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2015 年 11 月 13 日

上午 10 時 03 分恢復聆訊

出席人士：石永泰資深大律師、許偉強大律師及鄭欣琪大律師，為外聘律師，代表食水含鉛超標調查委員會

何沛謙資深大律師及殷志明大律師，由羅夏信律師事務所延聘，代表香港房屋委員會

麥高義資深大律師及許佐賓大律師，由的近律師行延聘，代表保華建築營造有限公司

王鳴峰資深大律師、陳樂信大律師及羅頌明大律師，由律政司延聘，代表水務署署長

Mr. Ian Pennicott 資深大律師及林定韻大律師，由孖士打律師行延聘，代表中國建築工程（香港）有限公司

林國輝大律師，由孖士打律師行延聘，代表瑞安承建有限公司

鍾建康大律師，由顧增海律師行延聘，代表有利建築有限公司、明合有限公司及伍克明

吳思諾大律師及吳宗鑾大律師，由何謝韋、李偉業律師事務所延聘，代表啟晴邨及葵聯二邨公屋居民代表 Lee Pui Yi、Chong So Nga 及 Lui Hui Ping

王先生：早晨，主席。關於嗰個 flux，我哋琴日買咗，...

主席：哦，好呀，好呀，好呀。

王先生：...大概咁樣，畀你睇下。

主席：好呀，好呀，好呀。

王先生：有一罐我哋開咗嘅，就係畀你睇睇。

講者（不能辨別）：開唔開得？

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王先生：開得，開得，你哋咁樣搵開，嘎。

主席：唔該晒，Mr Wong。

可以再繼續，Mr Yin。

香港房屋委員會第三證人：嚴汝洲（房屋署（啟晴邨和榮昌邨總建築師））
宣誓繼續作供

殷先生：嚴生有啲文件想補充。

答：係，主席，唔好意思。即係琴日就喺中國建築嘅大律師就講番有關於個 bundle 係 B5.10，就係有關於個 trade tested workers 嘅啲嘢 report form，就話係有幾個 pages 就有連貫我哋擺咗落去，咁我返去再查番啲個紀錄，其實我哋入嘅時候個文件就只係包括啲個水務方面嘅 workers，因為喺第 4 至到 11 頁啲全部都唔係水務嘅 workers，所以我哋就有擺落去嘅。

主席：好呀。

答：即係如果需要，成份文件我而家都仲可以提交嘅，...

主席：我諗唔需要。

答：...補充呢一樣嘢，唔該。

主席：唔該。

石先生：同埋我有啲嘢補充，就係即係我諗中國建築方面，律師可以 check check，就係佢琴日發問嘅時候，啲個前提就係話佢文件匣裏面有啲啲似乎就淨係 skilled 嘅，咁可能漏起咗啲就係諗 semi-skilled。

主席：係。

石先生：但係如果你睇真啲成份嘢，佢裏面其實有兩度畀你剔嘅，skilled

同埋 semi-skilled，所以有一個例子我可以畀番個 reference，如果就係有陣時即係同一個 plumber，同一個--邝嘅名，佢有嘅係有人剔咗 skilled 或者 semi-skilled 嘅，咁所以其實嗰搵名 plumber，就係所有嘅 plumber，裏面係包埋 skilled 同埋 semi-skilled，就唔係話有一搵 plumber 擺咗一搵入咗文件匣嘅，就好似係 skilled，收起咗另外一搵係 semi-skilled，似乎唔係咁樣，即係 China State Construction 咁可以 check check，因為有一個例子，就係有一度 plumber 嘅名，人哋係好有心機咁樣剔咗一搵係 skilled，跟住零零舍舍有一個係 semi-skilled。

主席：係。

石先生：嘎。

主席：唔該。

繼續。

殷先生主問

殷先生：係，主席，我跟住就讀呢個嘅榮昌邨嘅 statement，係嚴生嘅，關於榮昌邨嘅 statement。

Mr Yim Yu Chau, chief architect of Kai Ching Estate:

(Paragraphs 1 to 77 were read)

WITNESS STATEMENT OF YIM YU CHAU,

CHIEF ARCHITECT OF WING CHEONG ESTATE

1. I, YIM YU CHAU, provide this statement in respect of the Commission of Inquiry into Excess Lead Found in

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Drinking Water ("COI") and in response to a request from the COI dated 12 October 2015. This statement addresses matters relating to one of the "Affected Estates" being Wing Cheong Estate.

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2. I am a Registered Architect employed by the Housing Department (HD), which is the executive arm of the Housing Authority (HA), currently holding the post of Chief Architect/Development and Standards. I was involved in the contract administration for the construction of Wing Cheong Estate from September 2012 to completion on 12 July 2013 and part of the maintenance period until February 2014 serving as Chief Architect/2 at that time. I therefore have direct knowledge of the project in the above period. Where I have had to obtain information from other sources or pursuant to discussions with colleagues I have made that clear in this statement.

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3. I have reviewed the letter from Lo & Lo Solicitors dated 12 October 2015 (paragraph (ii) 1 to 6 in particular) and addressed the matters raised together with other matters I consider relevant to the COL

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4. For the purposes of this Statement I refer to the different work stages as Pre-contract, Construction and Completion.

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BACKGROUND INFORMATION

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5. Being Chief Architect/2 from September 2012 to February 2014, I served as the Project Manager, Design Team Leader and/or Contract Manager (CM) for over 25 public housing projects from inception to completion stages, including all associated housing-related infrastructures and supporting community facilities, provided steer and leadership for the projects. Through delegation of authority, I was supported by the CM's Representatives and Site Inspection Team in

contract administration and site supervision. The CM's representatives and Site Inspection Team carried out their duties with reference to the Quality Manual - Contract Administration (Building) Guide.

6. The Chief Architect and Chief Building Services Engineer were involved in managing the design and construction for plumbing installation works of buildings.

7. The gross site area of Wing Cheong Estate is 0.99 hectares. This development comprises the construction of two domestic blocks of 39 domestic storeys with flat production of 1,488, a district elderly community center at ground floor of block 2 and a open car park with shelters, ancillary facilities and associated external works.

8. The HA awarded the building contract with contract number 20090113 to Paul Y. General Contractors Limited ("Paul Y.") on 21 December 2010 with contract sum of Hong Kong Dollars Four Hundred and Thirty Six Million, Seven Hundred Thousand (HK\$436,700,000.00).

9. Paul Y. commenced the contract works on 30 December 2010. I certified the substantial completion of building works for all sections, including the two domestic blocks on 12 July 2013.

10. I now address the specific matters set out in the letter from Lo & Lo Solicitors dated 12 October 2015.

Request 1: Explain their respective roles and responsibilities and the respective roles and responsibilities of the main contractor, sub-contractor(s), licensed plumber(s) ("LP") and other person(s) in the contractual, construction and post-construction stages relating to the installation. supervision of work inspection certification of

completion monitoring and maintenance of the fresh water plumbing system as far as controlling the content of lead of the Plumbing Materials is concerned stating the procedures criteria and standards involved

11. The HA entered into a contractual relationship with Paul Y. by direct written contract under which Paul Y. was fully responsible for execution of the works required. Paul Y., with his domestic subcontractor and nominated subcontractor, proceeded with plumbing installation works on site, and gave continuous supervision, provided all necessary superintendence by deploying a management team during currency of the Works, and named a competent and authorized agent who would be constantly on the Site on a full time basis dedicated to the superintendence of the Works.

12. The Chief Architect was the CM for the Building Contract, supported by professionals of various disciplines who were delegated with the authority under the Contract as CM's Representatives. The CM gave periodic supervision while Paul Y. gave continuous supervision and all necessary superintendence for proper fulfilment of obligations under the Contract. The responsibilities of the Contract Team regarding site inspection were outlined in the Master Process Manual (DCMP). The CM maintained an adequate level of inspection to carry out the checks, inspections and tests according to the provisions under the contract. Inspection percentages were determined from time to time by the Contract Coordinator (the Project Architect) and endorsed by the Assistant Contract Manager (the Senior Architect). Inspection percentages of the nominated subcontract as detailed in the Project Inspection Plan with reference to the BS Site Inspection Guide was prepared by BS Site Inspection Team, endorsed by the Project Building Services Engineer and approved by the Senior Building

Services Engineer.

CHIEF ARCHITECT

13. As Chief Architect of the building contract for Wing Cheong Estate, I acted as the administrator of the Contract, I.e. the CM as referred to in the General Condition of Contract (GCC) as supplemented by the Special Conditions of Contract and the Specification. I delegated the administration of the contract to a Senior Architect and Architect within my section. They acted as the assistant contract manager and contract coordinator respectively. Senior professionals and professionals of other disciplines were delegated the authority as CM's Representatives to administer the part of the contract works in their respective areas of expertise as necessary. The CM's Representatives and Site Inspection Team carried out their duties with reference to the Quality Manual - Contract Administration (Building) Guide.

14. A list of the HA staff who have been involved in this contract is shown to me marked "**Exhibit [1]**".

CHIEF BUILDING SERVICES ENGINEER

15. In this contract, I delegated to the Chief Building Services Engineer, as the CM's representative, the duties and powers vested in the CM under the Main Contract insofar as they concern Building Services Works, with respect to (i) General Conditions of Contract Clause (GCC) 65(2) (termed as use of Prime Cost, Provisional and Contingency Sums); and (ii) GCC Clause 66 & Special Conditions of Contract (SCC) Clause 25 (termed as varied form of subcontract and objections to nomination).

16. The Chief Building Services Engineer was assisted by a team of building service staff to discharge his duties. The Project Building Services Engineer was delegated by the CM as the CM's representative and was responsible for the administration of Building Services Nominated Subcontracts (including Fire Services and Water Pump Nominated Subcontract), with the assistance of the Project Building Services Inspector.

**HOUSING AUTHORITY CONTRACT MANAGER'S REPRESENTATIVE AND
SITE INSPECTION TEAM**

17. As the CM for the Building Contract, I was supported by professionals of various disciplines who were delegated with the authority under the Contract as CM's Representatives. Through my delegation of authority, contract administration and site inspection were discharged by the CM's representatives. CM's Representatives and Site Inspection Team carried out periodic supervision. These site inspections were carried out as specified in the "Master Process Manual".

18. Under my overall supervision, the Site Inspection Team conducted periodic and random checks on materials and workmanship for conformance to Specifications and the progress of the main contractor's works. For inspection of the fresh water plumbing installations, the Site Inspection Team comprised two disciplines with various ranks of Site Staff as follows: -

- (a) The Building Works Team (comprising Senior Clerk of Works, Clerk of Works, Assistant Clerk of Works and Works Supervisor) inspected Building Works including builder's works requirements for

building services works; and

(b) The Building Services Team (comprising Senior Building Services Inspector, Building Services Inspector, Assistant Building Services Inspector, Works Supervisor (Building Services)) inspected the installation inside water pumps under the Fire Services and Water Pump (FSWP) Nominated Subcontract.

19. At the completion stage of the building works, the HA appointed Multiple Surveyors Limited to supplement the Site Inspection Team's resources and conduct final inspection of the completed builders works for the domestic blocks. Multiple Surveyors Limited was responsible for inspecting the completed works and checking the materials and workmanship, particularly for flat-to-flat inspection, for conformance to Specifications.

20. The building contract involved over one thousand materials and components and around thirty trades of sub-contractors and workers. To ensure effective use of manpower, the HA determined the quality control standards for material approval, complementing the performance-based specification, site inspection and testing of various materials and construction process, while taking into account of the laws and regulations, industry/trade practices, past experiences and risk management. The HA had all along believed that the widely accepted and used soldering materials should have complied with relevant requirements. Checking of presence of lead in solder or lead in water was not built-in to the site inspection system and therefore, we did not check for presence of lead in soldering materials.

MAIN CONTRACTOR

21. Paul Y., as the Main Contractor, was fully responsible for carrying out the works required. Under the GCC, Paul Y. had the general obligations to execute the Works including providing all necessary labour, materials, construction plant, temporary works and superintendence and to complete the Works within the time for completion as stipulated in the contract. Paul Y. should comply with the Contract Manager's instruction on any matter related to the contract and conform to all enactments and regulations including but without limitation to the Waterworks Ordinance (Cap. 102) and Waterworks Regulations (Cap. 102A) in the execution of the Works.

22. Paul Y. was permitted under the contract to sublet a part of the Works. Yet, the subletting of any part of the Works did not relieve Paul Y. from any of his liabilities or obligations under the contract. It was a common practice in Hong Kong, including HA projects, for the Main Contractor to employ domestic subcontractors to take up various packages of works normally defined by trades and the plumbing installation works were among the packages. The service of Licensed Plumber (LP) which is a statutory requirement under the Waterworks Ordinance in the installation of the plumbing system is usually provided by the plumbing domestic subcontractor. The HA did not have any direct contractual relationship with the domestic subcontractor or any direct contractual relationship with the LP. The requirement for the engagement of LP was mentioned in the contract specification.

23. Under the terms of the contract, Paul Y. was responsible for giving continuous supervision of the site works to ensure that the quality of works, including plumbing installations, complied with the statutory and contractual requirements. As required by the specifications, Paul Y. was also required to provide all necessary superintendence by providing a

management team during currency of the works, and name a competent and authorized agent who should be constantly on site on a full time basis dedicated to the superintendence of the Works. Paul Y. established its Contract Management Team, the organization of which is now produced and shown to me marked "**Exhibit [2]**".

24. The Contract specifications did not stipulate the specific roles and duties of the LP on the basis that these were all prescribed under the Waterworks Ordinance (Cap. 102) except that the engagement of an LP is mentioned in the specification clause PLU1.W1103 •

DOMESTIC SUBCONTRACTOR AND NOMINATED SUBCONTRACTOR

25. The contract permitted Paul Y. to sublet the Works to their selected domestic subcontractors or to those nominated by the HA. However, there was control of subletting of "plumbing and drainage work (outside external wall of building)". The main contract specified that subcontracting could be no more than two tiers of subcontractors.

26. In this contract, I knew that Paul Y. employed Golden Day Engineering Company Limited as the domestic subcontractor for the plumbing and drainage works but I had no knowledge of the details of this domestic subcontract in the period I served as Contract Manager for this building contract. It was upon Paul Y.'s submission of Investigation Report to the HA on 14 September 2015 which enclosed a copy of the subcontract document between Paul Y. and Golden Day Engineering Company Limited for the plumbing and drainage works, that I was aware of the detail responsibilities of the subcontractor. The copy of the above subcontract document is now produced and shown to me marked

"Exhibit [3]".

27. In this contract, Hung Wai (Cheung's) Company Limited was the nominated subcontractor for fire services and water pump installation. As for their responsibilities of this nominated subcontractor, my colleague, Mr. Leung Chi Kwong will provide details in his statement.

LICENSED PLUMBER

28. The roles and Responsibilities of the LP are stipulated in the Waterworks Ordinance and Waterworks Regulations. The LP for the plumbing installation of this contract was Mr. Cheung Tat Yam. As far as I knew in the period I served as Contract Manager for this contract, the responsibilities of the LP for the plumbing installation included notifying the Water Authority of the commencement date and scope of plumbing works to be carried out at Part I of the Form no. WWO 46. The LP had to notify the Water Authority of the completion of plumbing works and requested for inspection and approval by the Water Authority at Part IV of form WWO 46. He was required to supervise the execution of the plumbing works on site.

29. It was expected that the LP would execute his duties in accordance with the Waterworks Ordinance and Regulations and that Paul Y. would monitor such work. This was reinforced by the "Point Penalty System" administered by the Water Authority which provided a positive incentive for the LP to carry out the task professionally and accurately.

30. As for the responsibilities of the LP for fire service and water pump installation, my colleague, Mr. Leung Chi Kwong, the Chief Building Services Engineer knows more than me and he will provide details in his statement.

**MAJOR PROCESSES FOR THE INSTALLATION OF FRESH WATER
SUPPLY SYSTEM**

31. The major processes for the installation of fresh water supply system mainly involved application for the Water Authority's permission to proceed with the plumbing installation, submission of plumbing material proposal and procurement of the approved materials, execution of plumbing installation after delivery of materials to site, testing and commissioning, request for the Water Authority's inspection and approval of the plumbing installation upon completion and application for connection of the street supply main for the development, Water Supplies Department's inspection and issuance of certificate regarding water supply connection, and monitoring and maintenance of the Fresh Water Supply System.

**Application for the Water Authority's permission to
proceed with the plumbing installation**

32. Before commencement of plumbing installation, the LP for the plumbing works completed and signed the Form no. WWO 46 Part I to notify the Water Authority of the commencement date and scope of plumbing works to be carried out, quoting the Water Authority approval reference and approved drawing number, size and number of water meters involved, anticipated date when water supply would be required, also certifying that the pipes and fittings intended to be installed. It was then submitted to Paul Y. for onward submission to CM for signature.

Submission of plumbing material proposal

33. There were two Sections in the Specification regarding plumbing installation, namely, PLU1 on Water Supply and PLU2 on Sanitary Appliances. Pursuant to Section PLU1, materials for pipes, fittings and joints, including soldering materials, Paul Y. was not required to submit material proposals with samples for CM's approval if they conformed to the Specification, requirements of which were mainly in compliance with British Standard and statutory requirements, and having obtained Water Authority's prior approval. Pursuant to Section PLU2 on sanitary appliances, Paul Y. was required to submit material proposals with samples for CM's approval because CM had to consider factors including appearance, coloration, detail dimensions etc., other than technical requirements. Approval of materials is intended only to conduct documental check that the proposed materials comply with the specifications and not an independent quality control measure involving scientific tests.

34. In this project, Paul Y. submitted proposals of materials, including copper pipe and fittings and soldering material specified under PLU1 as a general practice for CM's approval. However, neither the material approval under PLU1 and PLU2 nor the checking of materials upon delivery to the site relieved Paul Y.'s obligation to procure the materials in compliance with contract provisions.

Execution of Plumbing Installation

35. After receipt of the Water Authority's approval for commencement of the plumbing works, Paul Y., with their domestic subcontractor, Golden Day Engineering Company Limited, proceeded with plumbing installation works on site. Paul Y. was obliged to provide all necessary superintendence during currency of the Works and gave continuous supervision to ensure the Works

were executed in strict accordance with the statutory requirements and specifications to the satisfaction of the CM.

36. The plumbing installation on this project was common to most HD projects and comprised two parts. The first part was the up-feed system with ductile iron pipework from water supply main connected by Paul Y. to master check meter, through up-feed pump room routing to tower roof water tanks by exposed ductile iron piping mounted on the external wall or in pipe ducts. The second part was down-feed system with ductile iron pipe from roof water tank to booster pump room serving uppermost floors and copper pipes from roof water tank to water meter rooms or pipe ducts of each domestic floor, including pressure reducing valves at intermittent floors, then to the common corridor and distributing to each flat. The pipework was surface mounted to facilitate future maintenance.

Housing Authority's Periodic Inspection

37. In my capacity of Chief Architect, which served the CM role from September 2012 to February 2014, with the support of project senior professionals and professionals as the contract manager's representatives, site clerk of works, work supervisors, building services inspector etc., I gave periodic supervision and such inspection as necessary to ensure that the works met specified requirements. The Chief Building Services Engineer with the support of a team of BS staff, was responsible for overseeing the installation of water pumps and associated pipework inside fresh water up-feed pump rooms and booster pumps under the Fire Services and Water Pump Nominated Sub-contract.

38. During the course of the contract, the contract

manager's representatives conducted quarterly assessments under Performance Assessment Scoring System (PASS) with Paul Y. on-site to assess the quality of works including Paul Y.'s performance in plumbing installation works and management of their domestic subcontractors. Based on records, Paul Y.'s scores for plumbing works were generally satisfactory.

Testing and Commissioning

39. Upon completion of the plumbing installation, Paul Y., with their domestic subcontractor, Golden Day Engineering Company Limited, cleansed and disinfected fresh water inside service upon completion of the installation for the fresh water supply system. They conducted the required testing and commissioning of the system, which was performance based, in the presence of HA Site Inspection Team.

Request for the Water Authority's inspection and approval of the plumbing installation and Application for connection

40. Having completed the testing and commissioning of the plumbing installation works with satisfactory results, the LPs engaged by Paul Y. and FSWP Nominated Subcontractor completed and signed Part IV of Form no. WW046 to Paul Y. After checking and found to be in order, Paul Y. forwarded the completed forms to the project architect for signing. With the advice from HA's Site Inspection Team that the plumbing installation were satisfactorily completed and the correctness of the meter positions, the project architect signed Part IV of the Form no. WW046 on 22 May 2013 for plumbing installation inside water pump rooms and 3 June 2013 for plumbing installation outside water pump rooms.

With the advice from HA's Site Inspection Team that the plumbing fittings and pipes were in full compliance with Waterworks standards and requirements, the project architect signed Part II of Form no. WW0132 on 3 June 2013 for project building services engineer's onward applying for the Water Authority's connection for water supply to the development respectively. Copies of the forms are now produced and shown to me marked "**Exhibit [4]**".

Water Supplies Department's Inspection and Issuance of Certificate regarding water supply connection

41. According to records, Water Supplies Department tested the water sample taken at the connection between the water main and Inside Service, based on the eight parameters 4 in WSD Circular Letter No. 2/2012, on 9 May 2013 and 5 June 2013. The test results were satisfactory. Paul Y. then forwarded the test reports to the HA. The copy of the test reports is now produced and shown to me marked "**Exhibit [5]**".

42. The Water Supplies Department inspected the completed plumbing installation on 13 June 2013 after receipt of the above signed Forms. With satisfactory inspection results, the Water Authority issued Certificates (Form no. WWO 1005) regarding water supply connection on 5 July 2013 of the development. The copy of the forms is now produced and shown to me marked "**Exhibit [6]**".

Request 2: Explain the procedures, their respective roles and responsibilities and the respective roles and responsibilities of the main contractor, sub-contractor(s), LP(s) and other person(s) in the procurement and variation of Plumbing Materials and in

constructing, installing, inspecting, testing, checking and approving such Plumbing Materials as far as any requirement about the content of lead is concerned

Submission of material list to the Water Authority before commencement of plumbing works

43. Before commencement of plumbing works, the project architect and the LP signed and submitted to Water Supplies Department (WSD) in Form no. WWO 46 Part I together with an Annex showing details of pipes and fittings intended to be installed. For fittings, only draw-off taps, stop valves, gate valves, ball valves and combination fittings were required to be listed in the above Annex. Solder material was not required to be included in this material list.

44. Being a procuring entity governed by the Agreement on Government Procurement of the World Trade Organization, the HA adopts performance based specifications that are non-discriminatory. No brand name or origin of materials was specified in this contract. The LP was obliged to submit the list of plumbing materials, with brand names, intended to be used in the Annex to Form no. WWO 46 Part I. Paul Y. submitted material proposal for CM's approval. If Paul Y.'s proposed plumbing materials, which were approved by CM in compliance with statutory and contract requirements, were different from that submitted to the Water Authority, the list would be updated.

45. Pursuant to WSD Circular Letter No. 1/2004, the list of plumbing materials submitted to the Water Authority in the Annex to Part I of Form WW046 can be updated for minor alterations by the LP from time to time before WSD conducts site inspection of the completed plumbing installation. The copy of the Circular Letter is now produced and shown to me marked "**Exhibit [7]**".

46. Based on records, in the Annex to the Form no. WW046 Part I that the LP signed on 7 November 2011, there were 12 items of plumbing materials intended to be installed, all complying with the statutory requirement. The copy of the Form no. WW046 Part I together with Annex of the material list is now produced and shown to me marked "**Exhibit [8]**".

47. The LP submitted Part I of Form no. WWO 46 to the Water Authority in December 2011. The Water Authority returned Form no. WWO 46 Part III to the LP in December 2011 stating that "the Plumbing detailed in Part I and at the Annex was accepted" and "permission was given for you (LP) to proceed with the plumbing detailed in Part I and at the Annex".

48. I relied on Paul Y. to monitor the service of the LP and would expect the LP to update of the list of materials in the Annex to Form WWO 46 Part I. This was reinforced by the "Point Penalty System" administered by the Water Authority which provided a positive incentive for the LP to carry out the task professionally and accurately.

Material submission and variation approval by Contract Manager

49. Materials used in this contract were governed by the specifications forming part of the Contract between the HA and Paul Y. According to the specifications, materials used in the fresh water supply system should be in full compliance with all statutory requirements together with any revisions or amendments according to specifications, such as, Waterworks Ordinance and its Regulations, Hong Kong Waterworks Standard Requirements for Plumbing Installations in Buildings and Circular Letters issued by WSD and, inter alia, relevant sections of appropriate British/European

Standards on materials and workmanship, etc.

50. The specification for the materials was performance based. All pipes and fittings should be constructed of materials suitable for the required working and test pressures and temperatures of the fluid carried and capable of withstanding working pressures, maximum static pressure, be of standard products and, inter alia, approved by the Water Authority Provided the specification requirements could be achieved, there was no restriction on any particular manufacturer or brand that Paul Y. could propose. They should fulfil the contract specification requirements and one of the following as required by the Water Authority for all pipes, draw-off taps, stop valves, gate valves, ball valves and combination fittings:-

- a) Category A - Bearing the British Standard Institution Kitemark;
- b) Category B - Accepted by the Water Authority (Water Fittings) Regulations, United Kingdom (formerly known as the Water Byelaws);
- c) Category C- Accepted by the Water Authority in writing;
- d) Category D - Bearing the Water Authority Stamping

51. The soldering alloys for copper and copper alloy capillary fittings used in this contract were required to comply with Specification Clause PLU1.M160.5 as follows:-

- i) Comply with BS EN 1254:Part 1:1998, Table 6 Sections II and III;
- ii) Use of integral solder fittings is permitted provided they comply with BS EN 1254: Part 1:1998;
- iii) Use only lead-free category solders;

iv) Use only a non-corrosive type of flux that is recommended by the solder alloy manufacturer.

52. In this contract, Paul Y. proposed to use "FRY" 99C Lead Free Solder under the Material Submission Form ref: GC/SCR/DSs/A118 on 2 December 2011 together with material catalogue, testing report and job reference. According to the technical data provided by Paul Y., Fry 99C complied with BS 1254-1 and was stated to be "lead-free". The copy of the sample submission document is now produced and shown to me marked "**Exhibit [9]**". The project architect approved the material upon the recommendation by the project clerk of works.

53. After approval of the material submission with submitted samples, all the approved samples were kept in a lock-up sample room for record and for reference by HA Site Inspection Team for routine checking during the construction process. The samples were kept until the completion of the Works and after that were disposed of. For those material submissions without samples, such as pumps, pneumatic pressure vessel etc. which involve bulky installation, approval was based on a documentary check, and as such, no such sample was kept on site.

54. The approved materials complied with the statutory and specifications requirements. The LP would update the list at the WSD office for any variation of the materials before they inspected the completed plumbing installation.

55. After excess lead was found in drinking water in Wing Cheong Estate, I learnt that Paul Y. had proposed materials that were subsequently approved but might not have been updated in the Annex of Form WW046 Part I submitted to the Water Authority. The CM's Representatives and Site Inspection Team have verified

the plumbing materials installed on-site. A table listing the materials originally submitted to the Water Authority in the Annex to Form no. 46 Part I in December 2011 and those as-built materials which differed from the submission list to the Water Authority is now produced and shown to me marked "**Exhibit [10]**".

Site supervision for plumbing installation

56. Upon delivery of materials to site, Paul Y. was obliged to check every batch of materials against approved samples and documents to ensure compliance. I learnt from my Site Investigation Team that after verification of the materials delivered to site by Paul Y., the materials were stored in the plumbing domestic sub-contractor's lockable workshop at site. Some of the soldering works for the pipe joints would be executed in the workshop while the remaining would be executed in-situ.

57. In this contract, major plumbing materials checked by HA Site Inspection Team included close-coupled we suite, wash hand basin, mixer and shower handset etc. The HA Site Inspection Team did not check on site whether or not Fry 99C lead free solder was delivered. We would presume that supervision and control were carried out by Paul Y. and the LP. If we were aware of the risk of presence of lead in solder and its implications for the drinking water quality and in turn, the associated health risk, we would have checked the materials delivered to site.

58. For the plumbing installation of the fresh water supply system under the domestic plumbing sub-contractor, Paul Y. provided continuous supervision by their site supervision team to ensure compliance with specification. During the plumbing installation

period in this contract, based on records, there were numerous work trades, including tiling, drain laying, plastering and finishing, painting, metal works, component doors installation, electrical, lift and fire service installation, concreting at external areas etc., being simultaneously executed at site, which involved about 300 workers every day.

59. The periodic and sample checks carried out by the HA Site Inspection Team would need to cover all these activities and works. A number of inspection guides were developed to facilitate the HA site inspection team to carry out the inspection. The inspection of water supply system including water pipes and fittings, water pumps and associated installation included in-process inspection, final inspection and witness test. The HA Site Inspection Team checked the installation against the approved drawings and approved material record. For the works executed by the domestic plumbing subcontractor, the HA Site Inspection Team conducted recommended percentage checks on the above items. For plumbing above ground water supply pipes, it was specified that 100% checking was required for pipe testing and cleaning of water tank/pipeline while 10% check was applied to pipe sleeve, materials, type and dimensions, pipe joint, pipework installation, valves, taps, strainers, pipe bracket and caulking pipe sleeves.

60. Soldering materials have been regarded as a sundry item, similar to the iron tying wire used for fixing steel reinforcement, screws, bolts and nuts etc., which was not measured separately in the Bills of Quantities. The soldering material, the extent to which it was lead free, was not covered in the inspections so no such tests were carried out. As a general practice, the quality control on plumbing installation was focused on performance: the flow rate, water tightness, pressure resistance, mechanical strength and endurance, and blend water extreme temperature.

61. The HA operated a Performance Assessment Scoring System (PASS) to quantitatively measure the contractors' performance including compliance of materials and workmanship with contract requirements. In so far as fresh water supply system was concerned, the contractor's performance on type and size of pipes, pipe brackets, pipe sleeve, soundness, plumb, level/fall was assessed. Compliance of materials with specified requirements was assessed under the component of Management Input. Similar to Building PASS, Building Services PASS assessments were also carried out for water pump installations undertaken by Hung Wai (Cheung's) Co. Ltd..

Request 3: Explain the steps taken by HA, the main contractor, sub-contractor(s), LP(s) and other person(s) in ensuring that the work in connection with the construction and installation of the Plumbing Materials was carried out by workers with sufficient training and qualifications

62. Paul Y., as the Main Contractor, was fully responsible for carrying out the works required. Under the GCC, Paul Y. had the general obligations to execute the Works including providing all necessary labour materials, construction plant, temporary works and superintendence and to complete the Works within the time for completion as stipulated in the contract.

63. Pursuant to Specification Library 2008 Edition regarding the requirement for Trade Tested Workers, the combined percentage for skilled and semi-skilled trade tested workers (Plumber) was 100% whereas the maximum permissible percentage of semi-skilled workers was 15%. Pursuant to the relevant contract

clause, the Trade Tested Workers should have acquired the following qualifications -

a) Skilled Workers should be either one of the following -

i) A registered skilled worker or registered skilled worker (provisional) as respectively defined in section 2(1) of the Construction Workers Registration Ordinance (Cap 583); or

ii) Holder of a full trade test certificate issued by the Construction Industry Training Authority / Construction Industry Council Training Academy.

b) Semi-skilled Workers should be either one of the following -

i) A registered semi-skilled worker or registered semi-skilled worker (provisional) as respectively defined in section 2(1) of the Construction Workers Registration Ordinance (Cap 583); or

ii) Holder of an intermediate trade test certificate issued by the Construction Industry Training Authority / Construction Industry Council Training Academy.

64. The monthly report, namely, Record of Traded Test Worker was prepared by Paul Y. and checked by HA Site Inspection Team. The checking was based on records of Paul Y.'s Access Control and Recording System. The Trade Tested Worker's information from Paul Y. was also being forwarded to Construction Industry Council for verification of the workers' identity and qualification regularly.

65. During the period that I served as CM of this contract, I did not have knowledge of the steps taken by the LPs

in ensuring that the work in connection with the construction and installation of the Plumbing Materials was carried out by workers with sufficient training and qualifications.

Request 4: Explain how Plumbing Materials containing lead came to be used in the Affected Estates and why the use of the same had been allowed and overlooked

66. Paul Y, as the Main Contractor, was fully responsible for carrying out the works required. Under the GCC, Paul Y. had the general obligations to execute the Works including providing all necessary labour, materials, construction plant, temporary works and superintendence and to complete the Works within the time for completion as stipulated in the contract.

67. The HA was not aware of the possibility of lead in water, and did not conduct any laboratory tests for lead in water before July 2015. The HA had considered that conducting laboratory testing for the eight mandatory parameters specified by the Water Authority would suffice. The HA has followed the established practice of focusing on the functional performance of the water supply installation in terms of pipe fixing and alignment as well as water tightness of the system through visual inspection and water test. There had been a general lack of awareness of the risk the soldering materials would pose. Had the HA been aware of such risk, it would have been effectively controlled through our Quality Assurance Regime both at contract level and at corporate level.

68. Due to the above reason, the HA Site Inspection Team was not required to verify the materials delivered to site and check the lead content of the soldering material during the execution of plumbing installation

as it was believed that the widely accepted and used soldering materials should have complied with relevant requirements. Further, copper pipes have been used in the fresh water supply system in Hong Kong for decades. Since it was not a new material or technology and there was no prior indication or alert of any particular health risk associated with the materials of the copper pipe fresh water supply system and there was no statutory requirement for testing of lead in water by the Water Authority until the Incident, the HA had followed the established practice of focusing on the functional performance of the water supply installation I.e. pipe fixing and alignment and water tightness of the system, when carrying out visual inspections and water test.

69. Lead free soldering material was specified with approved sample complying with contract requirements. It appears to me that lead solder was used by Paul Y. without permission and in breach of contract.

70. Based on the available information, I cannot conclude how lead solder came to be used in Wing Cheong Estate and which of the main contractor, sub-contractor etc. permitted it.

Request 5: Explain and Identify any use of Plumbing Materials which deviated from the Plumbing Materials contracted for ("Deviated Plumbing Materials"). This request is confined to Deviated Plumbing Materials which have now been found to contain lead or from which lead has leached into water. Please also explain why such Deviated Plumbing Materials have been permitted to be installed without being spotted during any monitoring or inspection process

71. Before July 2015, I was not aware of the presence of

excess lead in water of Wing Cheong Estate water supply system. In July 2015, 1 out of 46 water samples from Wing Cheong Estate was found with lead content exceeding the WHO standard of 10 microgram per litre. As for World Health Organization (WHO), I learnt after the excess lead was found in drinking water in Wing Cheong Estate that WHO's prevailing standard was 10 ug per litre of drinking water. Before July 2015, neither I nor the HA was aware of the WHO guidelines on the drinking water quality at the consumption point.

72. After excess lead was found in drinking water in Kai Ching Estate and Kwai Luen Estate Phase I I, the Government Task Force led by Water Supplies Department was formed to investigate the cause of excess lead in water in Kai Ching Estate and Kwai Luen Estate Phase II. I learnt from their Final Report issued on 31 October 2015 that the Lead-solder joints were the source of excess lead in drinking water in Kai Ching Estate and Kwai Luen Estate Phase II, and Copper alloy fittings also leached lead but did not result in excess lead in drinking water. The Task Force considered that the findings should be applicable to the other nine estates including Wing Cheong Estate.

Lead Solder Joints

73. "FRY" 99C Lead Free Solder was submitted by Paul Y. and approved by the project architect. Pursuant to the contract provisions, Paul Y. could determine whether they themselves procured the materials, including piping and fittings and solder for copper pipes etc., or instructed the subcontractors to order the materials. However, Paul Y. was obliged to ensure the soldering material procured complied with the contract requirements.

74. In respect of material procurement stage, the

contractor was not required under the contract to submit any purchasing record of the soldering material to the HA. At the material delivery and installation stage, the HA Site Inspection Team did not check the delivery notes or purchase orders of solder materials. The contract specification did not require the contractor to provide such documents. We expected that Paul Y. would procure and use "lead free" solder for the plumbing installation as the soldering material was widely accepted and broadly applied in the jointing of copper pipe works in Hong Kong. Before excess lead was found in drinking water, we were not aware of the risk of presence of lead in soldering materials.

75. After lead was found in the soldering joints in Wing Cheong Estate in July 2015, the current CM requested Paul Y. to investigate why lead soldering material was applied in the fresh water supply pipes. I cannot conclude how lead solder came to be used in Wing Cheong Estate but believe there was no irregularity in the contract specification, material selection and approval stage. Paul Y. submitted the Investigation Report to the HA on 14 September 2015 which the current CM of the contract gave a copy to me for information. Although I am not able to validate the correctness of the Investigation Report, Paul Y. stated that they sub-contracted the whole plumbing installation works including materials (I.e. solder material inclusive) and labour to Golden Day Engineering Company Limited. The service of the licensed plumber was provided by this tier of sub-contracting and Golden Day Engineering Company Limited did not further sub-contract the works.

Request 6: Describe the Measures and/or recommendations (after the discovery of excess lead in drinking water) by the Chief Architect and the Chief Building Services Engineer in order to prevent similar incidents from

happening in the future

76. The past control mechanism for HA's projects was consistent with the industry practice, the law and other WSD requirements, but had not focused on the presence of lead in the fresh water supply system, and had not targeted soldering materials as a high risk items. After excess lead was found in drinking water in 11 public housing estates since July 2015, the HA has reviewed and strengthened quality control to address the risk.

77. I would recommend the following immediate and long term enhancement measures on the installation of fresh water supply system:-

I. During construction

a) Main contractor is required to:-

i) submit supporting document of lead free grade soft solder or filler metal as required under current submission procedure; and

ii) submit a Subcontractor's Management Plan covering stringent plumbing subcontractor supervision and on-site monitoring to ensure that all workers will use only lead-free category of soldering / brazing materials for jointing of copper pipes including quarantine soldering / brazing materials and define the roles of Licensed Plumbers (LP) in supervising plumbing installation works.

b) Housing Authority project team is required to:-

i) register delivery of soldering/brazing materials to site under On Site Delivery Verification Form 6210; and

ii) conduct random audit checking upon material delivery to site after the main contractor's completion of checking for lead free content in solder joint.

II. End of construction

a) The main contractor is required to:-

i) declare that only lead-free category soldering I brazing material are used;

ii) carry out cleansing and disinfection of the plumbing installation;

iii) collect water sample:-

- agree with WSD the locations for collecting water samples and arrange accredited laboratory for bacteriological and chemical analysis according to the water quality requirements specified in the WSD Circular Letter Nos. 2/2012 and 1/2015. In the submission of WW046 part I, a supporting document of lead free grade soft solder or filler metal used in soldering, brazing and/or welding construction methods is required;

- agree with HA's Contract Manager and take additional test samples on top of WSD's requirement for concurrent water quality test by a Direct Testing Contractor employed by the HA. The sampling should cover a selected point of use of each distribution zone and a

random point of the lowest zone of each vertical riser;

b) In the event lead content in water greater than 5 µg/litre is identified:-

i) The HA Site Inspection Team to conduct further check on the soldering / brazing materials to ascertain if they contain lead; arrange with Direct Testing Contractor for X-ray scanning, or other means as appropriate;

ii) Main contractor to carry out investigation on the cause(s) and submit investigation results and details of all necessary rectification works for approval of the Contract Manager;

iii) after completion of the rectification works, Main contractor to coordinate with the HD's site inspection team for conducting re-test(s) by a Direct Testing Contractor employed by the HA.

III. After completion and before occupation of new buildings:-

a) Main contractor to carry out cleansing and disinfection of all the completed fresh water tanks and fresh water supply pipework;

b) HA's site inspection team to arrange a Direct Testing Contractor to collect water samples and test according to the water quality requirements specified in the WSD's "Quality Water Supply Scheme for Buildings - Fresh Water". Water samples shall be taken from each potable water supply tank in the building(s) and the water outlets at the farthest point of use in each branch of the distribution system.

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問：嚴生，你聽我讀完你嘅證供，你有冇嘢需要修改？

答：其實喺頭有一個嘅同樣我哋都係講咗話我哋對於嗰個世衛標準嗰個認知嗰度係更加精準去講，就係話我哋對於世衛標準嗰個 10 微克，即係對於嗰個食水嗰個安全程度嘅風險我哋認知不足。即係呢個係以我琴日即係同樣係呢個係清楚，咁都會喺呢個證供裏面係一樣可以去 apply。

問：冇其他嘢？

答：冇其他嘢。

石先生盤問

問：嚴先生，其實你今次呢一份關於榮昌邨嘅證供，其實係好大部分，即係關於一啲好基本制度上嘅嘢，就同你之前嗰份關於啟晴邨嘅證供係差唔多，同理一樣嘅。

答：係。

問：咁所以我就唔打算就問番你類近嘅嘢。

答：好。

問：咁但係我哋有啲係特別關於榮昌邨嘅嘢，我係想同你討論一下嘅。

答：好呀。

問：咁就你睇睇嗰個樣本嗰個批核。因為就你個供詞都有講過，我哋無需要搵番嗰段出嚟，但係你都講過就係榮昌邨亦都係--個承建商亦都有提供過佢哋用嘅焊料嘅樣本係畀呢個房署去批核。雖然技術上根據合約係唔需要畀個樣本，但係佢都畀咗。

咁我同你睇睇，就關於“FRY”呢個樣本，就 38287。

答：係，睇到。

問：呢個就係個 approval label，咁但係其實成個審批嘅過程同埋啲

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文件，就係 38284 嗰度可以見到，見到嗎？

答：係，見到。

問：咁就仔細我就唔詳述，又係即係一個基本嘅概定嘅一個表格，咁就又係寫咗“FRY”係荷蘭做。咁你睇到個 approval label，就係 38287。38288 嗰度，就有人--即係你哋相關嘅文件檔案裏面，就有一--有人係應該係影印咗相關--有關焊料嗰個合約要求，見到嗎？

答：係。

問：咁就係你都見得好熟嘞，就有四項就要符合英國標準，就如何、如何，咁有特別講到明「只准用無鉛級別嘅焊料」，你見到喇。

答：係，見到。

問：咁就呢個亦有人好有心機咁樣，側邊直情係寫住“refer technical information”，有人就好有心機咁樣直情剔埋，即係有人真係好有心機咁樣去 check，剔咗，佢符合咗，你見到呢度。

答：係，係，有啲 hand-writing。

問：似係邊啲人做，呢一啲嘢？

答：呢個我當然我諗係可能--我相信，我有真正去問過，追問過。但係我相信就係啲同事佢哋批核嘅過程當中嚟到去有少少嘅--即係你見到有啲剔呀，即係話 remind 番自己曾經係 check 過啲咩嘢，咁好多時係佢咁樣做。

問：即係可能係批核嘅同事，佢可能有個附表，即係可能有個 check list 咁樣知道「啊，我要--你畀啲嘢我 check，我攞住個合約標準就 check 下邊一項嘅標準佢如果符合呢」，lead-free，咁就要望下，原來有啲技術嘅文件就附上咗，technical information，係有，咁剔咗佢咁樣，類似？

答：係，係，我相信係咁樣。

問：譬如話 38304 咁樣，你望一望。咁真係有個實驗室嘅後報告就去 test 咗呢樣嘢，咁真係 lead，鉛嗰度係 0 咁樣。咁可能--呢一啲都會係--因為呢個係你嘅文--你嘅證人供詞嘅其中一個附件 9 嚟。咁呢一沓就係整體一個攞批核嘅文件，嗰個承建商會整呢一沓嘢嚟就係包括咗呢個實驗室嘅文件，就話「“FRY”呢隻牌子佢裏面呢個樣本就真係

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驗過就 0 嘅含鉛量」咁樣。

答：呢個係...

問：咁貴署去批核嘅同事就會望一望，「哦，技術文件，含鉛量：0」咁就別，咁就會係--即係個流程大約就會係咁樣？

答：係，係。

問：好，咁我哋睇睇啲送貨單。因為我哋知道即係供應商佢供應呢一啲含--唔係，供應呢啲焊料嘅時候，咁佢哋就係送去地盤，咁有啲送貨單咁樣。咁我想畀你睇睇啲送貨單，咁就係 6.4，6.4 嘅 15354。咁你見到呢一個雋景建材嘅一啲送貨單，見到嗎？呢個 for the read...

答：要等一等先，唔好意思，因為好厚。

問：哦，好，15354。

答：唔好意思，okay，okay，都睇到，都睇到。

問：好。呢一個就係保華提供嘅一個內部嘅調查報告嘅一啲附件咁，咁佢就搜羅咗一啲送貨單。咁佢話「我哋同雋景訂都係訂要“FRY”」，咁佢真係擺啲送貨單出嚟。咁就見到就 15354，就係雋景，一個建材公司，就送畀 Golden Day 金日，因為保華佢就將呢個水喉工程就判咗畀 Golden Day。咁就係送咗去地盤，西村路就係榮昌邨個個--之前個個地址。

咁真係見到「英國“FRY”無鉛錫線」，因為從見到啲啲樣辨，係真係好幼咁樣，一條線咁樣。咁所以行內叫「錫線」，你清唔清楚呢樣嘢？

答：係，即係「線」或者「條」，即係其實呢啲因為都--「線」同埋「條」...

問：係，我就係想問--係，你帶出呢個問題，係。

答：因為如果你話真正喺地盤點樣講呢，我就好少直接去到話啲工人，或者係啲承建商佢哋點樣講「線」或者--因為平時--我唔知佢哋之前，我哋好少提到呢啲所謂嘅錫嘅焊就係點樣樣。咁佢係當然，如果你話之後我哋就經常提「線」同埋「條」，不如我咁樣答你。

問：7 月後，可能大家就會比較--我哋嘅英文叫“draw a finer distinction” within 線、條，就比較即係謹慎啲，聽見「咦，

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條定線先？」

答：係呀。

問：咁你而家你所知道啲人叫「線」同埋「條」有咩嘢分別？

答：呢個線，線，呢個線。

問：應該係叫「線」？

答：通常都係線。

問：「條」係咩嘢嚟呢，你而家知道？

答：「條」嚟講，就好多時即係我哋印象中，就「條」好多有機會係有鉛，但係我唔夠膽講話所有「條」都係會含鉛。因為我哋唔能夠 check 過晒所有嘅供應商，佢哋嘅條狀嗰個嘅焊錫係一定係有鉛，呢個我哋未 go through 晒。

問：Okay。但係焊錫線--即係如果叫「線」，就一般嚟講，你嘅理解就係無鉛嘅錫線？

答：不如咁樣講，如果咁籠統，其實就危險嘅。反而我哋就話即係一定要跟...

問：因為個個人有唔同嘅叫法，可能...

答：係呀，係呀。你純粹話因為「線」就係無鉛，呢個真係好危險。我哋一定要跟番嗰個批核嗰個 model number，就算你話即係“FRY”呢個嘅 made 都好，“F-R-Y”，佢...

問：佢都有有鉛、無鉛。

答：冇錯，佢都會有鉛、無鉛。佢就算--我相信，就算佢係線，即係有鉛嗰隻，佢都有啲條線狀。咁所以就我哋一定要係--即係我唔會叫啲同事就話「線」就係無鉛，即係「條」就係有鉛，唔係咁樣講。不過一定要跟番晒成個嗰個批核嘅招紙，或者 number。

問：明白，明白。即係就算“FRY”呢個牌子，我哋一路講住好似“FRY”就係「嘩，即係好神聖，一定係無鉛。」就唔係，“FRY”都有有鉛、無鉛級別咁樣。

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答：冇錯，係。

問：不過咁啱今次我哋審批出嚟嗰啲“FRY”就係無鉛級別嗰隻，係咪？

答：係，而佢就係「線」。

問：得。咁而你而家事後嘅認知，就係行內人有陣時會叫「線」或者「條」，但係唔能夠因為佢叫「線」或者「條」，就可以好機械性咁樣分類，叫「線」就係無鉛；叫「條」就係有鉛，亦都你嘅理解唔係咁分？

答：唔過--我諗我哋唔可以咁樣去分。

問：得，明白。

答：亦有危險。

問：因為叫「線」、叫「條」，可能係視乎一時嗰個口噏出嚟嘅一個叫法。

答：冇錯，係，因為中文嘅術語。

問：係，好。咁但係你見到雋景建材呢度，就真係好多“FRY”無鉛線條，見唔見呀？錫線，sorry，無鉛錫線，見到嗎？好多都係。

答：係，係。

問：15354、15355 咁。但係我嘅理解--我睇你嘅證人供詞第 68 段，係無需要拗出嚟。但係你就話，但係由於一路嚟講，大家根本就冇在意呢個--即係 check 呢個 soldering materials，因為大家都即係有個基本嘅諗法就係個個--都係睇下係咪 performance-based 嘅一個尺度。所以大家喺個地盤度要 check 嘢，都唔會特別走去 check 呢啲焊料。咁所以你概定嘅流程，之前都問咗好多次嘅，送貨去地盤，就算你哋要真係攞嚟 check，都唔會 check 呢個焊料？

答：啱，即係含鉛方面個...

問：係。咁所以你哋送貨單真係合規寫住「無鉛錫線」，呢啲送貨單你哋係唔會在意，真係攞嚟望下「咦，係咪同我嗰個 approved sample 同埋個牌子？」就有做到呢份...

答：喺制度上面係冇。

問：制度上有？

答：係。

問：咁當然，制度上有。就算 individual，即係個別嘅地盤同事，就算佢理論上有個酌情權，但係佢都唔會無端端走去攞嚟 check，因為地盤上個 check list 冇。

答：我相信都係。

問：即係我都明白，即係有陣時理論上你有酌情權走去做，但係如果制度上我畀你嗰個 check 嗰個表冇叫你特別 check 呢樣嘢，除非有嘢突然間好大件事，alert 咗你，你就...

答：冇錯，冇錯。即係當我哋--即係嗰位同事喺地盤發覺到嚟貨嗰批係有啲可疑嘅時候，咁當然佢隨時都可以有酌情權。咁但係制度上面，我哋就一路都係冇特別去就著啲焊料，嚟到去驗番佢係咪冇鉛。

問：係，我明。即係譬如話你每日去忙，咁呀去到有批貨送嚟「嘩，焊料呀」，咁佢做落知道，其實焊料都唔係要 check 嘅嘢，咁就算喇。咁即係就算佢張 form 合標，佢都未必去 check。同樣，如果送料嚟嘅時候，擺到明唔合標嘅，其實佢都會漏咗，因為制度上有要佢 check。

有一度就--呢度就我哋叫做 overlap 尋日你嘅證供，尋日我就應該問咗你，但係我又冇問到。但係即係既然你今日仲喺度，我就問番你，相比較番一啲啟晴邨同樣嘅送貨單，我又畀你睇睇。因為其實尋日主席先生都提過 50 力呢個牌子，你有冇聽過呀，英國 50 力呢個牌子？

答：7 月之前我未聽過，係最近...

問：冇聽過，我畀你睇睇。K1 啟晴邨係--呢啲就係何標記提供嘅文件，你記得何標記就係啟晴邨，中國建築佢分判畀何標記做水喉。

答：係，係，記得，記得，記得。

問：咁我就想畀你睇睇，比較番一啲啟晴邨，何標記提供嘅一啲佢買焊料嘅樣--送貨單，745 頁。呢度其實 744 開始，啲送貨單，你見到嘞，又係雋景建材佢賣。啲文件就好均真，寫晒有啲咩嘢送咗，喺晒度。744 咁呀寫住「“FRY”松香」，跟住「“FRY”無鉛錫線」咁樣，“FRY”就係 lead-free solder。咁就--你睇番右手面 745，可能唔係太清楚，但係你仔細睇，你會見到最底嗰度就「美國“FRY”無鉛錫線」。

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你睇上面 item 2，就會見到「英國 50 力無--扁錫條」，你見到嗎？

答：係，係，見到。

問：見到。其實好多地方你都會見到，就係「無鉛錫線“FRY”」同埋「50 力錫條」係同場出現。753，舉個例，你望下。753 淨係講「錫條」添，50 力。但係你睇 755，753 你淨係見到「50 力」，對嗎？755 就見到第四項就係「50 力錫條」，第五項就「“FRY”無鉛錫線」咁樣，見到嗎？

答：係，係。

問：756 又係，見到「英國“FRY”無鉛錫線」，跟住就第二項，就係「英國 50 力扁錫條」咁樣，跟住有松香，松香唔使理，呢啲...（聽不清）呢度我哋就見到送貨單，我哋唔使你擺嚟嘢去「beep」一「beep」佢，睇下呢啲嘢係咪真係有。咁但係你啲送貨單，即係 prosperity，佢可能--佢遲啲可能嚟幫我哋，睇下佢幫唔幫我哋。但係你睇下你啲文件，佢文件就真係好公開咁樣寫話「我送呢啲畀你呀」咁樣，就真係有啲唔係“FRY”嘅送到去地盤，文件就即係睇大眼都見到。咁但係就係由於制度上有呢一個制度要去望一望呢個送貨單，咁所以就唔覺察原來係有啲唔係“FRY”牌子嘅焊料運咗嚟，對嗎？

答：喺，係，對。

問：咁但係我都有簡單嘅問題，就係如果係有一個機制，唔使擺住啲咁嘅嘢去逐個逐個去技術上去「beep」睇下有冇，只要有個機制望一望張單，其實就會見到，你同唔同意？

答：Document-checked，呢個叫做，我哋都有咁樣。

問：但係就 document-checked 亦都唔包括呢個焊料，當年，對嗎？

答：係呀，係呀，喺。

問：咁但係即係我哋都明白，就係有陣時你決定 check 得定唔 check 得，就要視乎係咪好輪盡，或者有冇 risks，互相比對，一個平衡，有陣時，對嗎？

答：喺，喺，喺，喺。

問：就如果係好累贅，要擺住枝嘢周圍去「beep」，咁可能大家要諗下使唔使咁大陣象咁。但係就有陣時文件望一望，即係大家就可能會諗下

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話「我哋望一望，都好方便，都可以做到」，係咪？即係採取咩嘢步驟，有陣時都要視乎嗰個步驟係咪繁複，對嗎？

答：係，對。

問：其中一樣要考慮嘅嘢。

答：好呀，係。

問：咁所以就其實你而家係諗番轉頭，就係話當日如果要有個 document-checked, check 埋呢樣嘢，咁就可以起碼喺呢個事例裏面，我係講緊啟晴，唔係講緊呢個...

答：贊成，贊成。

問：其實都望到點解會送咗啲唔係 approved sample 嘅嘢嚟嘅，係咪？同唔同意？

答：贊成，同意。

問：尤其是你當日啲同事係即係審批嘅時候，即係當然我哋諗緊榮昌邨啲同事，佢嗰個同事就真係好有心機咁去 check, 我相信你哋每一次同事 check 都係好有心機咁樣去剔晒啲 boxes 咁樣。

答：佢哋未必剔晒，不過你要好有心機去 check。

問：即係起碼真係有 go through 一個咁樣嘅程序，走去 check 清楚。

答：會 go through 呢個程序。

問：即係其實有少少諷刺，咁呀 check 個同事好有心機咁 check, 但係到到送貨嘅時候，原來睇大眼可以 miss 晒，送咗啲唔係審批咗嘅嘢嚟。

答：不如咁樣講，其實我諗我哋喺地盤裏面嘅工作量都好大。咁我哋真係要平衡番個風險，同埋我哋人手都要即係平衡，即係咁講。咁所以一直以嚟，我諗我哋喺番 check 嗰個嘅到貨單，咁仍然我都係要講番嗰樣嘢，就係其實喺所有呢啲嘅水務嘅建材嚟講，就真係需要番承建商佢哋嗰個角色去擔當，又或者係嗰個持牌水喉匠裏面去擔當。咁我哋即係--喺即係之前，我哋考慮番各樣嘢嘅時候，我哋作為即係房委會，針對呢一個物料，咁喺風險評核之後，同埋人手各樣嘢嘅考慮，係咪即係亦都去 check 呢樣嘢呢，就咁解，咁我咁樣回應。

問：好，明白。我問你第二個課題，就係關於--亦都係同尋日有少少重疊，就係關於驗水，有好多唔同嘅位都有驗水。尋日我就問過你--應該係前日，我就問過你，水務署自己驗水，驗啲 8 個參數，咁就呢個就肯定要做，因為係一個例行嘅一個程序，佢哋臨出 1005 張 form 之前，佢要驗一驗，跟住一駁，咁就出咗 1005 畀你。咁個個我哋叫做 8 個參數嘅 water test，出嚟嘅文件就係水務署自己嚟頭嘅，因為係水務署決定，佢唔會外判，佢一定係自己做，對嗎？

答：啱，啱。

問：好。咁跟住我哋就後來就見到好多林林總總唔同形式嘅--可能係為咗更趨完善所要求做嘅一啲鉛水報告，就係有陣時你喺街外嘅化驗所做。咁我就想同你逐項逐項，睇下究竟其實邊一種報告係要嚟符合邊一種額外嘅要求，我哋又聽有 BEAM，又聽到又有個叫做優質食水計劃，又聽見好多好多嘢。水務署嗰啲我哋唔使講，咁跟住我哋就聽到，好多講到就係要符合 BEAM，睇到嗎，BEAM？

答：係，係。

問：BEAM 就合約上--喺啟晴邨個合約，你都尋日...

答：係，係，有講過。

問：...Mr Pennicott 大律師佢都問過你，就係原來合約裏面有講到就要符合世衛裏面嗰個食水標準，according to BEAM，有個...

答：不如--其實不如咁樣講，即係琴日嗰段，嗰個 clause 裏面，就係佢嚟住，即係--不過而家未係--即係返番...

問：係，唔緊要。

答：實際上，嗰個--喺合約上面嘅嗰個嘅 description 嘅寫法，就係即係 WHO guidelines，咁就“as per”...

問：就 BEAM 跟住 5.1.1 咁樣。

答：冇錯，冇錯，就係根據番嗰個 BEAM 5.1 咁樣樣。咁但係如果大家即係去睇番綠建環評嗰個嘅即係 criteria，其實佢喺嗰個 5.1 裏面所註明嘅，只不過係講番即係嗰個東江水由大陸，即係 mainland 落嚟嘅時候，咁水務署就係以番水務--WHO 個 guidelines 嚟到去處理番啲水，即係反而就唔係我哋搞，呢--即係呢個可能琴日就有嗰個嘅

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文件喺手，即係綠建環評嗰個唔喺手。咁就所以點解我話即係啲同事喺做嗰個 tender document 嘅時候落呢個 clause 落去，其實就係將嗰個綠建環評嗰面去抄番落嚟。咁所以呢個就係我即係綠建環評裏面嗰個--如果大家去仔細睇番就係咁樣樣。

問：當然，提供--因為其實大家可能都有興趣，因為你提到就係尋日 Mr Pennicott 畀你睇嗰個合約條文，即係你都尋日講過，即係而家又係呢番少少尋日，即係同我而家問嘅問題都有關。

嗰個合約條文就提到 WHO guideline，但係就唔係就咁空泛地提話你要符合晒 WHO guideline，但係你就會 per BEAM，跟住 5.1 咁樣。BEAM 嗰個要求，啲文件我希望睇下即係房委會嘅律師可唔可以提供到，因為嗰個時候 per BEAM 嗰份嘢，其實如果有嗰份嘢，大家就知道其實 BEAM 嗰份嘢講乜。

答：我都有一份喺度。

問：你有嘅，係咪？

答：我都有一份喺度。

問：哦，okay。咁但係我可唔可以擺畀大家睇睇，因為...

答：好呀。

主席：不如我哋而家早休，咁 make 啲 photo copies。

王先生：主席，關於嗰個綠建環評嗰個合約，其實我準備咗，我使唔使而家派畀大家...

石先生：就大家都準備咗嘅其實，我哋...

王先生：全部有 copy，就方便啲。

主席：哦，咁更好。

王先生：但係唔知同嚴先生嗰份係咪一樣。

石先生：哦，okay。不如我哋真係早休，等大家有文件可以...

王先生：可唔可以--我可以...

何先生：主席，我想提出一個咁樣嘅睇法，即係睇下各位--可能因為尋日 Mr Pennicott 大律師都曾經就呢一個 BEAM--即係唔同嘅合約條款一路帶去個 BEAM 嗰度嚟睇--問嚴先生。咁但係 Mr Pennicott 亦都帶出咗一個--一點，就係其實呢個合約嘅制訂嘅時候，嚴先生唔係嗰個當時嘅 Chief Architect，當時嘅 Chief Architect 係有另一位，Theresa Yim。

主席：Yim。

何先生：所以其實佢會有一個比較全面嘅解釋，點解會有一個--有一項係同呢個 BEAM 有關。咁即係與其請嚴--呢一位嚴先生嚟度--當時佢唔係嗰個親身去制訂呢一個合約，亦都唔係嚟參與呢個合約嘅草擬，嚟度問佢關於呢個 BEAM 點解會有個咁樣嘅--嘅條款嚟度。咁即係與其係做一件咁嘅事，不如--因為其實琴日 Mr Pennicott 大律師佢都話到到嗰位真係有份參與嘅 Theresa Yim 上到嚟嘅時候，佢都會問番佢同樣嘅問題。咁我--即係我唔介意即係如果石大律師認為有需要問呢一位嚴律--嚴先生佢自己對於呢一個 provision 佢嘅睇法，咁但係對於--其實對於嗰個整件事--關於呢個 issue，我相信會有另外一位證人係會更加可以幫到你，亦都我都知道閣下好想快啲完成即係呢個進度嗰個問題，咁所以我都覺得與其係嚟呢一個證人嗰度係詳細問，我哋會準備一啲資料。

主席：不如我哋解釋...

石先生：哦，對我嚟講完全冇問題，即係佢可以派晒啲嘢先，儘管。

主席：派咗先。

何先生：好呀。

石先生：但係其實我問嘅重點，我唔係問佢關於嗰個合約點解咁樣草擬，因為我都完全知道另外一個 Miss Yim 會嚟。我其實問佢就係關於即係嗰啲驗水嗰啲報告有--即係邊啲係關於 BEAM，有邊啲係關於 Quality Waters Assurance Scheme 嗰啲咁嘅嘢。所以其實呢度唔係我嘅着墨所在，但係如果有嘢派，儘管可以派。

主席：係呀，派咗先。

石先生：派咗先。

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主席：係。

何先生：主席，主要嗰度有兩個文件，一個...

主席：得，得，得，等一陣先。

Mr Pennicott。

MR PENNICOTT: Mr Chairman, I have listened to what Mr Ho has said on behalf of the Housing Authority. At the moment, as far as I'm aware, there is no witness statement from Theresa Yim in relation to Kai Ching. Can Mr Ho tells us whether he is expecting serve a witness statement from Theresa Yim in relation to Kai Ching?

何先生：如果有需要的說話，我哋會請佢就呢個 BEAM 嗰個部分去畀一份資料畀委員會。

主席：可以。

何先生：因為...

主席：有陣時唔係乜嘢都要 witness statement，你聽完之後，如果你認為需要啲時間 digest，咁咪 digest 之後先至再問，有陣時好多嘢 cover 唔到。

何先生：因為佢會係作一個證人關於另外一條邨，咁琴日 Mr Pennicott 已經講話佢嚟畀證供嘅時候，佢都可能會係要就啟晴嗰個合約嘅某一個部分會作證。

主席：得，明白，明白。佢呢個唔係石大狀嘅重點嚟。

石先生：呢個唔係我重點，但係即係我頭先話我係--即係當然有嘢要派，儘管可以而家派。

主席：派咗先，係呀。

石先生：但係其實我嘅重點，即係其實呢個係一個起題嘅即係引子嚟啫，其實我問佢就係好簡單，就係問佢有邊一啲嘅驗水報告係關於

BEAM，邊啲驗水報告係關於 Quality Assurance Scheme，點樣去分辨，其實好簡單。不過我哋可以派咗先，或者早少少而家 morning break。

主席：係，而家派咗先。

王先生：主席，我想問你--報告一下，嗰個文件一個就係綠建環評個 BEAM 嗰個 5.1.1 嗰個文件，第二個就係一個--嗰個文件一個 footnote，一個附錄，就係關於水務署喺檢驗水嘅時候用咗嗰啲參數嗰個附頁，喺嗰個水務署嘅 annual report 入面 extract。

主席：好，咁不如而家派。唔該。

石先生：主席，即係既然而家派咗，雖然原本未必係我嘅重點，但係我都想望一望，即係消化下，...

主席：係，消化下先。

石先生：...冇乜嘢係 arising out of 呢度，我要跟番嘅，否則，其實我唔會打算喺呢度落好多墨嘅其實原本嘅諗法。

主席：得，我哋早休二十分鐘先，好唔好？

石先生：嘎。

上午 11 時 30 分聆訊押後

上午 11 時 53 分恢復聆訊

出席人士如前。

香港房屋委員會第三證人：嚴汝洲（房屋署（啟晴邨和榮昌邨總建築師））
宣誓繼續作供
石先生繼續盤問

問：嚴先生。

答：係。

問：係，你好。咁我哋就頭先有機會睇過律政師方面提供有關即係 BEAM 方面嘅一啲資料，詳細我諗我就唔會問你即係裏面第幾段第幾段啲，因為我主要問你呢一連串嘅問題嘅重點，其實就係比較簡單，即係我就係--不如我開宗名義講，就係我哋聽見唔同嘅驗水嘅過程個要求，有啲就驗七種，有啲就驗八種。咁驗七種又可能係同 BEAM 有關，或者同嗰個優質食水計劃有關，又可能係唔同嘅時期驗。咁即係為咗幫助委員會去了解，即係唔好撈亂咗呢個七種定係八種係 for 咩嘢原因要驗，我就想同你即係逐種逐種講一講。

答：好呀，好呀。

問：BEAM 就係有時就我哋見到啟晴裏面就有個合約嘅要求，就提到咗 BEAM 嘅要求。我哋唔好講嗰個 BEAM 嘅要求裏面實際有冇講話要嚟符合 WHO 定係乜嘢，我哋唔好講，總之 BEAM 係要符合 BEAM 嘅要求。啟晴邨嘅合約就有提到世衛同埋 BEAM，我哋尋日睇到，Mr Pennicott 就同你睇過。但係其實唔係所有嘅合約都有個類似嘅條款要符合 WHO 或者 BEAM 咁嘍，係咪？

答：未必嘅。

問：未必？

答：係，未必。

問：未必。咁如何去決定個合約個條款提唔提？

答：唔係，唔係，不如咁樣講先，即係我嘅意思未必嘅意思，即係話我哋未必每一個項目都會去評審，即係嗰個綠建環評嘅評審。但係我哋都希望係去到即係綠建環評嗰個評審嗰個嘅高嘅指標，即係嗰個 grading 咁解，即係我哋希望係咁。

問：唔係，我諗你誤會咗我意思。我嘅意思係純粹合約條文嚟講，尋日 Mr Pennicott 咪同咗你睇啟晴邨嗰個合約裏面有一個 preliminary specification，有直情係明示嘅字眼講 WHO、BEAM 咁嘅，唔係份份合約都有講 WHO as per BEAM 咁嘅，係咪？

答：呢個我要睇番嗰個係咪，因為嗰個係舊版嘍。

問：Okay。

答：即係喺啟晴嗰個係舊版嚟。

問：Okay，得。

答：咁但係而家個更新版，我要再睇番嗰個情況。

問：得，得，唔緊要。但係純粹從水質呢方面嚟講，咁我嘅解讀，我睇番即係房委會佢嘅證人供詞，就係馮女士嘅證人供詞，佢就話房委會要求承建商就去一啲水質嘅測試，要嚟符合 BEAM 嘅要求。就算合約有 specifically 講到明要 BEAM，呢個係你哋一般嘅做法，都係總之收樓嘅時候都會要求佢做一啲水質測試，去符合 BEAM 嘅要求，對嘛？

答：如果我哋係做評審嘅話，我哋就會係咁樣做，不過...

問：咩嘢叫「我哋做評審」？

答：即係如果個項目係要提交上去畀香港綠色建築議會佢哋去到做評審，咁呢個一定要做，咁但係...

問：明白，係。所以個評審就唔係「我哋」，即係 as in 房委會做，即係話如果個項目係要提去畀 BEAM 做評審，你就會要求個承建商去做一啲...

答：呢個一定要，因為對方嘅要求。

問：係。做一啲符合 BEAM 呢個係 accreditation 嘅嘢，對嘛？

答：冇錯。

問：因為 BEAM 嘅 accreditation 可能喺業內，可能覺得係一個即係額外一個 added 嘅 value，可能係一個 prestige 咁樣，譬如話可能係 accredit 咗係 platinum 咁樣，咁所以可能房委想佢某一個嘅項目，想去呈交界綠建環評，去 accredit 成為某個級別，咁所以佢就會要求個承建商去做一啲嘅水質測試，就係要嚟符合 BEAM 呢個要求。好嘞，BEAM 嘅要求就係做七項，對嘛？

答：啱。

問：就係水務署嗰八項，減咗兩項，加番一項。

答：即係優質水，優質水嗰個。

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問：我明，唔好講優質水先。總之因為我哋而家我嘅重點係八樣定七樣？

答：七樣。

問：七樣。七樣就係水務署 standard 驗嗰八樣嘢減咁兩樣，然後加番一樣，咁就變咗七，對嘛？

答：嘎。

問：減咗嗰兩樣就係氯氣，同埋嗰個就係...

答：HPC, Hetero...

問：Hetero Plate Count。

答：Plate Count, Plate Count。

問：係嘞，冇錯。

主席：Heterotrophic。

問：係，冇錯。咁就減呢兩樣，跟住就加番個鐵？

答：Iron。

問：Iron, 冇錯，咁就變成咗七項，okay？

答：係。

問：所以 BEAM 就係叫做七項。所以我哋見到七項，就係可能係 BEAM。跟住你就講到優質水，優質水嘅一個 scheme，呢個英文就叫做 Quality Water Assurance Scheme，對嘛？

答：係，係。

問：優質食水嘅計劃？

答：係。

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問：呢一個優質食水嘅計劃就係水務署搞，對嘛？

答：唔。

問：應該係我嘅資料就係話係大約 2003 年開始嘅大約。咁呢個優質食水計劃就其實係一個公開畀各個唔同嘅屋宇都可以參加，對嘛？

答：係。

問：即係其實基本上又係一個即係評審，呢個好似畀啲獎你咁樣，我係房署，我轄下嘅樓宇，如果我可以驗到我轄下嘅食水裏面係符合咗某一啲嘅標準，我就可以 submit 畀水務署，咁佢評審咗之後，就會畀一個評核我，「你就符合咗優質食水嘅要求」咁，對嘛？

答：係。

問：係。咁優質食水呢個水務署呢個 scheme，佢要求驗幾多嘢，亦都係啲七樣嘢，對嘛，同 BEAM 啲七樣嘢係一樣？

答：係。

問：其實 BEAM 要決定啲七樣嘢其實就係抄番優質水啲七樣嘢，對嘛其實？

答：呢個我相信當然要問番 BEAM 個面。

問：Okay。我哋唔好理究竟其實係唔係叫做抄定係咩嘢，抄可能係比較好似話你好似抄人咁。但係即係總之 BEAM 啲七樣參數同優質水啲個水務署搞啲個 scheme 啲七個參數係同樣啲七個參數㗎？

答：呢個我記得係，同埋琴日大律師亦都提番出嚟，即係佢都確認係呢七個參數。

問：係，得。咁所以我哋而家就個腦海中就知道，八個參數嘅就係水務署駁水喉嘅時候驗嘅就係八個參數，如果有啲街外嘅 private lab，私人化驗所做嘅，如果睇見啲樣嘢「咦，驗七樣嘅」，你就會知道一係就 BEAM，一係就要嚟係優質水，對嘛？

答：可以咁樣講。咁但係即係當然，呢個亦都係話即係就住 BEAM 個個先，BEAM 個度本身我哋都係要迎合番佢個嘅評審。咁當時即係如果就啟晴為例，咁佢要求我哋係呢七個嘅參數，咁所以就話即係我哋暫時唔夠膽講話係人哋話抄定咩嘢，即係個要求係啲七樣，咁就係咁樣

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樣。咁但係當然即係佢喺第二個 project 要多一個，咁我唔知嘅呢個，但係只可以講啟晴嗰個係七項。

問：得，我明。其實到到最終無論七項、八項，你可以講得佢啲就係都唔包含要驗鉛？

答：冇錯，啱，啱。

問：所以無論你係邊一個，用七個定用八個，其實即係某一個角度睇未必關事？

答：啱，啱。

問：但係因為好多唔同嘅律師，就大家呢個就擺一張出嚟，「喺，有驗呀，七項呀、八項」，我想搞清楚，其實...

答：絕對冇驗鉛。

問：但係我想知道究竟七項嘅乜嘢版本。七項嘅就可能係優質水，七項？

答：呢個就必然。

問：係。BEAM 可能係七項，可能係有其他嘅要求？

答：佢哋自己個個別要求。

問：啟晴裏面所驗嘅就係要符合 BEAM 嘅就係七項？

答：係。

問：好嘞，咁就另外有一個類別嘅驗水報告，我就想你幫一幫我睇，就係 Bundle 5.10 嘅 12975.92。搞錯咗，唔好意思。MateriaLab，請大家等一等。Okay，12975.197，197，見到嘛？

答：12975.197？

問：係。咁呢度係一個隨手擺一張。就 MateriaLab，呢個係一個街外嘅一個私人化驗所。咁佢就驗八種參數，你見到呢個係。12975.197，咁你見到 test parameters 係八項，對嘛？

答：八，係，係八個。

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問：咁個項目就係 Kai Tak Development，咁即係啟晴，project 嗰度。

答：係，冇錯。

問：係。咁呢一個就係一個街外嘅化驗所驗八項參數嘅嘢，咁呢一個就唔係 BEAM 應該？

答：就咁啟晴嚟講，應該唔係。

問：唔係 BEAM，亦都唔係優質水，對嘛？

答：優質水唔係咁樣。

問：優質食水其實唔係啱啱入伙做，優質食水係其實你枕住入咗伙之後可以...

答：啱，係呀，係呀。

問：...你要參加，我就走去驗，所以可能係住咗好耐都可以驗，係嘛？

答：係。

問：但係呢個可能係即係一睇就知道係差唔多人伙冇耐，或者係...

答：呢個係 8 月 1 號。

問：8 月 1 號 2013。

答：佢係未入伙之前。

問：未入伙，係呀，未入伙，係未入伙之前。咁呢一個其實你知唔知道其實佢性質上，未入伙前走去搵私人化驗所，同埋何標記，即係係嗰個水喉分判商去安排？

答：當時呢個係我哋要求中國建築嚟到去做，咁所以中國建築就搵咗何標記，係佢嘅 subcontractor 去驗水。原因就係話--琴日應該都有提過，就係喺嗰個整體駁咗水之後，即係水務署...

問：攞入伙紙後？

答：係嘞，攞咗水，跟住攞咗水紙，就去攞入伙紙。入伙紙之後，我哋希

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望確保喺啲居民攞鎖匙入伙之前，我哋就將成個系統都係清洗一次。清洗完之後，因為呢個針對番啲個退伍軍人症，咁就即係我放番個 chlorinated water，咁清洗完之後再將個 chlorinated water 係清洗番，咁然後再去做呢八個參數嘅 test。

問：得，我明白。因為我記得我之前問你嘅時候，你都曾經有提過就係攞咗入伙紙之後，房署係會要求承建商會走去私人化驗所再去驗一次啲八個參數有冇超標之類？

答：啟晴係咁樣樣，係嘞，係嘞。

問：呢個就唔關水務署駁水事，因為水務署已經駁咗水？

答：已經駁咗水，已經駁咗水。

問：咁呢個就係純粹房署佢作為一個品質監控嘅一個額外嘅一個要求？

答：係，可以咁講。

問：即係與駁水無關？

答：嘅。

問：Okay，明白。咁麻煩你睇睇 B1 嘅第 8 至 9 頁，文件夾 B1，8 至 9。呢一個就係房委會遞交，係畀調查委員會嘅一份文件嚟。你睇番第 3 頁，就係“Commission of the Inquiry into Excessive Lead Found in Drinking Water”，咁跟住就係佢對我哋呢個調查委員會，係 Housing Authority 係提供嘅一個文件。咁你睇番第 8 頁先，第 8 頁。

答：係，睇到。

問：底嗰度第 10 段，呢個就係房委會即係講到佢哋做緊嘅嘢，佢話“Upon completion of new estates, Water Service Department collects water samples from water collection points for testing and analysis...”，咁呢個就係水務署做啲八樣參數嘅測試，我哋呢度擺埋一面先。Concurrently，與此同時，我們要求啲註冊嘅承辦商去做額外嘅水版測試，咁你見到，additional water sample tests。咁佢就話 dual purposes 就係符合兩--即係要嚟達到兩個目的，第一就係“They serve as a further test (with more samples) of the water quality standard

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against the parameters promulgated by WSD via its Circular Letter”，應該係/2012，唔係 212012，見到嘛？

答：係。

問：咁呢一個就係佢哋第一個額外嘅做嘅水辦測試嘅要求就係符合水務署嗰個 2012 年 2 號 Circular 所要求做嘅八個 parameters 做嘅更多樣辦嘅測試。即係一樣就係嗰八個參數，不過就係 test 多啲。咁呢個似乎就係話你頭先所講，就係可能入伙紙之後，你要求承建商去擺多啲 sample，都係 test 番嗰八個。我嘅焦點係七個定八個，你記住，唔好諗第二啲嘢。

答：Okay，okay。

問：喺呢度話“against the parameters promulgated by WSD”，即係嗰八個。

答：係。

問：呢度第 1 段羅馬數目字 (i) 佢裏面所指嘅呢個咁樣嘅 additional sample test，係咪就係頭先我哋見到，頭先話啟晴裏面嗰個 MateriaLab 做嗰八個參數嘅測試，會唔會就係呢一個羅馬數目字 (i) 裏面所講嗰種嘅測試？

答：但係呢度佢亦都有提到話嗰個 2015 年水務署亦都...

問：Later，later，係 later。

答：Okay。

問：但係我而家講緊當時。

答：Okay。“With more samples”，呢個係八個參數。

問：但係抽多幾個水辦，佢唔係話抽多幾個 parameter，佢係同樣八個參數抽多幾個水辦。

答：喎，因為呢度係講緊係咁即係 farthest point 嗰樣嘢，即係琴日都提過，我哋係最遠嗰啲地方嚟，即係 additional sample。即係話其實如果係水務署叫我哋喺某啲位置去抽水辦嘅話，咁我哋再喺 farthest point 再有呢啲叫做 additional points 再去抽，就係嗰八個參數。

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問：係，我嘅焦點係七個定八個？

答：八個，八個。

問：八個，八個參數，水務署抽咗，駁咗水，但係你哋要求佢抽更多，唔同地方抽，抽咗驗，都係驗嗰八個？

答：係，喺呢度嚟講係。

問：係。但係就街外化驗所驗，就係頭先我畀你睇嗰張證書，MateriaLab 做，驗八種，就係可能係呢一個羅馬 (i) 裏面所要求驗嗰啲水辦，係嘛？

答：係呀，係呀，係。

問：攞完入伙紙之後驗。咁以你嘅理解，呢一個攞完入伙紙之後，喺唔同地方抽，可能最遠可能盛，...

答：都係八個。

問：...係唔係淨係 up-link 嗰段去抽，down-link 都會抽？

答：Down-link，啱，啱。

問：唔單止係 down-link 抽，打橫入咗屋之後都會喺啲 random 嘅單位度去抽，會唔會？因為你要最遠咁嘛。

答：或者會係。

問：或者會？

答：即係按番嗰個項目嚟定，有機會係。

問：因為頭先我畀你睇嗰張，佢直情有個 flat number，唔知 3916。

答：係，即係所以咪就係有機會係囉，有機會係。

問：係嘞，會打橫去抽埋，okay，得。咁諗另外羅馬數目字 (ii) 就係講 BEAM，優質食水嗰啲，嗰啲就會係驗--啟晴就會驗七種，同埋優質食水都係會驗七種？

答：BEAM 呢度係。

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問：好嘞。抽水嘅地方我想問一問，如果抽嚟符合 BEAM，即係你想抽咗之後要嚟送去 BEAM 嗰度擺 accreditation，驗七種，喺啟晴裏面，對嘛？喺邊啲地方抽？應該有個 protocol set out 咗㗎嘛，係嘛呢個？

答：冇錯，就係即係跟番個綠建環評嗰度嗰個所謂佢嚟自己嗰個規範就係所謂 ISO 5, 6, 7 嗰啲，嗰啲咁樣。

問：係，就要 farthest point 咁樣嗰度，係嘛？

答：係。

問：嗰度，係嘞，okay。優質水嗰個抽驗都係跟番類似 process 做，係嘛？

答：優質水就因為係真係後期做，咁即係入咗伙之後。

問：入咗伙之後做？

答：就變咗係我哋管業主嗰班同事，佢哋會熟啲，即係我哋冇...

問：佢就會入埋個單位度抽，係咪都？

答：我有 involve 喺嗰個詳情。

問：你有 involve，okay，okay。

答：即係而家個個都知，但係基本上...

問：得，我明。但係講番抽去驗 for BEAM，會唔會喺啲單位度擺去抽？BEAM 即係未入伙，BEAM 係一開始冇耐。

答：係呀，我要記得番先，所以我頭先答你就話即係因為根據佢哋嘅要求，有機會會喺單位度都要抽。

問：Okay。我哋啲文件見到優質水應該都入埋屋，不過即係唔緊要，有文件即係有文件。

石先生：我有第二啲問題，唔該。

主席：Mr Paul Y，係咪？係咪 Paul Y 行先呀想？Mr McCoy？

Mr McCoy 盤問

問：Mr Yim, am I correct that you did not attach any CV to your witness statement?

答：我有。

問：Why was that?

答：因為我有被要求。

問：When were you first made an authorized person under Hong Kong law?

答：我如果係冇記錯，係1987年。

問：And you come under the architect category?

答：係。

問：Which postgraduate qualifications do you have?

答：可唔可以再講一次？

問：Sure. Which postgraduate qualifications do you have?

答：Postgraduate qualifications，你講緊係而家定係當時？

問：Now，now。

答：Postgraduate，我諗而家我嘅 qualification，如果係 academic 嘅話，我就係停於喺大學嘅階段。

問：Are you a fellow of any professional institution?

答：我應該唔係。

問：You are aware that Prof Anthony Cheung and Ms Ada Fung have already given evidence in this Inquiry?

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答：知道。

問：Did you sit through most of their evidence?

答：一部分。

問：Have you been able to read a transcript or summary of what they have already said to the Commission?

答：我未有時間睇，但係我就係一部分我嚟聽過。

問：Why do you do that?

答：我嚟聽係只係睇番下，即係因為我亦都需要係做呢個嘅證人，所以我要知道嗰個程序，同埋我亦都係知道下係佢哋係講過啲咩嘢。

問：I would ask, please, that the World Health Organization report be put up on the screen. My colleague tells me it's in bundle G1. Page 49, please. This is the Guidelines for Drinking-water Quality, fourth edition. If you turn to the next page, you will find that it is published in 2011. Do you see that?

答：見到，見到。

問：I would ask you now, and the operator, please, to come across to page XV, Roman 15, please. Page 63, I am told. Thank you. Do you see that, Mr Yim?

答：63頁。

問：Yes. If I read the introductory sentence: "Access to safe drinking-water is essential to health, a basic human right and a component of effective policy for health protection." Do you agree with that?

答：基本上同意。

問：Please come down to the last three lines or so of the next paragraph: "The [United Nations] General Assembly declared the period from 2005 to 2015 as the International Decade for Action, 'Water for Life'.

Most recently, the [United Nations] General Assembly declared safe and clean drinking-water and sanitation a human right essential to the full enjoyment of life and all other ... rights." you generally agree with that?

答：一般我都同意。

問：Now please come down to the paragraph commencing, "The World Health Organization". It's about eight lines from the bottom.

答：睇到。

問：Thank you. "The WHO published three editions of the Guidelines for Drinking-water Quality in 1983-1984" -- that's one -- "1993-1997" -- that's two -- "and 2004" -- that's three -- "as successors to previous WHO International Standards for Drinking Water, published in 1958, 1963 and 1971." That would seem to be about six different versions of WHO Guidelines for Drinking-water. That seems to be about right, does it not? It seems there are about six different versions?

答：呢度係咁寫。

問：You can see that the WHO has been publishing this international guideline since 1958, which is about 15 years even before the Housing Authority came into existence; you see that?

答：睇到。

問：It's plain that WHO has been significantly updating, and if you read on it says there's a "process of rolling revision, which leads to the regular publication of addenda", add-ons, "that may add to or supersede information in previous volumes as well as expert reviews on key issues preparatory to the development of the Guidelines." Do you see that?

答：我睇到。

問：The summary of that really is that since 1958 there has been this ongoing updating of this international standard. My question to you is what has been the internal process of the Housing Authority to keep up with the World Health Organization standards pertaining to water? What is the process inside the HA?

答：個 process 就過去呢一、兩日我哋都有提過，我都唔怕再--可以再講多一次。基本上我哋整個房委會裏面嗰個嘅運作，喺公營房屋嘅項目發展嘅當中，我哋係即係一方面對於嗰個嘅 regulatory 方面，statutory requirement，一路我哋係有 upkeep、update。咁第二方面，就係話我哋亦都要去番一啲嘅即係其他 government department Bureaus，佢哋所 upkeep 嘅 standard，或者係佢哋嘅 requirement，我哋一直都係需要關顧。第三方面就係有關於喺建築業方面嘅 stakeholders，呢啲持份者就係包括埋建造商會，甚為係一啲學界，大學方面嘅專家，咁呢啲都係第三個範疇，我哋係一路係 upkeep。

問：What is...

答：咁就係當然--對唔住，你可以畀我講埋。

問：Of course。

答：當然即係我講緊係呢啲 parties，但係對於你嘅問題，當然我就話就著喺呢幾個層次，每個嘅範疇當中，我哋同呢啲不同嘅 parties，持份者又好或者係不同嘅方向，我哋都係從呢個世衛標準，因為你問嘅係世衛標準，呢一個嘅咁樣嘅 guidelines 佢不斷 updated。冇錯，我哋係喺嗰個呢個 guidelines，某程度你可以話有間接或者直接嘅關係，不過我哋仍然都係站著喺今日，我哋講緊係水務，水質嗰方面，飲用水對於健康嘅影響，事實上我哋喺呢一方面嚟計，就我哋喺房委會嘅當中，的確係依賴有關嘅專家同埋或者係部門，嚟到去對我哋有一個提供。咁所以喺呢度，我哋唔會去不斷嘅嚟到去查考呢個世衛嘅標準，一路路點樣嚟到去更新。咁反而調番轉頭，我哋就係睇番個業界嘅要求。對唔住，我比較即係--你可以繼續你嘅問題。

主席：長咗啲，係。簡單啲嚟講就即係冇，係咪？

答：係。

問：Mr Yim, in relation to water standards does the Housing Authority exclusively depend on being updated by the Water Supplies Department?

答：基本上係。

問：So the interdepartmental process in relation to water matters for the Housing Department/Housing Authority is you wait for the specialist department, WSD, to provide you with any updates or variations?

答：基本上係。當然如果業界有一個反映，即係頭先我講，咁我哋都會注意。

問：But I was not asking about the industry at that stage. I was asking about inter-governmental co-operation.

答：啱，係，但係當然如果你話牽涉健康、衛生，就會有埋其他嘅政府部門。

問：Yes. Now, let us assume WSD informed the Housing Department or the Housing Authority of the existence of an earlier version of the World Health Organization on drinking water. So we can take one of the ones before 2011. If that had been done, what would have happened? Would WSD have written to you, enclosing a copy of that WHO Guideline?

答：我諗呢個要問番佢哋先得，我諗我喺房委會裏面...

問：I am going to.

答：吓？

問：I am going to ask them.

答：Okay, okay。但係我意思即係話係即係如果喺--佢哋都有佢哋自己個個嘅衡量，消化咗之後，係咪真係每一樣嘢都 pass 過嚟即係不同嘅部門，咁即係佢哋要有個鑒定。

問：But once it does get passed -- I'm assuming now something is being passed to you, some revision or some update, so the WSD have sent something -- whereabouts in Housing Authority does it go to? Which person or unit or section is the update to water quality levels sent to, inside HA?

答：呢個要視乎番就算係個水務不同嘅範疇，其實都要--未必一定係某一個崗位或者某一組嘅同事，都要睇番嗰個水務裏面、衛生裏面嗰個課題係邊一方面，咁我哋有我哋自己唔同。

問：But on a general water quality drinkable standard, where does it go to in the Housing Authority?

答：我哋真係冇一個特定，因為始終正如我頭先都講，呢一個佢嘅標準，我哋真係好倚賴水務署方面嗰個提供。因為頭先你所講就係話個世衛個 updating，呢類咁樣嘅文件係嚟到係點樣樣分類，呢個我諗係即係我唔想混淆嗰兩個答案。

主席：即係簡單啲嚟講，如果聽日有一個世衛 2015 嘅 addendum 出咗，其實實際上就係如果我想送去畀房委會，都唔知送去畀邊一個 department?

答：唔係，送畀房委會必定係畀 Director of Housing 先，由番佢去下面再分番。

主席：好嘞，送去房署，都唔知送畀邊個人？

答：仍然都係，即係我諗正話咁樣講先，即係世衛標準呢個，如果牽涉到飲用水方面，調番轉頭，如果我哋有呢個 update，調番轉頭我哋一定會問番水務署，因為佢係專家。

主席：得。我呢個另外一個問題嚟，聽日我代表世衛話畀你聽，「啊，鉛呢而家降低到 5 嘞」，我呀世衛想 send 一樣嘢話聲畀你知。其實去咗你哋個房署之後，都冇一個特定嘅部門或者有一個特定嘅人係去收

或者處理，可能喺啲 trade 嗰度游下游下，咁唔知游咗去邊度，咁跟住又唔知點。

答：如果就咁樣講先，如果係一個嘅 statutory 嘅 requirement，呢個我哋就有番固定嘅同事個組別嚟到處理。但係如果你話係番出面有關嘅組織嚟到去有 updating，咁我哋就要再睇番個分類同埋個內容個課題，呢個就係我所講嗰樣嘢。

主席：咁如果我聽日真係咁樣做嘅話，邊一個收？

答：咁樣講，如果係嚟到嘅時候，基本上就已經所有人都會分發，因為今日已經係一個好緊張嘅時間，去到一個鉛水事件。

主席：繼續。

問：Of course, you are confusing us by your answer, because if it is not about lead but something else that pertains to water, who will it go to; which unit or part in the Housing Department will it go to?

主席：可以冇，唔係一定要有。

答：唔係，但係事實上呢個真實嘅事件，就係話真係睇番佢個課題同埋當時專題係邊個，即係你如果純粹係講緊個機構，個機構佢發出嚟嘅文件，真係要睇下咩嘢課題。

問：But if it's an advisory on a matter pertaining to health, where does it go to in the Housing Department? How is it distributed?

答：如果係到到今日嚟講，到今日嚟講，就會係由番我個 section。

問：Is there a research and development unit -- I may have the wrong title -- but is there some part of the Housing

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Department responsible for research and development, keeping up with international standards and changes? Is there any part of the Housing Department with that responsibility?

答：我哋冇咁樣，琴日已經分析咗，我同主席講咗，不過唔好意思，可能你唔喺度。咁我哋唔會係有一個咁龐大嘅資源可以做到呢一樣嘢，不過我哋就係喺番我哋公營房屋...

問：Now I ask -- forgive me, I'm crossing -- you please answer.

答：Okay。但係喺番我哋嗰個--針對我哋嘅 core business, core business, 我哋係起公屋，我哋係公營房屋嘅發展，所以我哋嗰個嘅研究、research, 都應該係集中番我哋喺公營房屋發展裏面。但係我哋就有一個即係所謂職責，係去將所有--因為今日我哋課題係講緊飲用水，但係實際上如果要將即係全世界嗰個嘅 standard 去 upkeep, 我哋冇--即係唔係咁樣嘅做法。如果係 related to 即係公營房屋裏面，我哋嘅項目要引伸出嚟嘅一個 research, 我哋會做。

問：So is the true position, frankly, that when it came down to water, you relied on the Water Supplies Department to tell you?

答：基本上係。

問：Could you turn now to page -- it's original page 383 of the World Health Organization document, original page 383, please. I'm told it's page 73 by Mr Pennicott, senior counsel. Yes, that's it.

答：係咪呢個？咦，唔係。

問：Mr Yim, once the existence of the WHO 2011 standards came to your knowledge, did you read it? Have you read this before?

答：我有。

問：If you look under the cross-heading "Lead", and if you come down eight or ten lines, it does say this: "Lead

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is rarely present in tap water as a result of its dissolution from natural sources; rather, its presence is primarily from corrosive water effects on household plumbing systems containing lead in pipes, solder, fittings or the service connections to homes." Do you see that?

答：睇到。

問：You have said you are reading this for the first time, and I totally accept that, but my question is this: did you have a general understanding of the concept that lead was a poisonous substance, before July 2015 -- did you have that concept?

答：鉛對一個健康有影響，喺 7 月之前，基本上我有呢個概念。

問：Yes. If we come down, please, to the lower part, about 75 per cent down the page, you can see the word "Occurrence": "Concentrations in drinking-water are generally below 5 [micrograms], although much higher concentrations (above 100 [micrograms]) have been measured where lead fittings are present. The primary source of lead is from service connections and plumbing in buildings; therefore, lead should be measured at the tap." If you just, please, turn the page and I'll get the question, you can see additional comments that the higher-risk categories are infants and children.

答：唔好意思，第幾版？

問：Sorry, the next page.

答：384，okay。

問：Yes, three lines from the top, "Additional comments": "Infants and children are considered to be the most sensitive subgroups of the population." You have said that you had an awareness of the general concept that lead was poisonous. We have got that far already; agreed?

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答：我答咗頭先，即係係。

問：That's right. Now, in your witness statement, you specifically refer to the fact that there is a provision mandating lead-free solder; yes?

答：係，係。

問：Why is that provision there?

答：嗰個就都有交代過，只係呢兩日，即係最主要係嗰個 specification。我哋係即係製造個 specification 嘅時候，喺我哋用銅喉之後，02 年嘅時代，我哋就係將呢個 specification 係咁樣嚟到去 update。呢個都係轉化喺英國嘅嗰個標準。

問：The reason why you have stipulated lead-free solder is because solder containing lead is dangerous; that's the real reason, correct?

答：都係跟番英國標準。

問：Forget British Standards.

答：Okay。

問：The rationale for non-lead solder is to prevent lead poisoning; yes?

答：係。

問：When did you first put into your provisions of contract the requirement that there be lead-free solder? When did it first go into the contract; do you know?

答：呢個都問過，未，我哋要 check 一 check，因為都十幾年前。

問：I want to ask you some questions now, if that can be put away. Thank you. Could we have the General Conditions of Contract put up on the screen, and that is, I believe -- I believe it's B6.1, page 12984.21.

Mr Yim, I am asking you please to first of all look

at clause 42(1) of the General Conditions of Contract. Perhaps I could read it: "All materials and workmanship shall be of the respective character, quality or kind required by the Contract and shall be subjected to such examinations, measurements or tests as the Contract Manager shall require or as ordered by the Architect or the Architect's Representative."

Now, this means that tests shall be carried out by the contractor if there is a requirement for the contractor, by the contract, to carry out such tests. And the second way is tests shall be carried out if the contract manager orders them. Do you agree that those are the two provisions?

答：呢度係 42 嘅第一項，第一個分項嗰度就係咁樣講，咁你所講...

問：That's right.

答：講埋第 2 段？

問：I am coming right there. We are playing Chinese chess. We will get there. 42(2), let's have a look it, at your request. It says that the contractor shall provide all facilities for examining and testing "any material used". So if material has been used, it either gets tested because it's a stipulation in the contract, and the contractor has to test it, or it gets tested if the contract manager ordered it; agree?

答：呢度係咁寫。

問：In the same spirit, shall we move to 42(3): "The expense of complying with requirements of subclause (2) of this Clause, including transportation costs, shall be borne by the Contractor in so far as the Contract provides for examinations, measurements or tests ..." So we just stop there. If the contract provides that the contractor has to carry out tests, the financial cost is on the contractor; yes?

答：呢度係咁寫。

問：That's right. But the alternative, if the contract does not so provide, then the expense falls on the contract manager; yes?

答：係。

問：So, in short, if, as the contract for Wing Cheong never specified any tests in relation to solder, the part of the GCC which could have been engaged would have been a direction from the contract manager for such testing of solder to have been carried out; that could have been done, couldn't it? It's a "yes" or "no". It's a binary answer. It could have been done; yes?

答：可唔可以唔係“yes or no” answer，講多一句都唔得？

主席：繼續，你用...

問：You already have!

答：我諗--當然呢度係嗰個嘅合約裏面要求，即係如果嗰個嘅合約經理或者佢嗰個嘅代表，嚟到去出個 instruction，叫番個承建商去做一啲嘅檢測，咁當然嗰個 clause 度寫得好清楚，頭先都讀過，我唔長氣。咁反而就係話調番轉頭，即係因為你集中番喺嗰個嘅合約嘅條文，就係呢一段，但係其實亦都會呢啲係各個條文互相呼應。咁所以我亦都提醒番，即係本身其實如果嗰個承建商佢自己對於嗰個嘅分判商裏面，或者係某啲物料到啲地盤，包括埋佢自己嘅所做嘅 supplier，咁就有懷疑嘅話，其實因為本身承建商係有責任係需要係讓嗰個物料係符合個要求，咁呢啲 test 檢測，其實個 contractor 都可--個承建商都可以自己自行去做。

問：I would like to remind you that I am asking about the second option. So put aside the contractor's obligations for the moment. Analytically, put that aside. I am asking about your right, as the contract

manager. You did have the right to direct the contractor to carry out tests on the solder; you had that right, did you not?

答：喺。

問：Correct. Now, as that test was not prescribed in the contract, the issue that follows is who is going to pay for that test, and if you had directed the contractor to carry out the test, that would have become a variation of the contract, and you, the contract manager, would have been liable for that cost; do you agree?

答：亦都有第二種情況，因為假設如果我哋喺施工嘅階段，發覺有一啲嘅物料或者有一啲嘅工序係唔合乎嗰個嘅合約要求嘅話，咁就嗰個承建商亦都要係做好嗰個 rectification work。咁當佢做好咗呢個 rectification work 或者 replace 一啲嘅唔合資格嘅物料嘅時候，咁呢啲嘅 test 其實就係需要番嗰個嘅 contractor 去自己自付，因為佢本身係--即係所以我講緊話即係喺好多唔同嘅情況底下，有唔同嘅做法。

問：That wasn't my question. Just answer my question because I'm sure you have come here to co-operate with the Commission of Inquiry. My question was, as it's not provided for in the contract, and if you require the contractor to carry out the test, it becomes a variation under clause 61 of the contract.

何先生：主席先生。

主席：係。

何先生：我相信同呢位證人去拗到底邊一個嘅理解對於一啲 contractual provision 唔係真係實在好有意義。呢個證人其實已經話咗畀 Mr McCoy 聽，如果係喺嗰個 provide 第 42 段嘅第 (3) 款之下嗰個 provision A 嘅情況出現嘅時候，咁嗰個 cost 就會係番嗰個承建商去 bear。咁所以其實問來問去如果都係問下佢嘅理解對於呢一個合約嘅條款嘅理解，邊個去 bear 個 cost，所以我哋律

師大家都有機會會作出最後嘅陳詞。即係呢一位證人上嚟唔係同我哋嘅律師去拗佢嘅對於呢個合約嘅理解係點樣，佢嘅理解唔同錯，對於個合約真係唔係咁講，最終都要由裁判主席閣下或者係...

主席：唔係，其實可以問得直接啲。

何先生：即係如果有一個問題，我唔介意如果即係係有一個好直接嘅問題話呢個證人錯咗或者佢點樣，咁講畀佢聽邊一條條文，邊一度錯咗，咁但係...

主席：得。

石先生：我都同意，尤其是即係呢個唔係一個普通所謂 at the series 去貫穿件事，唔使話鋪一條路，話「噏，我整定個氹呢踩落去」，即係唔需要咁樣。你話要 put 畀佢聽正確理解係 x，同意定唔同意，起碼我 put 咗，Mr McCoy 到到第 100 日嘅時候，陳詞咪照講，「噏，我 put 咗畀你㗎，你有機會解釋㗎」，咁係咪？即係我諗因為否則嚟講嘅話，同樣嘅邏輯，以後有成班 engineer 嚟到，個個咁樣都去拗嘅話，我哋冇咗 3、4 個鐘頭嘅會。

主席：係呀，可...

石先生：或者更多。

主席：我嘅睇法就係有好多時候啲問題同埋啲答案都好 obvious，咁如果係好 obvious，就唔需要問又唔需要答，就直情就 put forward 畀個 proposition 畀佢，睇下佢同意抑或唔同意，咁就得。直接，我就唔會話一定要你答“yes or no”，不過如果可以答“yes or no”，其實都有佢嘅好處，嚴先生。

答：唔係，我哋盡量會答“yes or no”，不過我淨係...

主席：咁唔係，我唔係話你唔可以有補充，不過如果係可以“yes or no”答到，就 by all means, “yes or no”答咗佢。

答：好，okay。

主席：或者直接向我哋指出。

問：Mr Yim, I will just make the point one more time. I

suggest to you that if you, as the contract manager, require a test to be performed by the contractor, which is not specifically a requirement of the contract, and the contractor carries it out, the cost of that test is a cost to the contract manager. Do you agree?

答：Agree.

主席：警察就最鍾意答「唔同意」。係，繼續。

問：Mr Yim, in your witness statement, the expression "authorized person" never appears; do you agree? If you wrote it, you probably can recall that.

答：係。

問：All right. Why is that?

答：喺房委會嘅裏面，我哋係一個公營嘅機構，一方面就係公營房屋嘅發展項目，係 examined，即係 Building Ordinance 同埋 Building (Administration) Regulations。咁而 authorised person 呢一個嘅 title，就係源於 Building (Administration) Regulations，咁所以我諗喺番整個發展項目嚟講，如果既然我哋 examine from Building Ordinance，咁所以--但係水務我哋有 examine，水務，即係 Waterworks Ordinance，同埋 Waterworks Regulations 佢哋有 examine 到。咁所以喺番呢一個嘅 witness statement 裏面，主要針對都係有關於水務，waterworks。

咁而正正因為咁樣樣，我哋亦都唔係 perform 緊 authorised person 嗰個嘅 role。咁琴日我亦都提過，就係喺發展局嗰個嘅網頁上面亦都有講過 Practitioner's Guidelines，by 喺我哋房委會嘅 project 係可以係會用番 contract manager，即係合約經理嚟到去簽水務署所出嗰啲嘅表格咁樣樣。

問：You signed as the authorised person, though. That's a fact, isn't it?

答：但係個表格裏面，就因為個表格係冇分界 private sector，即係私人發展項目，定係呢個房委會嘅公營發展項目，或者係政府嘅項目。咁所以同一個表格去填嘅時候，正如頭先我都講，已經係一個--大家 as a general practice，如果係 Housing Authority 嘅 project，就會係 contract manager 或者我哋嘅 representative 去簽，喺“AP”個欄，喺“AP”個欄簽。但係我哋唔係簽--用我哋 AP 嘅身分去簽。

問：So you sign underneath or above the words "Authorised person", but you are not signing as an authorised person, on the waterworks forms?

答：正確。

問：When you have to certify under the waterworks forms jointly with the licensed plumber, does the person who signs as AP ever personally communicate or talk to that licensed plumber?

答：呢啲即係琴日亦都講過晒。我諗咁樣樣，即係我哋去簽嘅時候嗰個溝通問題，當然任何一位嘅同事佢簽嗰張表格，即係如果係嗰個持牌水喉匠隔--隔籬簽咗，咁當然要視乎嗰個係咩嘢嘅表格。咁就假設如果係 WW046，咁 Part I 係需要個持牌水務匠簽完之後，就係我哋嘅同事或者 contract manager 去簽嘅話，就我哋都應該要認知嗰份即係文件裏面嘅內容咁嚟到去簽。咁但係任何嘅同事佢唔會--佢係喺嗰個“AP”個欄嘅空位去簽名，但係佢唔係簽 as AP，呢個我想要更正番。而呢個係一般做法，水務署都會係接受。

問：Yes. Yes, but your relevant staff member is signing to certify, obviously, that the document is true and correct?

答：視乎佢 sign 嗰個係乜嘢--關乎咩嘢 statement，如果係--我舉個例子，WW046 Part IV，就係目前如果我哋簽名嘅同事佢就係 sign for 嗰個嘅 meter correctness，meter position 嘅 correctness。

問：But the whole point of signing is lending your authority, by agreeing to the contents of the form? That's why you sign it?

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答：仍然我想係講番...

主席：我諗唔使問，呢啲問題，Mr McCoy，啲咁簡單--因為如果咁，我哋有排都做唔完，呢啲。簽咗個名就係作實，唔會簽咗個名喺度有其他嘅用途，我都諗唔到。

問：Yesterday, Mr Pennicott, senior counsel, asked some questions dealing with the WHO reference inside the contract that pertained to his client, China State.

答：係，再講多次，係。

問：Yes. Yesterday, Mr Pennicott asked you some questions about the WHO reference, in the contractual provisions, that applied to China State.

答：因為 Hong Kong BEAM 個樣嘢。

問：That's right.

答：係。

問：Exactly, yes.

答：係。

問：Do you know when that type of provision was first ever put into a Hong Kong contract?

答：Hong Kong contract，我唔夠膽...

問：Sorry, HA contract, forgive me; an HA contract.

答：你講緊啟晴邨係咪第一個擺上去，我唔夠膽講，我要 check。即係呢個 clause 係咪啟晴邨第一個項目擺上去咁樣嘅 clause，我要 check。

問：What is the process by which a special or new contractual

clause is evolved and finally ends up in the contract?
What's the process, within the Housing Authority, for
the evolution of such a contractual clause?

答：即係點樣去擺呢個 clause 喺個 spec，整個過程，又係講過。我哋係整體，即係唔會話個別一個 clause 擺上去。我哋係會兩年呢，我哋會將成個 specification，我哋叫做一個“Specification Library”咁樣嚟到去更新，咁喺更新嘅過程當中，就係我頭先都提及過，即係話有關於法例上面嘅更新；或者係其他即係政府部門方面，佢哋個個要求嘅更新；或者係持份者裏面，佢哋業界畀我哋個新嘅資料；再加上埋我哋嘅住戶嘅居民佢哋有咩嘢嘅意見，然後我哋自己加埋晒所有呢個係去整合，嚟到去營造番一個整體個規範，specification 嘅更新。

咁就即係當然，你話按個別個 clause，間中都會有，就係視乎一啲突發嘅情形，特別嘅情況裏面，我哋喺個 clause 裏面特別去更新。但係按程序嚟講，我哋係會--即係就係頭先我都講，即係每兩年我哋會有一個即係全面嘅嚟到去睇一睇番。

問：In relation to Wing Cheong Estate with your position as contract manager, about how many times did you actually go onto the site?

答：我即係唔記得，即係如果呢兩日我都講咗，即係其實因為我有若干嘅地盤，喺--而且個發生嘅時間都係喺兩年幾前--兩、三年前。咁但係我只可以答就係話按個情況嘅需要，就係我會落去，呢個包括埋我同埋係我嘅代表，即係所謂 contract manager 嘅代表 representative；咁即係當然包括則師同埋高級則師，或者係有一啲嘅 building services engineer 工程師，佢哋亦都會係，呢啲按需要係我哋必定會落地盤。

Mr McCoy: If that's a good time, sir? I am trying to compact or reduce what's left.

主席：Thank you.

我哋食飯先。

嚴先生：好呀，唔該。

主席：食完飯，晏晝兩點半再繼續，唔該。

上午 12 時 59 分聆訊押後

下午 2 時 31 分恢復聆訊

出席人士如前。

香港房屋委員會第三證人：嚴汝洲（房屋署啟晴邨和榮昌邨總工程師）
宣誓繼續作供

石先生：主席，委員先生，我有少少事喺下晝嘅即係發問開始前想同委員會或者同大家即係匯報一下，關於即係專家證供方面嘅一啲進展嘅。

主席：係。

石先生：委員會係委任咗兩位專家，分別就係嚟自英國嘅 Professor Fawell 同埋本地嘅李行偉教授，就佢哋喺過去一星期就進行咗會面嘅，Professor Fawell 係嚟咗香港，佢係與李教授進行咗多次嘅會面同埋討論。咁就當然佢兩位喺初步嘅會面同埋討論之後係會繼續有更多嘅工作係要做，先至可以呈交佢哋最終委員會對佢哋提出嘅問題嘅一個報告嘅，但係兩位專家會面之後都認為佢哋有一點初步嘅意見係必須向委員會報告，佢哋係做咗一個初步嘅意見書嘅，而家我哋擺咗喺文件夾嘅 v1 嗰度，我諗因為份報告係相對地短，我諗可以同委員會講一講或者同大家講一講，尤其是好多即係相關嘅 parties 佢都追問其實專家嘅報告幾時有，咁我都曾經講過一有，我哋會盡快係通知大家。

如果大家睇--螢幕上應該見到嘅，v1 呢個 bundle，我哋遲啲係會有 hard copy 同埋會 load 上去委員會嘅網頁，亦都係會有 soft copy 嘅。v1 嘅第 1 頁就係嗰個 joint expert report 嗰個，大家睇一睇係咪 v1 嘅第 1 頁，v1，bundle v1，v1 大家見到就係一個聯署嘅專家報告，係初步嘅聯署專家報告，就係 Fawell 教授同埋李行偉教授。成份報告就好長嘅，但係絕大部分係兩位專家嘅履歷嚟嘅，真係有關佢哋嘅 joint opinion 嗰度就係一頁紙，就係喺第 6 頁嗰度，兩位專家嘅報告其實呢一個初步嘅意見係佢哋覺得係有需要而家向委員會公布嘅，就係有關抽啲水去驗有冇含鉛嗰個正確嘅步驟。

我簡短咁樣講一講，就係話兩位專家嘅即係聯合嘅意見都係就係關於抽啲水嘅樣辦，點樣抽水去決定究竟喉管或者啲配件有冇含鉛，呢個抽水嘅步驟係好重要嘅，尤其是就係啲食水與潛在地含鉛嘅部件，譬如話焊料或者係一啲配件，啲水同呢啲配件或者焊料接觸嘅時間幾耐，係一個好重要嘅因素嚟到決定究竟食水裏面含鉛量有幾多嘅。

同埋就係其實有好多方面嘅權威都係曾經提議過，就係話喺抽驗食水嘅時候，係應該等啲食水喺條喉管裏面係逗留一段時期，fixed stagnation periods，先至去抽。另外一啲嘅權威就係有提議過，就係話應該係抽第一浸嘅水，即係意思就係話即係早上一開第一浸水，即係唔好沖。

兩位專家就援引咗 ISO 5667-5 呢一個嘅標準，就係有關喺抽驗食水嘅時候所應該採用嘅一啲嘅技術，ISO 5667-5 裏面相關嘅部分就係話如果個偵查嘅目標係究竟一啲物質佢有冇接觸到水、影響到啲水質嘅話，咁應該係抽 initial draw off 嘅，第一浸嘅水，初步嘅水嘅樣辦。ISO 5667 繼續話“samples may also be taken after a specified period of stagnation”，就話啲水跟住隔一輪靜止之後，可以再抽多一個樣辦，就睇下究竟啲物質對水質嘅影響嗰個速度係幾多。

咁兩位專家繼續就援引咗喺英國英格蘭同威爾斯嘅一啲抽水嘅標準同埋美國環境局嘅抽水嘅標準同埋一啲日本嘅抽水嘅標準，都係包括咗係要抽第一浸嘅，英國係 first litre from the tap without flushing，即係唔好話沖乾淨先，第一浸抽咗。美國嘅環境局亦都係抽第一浸 1 公升，先至可以見到食水對鉛同埋銅--嗰個暴露喺鉛同埋銅底下嗰個程度。日本亦都係話第一浸抽 5 分鐘，跟住水靜止之後，15 分鐘 stagnation 之後再抽一次，兩位專家--第一浸水抽 5 分鐘，日本係，然後等 15 分鐘，水靜止之後再抽。

兩位專家繼續講嘅意見就係話 fully flushed samples，嘅意思即係話你沖乾淨條喉管之後先至攞嘅水辦，單獨嚟睇，就可以檢驗到啲食水喺供應出嚟嗰陣時，即係由個源頭供應出嚟嗰陣時嘅水質係點樣，但係就唔係可以好有代表性咁樣去代表到或者評核到啲食水喺內部供水系統去到消費者之後--之間呢一段時期，佢掂到有冇啲鉛或者一啲金屬之間嘅後果，就未必可以係畀到一個代表性嘅一個結果--嘅評審嘅。

基於上述嘅理由，兩位專家嘅聯合意見就係話 fully flushed samples，即係如果你沖乾淨晒之後，沖晒之後先至抽出嚟嘅水嘅樣

本係未必能夠係代表到食水對鉛嘅 exposure，即係食水對--鉛對食水嘅影響嘅。呢度就係兩位專家對一啲抽水辦去檢驗嘅一啲程序嘅意見。

正如我頭先所講，就係兩位專家係好希望呢一個嘅初步嘅意見係報告畀調查委員會。同埋律師--我哋嘅律師團隊都覺得就係話即係程序上，我哋都有覺得就係話我哋擺咗呢個報告之後係有需要向有關嘅各方係公布同埋畀佢哋知道，等佢哋可以有--可能佢哋可以採取一啲相關嘅行動。譬如話佢哋會唔會想入一啲自己嘅專家報告，因為呢一個專家報告雖然係委員會委任嘅專家去發表，但係委員會當然可以獨立地審視係咪接受佢哋，所以我哋係畀一個機會其他嘅方面可以考慮，譬如話佢哋入唔入自己嘅專家報告，或者可能佢哋睇完之後會唔會係決定佢哋其實佢哋會採用啲乜嘢抽水去驗嘅步驟，呢個我哋而家係一早擺定出嚟。

同埋我哋亦都係知道有鑑於社會上係有好多嘅討論，可能係好熱切嘅討論，就係關於如果要抽一啲水辦去決定其實嗰條喉或者裏面有冇啲部件係咪含鉛，應該係點樣抽、幾時抽、第一浸抽定係啲水沖乾淨 5 分鐘後先至抽，社會上我哋都留意有類似嘅討論，咁所以我哋都覺得係應該將呢兩位專家嘅初步嘅報告係擺出嚟。

當然兩位專家會繼續工作，係會去即係將佢哋嘅最後報告呈交，因為佢哋嗰個 terms of reference 同埋佢哋個 instruction 其實係包含好廣嘅，就唔係淨係睇呢樣嘢嘅，當然我哋就會睇佢哋嘅報告，有最後報告之後，我哋係會再呈交界委員會同埋係發放畀其他嘅有關嘅人士。

主席：唔該。

MR McCOY: I have no more questions for Mr Yim.

答：哦。

主席：唔該晒。請問仲有邊位想問問題？

王先生：我唔知有冇其他承建商嗰啲人想問，如果唔係，我得幾...

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主席：你問先，係。

王先生：我得幾條嘅啫。

主席：好呀。

王先生盤問

問：嚴先生，今朝我就--我今朝就畀咗一份嗰個 Hong Kong BEAM 嗰個香港建築環境協會發嗰個文件畀你嘅，仲有冇喺度呢？

答：我要攞番出嚟先。

問：呢個就係--係喇，呢個版本，呢個應該係我哋最新嘅版本，如果你去第 2 頁，你就會睇到 5.1 嘅，5.1 嗰度就係“Water quality”，水質，我會同你睇啲一點嘅，但係喺呢個之前，我想你睇去第 page 5-3，page 5-3，呢個就係 5.1.1，見到喇？

答：係。

問：就寫住“Water quality”嘅，見到嘛？

答：係，見到。

問：跟住就係佢個 objective，佢個目標就係“Ensure that the quality of potable water delivered to building users is satisfactory.”，呢個就係個目標喇？

答：係。

問：個 credits attainable，就有一個“2”字嘅，即係你係可以攞到兩分嘅。

答：係。

問：呢個你知啲喇呵？

答：知道。

問：攞兩分。有個“prerequisites”嘅，個 prerequisites 就係

"Buildings shall be complied with the Waterworks Ordinance ... and the Waterworks Regulations ... the Hong Kong Waterworks Standard Requirements for Plumbing Installation in Building, and relevant Water Supplies Department Circular Letters issued to Licensed Plumbers and Authorized Persons."，你睇到？

答：睇到。

問：跟住有一個嗰個"Credit requirement"，credit requirement就有分兩項嘅，第一項就係個 fresh water plumbing，嗰個就會有一分嘅，就"1 credit where fresh water plumbing installations comply with the referenced good practice guides."，如果你中呢個，就你可以攞一分，啱唔啱？

答：係，係。

問：好喇，第二就係個"Water quality survey"，呢個又有一分嘅。

答：係。

問：就"1 credit for demonstrating that the quality of potable water meets the referenced drinking water quality standards at all points of use."嘅，啱唔啱？

答：係，啱。

問：好喇，然後我哋睇下佢個 assessment，assessment，就分開(a)、(b)嘅，就講--分別講嗰兩分點樣攞嘅。嗰個"Fresh water plumbing"嗰度就咁講嘅，"The Client shall submit a report by a suitably qualified person confirming that the plumbing installations comply with all requirements set down by the Water Supplies Department that are applicable to the particular installations in the building"，所以呢個就係 comply with 嗰個水務署嗰啲要求，啱唔啱？

答：係。

問：呢一分。

答：係。

問：但係下面嗰度，“Water quality survey”嗰度就其實同水務署嘅 requirement 係冇關嘅，你睇下下面嗰度，“The Client shall provide details of the analysis of samples taken from a selection of potable water outlets used to supply human consumption. Sampling should be systematic, such as described in ISO 5667, but as a minimum samples shall be taken at all the furthest point(s) of delivery from the storage tank, and shall include sampling for each water supply tank used in the building.”。

最後畀嗰句，“If water quality at all sample points meets with the World Health Organization (WHO) Guidelines the credit shall be awarded.”，即係話嗰個，你呢一分如果要攞嘅話，就要 meet 嗰個 WHO 嗰個 guideline about drinking water quality 嘅，你同唔同意？

答：呢度係咁寫。

問：好喇，而佢有個 footnote 嘅，佢個 footnote 4，個註腳 4，你就可以睇到，嗰個“World Health Organization. Guidelines for Drinking-water Quality. Volume 1”有個網站嘅，有個網址，你可以去 download 嗰個 WHO 嗰啲 guideline，關於嗰個飲用水嗰度，係咪？

答：係。

問：如果你睇後面嗰頁，再睇後面嗰頁，under 嗰個“Supply quality”嗰度，“Supply quality”嗰度，“Supply quality”，“According to WSD Hong Kong’s water is of the safest quality and among the best in the world. However, it is affected in some instances by the inadequate maintenance of internal plumbing systems before it reaches customers’ taps and this can cause discolouration of the water. To strengthen public confidence in drinking water from their taps, WSD launched the voluntary Fresh Water Plumbing Quality Maintenance Recognition Scheme. This scheme aims to give recognition to responsible building owners or their agents for proper maintenance of their internal plumbing systems.”

關於呢樣嘢，其實你係知嘅，係咪呀？即係佢呢度講話其實個個自願個個 Fresh Water Plumbing Quality Maintenance 個 Recognition Scheme 其實就係去鼓勵負責任嘅業主去為佢哋個個內部個個供水系統提供呢個維修同埋整潔，呢樣你知嘅，係咪？

答：係。

問：其實你亦都會同意其實個個內部供水系統個個安全--關於個食水嘅安全性就係業主嘅責任，同唔同意？

答：安全性，當然我哋--因為個 system --我琴日都講咗，個 system 本身就係我哋聘請承建商去建造，同埋當然我哋之後--入咗伙之後都需要維修，當然我哋有一定嘅責任，不過我哋個個認知方面都需要有一啲專家嚟到幫手，就係其他即係部門大家通力合作，即係亦都透過即係法規或條例嘅 updating 嚟到去遵從，咁樣嚟到去即係相輔相成。

問：明白。我就想離開呢個文件之前，帶你去睇番前面，page 5-1，“Water quality”個度，page 5-1，即係應該第 2 頁個度，呢份文件嘅第 2 頁--第 3 頁，唔好意思，第 3 頁，有個“Background”個度，5.1，“Water quality”，“Background”個度。

“In Hong Kong, the WSD controls water quality, such as taste, odour, hardness, sediment, pH, the quantity of dissolved iron, etc, in order to provide water that meets the Guidelines for Drinking-water Quality recommended by the World Health Organization. Samples are taken at treatment works, service reservoirs, consumer taps and analysed at site and at WSD’s laboratories.”

你就話倚賴呢個水務署個個意見，你有冇睇--佢呢度有個 footnote 嘅，footnote 2 就去番個 Water Supplies Department Annual Report 嘅，你有冇睇過水務署個個年報嘅呢？即係如果你倚賴呢個水務署對於呢個驗水個個參數，你有冇睇過呢個水務署個 annual report 呢？

答：我有嘅。

問：我就同你提出，我頭先有兩個文件畀你嘅，其中一個文件就係水務署 annual report 2002 年到 2003 年嘅，嗰度乙項嗰度就講出咗水

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務署根據世衛嗰個要求，做咗嗰啲測試其實係就水務設施，即係唔係擺內部供水系統，水務設施嗰度佢做嘅測試，如果你第一版係包括有鉛嘅。

答：睇到。

問：呢樣嘢你知唔知嘅呢？你個人嘅認知。

答：你講...

問：即係既然你話倚賴呢個...

答：你講認知係...

問：即係你知唔知道水務署有就個水務設施入面嘅供水做關於含鉛嘅測試，呢樣嘢你知唔知？

答：正如頭先所講，呢個 annual report 我有睇過，所以喺呢度我唔知。

問：你唔知，好。最後一個範圍嘅問題就係我想帶你去睇你個附件--你個證人口供嘅附件，38279 頁，38279，呢張 form，我哋之前睇過，你有冇呢張 38279 頁？

答：等緊。

問：你就個中間嗰度，“2”嗰度，中間嗰度“2”嗰度，呢度有一個--我上次同你睇呢個啟晴邨嗰個 block --個 square 嗰度就有剔到嘅，但係呢度就有嗰個 under “Purpose of submission”嗰度有個剔，見唔見到呀？

答：見到。

問：嗰句就係“We CERTIFY that the pipes and fittings intended to be install”, et cetera, “on the attached Annex to this form and those not listed”, et cetera, “are as prescribed by the Waterworks Regulations.”，我想問下，以你...

主席：等等，等一陣先。邊一度話，你講緊？

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王先生：喺個“Purpose of submission”下面有一個四方格，有個剔
個度。

主席：哦，得，得，係，剔咗個度，係。

王先生：係，係喇。

問：咁我想問你，以你嘅認知，呢個剔係邊個剔嘅呢？係個 LP 剔咩，抑
或個 AP 剔嘅呢？

答：呢個我唔知道，因為本身呢個 form -- 同樣都係咁樣講，因為我作為
總建築師嘅時候嗰個階段，呢個應該係 form 1 -- part I 咩嘛？

問：係。

答：嗰陣時已經入咗，我唔知道係邊個剔。

問：Okay，因為呢一個就簽名應該唔係你嘅簽名嚟，AP 個度，係咪？

答：係。

問：Okay，呢個“Lim Chi Kwong”，你識唔識佢？個 AP。

答：係，林先生。

問：林先生，你識佢嘅？

答：咩嘢話？

問：係你同事嚟嘅？

答：係，當時嘅建築師。

問：當時嘅建築師？

答：係。

問：Okay，但係--okay，得。

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王先生：主席，我有其他問題。

主席：唔該。有冇人有問題？冇人有問題，Mr Yim...

何先生：我，係咪？

主席：Mr Ho，唔好意思。

何先生：主席，我有幾個簡單嘅問題啫。

何先生盤問

問：嚴生，我想你睇番今朝有曾經問過你有一啲送貨單嘅單據，我想請你睇番一個 K1 文件夾，我相信今朝係同你睇過一、兩張，好似喺 745 頁，不過唔緊要，我哋就抽一、兩張出嚟睇一睇。

答：744 頁？

問：745 頁。

答：45，okay。

問：喺底下角落頭嗰度，你見到嗰個編號。呢張送貨單就表面上睇嚟就係呢個供應商雋景就係送咗幾樣嘢去嗰個承建商，個承建商個名你睇到嘛？

答：承建商個名？

問：即係收貨嗰個。

答：係，簽署嗰個，係。

問：收貨個客個名稱，你見到嘛？

答：係。

問：你可唔可以講出嚟個收貨人係邊個？

答：陳小華。

問：佢係何標記嘅...

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答：何標記...

問：...代表人，即係個收貨嘅單位係何標記？

答：係。

問：我哋睇多幾張，746，同樣雋景就送咗一批材料就畀何標記嘅？

答：係。

問：747 都係，748 比較朦，不過我估可能都係同樣嘅情況。其實我哋睇到係有一沓呢啲咁樣嘅送貨單，就由雋景就送咗一啲物料畀何標記收嘅咁樣？

答：係。

問：好，睇番 745，唔該。就呢啲物料由嗰個雋景畀何標記，呢啲物料我哋睇裏面，好似有啲松香糕，有啲啲錫條、啲無鉛錫線咁樣，好似，今朝同你提過一、兩個呢啲咁樣嘅項目。

答：係，今朝有見過。

問：呢啲就我理解你個證供就係話呢啲項目就唔係即係房署會睇嘅項目嚟嘅？

答：喺。

問：對唔對呀？

答：喺。

問：所以呢啲咁嘅送貨單會唔會去到房署嘅呢？

答：係唔會嘅。

問：吓？

答：唔會，不會。

問：不會？

答：不會。

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問：係喇，不會，咁呢啲即係喺表面上就睇下呢啲收呢張送貨單嗰個係何標記喇？

答：係。

問：你知抑或唔知何標記會唔會將呢張送貨單畀--譬如好似畀中國建築去睇一睇咁樣？你知抑或唔知？

答：呢個我唔知。

問：唔知道，得。但係一定就唔係畀房署或者房署嘅職員去睇？

答：唔會嘅，因為就算如果係畀，都需要係經番中國建築。

問：係囉，咁但係係房署唔睇--即係你有三十幾項要睇㗎喇？

答：係，嘍，我哋唔...

問：但係呢啲咁樣嘅物料裏面所講咩錫線、錫條、松香糕啲就唔係你哋嗰三十幾項？

答：唔係嘅。

問：呢啲送貨單會唔會係畀房署睇？

答：唔會。

問：唔會。

答：不會。

問：係，唔該。我哋其實都見到有啲好似今日嘅即係好似 B6.4，B6.4/15354，B6.4，我哋即係又係睇一、兩張咁樣嘅情況。

答：好呀。

問：呢個就係送--雋景都係-- 15354 或者你揭多一、兩張，睇 15355、15356，即係又係一啲即係啲啲好似錫線，15356 又睇到錫線、松香糕，15357 又係松香糕、錫線咁，見到嘛？

答：見到，見到。

問：個收貨人係咩嘢呢？個收貨單位。

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答：單位係金日工程有限公司。

問：冇錯，呢個都係嗰個水喉嘅分判商，係咪呀？

答：係。

問：又係呢啲咁樣嘅送貨單會唔會到房署嘅呢？

答：同樣一樣，都係唔會嘅，不會嘅。

問：不會，唔該。好喇，我想問一問頭先剛才亦都有一啲問題，譬如我哋見到水務署，即係我哋而家暫時因為呢一個研訊主要係同嗰個水有關，所以我哋見到水務署就有啲叫做 circular 嘅通函咁樣，好似我哋曾經見過 2012 年 2 號，2004 年、2005 年 1 號、二--對唔住，2014 年、2015 年 1 號，我亦都見到嘅。

答：係，啱。

問：首先嚟講，除咗水務署，可能--我相信你唔會有異議嘅，就係其他嘅政府部門對於譬如工程項目有關嘅嘢，都可能會出 circular，我講嘅係可能係建築署，可能係工--應該嗰個 Buildings Department，我唔知應該係咪叫做工程署--工務局？

主席：建築署。

答：屋宇署。

問：以前叫工--屋...

答：屋宇署。

黎先生：屋宇署。

答：屋宇署。

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問：Buildings Department。

黎先生：屋宇署。

答：係，屋宇署。

黎先生：屋宇署。

答：Buildings Department。

問：屋宇署，咁可能係機電署，EMSD？

答：係。

問：可能係 Fire Services Department，消防處？

答：係。

問：我相信好多唔同嘅政府部門都有佢哋嘅 circular 嘅？

答：啱。

問：係咪呀？

答：係。

問：總體嚟講，如果對於嗰個部門佢嘅範疇底下，佢想喺呢啲工程項目去指示或者畀啲指引畀啲呢個 industry -- 呢一個 trade 或者 industry，佢係咪都會出呢啲咁樣嘅通函 circular？

答：我諗最主要係即係如果守住法規嗰啲嘅部門佢哋都係需要冇呢啲咁樣嘅做法。

問：好喇，我想知道，即係今日主席就問你，就如果譬如有啲嘢想交去房委會咁，如果譬如我哋有一張 WSD 嘅 circular，假設我哋而家睇緊呢個 2015 年 1 號呢一張，咁我哋嗰個 circular 會係交去水--即係房委嘅咩嘢人接呢，抑或房委係咪完全冇人接咩，抑或係求其係一個看門口嗰個人--房委個大堂接待處嗰個人接咩，抑或點？我想知道嗰

個即係可能委員會有興趣知道個程序到底係點樣做法。

答：Okay，我諗咁樣樣，即係話我諗不同嘅部門有番佢哋個個嘅 circular letter，但係當然呢啲我頭先講咗，話即係都關乎到我哋個 practice，即係屋宇署佢哋有個 practice notes，亦都其他部門有番佢哋個個嘅 circular，而家目前個個機制裏面，喺佢哋出之先，其實都會係通知有關嘅持份者，包括其他政府部門，一齊嚟到去傾，即係喺未出之先，佢哋會咁樣去做法，呢個亦都係一個好嘅收集意見嘅方式。咁所以我哋如果係喺番--所以我頭先講過，就話因為我哋唔同嘅部門，譬如你頭先講到話機電工程署，EMSD，佢呢啲咁，就會係一個 engineering 嘅範疇，換言之，就去番我哋自己工程組，就係個 Building Services Engineering 個面嘅 section 嘅同事。

問：明白。

答：如果係有關於結構嘅，即係就算係屋宇署，其實屋宇署都有不同嘅通函，係咪？佢自己有番個--如果係結構嘅，或者係個個嘅建造嘅，即係 building works 嘅，呢啲就係我今朝所講嘅，即係不同嘅課題，如果係有關於結構嘅，當然就去番我哋結構工程個方面嘅同事，因為佢哋喺呢方面係負責，如果係 architectural 嘅，即係 building works 嘅，咁就會係去番即係我自己呢面咁樣樣，去分嘢。

問：明白。

答：咁就即係所以嚟講，我今朝講嘅課題就係咁樣樣，即係個 stream 嘅問題。

問：所以都要睇番就邊一個部門去出一個乜嘢嘅通函或者指引，然後去到房署就會有關個一個需要知悉個個...

答：冇錯，即係直接最熟嘅。

問：個個...

答：但係當然佢接咗之後，係有...

問：就會接到個個...

答：係喇，有關需要知道嘅同事，...

問：...文件嚟喇。

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答：...就由佢嚟到去再分發或者係通知咁樣。

問：會唔會其實即係譬如好似水務署咁，我哋譬如話我就咁隨手攞一張，佢嗰個 2015 嗰張嚟睇咁先算喇，我而家睇嘅，可能有好多地方都會有呢一張文件，我睇緊係 B15.1 37618，呢張文件咁先算喇，呢張可能你係--我哋大家都好熟㗎喇，15.1，如果你喺第二個地方搵到嘅，都可以睇。

答：唔緊要，係咪水務署嘅通函呀？即係 1/2015？

問：水務署嗰個通函，2015 年第 1 號嘅通函。

答：即係 7 月 13 號嗰個？

問：係喇，7 月 13 號嘅通函。

答：Okay，得，唔緊要，你講吓，你講。

問：我哋見到嗰個就 distribution，即係分發嘅單位就係去所有嘅持牌水喉匠同埋 authorised persons 咁樣嘅。

答：係。

問：然後跟住嗰個通告嘅內容，然後跟住 CC 就 Housing Department、Buildings Department、Architectural Services Department，一系列嘅政府部門都會有，甚至乎呢個 Real Estate Development Association，呢個就係即係代表好多呢個發展商嘅一個組織喇？

答：明白。

問：譬如好似話去 Housing Department，咁係咪即係呢一張通函先會係去譬如好似署長，由署長就分去其他部門咁？

答：咁樣樣，佢如果呢張通函--係喇，冇錯，呢啲通函，因為你--可唔可以去番上上面，即係個 screen 嗰度？因為佢呢度就係--當然其他嘅 department，亦都係去番啲 authorised persons 同埋 licensed plumber 各樣，咁喺呢度嚟講，嚟到我哋部門，基本上而家水務署嘅通函就會係去到我同埋另一位即係將會係上嚟做證人嘅總工程師，因為本身呢啲通函有機會係關乎到嗰個嘅工程方面，engineering 方面嘅範疇，亦都係會即係關乎到我呢面所睇，咁所以就變咗係兩位一齊去處理，但係當然並唔表示話即係其他同事就有相關咁樣。

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問：明白嘅。我哋見到呢一個通函，即係呢個第 1 號嘅 2015 年嘅呢個通函，就係講重金屬要即係...

答：喺，四個重金屬。

問：即係加上去驗水，要驗多四個重金屬嘅指標嘅？

答：係。

問：咁即係如果譬如好似世衛有任何嘅標準話「噢，咁如果有啲食水，就要有啲咩嘢嘅標準呀。」咁樣，喺呢個通函之前，你有冇見過話世衛除--係重金屬嘅--或者水務署有冇話畀你聽「世衛有呢啲咁樣嘅標準，關於係重金屬嘅嘢啫」咁？

答：冇嘅，我自己冇。

問：呢個通函之前係未有嘅？

答：未有。

主席：即係你嘅意思即係你哋之前就從來未收過水務署就話過畀你哋聽任何有關於重金屬嘅啲啲--即係啲啲...

答：驗水方面。

主席：...驗水又好，佢嘅 health hazard 又好，從來都有？

何先生：或者水質。

主席：水質，或者對健康危險...

答：即係 circular letter 嚟講，冇。

主席：從來都有？

答：係。

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問：冇。即係所以我哋亦都係睇番 2012 年嗰八個驗水嘅標準，嚟做一個指引？

答：冇錯，啱。

主席：我想問一問啫，即係而家你就 2015 年 1 號，你就知道要驗多四個重金屬吖？

答：係。

主席：頭先好似之前都有律師帶領過我哋就睇過嗰四個重金屬，我想問一問啫，裏面嗰四個重金屬從來都有話要驗銅嘅？

答：係。

主席：銅其實係一個標準嚟㗎，唔可以超過。

答：明白嘅，我諗咁樣樣，即係話喺 7 月之後，其實我哋自己都有--內部有自己嘅討論，亦都某程度我哋開始知多一啲，雖然以前認知不足，而家就喺世衛方面嗰個資料方面掌握多少少。除咗呢四個重金屬之外，其實可能仲有其他，正如主席你所講話即係銅 copper，或者仲有其他嘅物料係對於嗰個嘅健康衛生方面嗰個影響嘅，但係呢啲我哋就真係唔夠膽去即係自己即係拉頭纜，亦都有咁樣嘅專家嘅知識嚟到去做呢啲嘅研究，所以點解話一直以嚟我哋真係需要同埋信賴即係水務監督方面喺呢方面嗰個嘅帶領，即係喺呢個行業上面話畀我哋聽其實咁多種--唔好話重金屬喇，或者係其他金屬，即係如果真係有對衛生健康或者對食水、飲用水方面有影響嘅，其實我哋都想喺佢哋嗰方面嚟到去話到畀我聽。

主席：其實即係某程度上，你又唔需要倚賴水務署，因為世衛有標準講銅，你嗰啲即係同食水有關嘅配件，即係由銅喉開始一路--你由接駁呢個水務署供水，你就最先就係用啲 ductable iron 就 up-feed，係咪？

答：Ductile pipe，係，ductile iron pipe。

主席：Ductile 嘅 iron up-feed，跟住你就用啲 copper 走落嚟。

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答：係，係，啱，係。

主席：咁即係換句話嚟講，某程度上，你實際上，喺你哋嘅內部供水系統裏面有機會接觸到食水嘅金屬，其實你都好清楚有邊啲嘅其實。

答：清楚嘅，清楚。

主席：係咪？

答：係。

主席：咁你又唔需要靠水務署去驗水嘅，因為你可以交界出面啲啲 lab 去驗，佢哋都知道點驗嘅？

答：哦，明白，呢個就係...

主席：咁...

答：唔好意思，主席，因為銅喉嚟講--講番銅喉先喇，因為你帶出銅呢樣嘢。因為銅喉嚟講，我哋都係基於另一樣，當然你--水務監督係一個把關，一個方面，咁你...

主席：唔係，佢唔把關呀，佢淨係把到個 lot boundary，而家佢就，佢嘅立場就係「喂，之後啲啲嘢，嚟，唔關我事呀，你唔好賴我呀。」咁咩嘛。

何先生：呢個佢個講法喇。

主席：係，呢個佢個講法喇，係呀，即係...

答：係，但係就...

何先生：即係啱唔啱，我相信要主席你要去判斷。

主席：係，另外一件事。

答：係，係呀。

主席：咪住先，即係你明咁嘛，因為點解我咁樣樣問你呢？因為你銅喉，因為你所有食水嘅配件，PLU1 全部係講緊食水，PLU2 你就驗，PLU1 你係其實係從來都唔驗嘅，唔驗嘅意思即係話人哋有張 cert 交咗嚟就得喇喇，實際上嚟啲啲料有冇問題係唔驗嘅，okay，因為你從來都唔驗，咁你點知道啲啲就係合乎規格嘅呢？雖然人哋話「啊，我有 British Standard。」係咪？

答：係。

主席：咁你驗水呢啲--譬如最簡單，驗銅，你明知道，嘩，啲條喉長到都唔知，如果你由--我住喺最下低啲層都唔知可能要駁咗幾多條喉先至到，咁你呢一度銅佢都有世衛標準話畀你聽，你使乜等佢哋啫，你自己搵人驗都得喇？

答：睇下基於...

主席：佢哋都唔係叻得咁交關嘅啫，都係 common sense 嘅啫，我諗。

答：起碼佢哋叻過我哋嘅，我諗但係--主席，我諗我想就亦都補充番一下，回應就係話即係因為銅喉點解我哋都唔去研究一下呢？原因其實即係銅喉同埋其他部件我哋所用嘅都唔係一啲好稀有嘅物件，即係其實用咗好多年，真係好多年，即係銅喉嚟講，即係喺香港業界裏面用開，即係唔好講房委會，房委會就可以話 02 或者 05 嗰陣時個階段去開始用，但係即係喺整個市場裏面嚟講，本地嘅市場裏面，其實好多嘅發展項目已經係用緊銅喉或者係我哋所用緊嘅部件，啲閘掣，因為全部都普通嘅，即係唔係一個點樣嘅特別，咁所以即係既然用咗咁多年，我哋都要憑番個經驗，即係喺一路以嚟，成個社會用緊，我哋都要睇番啲個效應，如果我哋喺--有咩嘢嘅事件或者係健康衛生方面，用咗咁多年，真係有問題嘅話，其實會出嚟嘅，咁我哋就會睇番呢一樣嘢。

第二樣個考慮，就係頭先講到話即係當然水務監督亦都係絕對係我哋會即係視佢哋係專家，我哋係一個專業嘅團隊，我哋就係純粹係負責起樓，即係發展嘅項目。咁所以基於呢兩個原因加埋一齊，我相信--即係我自己嘅意見就係話即係就唔會有咁樣嘅動力去特登要再去詳細研究即係銅喉係點樣樣再合乎啲個世衛咩嘢標準咁樣樣。

主席：我明，譬如銅可能係用咗好多年都有事，但係因為你--因為銅可以有好多唔同嘅生產商，有啲係合乎 British Standard 嘅，就唔會--經過啲水唔會--可能唔會 leach 咁多銅出嚟，有啲就可能會

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leach 多啲出嚟，你永遠都唔知㗎嘛，你而家基本上就係其實去到而家你驗咗--譬如而家嗰四隻重金屬之外，就完全都有。你優質食水，你又走去驗鐵啲，點解驗鐵呢？

答：驚住銹，即係我估，呢個我估，即係少少...

主席：我都估係，係咪先？

答：係，估，即係水務署係咁樣。

主席：喂，你嗰啲鐵...

何先生：呢個係水務署嘅指標。

答：係，呢個水務署...

主席：我知，我知，我明，我明，我梗係...

何先生：係，呢個係水務署嘅指標。

答：估，即係我估。

主席：喂，點解呢？因為你係總建築師，你就係負責埋建築時候嘅水嘅工程，所以你就唔可以話「啊，我乜嘢都倚賴，我淨係倚」--你唔可以話乜都唔知，就倚賴人㗎㗎嘛。

答：我唔係乜都唔知。

主席：我返番去轉頭問，點解你優水食水要驗鐵？如果你嗰啲鐵--如果你嗰啲 ductile iron pipe 係全部 fulfil British Standard 嘅，你唔使驗㗎，冇鐵走出嚟嘅。

何先生：我相信主席你一定會問呢個問題，水務署長就嚟上嚟畀證供。

主席：乜嘢呀？

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何先生：即係點解要擺呢個落去做指標呢咁，即係水務署長會話畀你聽點解。

主席：唔係，水務署長，你放心，你放心，...

何先生：即係佢一定會話畀你聽...

主席：...我一定會問佢，如果佢哋唔問佢嘅話，你放心，不過你唔使保護住佢住。

何先生：我唔係保護佢，唔係，我希望即係一個會講到個答案畀你聽個個證人...

主席：你明唔明白我個意思呀？

答：我明，主席，我明。

主席：有啲嘢係咁 obvious 嘅，你唔使問人哋，你成個供水設施裏面有幾多種係有機會接觸到水嘅金屬，你知㗎嘛，你又唔使理--整個 lab 出嚟驗，你畀錢人哋就得咯，咁點解唔驗呢？

答：因為我諗即係我哋如果要驗，驗好多，我哋真係需要有專家嚟到話畀我哋聽，即係呢個係一個真係 research project 嚟。

主席：唔係，你可以驗好多，我同意，你睇下世衛裏面，係咪？咁多種 parameters。

答：而家就睇到，而家睇得到。

何先生：就係，主席，可唔可以我問呢個問題先？

主席：我好想問呢個問題住喎，不過，係咪？唔係...

因為我又唔係水嘅專家，我乜專家都唔係，即係我純粹用一個普通人 common sense 嘅角度去問，我作為一個父母，其實或者作為一個父母，好簡單之嘛，哦，你啲水--水務署話我哋啲水安全到冇得再安全㗎喇，有

咩嘢事就入咗去你哋之後就衰，咁入咗之後，接觸過啲--有機會接觸過啲乜嘢金屬，咪驗一驗佢哋，就係咁簡單之嘛。

答：或者我都再...

主席：都唔需要乜嘢 rocket science 去究竟驗啲乜嘢嘢。

答：係嘅，我諗我哋每一種物料如果都去驗，係好嘅，呢個應該係最理想嘅，即係我咁樣回應番先，不過正喺我嘅供詞當中，其實我諗我哋目前用緊嘅物料真係好多好多，如果你話影響安全...

主席：你可能好多好多，不過入到人哋個口嘅唔係好多咩嘛，有機會。

答：我哋都唔可以淨係顧淨係入口啲啲嘅，就...

主席：Okay。

答：唔係，真係嘅，主席，因為我舉少少例子，因為譬如你「沙士」嘅時候，03年嘅時候，同樣影響健康，我諗大家都記得，喺當年，我哋有咗呢個嘅「沙士」嘅之後，其實成個渠--成個即係排水系統，即係呢個食水你就話即係接觸個口，但係排水系統係唔接觸身體，基本上，但係問題我哋都知道即係從個個經驗，細菌係可以從空氣或者係一啲嘅即係 droplets 所謂，咁嚟傳播。

主席：呢啲 airborne 呢啲冇得講喇，係咪呀？

答：係點樣？

主席：Airborne 咩嘛，「沙士」啲啲，係咪呀？

答：Airborne，係喇，係喇，係喇，但係正正--我舉個例子，就係話即係唔係淨係即係飲用水啲啲，即係其他牽涉健康嘅，其實好多範疇，即係你排水又係，甚至乎通風，即係喺屋宇署裏面，即係佢哋啲啲--呢啲嘅研究其實可以好多好多樣嘅，即係講番出嚟就。

何先生：主席，我淨係話呢個就算係淨係一個世衛嘅文件講呢個 Guidelines for Drinking-water Quality fourth edition，我哋即係好多其他啲大律師都引用呢個文件，淨係呢個文件，我而家舉起手，呢一個係一個好大概嘅文件，裏面嘅資料係好多，而家當然我哋喺呢一個委員會嗰度講緊係鉛，咁所以大家就睇鉛啲

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part，就來來去去就讀個三幾段，但係其實呢個文件裏面所講嘅，關於食水安全、食水質量嘅嘢係真係多到不勝數，你淨係睇個 content page 都有成好多好多頁喺個 content page，咁所以我相信大家都要--即係我相信就算嚴生...

主席：所以我有叫佢驗晒所有嘢，不過我淨係話...

何先生：係喇，咁你都要...

主席：...銅，銅，我淨係講銅啫，我唔講第二啲嘢，銅你都唔驗？

何先生：即係有啲嘢，我哋都要有一啲熟悉或者最需要接觸呢啲嘅個佢要話畀我哋聽邊啲嘢係應該要特別要注意嘅，咁所以而家我哋梗係個個人都注意喇，因為而家鉛個問題...

主席：唔係喎，對唔住，我而家--你而家睇番 2015 年最新個個 1 號都有話要驗銅，不過我就即係好奇怪之嘛，我淨係覺得，啱唔啱？一個...

答：係。

主席：唔係，尤其是你哋添喎，因為你哋用咁多銅嘅嘢，又嚟貨嘅時候又唔驗人哋啲配件，又唔驗--即係你唔驗銅喉嚟嘛，你純粹信佢嘅之嘛。

答：我諗業界都係多數用銅喉嘅，都唔係我哋用得最多。

主席：人哋就人哋一件事吖，人哋私人發展商就可能好多人喺度 check 住「運嚟啲銅喉究竟我畀咗幾多錢，就係合唔合乎我畀嘅錢啲貨。」就唔會--係咪呀？你...

答：係。

主席：即係雖然我都唔係好想講，不過政府成日畀人搵笨嚟嘛啲工程，我唔係講你，我講所有。

答：我哋都唔係政府嘅發展商，...

主席：你明喇，係咪先？即係...

答：...我哋係房委會，我哋房委會。

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何先生：佢冇權代政府作答嘅，呢個問題。

講者（不能辨別）：呢個唔係政府嘅專利嚟嘅。

何先生：房委唔係政府部門。

主席：房委唔係政府，不過委託咗房署係呢，係咪先？不過唔好理喇。

何先生：不過唔緊要。

主席：你明我意思吖嘛，係咪先？

答：係，明白。

主席：係囉，即係我到而家我都唔係好明，係咪？你唔使靠佢啲嘛，佢有啲咩嘢咁 rocket science 啫？即係後面個水務署。

答：唔係嘅，佢哋有好多專家喺度嘅，即係起碼即係啲 chemist 或者係其他即係好有經驗--多年經驗嘅同事喺度，即係已經爭好遠。

主席：佢哋比你 additional 嘅 information，咁就當然係好，但係有陣時你唔需要靠佢，譬如好簡單，你送你個子女去邊一間學校讀，你唔使教育署話畀你聽啲嘛，出張 circular 話畀你聽邊一個好啲，係咪呀？

何先生：有啲嘢叫 good school，梗係嘅。

主席：係咪？啱唔啱呀？你做父母，你知啲嘛？

答：當然，所以我就話想補充嘅，就係話即係除咗即係個水務監督之外，我哋都係喺即係業界裏面睇一睇番，咁多年用嘅銅喉，同埋仲有一樣嘢，就係我哋嘅居民，我哋嘅用家嚟講，因為係咁多年嚟，我哋不停都有佢哋嘅 feedback 嘅，即係喺佢哋嘅 feedback 當中，當時包括埋嗰個嘅衛生健康，咁就係一路以嚟，即係我哋承認我哋真係仍然

都係認知不足，但係喺 feedback 裏面如果係有居民話畀我哋聽係影響到衛生健康，佢哋真係有出現問題，我哋一定會著重嘅，但係喺呢啲佢哋個嘅反應當中，反而大部分都係講緊係個 performance，正如就係我呢兩日一路講，就係爆喉或者係漏水，即係滲水，即係呢啲係佢哋關注喺水務方面就係最多，咁所以即係喺不同呢啲嘅範疇，即係我承認即係水務監督係其中一個，但係其他我哋都一樣係我唔會放過，我哋。

主席：因為其實你有--譬如即係我即係有陣時譬如好簡單，有陣時你係唔知道究竟係--譬如好簡單，譬如我哋知道有陣時啲學校話佢啲午餐，啲小朋友食咗啲午餐中毒，係咪呀？

答：係。

主席：可能同水有關㗎㗎，可能係啲水裏面有細菌㗎㗎，唔係啲食物有細菌㗎㗎，你明唔明呀？

答：明白。

主席：係囉，即係你唔可以話「啊，有陣時我哋都唔知咩嘢事發生。」即係你唔可以話「啊，有人反映畀我聽，我哋先至去究竟」--當然，因為一般嘅居民，對於佢哋嚟講，water quality，你講得啱嘅，water qualities，即係如果唔係我因為要做呢一個研訊，我都唔會揭 WHO 第 4 版，係咪先？

答：唔。

主席：但係個問題--因為你唔可以話「啊，佢淨係注重 functional、performance，所以我哋其實就『啊，因為佢哋冇講過。』」

答：唔係，唔係，唔係，我哋多方面嘅，即係呢個一個 feedback，另一個就係即係水務署監督，佢哋都係呢方面嘅專家，再加埋業界，即係多方面嘅，不過我諗即係我哋都責無旁貸嘅，即係我係贊成，我一早講咗我哋係真係認知不足，即係而家嚟講，我哋亦都需要係有所去做番周密啲。

官：繼續。

何先生：多謝主席。

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問：就係講番呢個 WHO 嗰個 Guideline for Drinking-water Quality 第 4 版，我講緊呢個幾百頁呢一個咁樣嘅文件，就算我哋而家咁集中去睇鉛先算喇，嗰度都有成幾--好多段都係講鉛嘅嘢。

答：係。

問：即使我哋而家好集中去就咁睇一個項目鉛，你睇下我可唔可以--我知道你話你有睇過，不過唔緊要，因為另外啲大律師都問你「你又同唔同意呢度？同唔同意嗰度？」唔緊要，所以我問你，請你揭去 383 頁。

答：要...

問：我嗰本就係喺個 C2...

答：可唔可以喺個 screen 嗰度...

問：...嘅 1446 嗰度睇到，不過你可能有另外一個地方搵到都唔緊要。文件本身係 383 頁，文件夾嘅編號係 C2 1446。

答：係，睇到。

問：我唔係考你嗰個知識，我淨係想提番一點，即使我哋就咁睇呢個，你見唔見到嗰度有一段就係“Lead”咁樣？

答：係，係，係，右手面。

問：今朝可能都曾經有讀過某啲部分畀你睇，我淨係想睇下你去嗰個表嘅對上嘅大概七、八行咁樣，你見唔見到“Lead is rarely present in tap water as a result of its dissolution from natural sources”，見唔見到？

答：倒數上去幾多行嘍？

問：個表再向番上數，有一段，大概去到中間...

答：哦，“Lead is rarely”，okay。

問：“Lead is rarely present in tap water”...

答：睇到，睇到，睇到。

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問：...“as a result of its dissolution from natural sources; rather, its presence is primarily from corrosive water effects on household plumbing systems containing lead in pipes, solder, fittings or the service connections to homes.”，呢段今朝好似都讀過畀你聽？

答：係，係，係，係。

問：跟住嗰句，你睇埋佢喇，“The amount of lead dissolved from the plumbing system depends on several factors, including pH, temperature, water hardness and standing time of the water, with soft, acidic water being the most plumbosolvent.”，即係跟住呢句就係講話到底實際上有幾多鉛會走咗落去，都有好多唔同嘅因素嘅，包括埋嗰個酸鹼度、temperature 個溫度、嗰啲水係即係 standing，即係停留喺嗰個喉管裏面幾耐、...

答：啱。

問：...嗰個水質嘅 hardness，即係硬水定軟水喇，係咪呀？

答：啱，啱。

問：即使我哋講緊鉛，都有好多唔同嘅因素...

答：因素，啱。

問：...可以影響嗰個鉛滲入去嗰個情況，係咪呀？

答：係，係。

問：即係即使我哋而家話用顯微鏡去睇呢一段嘢，講鉛喇咁，但係都係有好多唔同嘅因素嘅影響，係咪呀？

答：贊成。

問：你係唔係最好嘅專家去判斷我哋香港食水嗰個酸鹼度、嗰個 softness、hardness 係唔係會引起一啲問題，你係咪呢方面嘅專家證人？

答：絕對唔係。

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問：你唔係？

答：我唔係。

問：房委，係唔係？

答：房委會我相信都唔係。

問：都唔係。好簡單問你，亦都有曾經琴日就同你提過一個 BEAM，嗰個綠建環評嘅一個認證，即係基本上嗰個係一個--好似今朝石大律師都問過你呢個係額外嘅一個認證，你想即係話呢一個 project 就係合乎一啲綠色嘅...

答：建築。

問：...建築嘅標準喇咁樣，...

答：係，嘅認證。

問：...所以擺到呢個認證嘅？

答：係，啱。

問：呢個係額外嘅...

答：額外嘅。

問：...一個認證，係咪呀？

答：係。

問：我想知道--你知就知，如果唔知唔緊要。你哋譬如好似去擺呢啲認證嘅時候，你哋有冇聘請顧問去...

答：有嘅。

問：有嘅？

答：係，有。

問：喺呢個啟晴邨，啟晴邨就擺認證喇？

答：係，係，都有...

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問：亦都事後係得咗認證？

答：係。

問：咁係咪有請顧問？

答：有請顧問。

問：請顧問，嗰個顧問有冇話畀你聽喺個水方面係會要有啲乜嘢嘅標準？

答：冇嘅，即係其實我諗咁樣講，即係其實我諗我哋擺認證嘅，我諗其實大家都知道，即係最主要就係睇番嗰個 assessment 嘅 criteria，同埋一般喺佢嗰個做法，雖然--當然嗰個頭先嘅條文，頭先水務署嘅大律師都帶我去睇過，即係有若干嘅位都係有寫 WHO，但係雖然寫還寫，但係我哋嘅顧問或者係 BEAM Society 或者係 Hong Kong GPC，即係香港綠色建築議會，佢哋都會係做法庭審㗎嘛，而佢哋亦都話--即係佢寫就係寫嗰個嘅 WHO 嘅 guidelines，但係到驗水嘅時候，仍然都係同番嗰個優質水嗰種，即係做番個 chemical 同埋 bacteria 嗰方面，但係就有重金屬，換言之，即係話其實當然我哋擺認證嘅，就係會跟番對方需要啲乜嘢嘅，我哋就做番嗰樣嘢，咁即係等如優質水一樣。

問：就係基本上係優質水嗰幾個認證標準？

答：冇錯。

問：唔該。

何先生：我有進一步問題。

主席：唔該。冇喇呵？冇問題。

好，唔該晒嚴先生。

答：好。

主席：可以離開，唔該。咁我哋或者休息 10 分鐘先，我哋休息 10 分鐘先。

下午 3 時 31 分聆訊押後

下午 3 時 48 分恢復聆訊

出席人士如前。

殷先生：呢個房委會嘅第二位證人係應該係伍達群先生。

主席：好呀。

殷先生：我嘅了解就係我哋而家雖然話每一個證人佢會喺證人台上面講晒佢有關嘅屋邨，但係我哋都係用啟晴嚟做中心嘅。

主席：好呀。

殷先生：伍先生就係以呢個啟晴邨嘅 Chief Building Services Engineer 個身分係作供先嘅。

主席：好呀。

殷先生：佢跟住落嚟就仲有一條邨，呢個係叫做元州 Estate，元州邨第二期同第四期嘅。咁我理解，因為我哋嗰啲證人嘅書面口供係 in batches 嘅，分段入嘅，伍先生關於元州邨嗰個二期同四期嘅口供就係今朝先至入嘅啫，咁就我理解就未曾即係正式入到嗰啲 bundles。

主席：Bundle 裏面，唔。

殷先生：但係我哋而家係有好多個副本嘅。

主席：我哋有，搵到喇，係。

殷先生：唔知道...

主席：我哋入咗喇，係。

殷先生：你哋入咗？

主席：係。

B
C 般先生：咁或者我哋都好似之前處理嚴先生咁，我哋做咗啟晴先。

D 主席：可以。

E 般先生：跟住落嚟就先至等大家追番上去。

F 主席：好呀，好呀。叫伍達群先生入嚟。

G 香港房屋委員會第四證人：伍達群（房屋署（啟晴邨和元州邨第二及四期
H 總屋宇裝備工程師））以本地話宣誓作供
I 殷先生主問

I 問：伍先生，而家由我朗讀咗你嘅書面口供一次先。

J **WITNESS STATEMENT OF NG TAT-KWAN, CHIEF BUILDING**
K **SERVICES ENGINEER OF KAI CHING ESTATE**

L 1. I, NG TATKWAN, provide this statement in respect of
M the Commission of Inquiry into Excess Lead Found in
N Drinking Water (COI) and in response to a request from
O the COI dated 12 October 2015. The statement
P addresses matters relating to one of the "Affected
Q Estates" being Kai Ching Estate.

R 2. I am a Building Services Engineer by profession, a
S Corporate Member of The Hong Kong Institution of
T Engineers and joined the Housing Department (HD) in
U 1989, which is the executive arm of the Housing
V Authority (HA). I have been involved in the
construction of Kai Ching Estate as Chief Building
Services Engineer/2 from 28 January 2013 until now.
The certified completion date of the domestic blocks
of the Estate is 9 April 2013. I therefore have direct
knowledge of the project from late January 2013 onwards.
Whereas I have had to obtain Information before late
January 2013 from other sources or pursuant to
discussions with colleagues for preparation of this
statement.

3. I have reviewed the letter from Lo & Lo Solicitors dated 12 October 2015 and address the matters raised together with other matters I consider relevant to the COI.

4. For the purposes of this Statement I refer to the different work stages as Pre-contract, Construction and Completion.

ROLES AND RESPONSIBILITIES

A. Chief Building Services Engineer

Responsibilities as Section Head

5. As Chief Building Services Engineer (CBSE), I am responsible for overseeing various Building Services (BS) matters on behalf of the HA from inception (design) through to completion of new construction projects. Being one of the Chief Professionals of the BS discipline, my responsibilities as Section Head pertaining to the fresh water plumbing system include:

a. the design, specification, tender and contract administration, inspection of works and confirmation of completion of works for the installation of water pumps, suction and discharge pipework and sundry pipework (hereinafter referred to as water pumps and associated pipework) inside fresh water up-feed pump room on round floor and booster pump room on roof (hereinafter referred to as water pump rooms) of each block under the Fire Services and Water Pump (FSWP) Nominated Sub-contract;

b. the following up of any non-performance of the FSWP Nominated Sub-contractor in the maintenance and defects rectification of the water pumps and associated pipework inside water pump rooms during the two-year Maintenance Period; and

c. the design and specification for the fresh water

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plumbing system outside water pump rooms but excluding sanitary appliances under the Main Contract.

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d. My role in respect of contract administration and works inspection is therefore limited to the work of the FSWP Nominated Sub-contractor for the works inside water pump rooms stated above whereas for the plumbing installations outside water pump rooms my role is restricted to one of establishing the design and specification only. The contract administration and works inspection of the plumbing installations outside water pump rooms fall within the remit of the Chief Architect (CA) and his team (see paragraphs 17 & 18 below).

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6. I am assisted by Senior Building Services Engineers (SBSE), Building Services Engineers (BSE), Building Services technical staff and Building Services inspectorate staff to discharge my duties.

Project Specific Responsibilities

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7. Under the Main Contract of Kai Ching Estate, CBSE is delegated by the CA, who is the Contract Manager (CM), as the CM's Representative (CMR) the duties and powers vested in the CM under the Main Contract insofar as they concern BS Works, with respect to (i) General Conditions of Contract Clause (GCC) 65(2) (termed as use of Prime Cost, Provisional and Contingency Sums); and (ii) GCC Clause 66 & Special Conditions of Contract (SCC) Clause 25 (termed as varied form of sub-contract and objections to nomination), now produced and shown to me marked "Exhibit 1".

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8. As stated above, CBSE is assisted by a team of BS staff to discharge his duties. The Project BSE is delegated by the CM as the CMR and is responsible for the administration of Building Services Nominated Sub-contracts (Including FSWP Nominated

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Sub-contract), with the assistance of the Project Building Services Inspectors.

9. BS staff who have been involved in the project are as follows:

a. TK Ng is the CBSE; CS Ho, CK Leung and SW Tse had been the CBSEs in the past since commencement of the Main Contract;

b. SM Kwok is the Project SBSE; WI Ho and CK Leung had been the Project SBSEs In the past since commencement of the Main Contract;

c. WL Chan and HM Yeung are the Project BSEs; KF Mok, YK Leung, FS Tse, CM Poon and HL Lau had been the Project BSEs in the past since commencement of the Main Contract;

d. KW Chow, HW Liu, WF Ho, KC Ng and CK Wong were the then Senior Building Services Inspector (SBSI) at different stages; and

e. HC Yung, CK Ng, CK Yuen and KH So were the then Building Services Inspectors (BSI) at different stages.

10. Pertaining to the fresh water plumbing system in the project, the Project BSE is responsible for:

a. the design, specification, tender and contract administration including approval of drawings and materials, inspection of works and recommendation to CBSE for confirmation of completion of works for the installation of water pumps and associated pipework inside water pump rooms under the FSWP Nominated Sub-contract;

b. the following up of any non-performance of the FSWP Nominated Sub-contractor in the maintenance and defects rectification of the water pumps and

associated pipework inside water pump rooms during the two-year Maintenance Period;

c. the design and specification of the fresh water plumbing system outside water pump rooms but excluding sanitary appliances under the Main Contract, liaison with the Water Supplies Department (WSD) on the availability of water supply at design stage, obtaining approval of plumbing drawings from the WSD and producing tender drawings and specifications; and

d. the vetting and approval of plumbing materials installed outside water pump rooms (excluding sanitary appliances) submitted by the Main Contractor under the Main Contract at construction stage.

11. The CBSE, with the assistance of the Project SBSE, is responsible for the supervision of the Project BSE at all stages of work for the duties stated in paragraph 10.

12. At construction and completion stages, all contract administration including statutory submissions to the Water Authority (WA) (i.e. Forms WW046 and WW0132 Part II) and works inspection for the fresh water plumbing system outside water pump rooms are the responsibility of the CA and his team and do not fall under the remit of the CBSE, except that Project BSE would provide revised plumbing drawings as necessary to the Project Architect for issuing of Site Instruction and submit revised drawings to the WSD for approval if required.

13. The FSWP Nominated Sub-contractor was selected and nominated by the HA and overseen by the CBSE. For this project the FSWP Nominated Sub-contractor was Perfect Fire Protection Company.

B. FSWP Nominated Sub-contractor

14. The FSWP Nominated Sub-contractor was responsible for the Installation, testing and commissioning of FSWP installation during the Contract Period and subsequent maintenance during the two-year Maintenance Period of the FSWP Nominated Sub-contract. Pertaining to the fresh water plumbing system, the works undertaken by the FSWP Nominated Sub-contractor included only the installation of water pumps and associated pipework inside the water pump rooms of each block.

15. The FSWP Nominated Sub-contractor engaged a licensed plumber (LP) for the execution of the water pumps and associated pipework installation inside the water pump rooms in accordance with the WSD's approved drawings. The nature, size and quality of pipes and fittings were as prescribed by the Waterworks Ordinance and the Waterworks Regulations. The LP, together with the Project Architect and Project Senior Architect, notified the WA of the commencement and completion of the water pumps and associated pipework installation inside water pump rooms which were carried out in accordance with the WSD's approved drawings and WA's accepted materials under Form WW046. As one of the CMRs, the Project BSE monitored the works of the FSWP Nominated Subcontractor for which the Main Contractor was responsible.

16. The LP of water pumps and associated pipework installation inside water pump rooms for this project is Chan Tat To (License no. 00199).

C. Site Inspection Team

17. The CM's Site Inspection Team conducted periodic and sample checks on materials and workmanship for conformance to Specifications and the progress of the Main Contractor's works. The Site Inspection Team comprised two disciplines with various ranks of Site Staff as follows:

(a) Building Works Team (comprising Senior Clerk of Works, Clerk of Works, Assistant Clerk of Works and Works Supervisor) inspects Building Works including builder's works requirements for BS works;

(b) Building Services Team (comprising Senior Building Services Inspector, Building Services Inspector, Assistant Building Services Inspector, Works Supervisor (Building Services)) inspects BS works.

18. For the inspection of the fresh water plumbing system, the Building Works Team inspected installation outside water pump rooms under the supervision of the CA and the Project Senior Architect 1 Project Architect. The Building Services Team inspected the installation under the FSWP Nominated Sub contract Inside water pump rooms (see paragraph 39 below) under the supervision of the Project BSE who was in turn under the supervision of the CBSE, with the assistance of the Project SBSE.

PRE-CONTRACT STAGE - DESIGN AND SPECIFICATION

19. For the design and specification of the fresh water plumbing system, the responsibilities of CBSE are detailed in paragraphs 5, 10 and 11 above.

20. The complete plumbing system was designed in accordance with the requirements stipulated in the Waterworks Regulations (Cap 102A), WSD's Circular Letters, handbooks and guidelines. Standard specification and in-house design guidelines (Building Services Technical Guide on water pump and water services installation and Technical Guide to Public Housing Developments for water services installation) were also adopted.

21. All plumbing materials specified by the HA complied with the relevant British Standards 1 International

Standards as required under the Waterworks Ordinance and Regulations. All pipes and fittings were to conform to the specification and where applicable, be accepted by the WA for the Intended application.

CONSTRUCTION STAGE

22. Upon commencement of the Works after award of the Main Contract and Nominated Sub-contracts, the FSWP installation works were executed by the FSWP Nominated Sub-contractor under the supervision of the Main Contractor. The FSWP Nominated Sub-contract was between the Main Contractor and Nominated Sub-contractor. There is no direct contract between the HA and the Nominated Sub-contractor.

A. Material Submissions - Water Pumps and Associated Pipework inside Water Pump Rooms

23. The FSWP Nominated Sub-contractor submitted FSWP materials via the Main Contractor to the CM for approval. Disapproval by the CM would mean resubmission by the FSWP Nominated Sub-contractor until approval was obtained before such materials could be used on site. From my recollection there was no issue arising from the materials approval process.

24. The FSWP Nominated Sub-contractor was required to submit material catalogues, test certificates and other relevant certificates to substantiate the water pumps and associated pipework materials for use inside water pump rooms fully complied with the specifications for the approval of the CM. This they did.

25. The Main Contractor vetted the FSWP Nominated Sub-contractor's materials submissions which, with respect to water pumps and associated pipework installation inside pump rooms, normally included

equipment such as fresh water pump, modulating float valve, stainless steel pipe & fitting, ductile iron pipe & fitting, gate valve, strainer, stainless steel flexible connector, pressure reducing valve, non-return valve and pneumatic pressure vessel.

26. While verification of compliance with relevant requirements could be effected through documental checks, the Project BSE with the assistance of the Project BSI required the FSWP Nominated Sub-contractor to submit samples of some materials via the Main Contractor to the CM for approval before the commencement of the installation work. The sample board consisted of water pipe and fittings and was approved. The approved sample board, to which was attached the said samples, was then kept in the Project BSI's site office throughout the Sub-contract period. The Project BSE with the assistance of the Project BSI determined the extent of the Items for which samples were required. For those materials which were of limited use or bulky in nature such as large pipes and fittings, water pumps, motors and pneumatic pressure vessels, etc., no sample submission was required. These were based upon the submission of documents only. To my recollection there was no Issue arising from the materials submissions made by the FSWP Nominated Sub-contractor via the Main Contractor.

27. The Project BSE also took into consideration job references quoted by the FSWP Nominated Sub-contractor and made reference to any material quality alerts issued by the central materials teams.

28. In so far as there might be solder or alloys contained within the materials submitted by the FSWP Nominated Sub-contractor, the Project BSE checked the relevant test reports, certificates and WSD's acceptance letter as appropriate to ensure that the materials complied with relevant British Standards I International Standards which

were acceptable to the WA. The Project BSE would not conduct any tests on the materials before granting approval.

29. While there were short lengths of copper pipes and fittings in the fresh water up-feed pump rooms of Blocks 1, 2 and 3 for feeding directly fresh water supplies to the toilets and some shops on ground floor of these domestic blocks covered by the FSWP Nominated Sub-contract, the FSWP Nominated Sub-contractor did not submit soldering I brazing material for pipe joints to the CM for approval due to the limited extent of works Involved.

30. Upon approval of the materials or samples submitted, the FSWP Nominated Sub-contractor was at liberty to proceed to purchase materials of the approved quality.

B. Material Submissions - Fresh Water Plumbing System outside Water Pump Rooms

31. For plumbing materials used outside water pump rooms, they were supplied and Installed by the Main contractor and were submitted direct by the Main Contractor to the CM for approval. The Building Works Team checked the material submission against specification requirements and gave recommendations to the Project BSE for approval in prescribed forms. The Project BSE then checked the material submission to ensure compliance with specification requirements based on the documents submitted by the Main Contractor, including catalogues, test reports and relevant certificates, etc. as appropriate, and approved the material submission in prescribed forms.

32. The Project BSE also took into consideration job references quoted by the Main Contractor and made reference to any material quality alerts issued by the central materials teams.

33. The vetting and approval by the Project BSE of

plumbing materials used outside water pump rooms did not cover sanitary appliances which were vetted and approved by the Project Architect.

34. Pursuant to the specification for copper pipes and fittings, when soldering alloys are used for jointing copper 1 copper alloy capillary fittings, only lead-free category solders in compliance with BS EN 1254-1, Table 6 Sections II and III shall be used.

35. In so far as there might be solder or alloys contained within the materials submitted by the Main Contractor, the Project BSE checked the relevant test reports, certificates and WSD's acceptance letter as appropriate to ensure that the materials complied with relevant British Standards I International Standards which were acceptable to the WA. On this project the solder proposed was FRY 99C which, according to the accompanying literature, complied with the specification requirements. No testing was carried out before granting approval.

36. Upon approval of the materials or samples submitted, the Main Contractor was at liberty to proceed to purchase materials of the approved quality.

C. Works Execution

37. After the WA has given permission to proceed with the water pumps and associated pipework installation inside pump rooms, the FSWP Nominated Sub-contractor shall execute the installation work in strict accordance with the FSWP Nominated Sub-contract to the satisfaction of the CM. The FSWP Nominated Sub-contractor shall also comply with the Waterworks Ordinance and Regulations and to provide notifications to the WA as required.

38. Following commencement, the Building Services Team monitored and inspected the works of the FSWP Nominated Sub-contractor for the water pumps and

associated pipework installation inside water pump rooms.

39. For the works executed by the FSWP Nominated Sub-contractor, Building Services Team conducted inspection according to the approved Project Inspection Plan. The Project Inspection Plan detailed the inspection percentages of BS- works with reference to the BS Site Inspection Guide. It was prepared by the Building Services Team, endorsed by the Project BSE and approved by the Project SBSE. Besides functional tests, major Inspection items included verifying that materials installed were the same as the approved materials, and that they were installed according to the approved drawings.

40. Pursuant to the FSWP Nominated Sub-contract, the FSWP Nominated Sub-contractor deployed trade tested workers (skilled workers and semi-skilled workers as defined in Section 2(1) of the Construction Workers Registration Ordinance) to fulfil the requirements specified in the specification clause PRE.BS1.460.P, now produced and shown to me marked "Exhibit 2". The FSWP Nominated Sub-contractor submitted the return of the trade tested workers to the Main Contractor for submission to the CM every month in accordance with the clause SCC133(b) of the Special Conditions of Contract, now produced and shown to me marked "Exhibit 3".

41. In respect of solder this was used primarily for joints between copper pipework and its fittings but it did not apply to the water pumps and associated pipework installation inside water pump rooms where ductile iron pipes and stainless steel pipes were used and hence there was no risk of having leaded soldering joints.

42. Notwithstanding the above, short lengths of copper

pipe and fittings were installed by the FSWP Nominated Sub-contractor inside the fresh water up-feed pump rooms of Blocks 1, 2 and 3. These short lengths of copper pipe and fittings served to connect the plumbing installation installed by the Main Contractor outside the water pump rooms of these domestic blocks. The inspection of these short lengths of copper pipe and fittings was conducted by the Building Services Team according to the approved Project Inspection Plan. Due to the limited extent of works involved, inspection of copper pipe joints and soldering 1 brazing materials was not included in the plan.

43. The role of the CBSE at this stage was, with the assistance of the Project SBSE1 to provide supervision of the Project BSE and Building Services Team who were to liaise with the Main Contractor in respect of BS Nominated Sub-contract matters. In view of my role overseeing a number of BS staff who were delegated by respective CMs to monitor various projects, it was not feasible or indeed possible for me to be resident on any one project. However, a dedicated Building Services Team was resident on site for its duration.

44. Other than the pre-installation approvals of materials referred to above, the FSWP Nominated Sub-contract prescribed various tests on the water pumps and associated pipework installation inside water pump rooms to be carried out by the FSWP Nominated Sub-contractor upon completion. Typically these included the functional test and the pressure test of water pumps and associated pipework installation. These tests were necessary to ensure the installation met the prescribed functional performance; but not as a necessary prerequisite to gaining the WA's approval for connection of the mains supply.

45. The Main Contractor's obligation was to supervise the works of the FSWP Nominated Sub-contractor to ensure

that the tests were carried out successfully and, in the event of default, to continue carrying out testing until such time as it complied with the FSWP Nominated Sub-contract. As the FSWP Nominated Sub-contractor was under the supervision of the Main Contractor, the LP of the FSWP Nominated Sub-contractor was not under the direct monitoring of the Building Services Team.

46. For the fresh water plumbing system installation outside water pump rooms, the works monitoring was conducted by the Building Works Team under the supervision of the CA and is addressed by the CA in his witness statement. I repeat that I experienced no particular issue arising from the performance of the FSWP Nominated Sub-contractor.

COMPLETION STAGE

47. Upon completion of the water pumps and associated pipework installation inside water pump rooms, the LP engaged by the FSWP Nominated Sub-contractor, together with the Project Senior Architect, notified the WA the completion of works via Form WW046 Part IV. The WA then Issued Form WW046 Part V after inspection where no irregularities were found. The CA and his team monitored the completion of the fresh water plumbing system outside water pump rooms and notified the WA the completion of the works via Form WW046 Part IV, and after the WA issued Form WW046 Part v, applied for the connection of fresh water supplies by the WA via Form WW0132 Part II. The overall administration of the application for connection of water supplies was under the ambit of the CA.

48. At the time of completion, CBSE issued a memo to the CA confirming that the BS installations, in which the water pumps and associated pipework installation inside water pump rooms was included, could be certified as substantially complete such that the BS installations could be safely put into use for their

intended purpose. This confirmation was issued upon the major BS installations satisfactorily passing the prescribed tests and inspections. This confirmation for the domestic blocks of Kai Ching Estate was dated 9 April 2013.

49. All the BS installations were subsequently handed over to EMD according to the prescribed procedures for use and overseeing the maintenance carried out by the BS Nominated Sub-contractors within the two-year Maintenance Period.

DEVIATED PLUMBING MATERIALS

50. In respect of works under my supervision and in relation to the water pumps and associated pipework installed by the FSWP Nominated Sub-contractor inside water pump rooms, the plumbing materials stated in Form WW046, which did not include soldering or brazing alloys for copper pipe joints, and accepted by the WA were as installed. The plumbing materials complied with the relevant British Standards or International Standards as required under the Waterworks Ordinance and Regulations. According to the relevant British Standards or International Standards, pipe fittings of copper alloy are allowed to contain certain percentage of lead which should not cause excess lead in water.

51. In respect of the final investigation report released on 31 October 2015 by the Task Force led by the WSD, the installed valves and fittings that are found deviated from those in the Form WW046 submitted by the LP for fresh water plumbing Installation outside water pump rooms and do not comply with the relevant British Standards or International Standards do not apply or extend to the water pumps and associated pipework installed by the FSWP Nominated Sub-contractor inside water pump rooms.

RECOMMENDATIONS TO PREVENT OCCURRENCE OF EXCESS LEAD IN

WATER

52. For water pumps and associated pipework inside water pump rooms, ductile iron and stainless steel pipes with flange or other types of mechanical joints are specified to allow ease of disassembling and reassembling for maintenance works. They also provide better strength against damages in a plant room environment. This practice will continuously be adopted in our projects in future.

53. For the design and specification of copper pipework outside water pump rooms, the following mid to long term enhancement measures can be explored:

a. adopting the use of proprietary copper pipe fittings such as those with built-in soldering material or of press fit I push fit I compression types which involve no solder; and

b. adopting the use of pipes and fittings carrying a "BSI Kitemark" and collaborate with stakeholders to implement product certification for plumbing materials in the long run as a product quality surveillance regime.

問：伍生，讀完你嘅證人口供，有冇嘢需要更改？

答：冇。

問：你願意呢個作為你嘅呢個研訊入面嘅口供？

答：係，願意。

主席：冇問題。

許偉強先生：主席先生、委員先生，我睇到個時間，就即係與其我同伍先生就點下頭、問候一句，跟住就有乜時間講嘅話，就我睇下會唔會下星期一我哋繼續？

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主席：我哋星期一先至再繼續。

許偉強先生：係。

主席：星期一嘅早上 10 點鐘，我哋再繼續個聆訊。

石先生：或者咁，我哋係有--頭先有傳媒問開就係嗰個專家報告係會唔會
放上委員會嗰個網站，我嘅理解係一陣間如果聆訊之後會儘快放上網
站嘅，委員會自己嗰個網站，COI。

主席：係，唔該。

2015 年 11 月 13 日

下午 4 時 24 分聆訊押後

A *Annex: Realtime English Transcription based on floor / Simultaneous Interpretation* A

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 09 B

C Friday, 13 November 2015 C

D (10.03 am) D

E (Transcript of simultaneous interpretation except where otherwise specified) E

F DR WONG: (Chinese spoken). F

G (Tubs of Power-Flux were handed around the hearing room) G

H CHAIRMAN: (Chinese spoken). H

I Thank you, Mr Wong. I

J Please proceed. J

K MR YIM YU CHAU (on former oath) K

L (Evidence in relation to Wing Cheong Estate) L

M MR YIN: Mr Yim has something to say. M

N WITNESS: Chairman, I beg your pardon. Yesterday, counsel N

O from China State mentioned a bundle B5.10, trade tested O

P workers report forms. He said that for a few pages, P

Q they were not continuous. Q

R We checked the records. We only included forms R

S referring to Water Supplies workers. For those referred S

T to yesterday, they were not Water Supplies workers, T

U pages 4 to 11. U

V MR SHIEH: Perhaps counsel from China State can double-check V

the preamble. His questioning was what was in the

documents were skilled and there was nothing about

semi-skilled workers, but if you look carefully, there

are two columns. For example, for your reference, for

the same list of plumbers, they have a tick on whether it is semi-skilled or skilled. So when you look for plumbers, you look for the list, including semi-skilled and skilled workers.

So it is not that we have just submitted documents related to skilled plumbers, because they have taken the trouble to tick whether the plumber is skilled or semi-skilled.

CHAIRMAN: Yes, please go on.

Examination-in-chief by MR YIN

MR YIN: Chairman, I would like to read out the statement for Wing Cheong Estate.

(In English) This is the witness statement of Yim Yu Chau, chief architect of Wing Cheong Estate.

(Paragraphs 1 to 77 were read in English)

Mr Yim, is there any need to amend the statement you have provided?

A. Yesterday, we also said that for awareness of the WHO standards -- well, to be more precise, regarding the safety risk of fresh water, we didn't have sufficient awareness. So yesterday I specified that point, and I think it also applies to this statement.

Q. Any other point?

A. No more.

Cross-examination by MR SHIEH

MR SHIEH: Mr Yim, as far as the statement involving Wing Cheong Estate is concerned, regarding the systems, to a large extent it is similar or even identical to the statement on Kai Ching Estate.

So, regarding Wing Cheong Estate, I have a few points to go through with you. Please look at the approval of samples. There is no need to dig out the exact paragraph, but you said that for Wing Cheong Estate, the contractor has provided samples of soldering materials to be used to the Housing Department for approval, although technically speaking, he is not required to do so under the contract.

A. That's true.

Q. Then regarding Fry samples. That is page 38287.

A. Yes, I've got it.

Q. This is the approval label. For the process of approving documents, it can be found on page 38284.

A. Okay.

Q. I will not go to the details, but this is just a basic established form, Fry, when it was made. The label is on page 38287. In your relevant files, someone photocopied the specification for soldering materials.

Do you see it here?

A. Yes.

Q. This looks familiar. They must comply with four BS

standards and only lead-free category solders can be used.

A. I can see it.

Q. Someone took the trouble to jot down, "Refer Technical Information", so someone really took the trouble to check and get the tick. Who did it?

A. I believe, while I have not really checked, I believe, when colleagues approved -- well, you can see ticks, just to remind them they have checked against these items.

Q. So the colleagues responsible for approval or checking had a checklist, so they had in hand the contract specification to check whether the standards were complied with, so a technical document -- technical information?

A. Okay.

Q. It was found, so a tick was put there.

A. I believe that's the case.

Q. Page 38304. Please take a look. There is a laboratory report, the materials test. For lead, the content was really zero. That's annex 9 of your statement.

So the contractor would provide such document for approval, including a test report from the secretary, and for this sample, lead was found to be zero. Your colleague responsible for checking would say the

A *Annex: Realtime English Transcription based on floor / Simultaneous Interpretation* A

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 09 B

C chemical composition test, lead content: zero. C

D On the delivery notes, when suppliers delivered D

E these materials to site, there would be delivery notes. E

F Can I refer you to B6.4, page 15354. This is from F

G Prosperity Building Materials; can you see it? G

H A. I do. H

I Q. Page 15354. Well, it's difficult to turn to the right I

J page after prolonged use. J

K This is an annex provided by Paul Y. After internal K

L investigation, some delivery notes were included, and L

M this is from Prosperity. Page 15354 from Prosperity M

N Building Materials to Golden Day, because Paul Y N

O subcontracted the plumbing works to Golden Day, so the O

P materials were delivered to the site at Sai Chuen Road. P

Q So UK Fry lead-free soldering materials are so very Q

R thin -- they were tin-free. R

S A. So you may call them wires or threads. S

T Q. This is what I want to bring out. T

U A. As for how they were referred to at site, at U

V construction sites, I rarely went to construction sites V

to hear how they referred to tin solders. We call them

threads or wires.

Q. Well, after July we now draw a finer distinction between

thread and wire. So do you know what's the difference

between wire and thread or straps?

- 126 -

A. Well, for straps, there's the opportunity that it may contain lead, but I cannot say 100 per cent, because we cannot check all suppliers to ensure or to confirm that lead can be found in these straps.

Q. If we call them "thread" -- is your understanding that it would be lead-free?

A. It would be rather risky to be so general. Because different people may call them by different names. It's very risky just to call it thread or straps. We have to follow the model number.

Q. Even for Fry?

A. Yes, they have lead-free category or lead category.

Even for those which contain lead, it may be thread-like, so we won't tell our colleagues that if it is thread, it will be lead-free. No. We have to follow the label or the product code.

Q. All right. When we talk of Fry, we believed it was really sacred, it would be lead-free. Now we know that it may contain lead as well, but now we are talking about lead-free category Fry soldering materials. So you said that the industry may call it straps, strips or thread, but you cannot decide whether it is lead-free or not, on the basis of this terminology?

A. Well, it would be risky.

Q. Because it depends on what people call it offhand.

A. Yes, it's just Cantonese jargon.

Q. So here you see Fry lead-free tin thread.

On paragraph 68, you told us -- people were not too alert as to soldering materials, because it was an entirely performance-based way of measuring. So, when inspection was done at construction sites, you would not deliberately check the soldering materials. So even if the supplies were delivered to a construction site, you would not particularly check the soldering materials is lead-free tin threads. So you would just check whether it is the same brand?

A. Well, it's not done under the system.

Q. What about individual site staff? Theoretically, they have the discussion, but they would not all of a sudden go and check, because it's not on the checklist. Theoretically, they have the discretion, but as a matter of system, if it is not on the checklist, it was not done, unless it was something very special?

A. Yes, the relevant site colleague, if he discovers anything suspicious in that batch of consignment, of course he has the discretion to do things, but as a matter of system, we do not require the colleague to check the soldering materials.

Q. Because he would be very busy, and when a batch of soldering materials was delivered he would not take the

trouble to check it in particular.

A. Yes.

Q. Of course, even if the materials delivered are not up to specification, he would not have noticed because it is not required to check under the system.

Yesterday, it was in your statement -- I think I asked -- I should have asked this yesterday. Now, compared -- I would like to show you delivery notes of Kai Ching Estate. Have you heard about the brand "50 lik".

A. Not before July.

Q. K1, Kai Ching Estate, Ho Biu Kee. Ho Biu Kee was the subcontractor, plumbing subcontractor, for Kai Ching Estate.

May I show you delivery notes submitted by Ho Biu Kee, page 745.

It should start on page 744, from Prosperity Building Materials.

The paper lists out what was delivered: Fry lead-free solder. Please take a look at the right-hand side on page 745. It may not be too clear, but if we look clearly, you see UK Fry lead-free tin thread. Then we also see UK 50 tin thread. On many occasions, we see British 50 lead-free tin appearing together with Fry. Page 753. Page 755, please.

A. Page 753.

Q. 753, you only see "50 lik".

Page 755, item 4, MFRY-WL50D, and then item 5, MFRY, UK Fry lead-free tin thread, and then UK 50 flat tin thread.

All right, this is a delivery note. Prosperity may give evidence later, but these are open documents, to show what materials were delivered to the construction site, and we can see they were not all Fry lead-free tin thread, because under your system you are not required to check soldering materials reels, so you did not realise that soldering materials other than Fry were delivered.

Now, if there is a mechanism for you to check the items on the delivery note, you would have seen it?

A. That's document check; we do do that.

Q. But that would not include soldering materials, back then it did not include soldering materials?

A. Right.

Q. So whether you check this item or not would depend on whether there was any risk involved, so it's a balancing act. So if you have to use a device to beep each and every item, you may think it's a big trouble, but if you just check the documents, it's rather convenient and can be done.

Whether you adopt a certain step may depend on whether the step itself is cumbersome. So with hindsight, if there was a document check requiring to check this item -- now, I'm talking about Kai Ching -- you might have discovered why non-approved samples were delivered. When your colleague checked the materials delivered -- now I'm talking about the one responsible for Wing Cheong Estate -- he was very meticulous, he ticked all the boxes.

A. Not necessarily all the boxes, but at least to that extent.

Q. So it's a bit ironical. So the colleague who checked was very meticulous, but when it comes to the actual delivery, non-approved samples were delivered?

A. Let me put it this way. Actually, the workload was very heavy at site and we have to balance the risk and also the manpower. All along, when we check the delivery notes, I would like to say the same thing. Actually, with regard to waterworks or plumbing materials, the contractor and also the licensed plumber must play their roles. When we act as the HA, after assessing the risk and also having considered the manpower situation, whether we want to check this particular thing, that's our consideration and I would answer like this.

Q. Okay. I will go to another point. This may overlap

C with yesterday's hearing. This is about water tests and
getting water samples from different points. C

D Yesterday, I asked you -- actually, the day before D
yesterday -- the WSD would check the eight parameters;
E that must be done because it is a routine procedure. E
F Before issuing form 1005, there must be this test, and F
G then, if it is satisfactory, form 1005 would be issued, G
H and we call those the eight parameters, and it will be H
I with the letterhead of WSD because this will not be I
contracted to other people but would be done by WSD.

J Then we also saw different things that were required J
to be done for improving the situation. Sometimes, this
K may be done by private laboratories. I would like to go K
L through these one by one with you, to see which report L
would have to satisfy which kind of requirement. We
M listen to the Quality Water Scheme, accreditation M
N scheme -- okay, we don't have to talk about the WSD N
O ones -- but then we talked about BEAM, the requirement O
P to satisfy BEAM. Contractually, in the Kai Ching Estate P
Q contract, Mr Pennicott asked you this yesterday, and Q
R that is in the contract you had to comply with the WHO R
requirement.

S A. Let me put it this way. Yesterday, in the clause there, S
T it was connected with other things. Actually, the T
U
U
V

description in the contract was WHO Guidelines, BEAM 5.01 or BEAM 5.1. If you look at the criteria of BEAM Plus, under 5.1, it only said that when Dongjiang water comes from the mainland, the WSD would act according to WHO Guidelines to deal with the water.

Yesterday, we did not have the document with us, the document of BEAM Plus. That is why I said, when staff put in this clause in preparing the tender document, actually they just copied from the BEAM Plus requirements. If you look at the BEAM Plus requirements, that is the case.

Q. Maybe -- we are all interested in this -- yesterday, Mr Pennicott showed you contract terms and you said something yesterday. So this may be related to yesterday's hearing.

The contract requirement mentioned WHO Guidelines but not in a vacuum. It did not just say WHO Guidelines, particularly it mentioned BEAM 5.1.

With regard to BEAM Plus requirements, I would like to see whether the HA counsel can provide that. If we can be shown the BEAM document, we will know what it talks about.

A. I have it, actually.

Q. Can you show that to us?

CHAIRMAN: Let us have an early break so we can make

photocopies.

DR WONG: Actually, we all have it. We are all prepared.

MR SHIEH: Okay, let us have an early break so we can take
note of the document.

MR HO: May I advance a view? Yesterday, Mr Pennicott
mentioned the contract terms and then he took the
discussion to BEAM requirements, and Mr Pennicott also
introduced a point, and that is there was another chief
architect, Theresa Yim. She would have a better
knowledge why this was related to BEAM, rather than
asking this Mr Yim to answer these questions, because he
was not the one who put together or formulated the
requirements and he did not take part in drafting the
contract.

Rather than doing this, actually, yesterday, when
Mr Pennicott asked questions, he also said that when
Ms Theresa Yim comes along later, she might answer those
questions. If Mr Shieh thinks it's necessary to ask
Mr Yim for his view on this provision, I don't mind, but
on this issue, I think there would be another witness
who would be in a better position to provide assistance.

I understand you also want to have good progress at
this Inquiry. I would say, therefore, rather than going
into the details with this witness -- well, we might
want to wait.

MR SHIEH: To me, it is all right. You can distribute the documents first.

Actually, I did not intend to focus on how the contract was formulated because I know full well Ms Yim will be coming along. I am just asking about water tests, which have to do with Water Quality Assurance Scheme or BEAM Plus, but if you want to distribute some documents, please do so.

CHAIRMAN: Please wait.

Mr Pennicott.

MR PENNICOTT: Mr Chairman, I have listened to what Mr Ho has said on behalf of the Housing Authority. At the moment, as far as I'm aware, there is no witness statement from Theresa Yim in relation to Kai Ching.

Can Mr Ho tells us whether he is expecting serve a witness statement from Theresa Yim in relation to Kai Ching?

MR HO: If necessary, we will provide it. We will ask her to speak on BEAM requirements.

CHAIRMAN: Sometimes, we don't always need a witness statement. After listening to the evidence, if you need time to digest it, then you can take the time to digest it before asking questions.

MR HO: Well, Ms Yim will appear, and she may be commenting on contract formulation for Kai Ching.

CHAIRMAN: But this is not the focus of Mr Shieh.

MR SHIEH: This is not my focus but I was saying that if you would like to distribute documents, please do so. I was mentioning it as a preamble. I would ask very simple questions, and that is which water reports had to do with BEAM and which had to do with Water Quality Assurance Scheme and how those could be separated.

Maybe we can distribute the documents now.

DR WONG: Chairman, there will be a document on BEAM. The other one, the parameters for water test to be conducted by WSD.

CHAIRMAN: Okay. We will have the documents distributed now. (Handed).

MR SHIEH: Chairman, since the document has been distributed, I would like to take a look and digest it, to decide whether I would like to ask any questions on this document.

CHAIRMAN: Okay, then we can have an early break of 20 minutes.

(11.30 am)

(A short adjournment)

(11.53 am)

MR SHIEH: Mr Yim, just now we looked at some documents provided by the Department of Justice on BEAM. I won't ask you questions on specific paragraphs, but I do have

a few simple questions for you.

We heard about the procedures for water sampling.

Sometimes there are seven parameters, sometimes eight.

For the seven parameters, some might be related to BEAM or the Quality Water Supply Scheme, and the tests might be done at different phases. In order to facilitate the Commission of Inquiry's work, I would like to go through them one by one.

Under BEAM, under the contract for Kai Ching Estate, the BEAM requirements were mentioned. Let's not look into the BEAM requirements and see whether they are fulfilled, but rather the contract for Kai Ching Estate mentioned the WHO standards and BEAM; however, not all the contracts contain such clauses on the WHO Guidelines or BEAM.

A. Yes, not necessarily. Let me put it this way. When I said "not necessarily", what I meant was that not every item would be assessed under BEAM. However, we would strive to reach high standards under BEAM Plus.

Q. I think you misunderstood what I mean. I was referring to the contractual clauses. We looked at the preliminary specifications under the Kai Ching Estate contract with you yesterday, and in the contract it was explicitly mentioned that BEAM requirements are to be followed. Does it apply to every single contract?

A. It was an old version, the Kai Ching Estate contract.

It's been updated, so I have to look at the revised version.

Q. In terms of water quality, having read the witness statement of HA's Ada Fung, she said the contractor was required to conduct water quality test to satisfy BEAM requirements. Even though BEAM is not explicitly mentioned in the contract, it's your norm to require the contractor to satisfy these requirements; right?

A. During the assessment, that's what we would do.

Q. What did you mean by "when we conduct the assessment"?

A. When we submit the application to the Hong Kong Green Building Council for assessment, that's what we would do.

Q. If the project is submitted for assessment, you would require the contractor to fulfil the BEAM accreditation requirements. Within the industry, BEAM accreditation might be something of prestige, for instance a platinum accreditation. So if the HA wishes to submit any project to BEAM Plus for accreditation, they would require the contractors to conduct water tests in order to satisfy the BEAM requirements, and under the BEAM requirements seven parameters are tested.

A. Yes.

Q. So, of the eight parameters, two are taken away and one

additional item is added.

So the focus is how many parameters so instead of eight, it's seven.

A. Seven.

Q. So the eight parameters under the WHO, two would be taken away, including the free chlorine and heterotrophic plate count would be taken away.

A. HPC, heterotrophic plate count.

CHAIRMAN: Heterotrophic.

MR SHIEH: So these two tests would be taken away and iron test would be added, and at the end we have seven parameters. So, under BEAM, there are seven parameters. Under BEAM there are seven test parameters.

After that, you talked about the Quality Water Assurance Scheme.

A. Yes.

Q. This scheme is run by the WSD; right? It was started in 2013, as I understand.

The Quality Water Assurance Scheme is open for participation from various housing estates. So, basically, it's a competition in which awards would be given. If the HA can prove that the drinking water in its estates meets certain standards, they can submit applications to the WSD, and after the assessment, certain accreditations would be granted on the quality

of drinking water.

Under the scheme, how many parameters have to be tested? Is it seven?

A. Yes.

Q. In establishing the seven parameters, those parameters were borrowed from the Water Assurance Scheme.

Let's not think about whether those seven parameters are the same, but we are talking about the same seven parameters in the Quality Water Assurance Scheme and for the projects; right?

A. Yes, it was confirmed yesterday.

Q. So if we are talking about eight parameters, that would be for the WSD for water connection. For private laboratories, now, if they know that there are seven parameters -- either BEAM or for the Quality Water Supply Scheme; is that correct?

A. You may say so. But of course, as far as BEAM is concerned, we have to fulfil the accreditation. For Kai Ching, the seven parameters were required. So I dare not say whether they copied it. Anyway, the requirements are the seven parameters.

In another project, one more parameter -- whether one more parameter was required, I don't know, but as far as Kai Ching is concerned, seven parameters.

Q. Would there be seven or eight parameters, to be blunt or

frank, lead was not included. Whether it was seven or eight parameters, to a certain extent that might not be relevant, it's just that different lawyers have talked about seven or eight parameters, so I'd like to ascertain.

A. Lead was certainly not included.

Q. Seven parameters for the Quality Water Supply Scheme and for BEAM, it could be seven or eight parameters.

For Kai Ching, to satisfy BEAM, seven parameters were tested.

There is another category of water testing report. Bundle B5.10, page 12975.92.

Sorry, I've got it wrong. MaterialLab. Just a minute. Page 12975.197. Can you see it?

A. 12975.197.

Q. It's just taken out, MaterialLab, a private laboratory.

Eight parameters were tested; can you see it? Page 12975.197, "Test parameters", eight, and the item or the project was Kai Tak development, meaning Kai Ching project. It's from a private laboratory, testing for eight parameters.

A. Yes.

Q. So this should not be under BEAM?

A. As far as Kai Ching is concerned, it's not for BEAM, and not for the Quality Water Supply Scheme.

Q. Because if you want to join, then you could test for these parameters. Under the Quality Water Supply Scheme, it could be done at any time, but this is shortly after occupation.

A. It's 1 August 2013.

Q. Before occupation. Do you know that Ho Biu Kee is the plumbing subcontractor and it was done by a private lab?

A. We asked the contractor to do it. The contractor asked Ho Biu Kee, its subcontractor, to test the water.

Because after water connection, after the permit for water connection or certificate was granted, then the occupation permit was also granted, we wanted to ensure that before flats were handed over to tenants, we could clean and disinfect the whole system once. This is for the sake of Legionnaires' disease. Then the disinfection was done and then test was performed on the eight parameters.

Q. You did mention that it's after the occupation permit was approved, the HD would require the contractor to commission a private lab to test for the eight parameters, once again, to see whether there's any exceedance? This is nothing to do with water connection by the WSD.

A. The water connection was already completed.

Q. So it's an additional requirement by HD for quality

assurance. This is nothing to do with water connection.

Understood.

B1, pages 8 to 9.

This is HA's submission to the committee. It's a document. Please refer to page 3, "(In English) Commission of Inquiry into Excessive Lead Found in Drinking Water", and it's a document submitted by the HD to the Commission.

Please refer to page 8.

A. Okay, I can see it.

Q. Paragraph 10 at the bottom, what the HD was doing:

"(In English) Upon completion of new estates, WSD collects water samples from water collection points for testing and analysis ..."

The eight parameters. Okay, let's set it aside.

"Concurrently, we require the RCs to carry out additional water sample tests."

Can you see it? "Additional water sample tests", to serve dual purposes, two purposes:

"(In English) (i) they serve as a further test (with more samples) of the water quality standard against the parameters promulgated by WSD via its Circular Letter No. 2/2012."

It should be "2/2012".

A. Okay.

Q. So that's one of the purposes for additional water sample tests, to comply with the parameters promulgated by the WSD in its Circular Letter No. 2/2012.

So, again, the eight parameters were tested for more water samples, and that's what you said. After occupation permit was granted, you require the contractor to take more water sample tests, so eight parameters.

A. Okay.

Q. (i), the additional water samples test, is it a test -- in the paper we saw just now, the eight parameters conducted by Materialab?

A. Here, it also mentioned 2015.

Q. Yes, later, but I am talking about back then.

A. "With more samples" against the eight parameters. All right.

Q. More water samples were taken.

A. I think that's the farthest point. Additional water samples will be taken. If WSD asked us to take water samples at certain points, then at farthest points we take additional samples for the eight parameters.

Q. Well, my focus is whether it should be seven or eight parameters.

A. Eight.

Q. All right, eight parameters, that's after water

connection by the WSD, you required additional water sample tests again, for the same eight parameters?

A. Yes.

Q. To be done by a private lab, perhaps Materialab, the document I just showed you were carrying out tests against the eight parameters. That's after the OP was granted.

So, as far as you understand, after OP was granted, additional samples were taken at the farthest point and not just at the up-link but also down-link and also random samples were taken in different housing units?

A. Perhaps that could be so, depending on the project.

Q. I showed you the document, it included flat number, so it's likely that water samples would be taken horizontally.

(ii), BEAM. Seven parameters were tested for Kai Ching and usually seven for other procedures. Water sampling points to satisfy BEAM, to acquire accreditation from BEAM, seven parameters were tested for Kai Ching. Where were the water samples taken? There should be protocol set out, right?

A. According to BEAM, they have ISO 5667.

Q. So water had to be taken from the farthest point of use.

What about the Quality Water Supply Scheme?

A. Well, the tests were done afterwards, so it was our

A	<i>Annex: Realtime English Transcription based on floor / Simultaneous Interpretation</i>	A
B	Commission of Inquiry into Excess Lead Found in Drinking Water	B
	Day 09	
C	property management staff who took the samples.	C
D	Q. You were not involved. As far as BEAM is concerned,	D
E	would water samples be taken inside the units, the	E
F	housing units? Because BEAM was done before occupation.	F
G	A. I have to recall first. So I said, according to the	G
H	requirements, there was the likelihood that water was	H
I	taken within the housing units.	I
J	MR SHIEH: So, according to our paper, even for the Water	J
K	Quality Scheme, samples were taken inside the units.	K
L	I have no other questions.	L
M	CHAIRMAN: From Paul Y? Would Paul Y want to go first?	M
N	Mr McCoy?	N
O	Cross-examination by MR McCOY	O
P	(All questions from Mr McCoy were in English)	P
Q	MR McCOY: Mr Yim, am I correct that you did not attach any	Q
R	CV to your witness statement?	R
S	A. No, I didn't.	S
T	Q. Why was that?	T
U	A. Because I was not required to do so.	U
V	Q. When were you first made an authorised person under	V
	Hong Kong law?	
	A. If I remember correctly, it was in 1987.	
	Q. And you come under the architect category?	
	A. Yes.	
	Q. Which postgraduate qualifications do you have?	

A	<i>Annex: Realtime English Transcription based on floor / Simultaneous Interpretation</i>	A
B	Commission of Inquiry into Excess Lead Found in Drinking Water	B
	Day 09	
C	A. Can you please repeat?	C
	Q. Sure. Which postgraduate qualifications do you have?	
D	A. (In English) Postgraduate qualification?	D
	(Via interpreter) You are talking about now or then?	
E	Q. Now.	E
F	A. Postgraduate qualifications, academically, I stopped at	F
G	the university stage, level.	G
	Q. Are you a fellow of any professional institution?	
H	A. I am not.	H
I	Q. You are aware that Prof Anthony Cheung and Ms Ada Fung	I
J	have already given evidence in this Inquiry?	J
	A. I do.	
K	Q. Did you sit through most of their evidence?	K
L	A. Part of them.	L
	Q. Have you been able to read a transcript or summary of	
M	what they have already said to the Commission?	M
N	A. I didn't have the time to do so, but I have listened to	N
O	part of the evidence-taking.	O
	Q. Why did you do that?	
P	A. I came to listen because I have to serve as a witness as	P
Q	well, so I have to know the procedures and to know	Q
R	roughly what they have said.	R
	Q. I would ask, please, that the World Health Organization	
S	report be put up on the screen. My colleague tells me	S
T	it's in bundle G1. Page 49, please.	T
U		U
V	- 147 -	V

This is the Guidelines for Drinking-water Quality,
fourth edition. If you turn to the next page, you will
find that it is published in 2011. Do you see that?

A. (In English) Yes.

Q. I would ask you now, and the operator, please, to come
across to page XV, Roman 15, please.

Page 63, I am told. Thank you.

Do you see that, Mr Yim?

A. Page 63?

Q. Yes. If I read the introductory sentence:

"Access to safe drinking-water is essential to
health, a basic human right and a component of effective
policy for health protection."

Do you agree with that?

A. I agree to that, in principle.

Q. Please come down to the last three lines or so of the
next paragraph:

"The [United Nations] General Assembly declared the
period from 2005 to 2015 as the International Decade for
Action, 'Water for Life'. Most recently, the [United
Nations] General Assembly declared safe and clean
drinking-water and sanitation a human right essential to
the full enjoyment of life and all other ... rights."

Do you generally agree with that?

A. I agree to that in general.

A *Annex: Realtime English Transcription based on floor / Simultaneous Interpretation* A

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 09 B

C Q. Now please come down to the paragraph commencing, "The C
D World Health Organization". It's about eight lines from D
E the bottom. E

F A. I see it. F

G Q. Thank you. G

H "The WHO published three editions of the Guidelines H
I for Drinking-water Quality in 1983-1984" -- that's I
J one -- "1993-1997" -- that's two -- "and 2004" -- that's J
K three -- "as successors to previous WHO International K
L Standards for Drinking Water, published in 1958, 1963 L
M and 1971." M

N That would seem to be about six different versions N
O of WHO Guidelines for Drinking-water. That seems to be O
P about right, does it not? It seems there are about six P
Q different versions? Q

R A. It says it here. R

S Q. You can see that the WHO has been publishing this S
T international guideline since 1958, which is about T
U 15 years even before the Housing Authority came into U
V existence; you see that? V

Q A. Yes, I do. Q

R Q. It's plain that WHO has been significantly updating, and R
S if you read on it says there's a "process of rolling S
T revision, which leads to the regular publication of T
U addenda", add-ons, "that may add to or supersede U
V

information in previous volumes as well as expert reviews on key issues preparatory to the development of the Guidelines."

Do you see that?

A. Yes, I do.

Q. The summary of that really is that since 1958 there has been this ongoing updating of this international standard.

My question to you is what has been the internal process of the Housing Authority to keep up with the World Health Organization standards pertaining to water? What is the process inside the HA?

A. In the past one or two days, we mentioned that process, but I can say it again. Basically, in terms of public housing development projects, the HA, on the one hand, we update the statutory requirements, and on the other hand, we also look at the requirements and standards kept by other departments and bureaus. We have to avail ourselves to those.

Thirdly, with regard to the stakeholders in the construction industry, these would include the trade associations and also the academics and other experts.

But --

Q. What is --

A. Sorry. Please let me continue. I am talking about

these parties, but to answer your question, I would say, on these different levels and in different areas, we would look at the WHO standards and guidelines. I know they are constantly updated. To a certain extent, you can say that we are directly or indirectly related to these guidelines, but today we are talking about waterworks. As regards the drinking water quality and its impact on health, at the HA we do rely on experts and departments for help. So we will not continuously look up WHO standards and how they are updated. But of course we would look at our requirements of the industry.

CHAIRMAN: In other words, in simple terms, you are saying "no"; is that right?

A. That's correct.

MR McCOY: Mr Yim, in relation to water standards does the Housing Authority exclusively depend on being updated by the Water Supplies Department?

A. Basically, yes.

Q. So the interdepartmental process in relation to water matters for the Housing Department/Housing Authority is you wait for the specialist department, WSD, to provide you with any updates or variations?

A. Basically, yes. Certainly, as I was saying, if the industry tells us anything, we would of course pay

attention.

Q. But I was not asking about the industry at that stage.

I was asking about inter-governmental co-operation.

A. Well, of course, if you talk about health and hygiene, there would be other government departments involved as well.

Q. Yes. Now, let us assume WSD informed the Housing Department or the Housing Authority of the existence of an earlier version of the World Health Organization on drinking water. So we can take one of the ones before 2011. If that had been done, what would have happened? Would WSD have written to you, enclosing a copy of that WHO Guideline?

A. I think you have to ask them this question.

Q. I am going to. I am going to ask them.

A. (In English) Oh, okay.

(Via interpreter) But what I mean is, they would do their own assessment, they would digest the information and decide whether everything would have to be passed to each and every department. That's for them to decide.

Q. But once it does get passed -- I'm assuming now something is being passed to you, some revision or some update, so the WSD have sent something -- whereabouts in Housing Authority does it go to? Which person or unit or section is the update to water quality levels sent

to, inside HA?

A. That would depend. Actually, there are different parts of waterworks projects. It doesn't necessarily have to be a particular individual or a particular unit. It depends what subject it is. And there are different staff.

Q. But on a general water quality drinkable standard, where does it go to in the Housing Authority?

A. Well, no one in particular, because, as I was saying, we depend very much on the WSD for providing the information. You were talking about the WHO updating its information and how the information would reach the HA. I don't want to confuse the two answers.

CHAIRMAN: So, in simple terms, if tomorrow we have WHO 2015 addendum coming out tomorrow, and actually, if I want to deliver it to the HA, I don't know which department to go to; is that right?

A. Well, if you take it to the HA, it must reach the Director of Housing first.

CHAIRMAN: Ah, so we go to the department, but we don't know which individual; right?

A. Well, let me put it this way. With regard to the WHO standards on drinking water, if we have an update -- well, we actually would ask the WSD because that is the expert.

CHAIRMAN: No, that is another question.

Tomorrow, on behalf of the WHO, I will tell you I would like to lower the standard of lead content to 5 micrograms and the WHO would like to inform you about that. When it goes to the Housing Department, there is no specific unit or individual which will deal with it. It may be going from one tray to another and then we don't know where it goes to.

A. Well, let me put it this way. If it is a statutory requirement, we have a specific unit or individuals dealing with that. But if it is from other organisations, if it is an updating of information, then it depends on the subject. This is what I am trying to say.

CHAIRMAN: If tomorrow, really, I deliver something like that to the HD, who would receive it?

A. Let me put it this way. When it comes to the HD, everyone will know it, because today we are already having this Inquiry on lead content in water.

CHAIRMAN: Please continue.

MR McCOY: Of course, you are confusing us by your answer, because if it is not about lead but something else that pertains to water, who will it go to; which unit or part in the Housing Department will it go to?

CHAIRMAN: Well, it -- nobody would be receiving it, not

necessarily there would be an individual specifically.

A. But it really depends on the subject and what is being discussed. If you talk about the organisation which issues a paper -- it really depends on the subject.

MR McCOY: But if it's an advisory on a matter pertaining to health, where does it go to in the Housing Department?

How is it distributed?

A. If it is today, say, then it will be my section.

Q. Is there a research and development unit -- I may have the wrong title -- but is there some part of the Housing Department responsible for research and development, keeping up with international standards and changes? Is there any part of the Housing Department with that responsibility?

A. No. Well, yesterday I already gave the analysis. Maybe you were not here. We do not have that kind of resources to do this. But --

Q. Now I ask -- forgive me, I'm crossing -- you please answer.

A. But with regard to our core business, which is to produce public housing, our research should concentrate on the development of public housing.

But we do not have the duty -- because today we are talking about drinking water, but if we have to keep up with the world's standards, I don't think that's

something we can do. But if it's related to public housing production, any research that has to do with that will be done by the HA.

Q. So is the true position, frankly, that when it came down to water, you relied on the Water Supplies Department to tell you?

A. Basically, yes.

Q. Could you turn now to page -- it's original page 383 of the World Health Organization document, original page 383, please.

MR PENNICOTT: 73.

MR McCOY: Thank you very much. I'm told it's page 73 by Mr Pennicott, senior counsel. Yes, that's it.

Mr Yim, once the existence of the WHO 2011 standards came to your knowledge, did you read it? Have you read this before?

A. No, I haven't.

Q. If you look under the cross-heading "Lead", and if you come down eight or ten lines, it does say this:

"Lead is rarely present in tap water as a result of its dissolution from natural sources; rather, its presence is primarily from corrosive water effects on household plumbing systems containing lead in pipes, solder, fittings or the service connections to homes."

Do you see that?

A. Yes, I can see that.

Q. You have said you are reading this for the first time, and I totally accept that, but my question is this: did you have a general understanding of the concept that lead was a poisonous substance, before July 2015 -- did you have that concept?

A. Lead and its impact on health -- well, I had that concept before July.

Q. Yes. If we come down, please, to the lower part, about 75 per cent down the page, you can see the word "Occurrence":

"Concentrations in drinking-water are generally below 5 [micrograms], although much higher concentrations (above 100 [micrograms]) have been measured where lead fittings are present. The primary source of lead is from service connections and plumbing in buildings; therefore, lead should be measured at the tap."

If you just, please, turn the page and I'll get the question, you can see additional comments that the higher-risk categories are infants and children.

A. Sorry, which page?

Q. Sorry, the next page. 384 of the 74 original.

A. 384, the internal page?

Q. Yes, three lines from the top, "Additional comments":

A *Annex: Realtime English Transcription based on floor / Simultaneous Interpretation* A

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C "Infants and children are considered to be the most C
sensitive subgroups of the population."

D You have said that you had an awareness of the D
general concept that lead was poisonous. We have got
E that far already; agreed? E

F A. I already answered that. F

G Q. That's right. Now, in your witness statement, you G
specifically refer to the fact that there is a provision
H mandating lead-free solder; yes? H

I A. Yes. I

J Q. Why is that provision there? J

K A. Well, I think I had explained that in these two days, K
mainly because there is this specification, and when it
L was formulated, after using copper pipes, in 2002 we L
updated the specifications like that. That was in line
M with the British Standards. M

N Q. The reason why you have stipulated lead-free solder is N
because solder containing lead is dangerous; that's the
O real reason, correct? O

P A. Well, this is to be in line with British Standards. P

Q Q. Forget British Standards. Q

R A. (In English) Okay. R

S Q. The rationale for non-lead solder is to prevent lead S
poisoning; yes?

T A. Yes. T

U

V

Q. When did you first put into your provisions of contract the requirement that there be lead-free solder? When did it first go into the contract; do you know?

A. Well, it was asked already, but I have to check because it was a decade ago.

Q. I want to ask you some questions now, if that can be put away. Thank you.

Could we have the General Conditions of Contract put up on the screen, and that is, I believe -- I believe it's B6.1, page 12984.21.

Mr Yim, I am asking you please to first of all look at clause 42(1) of the General Conditions of Contract. Perhaps I could read it:

"All materials and workmanship shall be of the respective character, quality or kind required by the Contract and shall be subjected to such examinations, measurements or tests as the Contract Manager shall require or as ordered by the Architect or the Architect's Representative."

Now, this means that tests shall be carried out by the contractor if there is a requirement for the contractor, by the contract, to carry out such tests. And the second way is tests shall be carried out if the contract manager orders them. Do you agree that those are the two provisions?

A. This is 42(1)? Under 42(1), that is what it said.

Q. That's right.

A. And also, are you including 42(2)?

Q. I am coming right there. We are playing Chinese chess.
We will get there.

42(2), let's have a look it, at your request. It
says that the contractor shall provide all facilities
for examining and testing "any material used".

So if material has been used, it either gets tested
because it's a stipulation in the contract, and the
contractor has to test it, or it gets tested if the
contract manager ordered it; agree?

A. Yes, this is what it says here.

Q. In the same spirit, shall we move to 42(3):

"The expense of complying with requirements of
subclause (2) of this Clause, including transportation
costs, shall be borne by the Contractor in so far as the
Contract provides for examinations, measurements or
tests ..."

So we just stop there. If the contract provides
that the contractor has to carry out tests, the
financial cost is on the contractor; yes?

A. This is what it says here.

Q. That's right. But the alternative, if the contract does
not so provide, then the expense falls on the contract

manager; yes?

A. Yes.

Q. So, in short, if, as the contract for Wing Cheong never specified any tests in relation to solder, the part of the GCC which could have been engaged would have been a direction from the contract manager for such testing of solder to have been carried out; that could have been done, couldn't it? It's a "yes" or "no". It's a binary answer. It could have been done; yes?

A. Can I give something apart from a "yes" or "no"? Can I say something else?

Q. You already have!

A. According to the contractual requirements, if the contract manager or his representative issued instructions demanding the contractor to do some tests, and -- it's been said very clearly the clause, I won't repeat it, because he has read it out.

But on the other hand, under this paragraph of the contract, the clauses actually correspond to each other. So I would like to remind you that if the contractor has any suspicion on any of its subcontractors or the materials that arrive at the site -- well, the contractor is obliged to ensure that the materials are to standard, and in such case the subcontractor can carry out work accordingly.

Q. I would like to remind you that I am asking about the second option. So put aside the contractor's obligations for the moment. Analytically, put that aside. I am asking about your right, as the contract manager. You did have the right to direct the contractor to carry out tests on the solder; you had that right, did you not?

A. Yes.

Q. Correct. Now, as that test was not prescribed in the contract, the issue that follows is who is going to pay for that test, and if you had directed the contractor to carry out the test, that would have become a variation of the contract, and you, the contract manager, would have been liable for that cost; do you agree?

A. There's actually another possible scenario. During the construction phase, if we find that some materials or procedures are not up to contract standards, then the contractor has to perform rectification works, and alternatively substandard materials have to be replaced. In this case, the contractor has to pay for the tests. There are different procedures under different scenarios.

Q. That wasn't my question. Just answer my question because I'm sure you have come here to co-operate with the Commission of Inquiry.

My question was, as it's not provided for in the contract, and if you require the contractor to carry out the test, it becomes a variation under clause 61 of the contract.

MR HO: Chairman, I think arguing over contractual provisions with the witness is inappropriate. The witness has told Mr McCoy that under clause 42(3) of the contract the cost would be borne by the contractor.

So if he continues to question the witness on his understanding of the clause, then we might be able to do so in the final statements. We are not supposed to argue the understanding from the witness of the contract. His understanding might not be correct.

INTERPRETER: Apologies, the speaker is not coming through.

CHAIRMAN: I think you can be more direct. I think the questioning can be more direct. If the question is a direct one that refers to a specific possible mistake by the witness, it's acceptable.

MR SHIEH: I agree. You don't have to lay out your lines of questioning. You can just ask simple questions on whether he agrees or disagrees, and you can put something to the witness, and let's see if he agrees. Otherwise, by the same logic, we will still have a lot of engineers; we would waste three or four hours every time, or even beyond three to four hours.

CHAIRMAN: My view is that fairly oftentimes, the questions and answers are too obvious, and in those cases, then you can simply put forward a proposition to see whether the witness agrees or not. So please be direct.

I wouldn't say you have to answer "yes" or "no", but if that's possible then, Mr Yim, that's beneficial as well. I am not stopping you from giving additional comments, but for questions that can be answered by a "yes" or "no", by all means, please do so.

So please point it out directly.

MR McCOY: Mr Yim, I will just make the point one more time.

I suggest to you that if you, as the contract manager, require a test to be performed by the contractor, which is not specifically a requirement of the contract, and the contractor carries it out, the cost of that test is a cost to the contract manager. Do you agree?

A. (In English) Agree.

CHAIRMAN: The police love saying, "I don't agree".

Please continue.

MR McCOY: Mr Yim, in your witness statement, the expression "authorised person" never appears; do you agree? If you wrote it, you probably can recall that.

A. Yes.

Q. All right. Why is that?

A. Under the Housing Authority, we are a public body. We

are responsible for developing public housing, and these developments are exempted from the relevant Ordinance, and the title of authorised person came from the Buildings Ordinance. So, in the entire development, since we are exempted from the Buildings Ordinance, we are not exempted from the Waterworks Ordinance and the Waterworks Regulations.

So, in my witness statement, the focus was on waterworks, and as such we were not carrying out the role of an authorised person. As we mentioned yesterday, on the Development Bureau's website, the additional guidelines are listed, and according to the guidelines, the HA projects -- in our projects, the HA is allowed to use contract managers to deal with the forms issued by the WSD.

Q. You signed as the authorised person, though. That's a fact, isn't it?

A. On the form, the same form is used for private sector developments and public housing developments under the HA, or government projects. So, in filling out the same form, as I said, as a general practice, for HA's projects, the contract manager or our representatives would sign in the column "AP", under the column "AP". However, we do not sign the form as an authorised person.

Q. So you sign underneath or above the words "Authorised person", but you are not signing as an authorised person, on the waterworks forms?

A. Correct.

Q. When you have to certify under the waterworks forms jointly with the licensed plumber, does the person who signs as AP ever personally communicate or talk to that licensed plumber?

A. Well, we covered that yesterday. When the form was signed, in terms of communication, any staff who signs the form, if the signature of the licensed plumber is already there, then we have to consider what kind of form it is. If it's WWO form 46 part I, we would require a signature from the licensed plumber, and after that our staff or the contract manager would sign, and we are supposed to be aware of the content of the document before we sign.

However, our staff would sign under the column "AP" but they do not sign as the AP. That's the normal practice, accepted by the WSD.

Q. Yes, but your relevant staff member is signing to certify, obviously, that the document is true and correct?

A. It depends on -- the statement, the form is concerned with -- for WWO46 part IV, our colleagues would sign on

for the part, position for meters' correctness.

Q. But the whole point of signing is lending your
authority, by agreeing to the contents of the form?

That's why you sign it?

CHAIRMAN: I think, Mr McCoy, you don't have to ask this
kind of question -- it's rather straightforward -- or
else we would never end. If a signature is put down,
then it shows that the content is verified. I can't
think of any other purpose of having a signature.

MR McCOY: Yesterday, Mr Pennicott, senior counsel, asked
some questions dealing with the WHO reference inside the
contract that pertained to his client, China State.

A. Can you repeat that, please?

Q. Yes. Yesterday, Mr Pennicott asked you some questions
about the WHO reference, in the contractual provisions,
that applied to China State.

A. Was that about HK-BEAM?

Q. That's right.

A. Yes.

Q. Exactly, yes.

A. Yes.

Q. Do you know when that type of provision was first ever
put into a Hong Kong contract?

A. (In English) Hong Kong contract?

Q. Sorry, HA contract, forgive me; an HA contract.

A. Do you mean that the provisions were first introduced for Kai Ching Estate?

Q. Yes.

A. You mean whether the clauses were first introduced in Kai Ching Estate? I have to check that.

Q. What is the process by which a special or new contractual clause is evolved and finally ends up in the contract? What's the process, within the Housing Authority, for the evolution of such a contractual clause?

A. You mean the process in which the clause was introduced in the contract? Well, again, we would look at the big picture. Every two years, we would update the specifications in the library, and during the updating, as I mentioned, updates in the law or updates in the requirements by government departments, or new information from the trade or our stakeholders, comments from our tenants or residents -- we would consider all these, before coming up with a holistic update of the specifications.

For specific clauses, we might update them from time to time, for example in contingency situations. But in terms of procedure, as I said, we would conduct a complete review every two years.

Q. In relation to Wing Cheong Estate --

A. Yes.

Q. -- with your position as contract manager, about how many times did you actually go onto the site?

A. I can't recall. As I said these three days, we had a number of sites at that time, and the incident -- it was two or three years ago. I can only say that I would visit the site when the need arises. Me, myself and my representatives or the CMRs would make site visits when necessary. Of course it includes the surveyors, building services engineers, and so on.

So we would visit the site when the need arises.

MR McCOY: If that's a good time, sir? I am trying to compact or reduce what's left.

CHAIRMAN: (In English) Thank you.

(Via interpreter) Yes, let's take a lunch break and we will resume at 2.30. Thank you.

(12.59 pm)

(The luncheon adjournment)

(2.31 pm)

DISCUSSION ABOUT EXPERT EVIDENCE

MR SHIEH: Chairman, Commissioner, before we start the questions for the afternoon, I would like to report to you the progress of our expert witnesses.

The Commission appointed Prof Fawell and Prof Lee as expert witnesses. They had a meeting in the last week.

Prof Fawell was in Hong Kong and he had numerous meetings and discussion with Prof Lee.

After initial discussion, the two of them would have to do more before they could submit a report in answer to questions posed by the Commission. After the meeting, the two experts felt that there was an initial view that they felt must be reported to the Commission, and they have filed an initial paper which is in file V1.

Since it is not long, I would like to take you through it.

Parties concerned have been asking when expert reports would be available, and I have said that once we have it, I will inform you as soon as possible. We should see on the screen the V1 bundle. Later on, we will have the hard copies and these will also be loaded onto the website of the Commission.

Page 1 of V1. This is the joint expert report. As you can see, this is an initial joint witness report filed by Prof Fawell and Prof Lee. A lot of the report is on the CV of the two experts, but then let us go to page 6.

The preliminary opinion is such that they feel they should report to the Commission at this stage. This is about taking water samples for testing whether there is

C lead content, and the correct steps to be taken. I can
D say simply that the joint opinion of the experts is that
E how we should take water samples to decide whether there
F is lead present in the pipework or fittings of the
G drinking water system, they say this is a very important
H procedure, especially when drinking water comes into
I contact with lead-containing components.

J Now, the contact time is a very important, key
K factor in determining lead concentration in drinking
L water. In fact, a number of authorities suggest fixed
M stagnation periods before withdrawing samples, while
N others, there are other authorities that propose
O first-draw samples, meaning when you switch on the tap
P in the morning.

Q The two experts invoked ISO 5667-5 on sampling
R techniques of drinking water, and the relevant part of
S ISO 5667-5 says that if the objective is to see whether
T there are materials that can affect the quality of
U water, then you should go for initial draw-off, that is
V the water that comes out of the tap in the morning.

They also say samples may also be taken after
a specified period of stagnation. So, another sample
can be taken after a stagnation period, to decide on the
rate at which materials affect the quality. And the two
experts invoked UK standards as well as the US EPA

standards, and also standards used in Japan. They also say that it should be first-draw samples.

For England, it is the first litre of tap drawn from the tap, without flushing. In the US, also 1 litre first-draw samples, so as to indicate the level of exposure to lead and copper. In Japan, the requirement is to first flush for five minutes and then take a sample for analysis after 15 minutes' stagnation -- for Japan, to take the first sample for five minutes and then to take another sample after 15 minutes.

The two experts are of the view that fully flushed samples on their own may serve the purpose of assessing the general quality of drinking water as supplied, but will not give a representative assessment of the concentration of lead or other metals from the internal distribution system to which the consumer is exposed.

Based on the above, the joint expert opinion is that data from fully flushed samples are not likely to be representative of the extent of lead exposure.

So that is the joint expert opinion on the procedure to take water samples for testing. As I said, the two experts would very much like to report their initial opinion to the Commission at this stage, and the legal team also feel that after getting the report, we should publish it for the information of all parties. Maybe

they want to take actions accordingly, say for example whether they would like to file their own expert report.

This is a report from the experts commissioned by the Inquiry, but of course we can also decide whether it should be accepted, and then we are giving the opportunity to other parties to consider whether they would like to file their own expert reports, and after reading this report, they may want to decide on the procedures they would like to follow to take water samples for testing.

In view of the fact that there is a lot of heated discussion in society, and that is when we need to take water samples to decide whether the pipework or the fittings contain lead, whether it should be the first draw or whether it should be flushing after five minutes, et cetera -- there has been such discussion in society, therefore we think this initial report should be published.

The two experts will continue to work, obviously, and submit a final report. According to their terms of reference and instructions, they have to do a lot more, not just this one.

When we have the final report, we will submit it to the Commission and distribute it to relevant parties.

Thank you.

MR McCOY: I have no more questions for Mr Yim.

WITNESS: Thank you.

CHAIRMAN: Is there anyone else who would like to ask
a question?

Okay, you have a go first.

Cross-examination by DR WONG

DR WONG: I have only a few questions.

Mr Yim, this morning I showed you a document from
BEAM. Let me get it first. This is the right version.
This is the latest version. Go to page 2, please. You
will see 5.1. At 5.1 it says "Water quality".

I will show you that paragraph, but before that,
please go to page 5-3.

Please can we go to that page. Yes, this page.
5.1.1, "Water quality"; can you see that?

A. Yes, I do.

Q. The objective:

(In English) "Ensure that the quality of potable
water delivered to building users is satisfactory."

That is the objective.

A. Yes.

Q. The credits attainable, there is the figure 2. You
understand that; right? Grade 2. The prerequisites
are:

(In English) "Buildings shall comply with the

C Waterworks Ordinance ... and the Waterworks Regulations
D ... the Hong Kong Waterworks Standard Requirements for
E Plumbing Installation in Building, and relevant Water
F Supplies Department Circular Letters issued to Licensed
G Plumbers and Authorised Persons."

F Do you see that?

G Then "Credit requirement". There are two:

H (In English) "a) Fresh water plumbing.

I 1) credit will be given where fresh water plumbing
J installations comply with the referenced good practice
K guides."

L If you can comply with that, you have one credit.

K Secondly, "Water quality survey"; again:

L (In English) "1 credit for demonstrating that the
M quality of potable water meets the referenced drinking
N water quality standards at all points of use."

N A. Yes.

O Q. Then let us look at the assessment. There are (a) and
P (b), telling you how those two credits can be obtained.

P "Fresh water plumbing". It says:

Q (In English) "The client shall submit a report by
R a suitably qualified person confirming that the plumbing
S installations comply with all the requirements set down
T by the Water Supplies Department that are applicable to
U the particular installations in the building ..."

So you should comply with the WSD requirements; is that right?

A. Yes.

Q. Then (b), "Water quality survey". This has nothing to do with WSD requirements. It says:

(In English) "The client shall provide details of the analysis of samples taken from a selection of potable water outlets used to supply human consumption. Sampling should be systematic, such as described in ISO 5667, but as a minimum samples shall be taken at all the furthest point(s) of delivery from the storage tank, and shall include sampling for each water supply tank used in the building."

And the last sentence:

(In English) "If water quality at all sample points meets with the World Health Organization guidelines the credit shall be awarded."

In other words, if you want this credit, you have to meet the WHO Guideline about drinking water quality; you agree?

A. It is written like that here.

Q. There is a footnote, footnote 4. You can see the words, "World Health Organization. Guidelines for Drinking-water Quality. Volume 1", and there's a website. There's an address here where you can

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C download the WHO Guidelines for Drinking-water. C

D A. Yes. D

E Q. Please turn over to the next page. Under the heading E

F "Supply quality", it says: F

G (In English) "According to WSD Hong Kong's water is G

H of the safest quality and among the best in the world. H

I However, it is affected in some instances by the I

J inadequate maintenance of internal plumbing systems J

K before it reaches customers' taps and this can cause K

L discolouration of the water. To strengthen public L

M confidence in drinking water from their taps, WSD M

N launched the voluntary Fresh Water Plumbing Quality N

O Maintenance Recognition Scheme. This scheme aims to O

P give recognition to responsible building owners or their P

Q agents for proper maintenance of their internal plumbing Q

R systems." R

S You understand this point; right? There's S

T a voluntary fresh water maintenance scheme, and the T

U scheme encourages responsible landlords to maintain and U

V clean their internal plumbing system; are you aware of V

that? V

A. Yes. V

Q. And do you agree that the safety of drinking water in

plumbing systems is the responsibility of the landlord?

A. Yes, of course, safety is important. As I mentioned

yesterday, our contractor was responsible for building the system and they have to maintain it as well.

Of course, we do have our responsibility too, and we would rely on the help of experts from other departments. So we would have to work together, and regulations would be updated. So these are the work we would have to do.

Q. Please turn to page 5-1, the section on water quality, the second page. Excuse me, it should be the third page. Under "Background" of water quality, it says:

(In English) "In Hong Kong the WSD controls water quality, such as taste, odour, hardness, sediment, pH, the quantity of dissolve iron, et cetera, in order to provide water that meets the Guidelines for Drinking-water Quality recommended by the World Health Organization. Samples are taken at treatment works, service reservoirs, consumer taps and analysed at site and at WSD's laboratories."

You said you rely on the advice given by the WSD, and there is a footnote, footnote 2. Footnote 2 points to the annual report of the Water Supplies Department. Have you seen -- have you read WSD's annual report? If you said you rely on the testing parameters set out by the WSD, have you read the annual report?

A. No, I haven't.

Q. I showed you two documents earlier. One is the WSD's annual report 2002-2003. According to the report, the WSD carried out some tests per WHO Guidelines on waterworks facilities. When you look at page 1, testing for lead was included. Are you aware that the WSD had done tests on lead for their plumbing systems?

A. As I said, I haven't read this annual report before, so I do not know.

Q. The final topic, the final area. Please turn to the annex of your witness statement, item 359, page 38279.

We saw this form before. In the middle of the page, under part 2, the box for Kai Ching Estate was not checked. It says, "Purpose for submission", there is a tick under that heading; do you see that?

A. Yes.

Q. It says the plumbing and fittings to be installed, et cetera, on the attached annex to this form, and it was not listed, as prescribed by the Waterworks Regulations.

CHAIRMAN: Hold on a minute. Which part are you referring to?

DR WONG: Under "Purpose of submission", there's a checked box.

CHAIRMAN: Yes.

DR WONG: So my question is, as far as you know, who checked

that box? Was it checked by the AP or the LP?

A. I don't know. For this form, as chief architect,

I understand that this is form 1, part 1. Right? At

that time, it was submitted already, and I do not know

who checked that box.

Q. This is not your signature; right? The AP signature is

not yours.

Lim Chi Kwong, do you know this person?

A. Yes, Mr Lim.

Q. Is he your colleague -- was he your colleague?

A. Yes, he was an architect for the project.

DR WONG: Thank you.

CHAIRMAN: Any other questions? If not, Mr Ho, please.

Re-examination by MR HO

MR HO: Thank you, Chairman.

Mr Yim.

INTERPRETER: Apologies, the speaker is not coming through.

MR HO: Please turn to K1 in the bundle. This morning, we

looked at page 745, but let us revisit those pages.

Page 745, at the bottom corner. This is a delivery

note. Apparently, the supplier, Prosperity Building

Ltd, delivered some parts of the contractor. Do you see

the name of the contractor?

A. The name of the contractor?

Q. In other words, the company who received the delivery.

Can you read out the party that received the delivery?

A. Chan Siu Wah, on behalf of Ho Biu Kee; right?

Q. Yes.

Let us look at page 746. Similarly, Prosperity delivered some goods to Ho Biu Kee.

For 747, it's the same. For 748, it's probably the same as well.

We see a number of delivery notes from Prosperity Building Materials Co Ltd to Ho Biu Kee.

A. Yes.

Q. Please look at page 745. These materials were delivered from Prosperity to Ho Biu Kee. In the notes, there seem to be some unleaded solder strips, and so on. As

I understand, from your witness statement, the HA would not look at or inspect these items; right?

A. Yes.

Q. So would these delivery notes be submitted to the HA?

A. No, no, they wouldn't.

Q. Apparently, the receiving party was Ho Biu Kee. Do you know if Ho Biu Kee would show these delivery notes to China Construction?

A. No, we don't know.

Q. But these would not be shown to the HA or its staff; right?

A. Even if they show us these documents, it would be done

through China Construction.

Q. So the HA would inspect all the items but you would not inspect these items like solder strips, soldering wires, and so on? Would these be vetted by the HA?

A. No.

Q. For B6.4/15354 -- let us look at one or two of these documents. For 15354, 15355 as well, and 15356, these are delivery notes for soldering wires and colophony soldering paste, and so on. Do you see that?

A. Yes, I see that.

Q. Who was the receiving party?

A. The receiving party, it was Golden Day Construction Ltd.

Q. In other words, the subcontractor for plumbing works?

A. Yes.

Q. Would these delivery works be submitted to the HA?

A. No, they wouldn't.

Q. Just now, we asked certain questions. Since this Commission of Inquiry is about water, we understand that -- and in February 2012, January 2015, we have seen multiple circulars.

I believe you would agree that apart from the WSD, other government documents might issue circulars with regard to building works. For example, the Architectural Services Department, the Buildings Department.

COMMISSIONER LAI: The Buildings Department.

MR HO: The EMSD, Fire Services Department. I believe that multiple government departments might issue different circulars; right?

A. Yes.

Q. Generally speaking, under the purview of a specific department, if they wish to issue instructions on certain building works -- for example, issuing guidelines to the industry or industries -- would they issue such circulars?

A. I think, if there are departments that have to enforce requirements or standards, yes, that is what they would do.

Q. Today, the chairman also asked you if certain things are to be delivered to the HA, say for example we have a WSD circular, supposing we are looking at the circular No. 1 of 2015, who in the HA would receive it? Is it that no one would receive it, or would it just be anyone at the door or at the lobby or the reception of the HA? Maybe the Commission will also be interested to know how that will be delivered.

A. Well, I think I should say this. Different departments would issue circular letters, but as I said, this has something to do with our practice. The BD has their own practice notes and other departments have their

circulars. Under the present mechanism, before they issue such documents, they would inform other stakeholders, including government departments, who would sit down together and discuss it. This is before issuance of documents. This is a good way to collect views.

That's why I said there are different departments. You mentioned the EMSD. They would look at the engineering side. Then that should go to the building services engineering section of the HA. If it is about structure, in fact the BD also issues different circulars. If it is about structural things or building works, as I said this morning, this has to do with the subject matter. If it is about the building works or structure, then of course that will go to the structural engineering section. If it is architectural or building works, then it will come to my side.

This is how the labour is divided. That is why this morning I always mentioned stream or subject matter.

Q. Therefore, it depends which department issues what kind of guideline or circular letter, and then at the HA, that will go to the section or unit that has to know about such?

A. Well, yes, the section or unit that will be most familiar with the subject, and then it will be up to

those colleagues that have received the documents to further distribute it.

Q. Would it be like this, like the WSD -- let me just pick a circular letter issued in 2015.

We may be able to get this document from many files, but I am looking at B15.1/37618. I think we know this document very well. 15.1.

15.1 -- if you can find it at any other place --

A. It's all right, never mind. But is it a circular letter from the WSD?

Q. Yes, it is indeed No. 1/2015.

A. Issued on 13 July.

Q. Yes.

A. It doesn't matter. Please continue.

Q. Here, it says, "Distribution: To all licensed plumbers and authorised persons."

A. Yes.

Q. That is -- then the content of the circular, then cc Housing Department, Buildings Department, Architectural Services Department and a whole series of government departments, including the Real Estate Development Association of Hong Kong. This association represents many developers in Hong Kong.

A. I understand.

Q. Okay. It goes to the Housing Department, so this

circular will go to the director first?

A. Please scroll up to an earlier part of the circular.

This circular is issued to licensed plumbers and authorised persons. When it comes to our department, basically WSD Circular Letters will come to me and another chief engineer, who will also be a witness, because these circulars have to do with the engineering side of things; they also relate to my work. So the two of us will deal with them. But it doesn't mean they do not relate to other colleagues.

Q. I understand. Okay. We see this is No. 1 of 2015. It talks about heavy metals.

A. Yes, the four heavy metals.

Q. Right. If, just for example, the WHO standards will say there are standards for drinking water, before the issue of this circular, did the WSD tell you about WHO standards of the same kind?

A. No, I was not told before the circular was issued.

CHAIRMAN: So what you mean is you have never received information from the WSD about heavy metals, about water tests?

A. And also the water quality. There was not circular letter on these matters.

MR HO: Okay. Let us look back at the eight parameters of 2012.

CHAIRMAN: I would like to ask this question. Now that with 1/2015, you know that you also have to test for the presence of the four metals -- earlier on, counsel also took us to look at those four metals. It was not said that copper has also to be tested. Actually, copper is also subject to a certain standard that should not be exceeded.

A. Well, I understand. Let me put it this way. After July, there was internal discussion, and to a certain extent we knew more. We lacked the awareness, but now we know more the WHO information. Apart from the four metals, you are right, Chairman, there is also copper and other materials that may have an impact on health. But we dare not pioneer such tests. We do not have the expertise to do these tests. That is why we need to also trust the Water Authority. We need the guidance of the WA, to let us know the impact on health that may be brought about by the presence of metal in water, not just heavy metal. We would like to be guided by the WA to this extent.

CHAIRMAN: Actually, you don't have to rely on the WSD, because there are actually WHO standards for copper, and the components that make up the plumbing system, from copper pipes to connecting to the WSD system, you first use ductile iron pipes for the up-feed system, and then

you used copper for bringing water down.

So, to a certain extent, in the inside surface, the metals that may come into contact with drinking water should be well known to you.

A. Yes, I know that well.

CHAIRMAN: You do not rely on the WSD to do water test, because you can do it through private laboratories because they also know how to test water?

A. Sorry, Chairman, I understand that, but let me talk about copper pipes first, since you mentioned it.

The WA is a gatekeeper.

CHAIRMAN: No, the Water Authority is not a gatekeeper. He will only do it up to the lot boundary. His position is that "whatever goes beyond the lot boundary has nothing to do with me; please do not blame me for that."

MR HO: Well, this is what is said.

CHAIRMAN: Well, this is what is said.

MR HO: Whether it is correct should be decided by the chairman.

CHAIRMAN: Well, why I am asking you like this, because all the components of the plumbing system are in PLU1.

Actually, you never test anything under PLU1, meaning people give you the certificate and you think it's okay. Whether the materials are problematic, you never test them; right? Since you never test them, how

can you know that they are in compliance with the standards? Well, people say there are British Standards. Let us talk about testing for copper. You know the piping is so long. Say I live in the lowest floor and I don't know how long the piping would have been before water reaches my unit.

About copper, you can see the WHO standards here. Why do you have to wait for them? You can do it yourselves. This is just common sense.

A. Well, no, the WSD should know this better than us. But chairman, let me supplement in response. Why is it that we did not look at copper pipes? Because the copper pipes and other components that we use are not rare materials. They have been used for many years. In the industry, copper pipes have been used by the industry, not to talk about HA. HA started to do that in 2002 to 2005. But in the market, in the local market, a lot of development projects have used copper pipes and the valves which are very ordinary items. Since we have used them for so many years, we rely on experience. The entire society was using it and we looked at the functional performance. If there were incidents relating to health or hygiene, if there was a problem, the problem would have surfaced, because those materials have been used for a long time, and the Water Authority

is regarded by us as an expert. But we are the professional team, only responsible for building and development.

Because of those two reasons, my view is that we wouldn't have the motive to look very deep into copper pipes and how they can comply with WHO standards.

CHAIRMAN: Well, I understand copper may have been used for many years and no problem has surfaced, but there may be many manufacturers turning out copper piping. Some would comply with British Standards, so not so much lead would be leached out into the water, but you never know.

Basically, what you do now is that, supposing -- apart from the four heavy metals, you are not doing any tests, for quality water supply you also test the presence of iron. Why iron?

A. We were afraid there may be rust. I guess.

CHAIRMAN: Well, I think we may guess it; right?

A. (Chinese spoken).

MR HO: (Chinese spoken).

CHAIRMAN: (Chinese spoken).

Why is that? Because you are the chief architect. You are responsible for plumbing works during the development of the project. So you cannot say that "I don't know anything and I rely on other people."

A. No, no, no, it's not that I don't know anything.

CHAIRMAN: Okay. Coming back, I ask you this. Why do you test the presence of iron for the sake of giving quality water supply? If the ductile iron pipes all fulfil British Standards, you did not have to do any tests. There wouldn't be any iron.

MR HO: Chairman, I believe you asked this question. We will have the Director of Water Supplies soon. The director will answer this question.

CHAIRMAN: Of course, I will certainly ask the director this question, even if you won't, so please be reassured. Don't be overprotective of him that soon.

MR HO: (Chinese spoken).

CHAIRMAN: Do you see what I mean?

Sometimes the answer is very obvious and you wouldn't need to ask the types of metals that would come into contact with the drinking water. I think you know the answer already. You won't have to build a lab for yourselves, you just have to commission some lab to do it.

A. If we are to carry out testing, we have to do a lot of tests. We need experts to tell us what to do because it will become a research project.

CHAIRMAN: You can carry out a lot of tests, of course.

Under the WHO Guidelines there are a lot of parameters.

A. Yes, I see them.

MR HO: Chairman, I would like to ask a question.

CHAIRMAN: I really want to ask this question now.

I'm not an expert in water. I'm not an expert in anything. I'm just asking this question from a common sense point of view.

As a father, the WSD said our drinking water is completely safe. If anything goes wrong, it's because of the plumbing system. So why don't we carry out tests so that we know the metals, the types of metals that come into contact with the drinking water. This is no rocket science, what we need to test.

A. If we are to test each and every material, of course this would be ideal. But in my statement, we use a lot of materials right now in our projects.

CHAIRMAN: Well, you might have used a lot of materials but the service system or the outlet might not contain a lot of materials.

A. We have to look at the entire system during 2003. For the SARS incident, it was another big incident and for our water discharge system -- was not directly in contact with the human body, but from our experience --

CHAIRMAN: Well, that's an airborne disease. That's different. SARS is an airborne disease.

A. I just want to illustrate that drinking water is not the only thing we should be concerned about. We have to

think about our discharge system, ventilation system and so on. We can study a lot of issues.

MR HO: Chairman, what I was saying is that this is the fourth edition of WHO's guidelines on drinking water quality. For this document alone, this is a very thick pile of documents. There is a lot of information inside. This Commission deals with lead content. So we have been looking at the same two or three paragraphs on lead content. However, this paper says a lot on drinking water quality. Even the content itself is extremely long.

CHAIRMAN: So that's why I didn't ask him to test everything. Only copper, I only mentioned copper, nothing else. Why didn't they test for copper?

MR HO: We need experts or people familiar with the field to tell us the areas we need to pay attention to.

CHAIRMAN: Excuse me -- well, when you look at the latest circular letter 1/2015, copper testing was not mentioned. That's why I was just curious. Especially yourselves, you use a lot of copper parts and you never test the copper components when they arrive. You don't test the copper pipes.

A. That's the trade norm.

CHAIRMAN: Well, trade practice is another issue. Private developers might have a lot of people who check the

copper pipes that are delivered, and they would check -- they would do so for the sake of cost audits. I hate to say this but a lot of people are taking advantage of the government in a lot of projects. I am not referring to you.

A. We are not a government developer, so to speak.

MR HO: The HA is not a government department.

CHAIRMAN: But the Housing Department is.

MR HO: It doesn't matter.

CHAIRMAN: I hope you understand what I mean.

I still don't understand the logic. You don't have to rely on them. This is no rocket science. You don't have to rely on the WSD.

A. No, they do have a lot of experts. They have chemists and staff with a lot of experience.

CHAIRMAN: Of course, it's good that they provide you with additional information, but you don't have to rely on them sometimes. If you send your kid to a particular school, you don't need the Education Bureau to tell you which school to send your child to; right? As a parent, you know what is good for your child.

A. Apart from the Water Authority, we have looked at the copper pipes commonly used in the trade and we also considered the residents. Down the years, we have received feedback from the users themselves, and this

includes hygiene and health. I acknowledge that we still lack awareness, but once we receive feedback from residents that there are health issues or hazards, we would certainly tackle them.

But the majority of the comments seem to be on performance. For example, bursting of pipes, water seepage and so on, these are issues -- these are the most common issues.

I understand that the Water Authority is one thing but we will deal with other areas as well.

CHAIRMAN: In some cases -- well, for instance, some schools reported food poisoning for their students after consuming certain -- after lunch. It might be because of bacteria in the drinking water instead of bacteria in the food; right?

A. (Nodded head).

CHAIRMAN: So you cannot just say you don't know what is going on and you cannot just wait for feedback before you act. For most residents, you are right that even before this Commission, I would not look at page 4 of the WHO Guidelines.

But the problem is you cannot say that they only focus on -- their comments were on performance, so --

A. No, no, no, that's not what I meant. Feedbacks are one thing, but the WSD is an expert in waterworks. We would

look at other areas. Of course, we are not absolved of blame. We acknowledge that we lack awareness and there's room for improvement.

CHAIRMAN: Please go on.

MR HO: Thank you, Chairman.

Now let's go back to the WHO Guidelines for Drinking-water Quality, page 4. Even though we are focusing on lead, there are multiple paragraphs on lead, even if we just focus on one of the items, which is lead, I understand you have not read this before -- it doesn't matter.

Can you turn to page 383, in bundle C2, page 1446. The page number on yours might be different. The document is on page 383. The bundle page number is C2/1446.

A. Yes, I see that.

Q. I'm not trying to test how much you know. By just looking at this text, one of the paragraphs is called "Lead"?

A. Yes, on the right.

Q. This morning, we read out part of that text. I would like you to look at seven to eight lines above the table. It says:

"Lead is rarely present in tap water as a result of its dissolution from natural sources ..."

A. Which line are we looking at?

Q. Above the table, in the middle of the paragraph, "Lead is rarely" --

A. Yes, I see that.

Q. (In English) "... rather, its presence is primarily from corrosive water effects on household plumbing systems containing lead in pipes, solder, fittings or the service connections to homes."

I think we read this part out already this morning.

And the ensuing lines:

(In English) "The amount of lead dissolved from the plumbing system depends on several factors, including pH, temperature, water hardness and standing time of the water, with soft, acidic water being the most plumbosolvent."

This line suggests the actual amount of lead dissolved, and there are different factors including pH, temperature, whether the water is stagnant, the standing time of the water, the water hardness. In other words, soft water or hard water. Even for lead, we are looking at a number of factors that could affect the amount of lead dissolved. Even if we use a microscope, there are a lot of factors we have to look at.

So are you in the best position, as an expert, to determine the pH, softness, hardness of the drinking

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	Day 09	
C	water in Hong Kong? Are you an expert in this field?	C
	A. Absolutely not.	
D	Q. You are not?	D
	A. No.	
E	Q. What about the HA?	E
	A. I believe the HA isn't either.	
F	Q. Now let me ask you another question. Yesterday, we	F
G	talked about BEAM or BEAM Plus. We talked about this	G
H	certification. As Mr Shieh mentioned this morning, it	H
I	was an additional accreditation, to acknowledge the	I
J	project as a green building project. It is an extra	J
	accreditation; right?	
K	A. Yes.	K
L	Q. I would like to see if you know that when you apply for	L
	such accreditation, do you hire consultants?	
M	A. Yes.	M
N	Q. For Kai Ching Estate -- you applied for accreditation	N
	for Kai Ching Estate and you secured it eventually?	
O	A. Yes, we did hire a consultant.	O
P	Q. Did the consultant tell you the standards on drinking	P
	water quality?	
Q	A. No. Let me put it this way. As you know, we mainly	Q
R	look at the assessment criteria and the usual practices.	R
S	As counsel for WSD has led me to look at, in the	S
T	provisions, the WHO is mentioned a few times. That may	T
U		U
V	- 198 -	V

be the case. But our consultant or BEAM Society or HKGBC, that is Green Building Council, will also do their own assessment. Yes, the WHO Guidelines are there, but when water is actually tested, they will do chemical and bacteriological analysis, but not heavy metals.

In other words, when we seek accreditation, we will do the tests required by the organisation concerned. Basically, we would go for the criteria for testing quality water supply.

MR HO: I have no other questions. Thank you.

CHAIRMAN: No more questions, right?

Thank you very much, Mr Yim. You may be excused.

Let us take a break for ten minutes.

(3.32 pm)

(A short adjournment)

(3.48 pm)

MR YIN: Chairman, the second witness from the HA would be Mr Ng Tat Kwan. As I understand, each witness would finish giving evidence for a specific estate, but we would still base our discussions on Kai Ching Estate. So Mr Ng will give evidence as the chief building services engineer of Kai Ching Estate. After that, we have phases 2 and 4 of Un Chau Estate.

I understand that the written witness statements

C from our witnesses arrive in batches, so on phases 2
D and 4 of Un Chau Estate, from Mr Ng Tat Kwan, it was
E only available this morning and they haven't been
F included in the bundle. But we do have a copy -- we
G have submitted it.

F As with Mr Yim, let's look at Kai Ching Estate
G first, before we deal with other estates.

H CHAIRMAN: Let's invite Mr Ng Tat Kwan in, please. H

I MR NG TAT KWAN (affirmed) I

J (Evidence in relation to Kai Ching Estate) J

K Examination-in-chief by MR YIN K

L MR YIN: Mr Ng, I would read out your witness statement
M first. M

N (In English) This is the witness statement of Mr Ng
O Tat Kwan, who is the chief building services engineer
P for Kai Ching Estate. P

Q (Paragraphs 1 to 53 were read in English) Q

R Mr Ng, your witness statement having been read out,
S would you like to amend anything? Would you accept this
T as your witness statement? T

U A. Yes. U

V MR KHAW: Since time is limited, I might not have a lot of
time with Mr Ng, so perhaps we can leave it to Monday.

CHAIRMAN: Let's continue on Monday. 10 am on Monday we
shall continue.

A *Annex: Realtime English Transcription based on floor / Simultaneous Interpretation* **A**

B Commission of Inquiry into Day 09 **B**
Excess Lead Found in Drinking Water

C MR SHIEH: The media asked about the expert report and **C**
whether it would be uploaded to the COI's website. As

D I understand it, it will be uploaded soon after the **D**
conclusion of today's hearing.

E (4.25 pm) **E**

F (The hearing adjourned until 10.00 am **F**
on Monday, 16 November 2015)

G **G**

H **H**

I **I**

J **J**

K **K**

L **L**

M **M**

N **N**

O **O**

P **P**

Q **Q**

R **R**

S **S**

T **T**

U **U**

V **V**

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