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<p>1 Friday, 4 October 2019 2 (10.04 am) 3 MR PENNICOTT: Good morning, sir, good morning, 4 Prof Hansford. 5 As you're aware, today and certain days next week 6 have been set aside for project management expert 7 evidence, and we will be hearing in due course from 8 Mr Huyghe, the MTR's expert, Mr Wall, Leighton's expert, 9 and Mr Rowsell, the Commission's expert. 10 Before we get to all of that, we have in the witness 11 box, as you will recall, Mr Cowley, Leighton's witness. 12 Good morning, Mr Cowley. 13 WITNESS: Good morning. 14 MR PENNICOTT: Thank you very much for coming along to give 15 evidence to the Commission. I will hand over to 16 Mr Chang who is going to introduce Mr Cowley's evidence. 17 CHAIRMAN: I can see Mr Clayton in a very elevated position. 18 MR PENNICOTT: He is sat in the circle. Apparently he's the 19 only one who can afford to sit in the circle! 20 CHAIRMAN: But I can't read -- 21 MR CLAYTON: It's my solicitor, Mr Chin. 22 MR PENNICOTT: It's Mr Chin, sir. 23 CHAIRMAN: It's just that I like to be aware of who is 24 sitting in the arena, so to speak. 25 Thank you very much.</p>	<p>1 a few questions for you but I anticipate it won't last 2 too long. 3 You describe yourself as the general manager of 4 safety, health, environment, quality and sustainability 5 at Leightons. Is there actually a department within 6 Leightons with that title or heading? 7 A. Okay, so there are several functional departments which 8 make up that heading. So there is a safety department 9 and there is a quality and environmental department. 10 Q. Right. Do you have a team of people working with you? 11 A. Yes, I do. I have a team in Hong Kong and there are 12 smaller regional teams in India, Southeast Asia. 13 Q. What is the size of your team in Hong Kong? 14 A. In the safety team, I have six people that work directly 15 for me. In the quality team, I currently head up a task 16 force of 13. They are temporary staff. And I have 17 an additional four full-time staff in the quality space. 18 They also manage environment as well. 19 Q. You mention the task force a little later in your 20 witness statement. 21 A. Yes. 22 Q. I will come to that in a moment, if I may. 23 I imagine your team, your safety team, and the 24 quality and assurance team, they are not 25 contract-specific; they deal with all the projects and</p>
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<p>1 MR CHANG: Chairman and Professor, we have Mr Dean Cowley 2 MR DEAN COWLEY (affirmed) 3 Examination-in-chief by MR CHANG 4 Q. Mr Cowley, before you will be a document called "Witness 5 statement of Dean Cowley". Do you have that document 6 before you? 7 A. I do, yes. 8 Q. Can you turn to the last page of the document. It's 9 bundle CC11/7293. There's a signature. Can you confirm 10 that to be your signature? 11 A. Yes, it is. 12 Q. Do you confirm the contents of this witness statement to 13 be true and accurate? 14 A. Yes, I do. 15 Q. Do you wish the Commission to accept the contents of 16 this statement as part of your evidence? 17 A. Yes, I do. 18 MR CHANG: What's going to happen next is this. Lawyers 19 around the room may have questions for you, the 20 Commission may also have questions for you, and if 21 necessary I will have the last say in re-examination. 22 So please remain seated. The gentleman before me, 23 Mr Ian Pennicott, will start first. 24 Examination by MR PENNICOTT 25 MR PENNICOTT: Good morning again, Mr Cowley. I do have</p>	<p>1 contracts that Leighton has on at any given time. Is 2 that right? 3 A. Yes, they work at the corporate level, so they are 4 business-specific, not contract-specific. 5 Q. And how do you interact or communicate with people 6 responsible for the individual projects? 7 A. Me personally or my team? 8 Q. Your team. 9 A. So in the safety space I have two senior safety managers 10 who obviously report directly to me. Primarily, they 11 are the people who interact mostly with the projects. 12 And the same in the quality space: I have a group 13 manager for quality, and it's his responsibility to 14 liaise with the projects. 15 Q. All right. So, for each project, is there someone 16 that's identified and deputed to be, as it were, the 17 liaison officer with that particular project? 18 A. Well, typically, because you are talking about 19 a function, ie the quality function, the group quality 20 manager, his primary point of contact would be the 21 project quality manager. 22 Q. Right. Understood. 23 Could I ask you please to be shown on the screen 24 CC2/526. That's CC file 2, page 526. If we could 25 please go to the top -- right, pause there, thank you</p>

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<p>1 very much -- Mr Cowley, you will see you are listed 2 there, towards the top, as "Leighton head office", 3 I imagine that means -- 4 A. Yes. 5 Q. -- "General manager -- safety. Dean Cowley." 6 A. Correct. 7 Q. Head of quality is somebody called Chris Telford? 8 A. Correct. 9 Q. And I think that, if we pick up the date, was the 10 position as at 31 May 2017. Can we just see on the top 11 left-hand corner whether that's -- yes. So that's 12 31 May 2017. 13 Then if we could go, please, to page 535 of the same 14 bundle. Again, I think this is slightly later, this is 15 13 February 2018 -- I'm not sure where I found that 16 before but never mind. Mr Cowley, assuming that that's 17 February 2018, as I understand it, that essentially 18 remains the position up to date; is that right? 19 A. Yes, I guess so -- 20 Q. For you personally? 21 A. Yes. I am the general manager of SHEQ but my primary 22 focus, if you like, is safety. The gentleman underneath 23 me that you can see there is the head of quality who 24 works in the corporate team that reports directly to me. 25 Q. All right. But the basic structure has not changed?</p>	<p>1 one of the outcomes -- sorry, paragraph 3, let's start 2 there. You say that Leighton established, as part of 3 this process, a quality task force to review corporate 4 management systems, and so forth. Is that quality task 5 force made up entirely of Leighton personnel, or have 6 you seconded in some external help from other, outside, 7 independent consultants? 8 A. The people doing the day-to-day work are full-time 9 Leighton staff, but we did second in an independent 10 expert to review some of the work that we were doing, to 11 validate it. 12 Q. Right. What sort of discipline was that expert? 13 A. He had a quality background. 14 Q. A quality background? 15 A. Yes. 16 Q. Okay. Is he there on a sort of permanent basis, 17 throughout -- or has been there on a permanent basis, as 18 this QMF has been developed and presumably implemented? 19 A. No, he's not been there on a permanent basis, but he's 20 been consulted with along the journey, if you like. So 21 various stages when work was prepared, we would check 22 with him, for him to review and validate. 23 Q. So the whole QMF exercise is being validated by 24 an external, independent consultant? 25 A. It has been, yes.</p>
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<p>1 A. Correct. 2 Q. All right. 3 In paragraphs 3 to 7 of your witness statement, 4 which is bundle C11/7289, you explain what is described 5 as the quality management framework, QMF. 6 A. Yes. 7 Q. You say at paragraph 7, or set out at paragraph 7, the 8 six core elements which make up the QMF. 9 A. Yes. 10 Q. You tell us that the QMF has been under development 11 since April 2018. What prompted Leighton to start 12 developing this QMF? 13 A. Well, obviously when a lot of the issues from 1112 14 started to come to light, we were very interested and 15 obviously we reacted appropriately. 16 Q. Right. I wondered whether that was the position. My 17 next question was: did you develop this QMF as 18 a consequence of the matters that that are being 19 investigated in this enquiry? 20 A. Not entirely as a consequence of the matters 21 investigated in this Inquiry, no. 22 Q. But in part? 23 A. In part, yes. 24 Q. Right. In paragraph 4 of your witness statement, and 25 a point you touched on a short while ago, you say that</p>	<p>1 Q. All right. 2 In paragraph 6 on this particular topic, Mr Cowley, 3 you say: 4 "A key goal of the QMF is to develop systems and 5 processes which have a 'end-user focus' ..." 6 Can you explain in a little more detail what you 7 mean by that, "end user focus"? 8 A. I actually took this term from many of the initiatives 9 I have launched in the business with safety. It's about 10 developing tools and processes which actually become 11 less of a burden to frontline staff, ie frontline 12 engineers and frontline supervisors. It's about 13 developing tools and processes that enable them to do 14 their jobs more efficiently and more effectively. 15 Q. So, for "end users", we can read "frontline staff" and 16 "frontline supervisors"? 17 A. Yes, when I'm talking about end users, that's who I'm 18 talking about, yes. 19 Q. Thanks very much. 20 Could I then just ask you a few questions about 21 tracker tools, which you refer to in paragraph 9 of your 22 witness statement at 7290. Here you say: 23 "Central to this QMS is the development of 'tracker 24 tools', which are designed specifically to monitor the 25 status of all critical quality verification records that</p>

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<p>1 are required for the close-out of each element of 2 construction. Tracker tools are designed to ensure that 3 the critical records associated with inspections and 4 tests are compiled and maintained throughout the entire 5 duration of the works and will assist in the completion 6 and handover of fully compliant and defect-free 7 projects." 8 Mr Cowley, as you will no doubt be aware, one of the 9 matters that has been the subject of some thorough 10 investigation in the second part of the Inquiry is the 11 absence of certain RISC forms, R-I-S-C forms. Can you 12 first of all answer this: will the tracker tools system 13 that you describe there address problems with -- will 14 address the problem of the absence of RISC forms? 15 A. Okay. My answer -- I think I'll have to refer you back 16 to point 7 in my statement, if I may. 17 Q. Yes. 18 A. So we are talking about 7(a) specifically, the quality 19 management system. 20 Q. Yes. 21 A. So the tracker tool is one element of the quality 22 management system that has been improved. 23 The answer to your question in all honesty is 24 probably not, because you have to take a holistic view 25 to the overall management of quality. When you combine</p>	<p>1 Q. From their PIMS materials. 2 A. Yes. 3 Q. And then was a requirement for Leighton -- 4 A. Yes. 5 Q. -- carried on down the line, as it were. 6 So the new system, the digital system, let's call it 7 that, that's being introduced, presumably in future 8 contracts the digitalisation is going to have to be 9 discussed and agreed with MTR or any other employer in 10 the future; is that right? 11 A. Naturally, and that's probably one of the biggest 12 challenges, at an industry level. 13 Q. Right, because it's not only going to require you, 14 Leighton, to get away from the paper -- 15 A. Correct. 16 Q. -- but it's going to require your employers -- 17 A. Yes. 18 Q. -- to think in the same way? 19 A. But in theory, if a client had a specific form that they 20 wanted us to complete, we would be able to digitise that 21 form. That's how we are developing the software. 22 Q. I see. All right. 23 One of the other issues that has been investigated 24 in the second part of the Inquiry is interface meetings. 25 Do you have some knowledge about all of that topic, in</p>
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<p>1 points (a) and (b) under 7, then my answer would be yes. 2 Q. Right. I see, yes. So quality management 3 system/digital tools platform, taken together -- 4 A. Correct. 5 Q. -- you understand or you believe will address the sort 6 of problems that have been encountered with the absence 7 of RISC forms? 8 A. Correct. 9 Q. Can you explain how that is? How is the system going to 10 ensure that there isn't an absence of RISC forms? 11 A. Okay. So the issue, as I understand it, is the 12 capturing of required data and the transparency in the 13 interrogation of that captured data. So the digital 14 tools platform, one of the aspects of the digital tools 15 platform that we are developing is an app-based 16 inspection tool, which can be a RISC inspection. That 17 information can be captured in realtime data at the 18 frontline through your telephone and uploaded 19 automatically onto a database, ie a tracker tool. 20 So the process becomes one that's moved away from 21 paper to a digital platform. 22 Q. Okay. We know that the whole idea of RISC forms, in 23 this particular contract, 1112, that we are concerned 24 with, actually emanated from MTR. 25 A. Correct, yes.</p>	<p>1 a general sense, not -- 2 A. I have read one of the expert reports on it so I'm aware 3 of the issues surrounding the interface meeting, yes. 4 Q. And essentially what happened was that there were 5 interface meetings between Leighton and Gammon, the 6 next-door contractor, as it were, at which MTR was also 7 present, and it appears that there was a breakdown of 8 communication between the individuals who attended those 9 meetings on behalf of Leighton and the site staff, site 10 engineers and so forth, who were to order the materials 11 that were required at the interface. 12 Will the matters that we've been discussing -- the 13 quality management system/the digital tools platform -- 14 will that assist in addressing that sort of problem, 15 that communication problem? 16 A. I'm not entirely sure that we've actually understood the 17 extent of that communication problem that you allude to. 18 As I understand it, the project had an interface 19 management plan, they were having interface management 20 meetings. I'm not entirely sure why the communication 21 that you refer to has broken down. 22 Q. Right. It's pretty clear that it did break down, 23 Mr Cowley, because it seems pretty clear that, for 24 example, Leightons were aware, or everybody who was at 25 those meetings were aware, including the Leightons</p>

<p style="text-align: right;">Page 13</p> <p>1 personnel, that Gammon were using a different type of 2 coupler on their side of the joints, stitch joints, and 3 what was supposed to have happened was somebody who was 4 perhaps a question mark was supposed to investigate the 5 compatibility or investigate the issue as to whether 6 there was a compatibility problem, but that never 7 happened, and also didn't pass on the information to the 8 site staff. 9 If that's right as a series of facts, don't you 10 think that needs to be looked at and investigated and 11 steps taken to address that problem? 12 A. If it's right as a series of facts, yes, it would be. 13 Q. Okay. But you are not personally aware that any of 14 these measures that you talk about in your statement are 15 designed to address that particular problem? 16 A. I haven't -- as I say, myself personally, I haven't 17 understood the issue of interface management, and it's 18 not something that's come up when we've looked at the 19 overall enhancements that we're making to the system. 20 Q. All right. Can you just give us an update, Mr Cowley, 21 as to where you are with progressing and completing the 22 exercise on the digitalisation and its development and 23 its implementation? Where have you got to? 24 A. Perhaps I again draw your attention to item 7. So in 25 box (a), the enhancements that we have made to the</p>	<p style="text-align: right;">Page 15</p> <p>1 metrics, ie the things that we measure both at a 2 project and a business level, and we've put in place 3 a new quality governance framework, both of those are in 4 place, and obviously, with the last one, quality culture 5 and leadership, this is part of a journey we will be on 6 for obviously the coming years, building the quality 7 culture within the business. 8 COMMISSIONER HANSFORD: Sorry, Mr Cowley, on your point (e), 9 quality governance, can you just explain what actually 10 you have done? 11 A. We've put several new requirements in place. Perhaps 12 I'll start from the top. We've now established 13 a quality management committee which consists of all 14 project directors, operations managers, the business 15 general manager and myself, as well as the group quality 16 manager. We now meet on a monthly basis to review the 17 quality performance of the business, talk about new 18 initiatives and basically how we're tracking. 19 At the project level we have what we call project 20 SATQ review meetings on every single project every two 21 months. Those project SATQ meetings are attended by 22 myself, the business general manager, the operations 23 manager and the project director. And what we're 24 actually doing there is really looking in more detail at 25 the specific performance of the project.</p>
<p style="text-align: right;">Page 14</p> <p>1 quality management system on paper, if you like, have 2 all been completed and launched across all of our 3 projects. As I said earlier, we had that independently 4 verified by an independent expert, and we've also now 5 had three independent audits by the Hong Kong Quality 6 Assurance Agency to verify that those systems are in 7 place and working. 8 In addition, project 1112 has just gone through its 9 re-certification audit for ISO 9001 with the new system 10 and they've passed the audit. 11 With regard to the remaining six items there, the 12 digital tools platform is the biggest piece we're 13 working on. We've engaged an independent contractor to 14 come in and do the work for us, we're on target for 15 a November launch of the platform. The platform 16 actually consists of nine separate applications. We 17 already had four of those applications built and we are 18 trialling them on several of our projects. So it's 19 a gradual roll-out. 20 With regards to the quality best practices, that's 21 something which will be an ongoing evolution. We will 22 always be developing quality best practices and we will 23 always be adding to that library of best practices. 24 For the quality metrics and the quality governance 25 piece, we've now put in place a new suite of quality</p>	<p style="text-align: right;">Page 16</p> <p>1 CHAIRMAN: Can I ask, these various improvements to the 2 systems, they will, as a matter of practice, incorporate 3 better management of interface issues? 4 A. Ultimately, yes, I would imagine -- well, I would hope 5 they would, yes. 6 COMMISSIONER HANSFORD: But they are not designed 7 specifically for interface issues? That's just, if you 8 like, a by-product of it, is it? 9 A. I think understanding what's happened in the interface 10 space is probably something that I personally haven't 11 looked at and I haven't considered. I mean, from my 12 perspective and my experience working on a project, if 13 you have an interface meeting, it's, you know, Good 14 Project Management 101 that you would record the minutes 15 of that meeting, and the minutes of that meeting would 16 be disseminated. 17 So I don't really understand what's happened on 18 1112. I wasn't working on the project so I couldn't 19 speculate. 20 COMMISSIONER HANSFORD: I think the issue, Mr Cowley, might 21 be to whom it's disseminated. 22 A. Perhaps yes. 23 COMMISSIONER HANSFORD: Okay. 24 MR PENNICOTT: Sir, I have no further questions, unless you 25 have -- I don't know if anybody else has any questions.</p>

Page 17	1 COMMISSIONER HANSFORD: Can I just ask one at this point. 2 We heard at a much earlier stage of this Inquiry from 3 Mr Kevin Harman -- 4 A. Mm-hmm. 5 COMMISSIONER HANSFORD: -- who I understand retired in 6 January 2018. 7 A. He did, correct, yes. 8 COMMISSIONER HANSFORD: What's the relationship between 9 Kevin Harman and your role? 10 A. So Kevin was the project quality manager, and Kevin 11 obviously, at the project level, would have reported 12 directly to the project director at that time, who 13 I believe was Malcolm Plummer. 14 COMMISSIONER HANSFORD: Yes. 15 A. And then functionally, at the corporate level, Kevin 16 would have reported to the group quality manager, 17 Mr Chris Telford, as you've seen on the organisation 18 chart. 19 COMMISSIONER HANSFORD: And then ultimately to you? 20 A. No, he would have no reporting line to me. He would 21 report to Chris Telford. 22 COMMISSIONER HANSFORD: But does Chris Telford not report to 23 you? 24 A. Chris Telford reports to me, correct. 25 COMMISSIONER HANSFORD: Sorry, that's what I meant,
Page 19	1 A. Sorry, can you repeat your question? 2 Q. Yes. The audit was carried out. You've referred to the 3 fact that the lack of RISC forms was looked at. How can 4 it be the case that the audit was passed, 5 notwithstanding the lack of RISC forms? Is that 6 something you -- 7 A. Sorry, are you talking about an audit before the issues 8 came to light or an audit subsequent? 9 Q. Subsequent. 10 A. Then I don't understand your question. 11 Q. Was there no audit subsequent to the RISC form? 12 A. There have been several audits. 13 Q. Yes, quite, and what I would like to know is: the audit 14 that occurred after the RISC form problem came to 15 light -- are you still with me? 16 A. Yes. 17 Q. -- how did the audit get passed, notwithstanding the 18 lack of RISC forms? 19 A. For clarification, that would -- or perhaps the timing 20 of the audit you need to understand. The timing of the 21 audit that I'm referring to is following all of our 22 system improvements. We've then asked HKQAA to come 23 back and re-audit us following the implementation of our 24 improvements. 25 MR BOULDING: I see. Thank you, Mr Cowley.
Page 18	1 "ultimately". 2 A. Sorry, Chris, ultimately, yes. 3 COMMISSIONER HANSFORD: Thank you. 4 CHAIRMAN: Who is ...? All right, let me point fingers 5 then, if I may. Mr Boulding, are you -- 6 MR BOULDING: Yes. I've just got one question arising out 7 of Mr Cowley's evidence, if I might put it now. 8 Cross-examination by MR BOULDING 9 Q. Mr Cowley, you've referred to passing an audit for 10 ISO 9001; correct? 11 A. Yes. 12 Q. Can I ask you this: did the ISO auditors look at the 13 absence of RISC forms as part of their audit? 14 A. You mean the subsequent audit? 15 Q. Yes, the audit you've referred to. 16 A. Absolutely. They are very mindful of a lot of the 17 issues that have come out of this Commission. Obviously 18 it's been well publicised. And they told us 19 specifically, when they came in to do the audit, that 20 they had a very watchful eye specifically on the 21 management of rebar, the management of couplers, all of 22 those issues, absolutely. 23 Q. So how, if you know, did they take into account the lack 24 of RISC forms in that particular audit? How did they 25 take that into account; do you know?
Page 20	1 COMMISSIONER HANSFORD: Just following on from Mr Boulding's 2 question then: so was that audit related -- was it 3 focused corporately rather than on individual projects? 4 A. Okay, so there were several audits, so the first two 5 audits that we had conducted by HKQAA were 6 re-certification audits for our entire business, so that 7 means that they looked at our corporate business and all 8 of our other projects, excluding 1112, they actually 9 ring-fenced 1112, and obviously they had a very watchful 10 eye on a lot of the issues that were coming to light out 11 of the Commission. So that was a re-certification 12 audit. We passed those audits. We had no similar 13 issues on any of our other projects. 14 Since implementing our new system, they've now gone 15 back and re-audited 1112, auditing the new system, and 16 re-certified us to ISO 9001 on 1112. 17 So what we essentially had was an audit for our 18 business in all of our other projects but no 19 certification for 1112. So we have now just 20 re-certified 1112. 21 COMMISSIONER HANSFORD: Thank you. 22 A. Sorry, a long answer, I know. 23 COMMISSIONER HANSFORD: That's helpful. 24 MR BOULDING: Sir, can I just ask a question arising out of 25 that?

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1 Why was the 1111 and 1112 projects ring-fenced?
 2 What was the purpose of doing that?
 3 A. I spoke to the director of HKQAA. My belief is they had
 4 no real reason, other than quoting the issues that had
 5 been mentioned in the press and the Commission of
 6 Inquiry. I think they were very nervous about having
 7 that project certified. They had no real reason for
 8 actually wanting to ring-fence the project.
 9 Q. But in the circumstances where obviously issues had
 10 arisen out of the project, wouldn't the obvious thing
 11 for Leightons to have done been to include that in the
 12 audit?
 13 A. They weren't prepare to audit us. They wanted to remove
 14 1112 from the scope of the audit.
 15 Q. Did you object to that? Did you say, "Look, it's
 16 important that you do this"?
 17 A. Of course we did, and they were insistent. That's why
 18 they came back and did a re-certification audit of our
 19 entire business, with the exception of 1112.
 20 So we've been on a long journey with HKQAA. It's
 21 only recently that we've gone back and spoken to them
 22 and said, "We've made system improvements, we've made
 23 changes; will you come back and re-audit us?", and they
 24 agreed to come back and re-audit, which they've just
 25 done.

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1 MR BOULDING: All right.
 2 CHAIRMAN: So it would be correct to say, then, that at the
 3 time, when everything was contemporary in the sense that
 4 the Commission of Inquiry was ongoing, there were
 5 matters related to 1111 and 1112, the quality
 6 association said, "Look, this is subject to the
 7 Commission's Inquiry at the moment, it's an ongoing
 8 issue of investigation, we don't want to be involved at
 9 the moment, and then come out, for example, with a pass
 10 mark which may in fact contradict with what the
 11 Commission comes out with", et cetera, et cetera. But
 12 since then, they have been able to -- well, they have
 13 agreed to come along and they have in fact given you
 14 a pass or a certification?
 15 A. Correct.
 16 MR BOULDING: But anyway, that pass, as I think you've made
 17 clear, excludes any consideration of 1111 and 1112?
 18 A. No, no, no. The recent pass is just solely for 1112,
 19 our project.
 20 MR BOULDING: Okay.
 21 COMMISSIONER HANSFORD: Just to close that off so that I can
 22 understand it: for what period of time was 1112 not --
 23 for what period of time did it not have a valid audit
 24 from your auditors?
 25 A. So this happened this year. I would guess probably two

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1 months.
 2 COMMISSIONER HANSFORD: For a two-month period there was
 3 no --
 4 A. Yes.
 5 COMMISSIONER HANSFORD: But prior to that --
 6 A. Prior to that, it was certified.
 7 COMMISSIONER HANSFORD: So there was a two-month or so
 8 period when it was not being certified, and that was
 9 during this year?
 10 A. Correct. As I said, what happened, they came in, they
 11 re-certified our business with the exception of 1112,
 12 because they were obviously very mindful of
 13 understanding the issues that were coming out of this
 14 Commission. I guess they wanted to satisfy themselves
 15 that we didn't have existing issues on other projects.
 16 Those audits went smoothly, we were re certified. We
 17 were left for about a two-month period with no
 18 certificate on 1112. We contacted them recently, we
 19 said, "Will you come back and audit us?", they agreed to
 20 come back and audit us; we passed that audit. In fact
 21 that audit happened two weeks ago.
 22 COMMISSIONER HANSFORD: Thank you.
 23 CHAIRMAN: Mr Khaw?
 24 MR KHAW: No questions from the government.
 25 CHAIRMAN: Mr Clayton?

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1 MR CLAYTON: No questions.
 2 MR CHANG: No re-examination.
 3 CHAIRMAN: No re-examination.
 4 Mr Cowley, thank you very much. Apologies again for
 5 messing you around on the last occasion.
 6 WITNESS: That's all right.
 7 CHAIRMAN: Thank you very much for your attendance today.
 8 WITNESS: Thank you.
 9 (The witness was released)
 10 MR BOULDING: Good morning again, Chairman. Good morning
 11 again, Prof Hansford.
 12 It now requires me to call my expert witness,
 13 Mr Huyghe, who you've heard from before. If he would
 14 like to take the stand, that's what I propose to do.
 15 CHAIRMAN: Thank you.
 16 MR BOULDING: Thank you.
 17 Good morning, Mr Huyghe.
 18 Would you like him to take his oath or affirmation
 19 again, or do you regard him as still being on his oath
 20 from last time?
 21 CHAIRMAN: Sorry, I was just reading something there.
 22 MR BOULDING: I just wondered whether --
 23 CHAIRMAN: I think it's sufficient to remind Mr Huyghe.
 24 He's an expert witness. I'm sure he has a long memory.
 25 WITNESS: Yes.

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<p>1 CHAIRMAN: You are reminded, Mr Huyghe, that you took 2 an affirmation or an oath and you are still bound by 3 that in returning to give evidence on the same subject 4 matter. 5 WITNESS: Yes. I fully understand. 6 CHAIRMAN: Thank you. 7 MR STEVEN ALBERT HUYGHE (on former oath) 8 Examination-in-chief by MR BOULDING 9 MR BOULDING: Thank you very much, Mr Huyghe. 10 It's correct, is it not, that you produced two 11 reports for the assistance of the learned Commissioners 12 in this Inquiry? 13 A. Yes. 14 Q. I wonder if we can just go to those. If you could go to 15 ER6, page 1, do we there see the first page of your 16 report dated 21 September 2019? 17 A. Yes. 18 Q. If we go on to page 39, I hope we see your signature 19 above that date, 21 September 2019; correct? 20 A. Yes. 21 Q. I know matters have moved on in the joint statement 22 which I'm coming to in a few moments' time, but insofar 23 as that report sets out factual matters, are they 24 factual matters that you believe to be true? 25 A. Yes.</p>	<p>1 A. Yes. 2 Q. I wonder if we can just look at that. It's pretty hot 3 off the press. Bundle ER9, page 1. Is that the first 4 page? 5 A. Yes, it is. 6 Q. It's still marked "Without prejudice" but do 7 I understand that that's been agreed by all three of 8 you? 9 A. Yes. 10 Q. If we go on to page 10, we there see your signature, not 11 signed by the other experts yet. Do you know why that 12 is? 13 A. I think it's basically just because of travel plans. 14 I think that Mr Rowsell was in the process of travelling 15 back from his vacation and Mr Wall was leaving on the 16 evening that we tried to finish this up, and so that's 17 the only reasoning that I have. 18 Q. Right. But anyway, so far as you are concerned, that 19 represents an agreement between all three of you? 20 A. Yes. 21 Q. Thank you. 22 Now, with the Commissioners' leave, I understand 23 that you have a short presentation to make to us before 24 you are questioned on your evidence. Is that correct, 25 Mr Huyghe?</p>
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<p>1 Q. And insofar as the report sets out opinions, are they 2 opinions which you honestly hold? 3 A. Yes. 4 Q. Now your supplemental report, please, Mr Huyghe. Could 5 we go to bundle ER6.3 at page 1. There -- yes, I can 6 see it on the screen -- a supplemental report dated 7 30 September 2019; correct? 8 A. Correct. 9 Q. Then if we go on, please, to page 12, there we see, do 10 we not, your signature above the date of 30 September 11 2019? 12 A. Yes. 13 Q. Again, insofar as that report sets out facts, are they 14 facts which you honestly believe to be true? 15 A. Yes. 16 Q. And insofar as it sets out opinions, are they opinions 17 you honestly hold? 18 A. Yes, they are. 19 Q. Is that the evidence you would like to put before the 20 Commission of Inquiry today? 21 A. Yes. 22 Q. As I mentioned, it is right, is it not, that you and 23 your fellow experts, Mr Steve Rowsell and Mr George 24 Wall, have managed to produce a joint statement of the 25 project management experts?</p>	<p>1 A. That is correct. 2 MR BOULDING: With your leave, sirs, he will now make that 3 presentation. 4 CHAIRMAN: Thank you. 5 MR BOULDING: Thank you, Mr Huyghe. You will be questioned 6 in due course. I think you know the way these 7 procedures work now. 8 Oral synopsis by MR HUYGHE 9 WITNESS: Yes. 10 What I'd like to do, what I've tried to do, is to 11 first start by just identifying the topics I will be 12 going over this morning. I believe counsel will find 13 these are some of the three topics that are at the 14 centre of this matter. The first three bullet points 15 pertain to that. The last bullet point is something 16 I believe that the counsel and everyone will be somewhat 17 interested in. I had received some information from 18 MTRCL regarding to their latest update on the projects 19 and the project management systems that they have been 20 working on and putting in place, and I thought it might 21 be interesting to show what is going on and to identify 22 the progress. I think that may be important to hear at 23 the end of my discussion here this morning. 24 I'm going to start with the lack of RISC forms which 25 I know is one of the key issues on this matter. I start</p>

<p style="text-align: right;">Page 29</p> <p>1 with -- and I just put this up for foundational 2 purposes -- that obviously there's various phrases and 3 clauses and paragraphs in the contract that talk about 4 the contract's requirement to provide the RISC forms. 5 I will only identify two of them, just to set the stage, 6 as obviously when I start any evaluation, I want to go 7 into the contract documents and understand the issues, 8 what's in the contracts and what's in the PIMS and the 9 PMP. So I just set a couple of phrases out to lay that 10 foundation, as I clearly understand, and I don't believe 11 there's any dispute regarding to the contractual 12 requirements, that there are brief spells before MTR and 13 Leightons were providing for the RISC form process. 14 One thing I would like to discuss is my perception, 15 the purpose for RISC forms. All major civil engineering 16 projects require that inspection records, joint 17 inspection records, are kept, on large civil projects. 18 There's a reason for that and I'm going to go into some 19 of that detail as I go through my presentation. I just 20 want to point that out. And the reason for this is that 21 they really centre around trying to prevent, mitigate 22 defective work, quality, and safety. I'm going to give 23 an example a little later on why they are important and 24 I'm going to specifically talk about safety. So I just 25 wanted to bring that up at this point.</p>	<p style="text-align: right;">Page 31</p> <p>1 contractual requirements. 2 I also thought it might be helpful to compare that 3 to what actually occurred, and again it's graphically 4 depicted. Basically, at step 2 of the yellow box, 5 Leighton didn't sign any RISC forms. They basically 6 informed MTRCL that they are ready for an inspection, 7 oftentimes by phone and WhatsApp. They then proceeded 8 to the field and they actually performed the joint 9 inspection, and one thing on this graphic that I would 10 like to point out at the end, they didn't sign off; they 11 just performed the joint inspection. 12 So all of the boxes or arrows that have been 13 deadened out by the grey were steps that were not taken 14 in the process, and I thought that might just be helpful 15 to point that out. 16 So then I thought, to kind of summarise, I've just 17 taken the statements and generalised the ones in my 18 reports regarding to the RISC forms. Leighton did not 19 provide all the RISC forms. MTRCL continually requested 20 the submission but to no avail. MTRCL did not waive the 21 RISC form procedure. And then I pointed out one 22 condition in the contract that I think may be 23 interesting to point out in the Conditions of Contract 24 clause 2.9: 25 "No act or omission on the part of the Engineer</p>
<p style="text-align: right;">Page 30</p> <p>1 Obviously this helps to eliminate the rework of 2 concrete placement, the cost of correcting defective 3 work, and to help, obviously, move the project forward. 4 So that's my interpretation and my experience as 5 a contractor for over two decades, and I've been 6 evaluating projects now for many years, as to what the 7 purpose of the RISC forms is. 8 I thought it may be helpful to graphically depict 9 the actual process that the RISC forms were supposed to 10 take at the outset of the project. So I've prepared 11 a graphic that hopefully will help explain and bring 12 some clarity to it. The issues in yellow are the 13 Leighton steps that needed to be taken regarding to the 14 preparation of the RISC forms and the execution of the 15 RISC forms. I'm not going to -- you can read them, they 16 are on the screen, but it's really a flow of information 17 regarding to RISC forms and the registering of the RISC 18 forms and then passing to MTRCL, which is now shown in 19 red. So the baton, if you will, gets passed to MTR, and 20 then they go through the process of registering the RISC 21 forms, distributing the RISC forms, and get them to 22 where obviously they can be sent to the field for the 23 inspectors to review, do the joint inspections and sign 24 off. 25 So that's basically, if you will, the plan of the</p>	<p style="text-align: right;">Page 32</p> <p>1 shall in any way relieve the Contractor from any 2 liability, responsibility, obligations, or duty under 3 the Contract." 4 I'm going to refer to that again in a little bit but 5 I thought that was important to point that out. 6 At this juncture, I thought maybe I would just add 7 this yellow note, and I'm going to be explaining 8 a little bit further in my analyses why I believe this. 9 I don't accept the concept that Leighton staff were too 10 busy. Leightons knew the RISC form procedure before 11 they signed the contract. I'm aware from my 12 investigation of the Original Inquiry that for the EWL 13 slab they did provide the RISC forms. There was no 14 issue there on other parts of the project. I believe, 15 as a general contractor myself, that they should have 16 made it a priority and they should have put the 17 resources to make sure that that condition of the 18 contract was fulfilled, and I do not accept the fact 19 that because "MTRCL didn't make me do it", that that 20 releases them from their responsibility as a general 21 contractor. I just don't believe that, and I'll show 22 you why in a second. 23 CHAIRMAN: Could I put it this way perhaps, that it may be 24 said that it wasn't so much a question that Leighton was 25 asked or that the MTRC did not demand or that there was</p>

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1 a request to be excused; it was more a convenience,
2 clearly a mutual convenience, that slowly became
3 a practice. In other words, that Leighton said, by
4 telephone or by WhatsApp, "Can you come and do
5 an inspection? We'll give you the documentation later,
6 the RISC form", and MTRCL said, "Okay. Maybe on this
7 occasion we'll do it", and that kind of mutually
8 convenient short-cut slowly but surely cemented itself
9 into a situation where people, to a very large extent,
10 initially tried to catch up on their RISC forms, over
11 long weekends or whatever -- no, they didn't, not over
12 long weekends; they just tried to catch up, and then
13 eventually didn't even bother to do that.
14 So there was a kind of the two sides both agreeing
15 it was mutually convenient?
16 A. I understand what you are saying, and I can see your
17 thoughts. Let me --
18 CHAIRMAN: I'm not suggesting that's right. I'm just
19 saying --
20 A. Let me just offer an opinion on that.
21 CHAIRMAN: Yes.
22 A. I believe, from what I reviewed, that MTRCL believed
23 that Leighton was going to catch up and prepare the RISC
24 forms, and I think that, like you say, because of that
25 belief, they continued on, and because both sides wanted

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1 to get this project done, both sides wanted to move this
2 project forward, so I think that generally the caveat of
3 what you've mentioned was that I think MTRCL believed
4 that Leighton was going to catch up, and that's why they
5 continued to do what they did. And I'll be getting into
6 this a little further on in my --
7 COMMISSIONER HANSFORD: Is there another point, Mr Huyghe --
8 and maybe you are going to come to it, in which case
9 just tell me it comes later -- was there also a desire
10 for MTR to be seen to be cooperating with Leighton that
11 was behind the creation of this practice?
12 A. Yes, I think so. I think that, you know, being
13 a general contractor myself for over two decades, you
14 know, what you try to do with an owner on a job site
15 is to be cooperative and work together.
16 COMMISSIONER HANSFORD: Sure.
17 A. Now, having said that, there are contractual obligations
18 that must be fulfilled.
19 COMMISSIONER HANSFORD: Indeed.
20 A. -- by me as a contractor, and I will be identifying
21 those in just a moment.
22 COMMISSIONER HANSFORD: That's good. Thank you.
23 CHAIRMAN: Perhaps the other thing that concerns us,
24 certainly concerned myself hearing this evidence, is
25 that the question may be asked: is not the RISC form

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1 essentially a contemporary form and is not merely a
2 record, so it's not merely a case of form-filling three
3 months later, it's a case of it being a request,
4 a contemporary request that then contains information
5 related to an actual investigation and inspection?
6 A. That's correct, and I'm also going to address that in
7 just a second.
8 CHAIRMAN: Thank you. When I was hearing the evidence --
9 this is not to say I have sympathy for the failure
10 necessarily at all -- but there was a battle in the Zulu
11 wars, the Battle of Isandlwana, and one of the reasons
12 later, it was found, for the defeat of the British by
13 the Zulu impis was the fact that the quartermaster's
14 staff were demanding that -- as the platoons came
15 forward to get more ammunition to prevent themselves
16 being overrun and killed, the quartermaster's staff was
17 demanding that the forms be filled out in triplicate,
18 and people were filling out the forms and getting
19 speared in the back as they did so. That perhaps was
20 bureaucracy gone mad, and I'm not suggesting that should
21 be done --
22 A. That's a good --
23 CHAIRMAN: There's always that issue, is there not --
24 A. Yes.
25 CHAIRMAN: -- of trying to get a comfortable middle ground,

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1 which perhaps digitalisation now provides, without the
2 effort, if you can put it that way, you just have to
3 press a couple of buttons and it's all happening.
4 A. And that is what's going on. The fact that's -- when I
5 get to the end of this presentation I'll show you some
6 of the things that are actually being employed right now
7 that help do that.
8 COMMISSIONER HANSFORD: You might like to spell out the name
9 of the battle for the transcript.
10 CHAIRMAN: My Zulu is not as good as it should be, but I'll
11 get it to the shorthand writer later.
12 A. To continue on, Leighton and MTR did continue to conduct
13 joint inspections, based on, like you just mentioned,
14 sir, a spirit of cooperation.
15 COMMISSIONER HANSFORD: Right.
16 A. Leighton kept stating that they would catch up on the
17 missing RISC forms. There was no contractually accepted
18 alternative for the RISC form procedure to take place,
19 to put in its place, and Leighton should have suggested
20 a new procedure if they weren't going to provide the
21 RISC forms, and, if not, MTRCL should have insisted. We
22 are going to be talking about that as well.
23 So to summarise -- I'm not going to walk through all
24 these; these are basically what I just stated -- these
25 are excerpts that I've just tried to summarise out of my

Page 37	1 reports that basically talk about the issues, and you 2 can read those. Those are the ones I basically -- 3 COMMISSIONER HANSFORD: Can I just pick up on the fourth 4 one: 5 "Leighton's QEM did not ensure ..." 6 Can you just elaborate on that? 7 A. Yes. The QEM process has a -- they're supposed to take 8 the RISC forms and put them into their system, register 9 into their own quality control process. 10 COMMISSIONER HANSFORD: Right. 11 A. And obviously if you don't have the RISC form you can't 12 put it into the system. 13 COMMISSIONER HANSFORD: Right. I understand. 14 A. Now, here's where I would like to spend just a moment, 15 and again I'm going to put on my contractor's hat for 16 a moment: 17 "From a contractor's perspective, the joint 18 inspection documentation for rebar/concrete placement is 19 'as important' as the physical work performed on site." 20 Now, what do I mean by that? Throughout the course 21 of construction you as contractor have your 22 superintendents and your foremen, and everybody out 23 there in the field trying to put the work in obviously 24 as specified, follow every requirement, not just for 25 rebar but for any electrical conduit, for any mechanical	Page 39	1 there were joint inspections. There were none. So, to 2 find out what happened, they decided they would go in, 3 like on this project, drill in and uncover the problem. 4 So they sent a labour down there to do it; he took 5 a jackhammer, he was going in to see -- he didn't know, 6 they just told him to expose that area. Within that 7 concrete was an electrical line that wasn't placed in 8 conduit correctly, and he unfortunately hit it and it 9 killed him. 10 Now, that contractor didn't have any joint 11 inspection. Now, contractors are not -- their coverage, 12 their liability coverage, doesn't include negligence. 13 So one of the things that I was really particularly 14 interested in, and everything I've read here doesn't 15 mention that, about the contractor's need to make sure 16 all inspections on a project that they are required to 17 have in place need be completed. 18 Now, I have done it myself, my staff never kept 19 those records up to date every day, but basically I gave 20 them a week, and this is what I referred to earlier 21 about I don't accept the fact that people are too busy. 22 Everybody in this room puts together the priorities of 23 what they are going to do each day, or I do, most people 24 do, and everybody in this room puts in that list things 25 that they like to do at the top of that list, and at the
Page 38	1 installations, any sleeves, blackouts; things of that 2 nature have to be checked, and are checked by the people 3 that are putting the work in, and you've got people on 4 your staff as a contractor to check it. 5 But on large civil projects, you also want to have 6 your joint inspection performed, for two reasons. One, 7 it gives you another set of eyes to look at that. 8 Nobody is perfect on a construction site and some people 9 may miss something, so to have the owner's set of eyes 10 look at things, you want to make sure that you've 11 provided your work in the most practical way and 12 followed all the specified requirements, so you need the 13 owner to look at that. And secondly, you need 14 a document in your hand that says that that inspection 15 has taken place, for liability purposes. 16 Let me give you a quick example as to why that is. 17 I'm aware of a project that was completed, a large civil 18 project, just like this one to a degree, where they 19 poured concrete. When they stripped the form, they saw 20 rebar at the surface of the concrete edge, and 21 honeycombing, which is the voids in the concrete. The 22 first thing they did was when they saw that and they saw 23 the honeycombing, they thought, "Is there anything 24 underlying this problem within the concrete?" So they 25 went to look for -- they weren't called RISC forms but	Page 40	1 bottom of that list are the things that they just don't 2 really care to do. And engineers don't care to do 3 record-keeping. They like to be on the site. They like 4 to be doing more exciting things. They don't like to do 5 record-keeping. And on my staff, my engineers would 6 start putting this off, and they will. It's just 7 inherent that engineers don't like to do that. But when 8 they would put that at the bottom of the list, I would 9 inform them two things. One is, "Move that to the top 10 of your list, because the last time I looked I signed 11 your cheque, and I want you to make this a priority, 12 because I need the protection", not only because, from 13 a contractor's perspective, you need to know your work 14 is installed; you will be asked to come back in the 15 future, if there's any defective work, you will be asked 16 to come back, because there's going to be an allegation 17 of cracked concrete. All kinds of things that makes 18 a contractor not sleep at night because they don't have 19 the proper form that backs it up. 20 Now, that's the contractor's perspective. The 21 owner's perspective is he just wants to follow contract 22 requirements and get them to sign the things, produce 23 them. It has nothing to do with what the contractor 24 should be thinking about, and I don't see that in the 25 things I've read. I don't see that the contractor

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<p>1 should be thinking that they need to get these things 2 done. Now, they could be done later, but you need to 3 have an evidence that both people looked at it. 4 That's why I do disagree adamantly with the fact 5 that because Leightons kept saying they were going to 6 have it done, Leightons kept saying they were going 7 to -- so MTR cooperates, and now I hear that there is 8 an allegation, "Because MTR let us do it, they didn't 9 care about it either." I don't buy that. 10 CHAIRMAN: Can I ask this. The RISC form documents, to the 11 best of my memory -- and I'm open to correction -- 12 contain provision for detail -- 13 A. Yes. 14 CHAIRMAN: -- as opposed to merely an inspection of site 15 A/B/C, all okay or all not okay, so that if there's not 16 done contemporaneously, there's always room for doubt, 17 is there not, if it's filled in three weeks later, that 18 something that was raised at the time is now covered 19 over either by forgetfulness or on purpose at a later 20 stage? 21 A. That's exactly correct. That's exactly correct. That's 22 the issue. You want to make sure that you have 23 a document -- now, like I say, I would let it slide 24 for -- my engineers were told to put anything down in 25 their site records, their diaries and then to make</p>	<p>1 Then I tried to zero in and look at the defective 2 work. These are the photos that were included in NCR095 3 to see about the couplers and the issues with the rebar 4 couplings and issues of that nature. 5 So, again, try to step back and summarise the joint 6 inspections without RISC form procedures. And there are 7 four candidates that I've read and seen in the witness 8 statements. One is the Lenton couplers issue with the 9 tapered rebar. Couplers not exposed, they didn't have 10 them exposed, so they couldn't -- and the missing 11 couplers, and incorrect coupler layout. 12 Now, another contractor phrase I'll throw in here is 13 I created -- I heard this throughout my career and 14 I called it the NMF rule, "not my fault". Everybody 15 would come to me with things that happened in the field 16 and they had to turn to my direction because that was 17 not my fault, they are dealing with things that aren't 18 my fault, so I'm going to go through this process, in 19 that thinking. Keep that in mind as I go through the 20 Lenton couplers and the tapered rebar issue. Not my 21 fault. 22 There's this example of a standard horizontal 23 diameter connection -- I just thought I'd throw some 24 examples -- people say it's a simple process, it 25 shouldn't need much education to do it, and there's just</p>
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<p>1 sure -- all joint inspections will be brought up to date 2 within a week. If there was ever a situation where they 3 in that week had a moment where they may be forgetful, 4 that they go to the foremen in the field who were there 5 before they poured the concrete and ask them. 6 CHAIRMAN: Okay. Good. Thank you. 7 A. "Ineffective site inspections". I'm just throwing up 8 these drawings; I know you've seen them. I had to kind 9 of educate myself because people were talking about 10 joint 1, joint 2, joint 3, about the stitch joints and 11 I just wanted to make sure I knew exactly the locations. 12 I did a study of more drawings than this but I looked at 13 the section cuts to make sure I could understand the 14 construction process. I looked at the photos that were 15 available for each of those. The top three on the top 16 of the screen were all joint 1. Obviously between 17 contract 1111/1112. I wanted to look at the thickness 18 of the rebar, the placement and thickness of the stitch 19 joint, and then the same thing for the stitch joints in 20 joint 1 and joint 2 down below, and then joint 3 which 21 is obviously an open cut, it has no roof, if you like. 22 I just wanted to get an understanding of the work in 23 place. 24 These aren't pictures I took; these are pictures 25 obviously that were provided to me.</p>	<p>1 an example of just a tapered joint. But when you talk 2 about education, these are -- all of these couplers I've 3 used on projects, there's all kinds of Lenton couplers, 4 and just not Lenton, Lenton is only one manufacturer, 5 all kinds of couplers can be used in our industry and 6 they have advanced over the years. 7 So I just wanted to point out that, but I want to go 8 back and I want to, on the left-hand corner, at that 9 tapered -- because when you've run into a situation 10 where you have a Lenton coupler without tapered bars, 11 you've got standard horizontal bars, what do you do? 12 That is a portable taper machine that's used on large 13 civil projects. You bring them on the project, as 14 I have done -- 15 CHAIRMAN: Sorry, this is what looks to be like a toy car in 16 the middle? 17 A. Exactly. In fact, that's an older one. There's even 18 new ones now that are smaller. 19 COMMISSIONER HANSFORD: This is a big piece of kit, isn't 20 it? 21 A. It can be -- it's about 7 or 8 feet by 6 feet, but they 22 are smaller now. But you bring them, you haul them in, 23 haul them in on a pickup truck, bring them to the site. 24 If you've got tapered bars that you need to make, you 25 get them out, set up a jig on one side, you put them in</p>

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1 and you do it.

2 This isn't like, "Okay, let's stop and send them off

3 to some place in China to get them made." This is you

4 can do it on the spot, on the site, it's done every day,

5 standard.

6 CHAIRMAN: This is common?

7 A. Common.

8 CHAIRMAN: And when I say common, it's --

9 A. It's common on projects that have a lot of tapered

10 rebar.

11 So resolution: you determine the number of bars you

12 need, you prepare the proper tapered thread. A number

13 10 bar takes about 15 minutes. Depending on how many

14 you've got, it depends on how many -- but you do not try

15 to screw in the parallel bar and leave it unconnected.

16 That's what you don't do. And you do not pour the

17 concrete unless it's fixed.

18 Couplers exposed. Resolution: labourers to chip and

19 locate. Care has to be given because when they go down

20 into that area and they chip that concrete out, you

21 can't let it fall down to the bottom of the pour,

22 because you will get your pour rejected because you got

23 it contaminated; you've got to make sure you get it out

24 of there. Then you install your rebar and then you pour

25 the concrete.

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1 COMMISSIONER HANSFORD: You see, Mr Huyghe, you had an NMF

2 rule, "not my fault". There's also the NMJ rule, "not

3 my job", and I think that applies to this slide.

4 A. I'm glad you voiced that out, because all these issues

5 on a constructing site, when the rebar fixers came up

6 with those problems, they walked up out of that hole and

7 they went to somebody with Leightons and said, "Here" --

8 or they want to their foreman and said, "Come see what

9 we're dealing with". That's what would be common for

10 all --

11 COMMISSIONER HANSFORD: If they did --

12 A. Not my fault. If they can't perform my work, so they

13 are going to say, "Not my fault?" What do you want me

14 to do with all these issues?"

15 COMMISSIONER HANSFORD: But there's another possibility --

16 I'm not saying this happened -- there's another

17 possibility where they didn't report that and they just

18 bodged it.

19 A. I don't believe that. Everybody on a construction site,

20 in my opinion, wants to do a good job. I believe that.

21 I have to believe it because I've been in construction

22 for 50 years.

23 COMMISSIONER HANSFORD: I agree with you.

24 A. They do report it. They just do not walk away and

25 say -- because if an inspector comes along and catches

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1 this and they didn't report it to their foreman, they

2 are out of work. They are fired.

3 So this is not something that -- this happens. This

4 in realtime happens, they report it, because -- and then

5 the foreman reports it for the same reason: he doesn't

6 want to have an inspector come and find out -- because

7 he's going to have to go back in to do it all over

8 again. So for cost-wise, he's not going to do it. So

9 they are going to go to the general contractor and say,

10 "What do you want to do?", and all of these resolutions

11 that I'm going through are things that have to be done

12 to make sure that the work is installed in accordance

13 with the specifications.

14 Missing couplers/coupler layout. You come in, you

15 get a labourer who's got to drill a hole, core a hole,

16 relocate that coupler, you've got to hot grout it, which

17 is not an easy thing to do, you've got to have grout

18 that will stand up to the strength of time and relocate

19 it. It takes time for that to set -- to form, and then

20 install your rebar, but you don't pour the concrete.

21 COMMISSIONER HANSFORD: We talked about epoxy --

22 A. That's what this is. Hot grout is epoxy. There's all

23 kinds of ways you can do it.

24 COMMISSIONER HANSFORD: Thank you.

25 A. So, to summarise, what I think happened on this project

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1 regarding to the stitch joints -- and the first thing is

2 common sense. The contractor is pushing to get the

3 concrete pour. The rebar fixer foreman is pushing the

4 works to get done. He's pushing his guys in the field.

5 The rebar fixer has got to come out of that hole and

6 contact his foreman about "not my fault" and he's going

7 to contact the general contractor. Then that's up to

8 the contractor to take the corrective actions to correct

9 the issues.

10 No inspections were conducted, and the concrete was

11 poured with the defective work in place, not corrected.

12 Now, another thing I'd like to add is no one --

13 COMMISSIONER HANSFORD: Sorry to interrupt you. Because

14 we've also heard that inspections may have been

15 conducted.

16 A. I heard that too but it's kind of like you went in and

17 looked and there was all kinds of defective work, and

18 I don't buy the fact that you couldn't have seen it.

19 COMMISSIONER HANSFORD: Okay.

20 A. Because when you're inspecting work, everybody says,

21 "I didn't even mention it in mine", so sometimes you

22 can't see -- but if you're inspecting work properly you

23 don't wait until all the rebar is in. You go in while

24 the rebar is being put in.

25 COMMISSIONER HANSFORD: Yes.

<p style="text-align: right;">Page 49</p> <p>1 A. So it doesn't become an issue where you can't see 2 through it. Sometimes it's difficult, and I say it in 3 my report, I acknowledge that, but usually, if you 4 really want to go in and look, you can see it. 5 COMMISSIONER HANSFORD: Okay. 6 A. The other thing I'd like to point is: I see nobody so 7 far has talked about the concrete order process, because 8 my experience here in Hong Kong, and I know it's the 9 case here, if your concrete supplier is about an hour to 10 an hour and a half away from the site, concrete -- when 11 you add water to concrete, it sets up in about an hour 12 and a half to two hours, in that concrete truck. So, if 13 you're going to schedule a concrete pour, and you've got 14 this, say, scheduled for 3 o'clock, and let's just say, 15 hypothetically, all these problems were going on on the 16 project and you scheduled for concrete for 3 o'clock 17 because you thought it was going to be done by then, and 18 you called that concrete truck, and all that stuff is 19 going on, and that concrete truck shows up, not just 20 one, ones behind him, and you have an hour and a half to 21 two hours or you dump that concrete. Decisions are 22 made: dump it. 23 The concrete crew doesn't care if there's a dead 24 body in the bottom of that rebar; they're going to pour 25 concrete. So they're going to pour the concrete. Once</p>	<p style="text-align: right;">Page 51</p> <p>1 This basically identifies, in the spec, you've got 2 couplers to look at, you've got a method statement to 3 prepare if there's an issue with these couplers. 4 So my comments below: I think the PIMS does provide 5 good procedures to minimise interface risks. However, 6 these interface meetings took on -- were on for two 7 years, from my understanding. I think when I've read -- 8 and I understand that Leighton stated that the lack of 9 communication regarding Lenton/BOSA coupler issue, they 10 then did not tell their frontline inspection staff about 11 this issue that was being discussed in interface 12 meetings. Leighton was responsible for the 13 coordination, preparation and execution of the 14 work/inspection. And MTRCL was in liaison with the 15 parties. Then I did see, by looking at some of the 16 qualifications of the staff on both sides, that they 17 didn't have the proper training regarding couplers. 18 So there again is my kind of a summary out of my 19 report regarding to the interface management. Leighton 20 interface meetings did not resolve the different coupler 21 issue. No method statement was provided. Their 22 frontline staff was unaware. Leighton's staff was not 23 familiar with the QSP requirements for inspecting 24 couplers. They didn't keep the proper record-keeping 25 under the QSP. Inspections appear to have not been</p>
<p style="text-align: right;">Page 50</p> <p>1 you say, "Gentlemen, pour the concrete", they're going 2 to pour the concrete. 3 A lot of decisions are made about defective work or 4 not. When the concrete truck is there, people say, 5 "Okay, tomorrow I've got to do this pour, pour the 6 concrete" -- I haven't seen that element considered 7 here, about what it takes to schedule the concrete, the 8 time it takes, and the schedule -- I hear everybody is 9 saying they're trying to push the job forward. But when 10 you're pushing a job forward, you just don't get 11 an inspection done at 2 o'clock in the afternoon and 12 wait for the concrete to come tomorrow morning. 13 Interface management and planning. I've listed 14 a table that I found interesting, it's in the Particular 15 Specification, table Z2.1.2, exchange of design 16 information, and this really lays out to me in a very 17 good manner what needs to be done between the 1111 18 contractor, the 1112 contractor and the purpose of the 19 interface. And if you read the language under the 1111 20 contractor, it specifically talks about the couplers. 21 Then, if you look at the 1112, it says: 22 "To review and take into account of the information 23 provided by 1111 contractor in his construction sequence 24 and method statement for contract 1112." 25 Then, on the right, you review and confirm.</p>	<p style="text-align: right;">Page 52</p> <p>1 conducted. And defective work was covered up by the 2 placement of concrete. 3 Now, on a lighter note, let's talk about, if I can, 4 the improvements that are being done by MTRCL, from what 5 I understand. I've just listed them. I was updated -- 6 this is to the end of September. The iComm and the 7 iSuper process has now been established within the SCL 8 construction contracts. They are used on a daily basis 9 to enhance the digital management of quality matters, 10 which you referred to earlier, about the use of 11 electronic systems for the RISC forms. The other one is 12 of particular interest to me because I made a mention in 13 my report that they now have a quality manager and have 14 a second line of defence, they have people in the field 15 and people in the office dealing with quality, which 16 I think is excellent. The engineer division quality 17 assurance team is up to ten staff members. They are 18 talking about work flows for their second line of 19 defence, and they are pulling together guidelines for 20 staff competence which I think is a very good thing, and 21 they are starting to perform verification and assurance 22 duties across all SCL projects. 23 BIM is being introduced for future projects. 24 They've got three new consultants who have been 25 awarded -- because it takes, basically, some specialist</p>

Page 53	1 to prepare the BIM process. And they have one design 2 contract out for adopting NEC form of contract that's 3 been tendered at this time. 4 This is a summary by me of what I have read and 5 understood in my discussions, and I think those are all 6 very proactive and helpful. 7 And a lot of these things that Mr Rowsell and I talk 8 about in our reports about things that we suggested to 9 be done, we find they're now being incorporated, so 10 I think that's also a positive note. 11 That's it. 12 MR BOULDING: Thank you, Mr Huyghe. The procedure, as you 13 know, is that you'll be asked questions. I understand 14 Mr Pennicott's got some questions. Then I'm not quite 15 certain of the batting order after that but it may well 16 be that some of my learned friends have some questions 17 as well. I might have some questions at the end. And 18 of course the learned Commissioners can ask you 19 questions at any time they like. 20 But it may well be that we will be directed to take 21 a coffee break now; I don't know. 22 CHAIRMAN: Yes, we will take a coffee break now. 23 20 minutes? 24 MR PENNICOTT: Yes. 25 CHAIRMAN: Thank you very much.
Page 55	1 factual conclusions based on his own interpretation of 2 the facts and the relevant contractual documents. 3 Again, given the time limit we had over the morning 4 break, I can only read out from the printed transcript 5 covering Mr Huyghe's oral synopsis. Some examples would 6 be, for example, when Mr Huyghe remarked, "MTR 7 continually requested the submission [of RISC forms] but 8 to no avail"; "MTR did not waive the RISC form 9 procedure" -- again, these are factual matters and 10 possibly legal arguments which we believe Mr Huyghe is 11 not entitled to make. 12 The Commission will also recall Mr Huyghe saying, 13 "MTR believed that Leighton was going to catch up and 14 prepare the RISC forms, and I think that, like you say, 15 because of that belief, they continued on, because both 16 sides wanted to get the job done, both sides wanted to 17 move [on]", et cetera. 18 Again, what MTR believed is really not for Mr Huyghe 19 to say. 20 He also referred to his own experience or purported 21 experience. He made the point about him being a general 22 contractor for over two decades; these are things which 23 he did not buy or did not expect to see. He also 24 referred to an unidentified project where there were 25 problems, honeycombing, et cetera, and the lack of joint
Page 54	1 (11.24 am) 2 (A short adjournment) 3 (11.48 am) 4 MR PENNICOTT: Sir, before I commence my questioning, 5 I understand Mr Chang would like to say a few words. 6 MR CHANG: Chairman and Professor, I'm standing up not only 7 to welcome Mr Shieh back but really to lay down certain 8 markers on Mr Huyghe's oral synopsis. 9 We have not jumped up to interrupt during his oral 10 synopsis out of respect, but there are points we do need 11 to flag up to the Commission. 12 As far as we can see after reviewing the transcript, 13 there are at least three major objectionable parts in 14 his oral synopsis which we hope will not be repeated 15 during either answering questions to Mr Pennicott or 16 during our cross-examination. 17 The first objectionable part is that Mr Huyghe, with 18 all respect, is not really giving opinion evidence, but 19 he is effectively acting as MTR's advocate. I will 20 demonstrate that later on. 21 Second, Mr Huyghe is expressing his views based 22 either on a wrong factual footing or he's actually 23 giving evidence from the box which is not evidence 24 received by this Commission. 25 Third and finally, Mr Huyghe is drawing legal and
Page 56	1 inspection forms created some problems with that 2 particular project. 3 Finally, there's this part, when Mr Huyghe referred 4 to the contractor or the concrete pour and the 5 Commission will recall him using the phrase about the 6 concrete pourer coming along and "doesn't care if 7 there's a dead body in the bottom". The objectionable 8 part really is this. He is making factual assertion 9 that: "The contractor [namely Leighton] is pushing to 10 get the concrete pour. The rebar fixer foreman is 11 pushing the works to get done. He's pushing his guys in 12 the field. The rebar fixer has to come out of that hole 13 and contact his foreman about 'not my fault' and he's 14 going to contact the general contractor. Then that's up 15 to the contractor to take corrective actions to correct 16 the issues." 17 Again, we are laying all these markers just to make 18 the point for the time being that we object, with 19 respect, to all these statements by Mr Huyghe as an 20 advocate for MTR, not expressing his views as 21 an independent expert to assist the Commission, and in 22 the course of today, if similar happenings arise, then 23 unfortunately we might need to stand up again to 24 interrupt Mr Huyghe. 25 CHAIRMAN: Yes. I'm not blind to the fact that Mr Huyghe,

<p style="text-align: right;">Page 57</p> <p>1 in his evidence, likes to give narrative evidence. It 2 can sometimes be very effective. I mean, for example, 3 talking about the one contract where, because there had 4 not been joint inspection, somebody sent down to open up 5 the concrete was killed when accidentally his working 6 tool hit an electric conduit -- I didn't take that as 7 blaming anyone in particular. I took that as being 8 an illustration of how important records are. And 9 I think that was entirely permissible because it is very 10 easy to think, "Well, what counts is getting the work 11 done and not necessarily filling in the records", and 12 what Mr Huyghe was doing there was saying, "Look, 13 records really are critical. This will give you 14 an indication of what happens when you don't have proper 15 records, along with other indices." 16 But I do take your point, and thank you very much 17 indeed, that there are areas where it may be said that 18 he's acting outside of his proper parameters as 19 an expert witness. I can assure you we're aware of 20 that, and those are matters that will be taken into 21 account. 22 It becomes difficult, though, in matters of this 23 kind, to be stopping an expert witness at the beginning 24 of every part of his evidence, when you know full well 25 that what's happening is there's an attempt to try and</p>	<p style="text-align: right;">Page 59</p> <p>1 evidence from a person who has very long experience in 2 project management and who expresses himself in clear 3 and direct terms, and sometimes does so by way of 4 examples -- I'm a bit over-fond of examples myself -- 5 and it's a question always of saying, well, he's giving 6 his opinion as to the importance of certain procedures. 7 If he's going to say somebody fell down on that or 8 didn't fall down on that, that's not his area, and we 9 won't take that into account in any way whatsoever. 10 MR PENNICOTT: Yes, sir. 11 CHAIRMAN: Does anybody else wish to say anything? 12 MR BOULDING: Sir, I will obviously reserve my position, 13 unless and until my learned friends jump up and object, 14 but I did just want to make the observation that, in 15 a sense, you have made: there's some sort of complaint 16 that he relies upon his long construction experience, 17 50 years I think he said. It seems to me that that 18 makes him eminently well qualified to be an expert and 19 to give opinion on project management-type issues. 20 That's what I'd say there. 21 As to matters such as whether or not MTR waived the 22 RISC form procedure and whether or not there was 23 evidence of that -- you will recall that over the period 24 2014 to 2017 there was evidence that MTR personnel 25 repeatedly -- repeatedly -- contacted Leighton at even</p>
<p style="text-align: right;">Page 58</p> <p>1 give evidence that's going to be of benefit to the 2 Commission. But I'm sure Mr Huyghe will bear in mind 3 what has been said and we will bear that in mind. Thank 4 you. 5 Mr Pennicott, is there anything you wish to say? 6 MR PENNICOTT: No, sir, there's nothing I wish to add. 7 I hope, during the course of my questions, to try and 8 steer a course that doesn't involve getting into 9 detailed factual matters which are plainly for the 10 Commission to ultimately decide. 11 CHAIRMAN: Yes. 12 MR PENNICOTT: Another example, I suppose -- I can't 13 remember whether Mr Chairman mentioned it, but the whole 14 question of whether or not the engineers were too busy 15 to fill in the RISC forms -- I mean, we've heard what 16 Mr Huyghe has said about that. It's his opinion that 17 filling in the RISC forms should be prioritised. That 18 seems to me to be a matter of opinion. But ultimately 19 it's for the Commission to decide, as a matter of fact, 20 whether it believes the various engineers who said they 21 were too busy, and that really is a factual matter and 22 a factual matter for you to decide. 23 CHAIRMAN: That's the way I've certainly read it. From the 24 very beginning, and I know that Prof Hansford with me, 25 our view is that we are taking this evidence as expert</p>	<p style="text-align: right;">Page 60</p> <p>1 the highest level and said, "Look, where are these 2 forms?", and they were constantly promised but 3 unfortunately they never turned up. 4 So there we are. I don't intend to say anything 5 more at this stage, sir, and I will leave it to your 6 good judgment. 7 CHAIRMAN: Yes. Thank you. Obviously we will try to avoid 8 sliding across the ice as we have been and try and 9 restrict ourselves, but I do wish to assure everybody 10 that I was well aware from the outset that there were 11 certain areas which on a close observation and perhaps 12 in civil litigation on matters of contractual liability 13 and the like, there would have been a tighter rein 14 pulled. But here we are a Commission of Inquiry, we are 15 trying to look generally at the issues, and certainly 16 neither Prof Hansford nor myself are taking into account 17 anything that Mr Huyghe may say as attempting to take 18 over our function which is one of fact-finding and 19 findings as to liability and levels of competence and 20 the like. Thank you. 21 MR PENNICOTT: Thank you, sir. 22 Examination by MR PENNICOTT 23 Q. Mr Huyghe, good morning, I think. Thank you again for 24 coming back to give evidence to the Commission, and 25 thank you for your reports and your efforts, if I may</p>

Page 61	1 say so, on the joint statement, which I'm sure is going 2 to be of significant benefit to the Commission. 3 I did notice, and I spoke to Mr Rowsell earlier 4 about this, there appear to be one or two typos and 5 missing words, and I think one paragraph in the joint 6 statement is repeated. I imagine that's a by-product of 7 the communication difficulties that I know that the 8 three of you have had over the last few days in 9 particular. Is that right? 10 A. I noticed the duplication of the paragraph just this 11 morning. 12 Q. Yes. But anyway, we will take it warts and all because 13 in overall terms I think it's extremely helpful, so 14 thank you for that. 15 Mr Huyghe, I've got some questions for you which, in 16 terms of subject matter, will cover the RISC forms and 17 various sub-issues in relation to that topic. Then I've 18 got a few questions, not many, on the PMP, the project 19 management plan, and PIMS. Then again a few questions 20 on interface management and planning, a couple of 21 questions on rebar testing but not many, and then a few 22 miscellaneous points at the end. 23 But before I do that, just for the record, your 24 position as it was in the first part of the Commission 25 is that you do not deal with any issues concerning the	Page 63	1 the clause to mean that it's from, like, a design 2 professional. 3 Q. Okay. I ask you that because you are aware that one of 4 the implications or consequences of how one defines the 5 RISC form is whether one is required then to keep it for 6 a number of years after the project has completed. Do 7 you recall that that point arose in the first part of 8 the Inquiry? 9 A. Yes. 10 Q. The other reason I'm asking you about it is that in your 11 slide number 3 that we looked at earlier this morning, 12 you've actually quoted or cited clause G9.2.4 of the 13 General Specification, which requires, you say, Leighton 14 to "retain all inspection certificates, test 15 certificates", and so forth. 16 So I just wondered, having cited that particular 17 provision from the General Specification, whether you 18 had, as it were, altered your position and you do accept 19 that it's some form of formal certificate? 20 A. It's, you know -- to me, when I say that the conformity 21 "which shall be made available for inspection by the 22 engineer" -- you could call it a certificate -- in my 23 experience, and you said what's kept at the end of the 24 project -- I understand, on this project, this is not 25 a record that they keep, that MTR keeps.
Page 62	1 government monitoring and control mechanisms? 2 A. That's correct. 3 Q. And I think Mr Wall, Leighton's expert, takes a similar 4 position; is that your understanding? 5 A. That's my understanding, yes. 6 Q. Now, so far as the RISC forms are concerned, the first 7 topic or subtopic is the very nature of the RISC form. 8 As I understand it from your report, you don't see it as 9 a formal certificate; have I got that right? 10 A. Yes. 11 Q. How do you pigeonhole it? How do you describe it or 12 define it as a document? 13 A. Normally, what I perceive, the RISC form or any joint 14 inspection, it's just an acknowledgement that both 15 parties have looked at the work that's in place, and 16 it's a project-specific for a specific work activity. 17 It would be like for a foundation or a wall. So, as for 18 it being called a certificate, it's a document that 19 I believe that represents an inspection had taken place 20 and both parties were supposed to sign it. 21 Q. Yes. 22 A. But being a certificate, and I think I refer in my 23 report about this certificate, and the reference in my 24 report is to -- certificates are basically provided by 25 construction professionals, like I read the contract or	Page 64	1 Q. I think this may be a distinction between hard copy and 2 soft copy. 3 A. But contractors normally keep them. 4 Q. Right. 5 A. So I guess the certificate clause, I just never 6 thought -- when I think of a certificate, it's basically 7 a formal certificate that's issued by a professional, 8 versus to an owner and a contractor agreeing to 9 an inspection. That's the simplest way I can put it. 10 Q. All right. 11 Moving on, the second topic is in the joint 12 statement, putting together paragraphs 19 and 24 of that 13 joint statement, the experts have concluded and agreed 14 that the RISC form procedure, as used under 15 contract 1112, was cumbersome, time-consuming and 16 inefficient. Have I got that right? 17 A. That's correct. 18 Q. But, nonetheless, the experts have agreed, in the last 19 sentence of paragraph 21 of the joint statement: 20 "For quality assurance purposes, the degree of 21 cooperation shared between MTR and Leighton should not 22 have been extended to conducting inspections and 23 allowing work to proceed without Leighton's submission 24 of RISC forms." 25 So despite being cumbersome, inefficient,

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<p>1 time-consuming, nonetheless there is a clear recognition</p> <p>2 by the experts that for quality assurance purposes the</p> <p>3 RISC forms should have been submitted?</p> <p>4 A. That's correct.</p> <p>5 Q. Now, the third subtopic under RISC forms is that you</p> <p>6 make mention in your report of the RISC form register</p> <p>7 that was kept by MTR.</p> <p>8 A. Yes.</p> <p>9 Q. As I think you recognise, the register only tracked RISC</p> <p>10 forms on the assumption that they had been submitted?</p> <p>11 A. That's correct.</p> <p>12 Q. What I think Mr Rowsell is saying in his report -- and</p> <p>13 can I just see whether you agree with this -- what's</p> <p>14 missing so far as MTRC is concerned, or perhaps what was</p> <p>15 missing, was a forward planning system so that if a RISC</p> <p>16 form had not been submitted when it was expected, a red</p> <p>17 flag would emerge and something could be done about it.</p> <p>18 Do you agree with Mr Rowsell's view about that?</p> <p>19 A. In a perfect world, that would be to me doable, but what</p> <p>20 my experience has been is that when you talk about</p> <p>21 trying to get down to the detail of scheduling RISC</p> <p>22 forms, it's not really a practical sense in the</p> <p>23 construction process. I think what I know to be</p> <p>24 effective is if you -- usually, contractors have</p> <p>25 look-ahead schedules, and in the look-ahead schedules</p>	<p>1 site, how would they prepare that, based on the</p> <p>2 contractor oftentimes can control when that work's going</p> <p>3 to be performed.</p> <p>4 Q. But is it that complicated, Mr Huyghe? I know this is</p> <p>5 a complex project, but on this contract could one not</p> <p>6 have, right at the outset, worked out where the</p> <p>7 hold-point inspections were so far as the rebar is</p> <p>8 concerned and the concrete pours, worked out the</p> <p>9 sequence by which one would have expected those hold</p> <p>10 points to have taken place, and then worked out,</p> <p>11 therefore, approximately, when the RISC forms in</p> <p>12 relation to those hold points could have been expected,</p> <p>13 and if they didn't turn up, something could have been</p> <p>14 done about it. Is that that difficult?</p> <p>15 A. Well, every project that's been planned does not get</p> <p>16 constructed as it was planned at the outset. So,</p> <p>17 therefore, I think that a joint effort on this project,</p> <p>18 and any new project, would be that the contractors</p> <p>19 basically understand, through their ITP process, when</p> <p>20 the inspections -- and they can identify when things</p> <p>21 would occur, because they're the ones that are planning</p> <p>22 their work. It's just a moving target as the project</p> <p>23 continues.</p> <p>24 So I think that the ultimate way to handle that is</p> <p>25 more in tune of understanding the work to be performed,</p>
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<p>1 they might try to import into -- a programme into their</p> <p>2 documents, when an inspection is going to be performed.</p> <p>3 But I think where the issue lies is if you are</p> <p>4 talking about putting it into an actual electronic</p> <p>5 Primavera schedule, I don't find that would be practical</p> <p>6 to get to that level of detail for RISC forms.</p> <p>7 Q. Can I just pursue that a little further. Let's take the</p> <p>8 stitch joints, the original stitch joints, the defective</p> <p>9 stitch joints. What might have been expected, as we</p> <p>10 understand it, is a number of RISC forms should have</p> <p>11 been submitted for the various inspections of the rebar</p> <p>12 and the concrete for those stitch joints?</p> <p>13 A. That's correct.</p> <p>14 Q. No RISC forms at all were submitted for the original</p> <p>15 stitch joints.</p> <p>16 A. That's correct.</p> <p>17 Q. Don't you think that it would have been not too</p> <p>18 difficult, in a forward planning sense, to have</p> <p>19 identified, for MTR to have identified, the interface</p> <p>20 points being of risk, that RISC forms could be expected,</p> <p>21 they didn't turn up and so a red flag would have been</p> <p>22 identified?</p> <p>23 A. Obviously, anything you can do to plan ahead for your</p> <p>24 work -- again, they have to have further detail what</p> <p>25 does that planning tool look like, in actual, on the</p>	<p>1 and then narrow it down to a three-week look-ahead, so</p> <p>2 you know exactly what's going to happen on a project</p> <p>3 during the upcoming weeks, and that should have been</p> <p>4 done, and that should have been done by MTR and</p> <p>5 Leightons working together to do it. Now, that kind of</p> <p>6 a schedule I think is a doable thing, but to try to come</p> <p>7 up with an overall project schedule as to when these</p> <p>8 pours were going to be conducted and when the</p> <p>9 inspections were required, to me it's just not feasible.</p> <p>10 Q. All right. Is any of the digitalisation that we've been</p> <p>11 hearing about from time to time -- one can see how</p> <p>12 that's going to assist in keeping the records, or rather</p> <p>13 one hopes it's going to help -- is any of that</p> <p>14 digitalisation aimed at, as it were, forward planning</p> <p>15 and predicting the total number of hold points and total</p> <p>16 number of RISC forms that might be expected, albeit in</p> <p>17 electronic form?</p> <p>18 A. Yes, because in a lot of projects now, and I mentioned</p> <p>19 it looks like they're starting with the BIM process --</p> <p>20 the BIM process models the project, and it's kind of --</p> <p>21 it's the old modelling of a project, you saw the actual</p> <p>22 physical model; the BIM does that, and then it's revised</p> <p>23 as the project goes forward, and tied into that now on</p> <p>24 projects are the inspections required because as the</p> <p>25 project is updated into BIM it will actually tell you,</p>

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1 it will feed the information into electronic
 2 communication, so you will have a better handle on
 3 what's required. It's a very impressive way of actually
 4 notifying people in advance and then also is
 5 a record-keeping process.
 6 Q. Understood. That's helpful. Thank you.
 7 The fourth topic is the most difficult one in many
 8 ways, because we might be straying into areas that we
 9 perhaps ought not to be going, but I think you and
 10 Mr Rowsell at least agree that the absence of the RISC
 11 forms on this particular project, this particular
 12 contract, was an endemic problem. Do you agree with
 13 that?
 14 A. Yes.
 15 Q. There were lots of RISC forms missing, in whichever
 16 area --
 17 A. That's right. And there were RISC forms that were
 18 actually submitted, but there were lots that weren't.
 19 Q. That's right. So the evidence is there for the
 20 Commission to weigh up as to why it happened. But the
 21 question I really want to put to you is: what do you
 22 think should have happened from MTRC's perspective; what
 23 should the MTRC have done?
 24 A. I think that what MTRC should have done at a particular
 25 point is, you know, you call a meeting, you don't go the

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1 nuclear route and suspend concrete work. You call a
 2 meeting and you sit down with the contractor and say,
 3 "Look, you're not performing the work, you're not
 4 providing your contractual obligation." To do the RISC
 5 form and -- if you drew a line in the sand and had that
 6 meeting, you say, "Okay, we're going to go back and deal
 7 with all the RISC forms, you need to get those up to
 8 date", but going forward, both parties should have come
 9 up with a means to provide a simpler way -- and
 10 I express one in my report -- about how you can actually
 11 deal with this on a more practical basis.
 12 So I think that should have been done. I think
 13 Leightons, if they knew that they were not going to be
 14 providing the RISC forms and are telling MTR they are,
 15 but if they're not going to do it, they should have come
 16 and said, "Look, we just can't do it". Or MTR at
 17 a certain point should have said, "Wait a minute, you're
 18 not doing it; let's have a meeting and discuss how we
 19 can go forward, come up with a manner to do so, so that
 20 we satisfy our contractual requirements, based on joint
 21 inspections; it might not be the RISC form but it is
 22 a way we can come up with a matter to meet your
 23 contractual requirements, get what the contractor needs
 24 and get what the MTR needs." And those kinds of
 25 meetings are the things that are done all the time, and

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1 they should have been done on this project.
 2 CHAIRMAN: Sorry to interrupt.
 3 MR PENNICOTT: Not at all, sir.
 4 CHAIRMAN: One way that may be suggested as a consequence is
 5 that, unfortunately, both Leightons and the MTR, because
 6 they had initially given each other leeway, allowed
 7 a state of mind to develop in terms of which the RISC
 8 forms were not that important anyway; that if it was
 9 case of getting the work done or filling in the forms,
 10 you always got the work done. That would suggest,
 11 unfortunately, a kind of a joint culpability, if I can
 12 use that term. I'm not talking about contractual
 13 culpability in any way, but a joint failing. What would
 14 be your comment there?
 15 A. My comment on that somewhat during my presentation was
 16 that I think that -- and obviously I didn't mean to go
 17 outside the bounds of my testimony; I was just trying to
 18 share some of my experiences --
 19 CHAIRMAN: We're aware of that.
 20 A. So I apologise to the Commission if -- I didn't intend
 21 to do that, and I wasn't intending to be an advocate or
 22 an adversary. I was intending to just speak from my
 23 experience. Maybe sometimes I get carried away, I don't
 24 know.
 25 Anyhow, to answer your question, in my opinion, the

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1 contractor wants those joint inspection forms completed.
 2 He needs that to be done. That was ignored by the
 3 contractor on this project. The contractor and the MTR
 4 got into a point where MTR believed they were going to
 5 submit the RISC forms, so they continued -- they started
 6 to go through and do these verbal joint inspections.
 7 And once you do that, people are complacent. If they
 8 think that's the easiest way to go about getting the job
 9 done, that's what they'll do. That's just human nature.
 10 But I still -- and I want to be clear about this,
 11 the general contractor's got another reason to do this
 12 versus just have a joint inspection sheet signed.
 13 I guess that's my position on it.
 14 MR PENNICOTT: You see, as I understand it, the experts have
 15 come up with, in paragraph 17 of the joint statement,
 16 essentially the answer that you have just articulated --
 17 sorry, you and Mr Rowsell have come up with the answer
 18 that you've just articulated, that you and Mr Rowsell
 19 "agree that due to not receiving all the RISC forms from
 20 Leightons, MTR should have eventually conducted joint
 21 meetings to come up with a formalised alternative
 22 process."
 23 I think that's what you and Mr Rowsell agreed.
 24 A. Yes.
 25 Q. That didn't happen, so far as we are aware.

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1 A. That's right.

2 Q. As the Chairman says, and let me try and put it in

3 slightly different terms, that joint meeting not having

4 happened, you can remind people as much as you like, but

5 if you don't actually do something about it, something

6 positive about it, isn't, as a matter of human nature,

7 the impression created that you don't really think it

8 matters and you're not giving it priority; isn't that

9 the real problem?

10 A. That is correct.

11 Q. I don't want to look at this in terms of legal analysis,

12 was it a waiver or anything like that. It's just that's

13 the way it was.

14 A. Again, I have to put on my contractor's hat here because

15 I've spent so many years in doing it. In my opinion, it

16 had been my responsibility -- if I was on the project as

17 a contractor and this was going on -- let's say

18 I stepped in, into the year, and the RISC forms weren't

19 being done -- it's my obligation, if I'm too busy or for

20 whatever the reason, not preparing the RISC forms, it's

21 up to me as the contractor, who is outside his contract

22 requirements, to go to the owner and say, "Look, I can't

23 do this, I'm having problems, I'm too busy", whatever

24 the reason is -- I disagree with some of them, but

25 whatever the reason is, I believe -- and this is not

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1 being an advocate or an adversary -- as a contractor,

2 you're not fulfilling your contract requirement. You

3 have an obligation to the owner and to yourself to say,

4 "Okay, let's resolve this. Let's get together. If I'm

5 not going to do it" -- but from what I read, and I don't

6 know how this went on but for two years it went on,

7 "You're not giving it to me", "Yes, I'm going to",

8 "You're not giving it to me" -- but the contractor

9 should have said, "Look, I'm just not doing it and

10 I need to correct this."

11 So I think they should have been the first one --

12 I think -- and me as a contractor, I would have stepped

13 up and said, "I need to protect myself", so they should

14 have implemented and had that meeting.

15 CHAIRMAN: We are aware that's a statement that goes to

16 issues of merit, but we are going to take into account

17 Mr Huyghe's reflections on his own experience and as to

18 the importance of the issue, both for the contractor and

19 the owner.

20 MR PENNICOTT: Thank you, sir. I'm going to move on from

21 RISC forms now, just to try and get through this.

22 Mr Huyghe, so far as the project management plan is

23 concerned, the PMP, I think I'm right in saying that the

24 joint experts have dealt with this in paragraph 13 of

25 the joint statement?

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1 A. Yes.

2 Q. As I understand it, that's an agreement between all

3 three experts; is that right? Is that your

4 understanding?

5 A. Yes.

6 Q. So that's fine. I don't think there's anything I need

7 to trouble you further about that.

8 Sorry, it's 13 and 14 as well, I think, to be

9 accurate.

10 A. Yes.

11 Q. So far as the PIMS is concerned, that is dealt with

12 I think in the preceding paragraph, that's paragraph 12.

13 A. Yes.

14 Q. In particular the last couple of lines on page 3 -- it

15 says:

16 "In our opinion we consider that the following

17 aspects of MTR's review of its project management

18 procedures are the most significant in addressing the

19 issues examined in the Extended Inquiry."

20 Then you have (a) through to (g), and those are, as

21 I understand it, all PIMS-related in one way or another?

22 A. Yes.

23 Q. Okay. Good.

24 Now, interface planning and management. As you are

25 aware, Mr Huyghe, this topic principally arises in the

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1 context of the stitch joints. And one of -- and I'm not

2 going back to RISC forms; we've mentioned that in the

3 context of generally and in relation to the stitch

4 joints. One issue that arises is the lack of a method

5 statement for the stitch joints. Do you recall that?

6 A. Yes.

7 Q. And in the joint statement at paragraph 26(c), the joint

8 statement says:

9 "Whilst the use of Lenton couplers was identified at

10 an early stage at the interface stitch joints in the NAT

11 area, it does not appear that the associated requirement

12 for tapered reinforcement bars [that's the Lenton bars]

13 was communicated to Leighton's site teams."

14 A missing full stop there, I think.

15 "Mr Rowsell and Mr Huyghe agree that annotated

16 drawings would have helped to identify the Lenton

17 couplers used on contract 1111. A method statement

18 should have been prepared by Leighton's for the couplers

19 used in locations for site access."

20 Do you see that?

21 A. That's correct.

22 Q. I infer from the words "Mr Rowsell and Mr Huyghe agree"

23 that Mr Wall doesn't? And I think we get that from one

24 of the paragraphs at the end --

25 A. Yes.

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1 Q. -- where 26(c) is identified as a paragraph that is not
2 agreed by Mr Wall.
3 A. That's correct.
4 Q. Okay. We can look at the various contract provisions
5 and form our own view about Leighton's obligation in
6 relation to creating a method statement or drawing
7 a method statement, but we know one was not provided for
8 the stitch joints?
9 A. Correct.
10 Q. Again, can I ask you this. From MTR's perspective,
11 should they have been more proactive, do you believe, in
12 insisting upon the provision of a method statement?
13 A. From what I've read, what I've looked at -- I pointed to
14 in my presentation the table that talked about when
15 method statements should be used between the interface
16 of 1111 and 1112. So obviously that should have been
17 taken into consideration. From what I understand, there
18 was two years' worth of meetings --
19 Q. Yes.
20 A. -- going back and forth, and that MTR's position was to
21 liaison with the parties about that, which -- to me,
22 that means to communicate and cooperate, and I think
23 that if they were aware that these tapered joints -- and
24 they were discussed, the tapered joints, in the
25 meeting -- I think there should have been discussion

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1 about the method statement. It's up to the contractor
2 to prepare, but should they mention it? I didn't go
3 through every interface meeting to see whether or not
4 that -- you know, what discussion evolved to, but the
5 method statement would definitely have been something
6 that would have helped, I think, to educate the parties.
7 Q. Yes. All right.
8 CHAIRMAN: Could I just -- sorry, Mr Huyghe, thank you very
9 much -- looking back on this question of the stitch
10 joints and the responsibility, perhaps wrongly, and I'll
11 have to re-acquaint myself with all the evidence, and
12 that will be done, with the assistance of counsel, and
13 Prof Hansford and I will do that -- but it struck me
14 almost as if this wasn't something deeply buried in the
15 technicalities of project management. It seemed that
16 the parties knew from the beginning that somebody had to
17 check with the other contractors as to what their
18 couplers were going to be and the like, and everybody
19 sort of acknowledged that that would have to be done,
20 and it was recorded each time they had a meeting, but
21 nobody actually did it. It's a bit like American
22 football or rugby. The ball is high in the air and it's
23 coming down, and you've got three people standing there,
24 they all know it's coming down but they all think the
25 next person is going to catch it, and eventually the

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1 ball just goes "boom" and bounces on the ground.
2 Everybody knew about it but nobody did anything.
3 A. That's true, and I think that normally -- and this went
4 on for a long time -- you would think there would be
5 an action plan with somebody's name next to it to say,
6 "You are going to do this."
7 CHAIRMAN: That's it, yes.
8 A. Because it's a large project. There were a lot of
9 things being discussed in those meetings other than this
10 one particular issue. So to me it's always helpful to
11 prepare an action plan and give a designated
12 responsibility to carry through with these things, but
13 apparently that wasn't done.
14 CHAIRMAN: That's what you really need, you need somebody
15 earlier on, whether this is project management or
16 whether this is organising the firm's Christmas picnic;
17 it doesn't matter. You need somebody to say, "This
18 needs to be done", point a finger and say, "You are
19 doing it", and then record that fact. So that fact can
20 be raised at the next meeting to see what progress has
21 been made.
22 A. I think one of the things to factor in is that at the
23 outset that issue wasn't that important, because that
24 work was going to be done further down the road, so
25 everyone kept pushing the ball down the field, thinking,

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1 "Somebody else is going to have to score the goal; it's
2 not going to be me." That's not uncommon in big
3 projects like this.
4 MR PENNICOTT: Another factor, yes.
5 COMMISSIONER HANSFORD: But isn't it normally the case that
6 when there's an action plan, there's actions recorded in
7 minutes, they would also record when they should be
8 completed?
9 A. Yes, and I think that goes to the comment I just made.
10 If you are starting to talk about it two years before it
11 happens, you know, it's a moving target; when is that
12 going to be? So whenever you get to the point where you
13 know that there's an issue between the two couplers, and
14 you know that that work's going to be done in two months
15 from now, we can see it, we know we can plan for it,
16 then there should have been a definite action plan to
17 say, "Now we have to go out and do something about it."
18 That's where it gets into the method statements.
19 I think the method statement would have helped to then
20 move that ball forward.
21 COMMISSIONER HANSFORD: Okay.
22 MR PENNICOTT: Mr Huyghe, rebar testing, just a few points
23 on that. It's dealt with in the joint statement at
24 paragraphs 38 to 42. I think we find the experts' joint
25 recommendation in paragraph 42.

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<p>1 A. That's correct.</p> <p>2 Q. So far as what happened with this 7 per cent rebar that</p> <p>3 wasn't tested, is it your understanding that at the</p> <p>4 time, on the project, MTR didn't in fact have any system</p> <p>5 in place that enabled it, that is MTR, to verify or</p> <p>6 audit the rebar that was being tested?</p> <p>7 A. I don't think they had anything on the site, no.</p> <p>8 Q. Because the shortfall in the testing of the rebar, as</p> <p>9 you probably picked up, came to light because Leighton</p> <p>10 actually identified it.</p> <p>11 A. Right.</p> <p>12 Q. So MTR hadn't identified it, or had not identified that</p> <p>13 not all the rebar had been tested.</p> <p>14 Can I just ask you -- and it may be that you will</p> <p>15 tell me this has all been overtaken by paragraph 42 of</p> <p>16 the joint statement that we've looked at -- but can just</p> <p>17 I ask you, please, to look at paragraph 38 of your</p> <p>18 second report.</p> <p>19 In paragraph 38 of your second report, that's at</p> <p>20 page 9, you are responding to some paragraphs in</p> <p>21 Mr Wall's report, and then you say:</p> <p>22 "My opinion is that Leighton could and should have</p> <p>23 done the following".</p> <p>24 Then you set out (a), (b), (c), (d), (e), (f), as to</p> <p>25 what Leighton should have done, in your view.</p>	<p>1 So obviously anything can be improved upon, from</p> <p>2 both sides, but the fact that you had a 93 per cent</p> <p>3 acceptance rate is a good acceptance rate.</p> <p>4 Q. All right. But in any event, as I understand it, so far</p> <p>5 as MTR is now concerned, what you and the other experts</p> <p>6 are proposing is set out at paragraph 42 of the joint</p> <p>7 statement?</p> <p>8 A. That's correct.</p> <p>9 Q. Which hopefully will give MTR a procedure by which they</p> <p>10 can also monitor and audit the testing of the rebar?</p> <p>11 A. That's correct.</p> <p>12 Q. Could I ask you, please, to -- this is really a topic,</p> <p>13 Mr Huyghe, that perhaps is more a question of fact.</p> <p>14 Could I ask you to look at paragraph 114 of your first</p> <p>15 report, page 28. It's a miscellaneous point, I think --</p> <p>16 A. Yes.</p> <p>17 Q. -- Mr Huyghe; it doesn't fall under any particular</p> <p>18 category. But what you say there is:</p> <p>19 "Paragraph 57 of the Rowsell report refers to a part</p> <p>20 of MTR's oral opening by its counsel [transcript</p> <p>21 reference given] from which Mr Rowsell apparently</p> <p>22 deduces that only the construction engineers had access</p> <p>23 to the latest drawings as well as the fact that not all</p> <p>24 of the inspection teams had access to the most</p> <p>25 up-to-date drawings, a matter which concerns him."</p>
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<p>1 But the point I would like to put to you is that</p> <p>2 what you've identified there are all actions to be taken</p> <p>3 by Leighton; is that right?</p> <p>4 A. That's correct. If you go down -- if you scroll down to</p> <p>5 the last -- you know, those came from information that</p> <p>6 Leighton had provided regarding to what actually</p> <p>7 occurred on the project. So I just rephrase to say</p> <p>8 that, okay, these are the things that they should do;</p> <p>9 these are the things that were identified that there</p> <p>10 were problems on the project.</p> <p>11 Q. Yes, but my point is that those are all things that</p> <p>12 Leighton should have done, and that's fine as far as it</p> <p>13 goes, but the risk is that Leighton don't do one or more</p> <p>14 of those things and the MTR doesn't know about it.</p> <p>15 So what I'm more interested in, therefore, is what</p> <p>16 procedure should MTR have --</p> <p>17 A. Right.</p> <p>18 Q. -- in place to ensure that Leighton fulfils the various</p> <p>19 points that you've mentioned.</p> <p>20 A. Right. Can I just -- to be quite candid, when you have</p> <p>21 a project that's got a 93 per cent success rate, you</p> <p>22 know, that's not a bad per cent rate. I mean, that's</p> <p>23 not -- I didn't look at the rebar inspection -- I didn't</p> <p>24 really give it that much more thought because I thought</p> <p>25 that that was a pretty good result.</p>	<p>1 If we then flick on to paragraph 119, you say:</p> <p>2 "Proceeding on this basis and in responding to</p> <p>3 Mr Rowsell's comment in paragraph 57 of the Rowsell</p> <p>4 report, I am content that all MTR's site staff from both</p> <p>5 the construction engineering team ... and the site</p> <p>6 inspectorate team ... in fact had access to the</p> <p>7 available latest working drawings through MTR's ePMS."</p> <p>8 As I say, have you looked at all the evidence that</p> <p>9 pertains to this particular point, Mr Huyghe?</p> <p>10 A. I looked at what was stated by the witnesses regarding</p> <p>11 to their position regarding to having access to drawings</p> <p>12 before they did inspections. I obviously didn't get</p> <p>13 into ePMS and try to determine it for myself, but I just</p> <p>14 based my opinion on what the witness statements were</p> <p>15 saying that the individuals who were out in the fields,</p> <p>16 that they had access to the latest drawings through the</p> <p>17 ePMS.</p> <p>18 Q. All right. For example, did you look at the witness</p> <p>19 statement of Mr Tony Tang, one of the inspectors of</p> <p>20 works?</p> <p>21 A. I looked at all of them, so ...</p> <p>22 Q. Because he says in terms that he, as an IOW, didn't have</p> <p>23 access at all times to the up-to-date drawings?</p> <p>24 A. Yes, I read that.</p> <p>25 Q. Okay. Anyway, a factual matter.</p>

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1 In any event, on that particular point, I think
2 again the joint statement assists. If we look at
3 paragraph 27(d) it says -- again, I think this is all
4 three experts saying, so far as the MTR is concerned:
5 "Review its arrangements for future projects to
6 ensure site staff are provided with the latest working
7 drawings and to ensure that all staff have ready access
8 to them to support reliable surveillance and inspection
9 of the works."
10 A. That's true.
11 Q. So, insofar as there was a deficiency, there is at least
12 a recommendation by the experts jointly on that point?
13 A. And I think, if you look at our discussions about the
14 iSuper and the iComm and all the various electronic
15 technological things that are putting in place, that
16 that will cover that.
17 Q. Yes.
18 Can I then, I think perhaps lastly from me,
19 Mr Huyghe, just ask you about one sentence in the joint
20 report which I asked Mr Rowsell about earlier and I'm
21 going to ask you the same question, and I'm not going to
22 tell you what his answer was.
23 Could you look at the heading on page 7,
24 "Non-conformance reports". Paragraph 28 deals with how
25 perhaps the non-conformance report procedures could have

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1 been utilised in the RISC form point or issue. But then
2 paragraph 29 says this:
3 "We suggest that MTR give consideration to enhancing
4 the non-conformance report procedures to increase their
5 effectiveness as an early warning mechanism and to
6 encourage their use to help ensure that problems are
7 resolved promptly. This could be achieved by having
8 different grades of NCR covering minor, medium and major
9 non-conformances requiring different responses as
10 appropriate."
11 And it's the last sentence I want to ask you about:
12 "As an alternative, more robust use could be made of
13 MTR's existing audit procedures."
14 What does that mean, Mr Huyghe?
15 A. I think that the use of NCRs are something that should
16 be more employed by MTR, and that in their audit
17 procedure they should mention it.
18 Q. I see. Okay. So you are saying that the way that you
19 look at that is that there should be -- the audit
20 procedures themselves should make reference to and
21 utilise the non-conformance reporting procedures?
22 A. Yes, and, as I understand it, one of the things that
23 they are looking at now is actually doing that, that MTR
24 is looking into their audit systems, and this all ties
25 into the whole electronic way of doing business.

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1 MR PENNICOTT: Okay. Now it makes sense to me at least.
2 Thank you very much for that.
3 Sir, thank you very much. I have no further
4 questions.
5 CHAIRMAN: Good. Thank you very much.
6 Yes?
7 MR SHIEH: Mr Chairman, logically, it should be our turn,
8 but, as a result of some of the questions asked by
9 Mr Pennicott and also some of the interventions by you,
10 Mr Chairman, it may well that be we can reconsider some
11 of the lines that we are going to take, and it may well
12 be that an earlier lunch break may assist in sorting out
13 the lines that we would ask Mr Huyghe and really shorten
14 the matter.
15 So could I ask for a slightly earlier lunch break?
16 CHAIRMAN: Yes, of course.
17 MR SHIEH: We can come back a bit earlier, if needed.
18 CHAIRMAN: That sounds a sensible procedure.
19 MR PENNICOTT: Shall we say 2.15 to return, unless Mr Shieh
20 indicates he wants a bit longer?
21 CHAIRMAN: Yes, of course.
22 So what we will do is we'll make it 2.15.
23 Prof Hansford just has a question and then we'll
24 adjourn.
25 COMMISSIONER HANSFORD: I'll take this opportunity to ask my

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1 question.
2 There's one sentence, Mr Huyghe, in your first
3 report, paragraph 70, that I don't understand. It's the
4 final sentence of paragraph 70:
5 "In my view, Leighton did not fully fulfil its
6 responsibilities or approach the issue with ..."
7 And the issue we're talking about here is the RISC
8 form issue.
9 "In my view, Leighton did not fully fulfil its
10 responsibilities or approach the issue with the 'spirit
11 of cooperation' I would have expected from an apparently
12 competent contractor."
13 Could you explain that sentence, please?
14 CHAIRMAN: The last thing I want to do is cut across
15 Prof Hansford, whose questions are always impeccable,
16 but I think here we are actually straying into an issue
17 of an expert witness attempting to come to a factual
18 summation, and I think it may be that it won't,
19 therefore, assist the Commission to expand on that.
20 COMMISSIONER HANSFORD: That's fine. I'm happy with that.
21 CHAIRMAN: Mr Pennicott, you agree?
22 MR PENNICOTT: I agree.
23 COMMISSIONER HANSFORD: You are off the hook!
24 CHAIRMAN: Sorry. That's a technical issue there. It's not
25 in any way --

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1 WITNESS: I had a good answer!

2 CHAIRMAN: All right. We'll adjourn until 2.15. Thank you

3 very much.

4 (12.50 pm)

5 (The luncheon adjournment)

6 (2.19 pm)

7 CHAIRMAN: I might just mention -- sorry, suddenly thinking

8 about it -- the Chief Executive is apparently giving

9 a press conference this afternoon, and there's obviously

10 some concern. I only mention it because I know that

11 there was some commotion in Tsuen Wan over the last few

12 days, but we will just plough ahead and should anything

13 happen then we will be advised of it. Okay? Thank you.

14 MR SHIEH: Thank you. We have been speculating about what's

15 going to be announced at 3 o'clock, but that shouldn't

16 hold us up from continuing this afternoon.

17 CHAIRMAN: Yes.

18 MR SHIEH: We are grateful for the slightly earlier lunch

19 break and I was able to trim down a good deal of my

20 proposed questions.

21 Cross-examination by MR SHIEH

22 Q. Good afternoon, Mr Huyghe.

23 A. Good afternoon.

24 Q. I represent Leighton and I have a few areas to explore

25 with you. Can I refer you to the first report that

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1 you have compiled for the purpose of the Extended

2 Inquiry, at paragraph 67, where you said, in the first

3 sentence:

4 "Late or missing RISC forms is a vital site project

5 management issue ..."

6 Do you see that?

7 A. Yes.

8 Q. Can I ask you then to look at paragraph 71 of the same

9 report, where you said:

10 "At the end of the day, the fact of the matter is

11 that Leighton persistently failed to respond positively

12 to MTRCL's requests to resolve the issue and MTRCL

13 implemented timeously project management processes to

14 monitor and try and close out this issue. However, at

15 the time, and from my project management perspective,

16 based on all the evidence I have reviewed, in practical

17 terms the missing RISC forms issue did not reach

18 a critical stage where it was considered appropriate to

19 suspend the works pending rectification of this

20 outstanding paperwork."

21 That was what you said in that paragraph; right?

22 A. Yes.

23 Q. You recognise that?

24 Can I just ask you this question. On the one hand,

25 you said the missing RISC forms is a vital site project

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1 management issue, and on the other hand you are

2 suggesting that missing RISC form issues in practical

3 terms did not reach a critical stage. So are you

4 suggesting that within a vital issue, you can subdivide

5 that into a problem which is critical and a problem

6 which is not so critical?

7 A. Well, let me answer that by what I actually said so

8 I can explain in more detail.

9 Q. Yes.

10 A. What I meant by that, by looking at all the records and

11 all the witness statements: that both parties were, in

12 the absence of the RISC forms, actually performing

13 verbal joint inspections. So, therefore, the options

14 were not on the table. I didn't think that they should

15 get to a critical stage to stop the work. There's other

16 avenues they could have taken which I also explain in my

17 report, but I didn't think, because of the cooperative

18 effort between the parties, that it became a critical

19 stage that I would stop the work.

20 Q. The cooperative efforts between the parties?

21 A. Exactly.

22 Q. Thank you.

23 You mentioned also in paragraph 71 that "MTRCL

24 implemented timeously project management processes to

25 monitor and try and close out this issue."

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1 Can I just put this proposition to you and see

2 whether you would agree with it: from a project

3 management perspective, do you accept that the best way

4 to resolve a non-compliance issue is to address the

5 issue at the time of the discovery of the non-compliant

6 conduct, rather than to leave it until a later stage?

7 A. I think you should try to resolve it as soon as

8 possible, but again, as I reviewed the project records,

9 it looked like there was a process that was going on to

10 where there was a spirit of cooperation, and the MTR

11 believed that Leightons was going to fulfil the RISC

12 form process. But I am in agreement there should come

13 a time when they need to actually resolve the issue.

14 Q. You are aware of documents or a machinery known as NCRs

15 in this project; correct?

16 A. Yes.

17 Q. Are you aware that in relation to the problem of missing

18 RISC forms, MTR only issued the first batch of NCRs to

19 Leighton in April 2018?

20 A. That's correct.

21 Q. And that would be -- so I don't need to show you the

22 NCRs, because you've accepted it's in April 2018 -- and

23 that would be around four years after the RISC forms

24 were outstanding or not filed in time?

25 A. That's correct.

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1 Q. Would you accept this timeline?
2 A. Yes.
3 Q. So, based on this timeline, do you accept or are you of
4 the opinion that MTRC did not appear to be treating the
5 issue of missing RISC forms as a vital project
6 management issue?
7 A. I don't think, based on not issuing NCR -- again,
8 I think the project records show that MTR was believing
9 the fact that Leightons were going to provide the RISC
10 forms and that's why the process continued.
11 I do believe, as I've stated in my report and some
12 of the recommendations that I've put forth, that NCR is
13 a good process to implement. But since this was such
14 a moving target with regards to the MTR expecting
15 Leightons to provide the RISC forms, as they had done in
16 other parts of the project, I think, whether right or
17 wrong, they didn't issue an NCR.
18 Q. There's probably no need to look back at the documentary
19 evidence of MTR asking Leighton to provide RISC forms,
20 because the documents speak for themselves.
21 A. Correct.
22 Q. And we can all go through the witness statements to look
23 for witness testimony as to who said he or she had asked
24 for the RISC forms.
25 A. Correct.

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1 Q. But on a high level of generality, it's four years, so
2 MTRC had waited four years to issue the first batch of
3 NCRs. So, even if MTR had been acting on the strength
4 of Leighton's promise or assurance to submit RISC forms,
5 do you accept that four years is quite a long time for
6 MTR to react by issuing NCRs?
7 A. Well, based on issuing an NCR, non-conformance report,
8 the ones that were issued in April are based on
9 defective work and that's an NCR, to correct the --
10 Q. Based on what? Sorry, I missed that.
11 A. They were based on identifying the corrective work.
12 They issued an NCR based on having identified corrective
13 work. The issuance by an owner of an NCR regarding to
14 a process that is ongoing is another condition.
15 Q. I'm not sure I follow that, because -- do you accept
16 that if an owner finds that a contractor has been
17 falling behind in performing its contractual
18 obligations, that issuing an NCR is a proper response to
19 that, to make sure that the contractor is reminded that,
20 "Look, this is something to be taken seriously"; do you
21 accept that proposition?
22 A. That's correct.
23 Q. And the NCRs relating to missing RISC forms, this
24 phenomenon of missing RISC forms, was issued four years
25 after they first "went missing", and I'm putting to you

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1 that it's a very long time for MTR to wait before
2 issuing the first batch. I'm just putting this
3 proposition to you.
4 A. No, I agree.
5 Q. Are you critical of MTR in this regard?
6 A. I think that MTR should have stepped in sooner, and in
7 hindsight, when you look at two years passing, and it's
8 easy to look at hindsight evaluation, but I think that
9 there should have been -- MTR should have stepped in and
10 held a meeting. I'm not saying that they had to issue
11 an NCR. I think that they should have recognised that
12 Leighton may not be fulfilling their promises and
13 stepped in at a particular point in time and conducted
14 a meeting.
15 Q. Can I ask you to look at the MTR's NCR register. Please
16 look at bundle BB12, page 8373.
17 This is MTR's non-conformance report register for --
18 I think this is the NAT; do you see that? "Location:
19 NAT"; do you see that, the second column on the left?
20 A. Yes.
21 Q. There's a serial number, and in the yellow column you
22 see "Category", it says "Low"; do you see that?
23 A. Yes.
24 Q. And the brief description -- and they all relate to
25 missing RISC form for various bays, pre-pour inspection,

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1 rebar inspection -- so various stages of the process,
2 there's a missing RISC form problem and an NCR was
3 issued in respect of that; do you see that?
4 A. Yes.
5 Q. Now, I understand the word "Low" in this NCR register to
6 mean of a low risk. Have you seen this NCR register
7 before?
8 A. I don't recall whether -- I've seen a lot of
9 documents -- whether this is one of them, I'm not sure.
10 Q. I stand corrected but I read the word "Low" in
11 "Category" as meaning low risk, and if you move on in
12 this register it goes on the next page and the page
13 after next and the page after next and they all refer to
14 missing RISC forms. I don't think we need to count
15 them, but the point I wish to draw your attention to is
16 in this register of NCRs, under the "Category", it was
17 all described as being "Low"; do you see that?
18 A. Yes.
19 Q. Then there is another batch of RISC forms captured by
20 another register, and that is bundle BB14, page 9304.
21 That is the NCR register for the South Approach Tunnel,
22 for the SAT. Do you see the second column on the
23 left --
24 A. Yes.
25 Q. -- the location is "SAT"?

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<p>1 A. Yes.</p> <p>2 Q. Again, under "Category", it says "Low"; do you see that?</p> <p>3 A. Yes.</p> <p>4 Q. That's 9304 all the way down to 9305.</p> <p>5 Now, what I get from these two clusters of NCR</p> <p>6 register is that the MTRC regarded these NCRs of being</p> <p>7 of a low-risk category. First of all, were you aware of</p> <p>8 this characterisation or categorisation by MTR?</p> <p>9 A. I was aware they were keeping track. Whether I saw this</p> <p>10 document in full, I'm not sure, because when you look at</p> <p>11 the brief descriptions, I think that probably the</p> <p>12 low-risk category may be based upon the actual work</p> <p>13 identified, but I haven't studied this document, no.</p> <p>14 Q. Having seen the way the MTR described this category of</p> <p>15 NCRs as being of a low risk, do you accept that</p> <p>16 categorisation?</p> <p>17 A. Well, they prepared it so --</p> <p>18 Q. I know, but you can disagree with them, you can</p> <p>19 criticise them.</p> <p>20 A. No, I can't tell because I'd have to look at the details</p> <p>21 behind that NCR.</p> <p>22 Q. These are NCRs relating to missing RISC forms.</p> <p>23 A. I understand.</p> <p>24 Q. If you want a sample, I can show you a sample of these</p> <p>25 RISC forms. I don't have a detailed correlation of each</p>	<p>1 well say, "I don't agree. He's got it all wrong, he</p> <p>2 ought to say 'high risk'", and immediately create</p> <p>3 mayhem?</p> <p>4 A. Also note, this says, "Please propose corrective</p> <p>5 action", so there's probably follow-on responses to</p> <p>6 this. So, like I say, to determine whether this is low</p> <p>7 risk isn't something I can really opine on. This is</p> <p>8 based on the person who is putting it together.</p> <p>9 Q. Can I ask you to look at Mr George Wall's report,</p> <p>10 prepared for part 2 of the Inquiry, at paragraph 55. He</p> <p>11 said in that paragraph:</p> <p>12 "I am of the opinion that it is crucial to</p> <p>13 distinguish between the inspection itself and the</p> <p>14 documentation relating to the inspection. This is</p> <p>15 because, as I detailed above, the NCR procedure should</p> <p>16 be modified so that minor non-conformities can be</p> <p>17 identified, such as late submission of RISC forms ...,</p> <p>18 as well as what I would describe to be major</p> <p>19 non-conformities such as a failure to carry out any form</p> <p>20 of inspection; the latter of which I have seen no</p> <p>21 evidence of on [this] project."</p> <p>22 For this paragraph in Mr Wall's report, is there any</p> <p>23 part that you do not agree with?</p> <p>24 A. I think, when he says "distinguish between the</p> <p>25 inspection itself and the documentation relating to the</p>
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<p>1 and every RISC form and be able to match them with</p> <p>2 an actual sample, but if you want to see what a missing</p> <p>3 RISC form NCR looks like, I can show you a sample, and</p> <p>4 that is in BB12, page 8377.</p> <p>5 Do you see that is an example of an NCR relating to</p> <p>6 missing RISC forms; do you see, Mr Huyghe?</p> <p>7 A. Yes.</p> <p>8 Q. "Location of non-conforming product" and it says</p> <p>9 "Missing RISC form for NAT NSL bay 2 wall pre-pour</p> <p>10 inspection". If you look at the date, it's 16 April</p> <p>11 2018.</p> <p>12 A. Mm-hmm.</p> <p>13 Q. On the basis that all those RISC forms described in</p> <p>14 those registers are of a similar nature, identifying</p> <p>15 which bay and which stage of construction a RISC form is</p> <p>16 said to be missing -- say, for instance, that they all</p> <p>17 relate to this type of non-conformances --</p> <p>18 A. Mm-hmm.</p> <p>19 Q. -- do you agree with the characterisation in the MTR</p> <p>20 register that these RISC forms are of a low-risk</p> <p>21 category?</p> <p>22 A. Yes, based upon the person who put this together, yes.</p> <p>23 Q. No, the person who put this categorisation obviously</p> <p>24 thought it's low risk. I'm just asking you whether you</p> <p>25 would agree with his categorisation, because you could</p>	<p>1 inspection" -- as I testified to this morning, I think</p> <p>2 that they are both equally important. And I do agree</p> <p>3 with what he says as to coming up with minor</p> <p>4 non-conformities and major, when you start using the NCR</p> <p>5 process.</p> <p>6 Q. Let me test it this way. If there is no inspection at</p> <p>7 all, the consequence would be that defective work could</p> <p>8 go on unspotted and a defective structure built; yes?</p> <p>9 But if the inadequacy is only in relation to the</p> <p>10 ex post facto recording of an inspection that has taken</p> <p>11 place, that is only something going to how you establish</p> <p>12 or evidence an inspection. I suggest to you surely that</p> <p>13 is of secondary importance to the fact of whether</p> <p>14 an inspection has taken place. Do you accept that?</p> <p>15 A. I agree that it's very important to perform the</p> <p>16 inspection, but I also agree that that should be</p> <p>17 followed up by a record so that it's a simultaneous</p> <p>18 event. You don't prepare the RISC forms three, four or</p> <p>19 five months after the work was performed. It just</p> <p>20 doesn't help the process of what the RISC form was</p> <p>21 designed for.</p> <p>22 Q. I will try again and then I will move on. Absence of</p> <p>23 inspection, we all know the consequences would go to</p> <p>24 safety, because if you don't inspect something and that</p> <p>25 something actually wasn't done, then we all know the</p>

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<p>1 consequences, whereas if there's no prescribed record in 2 the form of a RISC form, what I'm suggesting to you is 3 that, at worst, it goes to the ease of proving the 4 details of an inspection. I'm not saying that's not 5 important. I'm saying that it is of a lesser degree of 6 importance than the actual fact of an inspection. 7 A. I agree with that. 8 Q. Thank you. 9 I'm going to show you some evidence given by 10 Mr Kit Chan of MTRC. You may or may not have already 11 seen that, but I'm just trying to see whether we are on 12 common ground in relation to that evidence. Can I ask 13 you to look at BB8, page 5198. 14 You know Mr Kit Chan? He is from the MTR. 15 A. Yes. 16 Q. He said, in paragraph 42 of his witness statement: 17 "Despite Leighton's poor RISC form submissions, due 18 to the tight construction programme MTRC did not insist 19 on a strict adherence to the RISC form inspection 20 procedure as, if it were otherwise, substantial delay to 21 the works would have been caused." 22 You are aware that he had said so? 23 A. Yes. 24 Q. Next, I would like to show you what he said when giving 25 live testimony. That is Day 13 of the Extended Inquiry,</p>	<p>1 RISC form problem was the same?" 2 Then Kit Chan said: 3 "Late submission and no submission, both. 4 Chairman: No submission or late submission? 5 Answer: Yes, similar." 6 You see that is Mr Kit Chan's testimony. Were you 7 aware that this was what he said when you compiled your 8 report? 9 A. Yes, I read it. 10 Q. So you were aware that from the MTRC's perspective, it 11 continued to conduct inspection and proceed with the 12 works while aware that RISC forms were submitted late or 13 were outstanding? 14 A. Well, two things. One, I don't agree with the fact that 15 you should let the RISC forms be late. Then obviously 16 he quotes these other projects, but obviously MTR 17 proceeded without the formal inspections being noted and 18 recorded. 19 Q. Can I now refer you to your second report at 20 paragraph 7. 21 Sorry, before we move on, there is one part of your 22 testimony this morning, in answer to Mr Pennicott, that 23 I wish to refer you back to, in the context of having 24 seen Kit Chan's testimony. Can I ask you to look at 25 this morning's transcript, [draft] page 72. You may not</p>
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<p>1 at page 131, line 11. Perhaps we can actually start 2 a little bit earlier, at the start of the question. 3 Perhaps we can just start from the previous page at 130, 4 at the bottom, line 20. Can you read from line 20 of 5 this page all the way down to page 132, line 6. 6 I know you are not looking at the paper version, so 7 if you want the cursor to move on, perhaps I will have 8 to trouble you to actually say "move on". 9 A. No, I've got that. You can move on to the next. 10 Okay. 11 Q. At line 11: 12 "It's the normal practice in this world. That is 13 why you have found out the Guangzhou-Macau, because so 14 many thousands of RISC forms are not there. If we have 15 more practical approach, not have that problems now." 16 Let us know when you have finished this page. 17 A. I see what he said. I've read it. 18 Q. Can you move -- you know about the 19 Hong Kong-Macau-Zhuhai Bridge construction project in 20 Macau? 21 A. Yes. 22 Q. Can you move on to -- this extract actually finishes at 23 page 132, line 6, so can I trouble the cursor to move on 24 to the next page, 132, line 6, when the Chairman said: 25 "... remind me, with the Zhuhai-Macau Bridge, the</p>	<p>1 have this morning's transcript in front of your monitor, 2 but can I just read it out into the record so you can 3 hear it. 4 A. Sure. 5 Q. [Draft] Page 72 of this morning's transcript, line 7 6 onwards -- this is Mr Pennicott asking: 7 "As the Chairman says, and let me try and put it in 8 slightly different terms, that joint meeting not having 9 happened, you can remind people as much as you like, but 10 if you don't actually do something about it, something 11 positive about it, isn't it, as a matter of human 12 nature, the impression created that you don't really 13 think it matters and you're not giving it priority; 14 isn't that the real problem?" 15 And your answer: 16 "That is correct." 17 And Mr Pennicott asked: 18 "I don't want to look at this in terms of legal 19 analysis, was it a waiver or anything like that. It's 20 just that's the way it was. 21 Answer: Again, I have to put on my contractor's hat 22 here because I've spent so many years in doing it. In 23 my opinion, it had been my responsibility -- if I was on 24 the project as a contractor and this was going on -- 25 let's say ... the RISC forms weren't being done -- it's</p>

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<p>1 my obligation, if I'm too busy or for whatever the 2 reason, not preparing the RISC forms, it's up to me as 3 the contractor, who is outside his contract requirements 4 to go to the owner ..."</p> <p>5 So you gave the answer wearing your hat as the 6 contractor; remember that line of questioning?</p> <p>7 A. Mm-hmm.</p> <p>8 Q. My question to you now is this. Can you wear your hat 9 as a project management adviser and put your hat on as 10 an employer, advising the employer. What would you be 11 advising, at the time the RISC forms went missing?</p> <p>12 A. There's two answers to that --</p> <p>13 Q. In other words, don't say, "If I were the contractor, 14 I would have done X/Y/Z". If you are advising the 15 employer --</p> <p>16 A. I understand. I know what you're saying, but again 17 I think that on this particular project, the answer to 18 that particular question, you have to look at what was 19 actually going on in the field, and I definitely felt 20 that from what I saw, Leighton had performed projects 21 where the RISC forms had been provided. On this 22 project, I think there was a spirit of cooperation where 23 MTR felt that Leighton was going to be providing the 24 RISC forms. And as I've stated in my report and I've 25 tried to talk to this morning, the fact that there comes</p>	<p>1 requirement, to come in and say, "Look, I've got 2 a problem, I can't catch up, and you want us to do it 3 and you keep asking me to do it, but I can't catch up, 4 so let's come to an agreement on how we can go forward 5 and satisfy both our contract requirements." That's how 6 I see it.</p> <p>7 Q. Let's not get into the question of whether someone was 8 honest or whether someone thought the other party was 9 honest, because this involves looking at the internal 10 frame of mind of somebody, but I just want to put to you 11 that the fact, the objective fact, that MTRC had been 12 prepared to get on with the inspection and construction 13 without Leighton providing the RISC forms would have 14 created an impression that RISC forms were not on the 15 priority list of the MTRC?</p> <p>16 A. Because they felt that they were going to be getting 17 them, because the contractor had told them they were 18 going to be getting the RISC forms.</p> <p>19 Q. Right. Can I move on. Your second report, 20 paragraph 7 -- by "the second report" I mean the report 21 recently filed, I think on 30 September, paragraph 7. 22 There you said, eight lines from the top: 23 "In this context, Leighton's own evidence was that 24 its engineers were struggling to catch up with the 25 progress of the works ..."</p>
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<p>1 a time, though, that you have to say they're not giving 2 you the correct information so you need to take 3 an action.</p> <p>4 Q. When would that have been? Four years after the event?</p> <p>5 A. It's not four years, no. In fact -- hindsight is 6 a wonderful thing. You've got two years that was going 7 on when the RISC forms weren't being performed, and 8 there was a continual conversation about they were going 9 to provide the RISC forms. Now, as a contractor, was 10 I telling my owner the truth? I believe Leightons is 11 an honest contractor. I think that they probably did 12 feel they were going to be providing the RISC forms, and 13 I think that the MTR believed they were going to do it. 14 So, in the human nature element, yeah, that continues on 15 now. "You're going to give them to me?" "Yes." "Good. 16 You are going to give them to me?" "Yes." So when is 17 the point in time when you believe the contractor is not 18 going to fulfil that obligation? When is that? When do 19 you determine that the contractor is not being honest 20 with you? When is that? I'd say that it would probably 21 be four months in, five months in, maybe, after they 22 don't get the RISC forms. That's just my opinion. That 23 you would probably call it and say, "Look, this isn't 24 working." But as a contractor, I think they had the 25 obligation, since they weren't meeting the contract</p>	<p>1 A. Are we on the screen with that?</p> <p>2 Q. It's paragraph 7 of your latest report, dated the 30th, 3 and eight lines from the top of that paragraph you can 4 see the sentence: 5 "In this context, Leighton's own evidence ..."</p> <p>6 A. Okay. I'm sorry. I'm with you.</p> <p>7 Q. Do you see that?</p> <p>8 A. Yes.</p> <p>9 Q. "... Leighton's own evidence was that its engineers were 10 struggling to catch up with the progress of the works, 11 as they were constantly 'busy' and 'fully occupied' (if 12 not overworked) and that this was the reason why it did 13 not comply with its contractual obligations ..."</p> <p>14 Do you see that sentence?</p> <p>15 A. Yes.</p> <p>16 Q. It may be a small point. Can I just clarify with you: 17 when you put words in italics or quotations, it was 18 because you were quoting from the actual words used by 19 Leighton's witnesses; correct?</p> <p>20 A. Basically, yes, I was --</p> <p>21 Q. So the words "busy" --</p> <p>22 A. "Fully occupied", "busy", "overworked".</p> <p>23 Q. The earlier phrase, "struggling to catch up with the 24 progress of the works", that's not a phrase used by any 25 Leighton witnesses; correct? The phrase before, in the</p>

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<p>1 earlier part of the sentence; yes? 2 A. Oh, yes. 3 Q. "... were struggling to catch up with the progress of 4 the works, as they were constantly 'busy' ..." 5 "Struggling to catch up with the progress of the 6 works" is not a phrase or words used by Leighton 7 witnesses, but -- 8 A. No. I'm referring to what I -- my interpretation of 9 reading the documents was that they were struggling to 10 catch up with the preparation of the RISC forms. 11 Q. Thank you. So the only thing that is actually from 12 Leighton's witness statements were "busy" and "fully 13 occupied"? The "struggling to catch up with the 14 progress of the works" part is your own interpretation 15 of the words used? 16 A. Yes, that's correct. 17 Q. And you would accept that the interpretation of those 18 factual witnesses is a matter for the Commission? 19 A. Yes, completely. 20 Q. Thank you. 21 Paragraph 10 of the same report -- move down 22 a bit -- you said, in the third line from the end: 23 "... it is apparent from the evidence that they 24 [meaning Leighton] put programme ahead of quality, and 25 this prioritising eventually led to gaps in the</p>	<p>1 at paragraph 20 of your latest report. Through said: 2 "It is clear from the witness statements of 3 Leighton's frontline site staff (as already mentioned 4 above) that there were insufficient Leighton resources 5 to support them in preparing and following the RISC form 6 procedure." 7 Do you see that? 8 A. Yes. 9 Q. Again, in line with the earlier question I asked you, 10 there's nothing in Leighton's witness statements which 11 said that "they have not devoted adequate resources"; 12 there's nothing of that sort. This is your 13 interpretation of the effect of Leighton's evidence; is 14 that a fair way of putting it? 15 A. Yes. 16 Q. Can I move on to other relatively smaller areas. You, 17 in your -- can I ask you to look at the joint project 18 management statement for COI 1. I have to put a point 19 to you because this is a point brought up by Mr Wall -- 20 COI 1 joint project management statement, paragraph 26. 21 Here, under the heading "Full-time and continuous 22 supervision", you said: 23 "[You] agree that 'full-time and continuous 24 supervision' does not mean 'man-marking'. The 25 requirements for supervision by the contractor are set</p>
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<p>1 record-keeping procedures." 2 Do you see that sentence? 3 A. Yes. 4 Q. But you would accept that MTR and Leighton did 5 coordinate and conduct inspection of works, would you? 6 A. Yes. 7 Q. And you would accept, would you not, that leaving aside 8 documentation, MTRC did give verbal consent before 9 proceeding to pouring of concrete? 10 A. Yes. 11 Q. So would you therefore agree that late or no RISC forms 12 did not impact on quality; it at worst impacted on 13 record-keeping? 14 A. Well, not having the RISC forms, they would not be able 15 to put that in their quality programme either, the QAP. 16 So I'm not sure I understand your question. If you 17 don't have the RISC forms, you can't update your quality 18 programme, which was a requirement, so -- 19 Q. By "quality" I mean quality of works, whether things 20 were done properly, whether things were connected; 21 "quality" in that sense. 22 A. Well, the joint inspections that were performed should 23 have addressed the quality issues. 24 Q. Thank you. 25 Finally on the question of RISC forms, can you look</p>	<p>1 out in the General Specification and require a minimum 2 ratio of 1 supervisor to no more than 10 workers." 3 Do you see that? 4 A. Yes. 5 Q. So you refer to the General Specification and you draw 6 your conclusion that the minimum requirement is 7 a minimum of one to ten? 8 A. Yes. 9 Q. Can I now take a look with you at the General 10 Specification. Before I do that, can you look at 11 Mr Wall's report, paragraph 73. 12 Mr Wall, in this paragraph, referred to the 13 supervision ratio, and he said: 14 "I note Mr Rowsell's reference to the supervision 15 ratio specified under clause G3.9.1 of the General 16 Specification. However, I would highlight that this 17 supervision ratio relates to health and safety and not 18 quality assurance matters. In particular, it does not 19 relate to the supervision or inspections of 20 reinforcement or coupler works." 21 First of all, do you have any recollection of clause 22 G3.9.1? 23 A. I've read it but I can't -- 24 Q. Perhaps we can actually look at the actual clause. Can 25 I just have one moment to locate that General Condition?</p>

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<p>1 Can I just have one moment, because I have a reference 2 somewhere. C3, it's in COI 1 bundle, 2040. Thank you. 3 It's General Condition 3.9.1. It says: 4 "The Contractor shall provide adequate supervision 5 to ensure that all works on Site are carried out safely. 6 Works shall be arranged so that the Works are supervised 7 at a minimum ratio of 1 supervisor to no more than 8 10 workers." 9 Do you see that? 10 A. Yes. 11 Q. If you move to page 2037, this entire section 3 is under 12 the heading "Health and safety"; do you see that? 13 A. Yes. 14 Q. So the point I suggest to you is that insofar as you 15 have derived this ratio of one supervisor to ten from 16 the General Conditions, I'm suggesting to you that it is 17 in a clause which is under a section concerning health 18 and safety and not in relation to quality assurance 19 matters. Do you accept that? 20 A. No. I think health and safety is part of the quality 21 programme. But I think one of the things I would 22 recommend -- and you are referring to my first report 23 and there was a lot of content in that report about the 24 supervision of the project and how the various 25 components of the works should be supervised. So</p>	<p>1 the QSP requirements for record-keeping, et cetera, only 2 apply in areas which are subject to a requirement of 3 ductility? 4 A. Yes, and the interesting thing about this project is 5 that the contractor used the ductile couplers when they 6 probably could have got by with a non-ductile coupler. 7 So I think it's really a non-issue. 8 Q. Ah. You see, again, it ultimately may be a question of 9 interpretation, but would you accept that there is 10 a difference between whether or not an area is subject 11 to a ductility requirement on the one hand and whether 12 or not ductile couplers were in fact used in an area on 13 another -- 14 A. Yes. You go by the drawings to determine where the 15 ductile requirement is. 16 Q. Thank you. So you could have a situation where an area, 17 according to the drawings, is not subject to a ductility 18 requirement but, for whatever reason, people chose to 19 use ductile couplers? You accept that there could be 20 this scenario; yes? 21 A. Yes, but again, I guess, I believe also that they all 22 need to be supervised, whether they are ductile or not. 23 But yes, I agree with you. It's laid out on the 24 drawings and the ductile requirements are actually 25 identified.</p>
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<p>1 I think -- I suggest you read my report in full to talk 2 about the supervision requirements, because I don't 3 really get into the one to ten. I make other comments 4 regarding to supervisory support on a project. 5 Q. Thank you. I'm not going to dwell on that for too long 6 because ultimately these are matters of interpreting the 7 various clauses. I just want to lay down the relevant 8 marker as to where we disagree, because ultimately, do 9 you accept that interpretation of contractual clauses 10 ultimately are matters for ...? (Indicating the 11 Commissioners). 12 A. That's exactly correct. 13 Q. Do you accept -- now, in your joint statement in COI 1, 14 in the first part, you have accepted that full-time 15 continuous supervision does not mean man-marking; do you 16 remember that? 17 A. That's correct, yes. 18 Q. Would you also accept that it doesn't mean that there 19 has to be a supervisor who is present 100 per cent of 20 the time when works are being done? 21 A. That's correct. 22 Q. Now I move on to the question of QSP requirement. 23 Again, there probably is no need to look up the actual 24 wording. We can, if we have to. Do you accept that the 25 requirement of full-time and continuous supervision and</p>	<p>1 Q. So you go by the drawings to identify whether an area is 2 subject to a ductile requirement? 3 A. Yes. 4 Q. Thank you. 5 A final topic on interface management. Do you 6 accept that, as a matter of proper project management 7 and contract administration, it would be desirable if 8 MTR were to have asked Atkins to issue a drawing 9 amendment to show that the couplers at the interface 10 were different couplers, different types of couplers? 11 A. I think that -- and this is one of the things I haven't 12 been able to -- I couldn't find, and that was that the 13 drawings from contract 1111, I thought it would be 14 helpful if those drawings had the type of coupler that 15 was used in contract 1111. And, therefore, you would 16 have a document that would educate people as to the use 17 of the Lenton couplers. 18 But I think that the actual going back to Atkins to 19 identify it -- it's more important to me, as 20 I mentioned, that once it was recognised that there was 21 a difference in the couplers, a method statement that 22 actually went to the field would actually be a more 23 proper way to deal with that. 24 Q. Do you have any actual experience of managing a project 25 in Hong Kong for a contractor?</p>

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<p>1 A. No.</p> <p>2 MR SHIEH: Thank you. I have no further questions, but</p> <p>3 subject to one caveat and that is to echo what Mr Chang</p> <p>4 said this morning: there are many matters in what</p> <p>5 Mr Huyghe had said both in the synopsis and in the</p> <p>6 written report which may be susceptible to argument</p> <p>7 whether or not it really is expert project management</p> <p>8 evidence or whether it is personal interpretation of</p> <p>9 facts. But I do not wish to take up time in going</p> <p>10 through that, but can I just reserve those matters for</p> <p>11 submissions? And the fact that I have not actually</p> <p>12 tackled Mr Huyghe on those matters should not be</p> <p>13 regarded as somehow acquiescing that those are proper</p> <p>14 subject matter of expert testimony.</p> <p>15 CHAIRMAN: That's fully understood.</p> <p>16 MR SHIEH: On that note, I have no further questions.</p> <p>17 Cross-examination by MR KHAW</p> <p>18 MR KHAW: Just perhaps three questions from the government.</p> <p>19 I'll just plough on so that everyone can go soon.</p> <p>20 Mr Huyghe, if I may just ask you to have a look at</p> <p>21 your first report. There's just one small bit that</p> <p>22 I wish to perhaps clarify with you. Your first report,</p> <p>23 paragraph 111, internal page 27 -- yes, the last</p> <p>24 paragraph -- where you talk about the RISC forms and the</p> <p>25 inspections. At 111 you said:</p>	<p>1 A. Yes, and that's particularly identifying the coupler</p> <p>2 work.</p> <p>3 Q. Yes.</p> <p>4 A. So yes, I agree with that.</p> <p>5 Q. Insofar as it relates to the 20 per cent supervision by</p> <p>6 MTRCL, would you agree that MTR failed in that respect?</p> <p>7 A. You know, when you try to determine how much time</p> <p>8 somebody spent at 20 per cent, it's very difficult.</p> <p>9 I do know that MTR inspectors are out there full-time</p> <p>10 and continually.</p> <p>11 Q. Yes.</p> <p>12 A. So to try to pigeonhole it to say it was 20 per cent or</p> <p>13 not, I really don't know.</p> <p>14 Q. Right. If I can just ask you to look at some</p> <p>15 photographs in relation to some defective coupling</p> <p>16 works. If I can ask you to take a look at DD14, please,</p> <p>17 15340. That's a cover page introducing various</p> <p>18 photographs of the open-up inspections for defective</p> <p>19 stitch joints.</p> <p>20 If I can take you to the next page, 15341. Now,</p> <p>21 this is apparently a picture which was taken in,</p> <p>22 I believe, February 2018. You may be able to see the</p> <p>23 date at the end of this page. If we can blow it up</p> <p>24 a little bit, 15341, you will see the date; right?</p> <p>25 A. Yes.</p>
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<p>1 "As such, I consider that inspections were made at</p> <p>2 the hold points albeit that the RISC forms may have been</p> <p>3 missing or not provided timeously."</p> <p>4 Pausing here, just as a general proposition, would</p> <p>5 you agree that in the absence of -- with the missing</p> <p>6 RISC forms, in the absence of the complete set of RISC</p> <p>7 forms, it would be rather difficult to verify or</p> <p>8 ascertain whether and perhaps how inspections at the</p> <p>9 hold points were in fact carried out or not? Would you</p> <p>10 agree as a general proposition?</p> <p>11 A. I agree to that, yes.</p> <p>12 Q. If I may then take you to have a look at Mr Rowsell's</p> <p>13 report. Page 29, paragraph 52, where he identifies</p> <p>14 certain contributory factors in the non-identification</p> <p>15 of defects during inspection, and they included, if you</p> <p>16 look at (h), "failure to ensure full-time supervision of</p> <p>17 the coupler works by the contractor [ie Leighton] and</p> <p>18 for MTRCL to provide 20 per cent attendance".</p> <p>19 Now, pausing here, that is one of the contributory</p> <p>20 factors identified by Mr Rowsell. Now, insofar as it</p> <p>21 relates to the full-time supervision of coupler works by</p> <p>22 Leighton is concerned, I take it that you would agree</p> <p>23 with his observation; is that correct? That is the</p> <p>24 contractor failed to provide full-time supervision of</p> <p>25 the coupler works?</p>	<p>1 Q. We can see the defective coupling works here; can you</p> <p>2 see that?</p> <p>3 A. Yes.</p> <p>4 Q. If I can sum up, I must say it's pretty alarming,</p> <p>5 because if you can take a look at, for example, 15342,</p> <p>6 the one at the bottom right -- do you see that?</p> <p>7 A. Yes.</p> <p>8 Q. Then if I can take you to see a bit more. 15344.</p> <p>9 Again, at the bottom, at the right and also the left; do</p> <p>10 you see that?</p> <p>11 A. Yes.</p> <p>12 Q. If we look at these pictures, is it fair to say that</p> <p>13 it's reasonable to cast some doubt as to whether MTR</p> <p>14 actually properly carried out the 20 per cent</p> <p>15 supervision of the coupler works?</p> <p>16 A. Yes. I mean, just based on the fact that this work is</p> <p>17 defective can draw a question as to what was actually</p> <p>18 inspected.</p> <p>19 Q. Yes. At least in relation to the hold-point inspection,</p> <p>20 would you agree that one can at least cast doubt on</p> <p>21 whether supervision by MTR had been properly done?</p> <p>22 A. You mean the supervision or the inspection by MTR?</p> <p>23 Q. Yes.</p> <p>24 A. Yes, I think it draws question to all parties.</p> <p>25 Q. Thank you.</p>

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<p>1 COMMISSIONER HANSFORD: Sorry, that word -- you think it 2 draws questions to all "parties", did you say? 3 A. Yes, based on there should be joint inspections of this 4 work. 5 COMMISSIONER HANSFORD: I was just trying to get it for the 6 transcript. 7 A. I'm sorry. 8 COMMISSIONER HANSFORD: Thank you. 9 MR KHAW: Finally, if I can then take you to your first 10 report, Mr Huyghe, paragraph 133, page 31. 11 Again, just a rather general point here. I think 12 you agreed with Mr Rowsell that "whilst the specific 13 testing requirements for the contract were not fully 14 achieved, the successful testing of 93 per cent of the 15 steel delivered to site should give a good degree of 16 confidence that the reinforcing steel used in the 17 project has met the required standards." 18 If you can just pause here. Are you aware that 19 statistical evidence has been adduced for the purpose of 20 ascertaining whether 93 per cent rebar testing would be 21 able to achieve the required standards? 22 A. Just in passing conversations, by being here, I have 23 a -- 24 Q. Thank you. When you come to this conclusion or come to 25 this agreement with Mr Rowsell that 93 per cent "should</p>	<p>1 7 per cent, it would be a question then of seeing 2 whether location is a material or determining factor? 3 A. Yes, at the location where that -- 4 CHAIRMAN: If it's spread, it would be unlikely to -- well, 5 let's say it was spread across the entire spectrum of 6 the work, that may be different from it would be the 7 final 7 per cent which was all in one area? 8 A. Normally, you test in batches, so you have a batch of 9 steel. Then, whatever the testing requirements for that 10 batch, and then that batch goes into a certain location. 11 So obviously the testing requirement should pertain to 12 that particular batch that goes into that particular 13 location. 14 CHAIRMAN: Okay. Good. Thank you. That helps me. 15 Anything arising from that? 16 Mr Clayton? 17 MR CLAYTON: I have no questions, sir. 18 CHAIRMAN: Thank you very much. 19 Any re-examination? 20 Re-examination by MR BOULDING 21 MR BOULDING: Yes. Just a couple of questions, I think, 22 Mr Huyghe. 23 Do you recall being asked by both Mr Pennicott and 24 Mr Shieh about RISC forms? 25 A. Yes.</p>
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<p>1 give a good degree of confidence that reinforcing steel 2 has met the required standards", is it fair to say that 3 you reached this conclusion largely on the basis of 4 perhaps a common-sense approach, on the basis that 5 there's this 93 per cent rebar testing, so it should be 6 all right? Can we say that? 7 A. It's really based on my experience in actually building 8 projects and having reinforcing steel checked. It's 9 from a construction perspective. 10 Q. And would you agree that in order to determine whether 11 93 per cent testing would give a good degree of 12 confidence, since we have the statistical evidence, 13 would you agree that the statistical angle should also 14 be taken into account in assessing whether it would be 15 able to achieve a good degree of confidence? 16 A. Well, the next step, I believe, would be to see where 17 the 7 per cent was; you know, to look at actual 18 locations -- 19 Q. Absolutely. 20 A. -- and where the steel goes. 21 Q. Where do they come from, for example. 22 A. And obviously I didn't do that. 23 MR KHAW: Thank you. I have no further questions. 24 CHAIRMAN: Sorry, when you are saying about where the steel 25 goes, you are saying if you are looking at this</p>	<p>1 Q. And you were asked about MTR's evidence, and in 2 particular how what the various witnesses said/did/did 3 not do affected MTR's -- affected, sorry, Leighton's 4 attitude to RISC forms. Do you remember that line of 5 questioning? 6 A. Yes. 7 Q. I wonder whether we can just look at one of the witness 8 statements. It's Mr Victor Tung, and it's BB5248. 9 Thank you. If you can just scroll down. 10 Is this a witness statement you will have read, 11 Mr Huyghe? 12 A. Yes. 13 Q. We can see, if you go down to paragraph 4, that Mr Tung 14 tells us that he was initially an inspector of works and 15 then a senior inspector of works II; correct? 16 A. Correct. 17 Q. Then if we could go on, please, to BB5254, and look at, 18 in particular, paragraph 31. Do you see there that he's 19 talking about what's referred to as the HHS inspection 20 group? 21 A. Yes. 22 Q. Which involved participants from both MTR and Leighton; 23 correct? 24 A. Correct. 25 Q. Then looking particularly at paragraph 32, do you there</p>

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1 see Mr Tung talking about RISC forms?
 2 A. Yes.
 3 Q. Perhaps you could just read paragraph 32 to yourself.
 4 Tell the operator when you need to scroll down, please.
 5 A. Scroll down, yes.
 6 Yes.
 7 Q. Have you read that?
 8 A. I'm reading down all the way to the bottom.
 9 Q. Okay. Don't let me rush you.
 10 A. Yes.
 11 Q. Now, assuming that evidence is accepted by the
 12 Commission of Inquiry, from a project management
 13 perspective, do you have a view as to whether what
 14 Mr Tung said and did should have created an impression
 15 on the part of Leighton that RISC forms were not
 16 a priority for MTR?
 17 A. No.
 18 MR BOULDING: Thank you, Mr Huyghe. I have no further
 19 questions.
 20 I don't know, Chairman or Professor?
 21 CHAIRMAN: No. Thank you very much indeed.
 22 MR PENNICOTT: Thank you, Mr Huyghe.
 23 CHAIRMAN: Mr Huyghe, thank you very much. You have
 24 assisted us greatly and I know you have put in a lot of
 25 hard work and we have obliged.

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1 WITNESS: My pleasure. Thank you.
 2 CHAIRMAN: Thank you.
 3 (The witness was released)
 4 MR SHIEH: Mr Chairman, after Mr Huyghe, I understand the
 5 next witness is supposed to be Mr Wall on behalf of
 6 Leighton, scheduled for Tuesday.
 7 CHAIRMAN: Tuesday.
 8 MR SHIEH: I understand there's no further witnesses lined
 9 up for today, so perhaps we can have an early finish.
 10 CHAIRMAN: All right. Good. Then we will do that.
 11 (Tribunal conferring)
 12 Just one thing from the Secretary to the Commission.
 13 Because of the announcement given this afternoon, and
 14 although there's no concern at this moment of anything
 15 actually happening, prudence dictates that coming back,
 16 as sometimes has been the case, up until 8 pm at night
 17 before these offices are closed today may not be
 18 prudent.
 19 You will obviously be given as much time as you need
 20 to leave, but once you are gone then the offices will be
 21 closed. So, if you want to come back later for any
 22 reason, I'm afraid it will have to wait.
 23 Good. Apologies for that but it's a measure of
 24 safety.
 25 Good. Thank you very much. Tuesday morning at ...?

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1 MR PENNICOTT: 10.00, sir.
 2 CHAIRMAN: 10 o'clock. Thank you.
 3 (3.28 pm)
 4 (The hearing adjourned until 10.00 am
 5 on Monday, 8 October 2019)
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