed in Puntì) .....64 18 Examination by MR BERESFORD .....64 19 Examination by MR PAO .....87 20 Examination by MR MOK .....88 21 Further examination by MR BERESFORD .....89 22 (The witness withdrew) .....92 23 24 25</p>
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<p>1 the stream of evidence that we've been receiving. 2 MR BERESFORD: Yes. In the light of your indication, 3 Mr Chairman, it's likely that that will happen and the 4 schedule will be rejigged for tomorrow accordingly. 5 THE CHAIRMAN: Thank you. 10 o'clock tomorrow. 6 (4.36 pm) 7 (The hearing adjourned until 10 am on the following day) 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>	<p style="text-align: center;">I N D E X</p> <p>2 MR CHAU TO-YUI (affirmed in Puntì) .....93 3 Examination by MR BERESFORD .....93 4 (The witness stood down) .....95 5 Ruling .....95 6 Housekeeping .....96 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>