

1 Monday, 17 December 2018

2 (10.01 am)

3 CHAIRMAN: Just before we begin, I just wanted to say
4 something very briefly.

5 Apparently, on Friday evening, there was a report in
6 the media to the effect, I think, that a witness who had
7 been before the Commission had used the rear entrance,
8 and that meant had walked into or come close to where
9 myself and Prof Hansford have our offices.

10 I just wanted to make it clear at the outset, in no
11 uncertain terms, that the arrangement was that all
12 witnesses would come into the front entrance and would
13 leave via the front entrance. This was a very minor
14 administrative error. We never saw him. We were never
15 aware of his presence. And I think you can take it from
16 us that we would never, under any circumstances, without
17 everyone knowing fully what was happening, see anyone
18 who was giving evidence before this Commission. I just
19 wanted to make quite clear.

20 MR PENNICOTT: Thank you, sir. May I just say, on behalf of
21 the legal team of the Commission, we were wholly unaware
22 of this incident either until media reports later that
23 evening.

24 CHAIRMAN: Thank you.

25 Mr Khaw.

26

1 MR KHAW: Thank you, Chairman. The government's next
2 witness is the Secretary for Transport and Housing,
3 Mr Chan, who is now sitting at the witness seat.

4 Mr Chan, just to confirm your full name is Chan Fan;
5 is that correct?

6 WITNESS: Yes, that's correct.

7 MR CHAN FAN, FRANK (affirmed in Puntì)

8 Examination-in-chief by MR KHAW

9 MR KHAW: Mr Chan, would you like to give your evidence in
10 Cantonese or English?

11 A. 廣東話。

12 Q. For the purpose of this Commission of Inquiry, you have
13 made one witness statement. If we can take a look at
14 G3. It starts at page 1751.

15 A. 冇錯。

16 Q. It consists of I think about 17 pages. It ends at
17 page 1767.

18 A. 冇錯, yes。

19 Q. It's a statement dated 7 September this year; do you see
20 the date?

21 A. 冇錯。

22 Q. We can see there's a signature put at the end of this
23 page. Can you confirm that this is your signature?

24 A. 冇錯, 呢個係我個簽名。

25 Q. Could you also please confirm that the contents of this

1 witness statement are true to the best of your
2 knowledge, information and belief?

3 A. 冇錯，我可以確認。

4 Q. There's just one question I would like you to address,
5 and that is if I can take you to one paragraph of
6 Prof Frederick Ma's witness statement. It's at B1,
7 page 111. Starting from paragraph 30, Mr Chan, if we
8 can take a look -- paragraph 30 says -- this is
9 Prof Frederick Ma's evidence:

10 "On Sunday 5 August 2018, I received a request to
11 meet with the Chief Executive ... the following morning.

12 On 6 August 2018, I met with the Chief Executive as
13 scheduled. The Secretary for Transport and Housing,
14 Frank Chan was also present. In the meeting, the Chief
15 Executive mentioned to me that the government had lost
16 confidence in the project management team of the SCL.
17 The Chief Executive told me that government took the
18 view that the senior members of the projects team
19 responsible for the SCL ... namely Dr Philco Wong,
20 TM Lee, Aidan Rooney, Jason Wong and also Lincoln Leong
21 should leave [the MTR]."

22 Do you see that?

23 A. Yes.

24 Q. In fact Prof Frederick Ma, when he gave evidence, was
25 also asked to comment on this paragraph.

26 If I may, could you tell us the reason or reasons

1 why the government lost confidence in the MTR's project
2 management team at that time?

3 A. 主席，或者容許我係詳細少少解釋。對一個團隊嘅信任其實有好多嘅考慮，
4 第一，就係呢個團隊嚟過往處理呢個沙中線嗰個表現；第二，就係話如果個
5 團隊嚟過往個處理嘅情況裏面究竟係有啲咩嘢嘅錯誤係造成、錯誤嘅大小與
6 及影響；第三，就係話我哋沙中線項目始終都要向前推進，我哋推進呢個項
7 目嘅時候係點樣可以確保佢係順利完成呢？呢三個範疇，我哋都需要考慮嘅。

8 就住第一個，就係話過往個紀錄個表現，我哋大家都知道喺6月15號港
9 鐵公司係就住沙中線呢個係嗰個diaphragm wall同埋個platform slab，
10 即係個層板同埋連續牆嗰個連接嗰個關係係交咗一個報告，政府對呢個報告
11 嘅理解係一個事實嘅陳述同埋根據紀錄作出一個嘅係報告嚟嘅。呢個報告我
12 哋嘅期望係一個調查報告，係非常之嚴謹，而且應該係真實嘅。

13 我哋喺現場，我哋嘅同事喺現場亦都係就住報告裏面所陳述嘅事實係進
14 行一個檢視。我哋喺現場，即係施工現場，亦都發現報告裏面所有嘅陳述，
15 喺現場嗰個係技術個繪圖裏面，所有嘅繪圖都係有簽名同埋有以日子作實嘅。
16 喺呢個前提之下，我哋有理由相信所提交嘅報告係事實嘅真相，但係其後我
17 哋嘅同事因為要跟進嗰個負載測嘅時候，我哋亦都需要去審視港鐵公司所提
18 交嘅建議，有關嗰個測試安排是否合理同埋係可以釋除疑慮，確保嗰個係結
19 構安全，我哋喺個過程裏面亦都係同港鐵嘅團隊係跟進。

20 喺整個過程裏面，港鐵嘅團隊並沒有向我哋表示有關嘅設計、建設係
21 改咗，直到7月13號，港鐵向政府提交嗰個負重荷載測試嘅建議嘅時候，係
22 附帶咗三份嘅附件，就係我哋講嘅attachment A、attachment B同埋
23 attachment C，其中我哋睇到喺attachment B同埋attachment C呢

1 兩個附件嗰個結構嘅設計係同原先所交嘅實際情況係有極大嘅差異。

2 喺過程裏面，港鐵公司並冇向政府團隊講過有關嘅轉變，如果港鐵團隊
3 唔察覺到或者喺過程裏面留意唔到有關嘅轉變，呢個事實就並唔會浮現，喺
4 我哋掌握到呢個轉變之後，亦都係立即同港鐵公司嘅團隊跟進，要求佢哋提
5 交有關嘅圖則。

6 喺過程裏面，我哋得到嘅資料係有關嘅改變並沒有設計圖則，並沒有施
7 工圖則，亦都有建造後實際情況嘅圖則，喺呢個情況之下，我哋就有個擔心，
8 就係話如果6月15號所提交嘅資料同埋有關嘅簽咗名核實有日子嘅圖則係正
9 確嘅話，7月13號個報告係乜嘢一回事呢？我哋好擔心。

10 從另外一個角度嚟睇，如果7月13號佢所提交嘅我哋叫做手繪圖sketch
11 嗰啲圖係真實嘅話，我哋就對之前所提交嘅報告就有好大嘅保留，甚或至懷
12 疑以至喺現場所搵到嘅簽咗名、核實有日子記載嘅圖則嗰個真確性係抱有極
13 大嘅懷疑，喺呢個情況之下，從呢個一個往績嚟睇，好肯定，我相信大家聽
14 完都會覺得作任何一個團隊，如果我哋所承交嘅一個係項目嘅管理團隊，佢
15 可以做成咁嘅話，究竟佢個工作我哋仲有冇一個信任嘅基礎呢？呢個係一樣
16 嘢。

17 當然我哋係好多報告，甚或者喺公開嘅說明裏面，都係就住一啲事情嘅
18 表狀係作出一個陳述，因為我哋嘅態度係專業嘅，我哋唔希望係作出一個沒
19 有證據嘅一個指控，亦都唔希望係未有事實之前作出一啲任何片面嘅一個陳
20 述，所以我哋係非常之克制，係就住有關嘅見到嘅事實，都係將一啲係已經
21 確認事實同埋毫無爭議嘅地方係向外公布。

22 喺個過程裏面，當然我哋亦都有好多其他嘅觀察同埋實際嘅意見，我相
23 信呢個就係我頭先所講嘅第二個層次，就係究竟港鐵項目管理團隊喺整個沙

1 中線項目個管理推進嘅過程裏面係有乜嘢嘅不足，甚至係錯誤嘅地方，而
2 令致我哋係對佢失去信心呢？呢個亦都需要考慮嘅，以至到我哋講緊係呢個
3 係層板同埋連續牆事件係涉及第一，係整個紅磡站嗰個係加建工程一個係結
4 構安全，以至係對安全嘅承擔，呢個係我哋非常之係重視，而且係非常之嚴
5 重一個指標嚟嘅。如果就住呢個係結構安全以至係公眾安全係帶嚟影響，呢
6 個基本係唔能夠接受，所以所犯嘅一啲我哋叫做失誤，喺政府嚟講，係完全
7 唔能夠接受。

8 第三，就係我頭先所講，沙中線呢個項目必然要繼續前進，因為沙中線
9 係我哋喺鐵路發展策略一個係非常之重要嘅一個策略性嘅建設嚟嘅，佢係連
10 接呢個係馬鞍山線去到係呢個西鐵線，東鐵線由香港嘅北部去到港島嘅金鐘，
11 其實係對日後嗰個交通營運係非常之重要，所以我哋必定需要係繼續係去推
12 行呢個有關嗰個項目。

13 正如我剛才所講，以往績，以事件嘅大小，對公眾嘅影響，我哋繼續推
14 展呢個項目對有關嘅團隊是否有足夠嘅信心仍然依賴佢哋去進行有關嘅工序
15 呢，我哋係有非常嘅保留，所以喺我哋係對外公開陳述失去信心呢個咁嘅
16 說法係是實，但係呢個事實嘅背後係有好多嘅考量，從以往發生嘅事，從發
17 生事嘅大小、對公眾嘅影響嘅嚴重性，以至日後我哋繼續推展呢個項目是否
18 有足夠信心確保佢順利完成而且係符合規範，呢個就係我哋嘅考慮點。

19 MR KHAW: Thank you, Mr Chan. I have no further questions
20 for you. So now counsel team acting for the
21 Commission -- I suppose it should be Mr Pennicott
22 today -- will be asking you some questions. Lawyers
23 acting for the other parties may also ask you some

1 questions. In the meantime, Chairman and Commissioner
2 would also like to ask you some questions. And finally
3 we will see whether it is necessary for me to ask you
4 any other questions.

5 So please be seated. Thank you.

6 Examination by MR PENNICOTT

7 MR PENNICOTT: Good morning, Mr Chan.

8 A. Good morning, Mr Pennicott.

9 Q. As Mr Khaw has just indicated, as one of the counsel to
10 the Commission, I get to ask you a few questions first.
11 Indeed, it is only a few questions -- I'm not going to
12 detain you very long -- and indeed, given the answer
13 that you've just given to Mr Khaw, I have even less
14 questions than I had before.

15 In terms of, Mr Chan, the role of the Transport and
16 Housing Bureau in the SCL project, as I understand it,
17 really it was a general oversight and monitoring role
18 that the bureau had; is that right?

19 A. 你講嗰個情況係事實嚟嘅，但係我哋除咗呢個係一般嗰個係監察之外，其實
20 我哋都有一個責任要確保嗰個項目個推展係順利、嗰個經費唔會超支、按時
21 間完成，同埋佢個質量同埋安全係受到保證嘅。

22 Q. Yes. And Rebecca Pun, one of your colleagues --

23 A. Yes.

24 Q. -- who has not been required to give evidence in the
25 Commission, explains that that oversight and monitoring
26 role focuses, as you have just indicated, on progress

1 and cost primarily, and the vehicle through which the
2 bureau does that is through, primarily again, project
3 supervision committee meetings. Is that right?

4 A. 基本上我哋同路政署係每個月有一個會議嘅，剛才你所講嗰個係project
5 supervision committee，嗰個係路政署署長佢親自主持嘅會議嚟嘅，
6 喺我哋係運房局嘅層面，我係同每一個係執行嘅部門每個月都有一個定期嘅
7 會議，就住佢哋嘅工作係進行一個檢討，亦都係就住一啲係公眾關注以至係
8 我哋發覺係策略上或者政府上有關係連嘅地方，都需要作一個係詳細嘅討論
9 嘅。

10 Q. Yes, understood. The reason that the bureau is involved
11 in this monitoring role is because the Highways
12 Department has the Railway Development Office within it,
13 and the execution of, for example, the entrustment
14 agreements is left to the RDO on behalf of the bureau?

15 A. 冇錯。

16 Q. And, as we have seen, the RDO has a BO team, as it's
17 called, made up of a small number of RDO engineers,
18 supplemented by Buildings Department seconded engineers,
19 together with the M&V consultant providing a BSRC team
20 to assist?

21 A. 冇錯。

22 Q. Switching topics slightly now, Mr Chan -- when the media
23 attention to contract 1112 in particular blew up in late
24 May/early June of this year, the initial reaction of the
25 government, with which I think you were involved, was to

1 instruct the MTR to carry out a load test on the
2 platform slab that was then primarily in issue. That is
3 right, isn't it, Mr Chan?

4 A. 冇錯，冇錯，喺嗰時因為我哋個理解就係話港鐵公司曾經向我哋嘅同事表
5 示係有關嘅係落差已經係修正咗，而且佢哋覺得係整個建設係仍然係符合個
6 個規格同埋安全標準，喺呢個情況之下，我哋就有責任向公眾係作出一個係
7 展示，係有關嗰個建設係合乎嗰個結構安全同埋公眾安全，變咗係希望透過
8 一個我哋叫做「負重荷載測試」係令到公眾可以睇得到有關嘅建設係符合有
9 關嘅規範，係安全去使用嘅，當時嘅諗法係咁樣樣。

10 Q. Yes. As I understand it, Mr Chan, the underlying
11 assumption, when requesting the load test, was that it
12 was known what was there, as it were, how the slab had
13 been built, how the connections had been made, and that
14 was the assumption you made in requesting a load test?

15 A. 冇錯。

16 Q. All right. As matters have unfolded, the load test has
17 really been put on the backburner and in favour of, as
18 we now know, an opening-up process?

19 A. 冇錯，因為當時好似Mr Pennicott你剛才所講，我哋當時係假設佢有關嘅
20 建造嘅細節係非常清楚，亦都係有明確嘅記載，事後我哋知道因為佢6月15號
21 個報告同埋7月13號嗰個信件以至係我哋進行嗰個理解，係發覺有好多嘅地
22 方直到今天，佢實際個建造嘅情況我哋都係未能夠清楚嘅，所以變咗我哋亦都
23 係決定咗係需要係就住部分嘅層板，甚或至係有關嘅建設係進行一個開鑿去檢
24 視嘅程序，係去一百分之一百肯定有關嘅建設細節，然後先可以再考慮呢個

1 負重荷載測試是否有需要，同埋就算有需要嘅時候，點樣可以做呢？因為唔
2 知道嗰個建造個細節而進行呢個負重荷載測試本身都存在一個風險喺裏面嘅。

3 Q. Yes. Could I then just briefly -- because you have
4 dealt with this in some detail already, Mr Chan -- deal
5 with the events of 5, 6 and 7 August 2018.

6 A. Yes.

7 Q. As you have indicated and as indeed you say in
8 paragraph 33 of your witness statement, there was
9 an emergency meeting called by the Chief Executive on
10 5 August, which was a Sunday.

11 A. Yes.

12 Q. As I understand it, you were present, together with the
13 Director of Highways?

14 A. 冇錯，喺星期日，我同路政署署長都喺個會議出現。

15 Q. Was it just the two of you, the Director of Highways
16 and, as it were, the Director of the THB, or were there
17 other people present? What I'm trying to find out was
18 who was actually doing the briefing, Mr Chan?

19 A. Okay，我知道你嘅關注，不過我希望我盡量提供資料，但係我亦都需要喺政
20 府內部討論保密嗰個機制之下係有一個違反。首先Mr Pennicott，你剛才
21 所講，喺當天星期天出席會議嘅係除咗我同路政署署長之外，仲有其他嘅同
22 事嘅，呢啲同事係除咗運房局以外，都有其他政策局嘅同事，但係個別嘅人
23 名我唔知道喺今天嗰個延訊裏面係唔係可以講同埋需唔需要講，請你畀個指
24 示。

25 Q. No, it is not necessary. I just want to know: there was

1 a group of government officials in addition to yourself
2 and Mr Chung?

3 A. 冇錯，我可以講嘅，就話同事事件相關嘅政策局或者部門都有同事出席。

4 Q. All right. So somebody from the Buildings Department
5 and somebody from the Development Bureau?

6 A. 冇錯。

7 Q. Okay. That's fine.

8 Anyway, the upshot was that Prof Ma got a telephone
9 call, asking him to attend a meeting with the Chief
10 Executive on the morning of Monday, 6 August, and that
11 was a meeting that you also attended with Mr Chung?

12 A. 冇錯。

13 Excuse me, when you say Mr Chung -- by the end of
14 your saying, you say "Mr Chung"?

15 Q. I thought, maybe I was wrong, that the Secretary for
16 Transport was also there?

17 A. 或者容許我--或者我需要喺呢度提供多少少資料，喺8月6號當天...

18 Q. Sorry, he wasn't there. I beg your pardon. He was not
19 there. It was just you, Fred Ma, the Chief Executive,
20 and the Chief Executive's private secretary.

21 A. Director of the Chief Executive's Office.

22 Q. Yes, that's right. Sorry, that's my fault. Anyway, the
23 upshot of that meeting, as you've already indicated, was
24 Prof Ma was told that the government had lost confidence
25 in the SCL project senior management team?

1 A. 冇錯。

2 Q. And, as I understand it, from what Prof Ma told us, no
3 consideration was given by government to the roles that
4 each of the individuals concerned played; it was just
5 the whole team was going to go?

6 A. 請容許我簡單補充，因為係行政長官佢係一個咁高層嘅管理嘅時候，佢當天
7 只係將政府嘅一啲意見同埋睇法向馬主席係親自表達嘅啫，當然背後好多理
8 據喺我哋特別會議以至我同馬先生嘅討論裏面係再獨立去再處理嘅。所以變
9 咗當天係就住背後嘅原因係並冇一個需要係向馬主席再次複述。

10 Q. Yes. Understood. That was on the 6th.

11 On 7 August, you attended an MTRC special board
12 meeting, in your capacity as an independent
13 non-executive -- sorry, as a non-executive director of
14 the MTR?

15 A. 冇錯。

16 Q. And, at that meeting, you were asked by Prof Ma to state
17 the government's view on the matter?

18 A. 冇錯。

19 Q. Which you did.

20 A. 冇錯。

21 MR PENNICOTT: Thank you very much, Mr Chan. I have no
22 further questions.

23 WITNESS: 多謝。

24 Cross-examination by MR SHIEH

25 MR SHIEH: Leighton has some questions.

1 MR BOULDING: MTR has no questions, sir.

2 MR TO: China Technology has no questions.

3 MR SHIEH: Right, so that leaves me.

4 MR CONNOR: I have no questions.

5 Cross-examination by MR SHIEH

6 MR SHIEH: Mr Chan, according to your witness statement, you
7 first became aware of emails, or email exchanges,
8 between China Technology and the government in early
9 June. Do you remember that? Do you remember saying
10 that in your witness statement?

11 A. 記得，記得。

12 Q. You also said in your witness statement that you were
13 subsequently shown the relevant email records?

14 A. 冇錯。

15 Q. That would be shortly after 5 June, after the press had
16 reported the matter?

17 A. 冇錯，因為我都有個責任去了解究竟發生咩嘢事，會唔會喺我自己應該要做
18 嘅事有所係缺失以至係嗰個處理係唔係適當，我都有個責任去檢視番，雖然
19 事情係喺17年發生，但係我都覺得係有需要係去全面掌握，睇一睇喺嗰個係
20 過程裏面處理是否恰當，甚或至我自己係應該有冇責任去承擔，我都需要去
21 睇嘅。

22 Q. I was only asking you to confirm your witness statement.
23 So thank you for giving us the government LTT, line to
24 take, that is.

25 Can I ask you to look at the email exchanges, at

1 G3/2033. This would be one of the emails that you had
2 looked at after the media had reported the matter;
3 correct?

4 A. 請你可唔可以再複述一次？

5 Q. This is one of the emails that you had looked at --

6 A. 冇錯。

7 Q. -- after the media had reported the matter to the group;
8 correct?

9 A. 冇錯。

10 Q. It was an email which invited a joint interview in the
11 presence of the senior representative of the bureau,
12 MTRC, Leighton and China Technology; you saw that?

13 A. 冇錯，見到。

14 Q. You did not see this email at the time it was sent?

15 A. 冇錯，請容許我解釋，因為點解呢？喺我哋政府高級人員嗰個係電郵嗰個郵
16 箱裏面係一般都有兩個郵箱，一個郵箱就係一般...

17 Q. For the public?

18 A. 或者任何人冇直接聯繫嘅，另外一個就係個人嗰個郵箱嚟嘅，呢個郵箱基本
19 上就係我個寫字樓有同事係幫我去睇嘅，佢哋會就住每一個電郵收到之後，
20 就會視乎個電郵個內容同埋佢個要求，係去同我係分派嘅，有需要係畀我知
21 道嘅，佢會直接係會呈交畀我睇，如果有啲係電郵係其他同事係可以適度處理
22 嘅，佢會將佢係去轉發畀其他嘅同事跟進嘅。

23 Q. The media reports in late May/early June related to
24 incidents of cutting of threaded ends of rebar; you

1 remember that?

2 A. Yes.

3 Q. When you saw this email on the screen, did it occur to
4 you that the interview which China Technology was
5 inviting and the question which, according to this
6 email, related to the interest of the public, had
7 anything to do with the matters reported in the media at
8 that time?

9 A. 基本上，如果我睇番呢個電郵佢所講嘅事情，我哋要睇番個時序，正如你剛才
10 都提得好清楚，呢個係講緊係今年係傳媒報道，但係事實上呢個事件係講緊
11 2017年9月嘅電郵嚟嘅，而有關嘅電郵，如果大家睇番我哋嗰個陳述裏面，
12 好清楚講咗係有關嘅同事當天係已經係同呢個China Technology係聯絡，
13 潘先生；亦都係將個電郵係轉交呢個港鐵公司跟進。其後就係潘先生亦都係覆
14 番我哋嘅同事係有關嘅事情係已經得到處理，我哋亦都同港鐵公司有跟進，即
15 係我個同事。其實整個事件喺去年嘅9月喺文件上、喺實際上已經係處理咗。

16 當然當我哋今年見到有關嘅報道嘅時候，我係第一次知道，所以正如我剛
17 才所講，係我有個責任需要睇，呢個並唔係政府嘅line to take嚟嘅，係我
18 真誠係覺得係應該要咁做。

19 喺個過程裏面，亦都大家知道係呢個層板同埋連續牆嘅事件已經係喺嗰個
20 傳媒同埋社會裏面已經知悉，所以基本上呢個事情係混為一齊去睇，亦都有佢
21 嘅自然嘅現象嚟嘅。

22 Q. Did it occur to you, when your attention was drawn to
23 this email, that the subject matter of this email
24 related to the issue or problem that the media was

1 reporting at the time?

2 A. 我曾經係有個念頭閃過，係任何嘅可能性我都有排除到嘅，所以基本上你頭
3 先所講呢個咁嘅念頭係有出現過嘅。

4 Q. I'm reading from the transcript of a question put by
5 China Technology, who had chosen not to ask you the same
6 question, so I'm asking this question:

7 "This email is less than a page" -- and this is
8 Day 24, page 172. The subject matter of this question
9 was one of our witnesses, so I'm doing to you what China
10 Technology did to us:

11 "This email is less than a page. Would you not want
12 more particulars from Mr Poon regarding what are the
13 particulars of his complaint ...?"

14 A. 如果當事人佢有個投訴，我哋嘅同事亦都按我哋既定嘅程序聯絡咗佢，亦都
15 係邀請佢係去開會，而我哋講緊係15號，如果我有記錯，應該係9月18號係
16 當事人係同我哋嘅同事係親自確認，亦都事後有電郵係確認有關嘅事件係得
17 到圓滿解決，就一個呢個投訴嘅處理，而我哋嘅同事亦都有同港鐵公司有聯
18 繫嘅話，同事嘅處理考慮到有關嘅所謂嘅要求去見面，討論呢個事件，以至
19 係經過兩、三日嘅時候處理咗，亦所有嘅parties亦都有一個不滿或者投訴
20 嘅時候，覺得呢件事係得到適當處理係唔係一個不合理嘅理解呢？咁樣。

21 Q. I'm not here to answer your question. I was asking
22 whether it occurred to you, whether you would want to
23 want more particulars from Mr Poon. I'm asking you
24 personally. Would you want --

25 A. 我想請問你，你問嘅時候係講緊係我知道事件之後咁嘅？我頭先個問題其實

1 係一個答案嚟嘅。其實個情況就係話...

2 MR KHAW: To be fair, I don't think Mr Chan was asking

3 Mr Shieh any question.

4 CHAIRMAN: Sorry, bear with me just a second.

5 MR SHIEH: I waited until the translation was completed and

6 I made sure that the transcript ended with a question

7 mark, "Satisfactory way of addressing the email or

8 complaint?" So maybe it was intended rhetorically.

9 CHAIRMAN: Mr Shieh, sorry, you can assist me here. The

10 secretary received knowledge of this particular email at

11 a later stage, and are you saying, at that later stage,

12 did he consider it necessary to look into the asserted

13 but not stated fact that there was a complaint?

14 MR SHIEH: That was my question, and what the complaint was.

15 CHAIRMAN: What the complaint was, yes.

16 At that stage, when you saw that, even though the

17 matter had been settled, did it occur to you, as

18 an individual, that perhaps you should look into this

19 matter again and see what the foundations of the actual

20 complaint were and its details?

21 A. 當我再睇呢個電郵，即係我哋講緊係話傳媒係就住呢件事件作出報告，我亦

22 都係同啲同事係攞咗有關嘅電郵，亦都係睇晒所有嘅電郵，亦都係確認咗我

23 哋--China Technology潘先生佢當日要求嗰個面見，亦都係處理咗，而

24 潘先生亦都親自係畀信我哋同事，確認有關嘅事件係已經係圓滿處理、解決

25 咗，所以當我見到呢個電郵嘅時候，以至我頭先所講嘅就係話當時傳媒個報

1 道，其實我亦都解釋咗，喺我睇呢個電郵，以至當時發生嗰個係連續牆同埋
2 層板嘅事件，我係並沒有輕視任何一個可能性嘅，但係喺我哋跟進個調查裏
3 面，已經好清楚當時係潘先生以至係其他人士喺公眾所表達嘅言論，我哋清
4 楚知道嘅。

5 所以基本上係你問我會唔會再需要去再重新檢視呢個電郵，我哋當時覺
6 得並冇需要嘅。因為我哋個著眼點就係當時發生嘅事情已經係清楚喺嗰個資
7 訊上面，喺個社會上面已經係好清楚嘅報道，亦都係有一啲係流傳，就會唔
8 會涉及一啲其他嘅所謂叫做爭拗或者糾紛，變咗我哋個重點就係睇個事實同
9 埋係一個喺公眾呢一個層面去出發，係安全嗰個角度去出發，就你私人公司
10 嗰個係之間嗰個爭拗，我哋係並唔會係畀佢太多嘅一個關注嘅，當然如果個
11 爭拗係涉及一啲公眾利益，我哋會睇。所以情況係咁樣樣。

12 MR SHIEH: So you were aware, from what had been reported in
13 the media --

14 A. 冇錯。

15 Q. -- and in the public arena, that Mr Poon has actually
16 made allegations in late May/early June?

17 A. 冇錯。

18 Q. You were also aware that there was a possibility, put it
19 no higher than it, that this was related to private
20 dispute between some parties?

21 A. 有呢個可能性。

22 Q. My question remains, irrespective of what your
23 subordinates might have done in 2017, did it occur to
24 you, as the most senior official responsible for this

1 matter in the Hong Kong government -- did it occur to
2 you personally to say, "We want to interview Mr Poon",
3 and know exactly what details he had to offer, bearing
4 in mind he did offer to meet the government way back in
5 September?

6 A. 我想講清楚，你講嗰個September係講緊2017年嗰個，係，2017年，係喇，
7 冇錯。而家講緊係2018年，我哋而家講緊2018年。當2018年當所有嘅傳媒
8 報道已經係將個事實係抖出嚟嘅時候，而我哋亦都進行緊調查，港鐵公司亦
9 都進行調查，所以整體個角度去睇，有關嘅資料其實基本上已經非常之清楚。
10 我哋嘅著眼點就係話不論係誰提出任何嘅指控或者係任何嘅意見，我哋喺政
11 府團隊所掌握係關於整個建造工程，係涉及呢個所謂叫做係層板、連續牆、
12 呢個係coupler，即係呢個係螺絲接頭，有關嘅工序是否有問題，我哋已經
13 全盤掌握，所以是否需要係要見我哋嘅潘先生呢？基本上係有不同嘅考慮。

14 Q. You thought you had a full grasp of the information
15 based on what the media had chosen to report?

16 A. 唔係咁嘅意思，而係話我哋對嗰個係--我頭先講嗰個full grasp係講緊就
17 話當時嘅情況、發生嘅事情同埋當時嘅掌握究竟嗰個問題焦點或者個問題喺
18 邊度嗰個掌握。

19 Q. I will ask the question again. The allegation of
20 Mr Poon was there was massive, organised cutting of
21 threaded rebars; you remember that?

22 A. 冇錯。

23 Q. That was an assertion by Mr Poon?

24 A. 亦都可以請你留意，喺我哋政府團隊嗰個係statement裏面，其中亦都清楚

1 顯示係政府就住有關嘅指控，已經將事件係轉交執法嘅單位跟進，所以基本
2 上如果係有任何嘅指控話有大規模嘅剪短呢個係呢個螺絲頭、螺絲嗰個係鋼
3 筋嘅時候，基本上我哋覺得最適當嘅做法係轉交呢個執法單位去跟進，就並
4 唔係由一個係我哋講緊係專業或者係民事嗰個調查，因為已經涉及一啲係我
5 哋叫做係一個係刑事嘅元素嘅時候，我哋就需要將情況係轉介執法單位。

6 Q. So it did not occur to you as an individual, personally,
7 to think that the government, for the sake of safety,
8 public safety, should itself investigate the allegations
9 of widespread rebar cutting?

10 A. 請容許我再講一次，喺呢個係大規模嘅剪短呢個係鋼筋嗰個指控，基本上我
11 哋已經係將有關嘅資料係轉交警務處去進行調查，喺警務處進行調查嘅過程
12 裏面，當然我哋係有需要嘅時候會協助佢進行調查，所以剛才你所講嘅公眾
13 安全、公眾嘅考慮，我哋係全盤有考慮到。

14 Q. But the focus was obviously different; do you accept
15 that?

16 A. 我唔同意。

17 Q. You don't agree?

18 A. 嗰個focus係公眾嘅利益、公眾安全，最重要就係由邊一個單位進行呢個調
19 查係最有效同埋最合乎公眾利益，同埋係找出個事實真相。

20 MR SHIEH: Thank you very much for assisting us, Mr Chan.

21 WITNESS: 多謝。

22 MR KHAW: No re-examination.

23 CHAIRMAN: Nothing arising?

24 COMMISSIONER HANSFORD: No, nothing from me.

1 CHAIRMAN: No.

2 Mr Chan, thank you very much indeed for your
3 attendance today. You have helped us a great deal.

4 Thank you. Your evidence is now complete.

5 WITNESS: 多謝。

6 (The witness was released)

7 MR KHAW: Our next witness is Mr Li Tze Wai, Ralph.

8 Good morning, Mr Li. Just to confirm your full
9 name, it's Li Tze Wai, Ralph; is that correct?

10 WITNESS: 正確。

11 MR LI TZE WAI, RALPH (sworn in Punti)

12 Examination-in-chief by MR KHAW

13 MR KHAW: May I know whether you would like to give your
14 evidence in Cantonese or English?

15 A. 廣東話。

16 Q. For the purpose of this Commission of Inquiry, you have
17 made one witness statement. If we can just take you to
18 have a look at bundle G3, page 2088.

19 A. 係。

20 Q. You can see that this is your witness statement and it
21 consists of about 11 pages.

22 If we can turn to page 2098, it's a statement dated
23 7 September 2018; do you see that?

24 A. 睇到。

25 Q. In fact, attached to this witness statement there is

1 a summary of key events in relation to the events which
2 took place between May 2018 and the end of August 2018,
3 at page 2107. Do you see that?

4 A. 睇到。

5 Q. Would you confirm that the signature that we can see at
6 page 2098 is your signature?

7 A. 係我嘅簽名。

8 Q. Can you also confirm that the contents of your witness
9 statement and also the contents of the summary of key
10 events are true to the best of your knowledge,
11 information and belief?

12 A. 我確認。

13 Q. Would you confirm that you would adopt the contents of
14 your statement and also the summary of key events as
15 your evidence for the purpose of this Commission?

16 A. 我確認。

17 MR KHAW: So now Mr Pennicott, acting for the Commission,
18 may have some questions for you. Then lawyers acting
19 for other parties may also have some questions for you.
20 In the meantime, the Chairman and the Commissioner may
21 also ask you some questions. So please remain seated.

22 Examination by MR PENNICOTT

23 MR PENNICOTT: Mr Li, good morning.

24 A. 早晨。

25 Q. As Mr Khaw has indicated, my name is Ian Pennicott, I'm

1 one of the counsel to the Commission, and I have a few
2 questions for you, and indeed there are very few. Thank
3 you very much for coming to give evidence to the
4 Commission this morning.

5 Could I first of all, Mr Li, ask you to be shown
6 an organisation chart at bundle G9, page 7022. As
7 I understand it, Mr Li, this is an organisation chart
8 for the Railway Development Office as at 13 August this
9 year. We see that from the bottom right-hand corner, if
10 it's not on the screen at the moment.

11 A. 睇到。

12 Q. Then if we could go to the top of the document, please,
13 you will see that at the top of the tree, as it were, is
14 Jonathan Leung; do you see that?

15 A. 睇到。

16 Q. He will be giving evidence fairly shortly.

17 Then if one goes to the left of the document, we
18 find "Railway Development Division 1-1", and then we see
19 your name?

20 A. 係。

21 Q. And you were -- you are, rather, currently, the Chief
22 Engineer/Railway Development?

23 A. 冇錯。

24 Q. However, that wasn't always the case. Could I ask you,
25 please, to go to another organisation chart, at G1775.

1 It might be G3 but I'm not sure.

2 This might in fact be better viewed on the screen,
3 because they can blow it up, Mr Li, but we'll see how we
4 go.

5 This is the organisation chart of the Transport
6 Branch of the Transport and Housing Bureau, and as we
7 can see, Mr Chan, from whom we have just heard, is at
8 the top; do you see that?

9 A. 睇到。

10 Q. If you come straight down, we see the Permanent
11 Secretary is Joseph Lai; do you see that?

12 A. 睇到。

13 Q. I should have said this is at 1 July this year.

14 Then if you go left, right along to the end of the
15 line, you see "DS(T)1 Rebecca Pun"; do you see that?

16 A. 睇到。

17 Q. Then if you go right, along two steps, you see "PAS(T)7,
18 and that's Mr Peter Mak currently; do you see that?

19 A. 睇到。

20 Q. If one then goes down -- you don't need to move the
21 cursor, just keep it where it is, please -- you then see
22 "AS(T)7A (SE) KY Kam"; do you see that?

23 A. 睇到。

24 Q. My understanding is, Mr Li, if you can confirm this,
25 that where we see "KY Kam", that was your position

1 between 20 February 2013 and 20 February 2017; is that
2 correct?

3 A. 冇錯。

4 Q. I was rather hoping Mr Khaw would have worked that out
5 for me, but never mind. I managed it myself.

6 Just to finish this point, if you go up to where
7 Peter Mak is, at PAS(T)7, my understanding is, Mr Li,
8 that when you were in the AS(T)7A post, for most of the
9 time it was Raymond Cheng who was in Peter Mak's
10 position?

11 A. 正確。

12 Q. Obviously, therefore, what I'm most interested in, so
13 far as you're concerned, is the period February 2013 to
14 February 2017, when you were in KY Kam's position.

15 Now, you tell us, in paragraph 2 of your witness
16 statement, that during that period your "main duties
17 then were to monitor the progress of the SCL project for
18 the section between Sung Wong Toi Station and Hung Hom
19 Station, and to handle the landholding arrangement of
20 SCL. Besides, I took care of matters of the KTE project
21 that required policy support or advice, and assisted in
22 the administration of the Railways Ordinance Unit."

23 So, Mr Li, did you spend most of your time on
24 fulfilling your duties in respect of the SCL project?

25 How was your time split up?

26 A. 首先我去補充一樣嘢，因為我睇嗰個沙中線係其中一段，而喺當其時嚟講，

1 就嗰啲站嘅progress我會睇，而喺我嗰個做呢個7A呢個位嘅期間嘅時候，
2 主要有兩部分，沙中線嚟講，有兩部分就特別我用得時間多嘅，就係嗰陣時
3 考慮古嘅發現，我哋要處理好多嘅問題；第二樣嘢，整個沙中線完成咗之後，
4 佢哋就會--我哋會--政府係考慮或者話將呢個沙中線就會畀番九港鐵路公司
5 嘅，所以呢一度前景，無論係法律、財務各方面嘅嘢，我都要用一啲嘅時間
6 去睇。此外嚟講，亦都有其他，講到觀塘線延線，其他嘅內容。我補充咁多。

7 Q. But how much time did you actually devote in your
8 working week to the SCL project?

9 A. 我諗如果用當其時嘅情況，就好視乎嗰個禮拜沙中線或者其他觀塘延線其他
10 佢哋有冇特別嘅情況係需要我特別嘅關注，所以好難話一概而論，如果舉個
11 例子，當其時係有考古--宋皇臺站有考古發現嘅時候，的而且確用咗好多嘅
12 時間，而就住將嗰個沙中線將來會鋪排畀香港鐵公司--九港鐵路公司，亦都
13 用咗好多嘅時間，我諗如果我去用一個比重，係超過百分之五十就係喺沙中
14 線嘅，但係到KTE觀塘線延線就嚟開通嘅時候，我個時間個比重嗰度就會再
15 多番，視乎個工程嘅情況，視乎佢有冇特別嘅情況，而有唔同嘅時間。補充
16 咁多。

17 Q. It would vary from time to time depending upon what
18 issues arose?

19 A. 正確。

20 Q. Do you have any particular knowledge of contract 1112?

21 A. 我係會有。

22 Q. In what respect; in relation to monitoring progress or
23 various aspects of detail? What is your knowledge of
24 contract 1112?

1 A. 首先，1112嘅合約我一定要掌握究竟佢係做啲咩嘢工作，而我哋要monitor
2 佢嘅時候，我哋要做啲咩嘢工作，我哋理解番首先1112嘅工程合約嚟講，就
3 係港鐵公司同埋禮頓去簽嘅，佢嘅內容裏面除咗係建造嗰個紅磡站擴建部分，
4 亦都仲有一個叫做HHS，就係將來嗰個泊車嘅地方。而一個站前後亦都有啲
5 tunnel佢要接駁番其他沙中線嘅段嘅tunnel嘅接駁，呢一個就係個工程嘅
6 內容。

7 而我哋喺嗰個嘅監察嘅方面，我哋會有我哋嘅顧問幫助我哋去做一啲嘅
8 monitoring、verification，我哋都知道呢一個工程合約裏面會涉及一
9 啲嘅設計，亦都會有Buildings Authority嘅同事同我哋睇佢個設計嘅
10 submission同埋畀啲意見，咁整個團隊去監察整個1112無論係佢個進度、
11 佢個費用、public safety種種嘅嘢，我哋都會睇到嘅。唔該。

12 Q. Did you personally have any direct dealings with or
13 interaction with Pypun, the M&V consultants?

14 A. 有。

15 Q. What was the nature of your professional dealings with
16 Pypun? Again, was it in relation to progress?

17 A. 正如頭先咁樣講法，佢係有M同有V，最主要我哋睇番係monitoring同
18 verification嗰啲嘅嘢，我哋會透過同佢哋開會同埋一啲site walk，我
19 哋都會去同佢哋傾嘅。除咗呢啲之外，我哋仲會係同佢用電話、電郵一般嘅
20 去接觸。因為佢哋其實就住1112嚟講，佢哋會做咗一個risk嘅register，
21 佢裏面會就住三方面嘅focus，就係喺programme、cost同埋public
22 safety，佢都有個risk register。

23 舉一個實際例子，當我哋話要行一啲嘅site walk嘅時候，我都會問

1 番喇同事，佢update咗之後個site register，一個risk register，
2 裏面提到我哋有咩嘢關注嘅地方我哋要注意。而每日佢亦都會提交報告嘅時
3 候，我都會就住佢關注到1112嘅內容，我會去跟進同埋會問番佢嘅情況。
4 唔該。

5 Q. Right. In your witness statement at paragraph 21, you
6 refer to a site inspection, an on-site inspection,
7 carried out by the M&V consultant after the media
8 reports in May 2018.

9 Did you go on that site inspection, Mr Li?

10 A. 我想喺度去補充一樣嘢嘅，其實我喺5月28號至到6月14號期間我係要去北京
11 嗰度去上一個國情班嘅，去了解國內一啲嘅情況，所以其實期間嚟講，我並
12 沒有喺香港，而喺6月15號嘅時候，我就告咗一日假，因為完咗課程，都需
13 要稍微嘅休息，所以告咗一日假，所以喺呢個期間裏面，我就係有另一位同
14 事處任咗我個崗位。

15 Q. So the answer so my question is no, because you were
16 away and out of town?

17 A. 冇喺香港。唔該。

18 Q. In paragraph 34 of your witness statement you say:

19 "More recently, on 24 August [this year], MTR
20 reported at the meeting of the PSC about the discovery
21 of what appeared to be 'honeycomb' structures in the
22 concrete at the soffit of EWL slab. BD conducted site
23 inspection on 29 August 2018. MTR provided Highways on
24 29 August 2018 with copies of three non-conformance
25 reports ..."

1 Mr Li, did you attend the site inspection on
2 29 August?

3 A. 我喺度，我有出席個地盤巡查。

4 Q. Right. So you witnessed what was picked up and is shown
5 in the three non-conformance reports that you've
6 referred to in your statement?

7 A. 係。

8 Q. Is it the case that those matters, to some extent, have
9 been dealt with and are continuing to be dealt with,
10 that is the remedying of the non-conformances that were
11 picked up?

12 A. 正在處理緊，而家。

13 Q. Yes. Okay.

14 The schedule attached to your witness statement or
15 summary of events that's attached to your witness
16 statement that Mr Khaw mentioned a short while ago, as
17 I understand it, has been prepared by you based upon
18 various documents between, as Mr Khaw said, May and
19 August of this year?

20 A. 正確，正確。

21 CHAIRMAN: Sorry, whereabouts is it again?

22 MR PENNICOTT: Sorry, the summary of events?

23 CHAIRMAN: Yes.

24 MR PENNICOTT: It's in G3, I think starting at 2099.

25 COMMISSIONER HANSFORD: We haven't got it here.

1 CHAIRMAN: No, we haven't got it here.

2 MR PENNICOTT: So you are in WS2, are you, in the witness
3 statement?

4 COMMISSIONER HANSFORD: How many sheets is it?

5 MR PENNICOTT: It's not that many. I need to find G3.

6 MR KHAW: Nine pages.

7 MR PENNICOTT: Yes, that's right.

8 Yes, it starts at 2099 and runs through to ...

9 CHAIRMAN: I have it, yes.

10 COMMISSIONER HANSFORD: You have it?

11 CHAIRMAN: I don't think ...

12 MR PENNICOTT: Sir, the document you really need to find is
13 at G2107.1. That's there.

14 CHAIRMAN: Yes.

15 MR PENNICOTT: That's the same as the previous schedule
16 summary, but this time, I hope, if it's anything like
17 mine, it's actually got the document references plugged
18 into it, as it were.

19 COMMISSIONER HANSFORD: That's correct.

20 MR PENNICOTT: Because I think the original schedule was
21 prepared before all the bundle references were known and
22 then government was asked to put in the references,
23 which they have done.

24 So it's started at G2107.1 and onwards that's really
25 necessary for present purposes.

26 I wasn't planning to go through that. It was just

1 really a reference point. It seems to me -- this is not
2 a criticism of Mr Li -- Mr Li is being used as a vehicle
3 for getting that correspondence in, getting it in
4 chronological order so one can see how the events
5 unfolded from day to day, and I wasn't planning to go
6 through it. It was really just to get the reference
7 point for you.

8 Sir, with that, I have no more questions. I don't
9 know whether anybody else does.

10 CHAIRMAN: Any questions from Leighton?

11 MR SHIEH: No.

12 CHAIRMAN: Mr Connor?

13 MR CONNOR: No, sir.

14 CHAIRMAN: From the MTR?

15 MR BOULDING: Yes, sir, I have one or two questions.

16 Cross-examination by MR BOULDING

17 Q. Good morning, Mr Li.

18 A. 早晨。

19 Q. You were asked by Mr Pennicott about Pypun; do you
20 remember being questioned about Pypun?

21 A. 冇錯。

22 Q. And you told Mr Pennicott that you were involved in site
23 walks on the SCL1112 contract; do you remember that?

24 A. 有參加過。

25 Q. And you said that you had been involved in those site
26 walks; is that correct?

1 A. 係。

2 Q. How many site walks can you remember that you made,
3 approximately?

4 A. 地盤嘅巡查係每三個月一次嘅，基本上我都會有參加，但係除非遇到一啲特
5 別更加urgent嘅嘢嘅時候，我就會要求我嘅一啲嘅同事，例如我嘅senior
6 engineer就代我去參與，平時佢哋都有代我參與嘅，一般嚟講，我都會係
7 參與三個月一次嘅巡查。

8 Q. Just for the record, what was your senior engineer's
9 name?

10 A. 我嘅高級工程師就有幾位同事幫過我嘅，其中一位叫Johnny Chu，另一位
11 叫Vincent Chu兩位同事，佢會有幫過我去做一啲嘅地盤嘅巡查，一齊行
12 咁樣。當然就視乎嗰一次，未必兩個一齊去嘅。

13 Q. And we've heard evidence that site walks would take,
14 what, about an hour and a half. Does that accord with
15 your recollection?

16 A. 我想有一個補充嘅，通常個site walk就係講個安排點樣呢，首先就會港鐵
17 公司有一班嘅同事會透過一啲嘅PowerPoint就有個briefing畀我哋，即係
18 講關於嗰個期間有冇咩嘢特別嘅工程嘅進度，或者有冇嘢嘅issues，同我哋
19 講解，嗰個時候，我都會問好多嘅內容，包括運基顧問公司，我亦都係同樣問
20 好多嘅問題，我個記憶就係問呢啲問題同埋呢一啲嘅內容都通常都超過半個鐘
21 頭以上。

22 佢哋跟住就具體落去地盤去巡查，就住當日佢有特別嘅介紹嘅時候，即
23 係話佢遇到一啲工程上一啲嘢嘅時候，我哋原本嘅路線以外，我亦都可以再增
24 加一啲嘅位置，其實簡單嚟講，港鐵公司係要配合我哋嘅要求去行，我嘅印象

1 之中，都至少個半鐘頭，因為頭先已經講咗有briefing都超過半個鐘頭，我
2 哋再具體去行都一段時間。唔該。

3 Q. Right. I'm right in thinking that if you or Pypun had
4 any concerns, you would raise those concerns with the
5 MTR; is that correct?

6 A. 我哋首先嚟講，要基於港鐵公司當日個PowerPoint裏面有冇匯報咩嘢特別
7 嘅內容，當然喺之前嚟講，我哋都會同運基一齊去傾我哋行嘅路線同埋主要
8 關注嘅地方，但係亦都同樣需要港鐵公司喺當日去匯報番一啲工程上裏面有
9 冇特別嘅情況，我哋嗰陣時就會去睇下嗰啲嘅嘢係去關注嘅地方。

10 Q. Right. I'm right in thinking, am I not, that one of the
11 matters of concern would be whether or not the works
12 were on programme; is that correct?

13 A. 都可以咁樣講，不過我想補充一樣嘢，呢個所謂工程就係合約1112，因為呢
14 個只係針對1112個site walk，就未必一定係講到成條沙中線。

15 Q. I'm talking about contract 1112 as well.

16 You say you made the walks every three months. Can
17 you recall whether or not you would have visited the
18 1112 contract for a site walk in the period
19 approximately August 2015 to December 2015?

20 A. 我首先做呢個崗位係2017年2月先開始做呢個嘅總工程師，之前嚟講，我係
21 冇參與到嗰啲site walk嘅。

22 Q. So your first site walk, personally, was in 2017?

23 A. 我記得係應該大約呢個時候。

24 Q. Do you know who, from your department, would have been

1 involved in the site walks before 2017? Can you put
2 a name on that, please?

3 A. 正如我個witness statement裏面有講，喺我個期間嚟講，就係原本係有
4 一位總工，就係曹生嘅，佢係做--負責就呢一個嘅NSL，但係佢嘅具體嘅內
5 容，佢有冇參加定係點樣參加，我諗我呢度就唔能夠補充到呢啲嘅資料。

6 MR BOULDING: Okay. Thank you very much, Mr Li. No further
7 questions.

8 MR TO: No questions from China Technology.

9 CHAIRMAN: Peter?

10 COMMISSIONER HANSFORD: Yes, I have one question, Mr Li.

11 You referred to the risk register, when you were
12 telling us about your interaction with the M&V
13 consultant.

14 Do you know how that risk register was compiled by
15 Pypun?

16 A. 首先嚟講，喺港鐵公司同埋佢嘅承建商，係有一個要求承建商去提交一啲嘅
17 risk嘅register，由於唔同嘅contracts佢哋嘅承建商都要提交，所以
18 呢一個係一個海量，好大量嘅一個risk register，而運基公司按嗰個
19 agreement嚟講，佢都要做一個嘅risk register，所以因此要方便佢做
20 唔同嘅合約裏面，而佢哋會做一個篩選，選出一啲認為更加重要佢哋關注嘅
21 嗰啲佢哋會抽咗一啲risk出嚟。

22 點做呢？我哋本身喺嗰個agreement裏面要求要睇一啲文件，第二樣，
23 港鐵公司都要配合，佢哋紅磡呢個嘅site office裏面就畀咗兩個works
24 station，其實運基公司佢哋可以根本上係隨意，隨佢嘅時間走去嗰度去搵

1 資料，因為涉及咗好多嘅工程合約。喺佢裏面最終就搵咗一大掙嘅risk出嚟，
2 呢一大掙risk嘅item，佢跟住就會作一個risk嘅matrix，按住嗰樣嘢嘅
3 無論個probability同埋佢個severity，即係個嚴重性，佢就form咗個
4 matrix，有low、media同high，佢哋會整咗出嚟，就唔同嘅colour。例
5 如最終終極或者係綜合睇呢一個係無論考慮probability同severity，都
6 係high嘅時候，佢就譬如話high，種種嘅嘢，佢哋就會form咗一個--佢
7 select咗一啲risk，就form咗一個risk register。

8 呢個risk register係每三個月係要update一次，每三個月update
9 一次，亦都會向--喺每三個月裏面，我哋都會去update嘅時候，之後亦都會
10 同番RDO個同事去匯報番佢哋有呢啲咁樣嘅睇法，然後跟住最樓層RDO個同事
11 就endorse咗呢個risk register。

12 呢個risk register就會有個重點，就係喺programme同埋cost嘅
13 裏面同埋safety嘅裏面，呢啲嘢我哋就變咗就有三類嘅時候，就佢以後跟住
14 呢一樣嘢，無論做monitoring，做verification，佢其實最主要都係
15 monitoring嗰方面，佢就會更加關注，特別佢哋亦都可以透過呢啲嘢，佢
16 哋跟進--即係運基公司佢哋跟進嘅時候，佢哋會同港鐵公司有討論，透過一
17 啲programme monitoring嘅meeting就同港鐵討論programme嘅嘢，
18 cost meeting就傾番cost嘅嘢。其實種種嘅嘢大家去分晒工去做。

19 COMMISSIONER HANSFORD: Thank you. That's very helpful.

20 Just one further point: who actually analysed the
21 severity of the risk? Who decided which risks were
22 high, medium or low risks? Was that Pypun?

23 A. 係Pypun，因為佢哋頭先--唔係頭先，即係佢哋亦都補充過，佢哋有唔同嘅

1 teams嘅，有programme team，有cost team，又safety又有team，其
2 實三個唔同嘅team leaders嘅，佢哋會根據佢哋專業，根據手頭嘅資料，
3 佢哋去評估呢啲高、中、低嘅情況，再用個risk matrix去搵出一個綜合嘅
4 高、中、低嘅情況。

5 COMMISSIONER HANSFORD: Thank you. That's useful.

6 CHAIRMAN: Anything arising from that?

7 MR SHIEH: No.

8 CHAIRMAN: Good. Thank you very much.

9 MR KHAW: No re-examination.

10 CHAIRMAN: Thank you. Mr Li, thank you very much indeed.

11 You've been of considerable assistance and your evidence
12 is now completed, so you can go now. Thank you very
13 much.

14 WITNESS: 多謝。

15 (The witness was released)

16 MR KHAW: Mr Chairman, our next witness will be Mr Leung

17 Man Ho. I wonder if that may be a convenient moment?

18 CHAIRMAN: Yes, thank you very much. 15 minutes.

19 (11.24 am)

20 (A short adjournment)

21 (11.47 am)

22 MR KHAW: Mr Chairman, our next witness is Mr Leung Man Ho,
23 who is now sitting here.

24 Mr Leung, can you just confirm that your full name
25 is Leung Man Ho?

1 WITNESS: 對。

2 MR KHAW: You are also known as Jonathan Leung; is that
3 correct?

4 WITNESS: 係。

5 MR LEUNG MAN HO, JONATHAN (affirmed in Puntì)

6 Examination-in-chief by MR KHAW

7 MR KHAW: Would you like to give your evidence in Cantonese
8 or English?

9 A. 廣東話。

10 Q. For the purpose of this Commission of Inquiry, we
11 understand that you have given one witness statement.
12 If we can all turn to bundle G3, page 2075. That's your
13 witness statement, as we can see from the first page,
14 and it consists of several pages. It goes all the way
15 to -- I believe it has altogether 13 pages -- 2087; do
16 you see that?

17 A. 對, 睇到。

18 Q. It's a statement dated 7 September 2018. Do you confirm
19 that you put your signature at the end of this witness
20 statement?

21 A. 確認。

22 Q. And you confirm that the contents of this witness
23 statement are true to your knowledge, information and
24 belief?

25 A. 可以確認。

1 Q. Do you confirm that you adopt this witness statement as
2 your evidence for the purpose of this Inquiry?

3 A. 確認。

4 Q. Perhaps just to make Mr Pennicott happy, and also just
5 to show that I am aware of some sort of organisation
6 chart as well, if I can just refer you to G9/7022.

7 MR PENNICOTT: There are two.

8 MR KHAW: We understand that that is the organisation chart
9 in relation to the Railway Development Group as at
10 13 August this year. Your name appears at the top of
11 this chart; can you see that?

12 A. 睇到。

13 Q. Can you tell me, when did you start to hold this
14 position in relation to the Railway Development Group?

15 A. 呢個職位應該係15年嘅11月。

16 Q. Thank you. If we can go back to your witness statement,
17 2075, the first page, the first paragraph, where you
18 say:

19 "I was the Chief Engineer in Railway Development
20 Office of the Highways Department and held this position
21 from 2 July 2013 to 30 November 2015. During this
22 period, my duties included overseeing the construction
23 works under contract no. 1112 of the Shatin to Central
24 Link ('SCL') project. Since 1 December 2015, I have
25 been in the position of Government Engineer of the
26 Highways Department ..."

1 Do you see that?

2 A. 睇到。

3 Q. Can I just ask you, during the period between July 2013
4 and November 2015, in terms of percentage, how much time
5 did you spend on the SCL project?

6 A. 喺嗰段嘅時間，我有大部分嘅時間都會花喺沙中線度嘅。

7 Q. So, in terms of percentage, would you say more than
8 50 per cent or --

9 A. 多過五成，肯定多過五成。

10 MR KHAW: I have no further questions for you. Mr Pennicott
11 will have the right to ask you some questions first, and
12 then lawyers acting for other parties may ask you some
13 questions. The Chairman and Professor meanwhile may
14 have some questions for you. So please remain seated.

15 WITNESS: 哦，明白。

16 Examination by MR PENNICOTT

17 MR PENNICOTT: Good morning, Mr Leung. As Mr Khaw said, my
18 name is Ian Pennicott, I'm one of the counsel to the
19 Commission, and I have a few questions for you. Thank
20 you very much for coming along to give evidence to the
21 Commission this morning.

22 I'm glad that Mr Khaw can take a hint, but there is
23 just one other organisation chart that I'd like to look
24 at. Could we please look at H7/2657. If you're looking
25 at the screen, Mr Leung, this is the organisation chart

1 of the BO team in the Railway Development Office of
2 Highways Department from 10 January 2012; do you see
3 that?

4 A. 睇到。

5 Q. My understanding is, if I've got this right, Mr Leung,
6 that from the second -- I'm reading from paragraph 1 of
7 your witness statement but you don't need to look at
8 it -- from 2 July 2013 to 30 November 2015, you were the
9 Chief Engineer, that's CE. So if we look on the
10 left-hand side of this chart, under the Highways
11 Department, we have "Government Engineer" and then
12 underneath "Chief Engineer", and that was your position,
13 as I say, from July 2013 to the end of November 2015; is
14 that right?

15 A. 總工程師，係，正確嘅。

16 Q. Right. Mr Leung, as I understand it, as I think you say
17 in paragraph 12 of your witness statement:

18 "In addition to the three-tier monitoring
19 mechanism", which you have dealt with in your statement,
20 "Highways has also appointed a monitoring and
21 verification consultant, [that is] Pypun, to assist
22 Highways in monitoring the works of MTR."

23 As I understand it, when you were the Chief Engineer
24 in the period that we've just identified, you liaised
25 with Pypun, and you did accompany them on their
26 quarterly site visits on a regular basis?

1 A. 係。

2 Q. What I'd like to do is just identify some of the
3 documents that evidence those site visits, Mr Leung.
4 What we need for that purpose is file G10. We will pick
5 it up at the beginning or towards the beginning of 2015,
6 that's March 2015. Could you please look at G10/8053.

7 One can see from this document -- you're being given
8 a hard copy; it's up to you, Mr Leung, whether you use
9 the hard copy or look at it on the screen -- that this
10 is a document that is I think prepared by Pypun, and
11 it's a site visit monitoring report; do you see that?

12 A. 係。

13 Q. As I understand it, this document -- and we'll see a few
14 of them in a minute -- forms part of the monthly report
15 that Pypun would submit to government?

16 A. 喺，對。

17 Q. If we go back, just so that we've got that point, to
18 G10/8035, that's the front sheet of the content of the
19 report, the monthly report. We can see this is
20 number 29.

21 Then if you go over the page to 8036, there's
22 a series of appendices listed, and D is the "Site visit
23 schedule and site visit monitoring report"; do you see
24 that?

25 A. 睇到，嗰啲appendices，係。

1 Q. Indeed.

2 If we can go back then, please, to 8053, which is
3 the site visit monitoring report, we can see that you
4 were there, together with two colleagues, five
5 representatives from Pypun and three from MTR; do you
6 see that?

7 A. 對，對。

8 Q. It says in the introduction:

9 "Joe Tsang of MTR gave a briefing on contract 1112's
10 latest progress of work."

11 I think as Mr Li just described, is this right,
12 Mr Leung, before you went out on your site visit, MTR
13 would give a briefing so that everybody knew where they
14 were and perhaps what was of interest to look at? Is
15 that right?

16 A. 係，呢個係事實嚟嘅，因為我哋每次落地盤之前，或者選擇地盤之前其實都
17 會睇番每個地盤裏面嗰個重要性，嗰個問題或者有啲乜嘢嘢我哋係要關注嘅，
18 而係集中去睇。因為你可以諗到沙中線本身係超過一百個合約，係一百個合
19 約，而超過五千萬，即係半億嘅都一半以上，所以我哋嘅選擇性一定係會睇
20 番每個合約裏面有啲乜嘢嘅問題我要去解決，有啲乜嘢嘅issues我哋要睇清
21 楚嘅，我哋先至會睇，就唔會話我行出去就咁望下係發生緊啲咩嘢事，所以
22 亦都會睇每次出去之前，佢要講解畀我聽有啲乜嘢地方我哋要留意、要睇清
23 楚，咁樣先至再出去嘅。多謝。

24 Q. When you say "they tell us", that is MTR would tell you?

25 A. 係。

1 Q. So you would then go out on your site visit. How long
2 would the visit, that's actually on the site -- how
3 long, on average, would the visit take?

4 A. 好在乎每一次地盤嘅問題有啲乜嘢大或者細嘅問題嘅，因為我哋都儘量希望--
5 因為時間唔多，我哋儘量希望睇多一、兩個地盤，或者一啲重要嘅地方我哋睇
6 耐啲，通常嚟講，個零鐘頭以上都實有啲喇，但係就未必全部擺晒喺同一個地
7 盤或者係同一個地點。

8 Q. Understood.

9 A. 多謝。

10 Q. We can see from this report that you went to the freight
11 yard, you were told some information about the pre-bored
12 H-piles, you went to the stabling sidings, you went to
13 the Cheong Wan Road Viaduct, the North Approach Tunnel,
14 the South Approach Tunnel, Hung Hom Station.

15 Mr Leung, given what's recorded in this report, the
16 different areas, is it a correct assumption that you
17 would have visited these areas?

18 A. 每一次出去地盤，因為其實1112個地盤係一個唔細嘅地盤嚟嘅，就呢度所講
19 嘅係全部所有嘅元素，所有嘅element，但係就每次我哋去巡，未必可以去
20 晒每一箇嘅地方，呢個係事實嚟嘅，因為個地盤咁大，我哋就算個幾鐘頭，
21 其實由頭到尾，你要專注每一個細節呢，係做唔到嘅，所以我哋好多時會專
22 注某一個重要嘅位置，而係集中喺某幾個地方去睇，呢個就係我哋一向做嘅
23 方法，多謝。

24 Q. Yes, I thought that was the position, because from your

1 description of one to two hours -- let's take the
2 maximum, two hours -- it would be pretty difficult to go
3 around and see, unless you were running, all of these
4 areas on one visit. It just wasn't possible, was it?

5 A. 你可以咁講。

6 Q. Right. Then if we could move on. If we go, please, to
7 page 8077, we see some matters in this report, which is
8 the 5 June report, so three months later. Again, you
9 are present with representatives of the RDO --

10 A. 係。

11 Q. -- Pypun and MTR.

12 A. 係，對。

13 Q. We see some matters that are a bit more familiar to us
14 on this one. So, at number 2.0, "Work in progress" at
15 8078, it says:

16 "Overall, 277 out of 282 D-wall panels have been
17 cast."

18 Then "Area A":

19 -- D-wall panels in area A had been completed in
20 April 2015.

21 -- Concreting of the EWL slab in area was about
22 50 per cent complete."

23 Then there's similar references in relation to
24 area B and the Coliseum.

25 Then over the page at 8079, at the top of the page,
26 "Area C":

1 "The remaining 5 D-wall panels (out of 146) in
2 area C with scheduled for completion by the end of
3 June."

4 Then one sees a photograph to the right of that; do
5 you see that, Mr Leung?

6 A. 睇到，睇到。

7 Q. And presumably somebody from Pypun would be taking
8 photographs as you were going around, for the purposes
9 of putting them in these reports; is that right?

10 A. 對。

11 Q. Right.

12 A. 呢度補充少少，喺D-wall panel，係喺個critical path度嘅，即係係
13 一個我哋覺得係--因為早期嚟講，起D-wall呢，佢係慢咗嘅，所以就我哋
14 呢個係其中一個關注點嚟嘅。

15 Q. Right. Then if we could go on to the next report,
16 that's at 8119. We've now reached 24 September 2015,
17 and again, Mr Leung, you were present on this site
18 visit, again with representatives of Pypun and the MTR?

19 A. 對。

20 Q. If you could be shown, please, page 8121, towards the
21 bottom half of the page there's a reference to "Area C".
22 The third item:

23 "Construction of the EWL slab was in progress
24 (gridlines 26 to 31 and 36.5 to 38.5 were complete."

25 And we know that's as C1-3, C2-1 and C2-5.

1 On these visits, Mr Leung, was there sort of free
2 discussion; you were able to ask the MTR questions,
3 Pypun were able to ask the MTR questions? Was there the
4 ability to do that?

5 A. 我哋整個site visit裏面或者site walk裏面，其實我哋都係同港鐵一齊
6 嘅，一直整個site walk，我哋都係會有問題問佢哋嘅，但係就我哋好多時
7 都係focus番我哋喺其他meeting裏面遇到嘅issues去問嘅，例如--如果
8 你睇番呢個情況時候，嗰陣時候主要會講個underpinning，因為佢哋嗰個
9 情況嘅時候，就underpinning同埋出面做嗰啲CLP tunnel都係嗰啲係最
10 critical嘅element，主要會問嗰啲。因為D-wall之前都會有問嘅，因為
11 D-wall嗰個進度係比開頭慢咗，但係之後其實佢已經pick up咗喇。

12 Q. Mr Leung, as far as I can tell, the next site visit was
13 held on 7 December 2015, so three months on, by which
14 time you had taken up your new position and therefore
15 you didn't attend, I think, any further site visits.
16 I think this was your last one. Can you confirm that?

17 A. 係，係。

18 Q. Can I ask you, please, to look at a couple of
19 photographs. Could I ask you, please, to be shown
20 B17/24248.

21 This is a photograph of 22 September, Mr Leung,
22 taken two days before your site visit. If we could just
23 look at the next photograph and then I will ask you
24 a question. There's another one, the same date --
25 sorry, and one more photograph, please, 250 -- do you

1 see that?

2 If we can go back one photograph. My understanding
3 is that -- first of all, do you have any recollection of
4 seeing what we can see in this photograph at the time,
5 not necessarily exactly the same but similar items of
6 work?

7 A. 我記唔番，即係就算我哋睇，通常嚟講，唔會去到咁近嘅，因為我哋睇整個
8 範圍裏面，嗰啲石屎係做到邊個status，即係做完未，做咗呢一版可唔可以
9 做到我哋嘅要求嘅時間性，或者做到有啲咩嘢影響、有啲咩嘢問題，我哋係
10 傾呢一樣嘢，而唔會係去到某一個螺絲位或者點樣樣、邊度紮鐵、長咗、短
11 咗，呢啲唔係我哋喺地盤裏面傾嘅問題。

12 Q. You see, my understanding is, Mr Leung, that this
13 photograph may show the trimming down of the top of
14 a diaphragm wall. Is that something that means anything
15 to you?

16 A. 我可以喺呢度講少少，因為1112呢一個合約比起其他嘅合約有啲唔同，佢係
17 喺一個podium，起好咗嘅podium下面做嘢，其實係整個process，整個合
18 約裏面，其實佢係要打好多嘢，例如佢入牆嘅時候要打晒現有啲platform、
19 現有啲平台，仲有好多嘢要打、要拆，亦都有啲column佢underpin咗之
20 後要鋸添，所以我喺個地盤裏面見到佢打一啲嘢其實唔係一個出奇嘅事。當
21 然我當時亦都我唔會知道佢其實打緊啲咩嘢。

22 Q. It's not the sort of thing you would raise a query about
23 with MTRC, if you saw something similar to this?

24 A. 唔會，唔會，唔會。

1 COMMISSIONER HANSFORD: Sorry, can I just take it one step
2 further: in the briefings that you would receive prior
3 to the site walk, was the breaking down at the top of
4 the concrete wall mentioned?

5 A. 從來冇。

6 COMMISSIONER HANSFORD: Thank you.

7 MR PENNICOTT: Can I ask you, please, to look at another
8 photograph. B19/25595.

9 We can see on this photograph, I believe, at least
10 one assumes the caption is right in the top right-hand
11 corner, this was taken on 26 September 2015, so two days
12 after your site visit. This is said to show that
13 through-bars were adopted in this particular area, that
14 is bay C1-4.

15 Again, is this something that you would have seen
16 and remembered at the time, Mr Leung?

17 A. 我唔記得有見過呢個情形，不過都真係亦都好似頭先所講一樣嘢，如果係有
18 特別嘅情況，其實港鐵應該會同我哋講嘅，即係話佢有改過任何嘢，如果佢
19 冇講過，我哋唔會去咁樣會睇到即係呢條--即係如果佢有喺呢度label咗，
20 其實可能我哋大家就咁睇完呢張圖，都唔會知究竟發生咗咩嘢。

21 Q. Okay. Could I then ask you to look at another
22 photograph. Let's try E5/1279.

23 This is a photograph taken on 10 September 2015.
24 These, I should say, for anybody who is interested, come
25 from the Fang Sheung photographs in bundle E5. We can

1 see that the caption is "Scrap metal after replacing
2 damaged couplers".

3 Do you ever remember seeing situations like this on
4 your site visit in September 2015, Mr Leung?

5 A. 應該有，因為如果我見到一類咁樣樣嘅嘢擺喺我面前，我會問港鐵呢啲係乜
6 嘢嘅，而去睇，如果--即係所以喺我個記憶裏面，我應該有見過啲咁嘅嘢。

7 Q. All right. Let's try the next photograph, 1280.
8 Similar.

9 A. 我諗我會有同一個反應，如果我見到呢啲嘢，我一定會問港鐵「呢啲係乜嘢
10 嚟嘅？點解會有呢啲嘢？」Base on我而家嘅認知，即係所understand，
11 我唔會就咁睇完之後就話就算數。即係我有見過應該。

12 Q. All right. 1282.

13 Sorry, can we just go back to that last photograph.
14 I should have said -- I appreciate this is on
15 16 December, so this is taken after you had changed
16 position, but anyway. We can see what the photograph
17 shows.

18 A. Yes, this is after.

19 COMMISSIONER HANSFORD: Can I just go back to Mr Leung's
20 answer to the last question, because what the transcript
21 says is, if you had seen something like this, you would
22 have asked questions. Based on your knowledge now, you
23 would definitely have asked questions. But what about
24 based on your knowledge at the time, would you have
25 asked questions?

1 A. 會，如果會見到啲咁奇怪嘅嘢，喺一個正常嘅地盤裏面，其實我係會問問題
2 嘅。

3 COMMISSIONER HANSFORD: Okay. Thank you.

4 MR PENNICOTT: 1282 and 1283. Now, again, this is -- again,
5 I think we are in April 2016, so I accept, Mr Leung,
6 after you had ceased to be the Chief Engineer -- but
7 again, did you see these skips full of all these
8 scrapped couplers back in 2015?

9 A. 冇。

10 Q. All right.

11 Now a completely different topic, Mr Leung. In
12 paragraphs 31 to 35 of your witness statement, you deal
13 with -- you have a heading and you deal with "incidents
14 of non-conformities" or "other non-conformities". It's
15 at G3/2083.

16 A. 係。

17 Q. You say in paragraph 32:

18 "On 14 May 2015, I received an email from the
19 representative of BO team, which informed me that
20 several site irregularity activities were reported to
21 the BO team. By way of a follow-up email on 18 May
22 2015, the BO team sent me a summary of the
23 non-conformity items. Three of the items were
24 subsequently escalated to the PSC for discussion ..."

25 And that's the project supervisory committee,

1 supervision committee?

2 A. 對，對。

3 Q. "... namely: (i) the construction of capping beam/portal
4 frame which commenced before the completion of works for
5 the diaphragm wall ...; (ii)" -- which is the one I am
6 interested in -- "the construction of diaphragm wall
7 which deviated from the accepted design" -- which you
8 have called the unauthorised deviation -- "and (iii) the
9 unauthorised cutting of existing steel beam supporting
10 the concourse ..."

11 Then over the page, at paragraph 33, you say:

12 "MTR was requested to address the non-conformity
13 items at a meeting on 27 May 2015."

14 As I say, I'm only interested for present purposes
15 in number (2), Mr Leung, as to which you say:

16 "As to the unauthorised deviation, MTR agreed that
17 all proposed changes to the working drawings for the
18 diaphragm wall had to be approved by MTR before relevant
19 works could be allowed to proceed on site; and they
20 would be submitted to BD for approval with [or within]
21 an agreed timetable."

22 Then you say this:

23 "A copy of the PowerPoint slides prepared by MTR for
24 the aforesaid meeting is at annex LMH-10."

25 Could we just very quickly look at those sides,
26 please, which as you have indicated are G11/8596. Do

1 you have that?

2 A. Yes.

3 Q. If you go, please, to page 8600.

4 This is a diagrammatic presentation, Mr Leung, of
5 what we know as the first change, that is the missing
6 U-bar change. Do you understand?

7 A. 睇到。

8 Q. Right. In relation to that, if you go over to the next
9 page, 8601, the MTRC slide in relation to the
10 unauthorised deviation from working drawings says this:

11 "All proposed changes to working drawings for
12 diaphragm wall must be approved by MTR construction
13 management/design management team before relevant works
14 can be allowed to proceed on site;

15 (2) All proposed changes to working drawings for
16 diaphragm wall will be submitted to BD for approval in
17 accordance with the agreed timetable between MTR and
18 Leighton".

19 Do you see that?

20 A. 睇到。

21 Q. Just so I've understood the position, Mr Leung, are you
22 saying that the government was prepared to accept the
23 position as set out on this slide with regard to changes
24 to the working drawings?

25 A. 呢個係港鐵當日propose佢嗰個跟進嗰個方法嚟嘅，因為已經係做咗，所以

1 佢而家propose呢個係當日佢諗住點樣去跟進，而家呢個做咗嘅情況係點樣
2 做，因為其實佢再要入過去BD嘅，佢要做一個assessment analysis，呢
3 一樣嘢佢哋亦都要講番清楚佢哋第二時係點解會做嘢嘅，應該係點做嘅，呢
4 啲嘢港鐵應該係睇過晒嘅，係check過，冇問題嘅，先至可以再做，亦都有
5 一個合理嘅timetable要同BD去睇番。但係就如果你話想再details嘅，就
6 可以要問番BD啲嘅同事。

7 Q. All right. But, as I understand it, this obviously --
8 the unauthorised deviation had been picked up, and we
9 know that steps were taken to address that, in terms of
10 the preparation of reports and so forth that were
11 subsequently submitted to government. But is this slide
12 expressing the position going forward, as it were, what
13 you expected in the future to happen?

14 A. 其實呢個已經講出咗港鐵裏面佢諗住希望可以應該點樣做，你講得啱嘅，佢
15 哋係要將所有--即係好似佢第一句所講，就所有嘅changes就一定要港鐵嘅
16 check過，同埋佢哋批准，同埋就一定要有一個合理嘅時間表同BD去傾嘅。

17 Q. Right. You expected the MTR and Leighton to come up
18 with that timetable?

19 A. 對。

20 MR PENNICOTT: Thank you very much, Mr Leung. I have no
21 further questions for you.

22 CHAIRMAN: Thank you.

23 MR SO: No questions from China Technology.

24 MR SHIEH: No questions from Leighton.

25 MR CONNOR: No questions from Atkins. Thank you.

1 MR BOULDING: None from MTR, sir.

2 CHAIRMAN: Good. Thank you.

3 MR KHAW: Just one follow-up question from one of

4 Prof Hansford's questions raised earlier.

5 CHAIRMAN: Yes.

6 Re-examination by MR KHAW

7 MR KHAW: Mr Leung, you will remember that Mr Pennicott took

8 you to look at some photographs.

9 A. 係。

10 Q. And Mr Hansford asked whether, at the briefing sessions

11 which were held before the site walks, did anyone from

12 MTR tell you or your colleagues about the breaking down

13 of the top of the diaphragm wall. Do you remember that?

14 A. 從來都有講過。

15 Q. May I just confirm whether anyone actually told you, on

16 government, or your department, that the top of the

17 diaphragm wall would be knocked down during the site

18 walks?

19 A. 直至今年嘅7月之前，係從來都冇人同我講過。

20 Q. Did anyone also mention anything about -- I mean during

21 the site walks -- the intended use of through-bars

22 instead of couplers for the construction regarding the

23 connection between the diaphragm walls and the platform

24 slabs?

25 A. 從來冇講過。

1 MR KHAW: I have no further questions.

2 CHAIRMAN: Thank you.

3 COMMISSIONER HANSFORD: I have one question.

4 Mr Leung, Mr Pennicott took you to paragraphs 32 and
5 33 of your witness statement, G2083 and G2084. On
6 G2083, paragraph 32, you helpfully set out the three
7 items. Mr Pennicott asked you about item (ii), the
8 unauthorised deviation; yes? Do you remember?

9 A. 係。

10 COMMISSIONER HANSFORD: I would just like to ask you
11 something quickly about item (i), the capping
12 beam/portal frame incident, and then in paragraph 33(1),
13 over the page, you say -- and you are talking here about
14 tracking submissions to BD and you say "Leighton would
15 appoint a senior engineer with BD experience to keep
16 track [of] all BD submission[s]".

17 Do you know if they did that and do you know who it
18 was?

19 A. 我有再跟進呢一樣嘢，因為就係我哋個BO team會直接同佢跟進嘅，因為其
20 實我哋有個BO team 㗎嘛，佢哋就係做BD嘅submission嘅，如果BD嘅經
21 驗或者BD嘅staff，佢哋有會議係直接開嘅。係咁多，thank you。

22 COMMISSIONER HANSFORD: That's fine. I'll ask it from the
23 BD witnesses a bit later.

24 Thank you very much.

25 CHAIRMAN: Anything arising from that? No.

1 Thank you very much. Your evidence is completed
2 now. Thank you. So you can leave now.

3 (The witness was released)

4 MR PENNICOTT: Sir, I would like to say I planned it but
5 that is actually quite a convenient moment, even though
6 it's only 12.30, because as you know, we have Mr Lim
7 from BOSA coming in at 2 o'clock/2.15 this afternoon.

8 CHAIRMAN: Yes.

9 MR PENNICOTT: And then of course we have at 4 o'clock
10 Mr McCrae on the videolink from London.

11 CHAIRMAN: Yes.

12 MR PENNICOTT: So I think we are going to be sitting
13 probably until -- my estimate of my time with Mr McCrae
14 is probably about an hour to an hour and a half, so we
15 are certainly going to be going through until 5.30 at
16 the earliest. Of course I don't know whether anybody
17 else will have any questions for him. So we are
18 definitely going to finish late this evening, on any
19 view.

20 CHAIRMAN: Of course, yes.

21 MR PENNICOTT: So perhaps an extended lunch hour today is
22 not such a bad thing, certainly from my perspective.

23 CHAIRMAN: No. Good. Then, as far as Mr Lim is concerned
24 from BOSA, is he 2.00 or 2.15?

25 MR PENNICOTT: We have asked him to get here for 2.00, but
26 with a view to starting at 2.15. I confess that the

1 legal team -- I have not met him at all.

2 CHAIRMAN: I see. All right.

3 MR PENNICOTT: I'm certainly not proposing to either, but
4 obviously we will let you know when he's here, but
5 I think 2.15 anyway, I think we should start, if that's
6 convenient.

7 CHAIRMAN: Good. We will adjourn until 2.15.

8 MR SO: Sir, I do apologise. There is a short application
9 on the part of China Technology.

10 MR PENNICOTT: Sir, I'm not allowing this application to
11 take place at this stage. We are in the middle of
12 witnesses, the government witnesses and then interposing
13 two witnesses this afternoon. I'm not in a position to
14 deal with this application, although I have been given
15 short notice of it. So could I respectfully request
16 that this application be deferred?

17 There's another additional reason, in my submission,
18 it should be deferred. First of all, I think I'm the
19 only one who knows about it apart from Mr Khaw for the
20 government. Sir, my brief consideration raises this
21 concern, that I may wish -- and I've discussed this
22 briefly with Mr Khaw earlier today -- to invite you to
23 take the rather unusual step of taking the application
24 in camera, given its nature. I won't say any more about
25 that. I can't say I've formed a conclusive view about
26 that, but I may wish to make an application to you that

1 the application should be heard in camera.

2 CHAIRMAN: All right.

3 MR PENNICOTT: Certainly I'm not in a position to deal with
4 it now.

5 MR SO: In response to my learned friend Mr Pennicott's
6 indication for hearing in camera, we have a neutral
7 stance to that, and I'm happy to defer my application
8 until the time sir and Mr Chairman see fit.

9 CHAIRMAN: Yes, thank you. I think there's no room for
10 an application today. We have seen the written
11 application. We've had no opportunity really to do more
12 than just fast-read through it.

13 MR SO: I understand.

14 CHAIRMAN: And we are in no way in a position to digest what
15 is intended. So I think it may be better if there is
16 a liaison between yourself and Mr Pennicott as to what
17 may be an appropriate day for the application.

18 MR PENNICOTT: Sir, so far as I can see, just to allay the
19 fears of other parties here, it does appear to be
20 an application that only affects the government and the
21 Commission, and obviously China Technology, but no other
22 party, as far as I can see, would have any involvement
23 in the application.

24 MR SO: That's the same position of China Technology.

25 MR PENNICOTT: But again it's a question of having to think
26 that one through.

1 CHAIRMAN: Yes, I'd like to think that through.

2 MR PENNICOTT: Indeed. That was my initial reaction but one
3 can see whether the other parties want to listen is
4 a matter for them.

5 MR BOULDING: Sir, can I just make an observation. I am
6 heartened to hear from two of my learned friends that
7 it's not going to affect me, MTR. I personally would
8 like to take a view of my own on that, and I wonder
9 whether you would consider -- no need to decide now --
10 making an order that we be copied in with presumably
11 some sort of skeleton argument that I assume
12 Mr Pennicott has seen and it may well be you've seen it
13 as well.

14 MR PENNICOTT: Yes. The position is I've seen it, I imagine
15 Mr Khaw has seen it, and I know, sir, you've seen it
16 together with Prof Hansford.

17 I have no difficulty in the other parties being
18 distributed the document concerned so that they can see
19 what the application is.

20 CHAIRMAN: I think that's important.

21 MR PENNICOTT: I know they haven't yet but I just wanted to
22 see how things --

23 CHAIRMAN: No, in due course, if only on the basis that --
24 I think the metaphysical poet, something about "No man
25 is an island", entirely --

26 MR PENNICOTT: John Donne.

1 CHAIRMAN: John Donne, is it? Thank you. Well done. We
2 both obviously did A Level English!

3 MR PENNICOTT: Something like that.

4 CHAIRMAN: I definitely agree that the other parties must be
5 entitled to know, and they may indeed wish to make some
6 application to be heard on the issue, I don't know,
7 because -- maybe not the parties sitting in the main
8 well, but those sitting to the side.

9 MR PENNICOTT: Yes. As I say, those who may be interested
10 may want to reflect upon whether or not the application
11 should be also heard in camera.

12 CHAIRMAN: Yes. Thank you.

13 2.15.

14 (12.38 pm)

15 (The luncheon adjournment)

16 (2.17 pm)

17 MR PENNICOTT: Good afternoon, sir. The Commission proposes
18 now to call a witness. This is Mr Paulino Lim.

19 MR PAULINO LIM (affirmed)

20 Examination by MR PENNICOTT

21 Q. First of all, can you state your full name, please?

22 A. My full name is Paulino Lim.

23 Q. Right. Can I ask you this, Mr Lim: are you sometimes
24 known as "Paul Lam"?

25 A. Yes, sir.

26 Q. We'll see why I needed to ask that in a moment.

1 Mr Lim, as I will call you, if you could be shown,
2 please, bundle H25/44825.

3 A. Yes.

4 Q. My understanding, Mr Lim, is that this is a witness
5 statement that you gave to the Buildings Department at
6 an interview which took place on 27 November 2018. Is
7 that correct?

8 A. Yes, that's correct.

9 Q. We can see that you have signed the statement, I think
10 just about on every single page, not just at the end,
11 and indeed there are a series of appendices to the
12 statement which you have also either initialled or
13 signed?

14 A. Yes, that's correct.

15 Q. Mr Lim, are you content to adopt the contents of this
16 witness statement as your evidence to the Commission?

17 A. Yes, sir.

18 Q. Mr Lim, are the contents of the witness statement true
19 to the best of your knowledge and belief?

20 A. Yes, sir.

21 Q. Now, Mr Lim, can I just really as a matter of formality
22 and ask you to be shown bundle C6/4842, where we should
23 find the front sheet to a sub-contract between Leighton
24 and BOSA Technology (Hong Kong) Ltd; do you see that?

25 A. Yes, sir.

26 Q. Now, in your own words, Mr Lim, can you tell us what

1 your job duties and responsibilities are for BOSA?

2 A. Initially, setting up of the fabrication yard at the job
3 site. We also have our fabrication yard in Tin Shui
4 Wai, which acted as a backup initially whilst we were
5 setting up the fabrication on site.

6 My responsibility ranged from obviously the seller's
7 manager for BOSA Technology and I was involved in the
8 sales of this contract and the operations management of
9 the Hung Hom fabrication yard on site.

10 Q. Right. I also understand that you had a role in certain
11 training sessions?

12 A. Yes, that's correct, sir.

13 Q. Right. We will come to those in a moment.

14 Are you familiar with the sub-contract between --
15 I don't need the nitty-gritty details, but generally
16 speaking, are you generally familiar with the
17 sub-contract between BOSA and Leighton?

18 A. Mainly the quantity, the bill of quantity, in terms of
19 how many couplers that we were to supply for this
20 project. The nitty-gritty details, I obviously cannot
21 remember, I'm sorry.

22 Q. Okay. If you go to page or will be shown page C6/4915.
23 We can see here, this is appendix 2 to the sub-contract,
24 headed, "Pricing schedule -- bills of
25 quantities/schedule of rates"; do you see that?

26 A. Yes, I can see that.

1 Q. This is the document that you're most familiar with
2 within the sub-contract; is that right?

3 A. Yes.

4 Q. My understanding, Mr Lim, you can see from a previous
5 page, is that -- if you be shown, please, page 4881,
6 that's the third schedule to the sub-contract. We see
7 the sub-contract price there and we see that this is
8 a re-measurable sub-contract price "based on assumed
9 quantities and will be valued out at the rates as
10 stipulated in appendix 2", which is the appendix we have
11 just looked at.

12 "The sub-contract price includes [a sum] for
13 mobilisation costs."

14 As I understand, Mr Lim, this is a re-measurable
15 contract, so at the end of the day, BOSA will be paid
16 for the quantities of materials and so forth that they
17 supplied?

18 A. That's correct.

19 Q. Okay. On that same page, towards the bottom -- and
20 we'll come back to this point in a moment -- we see,
21 under the heading "Period for completion", there's
22 a heading, "Delivery of equipment"; do you see that,
23 Mr Lim?

24 A. Yes.

25 Q. You were to supply -- or deliver, rather -- an automated
26 crimping machine and two automated threading machines

1 and a cutting bench top machine?

2 A. Yes.

3 Q. Were those items in fact delivered to --

4 A. Yes, they were delivered.

5 Q. Right.

6 A. May I add?

7 Q. Yes, of course.

8 A. In this particular job site, we have five production
9 lines and two automated cutting machines, and each of
10 the production lines consists of three machines. The
11 first, which you can see is the cutting machine,
12 automatic cutting machine, and then we've got the
13 crimping machine, followed by the third, which is the
14 threading machine. And we have five of these production
15 lines which we use for manufacturing of the threads or
16 threading.

17 Q. Okay. I think you've explained this point already but
18 in your witness statement, at question and answer 4, the
19 question was:

20 "When did you start working for the site? Are you
21 employed as a full-time site staff?"

22 You say:

23 "Full-time, when the coupler yard was commenced in
24 October 2013."

25 As I understand it, that is when, as it were, BOSA's
26 fabrication or coupler yard was established, in October

1 2013; is that right?

2 A. Yes. I believe it would have been around about there
3 that we commissioned the actual fabrication yard at the
4 inside of the Hung Hom Station, yes.

5 Q. Right. We know that the first diaphragm wall, EM99, was
6 constructed, and therefore the rebar cages had to be
7 constructed, by 1 August 2013. So how did BOSA operate
8 in those first few months before your fabrication yard
9 was set up in October?

10 A. I can only vaguely remember the date. I'm sorry about
11 that; it's been a little while.

12 We had our own factory fabrication yard located in
13 Tin Shui Wai. So prior to the completion and
14 commissioning of the site at Hung Hom Station, all the
15 threading was carried out in our fabrication yard in
16 Tin Shui Wai. I'm not sure about the August date, but
17 I assume it will be correct if you have checked it
18 because I haven't.

19 Q. Right. So, for the first few months, on that
20 assumption, you were operating out of your Tin Shui Wai
21 facility, threading the rebar there, and presumably
22 delivering the couplers from there to the site as they
23 were required?

24 A. Yes, that's correct. Once we have completed fabrication
25 and based on the purchase order issued from Leighton,
26 then we will arrange truck to send the bars back to the

1 job site for use.

2 Q. All right. I mentioned just a moment ago, and you
3 agreed, that you were responsible for training BOSA
4 staff, MTR engineers and contractor's staff. And in
5 answer 19 in your witness statement, that is at
6 page 44830, you say:

7 "Training to rebar fixers in Cantonese with respect
8 to coupler installation and to site engineers/inspectors
9 of Leighton and MTR with respect to coupler inspection.
10 Leighton and MTR staff should inspect threaded rebar
11 production and filled the form Quality Control &
12 Inspection Record on Thread Preparation After
13 Inspection. The form Independent Checklist for On-site
14 Assembly of BOSA Seisplisce Couplers in any Location
15 should also be filled. These two forms should be
16 included in the logbook kept on site. BOSA may have
17 some attendance lists of the training and if I find
18 them, I will send to BD."

19 Do you see that?

20 A. Yes, sir.

21 Q. As I understand it, Mr Lim, you did find some training
22 attendance lists and you did send them to BD?

23 A. Yes. I was followed up for the records.

24 Q. Yes. If we can go to H26, please, at 45187. There
25 should be an email there that you sent four days ago to
26 BD, do you see that, on 13 December?

1 A. Yes, I can see that.

2 Q. If we go over the page to -- let's do it in
3 chronological order -- 45190, that's a training
4 attendance record of 27 August 2013; is that right?

5 A. Yes, that's correct.

6 Q. We can see that that was to Intrafor's engineer, welder,
7 and a number of steel fixers; do you see that?

8 A. Yes.

9 Q. In fact, allow it says "Intrafor", we know that actually
10 some of those gentlemen were from Hung Choi, who was
11 Intrafor's sub-contractor.

12 A. I wasn't aware, sorry.

13 Q. Because one of them, the third one down, Wong Yiu Mo, in
14 fact was a witness some time ago and we heard from him.

15 So there was that training session, and at the
16 previous page, 45189, there was another session on
17 2 October 2013, and we can see the various people who
18 attended that, including Edward Mok and others; do you
19 see that?

20 A. Yes, I see that.

21 Q. Could you then be shown page 45913. Sorry, before we
22 look at that, those two attendance records you've just
23 looked at, Mr Lim, those training sessions took place
24 towards the beginning of the time in which the diaphragm
25 wall cages were being fabricated. And so, if you can
26 recall, were those sessions very much geared to fixing

1 the couplers so far as the diaphragm wall cages were
2 concerned?

3 A. As part of the run-down of the training itself,
4 I usually go through the entire QA/QC quality assurance
5 menu, including the quality supervision plan, and that
6 basically covers from identifying what's a type 1 and
7 what's a type 2 coupler, and we also discuss type A and
8 type B in there as well, the type of installations that
9 are required, how to -- obviously, for steel fixers, we
10 focus on how to install the couplers, and we also talk
11 a little bit about coupler in terms of the traceability.
12 When I say "traceability" I mean the batch numbers that
13 are imprinted on the couplers itself, because as BD's
14 imposed condition, if you have ordered such and such
15 amount of couplers, you will need to perform a certain
16 amounts of tests, and those tests are actually
17 stipulated in the BD-imposed condition or the so-called
18 engineering manual.

19 Of course we do go through the quality supervision
20 plan. The quality supervision plan is an enhanced site
21 supervision, so it's more of an audit/checking system
22 for both supplier, like BOSA Technology, ourselves, and
23 for supervision for assembly at the job site.

24 Q. What about the keeping of records?

25 A. Yes, there are two forms that need to be completed,
26 appendix C and appendix B, I would recall. Those are

1 the two forms that, once filled in, need to be kept
2 on site, in the logbook, for later submission to BD.

3 Q. Right.

4 COMMISSIONER HANSFORD: Mr Lim, can I just ask, on this
5 sheet that we now see, are the only people who attended
6 the ones who actually signed?

7 A. I honestly cannot recall. It's been a long time ago.
8 But it might be the case that those who signed were the
9 ones that attended the meeting. Generally, I give the
10 presentation, but these attendance records are actually
11 circulated. I don't always get a copy of it. I was
12 lucky to have one copy to show today. But we do
13 training sessions on request from Leighton, organised by
14 Leighton, whenever they are required.

15 COMMISSIONER HANSFORD: Is it the case that the names on the
16 left are the people who were scheduled to attend, and
17 the signatures are those that certainly attended, but
18 you perhaps don't know about the other ones?

19 A. No, I can't be certain.

20 MR PENNICOTT: Can I point out that on 45189, the third name
21 down is Kobe Wong, and I recall that during the course
22 of his evidence he was shown -- I mean, Leighton have
23 disclosed two of these sheets in any event -- they are
24 attached, I think, to Mr Lumb's report -- Kobe Wong
25 confirmed that although he didn't sign, he did attend.

26 COMMISSIONER HANSFORD: Okay.

1 MR PENNICOTT: That's my recollection from Mr Wong's
2 evidence.

3 COMMISSIONER HANSFORD: That's helpful.

4 MR PENNICOTT: As to the others, I can't offer a view.

5 The reason, Mr Lim -- I've just spotted it --
6 I asked you about "were you also known as Paul Lam" is
7 that we can see on both of the sheets that we've just
8 looked at, at 45189 and 190, the name "Paul Lam"
9 appears.

10 A. Yes.

11 Q. But it was you?

12 A. Yes, it was me.

13 COMMISSIONER HANSFORD: Actually, I think your name appears
14 twice here, both as the trainer and as one of the
15 attendees.

16 A. They probably -- you know, the circulation came to me
17 and I thought I would just write my name on it.

18 COMMISSIONER HANSFORD: That's fine.

19 A. Not noticing that my name was actually printed on the
20 top, probably, at that time.

21 MR PENNICOTT: Okay. So those were a couple of training
22 sessions.

23 Just tell us how they came about. Were you asked to
24 do them by Leighton or did it happen in some other way?

25 A. With these training records, because they're
26 categorised -- you can see at the top right-hand corner,

1 TR-001, et cetera, and 002 -- so I assume these sessions
2 were organised by Leighton, but I can't fully remember.
3 With MTR being involved, generally speaking it would
4 have to be something that's organised by Leighton.

5 Q. We see from another page, 45192, at the bottom, there's
6 a note which I believe, and you can confirm, was written
7 by Kevin Harman; is that right, Mr Lim?

8 A. I can't remember, I'm sorry. It does say "Kevin"
9 though.

10 Q. Right. Do you recall having --

11 A. No, I cannot remember that.

12 Q. You can't?

13 A. I certainly cannot remember. It's been too long.

14 Q. The reason I ask that, Mr Lim, is that in your witness
15 statement, at answer 5 on page 44826 -- we will be
16 coming back to the training things in a moment -- in the
17 context of training you say -- the question was, "Please
18 briefly describe your roles and responsibilities for the
19 site works", and then you go on to say you were
20 responsible for the training, and so forth.

21 Then, over the page, you say this, about four lines
22 up in answer 5:

23 "I liaised with Kelvin Harman ..."

24 Now, Kelvin/Kevin -- it's Kevin.

25 A. Sorry, Kevin.

26 Q. "... the quality manager of Leighton ... about how to

1 improve the coupler checking forms."

2 Now, do you confirm that you obviously had
3 a recollection of that when you made this statement?

4 A. Kevin is basically the person who have a copy of the
5 quality supervision plan, and he had, at the time, as
6 I recall, looked at the checklist, check form, assembly
7 of couplers at the job site. That particular form, he
8 basically, you know, asked for copies of it in
9 a spreadsheet, because he wanted to modify it being
10 a bit more specific to MTR and Leighton, in terms of
11 definitions such as who is the RSE and who is the RC.
12 So I recall basically that was the discussion we had on
13 that particular form.

14 Q. Okay. You go on to say you often dealt with Edward Mok
15 for processing coupler purchase orders.

16 A. Yes. Edward very frequently comes to our job site
17 container office. He is, you could say, the principal
18 person that we deal with in terms of receiving purchase
19 orders. Purchase orders do include both couplers and
20 for threaded bar to be used for the job site.

21 Q. All right. If we could just go back to the training
22 attendance records. Could we please now go to
23 H26/45193. Again, I think this is a document you've
24 seen before. It's attached to Mr Lumb's report.

25 As I understand it, this is another training record
26 document, dated 1 November 2014.

1 A. Yes.

2 Q. I don't know if you're able to confirm this but our
3 understanding is that the trainees listed there, the
4 three gentlemen, were from Fang Sheung?

5 A. I was told they were from Fang Sheung.

6 Q. Right. You were told at the time?

7 A. Yes.

8 Q. I see. And the training, it says here:

9 "Teach steel fixer how to install coupler to
10 threaded bar. Advice tolerance allowance."

11 What do the words "Advice tolerance allowance" mean,
12 Mr Lim?

13 A. Under the quality supervision plan we have
14 an appendix D. That appendix D has a table which
15 details the tolerance that we permit for threaded bars.
16 I believe it will be under -- you probably call them 4,
17 if you've got that appendix in front of you, appendix D
18 under the QSP, and we do have a little note -- sorry,
19 can I just be taken to that page?

20 Q. Of course. Yes, the QSP is there.

21 A. Yes.

22 COMMISSIONER HANSFORD: Have you got the page number?

23 A. I think it says H44853 and 854.

24 MR PENNICOTT: Yes.

25 A. It's the tolerance that we permit for the threaded bars
26 that we supply, and it does clearly state the tolerance,

1 which is a positive tolerance, that we permit for the
2 threaded end bars. And on the bottom we do actually
3 make a bit of a note about how we programme our CNC
4 programmable machines to always -- to produce positive
5 tolerance to ensure -- the idea is to ensure that the
6 two bars can have a butt-to-butt connection.

7 COMMISSIONER HANSFORD: Sorry, Mr Lim, can you just explain
8 that butt-to-butt connection and how important that is?

9 A. Under normal circumstances, when your thread length is
10 ideally perfect, in terms of its length, "T", if you
11 look at the table --

12 COMMISSIONER HANSFORD: Yes.

13 A. -- when the two ends meet, after you've tightened the
14 two rebar inside of the coupler, they will be touching
15 on the end, and that's something we refer to as
16 butt-to-butt.

17 COMMISSIONER HANSFORD: I'll ask it at this point rather
18 than later: and how important is it for them to be
19 butt-to-butt? What does that do?

20 A. When you are -- if you -- because some of -- the
21 requirement for a type 1 coupler is you -- there's two
22 testing required. The first one is an elongation test,
23 where the sample is loaded to 0.6 FY(?), and in between
24 you've got a gauge that actually checks to see how much
25 of the rebar, once the stress has been released, how
26 much movement is within that connection, and if it

1 exceeds 0.1mm then it's deemed as a failed sample.

2 Butt-to-butt ensures that you actually would not have
3 a problem.

4 COMMISSIONER HANSFORD: I see. Thank you.

5 MR PENNICOTT: Could I then please ask you, Mr Lim, to be
6 shown bundle H12, at page 4797.

7 Mr Lim, I don't know whether this is a document
8 you'll have ever seen before, but we have heard and seen
9 that on 22 and 24 January 2014, you were paid a visit,
10 to the fabrication yard, by representatives of Pypun,
11 who were the M&V, monitoring and verification, engineers
12 working for the government.

13 A. Do you mean BD?

14 Q. Part of BD, effectively, yes, that's right.

15 A. Okay. Is this the auditing?

16 Q. That's right.

17 A. Okay.

18 Q. You appear to have been there on this occasion?

19 A. I was in our fabrication yard, preparing for the
20 sampling of the rebar for testing, so I was there.

21 Q. So you were assisting those who were coming to do the
22 audit, as I understand it?

23 A. That is correct, yes.

24 Q. We can see your name on page 4798 as being the BOSA
25 representative.

26 A. Yes, I see it's here, but I can't recall this form.

1 Q. Just going through to page 4800 -- a rather nice
2 photograph of the fabrication yard at the top -- and
3 then what I wanted to ask you about is page 4803.

4 There are two photographs there, Mr Lim, which
5 are -- the description says, "2nd step -- control
6 crimping process", and then the next one is "Crimped
7 rebar".

8 Can you explain to us what crimping is and what
9 purpose it serves?

10 A. Crimping is one of the crucial steps that we would
11 perform for our type 2 coupler. The crimping process is
12 actual strength-hardening procedure that we have for our
13 type 2 coupler. So that's basically strength-hardening
14 the rebar before we thread -- produce the threads.

15 Q. Right. And that's done by one of the automated machines
16 that we saw reference to in the sub-contract just
17 a moment ago?

18 A. Yes, that's correct.

19 Q. And I imagine we're looking at one in this photograph,
20 are we?

21 A. That's correct, yes.

22 Q. That's in the top photograph. All right.

23 COMMISSIONER HANSFORD: Sorry, when you say, Mr Lim, it's
24 one of the crucial processes for your type 2 coupler --
25 I'm aware of type A coupler and type B coupler. Can you
26 be clear to me what type 2 coupler is?

1 A. Our type 1 coupler is the non-ductility coupler.

2 COMMISSIONER HANSFORD: Ah.

3 A. And our type 2 is the ductility coupler. We have, for
4 type 1 and type 2, standard thread which we say are
5 type A, and then we've got extended thread which we call
6 type B.

7 COMMISSIONER HANSFORD: Okay. So crimping is important for
8 a ductility coupler?

9 A. Yes. It's the key strengthening procedure.

10 COMMISSIONER HANSFORD: Okay. Thank you.

11 MR PENNICOTT: Okay. Perhaps we can just get you to confirm
12 some evidence we heard from somebody else the other day.
13 If you could go to 4805, it's a photograph at the top of
14 that page, "4th step -- manual 'go/no go' test".

15 Can you just explain to us what the "go/no go" test
16 is?

17 A. The "go/no go" gauge is used to test the tolerance of
18 a thread being produced from our threading machine. So
19 the "go" gauge should fully screw into the threaded bar,
20 whereas the "no go" should not fully screw into the
21 threaded bar. So this is a tolerance criteria.

22 COMMISSIONER HANSFORD: So you have two of these rings, one
23 is a "go" and one is a "no go"?

24 A. That's correct.

25 COMMISSIONER HANSFORD: And the "go" threads right in and
26 the "no go" won't thread?

1 A. That's right.

2 COMMISSIONER HANSFORD: Thank you.

3 CHAIRMAN: Sorry, can I just ask as well -- we've spoken
4 about crimping -- where was the crimping done?

5 A. The second step after we have square-cut the rebar --
6 the second step is we crimp the bar.

7 CHAIRMAN: At both ends?

8 A. No. We do one end first, because it's quite -- it's
9 synchronised. The cutting of one rebar takes about
10 20 or 30 seconds, and at that time you would roll over
11 to the second machine, which is a crimping machine, and
12 that also takes approximately the same amount of time,
13 and the threading machine also takes approximately
14 25 seconds or thereabouts to produce one thread as well.
15 So the three machines are all lined up together on one
16 production line.

17 COMMISSIONER HANSFORD: So you only crimp the end that's
18 going to be threaded?

19 A. That's correct.

20 CHAIRMAN: And you don't crimp on site, as such; you crimp
21 before you bring or deliver the bars to site?

22 A. The crimping process is part of our production line
23 cycle that we do, so once -- before we do the threading,
24 we would have crimped the bar first, and then once it's
25 threaded we either install a coupler on to that end or
26 use a PVC cap to protect the threaded bar.

1 CHAIRMAN: And while we are on this, there's a torque
2 machine. Do your couplers require the employment of
3 such a machine?

4 A. No. Our -- there are two types of threads that you
5 could say. The first one is our type, which is parallel
6 thread. With parallel thread, basically each thread is
7 uniform. So if you screw in X amount of threads inside
8 of a coupler, you can literally calculate the amount of
9 tensile strength that you can achieve from that number
10 of threads being engaged; whereas for taper thread --
11 I don't have a sample here -- but taper thread is a bit
12 like a pencil. It's quite sharp. And when the bar goes
13 into the coupler, literally all the threads are actually
14 inside the coupler, and that particular type of rebar,
15 or I should say coupler system, do require calibrated
16 torque to tighten the splice. But for parallel thread
17 you do not need a calibrated torque. You just need to
18 tighten it with a typical pipe wrench.

19 COMMISSIONER HANSFORD: So all the couplers you supplied
20 here were the parallel thread type?

21 A. That's correct.

22 CHAIRMAN: Could I ask you: were all the couplers ductility
23 couplers?

24 A. We also sold approximately -- figure's yet to be
25 confirmed -- approximately 65,000 type 1 couplers as
26 well for this project, but the majority was in fact

1 type 2.

2 CHAIRMAN: And type 1 are the ductility?

3 A. Type 2 is the ductility.

4 CHAIRMAN: Sorry.

5 MR PENNICOTT: Mr Lim and Chairman, if we go to H26/45194 --

6 Mr Lim, following your witness statement to the
7 Buildings Department, not only did you supply them with
8 the training attendance records that we had a look at
9 just a moment ago, you also supplied them with some
10 records about how many couplers have been supplied on
11 this job; is that right?

12 A. That's correct.

13 Q. If we actually just go to the last page, to 45200, we
14 can pick up the total numbers, and my understanding is
15 that the 324,369, that's the ductility couplers?

16 A. That's correct.

17 Q. And the figure of 60,368 is the non-ductile?

18 A. That's correct.

19 Q. Then we have the total there as well.

20 COMMISSIONER HANSFORD: On these numbers, these were the
21 actual numbers supplied, or was this estimated?

22 A. This information was filtered out of our invoicing
23 system that we obviously have already invoiced Leighton.

24 COMMISSIONER HANSFORD: So these ones were supplied and paid
25 for by Leighton?

26 A. Yes, that's correct.

1 COMMISSIONER HANSFORD: Thank you.

2 MR PENNICOTT: Sir, we have of course got the samples here
3 that I think were originally supplied kindly by BOSA.
4 If there's anything you would like to ask Mr Lim about
5 them, I'm happy to --

6 CHAIRMAN: Yes, just show us again, please. Apart from
7 anything else, it's good to be reminded.

8 COMMISSIONER HANSFORD: We seem to have seen them in
9 a previous galaxy.

10 A. Okay. Visually, it's quite easy to identify and
11 distinguish between our type 1 coupler and our type 2
12 coupler, because a type 2 coupler has two distinct rings
13 on the coupler itself, on the top as well as the bottom.

14 For the thread itself, you can also see -- because
15 the requirement from BD is not very high for type 1
16 coupler, our strength-hardening procedure is quite
17 simple on the type 1. So, as part of our manufacturing
18 process, the ribs that we usually use for bonding with
19 concrete is peeled away. So we have this minimum of
20 10mm circle peeling trace as distinction from our
21 type 2, which we will have to provide a minimum of 5mm
22 crimping trace. So there's a distinct difference
23 between the two threads as well.

24 Other than the coupler itself, we also adopt
25 a two-colour system. The type 1 coupler we use,
26 everything is in blue, from the tags to the PVC cap that

1 protects the coupler as well as the threaded bar, all
2 being blue. Then for the type 2 we have chosen red
3 colour, so everything from the PVC cap to the tags will
4 all be red. So in terms of identification purposes, it
5 should be quite reasonably easy to distinguish between
6 our type 1 and type 2.

7 COMMISSIONER HANSFORD: Can they be substituted, though? If
8 a -- sorry, non-ductile is type --

9 A. 1.

10 COMMISSIONER HANSFORD: Type 1. So if a type 1 is specified
11 but a type 2 is used instead, is that acceptable?

12 A. That is not the proper system. You can, however,
13 install a type 1 thread into a type 2 coupler, by
14 mistake, I suppose, but following our QA/QC assurance
15 manual, you should not and you cannot install a type 1
16 thread into a type 2 coupler, because the end result is
17 you've provided a weakened mechanical splice, because
18 the requirement for a type 1 and a type 2 is different.

19 COMMISSIONER HANSFORD: So, therefore, in every location
20 where a coupler is specified, one needs to make sure it
21 both has the correct coupler and the correct threaded
22 bar?

23 A. Yes, that's correct.

24 COMMISSIONER HANSFORD: Okay.

25 MR PENNICOTT: Just to -- if I've understood those last few
26 questions and answers properly, if we go to your witness

1 statement, at H25/44831, at question 23, Mr Lim, the
2 question was this:

3 "Technically, would it be acceptable if type B
4 coupler" -- type B, that's the longer one, as
5 I understand it, type 2 or type B -- "is changed to
6 type A coupler by cutting thread portion on site?"

7 In other words, you were being asked: would it be
8 acceptable to convert a type B coupler into a type A,
9 although I think the question really should be directed
10 at the threaded rebar, not the coupler.

11 A. Yes, on the threaded rebar.

12 Q. Right. So let's rephrase the question: technically,
13 would it be acceptable if type B threaded rebar is
14 changed to type A threaded rebar by cutting the thread
15 portion on site?

16 Your answer was:

17 "Technically, possible on condition of perfect
18 cutting. But, this change is highly not recommended.
19 After the media report of alleged cutting of threaded
20 rebars, John, Leighton's project director ..."

21 That was Jon Kitching, was it?

22 A. I believe so, yes.

23 Q. "... once asked me about the same question."

24 So this is really your position, as I understand it,
25 Mr Lim: technically, it's possible, perfect cutting, but
26 you do not recommend it; indeed you highly do not

1 recommend it?

2 A. I saw the Apple Daily demonstrated that they can cut the
3 long thread into a short thread, which they did, because
4 they cut it into a two-thread length and sent that off
5 to the lab to pull, and we all saw that on the news.
6 After seeing that, okay, it could be possible to cut the
7 bar from a type A -- type B to a type A, but of course
8 we obviously don't recommend for that.

9 COMMISSIONER HANSFORD: Why do you highly recommend that
10 that doesn't happen?

11 A. In case if they're not cut into the right length,
12 particularly if you perhaps saw off too much, or not
13 accurately, then also the entrance to the -- engagement
14 to the coupler, we're not sure whether that can still be
15 properly screwed in.

16 COMMISSIONER HANSFORD: Yes.

17 MR PENNICOTT: Right.

18 MR SHIEH: Could I just raise a question of clarification,
19 because I am not sure whether it's a transcription point
20 or whether Mr Pennicott did intend to say -- at [draft]
21 page 93 of the transcript, line 10, Mr Pennicott said,
22 at line 9:

23 "... type B, that's the longer one, as I understand
24 it, type 2 or type B ..."

25 As we have heard from this witness, type 1/2 is a
26 different kind of distinction from A/B, so I just wish

1 to clarify whether --

2 MR PENNICOTT: Yes. It's A and B.

3 MR SHIEH: So you are moving on from type 1/2 distinction to
4 type A/B distinction?

5 MR PENNICOTT: Indeed. Yes. Apologies for that.

6 CHAIRMAN: So, basically, then, while you would not
7 recommend it and while it would reduce, for example,
8 tensile strength, it is possible --

9 A. Yes, it is.

10 CHAIRMAN: -- if you get the knack, to cut one and still
11 insert it into --

12 A. Yes, it would seem so, yes.

13 CHAIRMAN: You've never done it yourself?

14 A. No --

15 CHAIRMAN: By that, I didn't mean on site somewhere, I meant
16 obviously you have never done it by way of testing or
17 anything like that?

18 A. No, because our automatic cutting machine has a very
19 powerful grip. If you were to put that bar into a grip
20 halfway through, the thread would be crimped as well as
21 it's being gripped. So there's a very high possibility
22 if you have done it through using our cutting machine,
23 in our normal production line machines, that has a very
24 high chance of damaging the actual thread itself.

25 CHAIRMAN: Okay.

26 A. So it would be quicker if we just redo the thread.

1 MR PENNICOTT: All right. Could I ask you, please, to be
2 shown B17/14261.

3 Mr Lim, again, this is probably a document you will
4 not have seen before. It's what's called
5 a non-conformance report, produced, as you can see, on
6 4 September 2018. I'd just like you to look at
7 a photograph which I hope is at 14268. It's the
8 photograph number 4, NCR258; do you see that, bottom
9 right? We can see perhaps blow that one photograph up.

10 Are you able to tell, Mr Lim, whether that first bar
11 that we can see, whether it's crimped or not?

12 A. Can you zoom it up a little bit bigger?

13 Q. Sure.

14 A. Yes, that bar has been crimped.

15 Q. Thank you very much.

16 CHAIRMAN: How can you tell? It just goes narrower or ...?

17 A. Yes. If you see the cross-sectional rib going back 1,
18 2, 3 along the bar --

19 CHAIRMAN: Yes.

20 A. -- you can see that actually is a lot more evident. And
21 then if you look back one step, you can see that bar has
22 already been crimped because it's slightly flattened.
23 That particular rib has been compressed.

24 CHAIRMAN: I'm with you, the same as the second one back?

25 A. Yes, exactly right.

26 CHAIRMAN: You can see the same thing.

1 A. And that bar following that is a lot more evident
2 because of the direction of that longitudinal rib, we'll
3 call it, it's almost a lot more visible because of the
4 direction you are looking at from that angle. So the
5 angle obviously makes it sometimes easier to identify
6 whether it's been crimped or not crimped.

7 MR PENNICOTT: Finally from me, Mr Lim, could you please be
8 shown a photograph which we are all familiar with,
9 D1/228.

10 Can we please blow up, as far as we possibly can --
11 keep going, keep going, keep going, keep going; right,
12 that's fine -- Mr Lim, are you able, by carefully
13 perhaps counting the number of threads and so forth, to
14 tell us whether this is a type A or a type B threaded
15 rebar?

16 A. By just visually counting the number of threads from
17 this photo, I think there will be about 13 threads in
18 this one here. 13 threads would be likely to be
19 a diameter 50 rebar, and 13 threads is a normal type A
20 thread.

21 COMMISSIONER HANSFORD: Type A?

22 A. Yes.

23 MR PENNICOTT: Right. Would your answer be different if the
24 conclusion had been reached that this bar had been cut?

25 A. I cannot tell from here. I'm not too sure whether this
26 is after it's been cut.

1 Q. I was asking you to make the assumption that it had been
2 cut.

3 A. Oh, it had been cut? I couldn't tell. I'm sorry,
4 I couldn't tell.

5 MR PENNICOTT: That's all right. I just thought we would
6 ask since we've got you here.

7 Sir, thank you very much. I have no further
8 questions. I don't know whether anybody else has.

9 Questioning by THE COMMISSIONERS

10 CHAIRMAN: Thank you. I just want to ask -- were you there
11 between about August 2015 and late September 2015,
12 on site, I think?

13 A. I usually always go to site, especially in the morning,
14 because I usually always check on --

15 CHAIRMAN: And can I ask you, how much business is going on
16 in the sense of people coming and saying, "This bar is
17 no good" or "The threads have broken or been damaged"?
18 Is there quite a lot of toing and froing, replacing?

19 A. No, we didn't have many. In fact, so far, I would say,
20 for that project, we might have supplied something in
21 the vicinity of 650,000 threads, and we did receive one
22 complaint from Intrafor, where they have detected
23 20-something threads which appear to be out of our
24 tolerance. That would have been it. I haven't actually
25 received any other complaint.

26 CHAIRMAN: All right. Did anybody ever come to you with a

1 rebar where the threads had been cut off and ask for a
2 replacement?

3 A. Cut off, as in --

4 CHAIRMAN: Yes.

5 A. No, because it's quite simple, if they wanted additional
6 threads to be done, they just have to give us a purchase
7 order and we would immediately follow the purchase order
8 to thread in accordance with that order itself.

9 CHAIRMAN: Thank you.

10 COMMISSIONER HANSFORD: Sorry, I had two questions but I now
11 have three. A purchase order presumably could only come
12 from Leighton; is that correct?

13 A. A lot of engineers from Leighton would come into our
14 container with a preliminary order for what they need
15 for that particular area they are working on, and we
16 usually pass it straight to Edward Mok for approval.
17 Sometimes we may get a verbal go-ahead, and then we will
18 follow that up with a proper, fully filled-in form
19 afterwards.

20 COMMISSIONER HANSFORD: But you couldn't have a purchase
21 order from, say for example, Fang Sheung?

22 A. I can't recall receiving order from Fang Sheung
23 directly. No, I cannot. They would have to be approved
24 by Leighton.

25 COMMISSIONER HANSFORD: Right. My other two questions -- my
26 first one is: I don't quite understand question 20 in

1 your witness statement, and your answer to question 20;
2 perhaps you could explain it.

3 A. I think this is in reference to our design calculation
4 table for the diameter 40 rebar which BD actually asked
5 from us. This particular table, I think it's at
6 appendix I -- let me just double-check.

7 It will be H44833.

8 COMMISSIONER HANSFORD: So the question and answer?

9 A. I think Mr Chan from BD was asking whether this design
10 calculation table for the diameter 40 rebar is
11 applicable to the coupler that we supplied for this
12 project.

13 COMMISSIONER HANSFORD: So what do you mean by "coupler
14 material has a tensile strength higher than rebar
15 materials, so it is applicable"?

16 A. Material that we use for -- design to use for our
17 coupler is S55C. The typical alternate tensile
18 strengths of our coupler design is within 700 to 750MPa.
19 Therefore, it is applicable in terms of its compliance
20 with BD's requirement.

21 COMMISSIONER HANSFORD: Okay. I understand now. My final
22 question -- probably my final question -- I'm still
23 a bit confused by your answer to a previous question
24 where you referred to butt-to-butt. Now, I know that
25 butt-to-butt means, but I thought you were allowed to
26 have one or two threads exposed after the coupler is

1 connected.

2 If the threads are exposed, how can it be
3 butt-to-butt?

4 A. That's a very good question. If you refer back to
5 page 44854 -- in our design, when we are manufacturing
6 threads, we always programme our machine to produce
7 an extra 1 to 2mm on the actual length of our thread.
8 We just wanted to make sure that when the two ends abut
9 inside, connected inside of a coupler and tighten, that
10 they are actually butt-to-butt.

11 So if in a worst case scenario we were to have both
12 ends with a maximum tolerance -- for example the
13 diameter 40 rebar which says tolerance of 4mm, the 4mm
14 basically is one thread, equal to one thread, so if both
15 ends has a maximum tolerance of one thread, after you
16 have connected the two ends together, you will have
17 a chance of seeing two threads exposed.

18 COMMISSIONER HANSFORD: I understand that, but in that
19 bottom of those three diagrams, you show the coupler
20 being of length 2T, and the threads being T?

21 A. Yes.

22 COMMISSIONER HANSFORD: Are you saying the threads are
23 actually T plus one thread.

24 A. Yes, tolerance. T plus tolerance.

25 COMMISSIONER HANSFORD: T plus tolerance, and the tolerance
26 is one thread?

1 A. One thread.

2 COMMISSIONER HANSFORD: So, therefore, if they are
3 butt-to-butt, then you would have at least one thread on
4 one side -- well, you could have one thread on both
5 sides or you could have two threads on one side?

6 A. Yes. Essentially you could have -- you can shear it in
7 that way, I suppose.

8 COMMISSIONER HANSFORD: Because the tolerance would be the
9 exposed threads; is that correct?

10 A. If I can allow myself to do a quick demonstration.

11 COMMISSIONER HANSFORD: Please.

12 A. (Demonstrating). So on a normal, typical rebar, we
13 would have two ends which are threaded. One end we use
14 hand to screw on to the coupler and the other end we use
15 a PVC cap. So assume that the connecting bar,
16 continuation bar as you call it, is connected to the
17 coupler, when you start the rotation of the continuation
18 bar there will be some sort of separation
19 (demonstrating). I'm sorry about that.

20 CHAIRMAN: Don't worry. It's just a broken knee-cap,
21 I think.

22 A. Quite hazardous.

23 Because of the length of a typical bar, say 4 or
24 5 metres long, you probably have some self-weight on
25 that particular bar. So once you sit the continuation
26 bar onto the coupler, the actual friction from the

1 self-weight will cause the coupler to rotate as you are
2 continually rotating the continuation bar.

3 You can see I am demonstrating the rotation of that
4 lower bar. In other words, the likelihood of all the
5 exposed threads should all come up on the continuation
6 bar.

7 MR PENNICOTT: On one side.

8 A. On one side, it's all one side.

9 COMMISSIONER HANSFORD: Which therefore would leave one or
10 two threads exposed?

11 A. Yes.

12 COMMISSIONER HANSFORD: And when one or two threads is
13 exposed, am I right in saying it's therefore
14 butt-to-butt?

15 A. It is assumed to be butt-to-butt, because unless
16 of course we are saying that there is -- the length is
17 actually perfect, for example, there's no tolerance, or
18 perfect length on that one. So yes, if there is
19 a tolerance, once you have tightened the connection and
20 you cannot go any further, then it will be certainly
21 butt-to-butt.

22 COMMISSIONER HANSFORD: Is that the same with a type B
23 thread?

24 A. Type B thread is slightly different. (Demonstrating).
25 I'll try a bit more carefully. When we thread the
26 type B, we immediately screw the coupler in for

1 protection, because there's a lot of threads exposed.

2 So we use coupler to protect this side of the thread

3 (demonstrating).

4 COMMISSIONER HANSFORD: Yes.

5 A. And on the other side we would use a PVC cap.

6 So when the steel fixer takes the continuation bar,
7 they would butt up to the type B and start rotation
8 (demonstrating), to connect the continuation bar. So
9 they would continue to rotate until -- I'm going a bit
10 slow, it's a bit heavy -- until the coupler has fully
11 engaged to the type A.

12 So the end result is you will have approximately
13 half of the coupler left, plus the tolerance exposed.

14 COMMISSIONER HANSFORD: But presumably, then, there's even
15 more confidence with a type B --

16 A. That's correct.

17 COMMISSIONER HANSFORD: -- that it would be butt-to-butt?

18 A. Correct, because it would have started off being
19 butt-to-butt.

20 COMMISSIONER HANSFORD: Exactly, and it can hardly move from
21 that.

22 A. Yes.

23 COMMISSIONER HANSFORD: That's very clear. Thank you.

24 MR PENNICOTT: Sir, can I just say for the record, for the
25 transcript, that the document that Mr Lim kindly took us
26 to at H25/44833, the English translation is at

1 H25/44527.1.

2 CHAIRMAN: Thank you.

3 MR PENNICOTT: That was the table that we looked at.

4 CHAIRMAN: Sorry, I was just -- for fear of embarrassing
5 myself, I was asking my colleague what "MPa" meant, and
6 it's a measurement of force.

7 MR PENNICOTT: Indeed.

8 CHAIRMAN: Thank you.

9 MR PENNICOTT: I'm just pointing out to the Commissioner --
10 A. It's good for me.

11 MR PENNICOTT: We'll give you a copy. That's the
12 translation.

13 Sir, as I say, I have no further questions. I hope
14 that's been of some help.

15 CHAIRMAN: Yes, it has. Thank you very much.

16 MR PENNICOTT: I don't know if anybody else has any
17 questions.

18 CHAIRMAN: Yes.

19 Cross-examination by MR SO

20 MR SO: Sir, I have just very brief cross-examination in
21 light of what the professor has sought to clarify with
22 the witness. Just a very short point.

23 Mr Lim, I am Simon So, I represent China Technology.
24 The first -- I want to take you to see a photograph.
25 The photograph is at bundle D1/D232. Can I just invite
26 the Secretariat to blow up to the inverted number 7, the

1 instrument that looks like inverted number 7 in the
2 middle of the photograph.

3 CHAIRMAN: The wrench?

4 MR SO: The wrench.

5 Mr Lim, I heard your evidence just now. Would there
6 be any circumstances where, when workers are fixing the
7 threaded rebars onto the couplers, they would be
8 required to use the wrench?

9 A. Very typically, if you are talking about the sample that
10 I'm holding, which is pretty light in weight, your
11 typical length that you will find at the job site will
12 be anything between 4 to 5 metres long and they could be
13 quite heavy. You will find, regardless of what you do
14 or tell the steel fixer, they will, most likely, have
15 their typical tools to use, which is the typical pipe
16 wrench, to help them install the continuation bar into
17 the coupler. So they either can use that, or the chain
18 wrench is also another tool that you will find very
19 regularly at the job site for installation of coupler.

20 Q. Can you tell us what type of wrench is this, so far as
21 you see from the photo?

22 A. From the photo, it looks like an ordinary pipe wrench.

23 Q. I see. Thank you.

24 The other topic that I only wish to deal with you is
25 regarding question 23 of your witness statement, which
26 my learned friend Mr Pennicott has brought you to

1 already. There, you were asked: was it acceptable for
2 type B threads, if changed to type A threads, by cutting
3 the threaded portion on site. My question is slightly
4 different to that. My question is: is it acceptable, in
5 terms of the specification of BOSA, for type B threads
6 without cutting to put into type A couplers? Is it
7 possible or is it allowed?

8 A. Let's assume, if -- for example, let's say -- let's not
9 assume, let's say, if the designer said you were
10 supposed to use, you were supposed to order a type A and
11 you ordered a type B, that would probably be a more
12 likely scenario, I think. If you were an RSE or RC, the
13 T3 assigned supervisor on site, doing your sign-off
14 work, and you saw perhaps five threads not fully
15 engaged, then you will probably have a problem. You
16 would think they are not screwed in at all. From that
17 perspective, you would think it would be wiser to have
18 a type A, where you can fully screw into the coupler,
19 then it makes the job of the next person who is going to
20 sign off on that particular site a lot easier because
21 they would not see any threads exposed, I suppose. That
22 would be the only logical answer that I think I've got
23 for you.

24 COMMISSIONER HANSFORD: Sorry, I thought the question was
25 slightly different. If one were to use a type B instead
26 of a type A threaded bar --

1 A. Yes, it is possible.

2 COMMISSIONER HANSFORD: Well, is it possible and is it

3 acceptable? Would it change the properties --

4 MR SO: Would it --

5 COMMISSIONER HANSFORD: I'm sorry. You carry on.

6 MR SO: Would it reduce the tensile strength, the question

7 is?

8 A. No, it doesn't reduce the tensile strength, because we

9 are using type B and type A for this entire project.

10 Type B is an installation method, so instead of rotating

11 the continuation bar you are actually rotating the

12 coupler.

13 So, as I was saying, if you wanted to make the

14 inspection work easier, you would order the right type,

15 so you can make the job of the next person who is

16 looking at perhaps, you know, a design saying that there

17 should be a type A -- I think they may be misled that

18 they hadn't been screwed in, if you use a type B. That

19 would probably be the only logical, I suppose logical,

20 problem that you might come across.

21 Q. Sorry to labour on this point, but just to clarify --

22 suppose we have a type A coupler here, so be it a type B

23 or type A thread, in BOSA's point of view it is both

24 acceptable for type B thread or type A thread, be it cut

25 or not, to be screwed inside a type A coupler; is that

26 the case?

1 A. Yes.

2 MR SO: Thank you. No further questions.

3 COMMISSIONER HANSFORD: I think I was happy with that until
4 you said "be it cut or not".

5 MR SO: Because that's the answer that this witness gave in
6 answer 23 in his witness statement. Therefore, I give
7 this qualification that "be it cut or not".

8 COMMISSIONER HANSFORD: Okay, but "be it cut", he said, is
9 highly not recommended.

10 MR SO: Indeed, but technically he said it is acceptable.

11 COMMISSIONER HANSFORD: Thank you.

12 CHAIRMAN: Thank you.

13 Cross-examination by MR KHAW

14 MR KHAW: Just a few questions from the government.

15 A. Yes.

16 Q. Earlier on, Mr Chairman asked you a question regarding
17 whether there were any cases in which people said the
18 threads had broken or the threads were damaged and they
19 asked for replacement, and you told us that there was
20 one complaint from Intrafor which involved about
21 20 threaded rebars; do you remember that?

22 A. Yes.

23 Q. If I may just take you to see a few pictures, at E5,
24 starting from 1279. We can see that is a picture and it
25 shows some scrap metal after replacing damaged couplers,
26 and if we just move on to see a few more pictures, they

1 intend to show similar situations regarding damaged
2 couplers, and 1281 actually shows the damaged couplers,
3 as we can see.

4 Were you aware of the situation where the couplers
5 were damaged and had to be replaced?

6 A. You have jogged my memory. This photo I haven't seen.
7 None of these photos you have just shown, I haven't seen
8 either of them.

9 Q. I see.

10 A. But the couplers that are in our job site, basically
11 free for -- they are available for anybody to come and
12 take, provided they've got the label attached on them
13 saying they have been tested.

14 Q. Right.

15 A. We don't actually supervise who actually comes to take
16 the couplers, because it is in the job site, but it is
17 the case that we do remember -- I do remember one case
18 where Fang Sheung came and took a couple of boxes of
19 couplers to replace, but we had informed Leighton that
20 they were taken, but for what purpose we were not sure.

21 Q. I see. So you did receive additional order for couplers
22 which would need to replace certain damaged couplers?

23 A. No specific order to say it is for replacement couplers.
24 They just make bulk orders. So they would place
25 an order for, say, 10,000 couplers, and where they use
26 and how they use it, we are actually not entirely sure.

1 All we do follow is that if there is a green label
2 attached to that pallet of couplers, then it is okay to
3 use because they have been tested. If it's got a red
4 colour tag on, which would say it's not tested, then all
5 of our workers know we're not supposed to use that batch
6 yet, until it's fully tested.

7 Q. Would you have any record regarding the additional bulk
8 orders of additional couplers?

9 A. I have orders for couplers, but I would not be able to
10 distinguish for the case of how many were being -- of
11 that was basically for replacement of damaged couplers.
12 We don't actually have that information. They would
13 just simply give us an order saying, "We need another
14 6,000 of this, 5,000 of that", and we just simply place
15 the order for them.

16 Q. Right. And the orders came directly from Fang Sheung
17 or --

18 A. No, no. They come directly from Leighton, and generally
19 it's through Edward Mok.

20 COMMISSIONER HANSFORD: Sorry, so those replacement
21 couplers, you didn't know they were going to be used for
22 replacement, but they are included in those numbers you
23 gave us earlier?

24 A. That's correct.

25 COMMISSIONER HANSFORD: Okay. Thank you.

26 MR KHAW: Thank you. One more question regarding -- perhaps

1 more than one -- the training session that you gave.
2 We've seen the training attendance record, as referred
3 to by Mr Pennicott.

4 You told us that the training session primarily
5 focused on quality assurance, and you also covered the
6 quality supervision plan. If I can just very briefly
7 take you to have a look at the quality supervision plan.
8 H9/4265.

9 I suppose you must be familiar with this document?

10 A. Yes.

11 Q. If we can just go to 4269. Can I just confirm with you
12 whether some of the information as provided in this QSP
13 was prepared by BOSA as well?

14 A. We basically helped them fill in one form, which is the
15 thread-check form, which is I think under appendix C,
16 I think it might be.

17 Q. Yes.

18 A. And we have adopted the minimum of 20 per cent
19 inspection for our threaded bars.

20 Q. Right.

21 A. We do, as part of the training session, basically walk
22 through the supervision requirements for the quality
23 supervisors appointed by both MTR and Leighton, T3
24 grade, what the supervision requirements are.

25 Q. Yes. If we look at the supervision requirements here,
26 at paragraph (5), "Supervision on site works", it says,

1 "Beside the site supervision system as stipulated in the
2 Code of Practice for Site Supervision, the following
3 additional inspection will be carried out", and we have
4 1 and 2. 1 is "Supervision and inspection by RC", and
5 I take it that the "RC" here stands -- it's referring to
6 Leighton; would you agree?

7 A. Yes.

8 Q. Then paragraph 2, regarding "Supervision and inspection
9 by MTR on site".

10 Now, if we look at the supervision and inspection by
11 RC first, from BOSA's point of view, apart from the
12 inspection which would need to be carried out after the
13 coupler installation had been done, from BOSA's point of
14 view, insofar as supervision is concerned, would you
15 agree that supervision was required for the purpose of
16 actually overseeing the actual work when the coupler
17 installation was being carried out; would you agree?

18 A. Yes, I do point that out because in appendix B, which is
19 a checklist check form --

20 Q. Yes.

21 A. -- it does detail some of the checklists that are
22 required of the RC, and as well as MTRC to fill in when
23 they are doing their supervision. The imposed
24 condition, as stipulated from BD's engineering manual,
25 does say, and we do tell in the training sessions that
26 we usually run, that the RC is required to do full-time

1 continuous supervision.

2 Q. Thank you. If we go to the appendix that you've just
3 referred us to, at page 4277 -- I believe this is the
4 appendix that we have been talking about.

5 A. Yes, that's correct.

6 Q. The heading says "MTRC TCP-T3 independent checklist for
7 on-site assembly of BOSA Seisplisce couplers in any
8 location".

9 Do I take it that it's clear from BOSA's point of
10 view that such checklist applies to both the diaphragm
11 walls and the platform slabs?

12 A. For any type 2, yes. For any type 2 couplers, we
13 automatically tell the clients that this form needs to
14 be kept and filled -- filled in and kept in a logbook.

15 CHAIRMAN: Is that the same with other branded couplers, do
16 you know?

17 A. I am not 100 per cent sure, but based on the imposed BD
18 condition -- because our QSP and our quality assurance
19 manual is consistent with BD's imposed conditions. So,
20 yes, I would assume so.

21 CHAIRMAN: Why is it necessary for there to be this
22 supervision?

23 A. We are just strictly following the BD's requirement.

24 CHAIRMAN: All right. So it's a Buildings Department --

25 A. Yes.

26 MR KHAW: Can you tell us whether this record-keeping

1 requirement was covered in the training session?

2 A. Yes. We run through appendix B. The reason we run
3 through them is because it actually really consisted of
4 very practical measures. For example, if you were
5 concreting and you had the coupler which would be
6 embedded inside the concrete, you would definitely
7 tighten the coupler before you pour concrete. In
8 column 2, "Has the coupler been cleared of any foreign
9 [matters]?" So it's more -- quite practical, as you can
10 see from that point of view. So it's cleanliness of the
11 coupler and the thread itself before you actually do the
12 necessary work.

13 And point 4 is after you have connected the rebar
14 into the coupler, that you would make sure it is within
15 tolerance, after you've tightened the connection bar.
16 And the last one, which I must admit I'm not very sure
17 how this one is checked, is for verticality -- I assume
18 they will use a spirit level for that one.

19 COMMISSIONER HANSFORD: Sorry, on that last one -- because
20 we were pondering this one before -- verticality
21 checking, presumably, almost obviously, that's only for
22 vertical couplers?

23 A. I assume so. I would imagine, if you're using coupler
24 from floor to floor on a typical building, if the rebar
25 is slightly bent to one end (demonstrating), you might
26 be able to connect to that existing connection.

1 However, the next connection might be very difficult
2 because you might experience misalignment problems.

3 I think -- I would assume there's some sort of reason
4 for rejecting anything that is beyond 10 per cent.

5 COMMISSIONER HANSFORD: Yes, I understand that, but for
6 horizontal couplers, presumably this column is not then
7 required?

8 A. Yes, I think it says "verticality".

9 COMMISSIONER HANSFORD: It does, yes.

10 A. So I would take it literally, that one. I'm not very
11 sure.

12 COMMISSIONER HANSFORD: Thank you.

13 MR KHAW: Finally, can I just confirm with you whether, in
14 the training session, the message was conveyed to the
15 participants that such appendix, ie this record-keeping
16 exercise, would be needed for any location where coupler
17 installations were carried out?

18 A. Yes. We always say, for type 2, these two forms,
19 particularly the appendix B, must be followed.

20 MR KHAW: Thank you. I have no further questions.

21 CHAIRMAN: I take it no further questions?

22 MR CONNOR: None, thank you, sir.

23 MR BOULDING: I have a couple of questions, sir. I don't
24 know if you would like me to put them now or after the
25 break. I'm entirely in your hands.

26 CHAIRMAN: What time are we --

1 MR PENNICOTT: It's probably my fault, but we are running
2 a bit behind and we need to connect up with London
3 relatively soon, although I think a communication has
4 been sent to London that we are a bit behind.

5 SECRETARY: We need to test it too.

6 CHAIRMAN: Mr Boulding, would it be all right if we
7 continued straight on?

8 MR BOULDING: Of course it will be, sir.

9 CHAIRMAN: Thank you very much.

10 Cross-examination by MR BOULDING

11 MR BOULDING: Good afternoon, Mr Lim. Just one or two
12 matters I'd like to clarify with you, because it's not
13 entirely clear on the transcript what you were saying as
14 far as we're concerned.

15 You will recall, will you not, that you were asked
16 about cutting threaded rebars?

17 A. Yes.

18 Q. And in particular, you were asked about cutting type B
19 threaded rebars to use with what were referred to as
20 type A couplers; do you remember that line of
21 questioning?

22 A. Yes.

23 Q. I think the conclusion that we were given was that it
24 was technically acceptable but not recommended?

25 A. Technically possible and not recommended.

26 Q. Right, you clarified something there for me then. Just

1 summarise, why do you say it is not recommended?

2 A. It is not in our standard installation practice.

3 Q. Right. So do I take it that you would regard any
4 cutting of the threaded rebars as a malpractice?

5 A. It would not be normal. It would not be normal
6 practice.

7 Q. Right. I wonder if we can look at a photo together.
8 Could we go to photograph C40.

9 I don't know whether you've seen one of these
10 before.

11 A. No, I haven't, actually.

12 Q. We'll see where we can go with the questioning. We've
13 heard evidence that that object there is a rechargeable
14 electronic band saw.

15 A. Okay.

16 Q. Is that something you've ever used?

17 A. No, I haven't even seen this before.

18 Q. Right. Let me ask you this and we'll see how far we can
19 go. Just assume that that was used to cut off some of
20 the threads on the end of a threaded rebar. Do you have
21 a view as to whether that would risk damaging the
22 remaining threads?

23 A. I have never used this tool, and so therefore I don't
24 think it's appropriate for me to guess whether that
25 actually would be okay or not.

26 Q. Right.

1 A. I couldn't answer your question.

2 MR BOULDING: If you can't answer my question, I shan't push
3 you. Thank you very much.

4 Thank you, sir. That's my question.

5 CHAIRMAN: Good. Anything arising? No.

6 Thank you very much, Mr Lim. That's very good of
7 you. It's been a very considerable help. Thank you.

8 WITNESS: You're welcome. Thank you.

9 MR PENNICOTT: Can I also express our thanks and the
10 Commission's thanks to Mr Lim and BOSA for the
11 assistance they gave the Commission's expert when he was
12 last here, in various demonstrations and also in
13 providing the various exhibits that we've got as well.

14 CHAIRMAN: Yes. Thank you.

15 WITNESS: You're welcome.

16 CHAIRMAN: Good. Mr Lim, you can now leave.

17 WITNESS: Thank you.

18 CHAIRMAN: Thank you very much. We will return the exhibits
19 in due course.

20 WITNESS: It's okay. Keep them as a souvenir.

21 COMMISSIONER HANSFORD: A souvenir, thank you.

22 (The witness was released)

23 MR PENNICOTT: Sir, I think we need to break now and perhaps
24 we can let you know when we're ready to go with London.

25 CHAIRMAN: Yes. Thank you.

26 MR PENNICOTT: Thank you very much.

1 (3.50 pm)

2 (A short adjournment)

3 (4.15 pm)

4 MR CONNOR: Good afternoon, sir. Good afternoon, Professor.

5 We have the fourth witness now on behalf of Atkins
6 China, Dr McCrae.

7 Before proceeding with him, I think it's appropriate
8 just to mark a word of appreciation, Mr Chairman and
9 professor, to yourselves and the Secretariat and the
10 legal team led by Mr Pennicott for the arrangements that
11 have been made for Dr McCrae to give evidence rather
12 than travel to Hong Kong to do so, and of course
13 appreciation to the other parties' for their cooperation
14 in relation to that.

15 We have on the screen and indeed in London, live in
16 London, Dr McCrae.

17 Dr McCrae, can you hear us?

18 WITNESS: Yes, I can.

19 MR CONNOR: You are Dr Robert McCrae of Atkins China --

20 CHAIRMAN: Perhaps you can check that he can hear us okay.

21 MR CONNOR: Dr McCrae, you can hear proceedings in
22 Hong Kong?

23 WITNESS: Yes, I can.

24 DR ROBERT WILLIAM MCCRAE (sworn)

25 Examination-in-chief by MR CONNOR

26 MR CONNOR: Just for the purposes of the transcript, would

1 you please confirm again, now that you have returned to
2 the microphone, that you are Dr Robert McCrae?

3 A. I am.

4 Q. Thank you. That's clear. You are also known as
5 Rob McCrae?

6 A. That's correct.

7 Q. Thank you. Now, Dr McCrae, you are technical director
8 with Atkins, or SNC-Lavalin Atkins now?

9 A. Yes, that's correct.

10 Q. And you've been with Atkins for some 22 years?

11 A. Yes, that's correct.

12 Q. Your role as technical director is within the
13 infrastructure business of Atkins; is that so?

14 A. Of Atkins UK, yes, that's correct.

15 Q. Thank you. As you know, we are going to ask you some
16 questions this morning, London time, about your
17 involvement in the Shatin to Central project and
18 specifically the Hung Hom Station Extension project in
19 Hong Kong. You're aware of that, of course?

20 A. Yes, I am.

21 Q. In that regard, you had two roles in particular which
22 I'll just ask you to confirm. The first was as design
23 team leader for team A, working for Atkins on behalf of
24 MTRC; is that so?

25 A. That's correct.

26 Q. Thank you. If we can just have, for the record, please,

1 a couple of productions put in front of you. The first
2 of them, which is attached to Mr Blackwood's statement,
3 which is J1/8.0, and in particular turn to page J83.
4 We'll wait for a moment for you to have that. Let us
5 know once it's in front of you.

6 A. Yes, it's in front of me now.

7 Q. Thank you. J83 should be a sheet that is headed
8 "SNC-Lavalin Atkins", and it should say "Roles and
9 responsibilities of key for team A staff"; is that so?

10 A. That's so.

11 Q. Thank you. You will see below the description of the
12 project director's roles and responsibilities, there is
13 set out there the roles and responsibilities of the
14 design team leader; do you see that?

15 A. Yes, I do.

16 Q. Are you familiar with this description of your roles and
17 responsibilities in your team A role, Dr McCrae?

18 A. Yes, I am.

19 Q. Thank you. If you would be good enough to turn on,
20 please, further on, to a document at J89. That appears
21 to be a team structure. Let us know when it's in front
22 of you.

23 A. It's in front of me now.

24 Q. Thank you. This is a team structure which is dated as
25 at October 2015, and we understand that this is the team
26 structure for team A at that time. Is that so?

1 A. Yes, that's so.

2 Q. Thank you. I think we see your name as design team
3 leader towards the top of the structure?

4 A. Yes, that's correct.

5 Q. In that regard, you reported to Mr Blackwood?

6 A. Yes, I did.

7 Q. Thank you.

8 The role that you had as design team leader you held
9 between November 2014 and April 2016; is that so?

10 A. That is so.

11 Q. Thank you.

12 Now, if I can ask you to return to the "Roles and
13 responsibilities" section at page J85, and let us know
14 once that page is in front of you, please.

15 A. Yes, I believe it is now.

16 Q. Thank you. That should be a page headed, "Roles and
17 responsibilities of key for team B staff"; is that so?

18 A. That's so.

19 Q. You will see below "Project director" there is a heading
20 or rather a subheading "Project manager", with then
21 there is followed a description of the roles and
22 responsibilities in that capacity.

23 A. Yes.

24 Q. Are these, as described here, the roles and
25 responsibilities that you held as project manager for
26 team B?

1 A. Yes, they are.

2 Q. And that was for the Atkins team working to and
3 responsible to Leighton in relation to this project?

4 A. Yes, it was.

5 Q. Thank you. I think for the sake of completeness, you
6 held this role between May 2014 and April 2016?

7 A. Yes, that's right.

8 Q. If you would be good enough to turn to page J90, we see
9 then the organisation chart as at November 2014, and we
10 see you described there as project manager, around about
11 the middle of the page?

12 A. Yes, I can see that. That's right.

13 Q. In that regard, your interface was with Mr -- pardon me,
14 was with a Mr Brett Buckland of Leighton?

15 A. Yes, it was with Brett, yes.

16 Q. And we see again Mr Blackwood in a line out to the
17 right-hand side. So Mr Blackwood was someone who you
18 had some significant engagement with in this role also;
19 yes?

20 A. Yes, it is, that's correct.

21 Q. Thank you.

22 Now, in 2016 you relocated to the UK, and as you
23 have described earlier to the Commissioners you are
24 still with Atkins, and you are working as a project
25 director in relation to a section of the High Speed 2
26 project in the UK?

1 A. Yes, that's correct.

2 Q. Thank you. But it's with regard to your Hong Kong roles
3 that you give evidence to this Commission, and if you
4 would be good enough to identify your witness statement,
5 which we will ask to have put up in front of you, and
6 that is J4/9.0. Let us know once it's in front of you,
7 please.

8 A. Yes, it's there and I identify it.

9 Q. Thank you. I think it begins at page J3344; is that so?

10 A. That is the identification at the top of the page, yes,
11 and at the base, yes.

12 Q. Thank you. This is your witness statement?

13 A. Yes, it is.

14 Q. Just while you're on the document, it might be
15 convenient if we turn to paragraph 48 of the document.
16 You'll see that that is on page J3351; do you see that?

17 A. I do.

18 Q. Thank you. This is the section of your statement where
19 you deal with the alleged change of connection details
20 between the EWL slab and the east diaphragm walls; do
21 you see that?

22 A. I do.

23 Q. In this section, which I think lasts for some three or
24 four pages, you begin in paragraph 48 by confirming to
25 the Commissioners that you have read Mr Blackwood's
26 witness statement at paragraphs 60 to 96 and you agree

1 with the comments stated there. Is that so?

2 A. That's so, yes.

3 Q. Thank you. So your evidence we will come to in its
4 entirety in a moment, but for the purposes of your
5 evidence in relation to the alleged change in connection
6 details, you convey to the Commission Mr Blackwood's
7 evidence, which you've read and which you agree, as
8 added to by the paragraphs which then follow
9 paragraph 48; is that so?

10 A. That's so.

11 Q. Thank you. Again, just for the sake of convenience, can
12 you turn to paragraph 62. You'll see that that is on
13 page J3353; do you see that?

14 A. I do.

15 Q. Now, I think this is a minor correction which you drew
16 to my attention in the last day, which relates to
17 line 4, where there is reference to "EH72 and EM74". Do
18 you see that reference?

19 A. Yes. Shall I explain?

20 Q. Yes, please do.

21 A. I have transposed the H and the M. Panel 72 is actually
22 a missed panel so it should have been EM72, and panel 74
23 is a hit panel, so it should have been EH74.

24 Q. Thank you very much. While we are on some minor
25 adjustments, we should just turn very quickly, please,
26 to the corrigendum at J4/9.0A, if you might have that

1 before you.

2 A. Yes, it's there.

3 Q. Thank you. This is another modest change which you have
4 made to your statement in the last week or so?

5 A. Yes, that's correct.

6 Q. Thank you very much. Would you just confirm, please, to
7 the learned Commissioners, Dr McCrae, that this witness
8 statement, together with the change which you described
9 in paragraph 62 and to the corrigendum make up your
10 evidence which you present to this Commission?

11 A. Yes, it is.

12 Q. Thank you. Again, just for the sake of completeness,
13 your CV is attached to that statement at page J3358. Is
14 that so?

15 A. That is so, yes.

16 Q. So is that witness statement, together with your CV,
17 your evidence, and is it true to the best of your
18 knowledge and belief, Dr McCrae?

19 A. It is my evidence and to the best of my knowledge it is
20 true.

21 Q. Thank you very much. Dr McCrae, I have no further
22 questions for you at this stage, but I should explain
23 what will happen next. Mr Pennicott, who's immediately
24 in front of me, will ask you some questions on behalf of
25 the Commission, and then some other lawyers in this room
26 may have some questions for you, so they will then

1 proceed. The Chairman and the professor may have
2 questions for you at any time, and I know you will do
3 your best to assist the Commissioners. Lastly, it may
4 come back around to me again to ask you a few more
5 questions.

6 Is that reasonably clear?

7 A. That's clear.

8 Q. Thank you very much, Dr McCrae. I will leave you with
9 Mr Pennicott. Thank you.

10 A. Thank you.

11 Examination by MR PENNICOTT

12 MR PENNICOTT: Dr McCrae, as Mr Connor has indicated, my
13 name is Ian Pennicott, I'm one of the lawyers to the
14 Commission, and I have a few questions for you. I'm
15 going to try to take them as quickly as I can. If at
16 any stage you can't hear me or there's a problem with
17 the documents, please just let us know.

18 We have covered quite a bit of ground with
19 Mr Blackwood already, but unfortunately there were areas
20 where he indicated that you might be a better witness to
21 ask questions of, but as I say I'm not going to
22 transverse over ground that I've covered with
23 Mr Blackwood already and we'll just get straight down to
24 it, if we can.

25 Dr McCrae, first of all, we've seen, in the document
26 that Mr Connor took you to, the roles and

1 responsibilities of the project manager for team B and
2 the design team leader for team A.

3 Dr McCrae, in reality, were there any practical
4 differences between your duties and responsibilities in
5 those two roles?

6 A. In that I was reporting to different clients, there were
7 obviously matters which were privy to one part and
8 perhaps not privy to the other, but as a technical
9 leader in most things, they were very similar roles.

10 Q. Right. I think you tell us that neither team A nor
11 team B were site-based -- is that correct?

12 A. That's correct.

13 Q. You say, however, that the teams would be confined to
14 occasional site visits?

15 A. That's correct.

16 Q. As we know, you were, as it were, the most senior person
17 both in team A and team B, save for Mr Blackwood?

18 A. That's correct.

19 Q. I don't know whether you've had an opportunity of
20 looking at some of the evidence of Mr Buckland, who was
21 mentioned a short while ago, that's Mr Buckland of
22 Leighton, but he says this in his witness statement:

23 "Typically, the same group of people at Atkins acted
24 as MTR's DDC and also for Leighton."

25 And in another part of his statement he says:

26 "While MTR may have initially intended there to be

1 some separation between the two Atkins teams, MTR knew
2 there was no real separation and accepted this
3 position."

4 Dr McCrae, from paragraphs 16, 18 and 19 of your
5 witness statement, I understand that you don't subscribe
6 and agree with that view as expressed by Mr Buckland.
7 Am I right?

8 A. Yes, you are right. I don't agree fully with
9 Mr Buckland.

10 Q. How would you describe the separation between the two
11 teams?

12 A. We obviously strove to have as much separation and use
13 different people for different tasks. For example, if
14 you took the geotechnical team, that was totally
15 separate and because of the resources there, we did
16 endeavour to use team A resource with team B and
17 vice versa.

18 The structural work was a bit different in that
19 because of the large amount that developed, particularly
20 in 2015, we did use people on occasion to assist in both
21 teams. This was made fully visible to both MTR and
22 Leighton when we were doing it, but it was a necessity
23 of the volume of work at the time and the most efficient
24 way and a collaborative way to undertake the works.

25 Q. Yes. That reflects, I think, Dr McCrae, evidence that
26 we have heard, that insofar as there was or emerged

1 a degree of lack of separation, it was because of the
2 increased amount of work so far as team B was concerned;
3 is that right?

4 A. Yes, that's correct.

5 Q. All right.

6 In paragraphs 24 to 32 of your witness statement,
7 you deal with what we describe and I think you describe
8 also as the missing U-bar issue and how it was resolved
9 and addressed.

10 A. Yes, that's correct.

11 Q. Could I please ask you to be shown a document at
12 F34/23939.

13 A. Yes, I see that document.

14 Q. The system is quicker me, Dr McCrae.

15 We there see an email of 28 February of David Wilson
16 of Atkins to Betty Ng of Leighton, attaching a design
17 report. I don't think, on the face of the email, you
18 were copied in, Dr McCrae, but do you have any
19 recollection of this email? I'm sorry, you were copied
20 in, but do you have any recollection of the email?

21 A. I don't have a recollection of the email.

22 Q. Was Mr Wilson team B?

23 A. Mr Wilson was the leader of -- the design leader of
24 team B, yes, that's correct.

25 Q. Okay. Could I just show you the report that is
26 attached. It starts at 23946. Do you see that?

1 A. I do.

2 Q. Thank you. We can see that it's described as
3 a "Diaphragm wall coupler check at NSL base and EWL roof
4 level -- area C (future panels)". It's prepared by "SR"
5 and checked by "ST". Do you know who "SR" and "ST"
6 were?

7 A. I don't, but I believe that they were engineers in the
8 Atkins Bangalore office who were doing work for us at
9 the time, but I don't know exactly who they were.

10 Q. Okay. Thank you very much.

11 If you go over to page 23948. Just looking at that
12 introductory page to the report, Dr McCrae, do you have
13 any recollection of seeing this report? Do you remember
14 it?

15 A. I don't remember it, no. I don't remember it.

16 Q. We can see that it appears to focus upon a short list of
17 particular panels; do you see that?

18 A. I do.

19 Q. So far as the east diaphragm wall is concerned, it
20 focuses on, in particular, EH107 and EH105; do you see
21 that?

22 A. I do.

23 Q. In the third paragraph it says:

24 "However as the slab reinforcement has been made
25 continuous over the D-wall support without proper
26 anchorage into the D-wall for panel 107, it is proposed

1 to demolish the top portion of D-wall and add the
2 required number and diameter of rebar as per design
3 drawings and achieve the full anchorage length with the
4 D-wall vertical reinforcement. For details refer to
5 attached sketch."

6 Do you see that?

7 A. I do see that.

8 Q. There's a similar proposal in the next paragraph which
9 I won't read out in relation to EH105.

10 A. I see that as well.

11 Q. As I understand it, this was a proposal addressing the
12 problem that had arisen from the lack of anchorage
13 arising from the missing U-bar in respect of these two
14 particular panels. Do you agree?

15 A. That is what I understand to be being said there, yes.
16 It's a proposal of one option to address the problem of
17 the missing U-bar.

18 Q. Right. If you go to the sketches that are referred
19 to -- that's at page 23970 and 71; let's look at 70
20 first -- and one can see, on the extreme left-hand side
21 of this sketch, Dr McCrae, it says -- it's a bit
22 difficult to read it -- if we put it on its side -- we
23 might be able to rotate it for you -- but it says,
24 "D-wall concrete has to be demolished till the required
25 anchorage length"; do you see that?

26 A. I do.

1 Q. Similarly, if we go over the page to see the position on
2 EH105, the same words are used.

3 A. Yes, I see that.

4 Q. But on both of those sketches, would you agree -- it's
5 probably easier to see it from 23971 -- both proposals,
6 or rather both panels, it was anticipated that the
7 couplers would be retained?

8 A. I'm sorry, Mr Pennicott, could you repeat the last
9 sentence? I didn't catch it.

10 Q. Yes. Do you agree that both the sketches assume that
11 the couplers would be retained?

12 A. Yes, that does appear to be the case.

13 Q. Right. So what the proposal was, in relation to these
14 two particular panels, was the trimming down of the
15 concrete but the retention of the couplers?

16 A. Yes, couplers would still be used, that's correct.

17 Q. Right. Now, in paragraph 51 of your witness
18 statement --

19 COMMISSIONER HANSFORD: Sorry, could we just go back to the
20 sketch for a second? Mr McCrae, the proposal here, as
21 I see, is to replace the top two bars that are shown in
22 black with the two bars that are shown in red; is that
23 correct?

24 A. That is correct, so the couplers on the EWL slab will
25 still be retained, but what this solution -- this is one
26 of the solutions that must have been discussed although

1 I don't recall it, it doesn't require you to put
2 anchorage into the OTE slab. All the anchorage can be
3 obtained in the diaphragm wall with this proposal.

4 COMMISSIONER HANSFORD: I understand that, Mr McCrae, and
5 I think we are probably coming to that at a later stage,
6 but I'm just coming back to whether the couplers are
7 still required, because the couplers are shown in black,
8 but the new work is the red that replaces the black,
9 isn't it?

10 A. I apologise. Yes. Those could be straight bars or
11 couplers. Actually, looking at the drawing I can't be
12 certain, because the couplers are still there, but
13 I can't be certain whether the couplers were to be
14 omitted or not, although they're still shown there.

15 COMMISSIONER HANSFORD: Can we just blow that up a little
16 bit, that top detail.

17 MR PENNICOTT: Are you on 970, sir?

18 COMMISSIONER HANSFORD: Yes, the one on the screen, because
19 my reading of this --

20 MR PENNICOTT: 971.

21 COMMISSIONER HANSFORD: -- is that the top bars in black,
22 that's the top layer and the next layer down, the red
23 bars replace the ones that are shown in black, and it's
24 the ones in black that have couplers.

25 So I can't tell from this whether the couplers were
26 intended to be retained in the top two bars or not, and

1 I wondered what your interpretation of this sketch was.

2 A. I see exactly what you mean. Yes, that interpretation
3 could be correct. I'm sorry, I can't recollect what it
4 was at the time, but your interpretation could be
5 correct, yes. You could certainly interpret it that
6 way.

7 COMMISSIONER HANSFORD: Okay. Thank you.

8 MR PENNICOTT: Thank you, Dr McCrae.

9 In paragraph 51 of your witness statement, which is
10 the subject of one of the short corrigendum that you've
11 provided to us, you make reference to a report,
12 TWD-004B2, that was prepared by team B.

13 A. That's correct.

14 Q. We can find the report, I think, at J1, page 92. As you
15 say in your statement -- we don't need to go to it; you
16 give us the reference, helpfully -- this was provided by
17 team B as a draft to Leighton on 14 May 2015.

18 A. Yes, that's correct.

19 Q. If you can please go to the next page, please, and the
20 next page -- thank you very much -- we see this is the
21 fourth issue of the document and you have approved it,
22 subject to the point that you make in your corrigendum?

23 A. That's correct. Am I able to explain what I meant by
24 ink signing?

25 Q. Yes, please. I was about to ask you.

26 A. The documents we prepared for all the various issues,

1 when they are formally issued to Leighton, that means
2 that we print the hard copies, we provide all the
3 ...(unclear words)... so it's final thing, the letter
4 changes from whatever it is, from an A to a B. So, for
5 example, where you see there "A2", if you went to the
6 document A2, you would see that that was wet signed.
7 That indicates that we have formally issued it; it's no
8 longer a document in development through discussion with
9 ourselves and Leighton.

10 So what I'm saying is B2, because we haven't wet
11 signed it, but I was aware of the document, obviously,
12 as you are aware from the email trail, we haven't wet
13 signed it, so we never formally issued it to Leighton.

14 Q. Okay. So you say, in careful wording in your statement,
15 it was provided as a draft?

16 A. Sorry, Mr Pennicott, I did not catch that.

17 Q. As you say in your statement, it was provided as
18 a draft?

19 A. That's correct, for discussion.

20 Q. Yes. All right. Without dwelling on it, if we go to
21 page 106, we see paragraph 1.3.5, which I'm not going to
22 go through with you, and then over the page we see the
23 figure 1.4 that we've looked at a number of times
24 before, and again we don't need to dwell on it at this
25 stage.

26 A. Yes, I see the figure.

1 COMMISSIONER HANSFORD: Sorry, once again, whilst we're not
2 dwelling on it -- do these top three layers have
3 couplers or not, Dr McCrae?

4 A. I don't believe they do as it's shown on here.

5 COMMISSIONER HANSFORD: Right. So is it therefore the same
6 point that we came to between us ten minutes ago, that
7 the red replaces the black, and the black is where the
8 couplers are?

9 A. At this time, this was obviously an option we were
10 looking at. I don't remember it in detail. But we
11 looked at a large number of options of how to manage
12 this anchorage problem because of missing U-bar, and
13 this must have been one of the options that was around
14 at that time, yes.

15 COMMISSIONER HANSFORD: But it doesn't specifically state,
16 or does it -- it doesn't specifically state that there
17 are couplers?

18 A. It doesn't specifically state there are couplers there,
19 that's correct.

20 COMMISSIONER HANSFORD: Okay. Thank you.

21 MR PENNICOTT: What it does show, I think, Dr McCrae, is the
22 red lines going from the EWL slab to the OTE slab, and
23 those bars bending upwards?

24 A. Yes. So unlike the previous one you've showed me,
25 Mr Pennicott, this one does show that -- this is
26 an option to look at anchorage into the OTE slab rather

1 than provide the anchorage just to the diaphragm wall.

2 Q. Yes, and this was a slightly alternative proposal to
3 provide the anchorage that was lost as a result of the
4 missing U-bars?

5 A. That's correct. As I said, we looked at quite a number
6 of options at the time as to how to achieve that.

7 Q. Yes. With a degree of hesitation, if you look at the
8 annotation underneath the brownish shaded area, it says,
9 "OTE and EWL slab to be concreted concurrently"; do you
10 see that?

11 A. I do.

12 Q. And the hatched area appears to cover the slab -- sorry,
13 the OTE wall, the top of the diaphragm wall and the
14 slab; do you see that?

15 A. I do.

16 Q. Do you agree with that?

17 A. If this option, as I interpret it, and I think you have
18 as well, to be through-bars, you would have had to do it
19 that way.

20 Q. Right. So, if I've understood your evidence, then what
21 this is showing is trimming down of the concrete and the
22 diaphragm wall, through-bars, and the provision of
23 anchorage at the OTE, and concurrent concreting?

24 A. That is an interpretation, I think that was possibly
25 an option that was being discussed at that time, yes.

26 Q. Dr McCrae, what does the word "concurrently" mean in

1 this context?

2 A. My interpretation is it means that the pour for the EWL
3 slab, that small section of diaphragm wall which
4 contains the through-bars -- and I'm interpreting them
5 as through-bars -- and the OTE should be all poured at
6 the same time.

7 Q. Right. In effect, poured all in one piece?

8 A. Yes. In this case, yes.

9 Q. All right.

10 Now, after you provided that draft report on 14 May,
11 there was a series of emails. Could we please go to,
12 first of all, J2/1669.

13 A. It's on my screen.

14 Q. Thank you.

15 Now, the first email is 22 May, from Leighton to
16 Edward Tse, who I understand was Atkins B, although
17 I think he also had a role in Atkins A. What is said
18 is:

19 "As spoke, I disagree we put the 'missing U-bar'
20 remedial in our ELS submission ..."

21 And that is a reference to the draft report that we
22 were looking at a short while ago; do you agree?

23 A. Yes. Yes, I agree.

24 Q. Right.

25 "... as BD do not know about this 'formally' and MTR
26 will reflect the changes in the coming DDC amendment

1 submission.

2 Also the design changes are different from the
3 endorsed TWD-025C and DDC amendment submission.

4 TWD-004B -- again, we only need to demonstrate to BD
5 the minimum stiffness is used to match TWD-025C and the
6 DDC amendment submission.

7 Understand you will speak to Kevin Yip on the
8 submission strategy, please give us a feedback
9 afterwards."

10 And you were copied in on that email, Dr McCrae?

11 A. Yes, I was.

12 Q. Then if we could go to 1668, on the following day, on
13 the 23rd, it's the one in the middle of the page, from
14 Betty Ng of Leighton to Edward Tse and to you:

15 "Edward, Rob,

16 Further to the discussion with Kevin yesterday
17 evening, for the initial excavation down to minus
18 0.5mPD, confirmed that we are not going to submit
19 TWD-004B to BD for not to confuse BD and complicate the
20 issue.

21 As we only need BD's approval to start the initial
22 bulk excavation and the D-walls have not been loaded in
23 the initial stage, we will submit TWD-381 (open-cut
24 situation ...) to include assessment to the D-wall
25 checking up to minus 0.5mPD."

26 Do you see that?

1 A. I do.

2 Q. If we then go to 1667, at the bottom of the page, on
3 27 May, Mr Tse writes back to Leighton saying:

4 "I have spoken to him and the approach is the same
5 as you said. But I will confirm with him if I put the
6 remedial proposal in the DDC submission, I need
7 a formally instruction from MTR.

8 Regarding the contractor slab submission, I will
9 take out section 1.3.6 about additional bottom rebar and
10 also the whole RC drawings for both part I and part II.
11 Report will be updated by today."

12 Do you see that, Dr McCrae?

13 A. I do see that, sorry, yes.

14 Q. We then go to paragraph 56 of your witness statement,
15 where you say:

16 "On 17 June 2015, team B submitted [for short]
17 TWD-004B3 ..."

18 A. I see that, yes.

19 Q. We can look at it, if we need to, Dr McCrae, but I think
20 you know as well as we do that in that submission,
21 paragraph 1.3.5 and figure 1.4 that we were looking at
22 a moment ago in the previous report, were omitted.

23 A. Yes.

24 Q. In your witness statement, you say:

25 "I do not know the exact reason for this."

26 Having looked at those emails, does that shed any

1 light on the reasons for the omission of the paragraph
2 and the figure?

3 A. Well, we were going through our series of options, as
4 I said before, to develop the anchorage, and what we
5 wanted to do was not confuse matters, so the anchorage,
6 which is part of the permanent works, was going to be
7 dealt with in a different document. It was a developing
8 scheme and eventually it was finalised in PWD-59.

9 So my belief is that we wanted to keep that detail
10 of PWD-59 and not put it in TWD-004, so it's very clear
11 which document held the detail and there was no
12 confusion.

13 Q. Right. Can we then look at paragraphs 58 and 59 of your
14 witness statement, where you refer to the other report,
15 the permanent works design report, that was in the
16 course of preparation from the beginning of June to the
17 final report of 9 July; do you see that?

18 A. I do see that.

19 Q. Just to get confirmation of the date, can we just look
20 at C29/21765.

21 If we can go on two pages to 67, please. So this is
22 the PWD report, dated, as you say, 9 July 2015, albeit
23 not submitted to BD until the end of July?

24 A. Yes, that is the formal copy that we sent to Leighton
25 because we -- myself and WC Lee, in this case, have wet
26 signed it.

1 Q. All right. If we look at this report -- on the final
2 two pages can we find the conclusion, please --

3 We'll move on. There's another point coming in
4 a moment, Dr McCrae.

5 After the TWD report had been prepared back in June,
6 this report, we've seen, was 9 July. There was still
7 further discussion, as I understand it, about the
8 anchorage solution; is that right?

9 A. Yes, I believe that is the case.

10 Q. If we look in your witness statement at paragraph 60,
11 you refer to certain of those emails, and in particular
12 the email at B10/7515.

13 So that's the first one on 21 July; do you see that,
14 Dr McCrae?

15 A. I do.

16 Q. The one I think referred to in your witness statement --
17 perhaps not. This is Mr Daynes writing to you.

18 A. I think it's WC Lee writing to Mr Daynes, isn't it?

19 Q. I beg your pardon, it's WC Lee writing to Mr Daynes,
20 copying you in; do you see that?

21 A. That's right, yes.

22 Q. And he says:

23 "Attached revised rebar arrangement to compensate
24 the missing U-bars for the D-wall connection along the
25 east side ..."

26 Then the gridlines are mentioned.

1 "The details incorporated comments from both BD and
2 MTR/DC teams ..."

3 Do you see that?

4 A. I do.

5 Q. Then if you could please go to B10/7255. This is the
6 email from yourself this time to Brendan Reilly at MTR,
7 copied to various people at Atkins, and you refer to
8 this in paragraph 62 of your witness statement.

9 What you say is this:

10 "[Dear] Brendan,

11 Following your discussion with CK Chan (RSE) on
12 whether it is necessary to cast the EWL slab and OTE
13 monolithically I confirm his conversation."

14 Were you party to the conversation, Dr McCrae?

15 A. Yes, I was in the room when the conversation was held.

16 It was a telephone conversation, and I was sitting with
17 Mr Chan when he was on the telephone to Brendan.

18 Q. You go on to say:

19 "That is in the BD letter of 4 December 2014 they
20 stated in comment A3 that construction joint should be
21 cast in accordance with PNAP APP-68."

22 Is that a document that you're familiar with,
23 Dr McCrae?

24 A. I'm not familiar with it. I'm aware of it and I have
25 looked at it in the past few weeks, but I wouldn't say
26 I'm familiar with it.

1 Q. Right. You obviously knew about it when you wrote this
2 email?

3 A. I was aware of it but the full connotation of it,
4 I couldn't say -- I wasn't that familiar with it.

5 Q. All right. You go on to say:

6 "Within this document clause 2(a) does state that
7 the structure should be cast monolithically unless
8 unavoidable; in which case an alternative construction
9 detail must be submitted prior to approval. The concern
10 in the PNAP is about water ingress at the joint.
11 Therefore a detail showing the waterproofing has been
12 submitted and discussed with BD showing waterproofing
13 including provision of a hydrophilic strip. This detail
14 is understood to be accepted by BD."

15 Then you say this:

16 "Therefore the RSE view is that it is acceptable to
17 cast the OTE slab after the EWL slab providing it is
18 cast before future activities which would further load
19 the structure, in particular dewatering or excavation
20 below the EWL slab."

21 Dr McCrae, can you explain that sentence, please?

22 A. Yes. Reading this now, I realise that I have conflated
23 two ideas in that email, and that wasn't my intention.
24 There are two separate points there which we were aware
25 of at the time.

26 In explaining this, could I turn to 24 July and

1 explain what happened on 24 July that then led to this
2 email?

3 Q. Please do, Mr McCrae, yes.

4 A. On 24 July, which was a Friday, Mr Reilly asked me late
5 on the Friday to attend the MTR site offices. The issue
6 was that they wanted to make the pour which I believe is
7 called C1-1, which was the first pour in areas B and C,
8 and they wished to make this pour because there was
9 an urgency -- I believe there was a milestone or
10 something they wanted to make.

11 However, at that time, although the EWL area was
12 ready to place steel and concrete, the OTE wasn't, so
13 they couldn't fulfil the requirement of casting them
14 both at the same time.

15 Mr Reilly had three points he made to me. One was:
16 were all the permissions in place to allow the pour to
17 go ahead? The second one was: could they omit the
18 upstand or the kicker on the OTE? And the third point:
19 was it necessary to pour the OTE at the same time as the
20 EWL or could they be poured -- a suggestion had been
21 made by Leighton to delay the OTE pour on the basis that
22 no loading would occur to the EWL slab requiring the
23 anchorage to be needed, and the OTE slab would be poured
24 in time before that anchorage was needed.

25 So they were the three points that Mr Reilly made to
26 me on that Friday afternoon/evening. He asked me to

1 deal with that as a matter of urgency, and I took that
2 to mean the next working day, which was the Monday. He,
3 however, took it to mean the Saturday; that he wished it
4 dealt with on the Saturday.

5 Is that clear so far, Mr Pennicott, before I go on?

6 Q. It is, but can you just give me one moment. Yes, okay.
7 Carry on.

8 A. So, of the three issues that I just mentioned -- if
9 I take the OTE kicker, first of all, or upstand wall --
10 both Atkins and I believe MTR would not accept that it
11 was essential that that upstand wall was cast as part of
12 the OTE. So that part didn't take -- wasn't part of the
13 discussion, as far as I remember, on the Saturday.

14 What happened on the Saturday -- and this is
15 an aside, but why I remember it so well -- I had
16 promised to go shopping with my wife and then go for
17 lunch with her in TST. When I got off the train in TST
18 at about 10 o'clock, I realised there were quite
19 a number of missed calls from Mr Reilly on my phone.
20 Mr Reilly insisted that I had made an agreement to deal
21 with it that Saturday and I should deal with it
22 immediately. So I had to abandon my wife at that time
23 and it was a recurring problem with her for many months
24 afterwards. That is why my memory is good, if I could
25 say so.

26 I then went -- this must have been about 10 o'clock

1 that Saturday morning -- to the Atkins office, which you
2 may know is quite close to TST Station, and Mr Chan was
3 there, CK was there. So I discussed the problem with
4 CK, and, as you may know, CK was the head of the
5 structural department of Atkins at that time and
6 somebody I would seek advice from on structural matters.
7 He was also very well aware of BD problems.

8 So, to take the first problem, which was were the
9 approvals in place, so Mr Chan -- CK knew that the
10 matters raised in the BD letter, around APP-68, had been
11 discussed with BD and had been dealt with.

12 The second point, which is whether you could pour
13 the EWL slab because there's an urgency to do that to
14 meet some requirement; and then four was the OTE slab.
15 CK -- I must admit that I did agree with him as well --
16 would accept in this one case, and only in this one
17 case, because they could avoid loading the EWL slab
18 ...(unclear words)... the OTE slab, cast slightly later
19 in time ...(unclear words) --

20 MR PENNICOTT: Can you pause, please, Dr McCrae.

21 CHAIRMAN: The sound has gone problematic.

22 A. I apologise. I will try to speak slower.

23 CHAIRMAN: Thank you.

24 MR PENNICOTT: Yes, please, just a bit more slowly.

25 A. Where do you wish me to start again; by describing the
26 nature of the pours?

1 Q. Let's start from the second point, which is whether you
2 could pour the EWL slab because there's an urgency to do
3 that to meet some requirement. Pick it up from there.

4 A. Yes. So there's an urgency to meet this requirement.
5 I can't remember exactly what it is. So the point was
6 that providing the anchorage didn't come into play, in
7 other words the EWL slab didn't rely on the anchorage,
8 we could delay slightly the pour of the OTE slab while
9 Leighton got that area ready and constructed it, and it
10 was these conditions. And the things that would cause
11 the loading were dewatering or the excavation. So
12 providing they did not happen, in this one and only in
13 this one case, we could allow that sequence of pouring
14 to happen.

15 CK also said, of course, that it would be the
16 decision of the competent person at the end, so the
17 matter should be referred to Jason Wong.

18 Q. Right.

19 A. So I accept I have conflated two points in that answer,
20 but there are two separate points there.

21 Q. Right. Just so that we've got it clear, this email and
22 the situation that had arisen was specifically referable
23 to area C1-1?

24 A. To that single pour which I believe is called C1-1, yes.

25 Q. And that's an area where we know there was no trimming
26 down, there were couplers retained in that area, because

1 it was the first area to be poured, and indeed this must
2 have been sorted out over that weekend because the
3 Monday would have been 27 July, and we know that the
4 concrete was poured in that area on the 28th?

5 A. That's my understanding, yes.

6 Q. Right. Dr McCrae, as you said, and that's been
7 extremely helpful -- I think we now understand at last
8 what this email is all about -- this was referable to
9 C1-1. Did it have any relevance to the remaining areas
10 or not, or is your view that this was very much confined
11 to this particular area, for the particular reasons that
12 you've given?

13 A. Yes. We wanted the pours to ensure that we could obtain
14 the monolithic behaviour we wanted, we wanted both the
15 pours to happen at the same time. That was
16 a requirement to get the monolithic behaviour, but we
17 allowed them one exception, and one exception only, and
18 that was for this pour.

19 Q. Right. And this had nothing to do with trimming down,
20 nothing to do with through-bars; this was an area where
21 couplers were retained, as we know?

22 A. That was our understanding. Yes, that is the case.

23 Q. Okay.

24 Sorry, sir, can I just have a moment, because
25 I think that explanation has made a number of other
26 questions redundant.

1 CHAIRMAN: Doctor, just bear with us for a moment or two.

2 WITNESS: Of course.

3 MR PENNICOTT: I would just like, Dr McCrae, to go back to
4 the PWD, the permanent works design, report that we
5 touched on a moment ago. Could we go, if we've got B10,
6 to B10/7324. Sorry, 7322, to just see the letter
7 submitting the document.

8 Dr McCrae, you can see it's a letter of 30 July
9 2015, from the MTR to the Buildings Department,
10 submitting, as we will see, the PWD-059A3 report; do you
11 see that?

12 A. I do see that, yes.

13 Q. The report starts at 7324.

14 A. Yes, I see that.

15 Q. Its primary purpose was, as we know, to address the
16 issues that had arisen regarding the change and the
17 missing U-bars, and so forth?

18 A. Yes, that's my understanding.

19 Q. If you could go, please, to page 7333, towards the
20 bottom of the page we see a heading, "Modification of
21 rebar connection slab/D-wall"; do you see that?

22 A. Yes.

23 Q. What it says there is:

24 "To provide the full tension anchorage for the slab
25 rebar, the rebar are extended into the OTE slab/wall
26 with full tension anchorage lap length, [at] end of the

1 bar with a standard bend-up hook as recommended in the
2 Concrete Code -- 2013. To comply with this principle,
3 the OTE slab/wall must be concrete
4 monolithically/concurrently (ie at the same time) with
5 the 3 metre EWL slab and provide adequate lap length
6 details for future OTE wall construction, detail refer
7 to appendix F of this report."

8 Now, in the context of this report, Dr McCrae, what
9 was meant by "the OTE slab/wall must be concrete
10 monolithically/concurrently with the 3 metre EWL slab"?

11 A. So what we wanted to do was to ensure that all parts
12 acted together, so acted monolithically, so we had
13 a monolithic behaviour ... (unclear words).

14 CHAIRMAN: Sorry, bear with us just a minute.

15 MR PENNICOTT: Sorry, Dr McCrae, the sound has dropped off
16 again.

17 CHAIRMAN: If we could start off again, Doctor, please, with
18 what you wanted to do was to ensure that all parts acted
19 together, I think.

20 A. That is correct, sir, yes. We wanted all parts to act
21 together in a monolithic behaviour. In order to ensure
22 that happened, we needed the EWL slab and the OTE slab
23 to be concreted at the same time.

24 If that didn't happen, we had concern -- and we knew
25 the EWL slab would always be concreted first -- we had
26 a concern that if the OTE slab was cast at a later date,

1 by the time the OTE slab was required, the EWL slab may
2 have already begun to load and cause the anchorage. So
3 the time part of the monolithic is to ensure that
4 they're both in place when they are required to act.

5 MR PENNICOTT: I think, Dr McCrae, one of the problems that
6 some of us, particularly me, are struggling with is if
7 you've got the EWL slab, as it were -- we call
8 number 1 --

9 A. Yes.

10 Q. -- and we've got the OTE wall that we call number 3, and
11 we got the diaphragm wall in the middle, number 2 -- if
12 you're not going to do anything, not going to trim down,
13 alter, in any way touch the diaphragm wall, how does
14 concreting 1 and 3 amount to a monolithic exercise?

15 A. If I could go through that. You create it monolithic by
16 joining the steel from the EWL to the couplers of the
17 diaphragm wall, which then go through to the couplers
18 which join to the OTE structure. So the three are
19 joined together, so it is one part but joined together,
20 and that is what causes the monolithic behaviour.

21 Why they need to be cast at the same time is that if
22 one was cast later -- in this case it's the OTE was cast
23 later -- the monolithic behaviour might occur because
24 the OTE is not there, is not in place, and we would lose
25 the anchorage we are getting. So by casting them at the
26 same time, we are assure that everything is in place

1 monolithically, joined together, for when the behaviour
2 is needed.

3 Q. All right.

4 COMMISSIONER HANSFORD: Sorry, just so I can understand that
5 further, Dr McCrae. So you are saying "monolithic" is
6 a reference to the behaviour, the structural behaviour
7 of the finished structure, as opposed to it being
8 necessarily cast in one piece? Is that what you are
9 saying?

10 A. Yes, I'm saying it's not cast in one piece. It's joined
11 together. But the time factor is that we wished both
12 the EWL section and the OTE section to be cast at the
13 same time.

14 COMMISSIONER HANSFORD: Yes. I understand the time part,
15 and hence it being cast concurrently, and I understand
16 the reason for that. But the use of the term
17 "monolithic" is a reference to the structural behaviour
18 and it acting monolithically; is that correct?

19 A. That was my understanding at the time and it's still my
20 understanding now.

21 COMMISSIONER HANSFORD: Okay. That's helpful. Thank you.

22 MR PENNICOTT: Dr McCrae, just to test that proposition
23 a little bit further, could we just look at the final
24 version of the TWD report that we touched on earlier,
25 that's the 004B3 document, which we will find at 7262.
26 That's the 17 June document. This is the final version,

1 Dr McCrae.

2 If you could go to 7312, the highlighted sentences
3 are sentences that we've looked at innumerable times, it
4 appears. And I'm sure that you've read those words that
5 are highlighted there yourself, Dr McCrae.

6 A. I have done, yes.

7 Q. This is a report that you approved, albeit in the
8 circumstances that you described earlier. How do you
9 reconcile what you've just told us with the words that
10 we see here, in particular the first sentence in the
11 yellow highlight, "The top of diaphragm wall panel will
12 be trimmed to the lowest level of top rebar for the EWL
13 slab (minimum 420 millimetres below the top level of EWL
14 slab)"?

15 A. Can I first make a very slight correction, Mr Pennicott.
16 I'm not trying to avoid the issue by any means.
17 Although it is my initials on this report, they were
18 actually signed by a delegate. I'm not trying to
19 absolve myself of any responsibility, but just for the
20 correctness it was my delegate who actually signed this.

21 Q. Right.

22 A. But to move now to the point, I don't know why that was
23 there. Clearly, what we required was a PWD-59. With
24 hindsight, that should have been omitted. I can't
25 understand why it was there. But it is the document
26 PWD-59 and the working drawings that accompanied that

1 which were what was issued for construction.

2 Q. Right. I hear your explanation. The short point is
3 that they are irreconcilable, really, aren't they,
4 Dr McCrae? You can't reconcile the two positions in the
5 two reports, taking the words at face value?

6 A. Absolutely. But PWD-59 is the document with the
7 drawings for construction in it, so in my view, that has
8 precedence over this statement.

9 Q. Okay.

10 CHAIRMAN: Doctor, could I just ask you, is that because
11 drawings in the profession, completed drawings/designs,
12 will always have precedence over any statement of the
13 kind that you're looking at now?

14 A. Yes, sir. In my experience, the drawings are what the
15 site needs for construction, so they have precedence.
16 There obviously may be occasions where the site
17 recognised there may be contradictions from some other
18 information that they have. In that case, what they
19 should do is raise an RFI, a request for information, to
20 get it clarified. But in my view the drawings always
21 have precedence.

22 CHAIRMAN: Thank you.

23 MR PENNICOTT: Dr McCrae, would I be right in saying that
24 your explanation -- or support is lent to your
25 explanation, if you go to page B7277, which is
26 paragraph 1.3.5 of this report, where, in the second

1 sentence under 1.3.5, it says:

2 "The justification of reinforced concrete design for
3 the as-built reinforcement detail at the interface
4 between the diaphragm wall and the EWL slab between
5 gridlines 22 to 40 because of the missing U-bar in
6 diaphragm wall can refer to report no. PWD-59A1
7 submitted by the contract."

8 A. Yes, I would agree with that.

9 Q. Could I ask you, please, to be shown -- I think we're
10 still in the same file, B10 -- 7360.

11 Do you remember, Dr McCrae, a design amendment known
12 as DAmS 310?

13 A. Yes, I'm aware of that, yes.

14 Q. If we could go, please, to 7428, there are a couple of
15 drawings that are included -- a number of drawings that
16 are included within DAmS 310, and if you could look at,
17 on the left-hand side, please, the typical detail right
18 on the left-hand side -- where the hand is, if you can
19 blow that up, please; that's fine, thank you -- it says
20 here, you will see, on the section -- it relates to the
21 diaphragm wall connection east side, EH45 to EH109, and
22 then the words at top-right on the section, "Section of
23 OTE wall concrete cast together with (at the same time
24 as) EWL slab".

25 Do you give that the same meaning as you do in the
26 PWD report that we've just looked at?

1 A. Yes.

2 Q. Dr McCrae, were you aware at any time during your
3 carrying out your duties and responsibilities in
4 relation to team A and/or team B of the trimming down of
5 the east diaphragm wall for the purposes of putting or
6 substituting through-bars for the coupler design?

7 A. There was one TQ for one particular panel where it was
8 asked, but only that one particular case in one
9 particular panel was my only recollection.

10 Q. That's TQ34, is it, Dr McCrae?

11 A. Yes, I believe it's TQ34.

12 MR PENNICOTT: Right. Okay. Thank you very much,
13 Dr McCrae. I have no further questions. Thank you.

14 CHAIRMAN: Leightons?

15 MR SHIEH: No questions.

16 MR TO: No questions from China Technology.

17 CHAIRMAN: MTR?

18 MR BOULDING: No questions, sir.

19 CHAIRMAN: Government?

20 MR CHOW: No questions from government.

21 CHAIRMAN: Thank you.

22 Peter, any more questions?

23 COMMISSIONER HANSFORD: Nothing else from me.

24 Re-examination by MR CONNOR

25 MR CONNOR: Thank you.

26 Dr McCrae, just very briefly, if I may. Vincent

1 Connor returning on behalf of Atkins. You answered some
2 questions of course from Mr Pennicott a moment ago with
3 reference to PWD-59, as you will recall. If you might
4 have that back in front of you again. That's at B7322.
5 I think that is the letter or appears to be a letter
6 from MTR submitting that report to the Buildings
7 Department. Do you see that?

8 A. I do see that, yes.

9 Q. Thank you. I think you looked at this just a moment
10 ago.

11 In response to questions from Mr Pennicott and from
12 the professor, you were explaining your position and
13 understanding regarding the design requirement of
14 achieving monolithic behaviour of the slabs with the
15 diaphragm wall in their completed state. Do you recall?

16 A. Yes.

17 Q. Thank you. Just for the sake of completeness, if you
18 turn to page B7331, in case this helps at all, this is
19 a section 2 that begins -- sorry, B7331, and if you go
20 to the top of the page, please; thank you -- there is
21 a paragraph that begins "Design evaluation of the
22 as-built connection detail", and appreciating this is
23 a section dealing with the connection detail in
24 particular, but it reads as follows:

25 "Although the diaphragm wall steel terminates at the
26 top of the diaphragm wall without a lap it is difficult

1 to envisage a realistic failure mode. The reason for
2 this is because the slab is so stiff that it will behave
3 monolithically with the wall so that any rotation would
4 create a horizontal crack in the diaphragm wall at the
5 soffit level ..."

6 Please let us know if it assists at all: is this
7 passage we are reading from here also reflective of the
8 design intent that the slabs and the diaphragm wall, in
9 their completed state, would behave monolithically?

10 A. Yes, that's correct. It goes on to further things but,
11 yes, that is correct.

12 Q. Thank you. While we are on this document, there is --
13 I think, if you move through the document on to
14 page B7333, you will see towards the end of that page
15 a short paragraph beginning, "Modification of rebar
16 connection slab/D-wall", and the paragraph begins:

17 "To provide the full tension anchorage for the slab
18 rebar, the rebar are extended into the OTE slab/wall
19 with full tension anchorage lap length, end of the bar
20 with a standard bend-up hook as recommend the in the
21 Concrete Code -- 2013."

22 Then it goes on:

23 "To comply with this principle, the OTE slab/wall
24 must be concrete monolithically/concurrently (ie at the
25 same time) with the 3 metre EWL slab and provide
26 adequate lap length details for future OTE wall

1 construction ...", with a reference to appendix F.

2 Do you see that?

3 A. I see that.

4 Q. Thank you. Is that, in your evidence, also consistent
5 with your reading of the formation of the slabs at the
6 same time or concurrently, with a view to achieving
7 monolithic behaviour of the end product?

8 A. Yes, that is in line with my understanding, yes.

9 Q. Thank you. Just to conclude that, there is a short
10 reference at the end of that paragraph I've just helped
11 you through to appendix F, that's F for frank, and if we
12 turn to that appendix, please, which we will find, if
13 you bear with me, please, at page B7355, and in
14 particular then the detail begins on pages 7356 and
15 7357.

16 Do you see that?

17 A. I do, yes.

18 Q. Is there anything in appendix F which helps us
19 understand whether or not there is any change to the
20 connection details proposed in PWD-59 from the coupler
21 arrangement?

22 A. I think it's in line with the coupler arrangement, as
23 described in PWD-59.

24 Q. Thank you. So, really to draw your evidence together,
25 if I may attempt, Dr McCrae, in terms of your
26 involvement in the project, it would seem that the only

1 awareness you had of a D-wall trimming arose from
2 a proposal, amongst others, which was being considered
3 around about February 2015, in what we refer as to
4 B10/7322, namely TWD-025C1?

5 A. Yes, correct.

6 Q. And in addition, as you told Mr Pennicott a moment ago,
7 that trimming down which arose as a result of TQ34?

8 A. And the proposal in TQ34, yes, that's correct.

9 Q. And with the exception of the email enquiry that we
10 spent some time looking at at the end of July 2015,
11 around about the time of the disturbed lunch
12 arrangement, if you recall --

13 A. I do recall.

14 Q. -- and perhaps still paying for.

15 A. Absolutely.

16 Q. With the exception of that, Dr McCrae, which appeared to
17 relate to EM72 and EH74, are you aware of any query
18 being raised with Atkins in relation to the requirement
19 to pour the slabs concurrently, ie at the same time?

20 A. No, that's the only recollection I have.

21 Q. Finally, you recall Mr Pennicott taking you, for the
22 sake of completeness, to the DAmS 310 submissions in
23 August of 2015, as submitted later that year. At that
24 time, as far as the knowledge being conveyed to you is
25 concerned, you were still looking at a configuration of
26 the D-wall that did not involve trimming down, other

1 than that which you have described to us, nor the use of
2 through-bars, save for the evidence you have given; is
3 that so?

4 A. That's correct.

5 MR CONNOR: Thank you very much, Dr McCrae. Subject to any
6 final questions from the Chairman or the professor,
7 I have no further questions for you, but I will hand you
8 back to them.

9 COMMISSIONER HANSFORD: Nothing else from me.

10 CHAIRMAN: Thank you very much indeed, Doctor. It's been
11 very good of you.

12 WITNESS: Thank you.

13 CHAIRMAN: I dread to think what time you had to get up to
14 present yourself, but thank you. We're obliged, and
15 your evidence is now completed.

16 WITNESS: Thank you very much.

17 MR CONNOR: Thank you. Thank you, Professor. Thank you,
18 Dr McCrae.

19 (The witness was released)

20 That concludes such evidence from Atkins as we have
21 available today, and with that I pass you back to
22 Mr Pennicott.

23 MR PENNICOTT: Sir, our next Atkins witness due to be called
24 first thing tomorrow morning is Mr Chan Chi Kong.
25 However, I don't believe that the Commission will have
26 any questions for him, in the light of the evidence we

1 have just heard from Dr McCrae. So unless there's
2 anybody behind me who thinks that it is vital or indeed
3 necessary to call Mr Chan Chi Kong, I would propose that
4 he need not be called. I know he has just come back
5 from holiday today and was no doubt looking forward to
6 coming here tomorrow. So if everybody else is content
7 that he need not be called, then his witness
8 statement --

9 CHAIRMAN: Let me just avoid any ambiguity here.

10 MR PENNICOTT: Yes.

11 CHAIRMAN: Leightons, would you wish him to be called?

12 MR PENNICOTT: It may be that other people need a bit of
13 time to think about it, in which event I understand
14 that.

15 CHAIRMAN: But at this moment in time, is there anybody who
16 feels that they definitely would like to --

17 MR SHIEH: Not for us. At the moment, not for us.

18 CHAIRMAN: Thank you very much. We will work on the basis,
19 then, that he will not be called, but should anybody,
20 any party, on reflection, wish to call him, then
21 obviously arrangements will be made.

22 MR PENNICOTT: Yes, sir. Thank you very much.

23 MR CONNOR: Thank you very much, sir. I very much
24 appreciate Mr Pennicott raising that matter.

25 Mr Chan is back from holiday. He is ready to give
26 evidence if that is required. It may be something that,

1 if convenient, we might revisit tomorrow so that we
2 might let him know one way or the other. But, as
3 matters stand, I will not require his attendance at
4 10 am tomorrow morning.

5 CHAIRMAN: No, that's correct.

6 MR PENNICOTT: That's fine.

7 CHAIRMAN: Thank you.

8 MR PENNICOTT: In which event, sir, if I'm reading the
9 timetable correctly, the next witness will in fact with
10 Mr Kevin Harman from Leightons, and then we will after
11 that return to the government witnesses.

12 CHAIRMAN: Good. Thank you very much indeed. We have
13 finished not too bad, actually.

14 MR PENNICOTT: Better than I anticipated.

15 CHAIRMAN: Yes. Excellent. Thank you very much indeed.
16 Tomorrow morning, 10 am. Thank you.

17 MR PENNICOTT: Thank you.

18 (5.48 pm)

19 (The hearing adjourned until 10.00 am the following day)

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