Page 1

Friday, 18 January 2013
(10.00 am)
MR BERESFORD: Mr Chairman, before we start with the evidence today, Mr Mok has some news for us, and also I believe Mr Pao has something he wishes to raise.
THE CHAIRMAN: Thank you.
Mr Mok?
MR MOK: Good morning, Mr Chairman. The witness Mr Fung's evidence yesterday gave rise to one remaining issue, which is the reference to plating in the letter, of 5 mm, whether or not it refers to the shell plating or any other parts of the ship.
THE CHAIRMAN: Yes.
MR MOK: I had a word with my learned friend Mr Beresford. We feel that maybe the best way to deal with it is for Mr CK Wong, who examined all the plans and was indeed the person who approved those plans, to make a short supplemental statement to refer to this matter. That would assist the Commission.
THE CHAIRMAN: Remind me where the letter is. Can we have it up on the screen?
MR MOK: It's at page 206, tab 6 of marine bundle 2.
THE CHAIRMAN: So you're suggesting we get Mr Wong to tell us what he understood?
MR MOK: Yes, because he's --

Page 2

THE CHAIRMAN: What about the writer of the letter?
MR MOK: The writer of the letter is of course Cheoy Lee.
THE CHAIRMAN: And he's left your employment?
MR PAO: The writer of the letter has confirmed this is for the shell plating, rather than the --
THE CHAIRMAN: Do we still have the writer?
MR PAO: No, I'm afraid not. He left his post and, I believe, emigrated.
THE CHAIRMAN: Will Mr Wong say he understood it was the side plating of the vessel?
MR MOK: That's my understanding, because we were able to derive that from examining --
THE CHAIRMAN: If there's no dispute as to that, and it seems obvious to me that that's -- subject to there being some hidden meaning, the obvious meaning is that it was the plating. So I think we can leave it there, without any further statement.
MR MOK: Yes, if you're happy with that.
THE CHAIRMAN: If no-one is taking issue with it. I see nobody responding. Thank you for that suggestion.
MR MOK: Thank you.
THE CHAIRMAN: In which case, we need Mr Fung mainly to tell him he's no longer required?
MR BERESFORD: That's correct.
THE CHAIRMAN: Yes.

Page 3

Mr Pao?
MR PAO: Mr Chairman, it's a matter that concerns the order of play today. I'm not sure if you have the latest list of proposed witnesses. It's dated 17 January.
THE CHAIRMAN: Yes. I've got one anyhow that's got today's batting order.
MR PAO: Mr Chairman will notice that at number 10, my client has been interposed between the Marine Department officers.
THE CHAIRMAN: Well, it's at the request of the Commission itself that this order has been rejigged; not the actual rejigging. But it seemed to us that an unnecessary number of Marine Department surveyors were being called and we're anxious to get to the next chapter in the story, as it were. We have a feel now for what the Marine Department's evidence is, and that's why we've asked for it to be done in this way.
MR PAO: I see. If that's the wish of the Commission --
THE CHAIRMAN: But by all means, express your concern --
MR PAO: My concern is if there's a matter arising from the second half of the Marine Department officers' evidence which my client wishes or needs to address, then it would mean that I have to apply for him to be recalled to testify again.
THE CHAIRMAN: No, I follow that.

Page 4

MR PAO: I mean, it's not terribly satisfactory and most inconvenient for my client.
THE CHAIRMAN: Well, this isn't a trial; this is an inquiry, and different considerations apply. We're anxious that we get to what is the nub of the relevant evidence from a particular aspect and we're dealing with the Mardep side of it and, subject to counsel, who've been invited to approach it on that basis, identify the nub, it's not necessary to call everyone who examined the ship, we think.
MR PAO: So we are now in a position that the rest of the Marine Department officers may not be called?
THE CHAIRMAN: Well, that is the approach that we're inviting counsel to consider. I don't know why it is that we have as many Marine Department witnesses as are currently scheduled, because we think we can move faster.
MR PAO: I see. So I really am in your hands.
THE CHAIRMAN: Yes. If the worse comes to the worst, you'll make an application for your witness to be recalled and we'll entertain it. Obviously if new material arises, it will have to be dealt with. But what we've sought to do is to have the nub of the material, the important issues, laid out before we get to Cheoy Lee. That's our approach.

Page 5

MR PAO: Yes. In which case, I need to inform the Commission that there will be a short supplemental statement from my client.
THE CHAIRMAN: When do you propose serving that?
MR PAO: It may be ready by today. Well, perhaps later on today or by the end of today.
THE CHAIRMAN: Yes. Obviously it ought to be available before he's called, if possible.
MR PAO: Yes, but -- well, I have to briefly mention the content of it.
THE CHAIRMAN: Yes?
MR PAO: It's basically in respect of an assertion made by my learned friend Mr Beresford, saying that the flooding of the aft peak and the tank room together would cause the Lamma IV to sink.
THE CHAIRMAN: Mr Beresford, is that assertion continued with?
MR BERESFORD: No, Mr Chairman.
THE CHAIRMAN: Thank you.
MR BERESFORD: The position is the aft peak with the tank room and engine room.
THE CHAIRMAN: It's a narrow question Mr Pao has posed, and that is the assertion you put to Mr Wong was that the tank room together with the steering compartment would have sunk the vessel when flooded.

Page 6

MR BERESFORD: In 1995? No, I don't assert that.
THE CHAIRMAN: There we are.
MR PAO: Right. And also on matters that -- there is certain mistake in the original statement. So I hope to be able to --
THE CHAIRMAN: That could be dealt with orally in examination.
MR PAO: Yes. Indeed, Mr Chairman.
THE CHAIRMAN: Thank you.
MR MOK: Mr Chairman, it's convenient to raise one point. There are a number of other officers who were involved in the annual surveys. These are listed in the statement of Mr Wong Wing-chuen, the omnibus statement. Those officers have not been interviewed and they have not filed any witness statements.
So I think maybe the way to deal with it is if my learned friend feels that he needs to call or wishes to have the evidence of any one of them, then maybe we will prepare him by preparing a witness statement of that particular survey. Because these are annual surveys, which --
THE CHAIRMAN: I'll leave it to counsel to deal with detail like this. If there is a difficulty, by all means raise it with us later.
MR MOK: Thank you. I just want to mention that they have not been interviewed and they have not given any witness statements.

Page 7

THE CHAIRMAN: Yes. Thank you for that.
MR BERESFORD: Yes. Those instructing me will be writing to the Department of Justice, setting out the questions that we would like to see addressed by those surveyors. We would like to see their statements before we decide whether or not to call them, Mr Chairman. It may be that on receipt of those statements, we can dispense with calling them, but it's difficult to exclude them without having seen the statement.
THE CHAIRMAN: What length of statement is anticipated is necessary?
MR BERESFORD: Well, we're looking at the same questions as we've looked at before, but at different points in time. These are surveyors that examined the vessel in subsequent years, and we want to know why they passed the vessel as having a watertight bulkhead when it didn't have a watertight door. We want to know if they examined the seats. We want to know if they examined it for safety appliances. All the same questions that have been raised in Dr Armstrong's report.
THE CHAIRMAN: Why is it necessary to pursue that on an annual basis? This is a vessel that was in service for a dozen years, was it not? More?

Page 8

MR BERESFORD: Because there were changes made to the vessel, Mr Chairman. In particular --
THE CHAIRMAN: Could we not take snapshots at different periods?
MR BERESFORD: Yes, we could, Mr Chairman. I'm hoping to do that when we can see the evidence, so that we -- I'm not suggesting that we call all of these surveyors before the Commission and trouble the Commission with their evidence.
THE CHAIRMAN: No. Well, we're not going to go down that road. It's sufficient for these purposes to have a snapshot at a particular time which might deal with a change, as you've suggested. I'm not sure what you have in mind, but say, for example, it was lead ballast, then a snapshot after the ballast was installed; when the ballast was moved to a different position, a snapshot then. That will inform the tribunal, I would have thought.
MR BERESFORD: Very well, Mr Chairman.
THE CHAIRMAN: We invite you to look at it in that way. If there are difficulties and you need to go into more detail, please raise the matter.
MR BERESFORD: Thank you.
MR MOK: Mr Chairman, may I say that that would be extremely helpful, because there are a large number of them and it

Page 9

would be a very big exercise to have to interview each one of them, and it would take quite a lot of time to do so.

THE CHAIRMAN: Yes. I'd invite counsel to proceed on that basis, on a snapshot basis, for the moment.

MR MOK: That's very helpful.

THE CHAIRMAN: Is Mr Fung here?

Mr Fung, return to the witness box.

I'm only inviting you to return to the witness box so that I can tell you that, as things now stand, matters having been resolved overnight, it's not necessary for you to answer any other questions. But it remains for me to thank you for coming to the Commission and giving evidence to assist us in our Inquiry. Thank you for that. You are now free to go. You may, of course, remain in the hearing room and listen to the evidence that follows.

MR FUNG WAI-MAN: I understand.

THE CHAIRMAN: Thank you.

Yes, Mr Beresford?

MR BERESFORD: Mr Chairman, the next witness is Choi Chi-chuen.

MR CHOI CHI-CHUEN (affirmed in Punti)

(All answers via interpreter unless otherwise indicated)

Examination by MR BERESFORD

Page 10

MR BERESFORD: Good morning, Mr Choi. Thank you very much for attending this morning to assist the Commission with its Inquiry.

I have some questions to ask you on behalf of the Commission. Before I do, I understand you have made a previous statement in connection with this matter, a copy of which may be found in our marine bundle 11 at page 3987. You have also approved some notes of interview that you gave to the Marine Department which may be found in marine bundle 10 at pages 2931 to 2935, with a translation into English at pages 2935-1 to 2935-5.

A. Yes.

Q. Mr Choi, do you have your witness statement and your notes of interview before you?

A. Yes.

Q. And you recognise those as yours?

A. Yes.

Q. Have you had an opportunity to remind yourself of the content of those documents today?

A. Yes, I have seen that.

Q. Is there any amendment you would wish to make?

A. Not at the moment.

Q. So are the contents of that statement and the notes of interview true?

Page 11

A. Yes.

Q. Thank you. Mr Choi, I understand that you are a senior surveyor of ships of the multilateral policy division of the Marine Department; is that right?

A. (In English) Yes.

Q. And you've held that position since 2010?

A. (In English) Yes.

Q. You hold a Bachelor of Engineering (Honours) in Naval Architecture and Small Craft from the University of Strathclyde?

A. (In English) Yes.

THE CHAIRMAN: What year was the degree conferred?

A. 1997.

THE CHAIRMAN: Thank you.

MR BERESFORD: You joined Mardep in 1984 as an assistant ship inspector; in 1986 you were posted to the Local Vessels Safety Section; and in 1997 you became a surveyor of ships in the Local Vessels Safety Section. Is that right?

A. (In English) Yes.

Q. And you transferred out of that section in around 2001 or 2002?

A. (In English) Yes.

Q. You've made your statement to explain your role as surveyor of ships in the vetting of an inclining

Page 12

experiment and stability calculation booklet, and a damage stability information booklet, of the Lamma IV in 1998 and 1999. Perhaps if we can just have a look at those booklets and identify them.

A. Okay.

Q. At marine bundle 3, tab 79, page 428, we see a letter from Cheoy Lee Shipyards Ltd to the Marine Department dated 10 March 1998, informing the Director of Marine that they were going to install on board the Lamma IV trimming ballast of 8.25 tonnes of lead, and enclosing Revised Stability Booklet, Damage Stability Information, and Arrangement of Lead Ballast.

We find the Revised Stability Booklet starting on the next page in the bundle, page 429. Is that your signature in the "seen" box?

A. Yes.

Q. We find the Damage Stability Information starting at page 442.

A. Yes.

Q. Was that your signature in the "seen" box on that page as well?

A. Yes.

Q. The Arrangement of Lead Ballast is at the last page of this section. It should be page 449.

A. Yes.

Page 13

Q. Is that your signature in the "seen" box there as well?
A. Yes.
Q. Thank you.
Then the other document that you've referred to may be found in marine bundle 3, tab 83, beginning at page 455.
THE CHAIRMAN: Before we get to that, could we have a short description about what was being proposed as to the disposition of the lead ballast?
MR BERESFORD: Well, Mr Chairman, I was going to come back and deal with each of them in more detail. If you'd like me to take them one at a time, then I'm happy to do so.
THE CHAIRMAN: No, as you please.
MR BERESFORD: Perhaps if we can just identify and authenticate the other document.
THE CHAIRMAN: Yes.
MR BERESFORD: Page 455. This is a letter from Cheoy Lee Shipyards Ltd to the Director of Marine dated 20 October 1998, enclosing an inclining experiment and stability calculation, with trimming lead ballast.
A. Yes.
Q. We see that document starting at page 456 and running through to page 471. Is that your signature in the "seen" box on page 456?

Page 14

A. Yes.
Q. You tell us that given the passage of time, you don't have any independent recollection of the circumstances in which you signed or vetted these documents. But that, based on the information available, which I take to mean on the file, Cheoy Lee submitted a request for trimming ballasts of 8.25 tonnes of lead to be placed in the steering gear compartment and the tank room of Lamma IV; is that right?
A. Yes.
Q. You refer to Cheoy Lee's letter at page 428 --
A. Yes.
Q. -- in which they say in the second paragraph:
"With the aforesaid trimming ballast, the stability of the captioned vessel will be improved with the vanishing angle not less than 55 degrees in normal operating conditions and a good stable stability in damaged condition."
And you say that Cheoy Lee submitted the booklets referred to to demonstrate to Mardep that its proposed change would not affect the overall safety of Lamma IV.
Then you explain:
"... since the calculations in the booklets were done before the installation of the ballasts ... I inserted by hand 'Estimated' on the front cover of the

Page 15

... booklet."
We can see that on page 429. Is that your handwriting after the words "Revised Stability Booklet"?
A. (In English) Yes.
THE CHAIRMAN: Perhaps you'd read it out, since it's so poorly copied.
MR BERESFORD: The title of the document is "Revised Stability Booklet (Estimated)".
Mr Choi, did you also add the handwriting that follows that?
A. Yes.
Q. What does that say?
A. "Inclining experiment should be conducted in the presence of MD surveyor/inspector".
Q. Thank you. Then on page 442, is it right that you deleted the word "Final" and inserted "Estimated"?
A. (In English) Yes.
Q. Then as you've said in your statement:
"... [I] directed that an inclining experiment should be performed on Lamma IV after the installation. I wrote on the front cover of the 'Revised Stability Booklet' that 'inclining experiment should be conducted in the presence of MD surveyor/inspector'. I then stamped 'seen' on the front cover of these booklets and dated them."

Page 16

Is that right?
A. (In English) Yes.
Q. Thank you. You say that you directed that an inclining experiment should be done because once the ballasts were added the centres of gravity of the vessel would be changed, and so an inclining experiment would verify their new position; is that correct?
A. (In English) Yes.
Q. And that after the inclining experiment, Cheoy Lee then submitted the second booklet that we identified, which is at marine bundle 3, tab 83, beginning at page 455.
You've given two references here, but in your statement it's the same reference. I just wonder if that's an error, Mr Choi. You've got (1) "Inclining Experiment Booklet", the reference for which is given: marine bundle 3, tab 83, page 455. The actual booklet starts at page 456, and that's the one you identified for us a moment ago.
Then you refer to a damage stability booklet, which in your statement has the same reference, but I wonder if it's the document beginning in the next tab, at page 472. That's the covering letter from Cheoy Lee.
A. (In English) I think --
Q. And the Damage Stability Information Booklet itself begins at page 473.

Page 17

A. (Witness nods).
Q. Is that correct, Mr Choi?
A. I think the correct number is page 473.
Q. Page 473, thank you. Is that your signature in the "seen" box on page 473?
A. (In English) Yes.
Q. Thank you. And you've told us that the ship inspector who witnessed the inclining experiment was Mr Mak Yat-wai, who has since retired?
A. (In English) Yes.
Q. And that these booklets would have been first checked by Mr Mak, who had witnessed the experiment?
A. (In English) Yes.
Q. Once he'd completed his checking and was satisfied that the calculations were acceptable, then the booklets would be submitted to you for final vetting?
A. (In English) Yes.
Q. And you say that it was your usual practice to ask the ship inspector to redo the calculations using a stability calculation program available in Mardep?
A. (In English) Yes, this is my usual practice.
Q. Yes. And that that print-out, the stability program print-out, would be submitted to you together with the booklets?
A. (In English) Yes.

Page 18

Q. You can't recall now whether you've seen the computer print-out in the instant case; is that right?
A. (In English) I can't remember exactly.
Q. Have we been able to --
A. (In English) I haven't seen the print-up --
Q. We haven't been able to find one?
A. (In English) Usually they put the print -- I change to Chinese.
Q. Whatever you're comfortable with, Mr Choi.
A. Usually they would put the print-out into the drawing box after viewing them.
Q. You say:
"Upon receipt of the documents, I would have looked at the calculations presented and formed a view on whether they were acceptable. In particular, I would have considered the sufficiency of stability in damaged condition by looking at the value of the residual transverse metacentric height ('GMT')."
Is that right?
A. (In English) Yes.
Q. And you explain:
"The residual GMT in any case must be a positive figure equal to or in excess of 0.05 metres."
A. (In English) Yes.
Q. And you refer to the Damage Stability Booklet. Is that

Page 19

the one beginning at page 473?
A. (In English) Yes.
Q. You say that the residual GMT -- "there was a substantial residual GMT in each of the compartments assessed". So we can see at page 474, in relation to the fore peak compartment, there's a GMT shown of 1.590.
A. Yes.
THE CHAIRMAN: Just give me a moment, Mr Beresford. Thank you.
MR BERESFORD: At page 475, dealing with the void space compartment, the GMT is shown as 1.58 metres?
A. Yes.
Q. At page 476, dealing with the crew space compartment, the GMT is shown as 1.224 metres?
A. Yes.
Q. Page 477, the engine room, the GMT is 0.843 metres?
A. Yes.
Q. At page 478, the tank space has GMT of 0.996 metres?
A. Yes.
Q. Lastly, the steering gear compartment at page 479, the GMT is 1.456 metres?
A. Yes.
Q. Just on that last page, page 479, the measurement says "Aft BHD" and "Fwd BHD". Is that "aft bulkhead" and "forward bulkhead"?

Page 20

A. Judging from this document, it refers to the fore bulkhead and the aft bulkhead.
Q. So the aft bulkhead is measured at minus 12.445 metres; is that right?
A. Yes.
Q. And the forward bulkhead is measured at minus 11.575 metres?
A. Yes.
Q. What is that measured from?
A. If you refer to the lines, the two lines above that, you can see "Longitudinal Datum: Midships", so I believe that the measurement is taken from the midship.
Q. Thank you. Am I correct in thinking that this is a measurement of the steering gear compartment, so the steering gear compartment runs from 11.575 metres aft of the midships line to 12.445 metres aft of the midships line; is that right?
A. Yes, this is the measurement shown on this page.
Q. So, according to my maths, and do correct me if I'm wrong, that's a length of 0.87 metres; is that right?
A. Correct.
Q. But we've heard evidence that the steering gear compartment was 1.625 metres. I can show you where that comes from, Mr Choi. It comes from the plans.
Perhaps if we can have a look at the side shell

Page 21

profile at page 204. We can see at the stern a measurement of 1,000 metres to frame 0, and another 625 to frame 1/2.
THE CHAIRMAN: 1 metre, perhaps.
MR BERESFORD: 1,000 millimetres. 1 metre, Mr Chairman. Then if you look at the General Arrangement at page 172, you see the steering compartment goes up to frame 1/2. Would you have compared these measurements to the plans, Mr Choi?
A. (In English) Yes.
Q. So do you have any idea why there might be such a discrepancy?
A. I'm not sure why there is such discrepancy. I'm not sure why there is such discrepancy, because I'm not the one who did the computer calculation.
Q. So who should we ask about that, then?
A. Since this document was submitted by Cheoy Lee Factory to Mardep, so I think it is more appropriate for Cheoy Lee to explain.
Q. But would Mardep not have noticed such a substantial discrepancy, between 0.85 of a metre and 1.625 of a metre?
MR MOK: Mr Chairman, would Mr Beresford assist us as to where is the reference to 0.85?
THE CHAIRMAN: He's done it by arithmetic from the

Page 22

calculation of the distance from the forward end of the bulkhead and the aft end; that is, minus 12.445 and 11.575.
MR MOK: I see. All right.
THE CHAIRMAN: As I understand it.
MR MOK: I'm struggling to understand what is being put to the witness.
THE CHAIRMAN: He called it mathematics, but I think it's arithmetic.
MR BERESFORD: Anyway, the length of 0.85 is the difference between 12.445 and 11.575. I think you agreed with that, Mr Choi, did you not?
A. I can't give an explanation, but as I mentioned in my statement, it is possible that we did our own calculation but haven't noticed this. But now I am unable to give an explanation.
Q. If the true length of the steering gear compartment was 1.625 metres and not 0.85 metres, that would invalidate this calculation, would it not?
A. The calculation is not that accurate.
THE CHAIRMAN: Well, would it invalidate the calculation?
A. I would like to ask, are you asking on the basis of the whole calculation?
THE CHAIRMAN: Mr Beresford?
MR BERESFORD: Well, let's take GMT first.

Page 23

A. There will be some variation to the calculation for GMT. But the variation should not be that obvious.
THE CHAIRMAN: By that you mean not that great?
A. (In English) Yes.
MR BERESFORD: All right. The other matter I wanted to ask you about, Mr Choi, in relation to this -- could you please be shown the fax of 1 August 1994, which is at marine bundle 8, page 2081.
This was a fax from the Marine Department to a designer in Singapore, explaining the stability requirement for ferry vessels or passenger vessels operating in Hong Kong waters. They were told then that, as you see in paragraph 3:
"For every vessel carrying more than 100 passengers, the watertight subdivision (one-compartment flooding) requirements are to be complied with (see attached copies, schedules 1 and 3)."
A. Yes.
Q. We see attached those two schedules, which were Legal Notice 325 of 1991, which are what became Cap 369AM; that is to say, the Merchant Shipping (Safety) (Passenger Ship Construction and Survey) (Ships Built On or After 1 September 1994) Regulations.
We see schedule 3 has been altered to delete paragraph (3)(a) and substitute it with

Page 24

a one-compartment flooding standard. We've heard how this reflected the practice of regulation of local vessels in 1995.
Do you agree that it reflected the practice in 1998 when you were looking at these documents?
A. Now, from my recollection, the standard at that time was one-compartment flooding, and I haven't seen that document back in 1998 but during our conversation in the office, we were talking about the one-compartment flooding.
Q. Yes. Would you be familiar with regulations at Cap 369AM, the regulations I just mentioned?
A. (In English) No. You mean the whole chapter or the --
Q. Yes.
A. (In English) No.
Q. No. Okay. Looking at page 2085, schedule 3 of this notice in the gazette, do you see the heading two-thirds of the way down the page "Sufficiency of stability in damaged condition"?
A. Yes.
Q. Do you see that provides:
"The intact stability of the ship shall be deemed to be sufficient if the calculation specified in paragraph 1 shows that, after the assumed damage [which is, as amended, the one-compartment flooding

Page 25

assumption], the condition of the ship as follows ..."
Then in paragraph (1) it sets out three stages in the event of symmetrical flooding: firstly at all stages; secondly at intermediate stages; and thirdly at the final stage of flooding.
A. (Witness nods).
Q. In paragraph (c), at the final stage of flooding, there are two requirements, are there not: one, "the margin line shall not be submerged"; and two, "there shall be a positive residual metacentric height of at least 50 mm as calculated by the constant displacement method."
Do you see that?
A. (In English) Yes.
Q. You've told us that you were looking at the value of the residual transverse metacentric height, the GMT, the residual GMT, which you've said must be a positive figure equal to or in excess of 0.05 metres.
A. (In English) Yes.
Q. That's equivalent to the second of those conditions, is it not, in subparagraph (c)?
A. (In English) (c), yes.
Q. Do you agree?
A. (In English) Yes.
Q. Did you or did you not look at the first condition, whether the margin line should be submerged?

Page 26

A. Are you referring to (1)(b)?
Q. No, (1)(c).
A. (In English) Oh, yes. Yes.
Q. You see (1)(c) relates to the final stage of flooding, and then there is the word "and" which separates the two conjuncts or two conditions. The first condition is that "the margin line shall not be submerged"; and the second condition is that "there shall be a positive residual metacentric height of at least 50 mm as calculated by the constant displacement method".
Now, you've told us about the second condition, the GMT, but you haven't said anything in your statement about the first. I want to know whether you looked, whether you checked to see whether the margin line should not be submerged.
A. The margin line should also be viewed.
Q. Yes; as part of the damage stability calculation?
A. (In English) Yes.
Q. Would you have done it?
A. Referring to the Stability Booklet submitted by Cheoy Lee, there is a margin line marked with 75 mm.
THE CHAIRMAN: Can you give us the reference to that?
A. (In English) Page 479.
THE CHAIRMAN: Thank you.
MR BERESFORD: So are you referring to the drawing of the

Page 27

line on the diagram at the bottom of that page?
A. Yes.
THE CHAIRMAN: Can we zoom in on the aft part of the vessel. Thank you.
That's what you mean?
A. (In English) Yes.
THE CHAIRMAN: The 75 mm reference with the two parallel lines, that shows the margin line?
A. (In English) Yes, the margin line 75 mm below the deck side.
THE CHAIRMAN: Thank you.
MR BERESFORD: Okay. Thank you, Mr Choi. You then go on to say that it was not your usual practice to refer to the hull drawings before vetting the stability calculations. Can I just clarify something, because that seems to be inconsistent with what you told me earlier. I thought you said you did refer to the hull drawings.
Did you or did you not refer to the hull drawings?
A. I would like to clarify, when did you ask me about reference to the hull drawings?
Q. When we were looking at the discrepancy in the length of the steering gear compartment, as shown in the stability calculation and as shown on the hull drawings.
A. It was -- I just looked at the drawing when you asked me just now, but normally, if there is nothing special,

Page 28

usually I don't refer to the construction drawing.
Q. Yes, I see. Then you deal with an issue relating to what we refer to as the 0.1L issue, but I think you say that it would not have been obvious to you that there was any issue concerning 0.1L at the time, so perhaps it's not necessary to ask you any questions about that.
A. Yes.
MR BERESFORD: All right, Mr Choi. Please wait there.
THE CHAIRMAN: Mr Grossman?
MR GROSSMAN: No application, thank you.
THE CHAIRMAN: Mr Sussex?
MR SUSSEX: Mr Chairman, I have no questions for Mr Choi.
THE CHAIRMAN: Mr Pao?
MR PAO: Mr Chairman, no questions.
THE CHAIRMAN: Mr Mok?
MR MOK: Mr Chairman, I do wish to follow up on that issue concerning how those two figures are calculated. I haven't got any instructions now. This is a matter which has sprung up --
THE CHAIRMAN: Yes. Very well. Do so.
MR MOK: -- and we would like to reserve our questioning, maybe until we have had a chance to take instructions.
THE CHAIRMAN: Do you want to explore it with the witness? He might be able to deal with the issue.
MR MOK: I shall try.

Page 29

THE CHAIRMAN: It seemed to me to be pretty straightforward evidence.
MR MOK: All right.
THE CHAIRMAN: If you need time, we will give you time.
MR MOK: I would appreciate that, if we could have a little bit of time to --
THE CHAIRMAN: So you'll be able to come back later this morning?
MR MOK: Yes.
THE CHAIRMAN: Yes. Very well.
MR MOK: Thank you.
THE CHAIRMAN: Mr Choi, thank you for coming to assist us by giving us your testimony. Counsel has asked, you will have heard, for an opportunity to consider whether or not he wishes to ask you some questions, and we'll allow him to do that. That will mean this, that I'm going to have to ask you to remain here for the moment. I'm sure we can resolve this matter during the course of the morning. If it's necessary, we'll then recall you to deal with whatever those questions are.
A. (In English) Thank you. Okay.
THE CHAIRMAN: Thank you. Please take a place in the public gallery.
A. (In English) Thank you very much.

Page 30

(The witness withdrew)
THE CHAIRMAN: Yes, Mr Beresford.
MR BERESFORD: Mr Chairman, the next witness is Liu Chiu-fai, Barry.
MR LIU CHIU-FAI, BARRY (affirmed in Punti)
(All answers via interpreter unless otherwise indicated)
Examination by MR BERESFORD
MR BERESFORD: Good morning, Mr Liu. Thank you very much for coming to assist the Commission in its Inquiry this morning. I have some questions to ask you on behalf of the Commission.
A. Yes.
Q. Mr Liu, you have previously given an interview to the Marine Department, I believe, and your signed notes of that interview are to be found in marine bundle 10 at pages 2944 to 2949, with a translation at pages 2935-1 to 2935-5. We also have a witness statement that you have prepared in marine bundle 11 at page 3993.
Do you have those documents in front of you, Mr Liu?
A. Yes.
Q. Do you recognise your signature on those documents?
A. Yes.
Q. Have you had an opportunity to remind yourself of what they say today?
A. Yes.

Page 31

Q. Do you have any amendment you wish to make?
A. No.
Q. Are the contents of those documents true?
A. Yes.
Q. Thank you. Mr Liu, you are a senior surveyor of ships in the passenger ship safety section of the shipping division of the Marine Department, and you've held that position since September 2012; is that right?
A. Yes.
Q. And you hold a Bachelor of Engineering (Honours) in Naval Architecture and Ocean Engineering from the University of Glasgow.
A. Yes.
Q. What year did you receive that degree?
A. 1987.
Q. Thank you. Prior to joining Mardep in 1997, you worked for seven years with Det Norske Veritas as a ship surveyor; is that right?
A. Yes.
Q. Then you joined Mardep in 1997 as a surveyor of ships in the port state control section. You were posted to the Local Vessels Safety Section between 2005 and 2010?
A. Yes.
Q. Thank you. Your duties in the Local Vessels Safety Section include supervision over ship inspectors, final

Page 32

vetting of plans and stability calculations, and certification works in connection with the initial and periodic survey of local vessels?
A. Yes.
Q. You have prepared your witness statement to explain your role as surveyor of ships in vetting the Lamma IV Stability Booklet, which we can find in marine bundle 4 at page 668.
A. Yes.
Q. We see on that page which is showing on the screen a Marine Department stamp marked "seen". Can you identify the signature in that stamp?
A. Yes.
Q. It's yours?
A. Yes.
Q. Thank you. We see from the previous page, page 667, that it came to the Marine Department under cover of a letter from Cheoy Lee Shipyards dated 21 September 2005.
A. Yes.
Q. You say in your statement that although you can't recall the circumstances now, based on the documents, you note that on 27 June 2005, Cheoy Lee informed Mardep by letter that the owner of the Lamma IV wished to raise the lead ballasts placed in Lamma IV by a height of

Page 33

10 inches, to facilitate the cleaning and checking of hull plates.
A. Yes.
Q. We can see a copy of that letter in marine bundle 4 at page 639.
A. Yes.
Q. There's some handwriting on that letter, is there not, that states "Cheoy Lee contact CSI acting at 29/6 to carry out inclining experiment"?
A. Yes.
Q. Do you know who was "CSI acting"?
A. It was Mr Au Yeung at that time.
Q. Mr Au Yeung.
And "CSI" stands for what, please?
A. "Chief ship inspector".
Q. Chief ship inspector. And you've told us that you can't recognise the handwriting.
A. (In English) I can't.
Q. Then you say:
"An inclining experiment of Lamma IV after the repositioning of the ballasts was carried out on 19 July 2005 and attended by Mr Chau To-yui, a ship inspector of the Local Vessels Safety Section.
On 21 September 2005, Cheoy Lee submitted the Stability Booklet, which was passed to me for vetting

Page 34

after Mr Chau had completed checking."
Is that right?
A. Yes.
Q. Then you say:
"At that time, I would have noted that the stability calculations were not that of a new vessel or an existing vessel with major modification. 'Major modification' means structural changes that would affect the principal dimensions or passenger capacity of the vessel. The change proposed by Cheoy Lee involved no change to the vessel's structure or even weight since it was merely the repositioning of ballasts already on board."
Is that right?
A. (In English) Yes.
Q. "In these circumstances, I would not have asked the ship inspector to redo the stability calculations. I would have only asked him to do so in the case of a new vessel or an existing vessel involving major modification."
A. (In English) Yes.
Q. Then you say:
"... I believe that prior to my vetting of the Stability Booklet, I would have had (i) the Stability Booklet and (ii) the stability booklets from the previous modification in 1998/1999 (since this

Page 35

modification involved no change from the previous one) ... and Mr Chau would also have briefed me on anything unusual arising from the inclining experiment or his checking of the calculations."
A. Yes.
Q. And you refer a draft witness statement of Mr Chau To-yui and say that you understand that he recounted that he reported to you:
"... that there was a discrepancy between the data obtained in the inclining experiment he conducted on 19 July 2005 and the previous one in 1998 regarding the lightship weight and vertical centre of gravity. The relevant difference is that in 1998/1999 the lightship weight was 63.618 tonnes ..."
And we can see that from marine bundle 3, page 463.
Can we have a look at page 463, please.
We see that in condition 1, headed "Lightship Condition", at the bottom, second row up, it says "Lightship"; first column in, 63.618. Is that what you're referring to?
A. Yes.
Q. Whereas in 1995, it was 60.36 tonnes, and you refer to page 673. That's the first row in the first table under "Loading Summary", "Lightship", 60.36 metric tonnes; is that right?

Page 36

A. Yes.
Q. Then you say:
"I have no recollection of Mr Chau so informing me. But in any event, I would not have considered [it] significant ... [because] the inclined condition of a vessel depends on a number of [conditions], including weather conditions in which the experiment took place, the mooring rope condition, the bilge water, the drafts and water density, the inclining weights, add-on and go-off items, and record-taking by the personnel involved."
So you say that you don't regard the difference shown in this case to be unusual or significant?
A. Yes.
Q. Then you say:
"In any event, the purpose of the inclining experiment and stability calculations is to verify the stability of vessel in its present condition, and so discrepancies between the present and previous measurements, unless they are so 'off the mark' as to suggest that there may be problems in the integrity of the calculations, is not in general a matter of concern."
A. Yes.
Q. You say:

Page 37

"When I vetted the Stability Booklet, I would have considered the purpose of the exercise, which was to add height to the ballasts already installed. [For this purpose] I would have looked at the residual value of the transverse metacentric height ('GMT') in damage conditions, which in any case must be a positive figure equals to or in excess of 0.05 metres, and also compared the 2005 calculations against the 1998 calculations to see if they disclose a consistent trend. In the present case, the Stability Booklet shows that there is substantial residual margin in GMT and no inconsistency between the 2005 calculations and the 1998 calculations."

A. Yes.

Q. Can I please show you a fax dated 1 August 1994 from the Marine Department to a surveyor in Singapore. It's page 2081.

A. Yes.

Q. This fax is describing the stability requirements for a passenger vessel operating in Hong Kong waters at that time. You see at paragraph 3 it says:

"For every vessel carrying more than 100 passengers, the watertight subdivision (one-compartment flooding) requirements are to be complied with. (see attached copies, schedules 1 and 3)."

Page 38

Attached are schedules 1 and 3 to Legal Notice 325 of 1991. This notice became the Merchant Shipping (Safety) (Passenger Ship Construction and Survey) (Ships Built On or After 1 September 1984) Regulations, Cap 369AM.

Are you familiar with these schedules?

A. (In English) No.

Q. So you were not aware that these applied to the regulation of local vessels in 2005; is that right?

A. I haven't seen that fax.

Q. What about the schedules to Cap 369AM? I should draw your attention to the fact that schedule 3 has an amendment, if you look at page 2085. The assumed damage has been changed in paragraph 1(3)(a) to what's described as a one-compartment flooding standard.

A. Yes.

Q. So were you working on an assumption of one-compartment flooding when you vetted the Stability Booklet in 2005?

A. Yes.

Q. Then if we can go on to look in schedule 3 to -- we see the heading "Sufficiency of stability in damaged condition". Do you see that?

A. Yes.

Q. That says:

"The intact stability of the ship shall be deemed to be sufficient if the calculation specified in paragraph 1 shows that, after the assumed damage, the condition of the ship as follows ...

(1) In the event of symmetrical flooding ..."

And then (a), (b) and (c) describe the stability at different stages of flooding: (a) at all stages; (b) at intermediate stages; (c) at the final stage. Do you see that?

A. Yes.

Q. I'm particularly interested in (c), "at the final stage of flooding". It says:

"... the margin line shall not be submerged and there shall be a positive residual metacentric height of at least 50 mm as calculated by the constant displacement method."

A. Yes.

Q. Do you agree that that reflected the practice in relation to local vessels when you were carrying out your vetting of the Stability Booklet?

A. Yes.

Q. You say that you looked at the residual value of the GMT, but you don't say anything about checking to see whether the margin line would not be submerged.

If you need it on the screen, it's page 2085, the top right-hand part of the page, condition (c). You see

Page 40

for the intact stability of the ship to be deemed to be sufficient at the final stage of flooding, there are two conditions. One is the positive residual metacentric height of at least 50 mm, and the other is that the margin line shall not be submerged.

A. Yes, I can see it.

Q. So my question to you is, would you have looked to see if the margin line would not be submerged? Did you check for that?

A. Yes, I will look into it.

Q. Because if you had looked at that, Mr Liu, I suggest that you would have found that the vessel would have sunk.

MR MOK: Under what condition is my learned friend referring to when he says that the vessel would have sunk?

THE CHAIRMAN: Is that on a one-compartment basis?

MR BERESFORD: Well, I'll come to that now, Mr Chairman.

THE CHAIRMAN: Yes.

MR BERESFORD: Can the witness please be shown the comparison of results of the damage stability calculation for Lamma IV which we've been given, as prepared by Peter Cheng.

It's marine bundle 11, page 3926-1.

Do you see here what we have is "Comparison of Result of Damaged Stability Calculation for Lamma IV".

Page 41

Condition 1 is the first inclining, new construction. Condition 2 is second inclining, with the addition of 8.25 tonnes of lead ballast. Condition 3 is the third inclining, with the raising of 8.25 tonnes of ballast by 10 inches.

That's as far as we need to go.

Then if we look along the top, we see columns for "Fully Loaded Condition", the steering gear compartment and the tank room, checked together; the engine room; the crew space; the void compartment; and the fore peak.

Then we have two different lots of criteria. One appears to be the Marine Department criteria, and the other one appears to be Mr Cheng's criteria.

But on the assumption that the steering gear compartment and the tank room are damaged under condition 3, we see that on both criteria, the question of whether the requirement of margin line submerging is not complied with.

Do you see that, Mr Liu?

A. (In English) Yes, I see that.

THE CHAIRMAN: I think it's only fair to the witness that we give him some explanation about the nature of this material.

This is material that's been provided by the Commission in advance of our receiving a draft report or

Page 42

a report which we will then consider as to whether or not we receive, and we've been given raw data that apparently is provided to support what is a conclusion -- the couple of pages that are now on the screen. Do you understand? And Dr Peter Cheng is a naval architect, so we understand.

Mr Mok, who appears, amongst others, for the Marine Department, has invited us to permit him to call this witness so that the Commission can receive this prospective evidence. Do you understand?

A. Yes.

THE CHAIRMAN: We are as yet to be provided with this draft expert's report. So it's on the basis of what's provided as the results page, which is what I've called it, that this proposition is being put to you. Do you understand?

A. Yes.

THE CHAIRMAN: Yes, Mr Beresford?

MR MOK: Mr Chairman, I wonder if this proposition is not put prematurely, because when my learned friend refers to that particular column, where it says "Margin Line Submerged or not", with the words "Not complied", all it meant is that the margin line would be submerged, but it doesn't indicate that the vessel would sink. Where it is indicated that the vessel would sink, Dr Cheng has

Page 43

used the words "Vessel sinking", as you can see. So perhaps, when my learned friend puts this proposition, I'm not sure that this is a correct proposition to put to the witness.

THE CHAIRMAN: Very well. Thank you for pointing that out. You have the advantage of knowing how it is, perhaps, that Dr Peter Cheng intends to define these terms.

MR MOK: Yes. That's my understanding, and that's why I think he's put it in those terms. But again, we haven't seen it yet.

THE CHAIRMAN: Yes. When are we to receive this draft report?

MR MOK: I was expecting, actually, a draft to be ready today but up to now, I haven't got it yet.

THE CHAIRMAN: Very well.

Mr Beresford?

MR BERESFORD: Mr Liu, obviously I'm not asking you to verify Dr Cheng's calculations. But on the point that's just been made about the difference between "Not complied" and "Vessel sinking", of course the margin line is a margin, isn't it? It's a margin of safety?

A. (In English) Yes.

Q. It's a margin 76 mm below the line of the main deck; is that right?

A. (In English) Yes.

Page 44

Q. What I want to afford you an opportunity to do is to show us where in this Stability Booklet at page 668 the question of whether the margin line was submerged or not has been addressed.

Can the witness please be provided with a hard copy of the document.

THE CHAIRMAN: Yes. That's obviously an easier way to peruse it.

MR BERESFORD: Take your time, Mr Liu.

THE CHAIRMAN: How many pages is the witness being invited to look at?

MR BERESFORD: This is a more substantial document than the previous versions, Mr Chairman. It runs from pages 668 to 724. If you're minded to take the break now, that might be very helpful.

THE CHAIRMAN: That's what I have in mind.

MR MOK: Mr Chairman, perhaps the witness can be directed to from page 697 onwards, where it talks about damage cases.

THE CHAIRMAN: Yes. Certainly he can be. No doubt this is a document he has some familiarity with.

Mr Liu, we're going to take a break now for 20 minutes; a break for us but I don't think a break for you, because I'm going to invite you -- perhaps someone can bring you a coffee -- to have a look through that

Page 45

document to address the question you're being asked, whether or not the issue of the margin line is addressed in any way in this Stability Booklet. Do you understand?
A. (In English) Yes.
THE CHAIRMAN: 20 minutes, then.
(11.35 am)
(A short break)
(11.55 am)
THE CHAIRMAN: Mr Beresford?
MR BERESFORD: Thank you, Mr Chairman.
Mr Liu, did you find any evidence in the Stability Booklet?
A. (In English) Yes.
Q. Where is it, please?
A. It is in the stability calculation in the year 2005.
Q. Yes, but can you help us, please, identify in the Stability Booklet?
A. It could be found in Damage Case 1 on page 697.
Q. Where is that, please?
A. It is in the "Floating Status" in the middle of the stage.
Q. Could you explain to us how that works, please?
A. In the first column, you can find "Draft FP", "Draft MS" and "Draft AP". Those are the positions of the vessel,

Page 46

the position of the draft when the compartment is flooded. Using this to compare the depth of the vessel, it has far exceeded the requirement of the margin line. This is in relation to the first aft compartment, the flooding of the aft compartment.
Q. Sorry, before you go on, Mr Liu, we can see that in the diagram, can we not, in the shaded part, above the words "Fluid Legend"?
A. Yes.
Q. And the shading more or less corresponding to the length of the "Fluid" equates, does it not, to the after peak referred to? And do you agree that --
THE CHAIRMAN: Well, deal with that question first.
Does it refer here to the after peak only?
A. It is a calculation in relation to the flooding of the aft peak.
THE CHAIRMAN: What is the aft peak, as you understand it?
A. It is a compartment at the aft of the vessel.
THE CHAIRMAN: Is it the steering compartment only?
A. Yes.
THE CHAIRMAN: Thank you.
Yes, Mr Beresford.
MR BERESFORD: You can compare it, if you like, with the General Arrangement plan at page 670 at the beginning of this booklet. And the underdeck plan, we see

Page 47

a compartment at the stern called steering gear compartment.
THE CHAIRMAN: Do you agree?
A. (In English) Yes.
MR BERESFORD: Thank you. Returning to page 697.
A. (In English) Yes.
Q. You were explaining that this page related to Damage Case 1, as appears in the title, "After Peak damaged", or flooded.
A. (In English) Yes.
Q. Then you were going to go on?
A. (In English) Yes. On the next page.
Sorry.
A. On page 699.
Q. Yes.
A. (Chinese spoken).
THE CHAIRMAN: Before we get to page 699, the title is at page 698, is it not? It's "Damage Case 2: Tank Space damaged"?
A. (In English) Yes.
THE CHAIRMAN: Thank you.
A. Same at "Floating Status". You can also find at column 1, "Draft FP", "Draft MS" and "Draft AP".
MR BERESFORD: Yes. Can you tell us, please, Mr Liu, what "FP", "MS" and "AP" stand for?

Page 48

A. (In English) "FP" is forward perpendicular. "MS" stands for midship. "AP" is aft perpendicular.
Q. Just going back to the calculations relating to the after peak on page 697. Can you explain why the draft at the forward perpendicular is less than the draft at the aft perpendicular, when it's the after peak that's damaged?
A. Can you repeat your question?
Q. Yes. Could you please explain why the draft at the forward perpendicular, which is stated to be 0.939 metres, is less than the draft at the aft perpendicular, which is stated to be 1.443 metres?
A. Because the aft peak tank was flooded.
Q. So can you help us understand what this means? Where is the aft perpendicular? If it helps, you can refer to the General Arrangement plan on page 670.
A. (In English) If you look at page 670, the aft perpendicular in the profile -- can you look at the profile?
Q. Yes?
A. The aft end.
THE CHAIRMAN: You want to zoom in?
A. (In English) Yes.
MR BERESFORD: Can we zoom in on the aft end of the profile, please.

Page 49

A. (In English) Okay. The aft perpendicular is at the line on the rudder. There's a line on the rudder.
Q. Yes, I see.
A. (In English) Normally, the aft perpendicular is on that line.
Q. So that is just forward of the centre of the steering gear compartment?
A. Yes.
Q. And where in relation to the hull and the deck is the measurement of 1.443 metres?
A. (In English) It would be measured from the baseline or the lowest part of the vessel, to the waterline.
Q. To the waterline?
A. (In English) Yes.
Q. So when that refers to the draft, is that telling us how much is flooded, how much water there is in there? Is that telling us that the waterline will be 1.443 metres above the baseline?
A. (In English) Yes.
Q. Are you able to tell from this document where that would be without any flooding? Perhaps I can ask the question in another way. How can we tell that that exceeds the requirement of the margin line?
A. (In English) Margin line is 76 mm.
Q. Down from the deck?

Page 50

A. (In English) Down from the deck side.
Q. So how do we make the connection? How do we understand this figure to be in excess of that requirement?
A. (In English) It's a simple calculation. Because the depth, the total depth of the vessel, is 2.88.
Q. Where do we find that, please?
A. (In English) Page 671.
Q. Thank you.
THE CHAIRMAN: Mr Liu, so that I can understand what the Damage Stability Booklet is addressing, page 697, is that a consideration of the steering compartment only being damaged and flooded?
A. (In English) Yes.
THE CHAIRMAN: And then at page 698, is that a consideration of the tank space being damaged only?
A. (In English) Yes.
THE CHAIRMAN: Not the steering compartment as well?
A. (In English) No.
THE CHAIRMAN: So what's the position, then, if there's no door in the space between the tank room and steering compartment? Is there any calculation of that?
A. (In English) If the --
THE CHAIRMAN: In this booklet, do any of these damage case scenarios examine that position?
A. (In English) No.

Page 51

MR BERESFORD: Thank you, Mr Chairman.
You say in your statement, do you not, that you were aware of what is commonly referred to as the 0.1L?
A. (In English) Yes.
Q. So doesn't that mean that you should disregard the bulkhead between the after peak and the tank space in making these calculations?
A. (In English) Can you repeat?
Q. Yes. Doesn't the requirement commonly referred to as 0.1L mean that you should disregard the bulkhead between the after peak or the steerage gear compartment and the tank room, because the steerage gear compartment is less than 10 per cent of the length of the vessel?
A. (In English) But in this case, when I consider this Stability Booklet, because this is not a new construction or modification, I will not consider that this requirement have to take into my consideration during my vetting.
THE CHAIRMAN: Sorry, keep your voice up and speak closer to the microphone, if you would.
A. (In English) Because in my vetting, the vessel was already built for a long time. And there was no major modification of the vessel. There is no structure change. It's just because of the ballast weight was lifted. And I based on the previous stability booklet,

Page 52

which is also same condition like the one submitted to me. So I assume that the bulkhead between the steering gear compartment and the tank room is watertight.
THE CHAIRMAN: You assumed that? Just a moment, Mr Beresford. You assumed that; have I got that right?
A. (In English) I assumed that because there's no mention that any modification to the vessel, for the submission.
THE CHAIRMAN: So you worked on the assumption that there was a watertight door in this bulkhead? Is that what I'm to understand you as saying?
A. (In English) Can you repeat?
THE CHAIRMAN: I'll leave it to you.
MR BERESFORD: Perhaps it would be fair to the witness to ask if you worked on the assumption that the bulkhead was watertight.
A. (In English) Yes.
Q. Does that imply that if there were any access opening, it would be fitted with a watertight appliance?
A. (In English) Yes.
Q. But my question is you is slightly different. Even if the bulkhead was watertight, shouldn't you have disregarded it if the length of the steerage gear compartment was less than 10 per cent of the vessel?
A. (In English) As I said, the vessel was already built and also --

Page 53

Q. Can you just answer the question. Should you have disregarded it?
A. (In English) If it's less than 10.
Q. You should?
A. (In English) Yes.
Q. But you didn't because you relied on what had gone before?
A. (In English) Sorry?
Q. You relied on what had gone before?
A. (In English) Yes.
MR BERESFORD: Thank you. Please wait there.
THE CHAIRMAN: Mr Beresford, are we to be provided with information as to the extent of the non-compliance with the margin line?
MR BERESFORD: Yes, I believe we are. Well, I think we have it in Peter Cheng's results. No, we don't. No, I see.
THE CHAIRMAN: No, it simply says it doesn't comply.
MR BERESFORD: Yes.
THE CHAIRMAN: But it doesn't use, as Mr Mok has pointed out, the term "sinking". So is somebody doing a calculation as to the extent to which this margin line was breached?
MR BERESFORD: I believe that has been done and can be provided.
MR PAO: Mr Chairman, my client is also doing that

Page 54

calculation.
THE CHAIRMAN: Thank you. And no doubt Mr Peter Cheng is doing the same?
MR MOK: Yes.
THE CHAIRMAN: Or has done?
MR MOK: I think he's already done all the calculation.
THE CHAIRMAN: Yes.
MR MOK: Maybe he hasn't put all the data in the summary table.
THE CHAIRMAN: No. Well, it is a summary.
MR MOK: Yes.
THE CHAIRMAN: And it's clear, now you've pointed it out, what the distinction is.
MR MOK: Yes.
THE CHAIRMAN: But obviously we must be informed as to the extent to which this requirement was breached.
MR MOK: Yes. He can be asked that question.
MR BERESFORD: Mr Chairman, I understand that in Dr Cheng's working papers there is a diagram and figures. Of course Dr Armstrong is also looking at this, so we will provide what we can as soon as we are able.
THE CHAIRMAN: Thank you.
MR BERESFORD: Mr Chairman, I have no further questions for this witness.
THE CHAIRMAN: Thank you.

Page 55

Mr Grossman?
MR GROSSMAN: I have no questions.
MR SUSSEX: I have no questions for this witness.
MR MOK: No questions, thank you.
THE CHAIRMAN: Mr Liu, thank you for coming to assist us by giving the testimony that you have done. Your evidence, at least for the moment, is complete. I say "for the moment" because it may be appropriate to have you recalled when we have the information that you've heard us asking for. But if you are to be recalled, then we'll inform you. For the moment, you're free to go. You may, of course, stay in the public gallery and listen to the proceedings. Thank you for helping us.
(The witness withdrew)
MR BERESFORD: Mr Chairman, the next witness is Louk Hon-ying.
MR LOUK HON-YING (sworn in Punti)
(All answers via interpreter unless otherwise indicated)
Examination by MR BERESFORD
MR BERESFORD: Mr Louk, thank you very much for coming this morning to assist the Commission with its Inquiry. I have some questions to ask you on behalf of the Commission.
You've previously made a statement in connection with this matter, I believe, which we can find in our

Page 56

marine bundle 11 at pages 3999 to 4002.
Do you have a copy of that statement in front of you?
A. (In English) Yes.
Q. Do you recognise your signature on that statement?
A. (In English) Yes.
Q. Have you had an opportunity today to remind yourself of what it says?
A. Yes.
Q. Do you have any amendment you wish to make?
A. No.
Q. So are the contents of this statement true?
A. Yes.
Q. Mr Louk, you're a ship inspector of the seafarers' certification section of the Marine Department and you've held that position since 2010; is that correct?
A. (In English) Yes.
Q. You told an endorsement "Higher Certificate of Mechanical Engineering" from the Hong Kong Polytechnic?
A. (In English) Yes.
Q. Prior to joining Mardep in 1993, you had worked in a shipyard as an apprenticeship trainee and thereafter for Cheoy Lee Shipyards for about four years; is that right?
A. (In English) Yes.

Page 57

Q. Then you joined Mardep in 1993 as an assistant ship inspector in the Local Vessels Safety Section?
A. (In English) Yes.
Q. Later you were posted to the Government New Construction Section, and in 1993 you were transferred back to the Local Vessels Safety Section as a ship inspector, where you remained until 2010?
A. (In English) Yes.
Q. Thank you. Your duties in the Local Vessels Safety Section included, amongst other things, liaising with shipbuilders or shipowners, vessel inspection and the valuation of detained craft?
A. (In English) Yes.
Q. You've made your statement to explain your role as ship inspector in the inspection of the lifting of the lead ballast installed in the steering gear compartment in the tank room of Lamma IV; is that right?
A. (In English) Yes.
Q. You said you don't have any clear recollection of the circumstances of the above inspection, so what you tell us is based on your inspection of the documents?
A. (In English) Yes.
Q. You refer to the inspection record form MO 540 which we can see in marine bundle 4 at page 847.
A. Not that one.

Page 58

Q. You've told us that this shows that you -- oh, not that one.
Just give us a moment while we find it, please, Mr Louk.
A. It should be on page 848.
THE CHAIRMAN: Thank you.
MR BERESFORD: Thank you very much, Mr Louk.
You say that this shows that you carried out the quadrennial survey of Lamma IV on 16 June 2005, that's at page 848; 29 June 2005 -- is that apparent from the same page, Mr Louk?
A. (In English) Yes, the same page.
Q. And 13 July 2005?
A. (In English) Yes, the same page.
Q. I can see the 13 July 2005 date by the word "Frames". Can you help us where the reference to 29 June is?
A. In item 12, where the reference to "Anchors and Cables" is, there's a date, 29 June 2005.
Q. I see. I think I see another one, do I not, by "Lights and sound signals", item 29?
A. (In English) The same.
Q. Thank you. You say:
"On 16 June 2005, I carried out the survey of Lamma IV against the requirements set out in [this form], including a hull gauging test."

Page 59

A. (In English) Yes.
Q. This is the first item, is it not? The hull is described -- the shell, as aluminium plating.
A. This refers to the general material of the vessel. It is either steel or wood or fibreglass. But in this case, it was made of aluminium. That is why I put down "Al".
Q. Yes.
A. And since this survey is applicable every year, so I have also made a remark that hull gauging has been reported.
Q. The remark says "Hull gauging report to be submitted at final"; is that right?
A. (In English) Yes.
Q. So when was "final"?
A. "Final survey" refers to a survey conducted at sea when all the items to be surveyed have been completed.
Q. Is that reflected on the next page, page 849?
A. Yes. At the fourth penultimate line, there's a date of the final survey, and somebody has completed that.
Q. At the top of that page, we see "Hull -- gauging" and under "2005", there's a tick?
A. (In English) Yes.
Q. Did you do the hull gauging test yourself?
A. In conjunction with the shipyard.

Page 60

THE CHAIRMAN: Where was the vessel when this test was done?
A. On shore.
MR BERESFORD: Where geographically was that? Where is the shipyard that you attended?
A. It should be Cheoy Lee.
Q. In Lantau?
A. (In English) Stonecutters Island.
Q. Can we please have a look at the document at marine bundle 4, page 654.
Do you recognise this document, Mr Louk?
A. This should be the hull gauging report.
Q. So is this your report?
A. This report was prepared by the shipyard.
Q. I see. And was it a report to you?
A. When I conduct the survey, this is provided to me for reference and I fill in the data with it.
Q. When you say you filled in the data, does that include the figures for hull plate thickness, the 4.5 in circles that we see?
A. It has been measured.
THE CHAIRMAN: By you?
A. (In English) In conjunction with the shipyard, yes.
THE CHAIRMAN: So are you saying that you were given the plan with the shape of the ship, and that you then filled in the numbers? Is that what you're saying?

Page 61

A. It is like this. I would be provided with an initial plan with the numbers on, and while I was conducting the test on the ship, I did random checks on the data in comparison with the previous data, and put in the new data.
MR BERESFORD: How did you test the hull gauge?
A. I did the test with the ultrasonic test gauge of the shipyard, and in fact it was the shipyard who did the test, and I was standing by, standing at their side, to verify it.
Q. Do you know how accurate that testing is?
A. Every time the machine was turned on, there is a calibration process and it will be set to zero. If I have any doubt, I will use a real plate and take the measurement, and then compare the reading with the result of the gauge.
THE CHAIRMAN: What's the name of the device that was used to do this test?
A. I don't know the exact name, but usually we call it the ultrasonic thickness gauge.
THE CHAIRMAN: Does it have a brand name?
A. (In English) No, sorry.
THE CHAIRMAN: Since I at least am a novitiate at measuring the thickness of hulls, would you explain step by step what is done?

Page 62

A. First of all, the ship was docked on shore and then the shipyard would clear the barnacles and the dirt attached to the hull. Then, since the ship was made with many plates and not by a single one, the shipyard would take several points at the welding seams and remove the paint from there, and then use a measuring gauge to take the measure the thickness and put down the figure, so when I did the survey, I could refer to it.
So if you refer to the plan, in fact the lines there refer to the weld seam. You can see that only one figure was inserted here, but in fact I did a random check on several points, but I take the average figure and put that in. The shipyard would take me there, and I would take the random check on the figures on each plate, and if I find that the figure is correct, then such figure would be recorded on the plan.
THE CHAIRMAN: The ultrasonic thickness gauge that was used, was that provided by Cheoy Lee?
A. (In English) Yes.
THE CHAIRMAN: And they had in advance of your arrival chosen places to test and cleaned away the paint?
A. Yes, but it also -- but depending on the actual situation, for instance if I see that there is damage or a problem on the side of the hull, then I would ask them to remove the paint again and take measurement again.

Page 63

THE CHAIRMAN: So that I understand your evidence, Cheoy Lee having cleaned away the paint various places, had they produced results themselves which you then checked at random; is that the position?
A. I would recheck --
THE INTERPRETER: Sorry.
A. In more than 80 per cent of the cases, I would recheck, I would do the recheck.
MR MOK: I'm not sure whether the witness is talking about 80 per cent of the cases, or 80 per cent of the area of the vessel. Can he clarify that?
THE CHAIRMAN: Can you clarify that? Are you saying that on this particular vessel, or perhaps it's a general practice, you would check 80 per cent of the places where the shipyard had measured the thickness?
A. Yes, but as I have mentioned, if there is any area that I find problematic, I would add on to conduct the test. And also, since several points were taken for testing on each plate, so if I find that several points on a certain plate had got the right data, then I may not proceed with checking the remaining one or two points.
THE CHAIRMAN: So that's what you mean when you told us that you took several checks, and then you averaged it? Is that it?
A. If there is a great discrepancy between the several

Page 64

points, then I wouldn't put down the average figure; I would put down a figure of more than one point.
THE CHAIRMAN: But from what we see here, where there's only one figure per plate, that wasn't the case in this examination; is that right?
A. Yes.
THE CHAIRMAN: And finally, could you help me as to this testing that you watched as Cheoy Lee did, at your direction, how long did it take?
A. I can only answer your question in general and not for this particular vessel, because of the lapse of time. But usually, for this kind of test, it takes more than 60 minutes.
THE CHAIRMAN: Thank you.
Yes, Mr Beresford.
MR BERESFORD: Thank you, Mr Chairman.
Mr Louk, when you got these results that we see from page 654, the results that we see up on the screen --
A. (Chinese spoken).
Q. I haven't asked my question yet.
A. (In English) I'm sorry.
Q. When you got these results, did you compare them with anything?
A. As I have mentioned before, before conducting the test, the shipyard would give me the first report and I'm not

Page 65

able to tell what report he has given me, but it must be a report that shows the previous figures for me to compare with.
THE CHAIRMAN: Previous being what?
A. Because I'm not sure whether the thickness measured is acceptable to them, so I need to make a comparison to see if it is acceptable. The report I mentioned, the previous report, refers to the very first report that was prepared after the completion of the vessel.
THE CHAIRMAN: Thank you.
MR BERESFORD: Can the witness please be given a hard copy of the document beginning at page 831, tab 165 of marine bundle 4.
If you turn to page 849, we see the tick for "Hull -- gauging" under "2005". We've already looked at that on screen.
A. The year 2005?
Q. Yes.
A. (In English) Item 1?
Q. Yes.
A. (In English) Yes, I tick it. I make the tick.
Q. And then on the previous page, we see your remark, again, item 1 "Hull: Shell/aluminium plating. Hull gauging report to be submitted at final."
You've explained that. So can you please help us,

Page 66

looking back before that record at the previous records, and identify where the previous hull gauging, if any, has taken place?
A. I am unable to tell from just this report that is shown before me.
Q. Well, we can see from page 846, can't we, that there does not appear to have been any test in 2000, 2001, 2002 or 2003?
A. As I have put down in my statement, the first hull gauging would not be done until the vessel is eight years old.
Q. Yes, I see. So yours would have been the first, would it?
A. Yes.
Q. So there was no previous hull gauging to compare?
A. That is why I said I should have a report. But that one was provided -- was the report of the shipyard when it was first completed.
Q. Do you mean that you rely on the shipyard to tell you what the original thickness was?
A. Yes, but if there is any doubt, I would go back and refer to the records myself.
Q. Would those records include the Shell Expansion drawing that we can see, for example, at page 202?
A. If I have any doubt, I would refer to these kinds of

Page 67

drawings.
Q. Yes. And this drawing shows that the side-plate thickness was supposed to be at least 5 mm, doesn't it?
A. Yes, judging from this drawing.
Q. Then we've been shown a letter at page 206 that seems to suggest a change in the thickness, if indeed it applies to this plating, to 4.83 mm. Do you see that?
A. Yes, judging from this letter.
THE CHAIRMAN: Have you seen the letter before?
A. (In English) No.
MR BERESFORD: But your survey shows most of the side plates as being 4.5 mm, in one case 4.4 mm, does it not?
A. Yes. Yes, because according to our requirement, as long as it falls within 10 per cent, it is still acceptable.
Q. So I come back to my question. Would you have compared your results with the information on the Marine Department's file to see whether it was within 10 per cent of the original specification?
A. I am unable to tell which method I used to do the comparison in the year 2005, but if it is indeed 5 mm as shown on the Shell Expansion plan, and my measurement shows 4.5 mm, then it is within the acceptable limit. If there is any doubt, I would consult my senior or superior.
THE CHAIRMAN: The two methods that you've outlined for this

Page 68

comparison, one would be that the shipyard would give you a report of some measurements that were done at the time the vessel was built, or alternatively we'd look at the drawings, that is the plans, for the vessel; is that right?
A. Yes.
THE CHAIRMAN: If it was the former -- that is, Cheoy Lee gave you some previous test results at the time the vessel was built -- would you have kept a copy?
A. Can you repeat your question? Because I'm not sure what your question means.
THE CHAIRMAN: Yes. If Cheoy Lee had furnished you with some test results that came into being at the time when the vessel was built, and you used that as the basis for comparison, would you have kept a copy of the document they furnished you?
A. Basically when we do these kinds of hull gauging tests, we use the figures shown on the plan but not those on the report, because the figures on the plan were provided by the -- were endorsed by the Marine Department, and I have confidence in those figures.
THE CHAIRMAN: So are you now excluding the possibility that Cheoy Lee gave you some results obtained at the time the ship was built, from actual tests rather than a plan?
MR MOK: I'm sorry, I think the interpreter translated it to

Page 69

him as saying he was excluding the possibility that it was a result provided by Cheoy Lee, as opposed to excluding the plan. I think it's a double negative which is causing some difficulty.

THE CHAIRMAN: Yes. Let me try again.

You seem to be changing your evidence. You now seem to be saying that you would have relied on the plans, rather than being provided with anything from Cheoy Lee that were test results conducted earlier. Is that the case?

A. Are you referring to the test results on that occasion, or the test results when the vessel was built?

THE CHAIRMAN: No. We're trying to find out what was the basis of your comparison. On 13 July 2005, you performed some tests with Cheoy Lee, and you're comparing it with something else. We're trying to find out what the something else was.

A. It should be the Shell Expansion plan with our stamp on. But if you ask me whether this plan was adopted at that particular time, I am unable to answer. But according to our usual practice, this is the case.

THE CHAIRMAN: Thank you.

MR MOK: I'm sorry, instead of the word "adopted", I think what he meant was that whether it was the actual plan that was referred to at that time, rather than

Page 70

"adopted".

THE CHAIRMAN: Yes. Well, I took that as being the meaning. Thank you for that.

Since it's 1 o'clock, we'll now take our lunch break, Mr Louk. I'll ask you if you'll be kind enough to come back so that we can resume at 2.30 this afternoon. Thank you.

A. Thank you.

(1.00 pm)

(The luncheon adjournment)

(2.30 pm)

THE CHAIRMAN: Good afternoon, Mr Louk. May I remind you that you continue to testify according to your original oath.

A. Yes.

MR BERESFORD: Mr Louk, before the break we were looking at the hull thickness measurements. You told us that you would have compared the measurements with the Shell Expansion drawing on the Marine Department's file.

A. In fact I was given the copy while I was working on the site, and not afterwards. And so if I have any doubt, I would have voiced out to the shipyard while on site and asked them why there's a discrepancy with the previous measurements.

Q. So your evidence now is that you would have had a copy

Page 71

of the Shell Expansion drawing with you when you were on the site conducting the tests; is that right?

A. Yes, because without this plan, I wouldn't have been able to compare the actual measurement with the previous drawings, and also this drawing was given to me by the shipyard and not brought along by myself. This is our usual practice.

Q. But you mentioned that you had seen on the drawing a stamp showing that it had been approved by the Marine Department; is that right?

A. Yes, because we wouldn't use the original copy of the plan and we would have a copy with us, because it was very dirty at the shipyard and if we used the original copy, it would be soiled. So we bring along a copy.

Q. Yes, all right. Well, never mind whether it's an original or a copy. But can we have a look at a copy now, please, at page 202.

If Mr Secretary could please focus in on the "approved" stamp.

Is that the stamp you're referring to?

A. Normally when I do the hull gauging, I would retrieve this kind of plan.

Q. Thank you. Can you turn to page --

THE CHAIRMAN: Perhaps we could show him the copy of the Cheoy Lee version, which appears to be what he says he

Page 72

was provided with. That's one that was copied yesterday. "Shell Expansion".

Is that the size document that you were given?

A. It may not come in full size. It might be a smaller version that was provided to me.

THE CHAIRMAN: Thank you.

Yes, Mr Beresford?

MR BERESFORD: Can we turn to page 206, please. This is the letter I showed you earlier, Mr Louk, which refers to a change to 0.19 of an inch, or 4.83 mm plating in place of 5 mm plating.

Have a look at this letter. I think somebody is handing you a hard copy of the letter.

There's no "approved" stamp on this, is there?

A. Yes, there is no "approved" stamp.

Q. So is this a document of the type that you might have relied upon to show what the thickness of the plating was?

A. As I have said, I have never seen this document. This vessel was built in 1995, and the test was done by me in year 2005. I wouldn't retrieve such an old document. So I have never seen this document before.

Q. Yes. Thank you. So you would have replied upon the Shell Expansion drawing?

A. Yes.

Page 73

Q. I just want to ask you about the 10 per cent rule you mentioned earlier. You told us that your measurements of 4.5 mm, and in one place 4.4 mm, were within the tolerance of the 10 per cent variation that you allowed. Is it not correct that that 10 per cent rule relates to steel, which is a material that corrodes, and not to aluminium?
A. Normally we abide by the 10 per cent standard, but sometimes if we find that the corrosion of the steel has exceeded 10 per cent, and also in the case of aluminium, sometimes it is more or less than 10 per cent, whenever we have doubt, we would consult our senior or supervisor to find out whether we need to re-examine, or whether to approve them.
Q. Do you recall consulting your superior or supervisor in the present case?
A. I don't remember.
Q. Thank you. Now, Mr Louk, I wonder if you could be --
THE CHAIRMAN: Before you move on, so that I understand your evidence, what was being suggested to you was that there are different characteristics between steel and aluminium when it comes to corrosion, or loss of the mass. Deal with that issue first of all. Is that right as a premise, that steel loses mass by way of corrosion, more than aluminium does?

Page 74

A. According to my experience, if the steel vessel is not maintained properly, it loses its mass more than the aluminium one.
THE CHAIRMAN: And is that reflected in any way in the tolerance as to accuracy with the plan when vessels are measured?
A. Would you please rephrase your question, Mr Chairman?
THE CHAIRMAN: The fact that there might be a greater loss of mass in steel vessels, depending on conditions, than in aluminium-hulled vessels, is that reflected in any difference in tolerance for the measurements as against the drawing plans of the vessels?
A. Basically it was not reflected on the plans.
THE CHAIRMAN: Or in the tests that you apply? You don't make any difference between steel and aluminium in terms of tolerance?
A. As far as my recollection is concerned, the tolerance for steel is higher.
MR MOK: I think what he said is "it may even be higher".
THE CHAIRMAN: Thank you.
Yes, Mr Beresford.
MR BERESFORD: Moving to another topic, Mr Louk. You refer to your handwritten note on form MO 540, which is at page 848 of our bundle, item 32. Item 32 is at the bottom of that page, isn't it? And that's in your

Page 75

handwriting, is it, Mr Louk?
A. Yes.
Q. You've told us that it says "Owner request to raise the aft ballast about 10 inches height of original position, it should be checked the stability condition and confirmed by MD."
A. Yes.
Q. And "MD" is Marine Department, presumably?
A. Yes.
Q. It appears that you were told during the inspection that the owner wanted to raise the lead ballast in the steering gear compartment and the tank room by 10 inches, and that you informed them that the stability calculations should be redone and they should be confirmed at Mardep, but you had no further involvement; is that right?
A. After 13 July, I have checked the position of the ballast after it has been tested, because I was told by the owner on 16 June 2005 that they would like to lift the ballast. After that, on 13 July, I checked whether the lead was stable or not. After that, I was no more -- I had no more involvement in the test.
MR BERESFORD: Yes. Okay, thank you, Mr Louk. Please wait there.
THE CHAIRMAN: Mr Grossman?

Page 76

MR GROSSMAN: I have no application, thank you.
MR SUSSEX: Mr Chairman, I have no questions for Mr Louk.
MR PAO: Mr Chairman, I do have a few questions in the area of the actual gauging exercise of the plates that I would like to ask this witness. May I have leave?
THE CHAIRMAN: Yes, please do.
Examination by MR PAO
MR PAO: Mr Louk, you mentioned that on the day of your inspection of the plating of the vessel Lamma IV in 2005, you were given a sheet like this (indicates) when you arrived.
THE CHAIRMAN: I think for the record you ought to identify it.
MR PAO: It should be marine bundle 4, tab 136 at page 654.
THE CHAIRMAN: Thank you.
A. I am not sure this is the one I was provided at that time, but I know that this was the one that was submitted to our colleagues after the final survey.
MR PAO: Maybe I haven't made myself very clear. You were given something like this, a similar sheet to this, for you to fill in the figures?
A. I don't remember whether this is the case with Lamma IV.
Q. You mentioned that when you arrived at Cheoy Lee Shipyard for the inspection, Cheoy Lee would have undertaken the exercise once before you arrived?

Page 77

A. Yes, they have done a preparation and have put down the figures.
Q. Would it be on a sheet similar to this one?
A. I really can't recall now.
Q. You tell the Commission that you usually redo about 80 per cent of their readings, except those that you find on the same sheet of plating where the readings are consistent?
A. Yes.
Q. When you say that -- what sort of preparation work did they have to do? You said that the paint was removed at various spots of the plate.
A. Yes.
Q. I remember you using the expression "sanding off the paint" or "grinding off the paint". Would I be correct to say so? "(Chinese spoken)"?
A. Yes.
Q. So would that sanding away of paint or grinding away of paint be done manually or mechanically?
A. In the case of Cheoy Lee, it was done mechanically.
Q. So would you, in your experience, expect that process would have reduced slightly the thickness of the plating?
A. In my experience, I believe that there will be a difference of about 0.0-something.

Page 78

THE CHAIRMAN: In other words, a very small amount?
A. (In English) Yes.
THE CHAIRMAN: The attempt is to get the paint off, not to make a hole in the hull, isn't it?
A. Yes.
MR PAO: If this exercise is repeated, then that 0.0-something would accumulate, the reduction of the thickness?
A. In the case of Lamma IV, this was the first time the exercise was carried out.
Q. I understand. Turning to another subject --
THE CHAIRMAN: Before you do that, whilst we've got this document on the screen, page 654.
Can you help us. Do you see we have a Cheoy Lee chop on the document, and we have two names, and a date, the date before -- I think the date that you inspected, on the 16th. We've got the 15th. And the two names, CS Lau and KT Yip. Do you know who they are?
A. I know who KT Yip is, but not CS Lau.
THE CHAIRMAN: And who is KT Yip?
A. As far as I know, he is one of the staff, one of the colleagues in the maintenance section of Cheoy Lee.
THE CHAIRMAN: Thank you.
Yes, Mr Pao.
MR PAO: Mr Louk, in your experience, a vessel with

Page 79

an aluminium hull that was 10 years old, how much reduction in the thickness of the plating would occur?
A. I'm not an expert in this area. Even though I have experience, I haven't got statistics or papers on this subject.
THE CHAIRMAN: Very well. Then don't speculate.
MR PAO: That's fine.
Just one last question. On the 10 per cent rule that my learned friend Mr Beresford was asking you about, based on what regulations or guidelines or internal directives do you say it was 10 per cent or even more for a steel-hulled ship?
A. I know that the 10 per cent rule was stipulated in the International Classification Society.
MR PAO: Thank you, Mr Louk.
THE CHAIRMAN: Mr Mok?
MR MOK: Just two matters, about the 10 per cent rule and also the information given to him by Cheoy Lee at the time of the inspection.
THE CHAIRMAN: Yes, very well.
Examination by MR MOK
MR MOK: Mr Louk, on the 10 per cent rule, my question is, would that 10 per cent rule take into account the wear and tear of the vessel?
A. It was exactly because of the wear and tear that the

Page 80

10 per cent allowance was given.
Q. Thank you. When you undertook the inspection of the hull at Cheoy Lee Shipyard, you said you would be provided with a plan with the Marine Department's chop on it. Do you remember that?
A. I remember saying that I can't recall what I was given, but as a normal practice, we would certainly require that we would be provided with something to compare with the figures.
Q. So would it follow from your answer just now that you also do not recall whether or not Cheoy Lee informed you that there had been a variation in the thickness of the hull?
A. I can't recall.
MR MOK: Thank you.
THE CHAIRMAN: Yes, Mr Beresford?
MR BERESFORD: No further questions, Mr Chairman.
THE CHAIRMAN: Are you able to assist us with the witness's reference to a stipulation in the International Classification Society rules as to 10 per cent? Do we have any of those rules?
MR BERESFORD: I'm not able to assist you on my feet, Mr Chairman, but I'll make enquiries.
THE CHAIRMAN: Do we have any of those rules in our bundles?
MR BERESFORD: I don't believe we do, Mr Chairman.

Page 81

THE CHAIRMAN: Not even for China Classification Society?
MR BERESFORD: I haven't seen them.
THE CHAIRMAN: Then would you take steps to obtain those rules, certainly China Classification Society rules.
MR BERESFORD: Yes, we will indeed, Mr Chairman.

Questions by THE COMMISSION

THE CHAIRMAN: You've been able to identify KT Yip as someone who worked at Cheoy Lee. Do you recall whether or not he was a person doing the tests that you were watching that day, or not? That's the thickness test.
A. If you ask me whether I can recall, I will tell you that I'm not able to recall. But normally, since KT Yip was a staff of the maintenance section, he should go with us to do the tests.
THE CHAIRMAN: Thank you.
MR BERESFORD: Mr Chairman, I have got something in the next witness's statement who says that it's customary practice accepted by all leading marine classification societies to accept tolerance for plate thickness, and in this particular size of aluminium plate, 0.2 mm is the acceptable limit. He refers to an attachment which I won't take you to now.
THE CHAIRMAN: The next witness will deal with this issue?
MR BERESFORD: That's Mr Lo from Cheoy Lee. And Dr Armstrong agrees with Mr Lo's reference to the

Page 82

tolerance of aluminium plate of 0.2 mm. So in those circumstances, I just wonder if you want to see the classification society rules in addition.
THE CHAIRMAN: Yes.
MR BERESFORD: You do?
THE CHAIRMAN: Specifically China Classification Society's rules.
MR BERESFORD: Yes. We will obtain them.
THE CHAIRMAN: Thank you.
Thank you very much, Mr Louk, for coming to assist us by your evidence. Your evidence is now complete and you are free to go. But of course, you are equally free to stay and listen to the evidence that follows, if you wish.
A. (In English) Thank you, Mr Chairman.

(The witness withdrew)

THE CHAIRMAN: Yes, Mr Beresford.
MR BERESFORD: Mr Chairman, the next witness is Mr Lo Ngok-yang.
MR MOK: Before Mr Lo comes to give evidence, shall we deal with the outstanding matters concerning Mr Choi? You remember that Mr Choi was asked to remain because --
THE CHAIRMAN: Ah, yes.
MR MOK: -- I might have to ask him some questions relating to the calculation. But I understand that now Mr Lo has

Page 83

filed a supplemental witness statement to deal with that. I believe it's paragraphs 6 and 7. In the light of that, I don't think I need to ask further questions from Mr Choi.
THE CHAIRMAN: Thank you.
Is Mr Choi still in the hearing room?
Did you hear what Mr Mok said? He doesn't need to ask you any questions. May we thank you for remaining here just in case, but obviously you're free to go now, or you can stay if you wish.
MR CHOI CHI-CHUEN: Thank you very much.

MR LO NGOK-YANG (affirmed)
Examination by MR BERESFORD

MR BERESFORD: Good afternoon, Mr Lo. Thank you very much for coming along to assist this Commission with its Inquiry. Thank you also -- we understand that you have made adjustments to your arrangements to facilitate this.
A. My pleasure.
Q. Mr Lo, I have some questions to ask you on behalf of the Commission. Before I do, I understand that you have prepared a previous statement which we may find in what we call the W&G bundle 1 at item 1, pages 1 to 40; and you have also prepared a supplemental statement which is dated today. Do you have those statements before you?

Page 84

A. Yes, I have.
Q. Have you had an opportunity to remind yourself of the contents of the first statement?
A. Yes, I have.
Q. And you recognise your signatures on those statements, do you?
A. Yes.
Q. Do you have any amendment you wish to make?
A. Not anymore.
Q. Are the contents of those statements true?
A. Yes.
Q. Thank you. Mr Lo, your English name is Ken; is that right?
A. That's correct.
Q. You're a director of Cheoy Lee Shipyards Ltd and have been since 1974?
A. Correct.
Q. You've been awarded a degree of Bachelor of Science and Engineering from University of Michigan in 1973 majoring in Naval Architecture and Marine Engineering?
A. Yes.
Q. You've listed out seven professional qualifications in your statement: fellow of the Hong Kong Institution of Engineers; fellow of the Royal Institute of Naval Architects in the UK; fellow of the Institute of Marine

Page 85

Engineering, Science and Technology in the UK; member of the Society of Naval Architects and Marine Engineers in the USA; a registered professional engineer in Hong Kong; chartered engineer in the UK; authorised surveyor of the Hong Kong Marine Department?
A. Yes.
Q. You tell us:
"Cheoy Lee was established in Hong Kong in 1936 and since then, the company has constructed over 5,000 ships and boats of all sizes and types including luxury yachts, tug boats, offshore support vessels, patrol boats, ferries, launches, pilot boats and many other types of work boats."
A. Correct.
Q. And you point out, as we are all well aware:
"Cheoy Lee is well respected in the marine industry world-wide and that most of the launches, ferries and work boats operating in Hong Kong today were built by the company ..."
In fact I believe Cheoy Lee not only built Lamma IV but also, in joint venture, it built the Sea Smooth?
A. That's correct. I wouldn't say in joint venture; we built the Sea Smooth.
Q. Well, somebody has put a plate on it claiming to have had a part in a joint venture.

Page 86

A. That's the operating company, not building the ship.
Q. The China Shipyard?
A. That is not correct.
Q. Okay.
A. The shipyard belongs to Cheoy Lee.
Q. Cheoy Lee built the Sea Smooth?
A. 100 per cent, yes.
Q. Very well. You say that you've had about 40 years of shipbuilding experience since you graduated?
A. Yes.
Q. Cheoy Lee was the builder of the Lamma IV, and you've given us your main witness statement to deal with 11 points of enquiry that were raised by the Commission's solicitors. You identify certain documents that have been provided by the Commission to you to enable you to deal with those enquiries.
A. Yes.
Q. You make reference to an index; to the notes of interview and witness statements of certain Marine Department surveyors, some of whom we've heard from; and the expert report prepared by Dr Armstrong.
A. Yes.
Q. "I believe that the criticisms levelled at the Lamma IV in relation to the thickness of the aluminium plating on the side of the vessel, the absence of a watertight

Page 87

bulkhead between its tank room and aft peak and the inadequate attachment of the passenger seats on its upper deck have all been answered ... [by those] statements referred to in [the previous] paragraph ..."
A. Yes.
Q. Anyhow, you're going to deal with them yourself today?
A. Right.
Q. You say:
"In 1994, Cheoy Lee tendered for the construction contract of [the Lamma IV] ... to be commissioned by the Hongkong Electric Company."
I believe we have a copy of that tender document, tender specification, behind tab 28 in marine bundle 10, starting at page 3297.
Mr Lo, if you can be provided with the hard copy. The bundle is fine; you'll probably find it easier to follow than on the screen.
A. Yes, I've been given a copy.
Q. Thank you. So we see at page 3297 an addendum to the form of tender, or a front page for that addendum.
A. Yes.
Q. The addendum appears at page 3298. The prices have been redacted; we're not interested in those. And then the main tender specification starts --
THE CHAIRMAN: 15 years after the event, it's necessary to

Page 88

redact them?
MR BERESFORD: Well, I don't know who's done it, Mr Chairman.
THE CHAIRMAN: You can take redacting to absurd levels. Yes?
MR BERESFORD: The main tender specification dated August 1994 commences at page 3304.
A. Yes.
Q. And the details start at page 3305. We see the principal dimensions, general characteristics, speed is required to be not less than 22 knots, passenger-carrying capacity of 180-200 persons, subject to determination of the exact capacity by the Marine Department; all seats to be made of GRP and to be installed on --
THE CHAIRMAN: Which paragraph are we at now?
MR BERESFORD: Paragraph 4, Mr Chairman.
THE CHAIRMAN: Thank you.
MR BERESFORD: -- stainless steel frames; location and colour to be owner's approval. There are references to "Survey & Documents", "Material and Workmanship".
Various other matters.
Paragraph 12, "Inclining Experiment". "Delivery" at paragraph 14. Paragraph 17 --
THE CHAIRMAN: Just deal with inclining experiment a bit

Page 89

more slowly. You may be familiar with this, Mr Beresford, but we are not.
MR BERESFORD: Mr Chairman, I must confess that I don't claim any familiarity with it. It's only recently been handed to me.
THE CHAIRMAN: Very well.
MR BERESFORD: So I'm very happy to be directed as to when you would wish me to take it slowly.
THE CHAIRMAN: Let's deal with it more slowly. If it's worth touching on something, it's worth touching on it so that we understand it. So the inclining experiment requires a vessel "to have sufficient metacentric height under the worst conditions". Yes?
MR BERESFORD: And it requires the vessel "to undergo an inclining experiment in as near light condition as possible", and it's "to be carried out in the presence and to the satisfaction of the Marine Department's surveyor", with copies to be supplied.
Then at clause 17, "Hull & Superstructure", it specifies:
"The hull shell, bulkheads and main deck plating and extrusions for frames and beams to be of marine quality aluminium ...
The hull to be robustly built and of hard chine hull form with transom stern."

Page 90

I highlight this because you mention this in your statement. It is required:
"To be subdivided by five watertight bulkheads into six compartments comprising fore peak/chain locker, void space, crew accommodation, engine room, store room and aft peak/steering flat."
I'm not going to read the whole specification, but at clause 25, under the heading "Hatchways, Ladders and Doors":
"The doors, ladders and access hatches leading to watertight compartments, including ER escape hatch [I assume that's engine room escape hatch] to be situated in the most suitable positions."
I just note on page 16, page 3320 of the bundle, item D includes a navigation horn, "Air horn provided with 24-volt electrically driven compressor", as part of the specification.
At clause 47:
"The navigation lights to be international standard lanterns."
Then, following that document, we have the contract. The contents are set out at pages 3325 to 3326. The principal terms of agreement are at page 3328.
That was signed by you, Mr Lo, was it, page 3328?
A. Yes.

Page 91

Q. In the contract at clause 5.1, we have a clause headed "Drawings":
"The contractor shall submit to the engineer for approval within the times named in the specifications such drawings, samples, patterns and models as may be called for therein or as the engineer may reasonably require, provided that the contractor shall not be under any obligation to supply copies of shop drawings."
At clause 5.2:
"Drawings signed as above described shall not be departed from except as provided in clause Variations and Omissions."
The clause "Variations and Omissions" is contained at clause 12.
Correct me if I'm wrong, Mr Lo, that basically requires any variation to be in writing, does it not?
A. Can you repeat the question, please?
Q. That basically requires any variation to be in writing, does it not?
A. According to the clause, yes.
Q. We can put that down for a moment now.
Then you tell us:
"Upon being awarded the contract on 10 November 1994 ... Cheoy Lee applied to the Marine Department on 24 November 1994 seeking approval for the construction of

Page 92

the vessel ... referred to by its shipyard number 4625, which was later named Lamma IV ..."
We can see that application at page 172. In fact, the application, I think, is on the previous page, 171.
We see the number there, "4625", in the subject heading of the letter. It's also mentioned on the plan, the General Arrangement drawing on the next page, bottom right-hand corner just above the drawing number. It says "Hull No. 4625". Is that right, Mr Lo?
A. Yes.
Q. You then confirm your own understanding that the relevant instructions that would have been applicable would have been those commonly referred to as the Blue Book?
A. Correct.
Q. You tell us that in December 1994, the contract for the design of the hull was awarded to a Singapore design firm, Naval-Consult Pte Ltd.
A. Yes.
Q. "At about the same time, the contract for the GRP superstructure design was contracted to a New Zealand firm, High Modulus (NZ) Ltd."
A. Yes.
Q. "'Profile and deck' drawing ... and 'Sections and Bulkheads' drawing ... (sheet 1 of 2) ... were prepared

Page 93

by Naval-Consult Pte Ltd on 20 December 1994 and 22 December 1994 respectively ..."

We can see those in their final form. The Profile and Deck is at page 204 of the marine bundle.

THE CHAIRMAN: When it is said that the hull design was awarded to the Singapore design firm Naval-Consult, that was an award by Cheoy Lee, was it?

A. Yes.

THE CHAIRMAN: Is this a naval architecture firm with whom you have worked for many years?

A. In fact this was the first vessel we awarded to them.

THE CHAIRMAN: And since then?

A. Since then, we have no more.

THE CHAIRMAN: No more? Only one vessel?

A. Yes.

THE CHAIRMAN: Any reason for that?

A. Not particularly. In those periods, we don't build that many aluminium ships, and they are specialised in aluminium only.

THE CHAIRMAN: Thank you.

MR BERESFORD: So we just look briefly at the Profile and Deck drawing. The Sections and Bulkheads drawing is in marine bundle 2 at page 205. In relation to both of these drawings, and the General Arrangement drawing, we have, of course, your copies of the full-size drawings

Page 94

which we can refer to, if necessary.

A. Our full plans, yes.

Q. -- and for which I thank you.

You tell us that the hull design of the Lamma IV followed very closely the design of another vessel called the MV Eastern District No. 1, which was designed by the same firm, Naval-Consult Pte Ltd, and built by Cheoy Lee.

A. That's correct. That's actually the answer to the Chairman. That's the reason we picked Naval-Consult to be the designer, because they have the same ship that HKE wants in the tender.

MR PAO: Mr Chairman, there's a correction in the supplemental statement of Mr Lo saying that that ship was actually not built by Cheoy Lee. The MV Eastern --

THE CHAIRMAN: Yes, I saw that.

MR PAO: So when it says that it was built by Cheoy Lee, it's not correct.

THE CHAIRMAN: Let's come back to you. You were answering, you said, with further information, my question, your contact with Naval-Consult, why you awarded the contract to them --

A. That's correct.

THE CHAIRMAN: What was it about this earlier vessel that is relevant to that issue?

Page 95

A. It's because when we look for design of the vessel, we prefer to have an existing design and not to create one. So since Naval-Consult have exactly the same vessel that Hongkong Electric is looking for, that's why we used Naval-Consult to design the ship.

THE CHAIRMAN: How did you come to know that Naval-Consult had designed a similar ship earlier?

A. We do a lot of business in Singapore, and Naval-Consult is one of the known designers in Singapore.

THE CHAIRMAN: So this was information that you then put to use in choosing them?

A. That's correct.

THE CHAIRMAN: Thank you.

MR BERESFORD: So the correction to paragraph 16 of your statement is that the words "and built by CLS" should be deleted?

A. That's correct.

Q. Then you draw attention to a difference between the Lamma IV and the MV Eastern District No. 1 in that the latter was required by its owner to be able to sustain two-compartment flooding in terms of damage stability.

A. That's my understanding.

Q. Yes. Lamma IV, however, was required to be able to sustain one-compartment flooding in terms of damage stability, and --

Page 96

THE CHAIRMAN: Have we seen that in the earlier documents we went to? The tender for contract? Is there anything there that relates to that?

A. No.

MR BERESFORD: No, I don't believe there is, Mr Chairman, and Mr Lo seems to confirm that.

We've been told by various ship surveyors and inspectors of the Marine Department that this was their practice insofar as they regulated local vessels before the 2007 regulations came into effect.

A. In actual fact, we have been building ships with Marine Department approval for a long, long time. Even up to today, this one-compartment flooding is still in use and in existence --

Q. Yes, but --

A. -- for Hong Kong water vessels.

Q. Before 2007, Hong Kong water vessels were not regulated by statute, were they?

A. No.

Q. If you don't know, just say you don't know.

A. No, I don't know.

Q. All right. Then I'll move on.

Now, you then go on to say:

"... the design of the hull allowed for an access opening [to be] placed at the bulkhead between the tank

Page 97

room and the aft peak as they are considered together as forming a single compartment due to length of the aft peak being less than 10 per cent of the length of the entire vessel ..."
A. Correct.
Q. You say and you emphasise that that's a statutory requirement, but there's no such statute that was in force at the time, is there?
A. Then I may be wrong on that exact word of "statutory".
Q. At least so far the witnesses that we've heard, Mr Lo, would agree with you that it was certainly the practice?
A. It is in practice.
Q. You then go on to refer to some correspondence with Mr John Lim of Naval-Consult. You asked him why the --
THE CHAIRMAN: Before we deal with him, I understand from some information that I was given just before we came into the hearing room that Mr Lim is prepared to make himself available, and we'll have evidence from him.
MR BERESFORD: Okay. Then I'll pass over this.
THE CHAIRMAN: We'll do that, if all is well, by videolink next week.
MR BERESFORD: But you go on to say, Mr Lo, that the wording "WT BHD" in the section B-B diagram of the Sections and Bulkheads drawing, Profile and Deck drawing and Shell Expansion drawing, were mistakes in your view?

Page 98

A. Yes.
THE CHAIRMAN: We're dealing with which paragraph?
MR BERESFORD: Paragraph 22.
THE CHAIRMAN: Thank you.
MR BERESFORD: Perhaps we can just identify where those wordings appear. Taking them in the order that you mention, the Sections and Bulkheads, which is at page 205 in the marine bundle --
A. Do you mind if I see the original drawing?
MR BERESFORD: No. Please do.
THE CHAIRMAN: Yes.
MR BERESFORD: The section B-B that you refer to is in the top right-hand corner; is that right?
A. Correct.
Q. We can see there the annotation "WT BHD"?
A. Below the word "2".
Q. Yes. And your understanding is that that abbreviation means "watertight bulkhead", is it?
A. Correct.
Q. Yes. And that line, "B 2", corresponds, does it not, to the line that we see in the bottom left-hand corner drawing of the bulkhead at frame 1/2?
A. Correct.
Q. Then you refer to the Profile and Deck drawing, which, for those following on the screen, is at page 204. In

Page 99

the side shell profile, which is the top one --
A. Yes.
Q. -- we can see at frame 1/2 the same abbreviation, for "watertight bulkhead"?
A. Yes.
Q. In the centreline profile, we can see at frame 1/2 the term "corrugated watertight bulkhead"?
A. Yes.
Q. In the bottom plan, at frame 1/2, we also see "watertight bulkhead" marked?
A. Yes.
Q. On the Shell Expansion, which is page 202 in the bundle, in the top half we can see at frame 1/2 again the expression or the abbreviation for "watertight bulkhead"?
A. Correct.
Q. Thank you. While we've got the plans out, if we can look at the General Arrangement, perhaps starting with the underdeck plan. We can see there, can we not, five watertight bulkheads separating six watertight compartments?
A. On the underdeck plan, there are five partitions, five bulkheads. It does not say "watertight".
Q. All right. Well, we can come back and look at those if necessary. But does that not appear to correspond to

Page 100

what we saw in the specification?
A. You can say that. There are five bulkheads, yes.
Q. You say you compiled a table at attachment 1 showing which of the approved drawings -- or drawings approved by Mardep, I think that is -- contain the words "WT BHD" shown at frame 1/2?
A. Yes.
Q. And you believe that items 7, 19, 25, 26 and 27 were wrongly marked by the draftsman when he or she adapted the design from the previous MV Eastern District No. 1?
A. Yes.
Q. Why do you say that?
THE CHAIRMAN: Could we see attachment 1? Where is that?
MR BERESFORD: It should be at about page 15.
THE CHAIRMAN: Thank you.
MR BERESFORD: Item 7 that you've referred to is "Rudder and Rudder Stock Details"; item 19 is "Shaft Strut"; item 25 is "Sections and Bulkheads", sheet 1 of 2), which I believe we've just seen; item 26 is "Profile and Deck"; and item 27 is "Shell Expansion", all of which we've just seen.
Why is it you believe that was a mistake, Mr Lo?
A. The reason is, when we instructed Mr Lim to design the ship based on the Eastern District No. 1, and told him that this ship is going to be run in Hong Kong waters

Page 101

only, and the requirement is for one-compartment flooding, we believe that his designers have taken out the watertight door shown on frame 1/2 from what is drawn for Eastern District No. 1, and changed it to an access opening. Now, by doing so, that watertight bulkhead is no longer a watertight bulkhead.
Q. Indeed.
A. Therefore, when he was doing the other drawings -- now, whether he is the same guy, we don't know -- then he should have removed the word "WT" from the other drawings when that frame is shown. We are assuming that they have not been careful in removing that word, "WT", from the other drawings. Some of those drawings are minor drawings, like a shaft strut and the rudder. When you draw a rudder drawing and a shaft strut drawing, you don't look at the other part of the structure because that doesn't involve the rudder or the shaft strut. So it is very easy to miss that deletion.
Q. But they're on structural drawings, are they?
A. They're non-structural drawings.
Q. Well, what about --
A. If you look at --
THE CHAIRMAN: Not your two examples, but the other ones; I think that's what Mr Beresford is saying.
A. Yes, the other one I understand. Those are structural

Page 102

drawings. So we are just assuming he forgot to remove them.
MR BERESFORD: But why would you assume that, given that the contractual requirement is for the vessel to be subdivided by five watertight bulkheads into six compartments, comprising the fore peak/chain locker, void space, crew accommodation, engine room, store room and aft peak/steering flat? If they hadn't made it watertight it wouldn't have been compliant with the contract, would it?
A. Yes, but it is not unusual for contract spec or our tender specification to change with the owner's agreement. After all, the vessel has to be built to Marine Department class III waters licence. And it is during the design of the ship that items like this can change. As long as a ship is safe and ultimately surveyed and licensed by the Marine Department.
Q. But if there was a change --
A. This is not unusual.
Q. If there was a change, that's one thing, and we haven't seen any evidence of a change. But that doesn't imply a mistake on the part of the architect in Singapore, does it?
A. But if the two drawings are not consistent, one of them is a mistake.

Page 103

Q. Why is it not consistent?
A. Because if you change a watertight door from the original drawing, to an access opening, means that that is no longer a watertight bulkhead.
Q. Well, isn't it rather the case that if you have a drawing with a watertight bulkhead, then it's required by the Blue Book to have any access closeable by a watertight appliance?
A. Yes. But if you look at this draftsman, if he purposely -- why did he change the drawing from Eastern District No. 1, which said "watertight door"? He could have left it there, right, if he feels that the spec calls for five watertight bulkheads?
THE CHAIRMAN: Do we have the drawing from this Eastern District vessel, Mr Beresford?
A. I believe we have.
MR BERESFORD: I don't recall seeing it, Mr Chairman, but I will --
THE CHAIRMAN: Mr Mok?
MR BERESFORD: Perhaps Mr Pao can assist.
MR PAO: It's page 198 of marine bundle 2.
MR BERESFORD: Marine 2, page 198, I'm told.
So the change that you want to draw our attention to --
THE CHAIRMAN: Just give us a moment to digest this, first

Page 104

of all.
How do we know that it is in respect of that vessel, page 198? Is the name there of the vessel? I see the letter at page 195 refers to enclosing submitted drawings, CCS-approved, for a sister ship which is unnamed. Why should it be page 198 that is the sister ship?
MR BERESFORD: Well, in the bundle that's been provided by the Marine Department, Mr Chairman, it's all under cover of a letter at page 195.
THE CHAIRMAN: Yes, that's what I've just read out.
MR BERESFORD: Yes.
THE CHAIRMAN: But it's enclosing drawings for a sister ship. But why should page 198, rather than one of the other drawings, be for a sister ship?
MR BERESFORD: My understanding is that they're all for the sister ship.
THE CHAIRMAN: Ah. Thank you.
MR BERESFORD: All up to 200. My learned friend draws attention to the reference number "NC-227-3".
THE CHAIRMAN: Thank you for that.
MR BERESFORD: Which I don't believe is mentioned in the letter, but is common to each of the drawings in that tab.
THE CHAIRMAN: And the point that you're making, is it,

Page 105

Mr Lo, is to be found at page 198 where the doorway in the frame 1/2 has not only "1200 x 600 W/50R at corner (port only)", but has the phrase at the top "WT door"?
A. Exactly.
THE CHAIRMAN: That's your point?
A. Yes.
THE CHAIRMAN: Just help me more generally. Is the evidence that you're giving about that issue now something that you have constructed in hindsight by looking at material, rather than something that you thought about at the time?
A. This drawing of course is supplied to us by Naval-Consult to facilitate the approval of the drawing by Marine Department.
THE CHAIRMAN: Yes.
A. All right? That's why they submitted to the Marine Department when we submitted our drawing.
THE CHAIRMAN: Yes.
A. The reason being that Marine Department, after looking at this set of drawings, can confirm that the structure is the same as the previously built vessel approved by, in this instance actually it's DNV, the Norway society, and then CCS, means that the inspector or surveyor who approves the drawing will make their life easier to see that it is designed to a certain standard. So they will

Page 106

be doing spot-checking and so on, rather than a full calculation.
THE CHAIRMAN: I follow all of that. But what I'm trying to understand is this. Did you realise at the time that the drawings were --
A. I'm coming to that. Okay.
THE CHAIRMAN: Can we deal with that first and get to the rest of the story later?
A. Sure. Okay.
As I said in my statement, I was then dealing with Mr Lim on designing the ship. When this was discussed, we talked about one-compartment flooding and 0.1 length requirement. That's why when we have decided to change this door to an opening, to make it workable for the Hong Kong ship.
THE CHAIRMAN: What's unworkable about putting a door to a hole in a bulkhead?
A. Well, which means that we are breaching the 0.1 length requirement, and if we take it off, then in any case, of course, the door can be left there but it is no longer necessary.
THE CHAIRMAN: That's a separate issue.
A. Yes.
THE CHAIRMAN: But why do you say you're breaching a 0.1 length --

Page 107

A. Which means that the aft peak bulkhead is no longer an aft peak bulkhead. The aft peak bulkhead, then we can only assume the engine room bulkhead -- the aft bulkhead of the engine room as the aft peak bulkhead.
THE CHAIRMAN: Yes, and what's the problem that arises from that? If you've got the aft peak bulkhead being formed by the aft bulkhead of the engine room, what's the problem?
A. There's no problem with that. That complies with the rule.
THE CHAIRMAN: Yes. So why not put a door on the access hole in the bulkhead to the steering compartment?
A. Because it's no longer necessary. Unless a flooding requires it. So Mr Lim's job is to make sure the flooding of that compartment complies with the one-compartment flooding requirement. Of course, he can also take the liberty of actually changing the bulkhead structure into not a full-scale bulkhead. But that's his work. So I guess it's easier just to remove the words "W door" to an access opening.
MR BERESFORD: But the fact is, Mr Lo, that Mr Lim, or whoever actually prepared these drawings, marked this bulkhead as watertight in every drawing in which it appears.
A. Yes. That's why I say he made a mistake, because if you

Page 108

look at the Eastern District No. 1 or this set of drawings called 227, all this --
Q. But it's not necessarily -- just because it's not necessary to comply with the 10 per cent requirement doesn't mean to say it's a mistake, does it?
A. No, no.
Q. I don't follow how that follows.
A. When you ask me why I feel it's a mistake; it is a mistake. It is left over. If you run through all the drawings, they are the same.
THE CHAIRMAN: You're telling us, are you, in your evidence that this is something you realised was a mistake at the time?
A. No, no. The "WT" word --
THE CHAIRMAN: That was my question.
A. Sorry?
THE CHAIRMAN: Is this done in hindsight or did you know this at the time?
A. You mean why I say the "WT" word is a mistake?
THE CHAIRMAN: Yes.
A. No.
THE CHAIRMAN: It's done in hindsight?
A. I'm sorry. If my answer is wrong, then after now we look at the drawing, all right, then we realise that it was a mistake, now, after the accident. Let's put it

Page 109

this way. It was never noticed during construction.
THE CHAIRMAN: Thank you.
A. Not by us and not by the surveyors.
MR BERESFORD: So if you'd noticed it, you could have called for the drawings to be amended?
A. Yes.
THE CHAIRMAN: And you would have done that, presumably?
A. Yes.
MR BERESFORD: But the drawings that were produced were the drawings that were approved by the Marine Department?
A. Exactly. And because nobody spotted these mistakes, then --
THE CHAIRMAN: That's not a matter for you to testify on.
A. Sure.
THE CHAIRMAN: But it's only in hindsight, when looking back after this accident, poring over the documents, that you have come to form the view that it was a mistake not to mark the door as not being a watertight door, or no need for a door?
A. No, no, no, no. What I mean is that the word "WT" should have been erased or should not have been there.
THE CHAIRMAN: Thank you. The "Watertight bulkhead" words should have been removed?
A. Yes, the word "WT", the letters "WT".
MR BERESFORD: So it follows that you should also have

Page 110

negotiated a variation to the specification?
A. Could have verbally or --
Q. No --
A. There's nothing in writing, I can assure you.
Q. So you would have had to have got the agreement of Hongkong Electric as well; do you agree?
A. Since I was not dealing with the day-to-day construction and dealing with the person in charge from Hongkong Electric, I would assume that this has -- if they spotted it, it would have been discussed. Ultimately, of course, Hongkong Electric has accepted the ship without any comments. There is no record in the file. No written record of any discrepancy or any comments on this issue of not having five watertight bulkheads.
Q. But you don't normally ask your naval architects just to design something that they can get away with and slip under the radar, so to speak, you know, hoping that the owner doesn't see it and accepts the vessel without making a complaint?
A. No, that is not the --
Q. As a well respected company, you would --
A. Of course.
Q. -- normally raise it with the owner, and you would make it open and express, wouldn't you, if you --
A. I don't know whether my staff would have, but I would

Page 111

expect that to be so.
Q. You would expect that to be done?
A. Yes.
Q. You then go on to tell us that the hull and main deck of the Lamma IV was constructed by the Wuzhou shipyard in Guangxi province, and Mardep was informed by a letter dated 4 April 1995, and you give the reference.
You point out that the aft bulkhead was constructed according to drawings designed by Naval-Consult and approved by Mardep, with an access opening.
Of course, Mr Lo, you're familiar with paragraph 12(v) of the Blue Book --
A. Yes.
Q. -- which provides:
"When any access opening is fitted with a watertight bulkhead, it is to have an efficient closing appliance."
A. I understand.
Q. Yes. Are you also familiar with paragraph 12(v), which provides that in all launches over 70 feet, or about 21 metres long, peak bulkheads will be required at both ends?
A. Yes.
Q. Not in the middle?
A. No.
THE CHAIRMAN: Just bear in mind, if you would,

Page 112

Mr Beresford, that this is being translated.
MR BERESFORD: Yes, thank you, Mr Chairman.
THE CHAIRMAN: So the thrust and parry may be a bit too much for the interpreter, particularly on a Friday afternoon at this time.
MR BERESFORD: Not long to go.
You take issue with Mr Wong Chi-kin that there was a departure from the approved plans for not having a watertight bulkhead at frame 1/2.
A. Yes.
Q. But in fact it was a watertight bulkhead, wasn't it?
A. No. As I explained before already, that's an access hole in there.
Q. It certainly had an access hole in it. But as we've seen from paragraph 12(v), that doesn't mean that it wasn't a watertight bulkhead.
A. 12(v), the peak is the end of the bulkhead --
Q. No, paragraph 12(v) of the Blue Book --
A. 12(v) is if it's a watertight bulkhead, needs a water closing appliance.
Q. May I remind you:
"When any access opening is fitted with a watertight bulkhead ..."
THE CHAIRMAN: If you'd like to see those provisions --
A. I know that.

Page 113

THE CHAIRMAN: -- we can put them on the screen.
A. I understand that.
MR BERESFORD: It's page 1769. It might make it easier if we can all see it. Marine bundle 8, page 1769.
A. Yes. I've seen it.
MR BERESFORD: No, marine bundle 8, page 1769. I think we're looking in the wrong place.
There we are. If we can scroll down to subparagraphs (iv) and (v), please. So obviously we're not concerned with double-ended launches here, but in all launches over 70 feet long -- you'd agree that's about 21 metres --
A. Yes.
Q. -- peak bulkheads will be required at both ends?
A. Yes.
Q. And (v):
"When any access opening is fitted with a watertight bulkhead, it is to have an efficient closing appliance."
A. Yes.
Q. So it's clear, is it not, that you can have a watertight bulkhead with an access opening?
A. Yes.
Q. And the fact of an access opening does not by itself imply that the bulkhead is not watertight?
A. Because that bulkhead is not a watertight bulkhead.

Page 114

Q. But it can be fitted with a watertight appliance?
A. Any bulkhead can be fitted with any fitting. If you call it a watertight bulkhead.
Q. Yes. So you can have a door?
A. (Witness nods).
Q. And it becomes watertight?
A. Yes, if it's necessary.
Q. Well, I'd suggest to you that it is necessary, according to the drawings as approved.
A. According to the drawings as approved, it's an access opening.
Q. In a watertight --
A. It's stated very clearly.
Q. In a bulkhead that's described as watertight?
A. Yes.
THE CHAIRMAN: So on it's face there's an obvious contradiction in terms, isn't there?
A. As I mentioned earlier, I mean, that bulkhead, the word "WT" is a misprint or is a mistake, and that's why we took it that that bulkhead is not a watertight bulkhead.
MR BERESFORD: So are you saying at the time you didn't treat it as a watertight bulkhead?
A. No. You want me to explain?
Q. Well, I just want to focus on what you did at the time.
A. Definitely not.

Page 115

Q. I'm sorry, what do you mean?
A. When we built the ship, that hole is meant to be an access hole without a door. If we think a door is necessary when we constructed the aluminium structure in Wuzhou, we would have ordered the shipyard to install a door and prepare the plate accordingly.
If I can refer to Dr Armstrong's report, it is not --
Q. Well, I'm asking you about what you did at the time, and Dr Armstrong's report --
A. All right. Never mind. That's why --
THE CHAIRMAN: I think Mr Lo is answering the question.
If you thought it was to be provided with a door, you'd have told the Wuzhou shipyard --
A. Exactly.
THE CHAIRMAN: -- "Make a door and prepare a plate to receive a door"?
A. Exactly. And if you see the finish of that access hole, it is finished probably with flat bars meant for a hole and not a door. And if you fit a door, as Dr Armstrong said, he looks at it or looks at the thing -- the congregated area is already at the flat bar. There is no way to fit a door in that structure as built.
THE CHAIRMAN: As provided for in the plans? The place where it was to be?

Page 116

A. Yes. So it was never meant to have a door on it from day one, as far as our construction is concerned.
THE CHAIRMAN: By that do you mean that there wasn't room for the necessary fittings to be attached to or around the access hole for the door to be secured?
A. Yes, Mr Chairman. If you need to fit a door onto a structure, you have to prepare the plate next to it to have sufficient space to bolt the door onto the plate. And the fact that the congregated areas are so close to the end means that there is no flat area to bolt any door on it. And in fact, that structure was finished in the shipyard.
MR BERESFORD: Thank you, Mr Lo.
A. You're welcome.
Q. You go on to recognise, as we've already noticed:
"Although the tender specification requirements stipulate that ... the hull of the Lamma IV should be subdivided by 5 watertight bulkheads into 6 individual compartments, the actual construction varied from the tender specification requirements.
Due to the lapse of time, I cannot now recall why ..."
A. No.
Q. And since the cost would be minimal, you say, it couldn't have been a question of costs?

Page 117

A. Exactly.
Q. You then come on to deal with the issue of passenger seats. You say:
"The passenger seats of the Lamma IV were supplied and installed by Cheoy Lee in accordance with the contract with Hongkong Electric. The method of installation and the fastening used were and still are common in the industry for local waters passenger launches. The seats were fastened by stainless steel self-tapping screws onto the aluminium deck on the main deck and onto the GRP deck on the upper deck."
A. Yes.
THE CHAIRMAN: Where was the attachment of the seats done?
A. In Hong Kong.
THE CHAIRMAN: So it was the aluminium hull that was delivered from the Wuzhou shipyard?
A. Yes.
THE CHAIRMAN: Was the superstructure put on in Hong Kong?
A. Yes.
THE CHAIRMAN: Then after that, was the seating put on?
A. Well, there's a lot of process before then because before the seating is to go on, the ship is almost finished.
THE CHAIRMAN: Yes.
A. And the actual deck -- there's a vinyl decking that has

Page 118

to be put on before the seat is installed. That is the final process to finish a ship.
THE CHAIRMAN: But we're dealing with two different decks here, aren't we. The main deck was aluminium.
A. Yes.
THE CHAIRMAN: The upper deck was fibreglass.
A. Yes. But the decks are not bare when they're finished.
THE CHAIRMAN: No, I follow that. All I'm trying to get an idea of is the sequence in which events happened.
A. (Witness nods).
THE CHAIRMAN: So the hull is delivered from the shipyard?
A. Yes.
THE CHAIRMAN: The superstructure is then attached to the vessel, and at some later stage, perhaps towards the final stages, the seating is put in place?
A. Correct.
THE CHAIRMAN: By your workmen in your shipyard?
A. Our workmen.
THE CHAIRMAN: Were you provided with any plans to affix the seats to the deck?
A. No, because installing seats is a very common procedure by our team of people. The seats will be pre-made, of course, and then, according to the drawing, will be marked on the deck.
THE CHAIRMAN: According to what drawing?

Page 119

A. On the General Arrangement drawing.
Now, of course that drawing is not 100 per cent perfect. The most important thing is, if you look at the rule book, there is at the very end the instructions of how to space out seats --
THE CHAIRMAN: Yes.
A. -- according to the leg room, the accesses and all these things. So the work team will then mark the seats onto the deck. When it's all checked to be correct, then they will start installing them.
THE CHAIRMAN: With any instructions as to how they are to be affixed to the different decks, one aluminium and one fibreglass?
A. No, because if we use self-tapping screws, the same screws are used on aluminium as well as fibreglass.
THE CHAIRMAN: Thank you.
MR BERESFORD: Just before we go on with that, can I just -- I'm sorry to chop and change --
A. It's all right.
Q. -- but I want to go back to the issue of the watertight door.
Although costs may not have been a major issue, I suggest to you that in fact the reason why a door was not fitted is not because it cannot be fitted, but because it would cost a bit more in terms of money and

Page 120

time to fit a door to a corrugated structure.
A. No, no, no, no. A corrugated structure has nothing to do with fitting a door. If you need to fit the door, the corrugation will end a lot earlier. Then you leave a flat space for the door to be bolted on. So it's not a matter of cost. Cost, as I say, to buy the door --
Q. No, I understood your evidence about that. But it is possible to fit a door to a corrugated surface?
A. Of course, of course. Yes.
Q. But it will cost a bit more?
A. It will cost money, yes. Whether a bit more or less -- yes, of course it will.
Q. It will cost money?
A. You need labour and cost, yes.
Q. Labour and money?
A. Of course.
Q. Or money and time?
A. Yes. But compared with the total cost of the ship, this is negligible.
Q. It's not huge, but --
A. No, no, no. In the year 1995, probably a few thousand dollars out of a contract of a substantial amount.
Q. Yes. Now, you say that the seats were fastened by self-tapping screws and this is normal or common?
A. Yes.

Page 121

Q. But you've seen Dr Armstrong's report about the inadequacy of, in his opinion, the use of self-tapping screws on a fibreglass deck?
A. Yes, that is Dr Armstrong's opinion.
Q. Yes. Well, do you agree with it?
A. No.
Q. So you think the seats were adequately secured?
A. Yes.
Q. How is that, given that it seems only one thread of the screw was embedded in anything solid at all, and most of it was just tapped into foam?
A. Well, it has lasted that many years and has been in use, and I can assure you this is the same practice we do on a lot of boats and it's still in use.
Q. Dr Armstrong also says that the photographs suggest that the seats have come out and been reattached from time to time, and one of the crew members gives evidence to the effect that the seats were wobbly.
A. Yes. This is a regular maintenance item, depending on your seats. If you rock your seat all the time, the seat, whatever seat you do, even at your house, will crack or fall apart. So, depending on the guy sitting on it.
Q. Well, of course the seats at our house are not attached to the ground because we're not thrown about by

Page 122

1.2-metre waves in our house.
A. Yes, but it's proven that the seats are still being used and useable after 16 years.
Q. But isn't it foreseeable that in the event of a collision, the seats are liable to come loose and injure people?
A. Well, for this type of vessel, I don't think anybody would have assumed that to be the case. This is not a rule requirement.
Q. No, but I'm asking you about the adequacy of the fastenings. It is a requirement that the seats are securely fastened in position.
A. They are securely fastened.
Q. I'm suggesting that to put a self-tapping screw into what is mostly foam is not a secure fastening.
A. There is fibreglass in there.
Q. And the middle part of the fibreglass is just foam; would you agree with that?
A. Yes, but I would suggest that you try one and see how to pull it apart.
THE CHAIRMAN: Was any thought given to providing a hard wood base beneath the floor so that the screw went through the fibreglass and into hard wood? We've had a witness tell us that that was one of the methods that might be used.

Page 123

A. Well, I'm sure there are a lot methods that can be used. As I mentioned earlier, before the ship is finished, it's very hard to allocate where the seats will go. So it would be very hard to pre-insert a piece of wood into the structure to accept this type of fastening. It is not practical.
MR BERESFORD: But you could, could you not, have used a through bolt with a washer to spread the load underneath, instead of a self-tapping screw?
A. Yes. That very much depends on what the structure is down below. But this is not the usual practice.
Q. But in this case, in the case of the Lamma IV, you could have done that, could you not?
A. If requested, then certain places can be done, yes.
Q. We're talking specifically about the GRP upper deck.
A. I know, but depending on what's down below. You may be hitting something that you cannot get through, so there's a lot of risk. Because underneath the deck theres' wiring, there is piping, there are a lot of things underneath. So you cannot just drill a hole and assume that nothing is down below; that is at the very final stage of construction.
Q. No, Mr Lo. One might be tempted to suggest that that is commonly done in Hong Kong, but --
A. I can assure you that that is not commonly done in

Page 124

Hong Kong, because as I said, we build most of the boats.
Q. I'm not suggesting that's how you'd do it in your yard. I'm sure you'd have somebody underneath looking. But it could have been done, could it not? It's not that difficult.
A. In certain areas, yes, I told you that. Not 100 per cent.
THE CHAIRMAN: Well, what about requiring -- as the witness told us, an alternative was to thicken the fibreglass in the places where you were going to attach seats, or perhaps some of them? Anchor points. Thicker fibreglass.
A. As you know, the deck is flat, and fibreglass is a very rough thing. So if you do that, your seat will be wobbling. It is very hard to do this, Mr Chairman.
THE CHAIRMAN: So you reject that suggestion by that witness?
A. I would assume so, yes. I mean, it's not practical.
MR BERESFORD: When you put a self-tapping screw into fibreglass, you're breaching the integrity of the fibreglass, are you not?
A. What do you mean by integrity --
Q. Water will get into --
A. No, no, no. That's why we have bedding compounds. We

Page 125

don't build ships that way. So when you drill holes into anything and fasten it, whether it's steel, aluminium or wood, you must have bedding compound to make sure that the structure, the water doesn't go through, because:

THE CHAIRMAN: It's something you insert into the hole before you put the screw in?

A. Yes, yes. That's the compound. Likewise, you don't want water to be trapped there, especially as this is salt water and will rust the screws.

MR BERESFORD: Indeed. So your evidence is that this would have been done on the Lamma IV --

A. Oh, yes. Of course, of course.

Q. -- and that the upper-deck seats would have been --

A. Yes, of course. This is a necessary procedure.

Q. -- attached by screws using a bedding compound?

A. Yes.

Q. Then I think you point out in relation to the seats:

"The Lamma IV was not serviced or maintained by Cheoy Lee after its completion and delivery in 1996."

Although you say that according to the certificates of survey, the seats were all found to be properly secured in position in subsequent years.

A. Yes.

Q. You also make the point that you agree with Mr Wong

Page 126

Chi-kin that although the seats were securely fastened, they were not intended to withstand abnormal pulling-out forces?

A. Yes.

Q. But we discussed with Mr Wong Chi-kin, and I'll ask you as well, the standards he referred to involved a vessel in waves of 1.2 metres.

A. Yes.

Q. And that involves quite a lot of force, does it not?

A. So, it has withstood the use for that many years, for normal usage.

Q. Then in 2003, and I think thereafter, Cheoy Lee was occasionally engaged to service various parts of the Lamma IV, but it was all specifically items of repair work and not regular maintenance?

A. Yes. Since 2003 -- every two years Hongkong Electric tender out the servicing of their vessels. So from 2003 onwards, we have won the tender and are doing the servicing for all their vessels.

MR BERESFORD: Yes. Thank you.

Mr Chairman, I'm about to move on to another topic which will -- I know we're four minutes early, but --

THE CHAIRMAN: No, that will do for this week. Can you assist us as to how long you expect to be in examining Mr Lo on Monday? Do you have any idea?

Page 127

MR BERESFORD: I would estimate about an hour, possibly two. Maybe up to the break.

THE CHAIRMAN: Yes, very well. As I mentioned earlier, the information we'd received is that Mr Lim is willing to and will make himself available to testify by videolink. I think it would make sense that those arrangements should be in place, if possible to have him testify before Dr Armstrong gives evidence. So perhaps that could be addressed.

MR BERESFORD: We'll see if we can arrange that. Thank you, Mr Chairman.

THE CHAIRMAN: Very well.

MR SUSSEX: Mr Chairman, I wonder if I might raise a point.

THE CHAIRMAN: Yes.

MR SUSSEX: You will remember that during the evidence of Mr Cheng of Hongkong Electric I was anxious to obtain details of the fog light at the end of the breakwater.

THE CHAIRMAN: I hadn't forgotten, yes.

MR SUSSEX: So far requests from Hongkong Electric have elicited the information that it was all seized by the Department of Justice pursuant to a search warrant.

THE CHAIRMAN: That is the actual lamp itself?

MR SUSSEX: No, not the lamp itself. Documents relating to the lamp. There's quite a lot of documentary evidence, I understand.

Page 128

THE CHAIRMAN: Do we need to go back beyond what was there on 1 October?

MR SUSSEX: Well, I don't -- no, we don't -- not necessarily, although it may be of importance to understand what approvals have been obtained in relation to that.

THE CHAIRMAN: Yes, I follow that subsidiary issue. But can I deal with the issue of the characteristics of the lamp, because we asked for information about that.

Mr Grossman, have we got an answer?

MR GROSSMAN: I've seen some documents, but we understood that most of them were seized by --

THE CHAIRMAN: No, what is the characteristic of the lamp that will be glowing in two hours' time? What wattage is it? Is it lead bulb, is it --

MR GROSSMAN: I can't tell you off-hand.

THE CHAIRMAN: That's what we asked for.

MR GROSSMAN: I'll let you know on Monday.

MR SUSSEX: We've been chasing the Department of Justice who said first of all they hadn't made a decision on what they were going to do with the documents, so we started about three days ago. We've been told by the Department of Justice today that they are going to send the documents relating to the fog light to the Commission's solicitors this evening, but they're refusing to give us

Page 129

a copy and we have to await disclosure by Lo & Lo. We'd rather not, if -- I mean, we'd say that things are getting frankly silly and we'd rather not lose the benefit of the weekend, if we possibly can, because we are trying to produce information for the Commission, and we'd like to see those documents as soon as possible, and before the weekend.

THE CHAIRMAN: Presumably it was the police that seized the documents?

MR SUSSEX: So I understand.

THE CHAIRMAN: Mr Mok represents the police.

MR SUSSEX: He does indeed.

THE CHAIRMAN: Mr Mok, can you assist?

MR MOK: Yes. As my learned friend said, from what he said -- I heard for the first time -- it will be released tonight. I think it is the practice to release the documents to the Commission and not to the parties directly, unless of course the Chairman so directs.

THE CHAIRMAN: No, I understand the practice, but no doubt a phone call from you will result in them arriving here quite soon.

MR MOK: I'll do my best.

MR BERESFORD: I understand that they have been provided to the Commission's solicitors, so the issue is whether Mr Mok can provide them directly to --

Page 130

THE CHAIRMAN: If they've been provided to the Commission's solicitors, are they here?

MR BERESFORD: We've just received them, I understand. I don't know whether they're in the hearing room.

THE CHAIRMAN: If not, where are they?

MR BERESFORD: They haven't been copied yet.

THE CHAIRMAN: I appreciate that, but we have copying machines outside.

Just bear with me, Mr Sussex. We'll try to solve this conundrum now.

MR SUSSEX: I'm very grateful, Mr Chairman.

THE CHAIRMAN: I think we can provide you with a copy, Mr Sussex, within 10 minutes.

MR SUSSEX: I'm extremely grateful.

THE CHAIRMAN: Other parties can have it when it's made available. Apparently only one copy is made available. When multiple copies have to be made, it takes time. But I've asked that one be made for you now.

MR SUSSEX: Thank you very much.

THE CHAIRMAN: Are there any other matters?

MR BERESFORD: Not from me, Mr Chairman.

THE CHAIRMAN: In which case, Mr Lo, I'm going to have to ask you to come back on Monday to continue your testimony.

A. Yes.

Page 131

THE CHAIRMAN: Would you be kind enough to be here so that we can resume at 10 o'clock on Monday.

A. Yes, Mr Chairman.

(4.32 pm)

(The hearing adjourned until 10 am on Monday, 21 January 2013)

Page 132