

**Commission of Inquiry into the Diaphragm Wall and Platform Slab Construction
Works at the Hung Hom Station Extension under the Shatin to Central Link Project**

FIRST WITNESS STATEMENT OF KEVIN HARMAN

I, **KEVIN HARMAN** of [REDACTED], say as follows:

1. I was, at all times relevant to this statement, the Quality and Environmental Manager employed by Leighton Contractors (Asia) Limited (“**Leighton**”) for the Hung Hom Station Extension contract (Contract SCL 1112) (the “**Project**”) under the Shatin-Central rail link project. The project manager for the Project is MTR Corporation Limited (“**MTRCL**”).
2. Unless otherwise stated, the facts stated herein are within my personal knowledge and are true. Where the facts and matters stated herein are not within my own knowledge, they are based on the stated sources and are true to the best of my knowledge, information and belief.

Background and experience

3. I was employed by Leighton from 1 September 2009 until I retired on 11 January 2018. I have worked in the Hong Kong construction industry for over 25 years for various international construction companies. Over the course of my career, I have worked on a number of MTRCL projects, including the Kowloon Airport Express Station, Yau Tong Station, Mei Foo Station Noise Enclosure and Modification Works, Kowloon Tong Southern Extension, Tsim Sha Tsui Modification works, Austin Station and the Project.

Role and responsibility

4. I started working on the Project in or about October 2012 during the tendering process and continued to work on the Project until I retired on 11 January 2018. From 1 July 2017, I was also working on another Leighton project referred to as the Airport Terminal 1 Car Park Extension. I shared my time equally between the two projects.



5. My main responsibilities in relation to the Project involved implementing Leighton's quality and environmental management system, leading the quality team, leading the environmental team, leading the document control team, leading the Public Relations & Community Ambassador team, leading IT groupware development and implementation. I also had other responsibilities, such as establishing and maintaining site office infrastructure (desks/partitions/computers/phones), leading and coordinating the Contractors' Co-operative Training Scheme, improvement and implementation of 3nos DNV element modules for safety, leading the independent "Permit to Dig" compliance checking process, and overseeing the concrete ordering coordination and monitoring.

Quality management

6. I was aware of the Site Supervision Plans (SSPs) [C13/8329-8347] at the time of the Project. However, I was not involved in the preparation or implementation of the SSPs.
7. I was aware of the document titled "*Quality Supervision Plan for installation of couplers in Diaphragm Wall and barrettes by BOSA - second submission*" (QSP) [C13/8310-8328] at the time of the Project. However, I was not involved in the preparation or implementation of the QSP. The construction engineering team was responsible for the preparation and implementation of the QSP. I cannot specifically recall, but I expect that the document control team was involved in the submission of the QSP to MTRCL [C13/8310-8328].
8. I was involved in the preparation of Leighton's Quality Assurance Plan [B6/3966-4033]. The Quality Assurance Plan was prepared to satisfy MTRCL's requirements. The Quality Assurance Plan was based on standard Leighton documents, which were tailored for the Project.

Inspection of reinforcement

9. The process of formal inspection of, and approvals to be obtained in relation to, the works by Leighton and MTRCL was set out in the Inspection and Testing Plan (ITP) for each area. There were two formal inspections of the reinforcement.¹ The first was

¹ These formal inspections do not include the additional routine inspections that were carried out by Leighton's engineers and MTRCL's engineers/Inspectors of Works every day on site.

the rebar fixing inspection and the second was the pre-pour check. These inspections occurred at “hold points” under the ITP, which meant that the subsequent works could not continue until the formal inspection had been conducted and Leighton and MTRCL had approved the works.

10. These formal inspections were requested by Leighton by using a RISC form, which was then completed by MTRCL to confirm that the inspection had been completed and the works were approved. At the same time, Leighton recorded its inspection and approval of the reinforcement separately in a Cast In-Situ Concrete Quality Checklist. There was a specific section of the Cast In-Situ Concrete Quality Checklist that related to the inspection and approval of reinforcement (including couplers). In my view, a completed set of RISC forms and Cast In-Situ Concrete Quality Checklist for an area would confirm that all of the connections between the rebars and couplers in that area had been inspected and approved by Leighton and MTRCL. This is indicated by the Leighton representative signing the Cast In-Situ Concrete Quality Checklist (including to the section relating to “reinforcement”) and MTRCL’s representative signing the RISC form.

NCR process and procedure

11. A Non-Conformance Report (**NCR**) would be issued if the construction team identified evidence of deviation from criteria (e.g. requirements of the contract). The quality team would assist with the preparation and issuing of a NCR, but it was the construction team who made the final assessment as to whether the deviation merited the issuing of a NCR.
12. The document titled “Non-conformance Report Classification” [C35/26663-26665] was a guideline to assist the person completing the NCR. Leighton’s system required the “Main cause”, “Subsidiary cause” and “Approximate rectification cost” to be selected from a list of options whenever a NCR was being completed. This document provided further information to help those preparing a NCR to classify the causes of defective work.
13. Once the NCR was prepared, it would be printed with the Document Transmittal form for review and signing. The quality team would usually initial the NCR and Document Transmittal form first and then the relevant person in the construction engineering team would also initial the NCR to confirm that the contents were correct. Finally, the



Project Manager would have to sign off before the NCR would be issued. The NCR would then be sent to the subcontractor and MTRCL.

14. The NCR would be closed out once the rectification works were completed and signed off by Leighton and MTRCL. Another version of the NCR would be created and a section titled 'Details of Required Rectification' would then be completed and signed off by the relevant member of the construction engineering team and the Project Manager. If rectification work was required to address the NCR, it was typical for a RISC form to be completed by Leighton and signed off by MTRCL to record that the rectified works had been inspected and approved.
15. The quality team monitored and provided information to the Project Director, Project Manager and Leighton's other teams (including the construction engineering team and design engineering teams) about the status of NCRs. This information was provided in the following reports:
 - (a) a summary of outstanding items attached to the minutes of the weekly project coordination meeting;
 - (b) a fortnightly exception report (showing NCRs without proposed rectification AND NCRs with proposed rectification but not closed), which was sent by email to the Project Director, Project Manager, construction managers, commercial manager, engineering manager, chief surveyor, planning manager, site agents, site engineers and others; and
 - (c) the same exception report was provided to MTRCL as part of the monthly progress report, and to Leighton's head office as part of the monthly quality report.

Allegation that the threaded ends were cut off rebar

16. The first time I became aware that threaded ends of a small number of rebars had been cut off was on 15 December 2015 when MTR's Senior Inspector of Works handed me copies of the photos that are now attached to NCR 157 [B6/4121-4126]. Shortly after, I spoke to Andy Ip and showed him the photos. Andy said to me that he would investigate and come back to me in a couple of days. On or around 18 December, I recall that Andy Ip told me that Fang Sheung was responsible for the defective rebars



(shown in the photos) and agreed that we should issue a NCR to Fang Sheung. I then assisted Andy to prepare NCR 157.

17. I cannot specifically recall who inserted the typed text under the heading 'Details of Defective Works' in NCR 157, but Andy would have provided the material information to complete this section. Once we prepared NCR 157, we both initialed the bottom left hand corner of NCR 157 and the top right hand corner of the Document Transmittal. I arranged for the NCR and Document Transmittal to be given to Ian Rawsthorne to approve and sign. NCR 157 was issued to both Fang Sheung and MTRCL on 18 December 2015.
18. In early January 2017, it came to my attention that NCR 157 had not been formally closed out. I cannot specifically recall, but I believe it could have been the investigation carried out by Stephen Lumb and Guntung (referred to below) that prompted me to take steps to have NCR 157 closed out. In any event, NCR 157 would have been listed as outstanding on the fortnightly exception reports.
19. I followed up with Andy Ip in January 2017 regarding NCR 157 and it was either him or Man Sze Ho who showed me the RISC form [B6/4130-4132] which attached photos of the rectification works that had taken place to remedy the defective bars that were the subject of NCR 157. I asked them to explain the rectification works to me so that I could complete the 'Details of Required Rectification' in another version of NCR 157 [B6/4127]. I wrote this information in by hand. I also wrote in the words "*closed out on Fri 13 Jan 17 using RISC/CIV/11266 as close out evidence*" and signed my name with the date "*16/JAN/17*" next to it. I handed the document to Andy Ip and Ian Rawsthorne for their signature. I wrote "*15 DEC 2015*" next to Ian's signature. I cannot specifically recall, but I believe that I wrote this date because it was the date that the rectification works were stated to be have been completed on the RISC form (i.e. RISC/CIV/1126). I wrote the additional information by hand in that second version of NCR 157 [B6/4127], so it was clear that it was completed in January 2017 as part of the closing out process.

Investigation by Stephen Lumb and Guntung

20. On 6 January 2017, Anthony Zervaas showed me a copy of the email that he received from Jason Poon on 6 January 2017 at 9.45am [C12/7923]. When I read Mr Poon's

email, my first thought was that the allegations could not be credible. I did not believe that Mr Poon's allegation that there was a large number of cut rebar installed in the slabs because I was only aware of a single occasion (which was the subject of NCR 157) when five defective rebars were identified and rectified. I did not believe (and still do not believe) that the allegations were true given the many people from Leighton and MTRCL who were involved in supervising and inspecting the works.

21. I am aware that Stephen Lumb and Guntung carried out an investigation into the allegations in Mr Poon's email.
22. Guntung called me before he visited the site (I cannot recall the specific date) and asked me if I was able to assist with the investigation. The next morning when he arrived, I printed a copy of Leighton's organisational chart and highlighted the names of those people who I thought Guntung should speak to about Mr Poon's allegations. I cannot recall the names that I highlighted on that chart, but I believe it included members of the site supervision team and construction engineering team. I also recall assisting Guntung search for some records and documents, including the method statements, ITPs and RISC form records. I otherwise had no further involvement in the investigation or preparation of the report [C27/20242].

Dated the 6th day of December 2018.

Signed:  _____

Kevin Harman