

**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 APPOINTED PURSUANT TO
SECTION 2 OF THE COMMISSION OF INQUIRY ORDINANCE
(CAP 86) ON 10 JULY 2018**

WITNESS STATEMENT OF LEUNG MAN HO

I, LEUNG Man Ho (also known as Jonathan LEUNG), the Government Engineer/Railway Development(1) of Highways Department ("**HyD**") of Upper Ground Floor, Ho Man Tin Government Offices, 8 Chung Hau Street, Ho Man Tin, Kowloon, do say as follows:-

1. I was the Chief Engineer in Railway Development Office ("**RDO**") of HyD and held this position from 2 July 2013 to 30 November 2015. During this period, my duties included overseeing the construction works under Contract No. 1112 of the Shatin to Central Link ("**SCL**") Project. Since 1 December 2015, I have been in the position of Government Engineer of HyD, which is the head of the Railway Development (1) Branch of RDO of HyD. I am responsible for overseeing the implementation of the SCL Project among other railway projects.

2. I make this statement pursuant to the requests of the 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 ("**the Commission**"), set out in a letter from Messrs Lo & Lo to the Transport and Housing Bureau ("**THB**") and HyD dated 1 August 2018 ("**the 1 August Letter**"). Save where otherwise appears, the facts deposed hereto are within my personal knowledge or are derived from office files and records and sources to which I have access, and are true to the best of my knowledge, information and belief. Save as otherwise specified, this Statement adopts the same abbreviations and nomenclature as in the 1 August Letter.

3. This statement provides my answers to Questions 1, 2, 3, 6, 7(a), 7(c), 12, 13, 15 and 16 at pages 5 to 18 ("**Questions**") in the 1 August

Letter. In relation to the other Questions in the 1 August Letter, I understand that other HyD officers will provide witness statements in order to fully assist the Commission.

4. This statement is divided into the following parts:
 - (a) Part I explains the organisation of RDO and its role relating to the SCL Project, in answer to Questions 1, 2 and 3.
 - (b) Part II explains the operation of monitoring groups and mechanism, in answer to Questions 2 and 6.
 - (c) Part III describes the steps taken by HyD to investigate the suspected Defective Steel Works and the referral of the matter to the Police, in answer to Questions 7(a) and 7(c) and 13.
 - (d) Part IV identifies and explains other incidents of non-conformity in the SCL Project, in answer to Questions 15 and 16.
 - (e) Part V deals with my involvement in the incident relating to an email from China Technology Corporation Limited, in answer to Question 12.

Part I - Organisation and Role of RDO relating to the SCL Project

5. The RDO is responsible for implementation of railway projects (including the SCL Project) and the planning of the future expansion of Hong Kong's railway network. Under the current establishment of RDO, I head a dedicated section, that is, Railway Development (1) Branch, to oversee the implementation of the SCL Project. The Organization Chart of the Railway Development (1) Branch of RDO is at **Annex LMH-1**.

6. I am supported by three Chief Engineers to oversee the SCL, namely Chief Engineer/ Railway Development 1-1 ("CE/RD1-1"), Chief Engineer/ Railway Development 1-2 ("CE/RD1-2") and Chief Engineer/ Railway Development 1-3 ("CE/RD1-3").

7. CE/RD1-1 is mainly responsible for the interchange stations of the SCL. These include the Hung Hom Station ("HUH") Extension and the SCL portions in the Admiralty Station Extension and Homantin Station. CE/RD1-1 is also responsible for the vesting arrangement of the SCL. Apart from the duties under the SCL Project, CE/RD1-1 is also involved in the implementation of two new railway projects, namely Tuen Mun South Extension and Northern Link (including Kwu Tung Station), and the finalisation of Kwun Tung Line Extension project. The incumbent CE/RD1-1 is Mr. Ralph Li, who will provide a statement on behalf of HyD in reply to certain questions raised in the 1 August Letter.

8. CE/RD1-2 and CE/RD1-3 are mainly responsible for the implementation of the North-South Line ("NSL") and East-West Line ("EWL") of the SCL respectively except for the SCL duties of CE/RD1-1 as referred to in paragraph 7 above. Apart from his SCL duties, CE/RD1-3 is also responsible for the improvement works of existing railway stations as well as the remaining works and finalisation of the South Island Line (East) project.

9. As at 1 August 2018, my section in the RDO comprises a total of 45 professionals, out of which 33 officers (including 16 full-time officers and 17 part-time officers¹) were assigned to oversee the implementation of SCL Project. These 33 professionals include the Government Engineer (i.e. myself), 3 chief professionals, 12 senior professionals and 17 professionals.

Part II – Operation of monitoring groups and mechanism

10. With reference to the project management approach for the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link ("XRL") Project, the design, construction, testing and commissioning of the SCL Project are entrusted to the MTR Corporation Limited ("MTRCL") by three Entrustment Agreements ("EAs")². Having said that, HyD maintains a role in monitoring and verifying that MTRCL

¹ Full-time officers work full time on SCL Project, while part-time officers are also responsible for other railway projects.

² The EAs include EA1, EA2 and EA3 signed between the Secretary for the Transport and Housing and MTRCL. The RDO of HyD is the representative of THB in executing the EAs.

implements its processes as specified in the EAs. I understand that the Director of Highways ("DHy") will explain in his statement to the Commission the "check the checker" approach which has been adopted for the SCL Project, and I shall not repeat the same here. In the following paragraphs, I shall focus on the details of the monitoring mechanism for the SCL Project.

11. The Government maintains a three-tier monitoring mechanism in respect of the works of the SCL Project: (i) a **Project Supervision Committee ("PSC")** led by DHy; (ii) **Project Coordination Meetings ("PCMs")**; and (iii) **Project Progress Meetings ("PPMs")**.

12. In addition to the three-tier monitoring mechanism, HyD has also appointed a Monitoring and Verification ("**M&V**") Consultant, Pypun-KD & Associates Limited, to assist HyD in monitoring the works of the MTRCL.

A. PSC

13. I understand that DHy has already explained the operations of the PSC in his statement, which I shall not repeat here. Extracts of the meeting minutes and progress reports for PSC meetings related to the Diaphragm Wall and Platform Slab Construction Works under Contract 1112 are at **Annex LMH-2**.

B. PCMs

14. As regards the PCMs, a General Manager of MTRCL and I co-chair the meetings on a monthly basis, with the attendance of the respective Chief Engineers and Senior Engineers of RDO and other General Managers and Project Managers, etc. of MTRCL, to closely monitor various activities for the implementation of the SCL Project. The discussions at PCMs cover programme, construction issues, safety/environmental issues, community liaison/ Legislative Council matters, land matters and finance issues, design/contract issues, etc. Much emphasis is placed on resolving interfacing issues and seeking necessary approvals associated with the implementation, commissioning and operation of the SCL. The action items discussed at the PSC meetings

would also be monitored at PCMs with a view to reporting the latest progress of those action items to the PSC.

15. As at 1 August 2018, a total of 72 PCMs were held. Extracts of the meeting minutes of PCMs related to the Diaphragm Wall and Platform Slab Construction Works under Contract 1112 are at **Annex LMH-3**.

C. PPMs

16. The PPMs are held on a monthly basis and chaired by the General Manager of MTRCL. The Chief Engineers (including Mr. Ralph Li), Senior Engineers and the M&V Consultant join the PPMs. At the PPMs, MTRCL reports the progress of works for the major issues in diverse civil and electrical and mechanical (E&M) contracts. Mr. Ralph Li will elaborate on the PPMs in his statement and produce the relevant minutes/records to the Commission.

D. M&V Consultant's monitoring and verification works

17. The main roles of the M&V Consultant is to appraise, monitor and audit the activities and processes of MTRCL, and verify that these activities and processes are carried out in accordance with MTRCL's management and control procedures and in compliance with the EAs (see Clause 6.1.7 of the Memorandum of Agreement with the M&V Consultant dated 20 August 2012 ("**M&V Agreement**")). A copy of the M&V Agreement is at **Annex LMH-4**.

18. The M&V Consultant's scope of work includes the following:

- (1) reviewing key documents relating to the SCL works including construction programmes, proposals bearing major implications, project finance reports, submissions to Project Control Group and public safety plans (see Clauses 4.1(a) and 6.2 of the M&V Agreement).
- (2) carrying out monitoring on MTRCL's works through review of project documents and necessary site inspection, identification of

and providing advice on key issues of the SCL Project on cost, programme and public safety (see Clauses 4.1(b) and 6.3 of the M&V Agreement). HyD would also conduct site visits with attendance of the M&V Consultant. Depending on the nature and purpose, the site visits may be attended by DHy, Principal Government Engineer (“PGE”), Government Engineer (i.e. myself), Chief Engineer, Senior Engineer and/or Engineer of RDO.

- (3) carrying out verification by conducting audits to the activities/processes undertaken by MTRCL to ensure that those processes comply with MTRCL's internal management control and procedures and the requirements and standards stipulated in the EAs. A risk based approach is adopted to identify high risk areas for forward planning of audits. Audit reports shall be submitted to HyD after completing each audit session (see Clauses 4.1(c) and 6.4 of the M&V Agreement). The list of audit reports together with copies of public safety audit reports related to the Diaphragm Wall and Platform Slab Construction Works for Contract 1112 are at **Annex LMH-5**.

19. The M&V Consultant submits progress reports to and attend progress meetings with HyD on a monthly basis (see Clause 9 of the M&V Agreement). Issues which may have significant implications on cost, programme or public safety of the SCL Project would be discussed in the progress reports and at the meetings. Extracts of M&V Consultant's monthly reports and meeting minutes related to the Diaphragm Wall and Platform Slab Construction Works under Contract 1112 are attached at **Annex LMH-6**.

20. In addition, representatives of the M&V Consultant participate in various meetings, including monthly PSC meetings, PPMs, programme meetings, cost meetings and other *ad-hoc* meetings including project presentations. The M&V Consultant shall review the output of the meetings and identify any high risk elements of activities and processes for further examination or verification works (see Clause 6.3.5 of the M&V Agreement).

21. Upon completion of the works, HyD, the M&V Consultant and the relevant government departments will take part in the inspection for the completion of works before the relevant works are handed over from MTRCL to the Government (see Clause 6.3.4(j) of the M&V Agreement).

22. Apart from supporting HyD in monitoring the works of MTRCL, the M&V Consultant also assists the BO Team³ in respect of the compliance with the Building Ordinance and other relevant ordinances, regulations and standards (see Clause 4.1(d) of the M&V Agreement). I understand that the relevant officers from the Buildings Department ("BD") will provide statements to address the M&V Consultant's role in this aspect.

E. RDO's monitoring role in MTRCL's Project Control Group

23. The Project Control Group ("PCG") is a MTRCL's internal establishment to control the cost of railway projects. The PCG for the SCL Project is responsible for the review and approval of all cost changes during the implementation of SCL Project. Under Clause 17.9(E) of the EA3, the Government is entitled to send a representative to attend the PCG meetings, which are normally held on a weekly or bi-weekly basis, and should receive any papers prepared by MTRCL's project team for PCG's consideration at such meetings. I or my representative would attend the PCG meetings.

24. As the project manager of the SCL Project, MTRCL should manage the project budget by reviewing all changes which will affect the cost of works. These cost changes may be related to changes initiated by contractors, the designer or the client of the contracts. Types of changes which should be submitted to PCG for consideration include, but are not limited to, variations and other potential cost changes, claims, proposals of delay recovery measures, amendments to milestone dates or interim payment schedules, etc.

25. Prior to every PCG meeting, MTRCL will submit all relevant papers to RDO for comments. For issues that may have significant

³ Staff from BD are seconded to HyD to form a BO Team. The BO Team would advise on the building safety standards, practices and procedures of BD.

bearing on the cost of the project, MTRCL will also arrange briefings for HyD. The M&V Consultant will attend the briefings and provide its views on the papers. The consolidated comments from both RDO and the M&V Consultant will be forwarded to MTRCL for consideration at the PCG meetings.

26. Apart from the above regular meetings with MTRCL, upon HyD's request, the MTRCL will arrange briefings for HyD and/or other Government departments on issues that may have bearing on the cost, quality, safety or progress of the works. The list of PCG documents related to the Diaphragm Wall and Platform Slab Construction Works under Contract 1112 is attached at **Annex LMH-7**.

Part III – The Suspected Defective Steel Works

27. On 29 May 2018, HyD received media enquiries about suspected Defective Steel Works in the diaphragm wall and platform slab construction works at HUH extension. Prior to the media enquiries, HyD had no knowledge of the suspected Defective Steel Works.

28. Since the aforesaid media enquiries on 29 May 2018, HyD has taken a series of actions to investigate the suspected Defective Steel Works. Apart from immediate site inspection and checking of inspection records, HyD met with the senior management of MTRCL to express grave concern about the incident and requested MTRCL on 31 May 2018 to submit an incident report within a week and to conduct a load test supported by an independent expert. As Mr. Ralph Li will provide a detailed account of the steps and measures which have been taken by HyD since 29 May 2018 in his statement, to avoid repetition, I shall only address how the matter was first referred to the Police.

29. On 15 June 2018, MTRCL published the incident report (“**the 15 June Report**”) on its web page. On the same day, MTRCL submitted to HyD along with the 15 June Report a covering letter (“**the 15 June Letter**”) attaching (i) a record of interview with staff of China Technology Corporation Limited (“**CT**”) and (ii) a letter from Leighton Contractors (Asia) Limited (“**Leighton**”) to MTRCL dated 13 June 2018.

In light of certain conflicting statements between Leighton and CT, HyD suspected that there might be criminal acts involved. Therefore, the PGE of RDO called and referred the case to the Police on the same day.

30. The Police did not take any statements or obtain any documents from HyD on that day because MTRCL stated in the 15 June Letter that all information provided by MTRCL in relation to the 15 June Report, other than the report itself, is provided on the understanding that it is confidential and will not be further disclosed except with its approval, in accordance with Government's Code on Access to Information. Upon further consideration of the matter and seeking legal advice, on 19 June 2018, HyD delivered the 15 June Letter and its attachments to the Police together with a memo addressed to the Commissioner of Police. A copy of the memo together with the 15 June Letter and its attachments is at **Annex LMH-8**.

Part IV – Other Incidents of Non-Conformities

31. As per Questions 15 and 16 of the 1 August Letter, HyD is asked to identify any other works in respect of the diaphragm wall and platform slab construction works at HUH which raise concerns about public safety and any aspects of non-compliance, inadequacies and deficiencies. In this regard, I should mention the following incidents of non-conformity which were reported to HyD in May 2015.

32. On 14 May 2015, I received an email from the representative of BO Team, which informed me that several site irregularity activities were reported to the BO Team. By way of a follow up email on 18 May 2015, the BO Team sent me a summary of the non-conformity items. Three of the items were subsequently escalated to the PSC for discussion, namely: (i) the construction of capping beam/ portal frame which commenced before the completion of works for the diaphragm wall ("**Capping Beam/Portal Frame Incident**"); (ii) the construction of diaphragm wall which deviated from the accepted design ("**Unauthorised Deviation**") and (iii) the unauthorized cutting of existing steel beam supporting the existing concourse ("**Unauthorised Works**"). The said emails (with attachments) are at **Annex LMH-9**. In the PCM of 19 May 2015,

MTRCL was advised to enhance the managerial communication to the contractor, to pay attention to the non-conformities or to set up a taskforce to follow up when necessary. Extract of the minutes of the said PCM meeting can be found in **Annex LMH-3**.

33. MTRCL was requested to address the non-conformity items at a meeting on 27 May 2015. At that meeting:

- (1) As to the Capping Beam/Portal Frame Incident, MTRCL stated that a BD submission schedule was established on site to monitor the progress of all BD submissions, which would be reviewed jointly by MTRCL and Leighton on a weekly basis; Leighton would appoint a senior engineer with BD experience to keep track all BD submission; and all the missing submissions would be addressed by the end of June 2015.
- (2) As to the Unauthorised Deviation, MTRCL agreed that all proposed changes to the working drawings for the diaphragm wall had to be approved by MTRCL before relevant works could be allowed to proceed on site; and they would be submitted to BD for approval with an agreed timetable.
- (3) As to the Unauthorised Works, MTRCL promised to carry out remedial works; and both MTRCL and Leighton strengthened their site supervision.

A copy of the powerpoint slides prepared by MTRCL for the aforesaid meeting is at **Annex LMH-10**.

34. These non-conformities were reported to DHy in the briefing notes for PSC (which, for DHy's ease of reference, were marked up at the relevant sections of the last PSC meeting notes of 7 May 2015 and 2 June 2015 as shown at **Annex LMH-11**). These non-conformities were discussed in the PSC meeting on 2 June 2015 (which I personally attended). At the meeting, MTRCL reported that (1) MTRCL's consultant had conducted detailed design analysis and would make submission to BD for the amendment regarding the Unauthorised Deviation. (2) Follow up actions were taken with the contractor (i.e.

Leighton) and BD on the Capping Beam/Portal Frame Incident, and Leighton would increase resources on site in order to strengthen the site supervision and coordination of the design and BD procedure matters. (3) Leighton had immediately dismissed a group of 7 engineers and workers who were involved in the Unauthorized Works. The PSC continued to enquire and follow up on the remedial actions being taken. Subsequent meetings of the PSC were held on 6 July, 27 July, 27 August and 30 September 2015 (all of which I personally attended except the one on 27 July 2015). Given the progress made to follow up the matter and that no further non-conformities were reported by the BO Team in subsequent discussions, the PSC believed that the issues were appropriately handled. The extract of the minutes of the said PSC meetings are included in **Annex LMH-2.**

35. Recently, MTRCL also reported an issue regarding the quality of concrete at the soffit of EWL platform slab. This will be referred to in Mr. Ralph Li's statement to the Commission.

Part V - THB's Press Release of 9 June 2018 on CT's Contacts with THB and HyD in September 2017

36. The following paragraphs explain my involvement in relation to the incident regarding an email from CT.

37. On 15 September 2017 at 1106 hours, a representative from CT, Mr. Jason Poon, sent an email to the Secretary for Transport and Housing's Office ("**CT's email**").

38. Following CT's email, Mr. SH Leung, the then Assistant Secretary for the Transport and Housing Bureau ("**THB**"), discussed the matter with me and asked for HyD's urgent advice. By email on 15 September 2017 at 1142 hours, I asked Mr. Vincent Chu of HyD (Senior Engineer / SCL7) ("**Vincent Chu**") to handle the case urgently.

39. At 1216 hours on 15 September 2017, I was copied to an email from Mr. Vincent Chu to Mr. James Ho of MTRCL (Senior Construction Engineer – Civil) requesting for information on the "issue" mentioned in

CT's email. At 1503 hours on the same day, I was copied to an email from Mr. Carl Wu of MTRCL (Coordination Manager – SCL) in reply to Vincent Chu. Copies of both emails will be produced by Mr Vincent Chu in his statement to the Commission.

40. At 1923 hours on 15 September 2017, I received an email from Mr. Aidan Rooney of MTRCL (General Manager – SCL Civil – NSL) informing me that Mr. Karl Speed and Mr. Anthony Zervaas of Leighton had met with Mr. Jason Poon of CT that evening and agreed to further meetings on 16 and 18 September 2017 *“to resolve their commercial issues”*.

41. On 18 September 2017 at 1900 hours, Mr. Michael Fu of MTRCL (Construction Manager – SCL Civil) informed me by an email that, according to Mr. Anthony Zervaas of Leighton, *“they have concluded the final account negotiation with Jason POON of China Technology this afternoon and have signed the associated agreement”*.

42. On 18 September 2017 at 1920 hours, I was copied to an email from Mr. Vincent Chu to Mr. Jason Poon of CT, in which Mr. Vincent Chu stated that Mr. Jason Poon *“agreed to provide information of the issue by writing to us within an hour”*.

43. On 19 September 2017 at 0843 hours, Mr. Vincent Chu forwarded to me an email from Mr. Jason Poon to the THB on 18 September 2017 at 1922 hours, in which Mr. Jason Poon stated the following:

“During these few days we are working tight and hard on the suspecting technical issue with Messrs Leighton and had reached satisfactory understanding and full clarification. ie the suspecting subject had been cleared now and no significant impact is retained.

In order to avoid any unwanted impact and due to the good progress observed, we thus kept silent on the investigation from Messrs HyD and we had did [sic] our best endeavor on our act of non-disclosure.

We believe it is a full and final end of the issue and may we invite to

close all relevant files accordingly.

[...]

by copy of this email, may I express my sincere acknowledgement on the prompt and professional services being maintained by both Mr S H Leung of THD[sic] and Mr Vicent[sic] Chu of HyD”.

44. I noted that Mr. Jason Poon did not provide further information despite Mr. Vincent Chu's requests, and he decided and requested to close all relevant files as stated in his last email to the THB. No further action was taken on the case.

45. I confirm the contents of this Witness Statement to be true to the best of my knowledge, information and belief.

Dated this 7th day of September 2018.



LEUNG Man Ho