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2015 年 11 月 25 日

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上午 10 時 03 分恢復聆訊

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出席人士：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

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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

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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

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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

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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

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李頌然大律師，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

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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

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吳思諾大律師，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

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殷先生：早晨。我下一位證人係樂素芬女士，佢係呢個--佢有三條邨嘅總建築師嚟嘅，一個係 Ching Ho Estate，清河邨第一期；一個係彩福邨；一個就紅磡邨第二期。

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主席：好呀。

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香港房屋委員會第十一證人：樂素芬（房屋署（清河邨第一期、彩福邨和紅磡邨第二期總建築師））以本地話宣誓作供

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C 主席：請坐。

D Mr Yin。

E 殷先生：我而家讀樂素芬女士關於清河 Estate Phase 1 嗰個書面口供。

F 主席：好呀。

G 殷先生主問

H **COMMISSION OF INQUIRY**

I **WITNESS STATEMENT OF LOK SO FUN ROSA**  
**CHIEF ARCHITECT OF CHING HO ESTATE PHASE 1**

J 1. I, Lok So Fun Rosa, provide this statement in respect  
K of the Commission of Inquiry into Excess Lead Found  
L in Drinking Water ("COI") and in response to a request  
M addresses matters relating to one of the "Affected  
Estates" being Ching Ho Estate Phase 1.

N 2. I am a Registered Architect employed by the Housing  
O Department ("HD"), which is the executive arm of the  
P Housing Authority ("HA"), currently holding the post  
Q of Assistant Director (Housing Subsidies), and was  
R involved in the construction of Ching Ho Estate Phase  
S 1 from March 2007 to completion and part of the  
maintenance period till February 2009 serving as Chief  
Architect/2 at that time. I therefore have direct  
knowledge of the project in the above period. In  
making this statement I have had to obtain information  
from other sources and pursuant to discussions with  
colleagues.

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

**BACKGROUND INFORMATION**

4. As Chief Architect/2 of the HA from March 2007 to February 2009, I served as the Project Manager, Design Team Leader and/or Contract Manager ("CM") for over 80 public housing projects under various project stages, from inception, design, tender, construction to completion and post-completion, including all associated housing-related infrastructures and supporting community facilities, providing steer and leadership for the projects.
5. The Chief Architect and Chief Building Services Engineer were involved in managing the design and construction for plumbing installation works of public housing developments.
6. The gross site area of Ching Ho Estate Phase 1 is 3.25 hectares. This development comprises the construction of three domestic blocks of 40 domestic storeys and 2 annex domestic blocks of 35 domestic storeys with flat production of 3,167, one public transport interchange, one single storey commercial centre, ancillary facilities and associated external works.
7. As common in HA's projects, the HA adopted a conventional design-tender-build approach for construction of this development and engaged a Main Contractor, who was fully responsible under the contract for carrying out the construction works and maintaining continuous supervision to ensure the contract requirements were met.
8. The HA awarded the building contract for Ching Ho Estate Phase 1 "Completion Contract for the Construction of Fanling Area 36 Phase 1" with contract number 20060018 to Yau Lee Construction Company limited ("Yau Lee") on 23 June 2006. The contract sum was Hong Kong Dollars Five Hundred and Fifty One

Million, Five Hundred and Forty Eight Thousand, Three Hundred and sixty and Sixty Five Cents (HK\$551,548,360.65).

9. Yau Lee commenced the contract works on 28 June 2006. I certified the substantial completion of building works of the non-domestic commercial centre on 11 March 2008, the five domestic blocks and External Works and remaining works on 10 October 2008.

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**

**CHIEF ARCHITECT**

11. As Chief Architect of the building contract for Ching Ho Estate Phase 1, my role was mainly to act as the administrator of the Contract ("the Contract"), i.e. the Contract Manager ("CM") as referred to in the General Conditions of Contract (GCC) as supplemented by the Special Conditions of Contract and the Specifications.

12. At the commencement of the Contract and pursuant to the contract provisions, the then Chief Architect as

the then CM delegated part of the duties and powers vested in the CM under the Contract to the project architect for serving as the CM's Representative respectively to assist in administering the Contract. Professionals of other disciplines, including building services engineers, were delegated the duties and powers under the CM for serving as CM's Representatives to administer that part of the contract works in their respective areas of expertise as necessary. Site Inspection Team was also appointed to inspect the Works, testing and examining materials to be used and workmanship employed in connection with the contract works.

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

**CHIEF BUILDING SERVICES ENGINEER**

14. 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 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 and Special Conditions of Contract (SCC) Clause 25 (termed as varied form of subcontract and objections to nomination).

15. The Chief Building Services Engineer ("CBSE") was supported by a team of building services staff to discharge his duties including the project building services engineer ("BSE") who served as the CM's representative and was responsible for the administration of Building Services Nominated Subcontracts (including Fire Services and Water Pump Nominated Subcontract), the project building services

inspector, etc.

**CM'S REPRESENTATIVES AND SITE INSPECTION TEAM**

16. Professionals of various disciplines who were serving as the CM's Representatives and the Site Inspection Team for the Contract discharged their duties of contract administration and/or site inspection according to the provisions of the Contract and with reference to the HA's centralized quality systems and measures developed, regularly reviewed and enhanced over time for guiding and supporting the project team.

17. Yau Lee as the Main Contractor was required to give continuous supervision and all necessary superintendence for proper carrying out of works on site to meet the contract requirements. The CM with the support from the CM's Representatives and the Site Inspection Team gave periodic supervision to the Main Contractor's works on site.

18. Under the CM's overall supervision, the CM's Representatives and Site Inspection Team conducted periodic and random checks on materials and workmanship for conformance to the Specifications and the progress of the Main Contractor's works. For inspection of the plumbing installations, 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) inspected Building Works including builder's works requirements for building services works;

(b) Building Services Team (comprising Senior Building Services Inspector, Building Services Inspector, Assistant Building Services Inspector, Work Supervisor (Building Services)) inspected building services installation works.

19. At the completion stage of the building works, the HA appointed Multiple Surveyors Limited to supplement 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 workmanship, particularly for flat-to-flat inspection, for conformance to Specifications.

20. As is common in HA's projects, this 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.

21. Before the "Excessive Lead Found in Drinking Water" incident ("the Incident"), like the industry, the HA believed that the widely accepted and used soldering materials for fresh water plumbing system should have complied with relevant requirements and also been unaware of its associated risk to health. Therefore, checking of the presence of lead in solder or lead in water was not built into the HA's site inspection system and we did not check for presence of lead in soldering materials.

#### **MAIN CONTRACTOR**

22. Yau Lee, as the Main Contractor, was fully responsible for carrying out the works required. Under the GCC, Yau Lee 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. Yau Lee had to 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.

23. Under the terms of the contract, Yau Lee 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, Yau Lee was 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. Yau Lee established its Contract Management Team, the organization of which is now produced and shown to me marked "**Exhibit [2]**" according to the contract requirements. Such management team included Project Director, Project Manager, Quantity Surveyor, Architectural Quality Control Coordinator, Structural Quality Control Coordinator, Site Agent, General Foreman, Block Foreman, Building Services Engineer and Safety Officer etc..

24. Yau Lee was permitted under the contract to sublet part of the Works. Yet, the subletting of any part of the Works did not relieve Yau Lee from any of its liabilities or obligations under the contract. It is a common practice in Hong Kong, including in 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. However, the HA did not have any direct contractual relationship with the domestic subcontractor nor any direct contractual relationship with the LP.



**DOMESTIC SUBCONTRACTOR AND NOMINATED SUBCONTRACTOR**

25. The Contract permitted Yau Lee to sublet the Works to their selected domestic subcontractors or to those nominated by the HA. However, there was control of subletting the plumbing works. The subcontracting should be no more than two tiers of subcontractors.

26. In this contract, I knew that Yau Lee employed Ming Hop Company Limited ("Ming Hop") as the domestic subcontractor for the plumbing and drainage works. Yau Lee submitted an Investigation Report to the HA on 8 September 2015 and 14 September 2015 which enclosed a copy of the subcontract document between Yau Lee and Ming Hop for the plumbing and drainage works. I then became aware of the 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, Lee Yiu Kee Fire Protection Limited was the nominated subcontractor for fire services and water pump installation. As for their responsibilities under this nominated subcontract, my colleague, Mr. Leung Chi Kwong Eric, the Chief Building Services Engineer will provide details in his statement.

**LICENSED PLUMBER**

28. The roles and responsibilities of the Licensed Plumber (LP) are stipulated in the Waterworks Ordinance and Waterworks Regulations. The HA did not have any direct contractual relationship with the domestic subcontractor, so similarly did not have any direct contractual relationship with the LP.

29. 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 except that the engagement of an LP is

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mentioned in the specification clause PLU1.W110.N.

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30. The LP for the plumbing installation of the domestic blocks in this Contract was Mr. Ng Hak Ming. 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 the Form WWO46 Part I. 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 WWO46. He also had to supervise the execution of the plumbing works on site.

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31. Yau Lee was relied on to monitor the LP and would expect the LP to execute his duties under the Waterworks Ordinance and Waterworks Regulations. 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.

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

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

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33. The major processes for the installation of fresh water plumbing 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

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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

34. Before commencement of plumbing installation, the LP for the plumbing works completed and signed the Form WWO46 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, and the pipes and fittings intended to be installed. Upon the project architect also signing Form WWO46 Part I and Part II, it was then submitted to the Water Authority.

Submission of plumbing material proposal

35. 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, Yau Lee was not required to submit material proposals with samples for CM's approval if they conformed to the Specification, requirements of which were mainly compliance with British Standard and statutory requirements, and having obtained Water Authority's prior approval. Pursuant to Section PLU2 on sanitary appliances, Yau Lee 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.

36. In this project, Yau Lee also submitted proposals of materials, including copper pipe and fittings and soldering material specified under PLU1 as a general practice for the CM's approval.

#### Execution of Plumbing Installation

37. After receipt of the Water Authority's approval for commencement of the plumbing works, Yau Lee, with their domestic subcontractor Ming Hop, should have procured materials according to the approved samples and/or the Specifications and then proceeded with such works on site. Yau Lee 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.

38. The plumbing installation on this project was common in 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 WSD 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 copper pipes from roof water tank to water meter cabinets or pipe ducts of each domestic floor, including booster pump room serving uppermost floors and 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

39. Throughout the duration of the Contract up until completion, my predecessors and I, holding the role of CM for various periods, with the support of senior project professionals and professionals as the CM's

representatives and the Site Inspection Team including the Project Clerk of Works, Assistant Clerk of Works, Work Supervisors, Project Building Services Inspectors etc. , gave periodic supervision and random checks on materials and workmanship of the plumbing works to ensure conformance to the Contract Specifications. The CBSE provided the engineering support and gave periodic supervision of the site works, including vetting of the materials submission, pump and valves installation, testing and commissioning of the fresh water plumbing system inside fresh water up-feed pump rooms and booster pump rooms.

40. During the course of the Contract, CM's representatives also conducted assessments under the HA's Performance Assessment Scoring System("PASS") with Yau Lee on-site to assess the quality of works including Yau Lee's performance in plumbing installation works and management of their domestic subcontractors. Based on records, Yau Lee's scores for plumbing works were generally satisfactory.

#### Testing and Commissioning

41. Upon completion of the plumbing system, Yau Lee and/or their domestic subcontractor, Ming Hop, cleansed domestic blocks' fresh water inside service. 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

42. Having completed the testing and commissioning of the plumbing installation works with satisfactory results, the LP completed and signed Form WWO46 Part IV and submitted to Yau Lee. After checking, Yau Lee forwarded the completed form Form WWO46 Part IV for

the domestic portion to the project architect for signing on 21 August 2008. The project architect signed Part II of Form WWO132 on 16 August 2007 applying for the Water Authority's connection for water supply. The copy of the WWO46 and WWO132 forms is now produced and shown to me marked "**Exhibit [4]**".

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

43. According to the records, the WSD sampled water at the connection between the water main and inside service on 6 December 2007. At the time of this water sampling test was being carried out, WSD Circular Letter No.6/2002 was followed. In this circular letter, the testing parameters are not shown. However, I note from the water examination report issued by WSD on 28 January 2011 that the eight parameters tested were the same as those in WSD Circular Letter No.2/2012. The test results were satisfactory. The copy of the water examination report is now produced and shown to me marked "**Exhibit [5]**".

44. The Water Supplies Department inspected the completed the plumbing installations on 12 December 2008 after receipt of the above signed Forms and the Water Authority issued Certificates (Form no. WWO 1005) regarding water supply connection for domestic portion on 8 October 2008 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

45. Before commencement of plumbing works, the project architect and the LP signed and submitted the Form WWO46 Part I to the Water Supplies Department together with an Annex listing the plumbing materials, with various details, 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.

46. Based on the records I have reviewed, in the Annex to the Form WWO46 Part I that the LP signed and dated 8 October 2007, there were 16 items of plumbing materials intended to be installed, all complying with the statutory requirement. The copy of the Form WWO46 Part I together with Annex of the material list is now produced and shown to me marked "**Exhibit [7]**".

47. The LP submitted Part I of Form WWO46 to the Water Authority on 8 October 2007. The Water Authority returned Form WWO46 Part III to the LP on 9 April 2008 stating that "permission was given for you (LP) to proceed with the plumbing detailed in Part I and at the Annex".

48. The HA relied on Yau Lee to monitor the service of the LP and would expect the LP to update the list of materials in the Annex to Form WWO46 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 Yau Lee. 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 the Waterworks Ordinance and Waterworks Regulations, Hong Kong Waterworks Standard Requirements for Plumbing Installations in Buildings and Circular Letters issued by the 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 Yau Lee 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 use of soldering alloys for copper and copper alloy capillary fittings used in this Contract were to comply with Specification Clause PLU1.M160.N as follows-

*i) Comply with BS EN 1254:Part 1, Table 6 Sections II and III;*

*ii) Use of integral solder fittings is permitted provided they comply with BS EN 1254:Part 1;*

*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. Yau Lee proposed the use of "FRY" 99C Lead Free Solder under the Material Sample Submission Form ref: A/PLU-024 of 2 November 2007 submitting material catalogue, sample and job reference. According to the technical data provided by Yau Lee, Fry 99C complied with BS 1254-1 and was stated to be "lead-free". The project building services engineer then approved the material proposal. The copy of the material sample submission and approval document is now produced and shown to me marked "**Exhibit [8]**".

53. After approval of the plumbing material proposals with submitted samples, I understand 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.

54. The approved plumbing materials complied with the statutory and specifications requirements.

Site supervision for plumbing installation

55. Upon delivery of materials to site, Yau Lee was obliged to check every batch of materials against approved

samples and documents to ensure compliance. I learnt from the Site Investigation Team of this project that after verification of the materials delivered to site by Yau Lee, the materials were stored in the plumbing domestic sub-contractor's lockable workshop at site.

56. In this Contract, major plumbing materials checked by the HA Site Inspection Team included close-coupled WC 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. It was considered as a sundry material and we would presume that supervision and control were carried out by Yau Lee and the LP. If we were aware of the risk of presence of lead in solder and its implications on the drinking water quality and in turn, the associated health risk, the HA would have checked the materials delivered to site.

57. During the plumbing installation period in this Contract, based on records, there were numerous work trades, including paving, drain laying, plastering and finishing, painting, metal works, component doors and sanitary fitment installation, electrical, lift and fire service installation, concreting at external areas etc., being simultaneously executed at site, which involved about 500 workers every day when works on site was on full swing.

58. 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 the fresh water plumbing 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.

59. 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 including the flow rate, water tightness, pressure resistance and mechanical strength and endurance.

60. During the course of the Contract, the CM's Representatives also conducted assessment under the HA's Performance Assessment Scoring System ("PASS") to quantitatively measure Yau Lee's performance in compliance with contract requirements. Compliance with respect to materials was assessed under the component of Management Input.

**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**

61. Yau Lee, as the Main Contractor, was fully responsible for carrying out the works required. Under the GCC, Yau Lee 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.

62. Pursuant to Specification Library 2004 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 MC shall employ at least the number of Trade Tested Workers, which include Skilled Worker and Semi-skilled Workers in each of the scheduled trades as specified in the Contract. Each of the Skilled Workers and Semi-skilled Workers shall have obtained the Trade Test Certificates - Full Trade Tests for Skilled Workers and Intermediate Trade Tests for Semi-skilled Workers are to be issued by the Construction Industry Training Authority (CITA).

63. The monthly report, namely, Record of traded test workers was prepared by Yau Lee and checked by HA Site Inspection Team. The checking was based on records of Yau Lee's Access Control and Recording System. The Trade Tested Workers information from Yau Lee was also regularly forwarded to the Construction Industry Council for verification of the workers' identity and qualification.

64. I have no knowledge of the steps taken by the LP 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**

65. Yau Lee, as the Main Contractor, was fully responsible for carrying out the works required. Under the GCC, Yau Lee had the general obligations to execute the Works including providing all necessary labour, materials, construction plant, temporary works and superintendence and maintaining continuous

supervision on site at all times until completion.

66. With respect to the HA's periodic supervision of the Works, as in other HA's projects, the HA 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 pressure test. Soldering materials were 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 HA Site Inspection Team was also not required to verify the materials delivered to site and check the lead content of the soldering material during the execution of fresh water plumbing installation as copper pipes have been used in the fresh water plumbing system in Hong Kong for decades and the soldering materials are widely accepted and used in the industry with no indication nor alert that those containing lead might be used.

67. Prior to the Incident, there had also been a general lack of awareness in the industry and the HA of the associated risk this soldering material might pose, including lead leaching from the solder applied on outer face of the pipework into the water inside and the lead content level in drinking water that would affect health e.g. the WHO prevailing standard of 10µg per litre. As such, despite its established risk-based approach for quality control, the HA had not then stepped up the periodic supervision to check on the lead content of this soldering material upon delivery to site and during execution.

68. Furthermore, there was no statutory requirement for testing of lead in water by the Water Authority for new buildings until the Incident in July 2015 and the HA was also not aware of the possibility of lead in water. Therefore, as in other HA's projects and the

industry in general, laboratory tests for lead in water had not been conducted at the contract completion stage in 2008 which might have helped identifying the use of soldering material containing lead during construction stage.

69. There was also no requirement for testing of lead in water by the Water Authority for the Quality Water Supply Scheme for Buildings then. As such, water testing by the HA after the estate completion for registering with such Scheme also did not cover testing of lead in water. Therefore, lead in water due to lead in the soldering materials was also not identified earlier in the post-completion stage.

70. As in other HA projects, lead-free soldering material was specified under the Contract aligning with the British Standard stipulated under the WWO. Sample submission with supporting documents complying with the Contract Specifications was made by Yau Lee and approved by the project building services engineer. As such, Yau Lee was responsible for use of such lead-free soldering material on site and maintained continuous supervision to ensure such use. The use of lead solder on site without the CM's permission was in breach of contract.

71. Based on the available information, I cannot conclude how lead solder came to be used in Ching Ho Estate Phase 1 and which party or parties allowed 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**

72. Before August 2015, I was not aware of the presence of excess lead in water of Ching Ho Estate Phase 1 water supply system. In August 2015, 10 out of 202 water samples from Ching Ho Estate Phase 1 were found with lead content exceeding the the WHO standard of 10 microgram per litre.

73. After excess lead was found in drinking water in Kai Ching Estate and Kwai Luen Estate Phase II in July 2015, 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 Preliminary Findings issued on 25 September 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. Same findings also apply to Ching Ho Estate Phase 1.

Lead Solder Joints

74. "FRY" 99C Lead Free Solder was submitted by Yau Lee and approved by the project building services engineer. Under the Contract, Yau Lee could determine whether they themselves procured the materials, including piping and fittings and solder for copper pipes etc., or instructed their subcontractors to order the materials. Regardless of who procured the solder materials, Yau Lee should have ensured that the Contract specifications were complied with.

75. In respect of the 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 Yau Lee 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 and before the incident, the risk of presence of lead in soldering materials was not known.

76. After lead was found in Ching Ho Estate Phase 1 in August 2015, Yau Lee was requested to investigate why lead soldering material which was not in compliance with the Specifications was used in the fresh water plumbing system without permission. Yau Lee submitted their Investigation Report to the HA on 8 September 2015 and 14 September 2015. In the Investigation Report, Yau Lee stated that they sub-contracted the whole plumbing installation works including materials (i.e. solder material inclusive) and labour to Ming Hop Company Limited. The service of the licensed plumber was provided by this tier of sub-contracting and Ming Hop Company Limited further sub-contract the works to Sum Kee Water-Pipe Drainage Limited at first and then to Wing Hing Plumbing Drainage after Sum Kee was terminated by Ming Hop Company Limited.

77. According to Yau Lee's Investigation Report dated 14 September 2015 now produced and shown to me marked "**Exhibit [9]**", Yau Lee indicated that the soldering materials were ordered by Ming Hop's sub-subcontractor Sum Kee and Wing Hing separately but they could not provide any purchase order or delivery records as they had been purchased in cash.

78. In the above letter, Yau Lee also stated that material delivery note for the soldering material was not on their material list and there was no inventory control over the solder material.



79. Based on the available information, I cannot conclude how and by action of which party lead solder came to be used in Ching Ho Estate Phase 1

**Request 6: Describe the Measure and/or recommendations (after the discovery of excess lead in drinking water) by the Chief Architect and the Chief in order to prevent similar incidents from happening in the future**

80. I have been posted out of the Works Division since November, 2013, I am no longer involved directly in the construction of new building works, hence I have no knowledge on the enhancement measures being introduced to prevent similar incidents from happening in the future.

殷先生：I think Request number 6 should be "Describe in Measure 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".

問：樂女士，你剛才聽我朗讀咗一遍你嘅書面證供，你有冇嘢需要補充或者修改？

答：我有少少個字眼修正嘅。

問：係。

答：喺 76 段。

問：七十...

答：六。

問：76 段。

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答：“After lead was found in”，我想加番就係“soldering joints in Ching Ho Estate”。

問：第一句“After lead was found in soldering joints in Ching Ho Estate Phase 1”，係。

答：係，其餘冇嘞，唔該。

問：你願意採納佢作為你喺呢個研訊入面嘅證供？

答：願意。

殷先生：我有嘢問。

許偉強先生：主席，我唔知你想唔想就住樂女士負責另外嗰兩條邨，都一次過處理咗佢個證人供詞，定係你想我問咗佢...

主席：都好，一次過做埋佢。

黎先生：一次過喇。

許偉強先生：係嘞。

主席：係呀，一次過做埋佢，另外兩條邨。

殷先生：另外兩條邨，就有一條邨係有利；但係另外一條邨，就係另外一個承建商 China State 嘅。

主席：冇問題。冇問題，一次過做晒。

殷先生：第二條就彩福邨，就係亦都係有利嘅。主席，我係咪跟以往嘅指示咁樣，同一證人如果有重複嘅證供，就唔讀嗰啲重複嘅？

主席：係囉。你想讀晒咩？

殷先生：嘎。

主席：慳番啲時間，如果相同嗰啲唔使讀喇。

B

B

C

般先生：係。相同啲啲唔讀。

C

D

D

**COMMISSION OF INQUIRY**

E

E

**WITNESS STATEMENT OF LOK SO FUN ROSA**

F

F

**CHIEF ARCHITECT OF CHOI FOOK ESTATE**

G

G

H

第1段，我唔讀第一句。

H

I

1. The statement addresses matters relating to one of the "Affected Estates" being Choi Fook Estate."

I

J

2. I am an Architect by profession, a Member of The Hong Kong Institute of Architects and have joined the Housing Department (HD) which is the executive arm of the Housing Authority (HA). I am currently holding the post of Assistant Director (Housing Subsidies), and was involved in the construction of Choi Fook Estate as Chief Architect from February 2009 to November 2013. I therefore have direct knowledge of the project in the above period. In making this statement I have had to obtain information from other sources and pursuant to discussions with colleagues.

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第3段唔讀。

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**BACKGROUND INFORMATION**

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4. As Chief Architect/3 from February 2009 to November 2013, I had served as the Project Manager, Design Team Leader and/or Contract Manager (CM) for over 60 public housing projects under various project stages, from inception, design, tender, construction to completion and post-completion, including all associated housing-related infrastructures and supporting community facilities, providing steer and leadership for the projects.

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

6. The gross site area of Choi Fook Estate is 1.817 hectares. This development comprises the construction of three domestic blocks of 40 domestic storeys with flat production of 2,524, a 5-storey carport, ancillary facilities and associated external works.

第7段唔讀。

8. The HA awarded the building contract, titled "Construction of Choi Wan Road Development Site 3B Phase 1" with contract number 20060074 to Yau Lee Construction Company Limited ("Yau Lee") on 19 April 2007. The contract sum was Hong Kong Dollars Five Hundred and Fifty Million, Seven Hundred and Eighteen Thousand, Nine Hundred and Thirty Four and Forty Cents (HK\$550,718,934.40).

9. Yau Lee commenced the contract works on 26 April 2007. I certified the substantial completion of building works for the three domestic blocks on 31 March 2010, the non-domestic block (carport) on 31 March 2010, and External Works and remaining works on 13 April 2010."

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"

CHIEF ARCHITECT

11. As Chief Architect of the building contract for Choi Fook Estate, my role was mainly to act as the administrator of the Contract, i.e. the Contract Manager (CM) as referred to in the General Conditions of Contract (GCC) as supplemented by the Special Conditions of Contract and the Specification.

12. At the commencement of the Contract and pursuant to the contract provisions, the then Chief Architect as the then CM delegated part of the duties and powers vested in the CM under the Contract to the project senior architect and project architect for serving as CM's Representatives to assist in administering the Contract. Senior professionals and professionals of other disciplines, including building services engineers, were delegated the duties and powers under the CM for serving as CM's Representatives to administer that part of the contract works in their respective areas of expertise as necessary.

最後嗰句唔讀。

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

CHIEF BUILDING SERVICES ENGINEER

14. At the start of the Contract, the then CM had also 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 Sum); and (ii) GCC Clause 66 & Special Conditions of Contract (SCC) Clause 25 (termed as varied form of subcontract and objections to nomination).

跟住 15 至 18 段唔使讀。

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

跟住由第 20 段到 24 段都唔使讀。

#### **DOMESTIC SUBCONTRACTOR AND NOMINATED SUBCONTRACTOR**

25. The contract permitted Yau Lee to sublet the Works to their selected domestic subcontractors or to those nominated by the HA.

26. In this contract, I knew that Yau Lee employed Ming Hop Company Limited ("Ming Hop") as the domestic subcontractor for the plumbing and drainage works. Yau Lee submitted an Investigation Report to the HA on 21 August 2015 and supplemental information on 14 September 2015 which enclosed a copy of the subcontract document between Yau Lee and Ming Hop Company Limited and the sub-subcontract document between Ming Hop Company Limited and Hang Lee Engineering Company for the plumbing and drainage works. I then became aware of the responsibilities of the subcontractor and sub-subcontractor. The copy of the above subcontract and sub-subcontract documents are now produced and shown to me marked "**Exhibit [3]**".

27. In this contract, Ryoden Engineering Co., Ltd. was the

nominated subcontractor for fire services and water pump installation. As for their responsibilities under this nominated subcontract, my colleague, Mr. Leung Chi Kwong Eric, the Chief Building Services Engineer will provide details in his statement.

**LICENSED PLUMBER**

就 28 段同埋 29 段唔讀。

30. The Licensed Plumber (LP) for the plumbing installation of this contract was Mr. Ng Hak Ming, employed by Ming Hop Company Limited. The roles and responsibilities of the LP are stipulated in the WWO and Waterworks Regulations (WWR) and his performance as a LP is under the jurisdiction of the Water Authority. As such, I presumed the responsibilities of the LP for the fresh water plumbing system had been in accordance the provisions under the WWO. This included notifying the Water Authority of the commencement date and scope of plumbing works to be carried out the Form WWO 46 Part I, notifying the Water Authority of the completion of plumbing works with request for inspection and approval by the Water Authority at Form WWO 46 Part IV, and supervising the execution of the plumbing works on site etc.

跟住嗰兩段唔讀。

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

33. 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.

跟住嗰三段唔使讀。

#### Execution of Plumbing Installation

37. After receipt of the Water Authority's approval for commencement of the plumbing works, Yau Lee, with their domestic subcontractor and sub-subcontractor, Ming Hop Company Limited and Hang Lee Engineering Company, proceeded with plumbing installation works on site. Yau Lee was obliged to provide all necessary superintendence throughout the duration of the plumbing installation works and give continuous supervision to ensure such works were executed in strict accordance with the statutory requirements and the contract specifications to the satisfaction of the CM.

38. 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 Yau Lee 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 pipes and copper pipes from roof water tank to water meter cupboard or pipe ducts of each domestic floor, including booster pump room serving uppermost floors and 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.



跟住 39 同 40 段唔讀。

Testing and Commissioning

41. Upon completion of the plumbing installation, Yau Lee and/or their domestic subcontractor/sub-subcontractor, Ming Hop Company Limited and Hang Lee Engineering Company, cleansed fresh water inside service. 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

42. Having completed the testing and commissioning of the plumbing installation works with satisfactory results, the LP completed and signed Form no. WW046 Part IV and submitted to Yau Lee. After checking, Yau Lee forwarded the completed form to the project building services engineer for signing. The project building services engineer signed Part IV of the Form no. WW046 for the domestic portion and non-domestic portion on 9 February 2010. The project building services engineer signed Part II of Form no. WW0132 on 31 December 2009 applying for the Water Authority's connection for water supply of the development. 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

43. Ming Hop sampled water at the fresh water submain on 4 March 2010. This test report is not found in HD's files until recently submitted under Yau Lee's letter dated 14 September 2015. In HD's file, it is found

that another fresh water submain sampled on 26 March 2010 was submitted by project building services engineer to the WSD on 29 March 2010. This water sampling was ordered by Ming Hop as indicated in the test report. Both water sampling were basing on the eight parameters. The test results were satisfactory. The copy of the test reports are now produced and shown to me marked "Exhibit [5]".

44. The Water Supplies Department inspected the completed plumbing installations on 17 March 2010 after receipt of the signed WWO46 Part IV. With satisfactory inspection results, the Water Authority issued Certificates (Form no. WWO 1005) regarding water supply connection on 31 March 2010. 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

45. Before commencement of plumbing works, the project building services engineer and the LP signed and submitted the Form WWO 46 Part I to the Water Supplies Department together with an Annex showing details of pipes and fittings intended to be installed. For fittings, only draw-off taps, stop 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.

46. Based on the records I have reviewed, in the Annex to the Form no. WWO46 Part I that the LP signed on 22 January 2009, there were 17 items of plumbing materials intended to be installed 5 , all complying with the statutory requirement. The copy of the Form no. WWO46 Part I together with Annex of the material list is now to produced and shown to me marked "Exhibit [7]" .

47. The Water Authority returned Form no. WWO 46 Part III to the LP in the same month stating that "the Plumbing detailed in Part I and at the Annex was accepted" and "connection date of the plumbing works as detailed in Part I is noted" .

48. The HA relied on Yau Lee 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 since presumably the "Point Penalty System" administered by the Water Authority which have provided a positive incentive for the LP to carry out the task professionally and accurately.

跟住 49 段同 50 段唔讀。

51. The use of soldering alloys for copper and copper alloy capillary fittings used in this contract were to comply with Specification Clause PLU1.M160.4 as follows -

*i) Comply with 85 EN 1254: Part 1:1998, Table 6 Sections II and III;*

*ii) Use of integral solder fittings is permitted provided they comply with 85 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. Yau Lee proposed the use of "FRY" 99C Lead Free Solder

under the Material Submission Form ref: PLU-015 of 7 August 2008, submitting sample, material catalogue, testing report and job reference. According to the technical data provided by Yau Lee, Fry 99C complied with BS 1254-1 and was stated to be "lead-free". The project building services engineer approved the material. The copy of the sample submission document is now produced and shown to me marked "**Exhibit [8]**".

第 53 段唔讀。

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

55. However, after excess lead was found in drinking water in Choi Fook Estate, Yau Lee submitted the letter dated 28 October 2015 "**Exhibit [9]**" reported that two installed Plumbing Materials, Brass Check Valve and Self-Closing Basin Tap were deviated from that stated in the submitted Form no. WWO46 Part I. The Brass Check Valve and Self-Closing Basin Tap installed on site are "AVK-SNOW" and "Walrus" respectively, while stated in WWO46 are "JCH" and "MCM Rubnetteria" respectively. The Brass Check Valve was installed for irrigation water system while the Self-Closing Basin Tap was installed in toilet of Estate Management Office. Although these two brands of materials installed on site were different from those submitted in the Annex to Form no. WWO46 Part I, they were approved under WSD's letter ref. C19990004 and C20050070. The approval of these two installed materials by HD project team were not found in HD's record. HD will enhance HA's administrative procedures, in future, to monitor main contractor in securing the LP's discharging the responsibility to update the Annex to Form no. WWO46 Part I before completion of works in future. Nevertheless, this deviation, as both items are not

for drinking water, was not the cause of excessive lead in drinking water.

Site supervision for plumbing installation

56. Upon delivery of materials to site, Yau Lee was obliged to check the materials against approved samples and documents to ensure compliance. I learnt from the Site Inspection Team of this project that after verification of the materials delivered to site by Yau Lee, the materials were stored in the plumbing domestic sub-contractor's lockable workshop at site.

57 段唔讀。

58. During the plumbing installation period in this contract, based on records, there were numerous work trades, including paving, drain laying, plastering and finishing, painting, metal works, component doors and sanitary fitment installation, electrical, lift and fire service installation, concreting at external areas etc., being simultaneously executed at site, which involved about 300 workers every day when works on site was on full swing.

跟住由 59 段至到 61 段嘅第一句同第二句都唔使讀，61 段最後嗰句要讀。

61. Similar to Building PASS, Building Service PASS assessments were also carried out for water pump installations undertaken by Ryoden Engineering Co., Ltd.

跟住就 62 至到 71 都唔使讀。

72. According to Yau Lee's dated 14 September 2015, now produced and shown to me marked "**Exhibit [10]**", Yau Lee indicated that the soldering materials were ordered by their sub-subcontractor, Hang Lee and Hang Lee only retrieved some invoices that may only cover 10% of the solder materials used in this project.

73. In the above letter, Yau Lee also stated that they had no inventory control on solder materials and also they had no specific item concerning inspection of solder wires was highlighted in their inspection form.

74. Based on the available information, I cannot conclude how lead solder came to be used in Choi Fook Estate and which party or parties allowed 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"**

75. Before August 2015, I was not aware of the presence of excess lead in water of Choi Fook Estate water supply system. In August 2015, 13 out of 90 water samples from Choi Fook Estate were found with lead content exceeding the World Health Organization (WHO) standard of 10 microgram per litre.

76. After excess lead was found in drinking water in Kai Ching Estate and Kwai Luen Estate Phase 2, 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 Preliminary Findings issued on 25 September 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. Same findings also apply to Choi Fook Estate.

Lead Solder Joints

77. "FRY" 99C Lead Free Solder was submitted by Yau Lee for copper pipe joints in the fresh water plumbing system and approved by the project building services engineer. Under the Contract, Yau Lee 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. Regardless of who procured the solder materials, Yau Lee should have ensured that the Contract specifications were complied with.

78 段唔讀。

79. After lead was found in soldering joints in Choi Fook Estate in August 2015, Yau Lee was requested to investigate why lead soldering material which was not in compliance with the Specifications was used in the fresh water plumbing system without permission. Yau Lee submitted the Investigation Report to the HA on 21 August 2015 and supplemental information on 14 September 2015. In the Investigation Report, Yau Lee stated that they sub-contracted the whole plumbing installation works including materials (i.e. solder material inclusive) and labour to Ming Hop Company Limited. The physical installation work however is usually undertaken by a separate sub-subcontractor, Hang Lee Engineering Company.

問：冇嘞。樂女士，我剛才讀過你關於呢個彩福邨所作嘅書面嘅證供，其中部分係同之前你喺關於呢個清河邨第一期所作嘅證供係有唔同嘅部分，咁你聽完之後，有冇咩嘢需要補充或者更改？

答：冇，冇補充。

問：你願意採納佢作為你喺呢段研訊入嘅證供？

答：願意。

殷先生：咁跟住落嚟就讀呢個紅磡邨二期。

主席：好呀。

**COMMISSION OF INQUIRY**

**WITNESS STATEMENT OF LOK SO FUN ROSA**  
**CHIEF ARCHITECT OF HUNG HOM ESTATE PHASE 2**

1. This statement addressed matters relating to one of the affected estate in Hung Hom Estate Phase 2.
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 Assistant Director (Housing Subsidies), and was involved in the construction of Hung Hom Estate Phase 2 and Ma Hang Headland Park from February 2009 to completion and part of the maintenance period till November 2013 serving as Chief Architect/3 at that time. I therefore have direct knowledge of the project in the above period. In making this statement I have had to obtain information from other sources and pursuant to discussions with colleagues.

第3段唔使讀。

4. As Chief Architect/3 of the HA from February 2009 to November 2013, I served as the Project Manager, Design Team Leader and/or Contract Manager ("CM") for over 60 public housing projects under various project stages, from inception, design, tender, construction to completion and post-completion, including all associated housing-related infrastructures and supporting community facilities, providing steer and



leadership for the projects.

第5段唔使讀。

6. The gross site area of Hung Hom Estate Phase 2 is 1.05 hectares. This development comprises the construction of three domestic blocks of 38 to 40 domestic storeys with flat production of 1,938, a covered carport, road widening works, ancillary facilities and associated external works.

第7段唔讀。

8. The HA awarded the building contract "Construction of Hung Hom Estate and Ma Hang Headland Park" with contract number 20080016 to China State Construction Engineering (Hong Kong) Limited ("China State") on 19 August 2008. The contract sum was Hong Kong Dollars Six Hundred and Thirty Four Million (HK\$634,000,000.00).

9. China State commenced the contract works on 28 August 2008. I certified the substantial completion of building works of Hung Hom Estate Phase 2 for the block 1 and 2 on 26 February 2011, block 3 on 5 November 2011, road widening works on 16 February 2011, covered carport on 18 March 2011, and external works and remaining works on 18 March 2011.

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**

**CHIEF ARCHITECT**

11. As Chief Architect for the project "Hung Hom Estate Phase 2 and Ma Hang Headland Park" (subsequently named as "Hung Hom Estate Phase 2"), my role was mainly to act as the administrator of its building Contract ("the Contract"), i.e. the Contract Manager ("CM") as referred to in the General Conditions of Contract (GCC) as supplemented by the Special Conditions of Contract and the Specifications.

12. At the commencement of the Contract and pursuant to the contract provisions, the then Chief Architect as the then CM delegated part of the duties and powers vested in the CM under the Contract to the project senior architect and project architect for serving as the Assistant Contract Manager and CM's Representative respectively to assist in administering the Contract. Senior professionals and professionals of other disciplines, including building services engineers, were delegated the duties and powers under the CM for serving as CM's Representatives to administer that part of the contract works in their respective areas of expertise as necessary. Site Inspection Team was also appointed to inspect the Works, testing and examining materials to be used and workmanship employed in connection with the contract works.

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

**CHIEF BUILDING SERVICES ENGINEER**

14 至 16 段唔讀。

17. China State as the Main Contractor was required to give

continuous supervision and all necessary superintendence for proper carrying out of works on site to meet the contract requirements. The CM with the support from the CM's Representatives and the Site Inspection Team gave periodic supervision to the Main Contractor's works on site.

18. Under the CM's overall supervision, the CM's Representatives and Site Inspection Team conducted periodic and random checks on materials and workmanship for conformance to the Specifications and the progress of the Main Contractor's works. For inspection of the plumbing installations, 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) inspected Building Works including builder's works requirements for building services works;

(b) Building Services Team (comprising Senior Building Services Inspector, Building Services Inspector, Assistant Building Services Inspector, Work Supervisor (Building Services)) inspected building services installation works.

19. At the completion stage of the building works, the HA appointed Knight Frank Petty Limited to supplement Site Inspection Team's resources and conduct final inspection of the completed builders works for the domestic blocks 1 and 2. Knight Frank Petty Limited was responsible for inspecting the completed works and checking the workmanship, particularly for flat-to-flat inspection, for conformance to Specifications.

20 同 21 段唔讀。

**MAIN CONTRACTOR**

22. China State, as the Main Contractor, was fully responsible for carrying out the works required. Under the GCC, China State 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. China State had to 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.

23. Under the terms of the contract, China State 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, China State was 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. China State established its Contract Management Team, the organization of which is now produced and shown to me marked "**Exhibit [2]**" according to the contract requirements. Such management team included Project Director, Project Manager, Architectural Quality Control Coordinator, Structural Quality Control Coordinator, Site Agent, General Foreman, Block Foreman, Building Services Engineer and Safety Officer etc.

24. China State was permitted under the contract to sublet part of the Works. Yet, the subletting of any part of the Works did not relieve China State from any of its liabilities or obligations under the contract. It

is a common practice in Hong Kong, including in 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. However, the HA did not have any direct contractual relationship with the domestic subcontractor nor any direct contractual relationship with the LP.

#### DOMESTIC SUBCONTRACTOR AND NOMINATED SUBCONTRACTOR

25. The Contract permitted China State to sublet the Works to their selected domestic subcontractors or to those nominated by the HA. However, there was control of subletting the plumbing works. The subcontracting should be no more than two tiers of subcontractors.

26. In this contract, I knew that China State employed Golden Day Engineering Company Limited ("Golden Day") as the domestic subcontractor for the plumbing and drainage works. China State submitted an Investigation Report to the HA on 14 September 2015 which enclosed a copy of the subcontract document between China State and Golden Day for the plumbing and drainage works. I then became aware of the 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, Shun Cheong Electrical Engineering Company Limited was the nominated subcontractor for fire services and water pump installation. As for their responsibilities under this nominated subcontract, my colleague, Mr. Leung Chi Kwong Eric, the Chief Building Services Engineer during the period from September 2011 to July 2012 will provide details in his statement.

#### LICENSED PLUMBER

28 段唔讀。

29. 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 except that the engagement of an LP is mentioned in the specification clause PLU1.W110.4.

30. The LP for the plumbing installation of the domestic blocks in this Contract was Mr. Cheung Tat Yam. The Licensed Plumber for the plumbing installation from master meter room to water meter chambers was Mr. Lam Tak Sum. The scope of works carried out by Mr. Lam Tak Sum in this Contract did not involve copper pipe with soldering, except for irrigation works at ground floor, therefore his works were not elaborated in my statement. 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 the Form WWO46 Part I. 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 WWO46. He also had to supervise the execution of the plumbing works on site.

31. China State was relied on to monitor the LP and would expect the LP to execute his duties under the Waterworks Ordinance and Waterworks Regulations. 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.

32. As for the responsibilities of the LP for fire service and water pump installation, my colleague, Mr. Leung Chi Kwong Eric, 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**

33 至 35 段最後嗰一句唔讀。

35. Pursuant to Section PLU2 on sanitary appliances, China State 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.

36. In this project, China State also submitted proposals of materials, including copper pipe and fittings and soldering material specified under PLU1 as a general practice for the CM's approval.

**Execution of Plumbing Installation**

37. After receipt of the Water Authority's approval for commencement of the plumbing works, China State, with their domestic subcontractor Golden Day, should have procured materials according to the approved samples and/or the Specifications and then proceeded with such works on site. China State 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.

38 至 39 唔讀。

40. During the course of the Contract, CM's representatives also conducted assessments under the HA's Performance Assessment Scoring System ("PASS") with China State on-site to assess the quality of works including China State's performance in plumbing installation works and management of their domestic subcontractors. Based on records, China State's scores for plumbing works were generally satisfactory.

Testing and Commissioning

41. Upon completion of the plumbing system, China State and/or their domestic subcontractor, Golden Day, cleansed domestic blocks' fresh water inside service. 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

42. Having completed the testing and commissioning of the plumbing installation works with satisfactory results, the LP completed and signed Form WWO46 Part IV and submitted to China State. After checking, China State forwarded the completed form to the project architect who signed on WWO46 Part IV for the domestic blocks on 19 October 2010 and 18 July 2011 for block 1 and 2, and block 3 respectively, certifying the correctness of the meter positions. The project architect also signed Form WWO132 Part II on 30 November 2010 applying for the Water Authority's connection for water supply. The copy of the WWO46 and WWO132 forms is now produced and shown to me marked "**Exhibit [4]**".

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

43. According to the records, the WSD sampled water at the connection between the water main and inside service on 25 January 2011. At the time of this water sampling test was being carried out, WSD Circular Letter No. 6/2002 was followed. In this circular letter, the testing parameters are not shown. However, I note from the water examination report issued by WSD on 28 January 2011 that the eight parameters tested were the same as those in WSD Circular Letter No. 2/2012. The



test results were satisfactory. The copy of the water examination report is now produced and shown to me marked "Exhibit [5]".

44. The Water Supplies Department inspected the completed the plumbing installations on 22 February 2011 for block 1 and 2, and 27 September 2011 for block 3 after receipt of the above signed Forms and the Water Authority issued Certificates (Form no. WWO 1005) regarding water supply connection for domestic portion on 25 March 2011 for block 1 and 2, and 12 March 2012 for block 3 of the development. The copy of the forms is now produced and shown to me marked "Exhibit [6]".

殷先生：主席，而家係咪方便時間...

主席：好呀。

殷先生：...咁樣。

主席：我哋休息廿分鐘先，唔該。

上午 11 時 38 分聆訊押後

下午 12 時 03 分恢復聆訊

出席人士如前

香港房屋委員會第十一證人：樂素芬（房屋署（清河邨第一期、彩福邨和紅磡邨第二期總建築師））宣誓繼續作供

殷先生：我繼續讀樂女士喺紅磡邨二期嘅書面證供。

主席：好呀。

殷先生繼續主問

**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**

45 段唔讀。

46. Based on the records I have reviewed, in the Annex to the Form WWO46 Part I that the LP signed and dated 25 July 2009, there were 11 items of plumbing materials intended to be installed, all complying with the statutory requirement. The copy of the Form WWO46 Part I together with Annex of the material list is now produced and shown to me marked "Exhibit [7]".

47. The LP submitted Part I of Form WWO46 to the Water Authority on 3 August 2009. The Water Authority returned Form WWO46 Part III to the LP on 24 August 2009 stating that "the Plumbing detailed in Part I and at the Annex was accepted" and "Commencement date of the plumbing works as detailed in Part I is noted".

48. The HA relied on China State to monitor the service of the LP and would expect the LP to update the list of materials in the Annex to Form WWO46 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.

49 段唔讀。

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 China State could propose. They should fulfill 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 use of soldering alloys for copper and copper alloy capillary fittings used in this Contract were to comply with Specification Clause PLU1. M 160.4 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. China State proposed the use of "FRY" 99C Lead Free Solder under the Material Sample Submission Form ref: MHHP/A/PLU-008 of 23 January 2009 submitting material catalogue, sample and job reference. According to the technical data provided by China State, Fry 99C complied with BS 1254-1 and was stated to be "lead-free". The project architect then approved the material proposal. The copy of the material sample submission and approval document is now produced and shown to me marked "**Exhibit [8]**".

53 同 54 段唔讀。

Site supervision for plumbing installation

55. Upon delivery of materials to site, China State was obliged to check every batch of materials against approved samples and documents to ensure compliance. I learnt from the Site Investigation Team of this project that after verification of the materials delivered to site by China State, the materials were stored in the plumbing domestic sub-contractor's lockable workshop at site.

56. In this Contract, major plumbing materials checked by the HA Site Inspection Team included close-coupled WC 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. It was considered as a sundry material and we would presume that supervision and control were carried out by China State and the LP. If we were aware of the risk of presence of lead in solder and its implications on the drinking water quality and in turn, the associated health risk, the HA would have checked the materials delivered to site.

57. During the plumbing installation period in this Contract, based on records, there were numerous work

trades, including paving, drain laying, plastering and finishing, painting, metal works, component doors and sanitary fitment installation, electrical, lift and fire service installation, concreting at external areas etc., being simultaneously executed at site, which involved about 200 workers every day when works on site was on full swing.

58 同 59 段唔讀。

60. During the course of the Contract, the CM's Representatives also conducted assessment under the HA's Performance Assessment Scoring System ("PASS") to quantitatively measure China State's performance in compliance with contract requirements. Compliance with respect to materials was assessed under the component of Management Input. Similar to Building PASS, Building Service PASS assessments were also carried out for water pump installations undertaken by Shun Cheong Electrical Engineering Company Limited.

**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**

61. China State, as the Main Contractor, was fully responsible for carrying out the works required. Under the GCC, China State 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.

62. Pursuant to Specification Library 2004 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);

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

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);

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

63. The monthly report, namely, Record of traded test workers was prepared by China State and checked by HA Site Inspection Team. The checking was based on records of China State's Access Control and Recording System. The Trade Tested Workers information from China State was also regularly forwarded to the Construction Industry Council for verification of the workers' identity and qualification.

64 唔讀。跟住 65 至到 70 都唔讀。64 至到 70 都唔讀。

71. Based on the available information, I cannot conclude how lead solder came to be used in Hung Hom Estate Phase 2 and which party or parties allowed 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**

72. Before August 2015, I was not aware of the presence of excess lead in water of Hung Hom Estate Phase 2 water supply system. In August 2015, 16 out of 74 water samples from Hung Hom Estate Phase 2 were found with lead content exceeding the the World Health Organization (WHO) standard of 10 microgram per litre.

73. After excess lead was found in drinking water in Kai Ching Estate and Kwai Luen Estate Phase II, 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 Preliminary Findings issued on 25 September 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. Same findings also apply to Hung Hom Estate Phase 2.

#### Lead Solder Joints

74. "FRY" 99C Lead Free Solder was submitted by China State

and approved by the project architect. Under the Contract, China State could determine whether they themselves procured the materials, including piping and fittings and solder for copper pipes etc., or instructed their subcontractors to order the materials. Regardless of who procured the solder materials, China State should have ensured that the Contract specifications were complied with.

75. In respect of the 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 China State 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 and before the incident, the risk of presence of lead in soldering materials was not known.

76. After preliminary testing indicated lead was found in two soldering joints of copper pipes in Hung Hom Estate Phase 2 in August 2015, China State was requested to investigate why lead soldering material which was not in compliance with the Specifications was used in the fresh water plumbing system without permission. China State submitted their Investigation Report to the HA on 14 September 2015. In the Investigation Report, China State stated that they sub-contracted the whole plumbing installation works including materials (i.e. solder material inclusive) and labour to Golden Day. The service of the licensed plumber was provided by the sub-contractor and Golden Day did not further sub-contract the works.

77. According to China State's Investigation Report dated



14 September 2015, extract of page 6 & 7 now produced and shown to me marked "**Exhibit [9]**", China State indicated that the soldering materials were ordered by their sub-contractor, Golden Day who did not provide any delivery record for soldering material to China State and stated that there was no purchase orders for soldering material as they verbally placed orders with plumbing material supplier.

78. In the above letter, China State also stated that material delivery note was usually provided by the subcontractors to them for interim payment purpose for materials on site. As soldering materials were not eligible for such payment and were also a miscellaneous consumable material, Golden Day did not provide any delivery record for soldering material to China State.

79. Based on the available information, I cannot conclude how and by action of which party lead solder came to be used in Hung Hom Estate Phase 2.

問：樂女士，剛才我都讀完你係關於紅磡邨二期部分嘅書面證供，係淨係同紅磡邨二期有關嘅，咁你聽完之後，有冇嘢需要更改或者補充？

答：冇補充。

問：你願意採納作為你喺呢個聆訊入面嘅證供？

答：願意。

殷先生：冇嘢問。

主席：All right.

許偉強先生盤問

問：樂小姐，我代表調查委員會嘅。咁就我將會問你有幾個問題，其實我之前都有問過其他幾條邨，咁就佢哋負責嘅總則師。咁但係因為就住你負責嗰三條邨，關於嗰啲問題我都想同你再討論多一次。

首先我想你睇一睇你嘅證人口供，就啱啱般大律師讀嘅關於紅磡邨嗰個證人口供，係喺 B15.3 嗰度，第 38968。第 35 段，就係講緊啲 Submission of plumbing material 嘅 proposal。就住呢一點，我都知道--而你個書面證人口供嗰度，就住呢一點，就三條邨都係一樣嘅嗰個證供。

答：冇錯。

問：咁我想睇一睇，就係第 35 段你所講，就係話有關 PLU1 同埋 PLU2 嗰個分別。另外，亦都你講咗就係話，第二句嗰度睇到，“Pursuant to Section PLU1”嗰度，“materials for pipes, fitting and joints, including soldering materials, China State ...”，咁其實有利都係。就“was not required to submit material proposals with samples for ...”個 contract manager approval 嘅咁。咁我就住呢一句，就“was not required to submit material proposals”，我都想同你討論一下，就係因為我哋之前聽過，有其他啲證人就講過話，就住 PLU1，當然我哋知道有啲 exception 係一定要擺嗰個樣本個實物出嚟畀你哋檢測，大部分都唔需要嘅。但係我就首先我先知道就係就住 PLU1，即係一般嚟講，唔好講嗰啲 exception 先，一般嚟講，你哋係咪就算唔睇嗰個樣本個實物，都會睇嗰個有關樣本嗰啲文件資料？

答：冇錯。

問：係。所以呢度你講話“China State was not required to submit material proposals with samples”，呢度你係講緊話特別係就嗰個實物，佢就係唔需要呈交界你哋去檢測？

答：或者我解釋清楚少少。

問：係。

答：因為我哋認為呢一個 solder 嗰個 jointing material，本身係一個 sundry item 嚟，所以基本上係唔需要 submit 任何嘅資料嘅添。咁而因為 PLU1 本身係要求個承建商，根據我哋嗰個 specification 嘅 requirement，就去履行佢嗰個責任，係 produce 嗰啲嘅物料，要 conform 嘅，因此就係 documentation

嘅 submission 就足夠。

問：係。咁我想睇一睇，就係就住你負責呢三條邨，我睇番而家個文件嘅證供，咁其實就住呢三條邨，當時個總承建商，即係包括呢個 China State 同埋有利，其實都係有呈交到嗰個 soldering material 嘅實物，呢個你同意嘅，係咪？

答：冇錯，知道。

問：所以嗰個當時嘅程序係咪咁呢，就係話就住 PLU1，如果我哋而家單單係講 soldering material 咁講，你哋睇唔睇嗰個實物本身嘅樣本，就係靠個總承建商佢哋係咪自願去畀你哋，呈交畀你哋，係咪咁嘅情況？

答：可以話佢本身入嚟嗰啲嘅文件裏面，已經有嗰個實物嘅樣，即係有埋晒嗰啲相片。咁因此如果佢就算唔搵入嚟一個實物嘅話，基本上嗰個樣我哋都可以睇到。

問：係。咁就住呢個--如果我哋單純睇實物嚟講，就係全靠嗰個總承建商佢擺唔擺嚟嘞，如果佢唔擺嚟，你哋就有特別有啲指定嘅要求，話就住某啲 PLU1 嘅物料，係需要佢哋擺實物嚟，係咪咁嘅意思？

答：冇錯，係。

問：除咗呢三條邨之外，我哋講緊呢個鉛水事件發現之前，你--例如我哋講緊呢五年，你所有負責過嘅屋邨嚟講，係咪大部分嘅總承建商佢都係會呈交一啲即係關於 soldering material 嘅樣本個實物畀你哋去檢測，一般嚟講？

答：其實基本上因為發生咗呢一個鉛水事件之後，咁我就睇番啲紀錄，喺呢三個工程裏面，佢係有人埋呢一個 sample。

問：咁如果我咁講啱唔啱呢，就先就住呢三個工程睇先喇，就係嗰個以你哋嚟講，總承建商都係覺得有需要呈交呢啲 sample 嘅實物畀你哋去檢測，可唔可以咁講？

答：我只可以講，就係話個承建商本身過往佢有呢一個習慣或者佢嘅 practice，喺第二啲 project 裏面佢有 submit，咁因此喺呢三單裏面，佢都一樣係 make submission。

問：即係跟番以前嘅做法咁樣嚟去做嘞，係咪？

答：冇錯。

問：咁我就想問下，如果就住你哋房署嗰個睇法嚟講，咁總承建商佢哋覺得有需要呈交呢啲實物畀你哋睇嘅咁，咁你哋亦都覺得擺到呢啲實物嘅樣本，即係我哋講緊 soldering material，就房署嚟講，你哋都覺得係有需要--嚟咗實物之後，都有需要睇咗實物，然後作一個檢測，係咪？即係去填嗰張 form。

答：Back to 返去個 specification requirement，個 specification requirement 如果本身係唔需要入呢一個 sample 嘅話，咁佢如果納入埋呢一個 material documentation，再加埋一個 sample on top of 我哋個 requirement，自然我哋都會睇埋。

問：係。如果你話一般嚟講，如果我哋講緊--剛才你有提到 sundry item，即係一般我哋所講一啲雜項，例如我哋之前都聽過一啲證供，都係講小五金嗰啲情況，...

答：冇錯。

問：...例如螺絲、螺絲帽嗰啲。就住嗰啲物料，咁例如房署嘅睇法或者做法，佢哋就住嗰啲物料，你哋就唔需要即係進行到一啲樣本嘅檢測嘅，包括文件嘅檢測同埋實物嘅檢測都係唔需要？

答：冇錯。

問：咁我咁樣講啱唔啱，就係如果我哋講緊呢個成個樣本嘅檢測嘅制度，喺當時個過程之中，如果你話一啲雜項，例如 sundry item，我哋講螺絲、螺絲帽嗰啲，你哋係唔需要做檢測，但係確實 soldering material 係事實上係有做到個檢測。咁我咁樣講啱唔啱呢？就係你哋當時其實成個處理嗰啲 sample 嘅過程之中--嘅 sample submission 嘅過程之中，其實你哋唔係當呢個 soldering material 係一種 sundry item 嘅處理嘞，你同唔同意？

答：我要 qualify 少少，就唔係一個所謂檢測，而係一個審視。即係佢入到嚟呢一個物料，同嗰個 specification 嘅要求，同埋佢入物料裏面嗰啲文件，我哋係對齊晒，認為佢都係 in order，係合乎我哋嘅要求，係 lead-free，咁所以我哋就會 approve。

問：其實審視又好，檢測又好，即係我嘅問題其實就係話，因為你剛才都講，就話對於一啲 sundry item，例如螺絲、螺絲帽嗰啲，係唔需

要真係去審視或者檢測嗰個 sample，或者係關於 sample 嘅 materials，所以 soldering 嘅 material 就要做一個咁樣嘅步驟。所以我個問題就係話，其實當時對於你成個 sample 嘅檢測或者審視嘅過程，其實 soldering material 唔係作為一種 sundry item，你同唔同意？

答：我唔同意。因為本身佢喺個 contract 裏面係其實唔需要，只不過係個 contractor 佢做開，咁而我哋喺日常嘅 site 嘅 inspection 裏面，一個 contractor 佢搵到嚟，佢想擺個 assurance，佢而家用呢一隻物料係 comply 嘅，所以佢畀我哋嘅同事去做。咁依然佢都係一個 sundry item 去處理，不過我哋都可以 make 個 approval。

問：你哋房署入面一般嘅做法，就係有冇話特定有一個名單，就列明邊啲係 sundry items 呢？又或者例如如果我哋要講邊啲係 sundry item 嘅話，就係靠你哋嘅經驗，或者你哋行內不嬲嘅做法去決定乜嘢係 sundry item？

答：其實一個 sundry item，就 generally 我哋都會有一啲即係認知嘅物料，反而我哋會係有一啲嘅 items 係一定要做 inspection，或者去做一個 verification，嗰啲就好清楚寫明。

問：但係咁樣講啱唔啱，如果就住 sundry item 嚟講，如果我哋講番即係一般我哋所講嘅小五金，螺絲、螺絲帽啲啲，嗰啲就一般嚟講，係唔會喺 contract 入面有 specification？即係定咗有啲咩嘢要求或者規格，係咪？

答：可以咁講。

問：我想你睇一睇，就係其中一個有利嘅書面證人供詞，就係喺 I1 嘅 93。I1 嘅 93 頁。或者我哋先睇一睇個文件先，然後我先問你有關嘅文件。咁喺 93 頁，我哋睇--或者你睇一睇 28 同 29 段。係，你睇到。咁另外我都想你睇一睇就係 P1。P1 嘅第 12 頁，4.7 段，麻煩你都睇一睇。睇咗，係咪？

答：睇咗。

問：係。咁我其實我係就住一個係有關呢幾段證人口供內容入面有提及嘅樣辦辦，呢樣嘢想同你即係問一問。就係關於呢個樣辦辦，咁我哋都睇到證人口供嗰度，都係話--即係有關嘅物料，咁可能佢哋會擺喺一個樣辦辦上面，咁跟住就可能都係呈交咗去房署嘅咁。咁我想知道呢個樣辦辦個做法，soldering material 都係咁樣嘅做法，係咪？

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即係例如佢而家擺個實物嚟，咁你哋都會話喺嗰塊樣辦辦上面就擺咗個 soldering material 嗰個實物喺度，係咪？

答：係。

問：即係呢個就係你哋檢測完之後，亦都會擺住呢個樣辦辦就擺番喺--我哋聽過之前其他證人講，就擺喺一間一個 locked-up room 度，有間房。

答：係。

問：係即係如果第二時需要睇番，咁可以擺嚟睇番。即係我就想確實一下個 soldering material 個做法，係咪都係用個樣辦辦個形式啫，第一。

答：而家跟呢一個文件咁睇，就佢哋因為可能做完咗嗰個 approval 之後，就將呢一啲物料放喺一個所謂 sample board 嗰度，然後將個 sample board 就擺喺一個 sample room 裏面。

問：係。你自己本人有冇親眼睇過呢啲擺咗 soldering material 嘅樣辦辦？

答：我唔記得，因為工程太耐。

問：係，好。咁我哋而家都知道，其實呢啲咁樣嘅--即係例如 soldering material 咁樣，其實我哋呈--總承建商呈交咗之後，你哋亦都係檢測咗之後，或者審視咗之後，咁我哋知道呢一個事實，就係喺你哋嗰個 site--on-site delivery 嘅時候，即係喺個地盤，真係將嗰啲貨運嚟嘅時候，你哋就唔會再做檢測，即係呢個係我哋知道證供係咁樣。

答：係，冇錯。

問：所以如果我咁講啱唔啱，即係嗰個樣辦辦同埋成個程序就話，你睇完就個樣辦辦，擺番落嗰間 locked-up room 度呢個程序，即係需要儲起呢啲咁嘅 sample。如果你日後係唔會再檢視嘅，咁嗰嚟嘅其實就成個嗰個工程嘅過程之中，其實都唔會再用番，係咪？

答：我只可以講就係話對於呢一個鉛水，呢一個 soldering joint material 本身，佢原來有一個--有機會係要藏鉛嘅話，而當其時因為認知唔足。如果當其時係認知係足嘅話，知道係有呢一個

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potential risk 嘅話，肯定啲同事就會 base on 個 sample board，所有嘅 material 就會 check。

問：係。因為我都想問一問，即係其實我嘅理解睇下啱唔啱，即係我哋嘅做法，我哋當時措咗啲 sample board 同埋啲 sample 喺個間房度，其實都有個目的嘅，個目的係希望話「啊，如果啲貨嚟到現場嘅時候，我都可以睇下，即係檢視一下係咪真係符合當時我所--即係署方所批准同埋核實咗啲個要求。」係咪咁嘅情況？

答：冇錯，呢個都係啲個目的。

問：係嘞。即係我個意思就係話，如果係呢個係個要求嘅話，就似乎如果你唔去檢測有啲報嚟嘅貨物嘅話，就其實同啲個要求就互相違背咗嗰，即係你做唔到呢個要求？即係措咗啲咁嘅樣辦辦嘅要求，其實係做唔到，同唔同意咁嘅講法？

答：我唔係太同意。因為本身就若果當其時啲個認知係高嘅話，呢一個 sample board 係有佢嘅 function，亦都係可以幫到個同事 on-site 做 inspection 之用嘅。

問：或者我哋亦都睇一睇呢個 sample board，或者呢個儲存呢個 sample 嘅 function 喺邊度先。如果我可以請你睇一睇 B10.1，23057。呢個都係就住一啲 preliminary 嘅一啲 specification。咁就如果你--麻煩樂女士，睇一睇呢個 23057，under "Samples" 嗰一段，睇唔睇到呀？

答：係，睇到。

問：咁就 "Samples of Materials - General Requirements"。

"Submit samples of materials as requested by the CM and do not confirm orders until Approval has been obtained."

呢句之後，我就想你睇一睇。

"Keep Approved samples at the place agreed by the CM for comparison with materials used in the Works, which must conform with the samples set aside" 咁樣。

即係呢個係咁講。即係其實個合同嘅訂明都係講得好清楚，即係

當時如果 samples 係核准咗之後，擺喺嗰間房度，個意義就在於第二時如果要用呢啲物料嘅時候，或者個物料到場嘅時候，你哋可以檢視一下，睇下啲物料係咪合規格，呢個你同意嘅，呢個合同要求？

答：同意。

問：咁我剛才嘅問題，就係話如果你檢視咗嗰啲 sample，亦都擺咗喺佢一個 locked-up room 入面，而但係你跟住就唔會再做任何即係呢個檢測嘅話--即係貨物到場嗰陣時唔會再做任何檢測嘅話，就達唔到呢個 preliminary 入面個要求、個目的，同唔同意？

答：因為本身喺呢一個 specification 嘅要求裏面，呢啲 material listed 就係需要一定要做呢一個 counterchecking。對於話係本身嗰個 soldering material，既然佢係一個五金嘅物體，而本身我哋亦都經過批核之後，個 contractor 應當喺呢一啲嘅小五金嗰度，係要用呢一啲物料去做呢一個嘅 works 嘅話，咁而我哋缺乏咗去做呢一個 checking，未必表示喺我哋現在做--冇做呢一個步驟，contractor 就可以亂咁用一啲嘅 materials。

問：即係其實講到尾都係話，即係你哋係相信嗰個 main contractor 去幫你哋把關，但係你哋就自己內部就有任何一個制度，真係去對於嗰啲實際嚟嗰啲貨物係作一個檢測，同唔同意？

答：我哋都係 back to 嗰個所謂 risk base 嘅 checking，因為如果知道某一種嘅物料係會有個 potential risk 嘅話，我哋喺嗰方面就會係加強。

問：如果而家我哋睇番轉頭，如果而家--即係呢次鉛水事件，我哋睇番轉頭，你同唔同意就話--即係如果我哋講番個 risk base 嗰個 approach，即係當時去決定邊啲物料到場嘅時候需要檢察，或者係唔再即係核實多一次符唔符合合同嘅要求，或者符唔符合你當時批核咗 sample 嗰個規格咁。其實係即係對於嗰個物料本身，嗰個可能含有害嘅物質嗰種情況，其實考慮得唔夠全面，同唔同意？

答：呢個我只可以講就係，喺呢個物料而導致到係有 potential risk，當其時如果做足、做多啲，會係更好嘅。

問：唔該。誒...



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主席：我想問一個問題，嗰個 locked-up room，for 你哋房署嗰啲擺 sample 嗰啲，除咗你哋房署嘅人員可以進入之外，嗰個 main contractors 或者下面嗰啲 sub-contractor 係唔入得，唔准嘅，係咪？

答：因為本身呢一個 locked-up room，係喺我哋 site inspection team 裏面，咁佢真係 locked-up。即使我要落去睇都好，啲同事都要擺條鎖匙開到度門先得。

主席：我知，我明。即係換句話嚟講，就係除咗房署嘅人係可以睇之外，就其他譬如嗰個 main contractor 或者個 sub-contractor，假設佢話「啊，我想而家睇下今日送嗰啲貨嚟嗰啲，係咪同我之前交界你哋嗰啲係咪一樣呢？」咁佢哋係咪如果咁樣做，就可以叫房署嗰啲人開個房門畀佢哋睇一睇，入去望下咁樣，可唔可以嘅呢？

答：可以，不過要同埋我哋同事一齊。

主席：即係你驚畀人調換，係咪，即係？

答：當然喇。

主席：好嘞，跟住另外有幾個問題我都想唔一問你，即係關於呢個又係認知不足嘅，問你嘅 risk-based。鉛有毒呢個問題你知㗎喇，係咪？

答：係。

主席：咁第二個問題就係喺呢一件事發生之前，你知唔知道喺好多其他嘅國家曾經出現過食水含鉛嘅問題？

答：喺七月之前，就真係唔知。

主席：真係唔知，得。換句話嚟講，你亦都唔知道係乜嘢原因導致到呢啲國家嗰啲食水係有含鉛嘅問題？唔知？

答：除非佢哋真係用鉛喉喇。

主席：Okay，好。鉛喉你知道嘅，係咪，你意思即係咁？

答：係嘞。

主席：即係過往用鉛喉引致到食水超標有毒，呢一樣嘢你係知道？

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答：呢啲都係即係喺啲書度睇到嘅啫。

主席：得，okay。咁你就知道鉛嘅水喉會有咁樣樣做喇，咁就你嘅意思就係話唔知道含鉛嘅焊料係會有呢一個同樣嘅問題出現，係咪咁樣樣？

答：可以講就話如果 soldering joint 裏面有含鉛，而含鉛嘅水裏面可以釋出嚟，導致到超咗一個水平而有個 health hazard，咁喺七月之前係唔知。

主席：得，唔該。咁你知唔知道就住呢個焊接水管嚟講，用嘅焊料係有鉛同埋有啲係冇鉛嘅呢？即係有呢啲咁嘅分別？

答：我見到我哋個 specification 係需要 lead-free。

主席：我知，呢個係你見到個 specification 㗎。咁我想問嘅，就係七月之前，你有冇其實--而家事後當然全部人都知道有一個咁嘅 specifications，七月之前有冇曾經留意過呢個咁樣樣嘅 specifications？

答：唔記得起，不過都有特別話要好專注去睇。

主席：得。即係如果咁講公唔公平呢，就係其實喺七月之前，你係基本上係唔知道就住焊接水管而言，就一定係要用無鉛嘅焊料？

答：呢個又唔可以咁講，因為本身個 specification 真係要 lead-free 嘅 solder joint。

主席：我知，個 specification 係咁寫，咁但係七月之前，你要--首先你要睇過個 specification 你先至知道㗎嘛，如果你話「我都有睇過」或者「我都有留意過」，咁基本上係空白，你明我意思嗎？

答：我明你意思，咁但係因為個合約太耐，而本身就真係冇特別留意呢一樣嘢。

主席：所以唔記得，唔知道點答？

答：係嘞。

主席：唔，得，好。

繼續。

問：我都想另外有一個問題，就就住啱啱我畀你睇過有利同埋伍克明嗰個證人供詞嗰度，都想問番你一點嘅，就係我哋再睇一睇呢個有利嗰個證供，就係 I1 嘅 93。I1 嘅 93。剛才我哋睇 28、29 段，我而家想你住 28 段嗰度，我想問一問你。

28 段或者我簡單咁讀一讀出嚟，最後面嗰度，就係--或者我成段讀出嚟。就係「喺採購焊料方面，雖然錫綫焊料不屬於『房署』必須送審嘅項目。」但係剛才所講，就係個別嘅工程人員會要求將嗰個焊料係送審嘅。我要就呢一點首先停一停先，就係剛才你講，就係話房署就有特定話就住焊料有啲咩嘢規定，係話就住承建商需唔需要呈交嗰個焊料實物畀你哋作任何規定咁樣。咁呢度就係有利嘅證供，佢就話「個別房署嘅工程人員都會要求將焊料送審」，咁就呢一句，你同唔同意佢嘅講法？即係話你哋房署係會有職員係真係會主動地去要求佢哋呈交啲焊料嘅實物畀佢哋睇嘅咁樣，咁同你嘅講法可能有少少唔同，我就想知道即係你對於呢一個咁樣嘅--即係有利呢一個證供，你係點樣睇法？

答：我相信呢個嘅基礎，係因為我哋本身喺地盤有 site inspection team，而我哋嘅 clerk of works 或者啲同事，對於呢一個 specification 嘅要求，要 lead-free 嘅 solder material，咁而因此要求佢去將呢樣物料送審嘅話，有咁嘅可能。

問：但係就佢哋要求送審嗰個基礎，都係咪因為即係以前曾經佢哋有攞過嚟，咁所以都繼續問佢哋攞？定係話你哋確實有一個內部--有一個好似話--即係佢哋嘅 understanding 或者一個指引，係話「啊，你哋現場嗰陣時，唔該你哋都要問一問嗰啲總承建商，叫佢哋呈交啲。」究竟係個情況係點？

答：呢個我唔可以代佢哋答，不過我估計可能係 by practice。

問：咁我哋繼續睇落去，28 段嗰度，最後--或者睇下第三句嗰度，「這時」嗰度開始，「『明合』會要求水喉分判商去購買符合『房署』要求嘅焊料樣辦交給有利及房署則師去到審批。有時按個別項目要求，水喉分判商亦要在樣辦房向『房屋署』工程人員示範燒焊工序」。即係佢個講法就係話，「啊，喺個樣辦房」--樣辦房，即係以我理解，就係剛才我哋所講個 locked-up room。咁佢呢度就話「啊，有時都要喺個樣辦房嗰度向你哋嘅職員去示範一啲燒焊嘅工序嘅。」咁樣。咁...

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答：樣辦房，我相信樣辦房係 sample flat。

問：Sample flat，係。

答：唔。

問：個樣辦房入面就即係去示範呢個工序，呢個你同唔同意佢個講法？或者你有冇曾經聽過或者睇過咁樣嘅情況？

答：呢個我唔同意，因為我 run 咗咁多個 contract，都未要求過個承建商要喺個 sample flat 裏面去做呢個 demonstration。

問：唔。咁你有冇曾經見過、聽過或者要求過嗰啲工人，就住燒焊呢個工序，喺工地，即係嗰個地盤嘅現場任何地方做一個示範？有冇啲咁嘅記憶？

答：冇。

主席：呢啲問題，其實 Mr Yin 係應該你哋去問，啱唔啱？你哋都唔問嘅，點解呢啲問題？

問：就住剛才主席問你有幾條問題，關於個認知不足嗰方面，咁我都想補充少少嘅問題想問下你。就係你剛才嘅答案都係話你都係知道一般嚟講，個鉛係即係對身體有害--因為重金屬對身體有害，呢個你係知道。咁你亦都對--就住一啲即係工程項目入面，所需要符合啲水務署嘅，例如佢哋個法例或者水務規則嘅要求，即係你都有一定嘅認識，即係水務條例--水務規則應該係講，話就住一啲 pipes and fittings，佢需要符合一個英國標準呢樣嘢，你係知道嘅，係咪？

答：係。

問：咁而我哋都睇到嗰啲 contract 嘅 specification，就就住焊料嚟講，都寫得好清楚，就係話佢要符合英國標準，BS 1254，咁我哋都睇過。另外，佢亦都係開宗明義都講得好清楚，就係話係需要用 lead-free 嘅 soldering material，喺個 contract specification 嚟講。我就想討論一下，即係就住嗰個認知不足嗰度，就係話我哋都知道係法例同埋嗰個 contract，嗰度其實有個訂明，就住個焊料需要符合個咩嘢規格，英國標準嗰啲，即係我哋知道

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係有。你同唔同意我咁講，就係話法例同埋合同都需要一個咁清楚嘅訂明，其實個主要目的都係即係避免喺做水喉個工程過程之中，係用咗一啲好似有鉛呢啲有害嘅物體喺入面，同唔同意呢個講法？

答：法例同埋個合約嘅要求，有呢一樣嘅準則嘅話，佢背後一定係有佢嘅原因嘅，咁所以我相信係應該為咗保障個 health。

問：係，好，唔該。有一樣嘢我就想同你討論一下，就係就住合同嘅制定，我哋之前就有問過一位總屋宇裝備工程師伍達群先生，咁就佢有同我哋講，就係話就住呢個水喉嘅工程，同埋一啲係即係你哋搵咗 nominated subcontractor 個情況，即係一啲例如 fire services 或者係 water pump 嗰啲工程，呢兩方面，就即係佢都會係對呢個 specifications 係即係會睇嘅，佢會去做一啲制定嘅。我就想問一問，就住每一條邨，或者就住每一個工程個項目嚟講，制定嘅合同，即係話例如喺合同入面講啲乜嘢，用邊一個 specification，或者用邊一個 specification 嘅時候，需唔需要啲 amendments，有冇啲 revision 要修改咁樣。呢一個咁嘅過程，就住每一個項目嚟講，係邊個主要去負責？

答：或者我講一講，我哋喺未投標前要做個個標書個過程。

問：係。

答：本身我哋部門有一個所謂 central support，即係制定 standard，制定合約嘅要求，係有一套嘅 standard Specification Library 嘅。

問：係，冇錯。

答：咁而我作為合約經理人，喺我去 prepare 呢個所謂 tender booklet（投標書）嘅時候，我主要就會係制定一個 particular specification，而呢個 particular specification 係為嗰個工程係專登寫嘅，咁基本上就係我哋嘅 preliminary parts 嗰部分。

問：係。

答：其餘啲 clauses，大體上應該係應用到喺我哋所有新建造嘅工程裏面，我哋通常都唔會鬥佢，留番佢即係 together with 嗰個所謂 particular specification，就成為我哋嘅所謂嘅 tender booklet，咁樣。

問：咁所以即係咁樣講都啱，就係話即係因為你 tender 之後，咁都會係用番即係嗰一套 specifications，所以如果我哋講話--我哋而家睇番就住每一條邨、每一個建築嘅項目嚟到講，有關嗰個合同嘅制定本身——即係就住嗰條邨有啲咩嘢特定嘅制定，就係總則師嗰個責任？

答：其實做一個標書係好多裏面不同嘅小項嘅工程，咁好多嘅 parts，我哋要靠一個團隊去做嘅。

問：係。

答：Contract manger，只不過係帶領住成個團隊，分別有 structural engineer、building services engineer，就佢哋係需要到喺成個項目裏面嘅小項裏面，就加入嗰個 particular requirements，配合埋呢一個 standard specification，制定成個 document，就咁樣。

問：唔。

主席：咁呢個 water supply 呢啲 specifications，係 building services engineer 嘅 input，抑或係你哋 architect 嘅 input 嚟嘅呢？

答：喺嗰個 PLU1 同埋 2 嗰度，其實都唔係話我哋嗰個所謂 contract team 自己去製造出嚟嘅，主要係根據呢一個 standard specification 嘅 library 裏面嘅要求，咁擺落去呢一個標書裏面，投咗標之後，就成為嗰個合約嘅要求。

主席：我知。即係我嘅意思係邊一個話--抑或係唔需要決定，自動每一個屋邨都會有呢個，譬如我哋講 PLU1 擺晒落去，抑或係個 chief architect 話「我哋要擺呢個落去」，抑或係個 chief building services engineer 話「我哋要擺 PLU1 落嚟」，抑或唔需要，個個屋邨都有？

答：每一個項目基本上都係包嗰幾樣嘢嘅，pump works、... (聽不清)，或者所有嘅嘢，咁因此就喺我哋每一個 booklet 係 standard，實有呢個 item。咁而制定呢部分嘅 standard specification，我哋就要靠另一組嘅同事，嗰個所謂 central support team 去做。

問：咁我想都問一問你，就係就住例如我哋而家講紅磡邨先。紅磡邨嗰個...

主席，對唔住，你講嗰個 central support team 係咪即係我哋成日聽嘅，喺呢個 DCD 裏面譬如有一個 chief architect 負責 design and standard 嗰個？

答：係，冇錯。

主席：唔。

答：不過佢都會係 backup by CBSE，就制定 standard 嗰位同事。

問：唔。如果我哋睇番紅磡邨嗰個合同嗰個制定先，咁我哋睇一睇就係 B10.1 嘅 22956 頁。而家我哋睇一睇有關 PLU1 入面嘅條款，就係喺 23096。由 23096 開始，我哋一路睇落去，就係喺 23100 都講咗，pipes、fittings、joints 咁樣樣，睇唔睇到呀？

答：睇到。

問：咁就一路去到大概係 23102 就係講緊 workmanship 嘅。咁我想睇一睇，就係就住紅磡邨呢一個，咁我知道佢呢一個當時係引用番 2004 年嗰個 specification library 嘅，如果我有記錯嘅話，係咪？但係如果我哋就咁睇 23100 同埋一路去到 23102 嗰度，就有特別話提到呢個焊料係需要符合啲咩嘢規格嘅，睇唔睇到？即係呢度，似乎喺呢一個 specification，PLU1 就有特別即係 expressly 去講出嚟呢樣嘢嘅？

答：即係講咗呢一個 lead-free。

問：係，冇錯。

答：係。

問：Lead-free 或者係 BS 1254 冇特別講到嘅，係咪呀？

答：係嘞。

問：咁我想知道嗰陣時，即係你制定呢一個 PLU1，就住呢一方面紅磡邨嗰個 specification 嘅時候，咁我想問下，就係點解唔將 2004 嘅 Specification Library，即係嗰個所寫到咁清楚有關 solder material 嘅 specification 直情係擺喺個 contract 度，而要係即係好似一個我哋所講 incorporation by reference，就咁講咗 2004 嘅 Library Specification 就算，即係我想知道點樣--即係當時個 mind 係點樣去決定邊啲條款係要直情擺落去嘅，邊啲就咁我哋睇 2004 Specification Library 就已經夠嘍嘞，點樣去取捨嘅呢，當時？

答：首先就因為紅磡我 take over 個 project 已經開始咗嘅，咁前期嘅 preparation work 我有份參與。

問：Okay。

答：但係即候係咁，我用番一個常態嚟去睇嘅時候，就其實基本上喺呢一個 specification 裏面，若果我哋 central team 裏邊已經有呢一個 requirement BS 幾多擺咗落去嘅話，唔需要特別再 expand 喺呢一個 document 裏面，因為已經係足夠嘅一個所謂 reference information。

問：唔。

答：咁亦都信賴我哋 central team 嘅同事，佢去做呢一個 standard spec 嘅時候係已經考慮過，然後就擺嗰個資料落去。

問：唔。

主席：你個問題係點解要特別抽出嚟擺，即係有一啲點解會特別抽出嚟擺喺個 contract，即係有啲咩嘢嘢想表達出嚟？即係理論上，你嗰啲 specifications 係喺你哋嗰啲 standard 嗰度已經有晒，我諗佢個意思就，即係無端端做咩嘢要抽啲嘢出嚟講呢咁樣？

答：呢個我都唔清楚。

主席：嘎，得。



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問：因為我哋--如果我問埋呢一條問題，就呢一點，因為如果我哋睇下就住抽邊啲出嚟，我就咁睇，我睇唔到有個準則，就係例如我哋如果睇 B10.1 嗰度，呢個就係我哋 expressly 寫落去 specification 入面一啲嘅即係規格，如果我哋睇個 pipes、fittings and joints 嗰度，23100 頁。

主席：231...

許偉強先生：23100。

答：23100。

問：如果我哋睇 copper pipe 嗰度，見唔見到？ PLU1.M120.B，23100。

答：唔。

問：咁我哋睇到 under copper pipes，“1”嗰度，睇唔睇到“Be of seamless drawn copper tubes”，見唔見到？“Manufactured to BS EM 1057:1996 with nominal wall thickness as below”咁，佢就講出咗有啲咩嘢規格。

答：唔。

問：剛才你講，就係話可能呢啲呢寫出嚟嘅，就即係如果有啲係已經喺個 Specification Library 已經寫咗，就唔需要特別去抽出嚟。因為我諗你個講法就唔係真係好啱，因為點解呢？如果我哋睇番 2004 嘅 Specification Library，喺 B2，644 頁。644 頁我哋見到 copper pipes？

答：唔。

問：咁其實大致上如果我哋講“1”嗰度，都同呢個我諗應該都差唔多一樣，...

答：其實係...

問：...但係呢度又即係你將佢喺嗰個紅磡嗰個合同個 specification 又即係特定咁樣抽咗出嚟，呢一部分又重複咗，咁所以究竟有啲咩準

則去決定邊啲嘢 Specification Library 嘅嘢擺落去，邊啲唔擺落去，你應該點決定呢？

答：如果過往我哋係基本上都盡量係用嗰個 Specification Library 裏面啲 standard clauses，就擺落去自己嗰個 contract，就成為嗰個 contract 嘅 requirement。

問：即係成份照抄落去，定係話 incorporation by reference，就咁講咗話 Specification Library 就算？

答：應該就係全部照樣執過去，除咗嘢某一些，例如我正話所講，preliminary part，就係 tailor-made 嘅，同埋若果真係你想要 project-specific 去改動嘅話，係要 seek 嗰個 CM 同意嘅。

問：畀我睇下，喺呢個...

主席：我哋 lunch hour，食午飯，兩點半再繼續。唔該。

上午 1 時 03 分聆訊押後

下午 2 時 31 分恢復聆訊

出席人士如前

主席：繼續。

許偉強先生：係。

香港房屋委員會第十一證人：樂素芬（房屋署（清河邨第一期、彩福邨和紅磡邨第二期總建築師））宣誓繼續作供  
許偉強先生繼續盤問

問：樂女士，喺食晏之前，我哋都討論過就係我畀你睇咗有關紅磡邨嗰個 specifications 嗰啲規格，就住 PLU1 入面有啲咁嘅規定嘅，我都有問過你就係話佢又唔係完全跟足呢個 2004 嘅 Specification

Library 入面嗰個規格照咁樣抄落去嘅，而係可能佢又擺咗一部分出嚟擺咗落去，有啲又有擺嘅，其實我個問題，喺食晏之前就想問你睇完之後你覺得即係當時個決定擺邊啲人去即係紅磡邨嗰個合同嘅時候，嗰個取捨喺邊度呢？我想問一問你，睇下你嘅答案係點樣。

答：係，首先我都要澄清，就我唔係當初釐定呢一個標書要求嘅同事嚟嘅，但係以往我哋個原則都係話若果個別嘅工程有需要將個 standard Specification Library 裏面某一些 clause 去改動嘅話，佢都必須要得到呢個 CM 嘅同意，即係 contract manager 嘅同意嘅。

問：就住如果你嘅經驗，就係如果你睇到即係就某一個工程項目，如果需要將例如適用嘅 Specification Library 入面，我哋就咁睇 PLU1 先，邊啲咁嘅規格、條款需要就係 expressly -- 或者我哋講 specifically 指定咁樣，即係特定咁樣擺咗落去嘅，擺咗落去個 contract 度嘅，有啲乜嘢考慮呢？有啲邊啲嘢擺、邊啲唔擺，有啲咩嘢咩嘢考慮呢？

何先生：法官閣下，我其實係想幫許律師即係可唔可--睇下可唔可以快啱啱，即係就--我明白許先生個問題個重要就係咩嘢要擺落、咩嘢唔擺落，其實我一陣間係有一個好--即係都相當清楚嘅答案嘅，與其許律師喺度有少少釣魚，咁就不如容許我--一陣間我問咗之後，呢個證人一係就知，一係就唔知，唔知唔緊要，我有另外一啲證人係可以講到，咁就可能許律師如果鍾意有 follow 嘅提問，我係完全冇異議，不過我會有一個好簡單嘅答案會解釋得到畀許律師聽點解會有一啲會喺個--雖然有個叫做 Specification Library，某一年嘅 Specification Library 2004、2008 或者稍後仲有更新嘅，但係喺個 contract 裏面某一啲條款係會再寫喺嗰個 contract 裏面嘅。

主席：不如果你而家話畀佢聽咪得囉，等佢問咪得囉。

何先生：係，係，我唔介意，完全唔介意我同許先生即係與其佢喺度--猛喺度釣魚。

主席：咁你而家私底下話聲畀佢聽咪得囉。

殷先生：We can take her go through the documents, if we...

何先生：Yes，我一陣間會--如果許律師唔介意暫時 drop 咗呢個 line，

然後我一陣間我會係有機會嘅時候，我會 take 呢個證人，睇下佢知唔知，...

主席：都得。

何先生：...如果佢唔知，我有第二個證人，許律師絕對可以喺嗰個時候再問呢個證人，如果佢唔同意呢個證人所講嘅。

許偉強先生：我完全唔介意私底下解決嘅呢樣嘢，咁但係即係我既然問咗呢個問題，咁或者我想聽一聽樂女士答咗先，然後我 move on 去另外一個問題度。

主席：好呀，好呀。

答：如果就住 PLU1 嚟講，基本上我作為個 contract manager，覺得冇乜需要冇啲咩特別嘅，而改動某一些 clauses，除非喺個 approval processes，嗰位同事可以話得到畀我聽呢一個 clause 係需要到 adapt 喺呢一個 contract 上面，咁就過往經驗嚟講，我好少收到呢一個 request。

問：好，唔該你。我想去另一個範疇嘅，就係我哋聽過有啲其他嘅證人--即係房署嘅證人嘅口供，入面都講咗，話畀我聽就係嗰個所謂嘅指定分判商同埋一啲係自選分判商嘅分別，即係我哋所謂 nominated subcontractor 就係指定嘅分判商，domestic 嘅 subcontractor 就係自選嘅分判商，我亦都知道喺個合同度，就住呢啲唔同嘅分判商嘅 subcontract，都有啲唔同嘅制定嘅，呢個我遲一步再同你傾一傾。

我哋知道就住其他證人畀我哋嘅答覆，就係話由於一啲嘅防火嘅設備、一啲水泵嘅工程係比較可能我哋所講技術上嗰個需要係高啲嘅，咁所以就住嗰啲工程，你哋就用一個指定分判商，但係好似水喉工程--一般水喉工程就用一個即係個自選分判商嘅做法嘅，我喺呢方面都想問一問你嘅，就係首先你同唔同意呢個講法，就係防火嘅設備同埋水泵嘅工程，即係由於佢牽涉嗰個技術層面係要求係比較多啲咁樣，咁所以房署一向個做法就係用一個指定分判商咁嘅形式嚟去做，呢個你同唔同意？

答：或者我補充少少，用到 nominated subcontractor 唔多唔少係需要到除咗話喺技術上有一啲較為複雜啲之外，係牽涉到可能會有個設

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計嘅，即係個別嘅系統上面有一個設計嘅需要，咁變咗正話所講嗰類別嘅 subcontract 係有呢個要求嘅，如同好似 electrical subcontractor 都一樣，都係用 nomination 嘅。

問：我咁講又啱唔啱呢，就係如果我哋睇--我哋都知道而家就住水泵嘅泵房同埋嗰啲喉管嘅工程係有唔同嘅處理方面，但係你同唔同意我咁講呢，就係嗰啲喉管嘅工程同埋水泵其實都係有相連，有相關嘅，你同唔同意呀？

答：係。

問：我想知道就係--我睇下我嘅理解啱唔啱，就係如果譬如我哋選用一啲指定嘅分判商嘅話，房署嘅做法係佢哋會有自己--你哋有一套係你哋想佢哋採納嘅 subcontract，係畀佢哋同埋呢個總承建商去簽署嘅，係咪咁樣嘅做法？

答：可能個分別就係如果係用 nominated subcontract，我哋會有一套嘅 specification requirement，但係同樣地，我哋要求呢個 plumbing works 都有一個 specification requirement 嘅。

問：我明白，我哋一步一步嚟先，首先我哋如果講咗指定個分判商，嗰個 specifications，我可唔可以咁樣講呢，就係我理解應該睇下啱唔啱，就係當指定分判商同埋個總承建商簽署佢哋嗰個 subcontract 嘅時候，即係例如有關防火設備、水泵嘅 subcontract 嘅時候，即係你哋房署會好清楚知道佢哋嗰啲合約嘅要求，呢個 subcontract 嘅合約規格要求係啲乜嘢，你哋好清楚，係咪呀？

答：係。

問：如果係自選分判商嘅話，我嘅理解咁又啱唔啱呢，就係如果自選分判商嘅話，呢一個分判商就係個總承建商佢去搵番嚟嘅，同意嘛？

答：係，係。

問：我睇到你嘅證人口供就話如果係例如水喉方面，自選分判商嘅即係做法係咪就係話你哋一般嚟講，都唔會去睇或者要求總承建商或者個分判商畀你哋去睇個 subcontract 嘅內容，係咪呀？

答：或者補充少少，就我哋最近--都唔係最近喇，即係因為某一個德信事件，關乎於某一個 contractor 佢欠薪，咁之後我哋就 introduce 咗一個 requirement，係一個 special-conditioned

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subcontract，就要求呢一個 main contractor 去 produce the original copy of 個 contract 嘅，之後利用呢一個咁樣嘅條款係可以要求 main contractor 去畀個 original copy of 嗰啲 domestic 嘅 subcontract 嘅 works 或者個 context 嚟睇。

問：講番你而家啱啱講嗰個例子，呢個係最近先至開始嘅做法，係咪呀？

答：都唔係最近，都有頗長嘅時間。

問：但係如果我哋就住你負責嗰三條屋邨嚟到講，當時個做法係咪都係如果自選分判商嘅話，你哋一般嚟講都唔會要求話從個總承建商或者個分判商嗰度攞一份個 subcontract 嚟睇下究竟內容係乜嘢，呢個係咪同意㗎？

答：呢個未必準確，因為清河邨 exactly 就係呢一個 re-entry contract 嚟嘅，係 after 德信事件之後嘅，之後就所有啲 contract 裏面都已經標明咗呢一個 requirement，所以其實係可以嘅。

問：如果例如紅磡邨嚟講，係咪就係講緊呢個德信事件之前嘅做法？

答：我要睇一睇個時間先，應該就係--紅磡邨應該係 afterwards 嘅，係之後嘅。

問：Okay，其實我個問題好簡單，就係話因為就住一啲自選分判商嘅 subcontract，因為你哋--又唔係你哋特定 nominate 嘅 subcontractor，你又要靠承建商去即係推薦邊啲 subcontractor，其實你哋係咪更加應該有一個比較嚴謹嘅監管，就係去睇下個 subcontract 入面嘅內容係咪應該包括咗你哋 main contract 裏面嘅規格呢？

答：或者我都係去番嗰個 main spirit of the contracting parties，因為簽署個合約嚟講，係 HA 同埋個 main contractor 去簽嘅，而喺個 contract document 裏面寫明 main contractor 係全盤要負責整個合約嘅 quality 同埋嗰個 specification 嘅 conformity 嘅，因此如果喺合約裏面履行嗰個要求係即係 in proper order 嘅話，我哋冇理由需要再前下一個 layer 去問呢一個 main contractor 去攞呢啲 subcontract document 去睇。

問：即係意思即係話由於你哋係相信個 main contractor 佢係會做得足夠嘅，所以就覺得唔需要去問 main contractor 有關 subcontract 嘅內容，係咪咁嘅意思？

答：我相信要做一個舉動去檢視番佢個 next layer 嘅 subcontract, exactly 就係要 manage by exception, 即係如果有唔妥之處, 咁就可以做到呢一個 specification 我哋 exercise 個 right 去問攞呢一個要求。

問：但係你同唔同意我有咁嘅講法, 就係如果你唔去攞, 唔去從總承建商嗰度攞有關嘅 subcontract 嘅內容嚟睇, 基本上你哋係唔會知道入面嘅內容係咪已經包括咗喺 main contract 入面需要嘅一啲規格, 同唔同意我咁講?

答：基本上 main contractor 同佢自己嘅 domestic subcontractor 本身嗰個關係同埋佢哋會判點樣嘅方法嘅話, 呢個係唔需要我哋去即係深究嘅。

問：如果呢次嘅事件之後, 呢個鉛水事件發生咗之後, 你覺得喺呢一方面, 你哋需唔需要做多啲把關, 即係例如究竟個 main contractor 同埋 subcontractor, 我哋就住係自選外判嚟講, 唔係講緊 nominated, 自選嚟講, 你覺得係咪需要一個更加嚴謹啲嘅執行呢? 例如包括你事先係應該清楚啲睇下或者係檢視下究竟佢哋嘅 subcontract 個內容係乜嘢, 你覺得有冇咁嘅需要呢?

答：我覺得最重要嘅都係去番 main contractor 佢去履行呢一個合約裏面嘅要求嘅時候, 我哋係點樣可以做多更好嘅步驟, 例如係咪做多啲 testing 或者抽查, 喺呢方面, 我覺得係, 因為本身都係話, 就 HA 同埋個 main contractor 去簽嘅嗰個合約。

問：好, 另外我想問一問你, 就住例如你哋房署--我哋暫且就係講呢個總則師嘅情況, 總則師同埋呢個 licensed plumber, 即係持牌水喉匠個關係, 我想都同你討論一下嘅。呢個問題我亦都問過之前有幾位總則師, 其中一個問題就係話喺我哋睇呢三條邨嘅工程入面嚟講, 就住呢個持牌水喉匠, 佢喺成個工程唔同階段佢做緊啲乜嘢, 你作為即係總則師或者係當時做緊總則師嘅嗰位人士嚟講, 佢有冇話特別要求呢個持牌水喉匠去呈交啲咩嘢資料, 等你哋有個 record 佢哋喺嗰個工程進行當中係做緊啲乜嘢, 有冇呢方面嘅要求?

答：或者我想清楚一啲所謂嘅 record, 你指係咩嘢?

問：例如佢講緊呢個持牌水喉匠, 假設佢 12 月進入呢個地盤, 佢係幾時進入呢個地盤、佢進入去地盤呢個時段做緊啲咩嘢工程或者佢係監管緊一啲工人做緊啲咩嘢工程、大概佢當時係有幾多個工人做緊呢一方面嘅工程, 即係呢一類型嘅資料, 你哋有冇一個 record 知道持牌水

喉匠會--即係佢哋個資料係點樣？

答：其實喺每一個工程嚟講，就 main contractor 係有一個責任去 produce 一個所謂 programme chart 畀我哋嘅，因著呢一個 programme chart 本身個別嘅細項嘅工序嘅話，佢係會列表晒佢個個開工時間同埋佢個完工期，因此就可能 deduce 到去到成個工程個個完工期嘅，咁我哋唔會好 specifically 要求呢一個所謂 licensed plumber 去 produce 呢啲 document 嘅。

反而我哋喺成個合約嘅執行嚟講，係一個 process management 個過程，即係話去到某一個時限嘅時候，個 main contractor 佢就要 produce 番 regularly 係佢有幾多個工人喺地盤做嘢、就佢做到邊處，甚至到因為成個過程都牽涉到好多唔同嘅工序嘅，包括喺而家呢一個 plumbing installation，佢係需要 satisfy 個 Waterworks Regulation 同埋 Ordinance 裏面嘅要求，去 make 即係所謂我哋啲 forms submission 去攞一啲嘅 approvals on time，例如就話幾時佢可以即係得到水務署嘅同意去開工做嘢，permit 佢用啲 materials，即係呢一啲就喺個成個時段裏面我哋都會 keep track 住。

但係你話會唔會好 specifically 去問 LP 嚟去 produce 呢個 document，我哋覺得有需要，始終都係去番個 main contractor。

問：明白。你剛才講咗就話 LP 咁其中一個佢要扮演嘅角色就係佢要即係向水務署作一啲申請同埋一啲表格啲，啲我哋稍後我哋會再睇一睇嘅，我而家想問一問你，就係話對於水務條例入面係要求一個 licensed plumber 就住水喉工程，佢需要做一啲監督嘅工作，呢方面你清楚，係咪呀？

答：知道。

問：因為我就其實係想問你嘅，就係話呢個水喉匠，因為佢喺法例要求底下，佢要進行呢個監督，你哋作為個即係發展商，可以咁講，即係作為一個即係 project 嘅 employer，你哋都會想--起碼都會想知道呢個持牌水喉匠佢係咪真係遵從個法例嚟到監督啲有關水喉嘅工程，即係我相信呢個都係你哋即係其中一個希望要知悉嘅有關嘅資料，係咪呀？

答：或者我--因為我哋本身喺合約上，就 HA 有一個所謂 contractual relationship with 個 LP，所以如果喺我哋--我正話所講，成個過程裏面，所有都係跟住我哋嘅 programme 去進度，又做得妥當嘅



話，我哋係唔需要理會係邊一個所謂嘅 licensed plumber 去 conduct 呢一個 works 嘅，雖然我哋亦都信呢位 main contractor 佢係個 domestic subcontracting 嗰方面一定會有一個 licensed 嘅 plumber 去做，因為叫得做 LP，其實佢係要遵從法例底下嗰個 obligations 嘅，因此如果個工程進度得 okay 嘅話，我哋會覺得佢已經履行咗嗰個責任，但係若果個 waterworks 本身或者個 plumbing installation 做得唔妥當嘅話，我哋去問責嘅，就會係問個 main contractor。

問：咁講喇，即係因為呢啲水喉嘅工程即係都唔可以話求其搵啲工人嚟做嘅，即係我哋都需要係搵有合資格嘅工人嚟做，除此之外，根據法例，呢一個你搵到合資格嘅工人之外，呢一個持牌水喉匠佢係要監督成個水喉工程嘅，就住你剛才嘅答案嚟講，你覺得係咪咁講呢，你嘅意思係咪話就住房署點樣去到即係話確保水喉工程佢做嘅時候，持牌水喉匠係定期咁樣有監督呢個咁嘅情況，係你哋都係完全係倚賴個 main contractor 即係佢哋嘅工作，係咪咁解？

答：我相信個 main contractor 本身佢去 deliver 呢一個 project 嘅時候，佢亦都有一個嘅 site management team 嘅，佢亦都有佢自己嘅所謂 project manager，佢同埋呢一個所謂 licensed plumber 本身點樣作一個 proper 嘅聯絡同埋佢點監督嚟講，呢方面我係唔知嘅。咁我相信就係個 main contractor 佢亦都為咗自己嗰個 final 嘅 product 嗰個 quality 著想，應該係會監督番嗰個 LP，而個 LP 相對亦都要履行番佢嘅 under Waterworks Regulations 底下嗰個 obligation 要去做呢一啲嘢。

問：如果我哋就住呢件事嚟到而家睇番，都係，即係都係我哋而家可能--可以講係後知後覺，又或者係經一事長一智，如果你話睇番呢件事嘅話，如果你哋就住呢啲咁嘅水喉嘅工程，房署嚟講，你覺得而家我哋展望將來嘅，應唔應該你本身都對持牌水喉匠就住佢點樣去監督嗰個水喉工程或者水喉工人點樣去做呢啲工程嘅監督，你哋係應該係有啲檢視嘅，你同唔同意呢個咁嘅講法？

答：經一事長一智，喺成個問題所在之處，點樣杜絕將來唔會有同樣事情發生嘅話，我覺得多方面係應該要做多啲，咁就本身因為我而家遠離咗做 works 嘅崗位嗰度，而我相信我哋部門都會有所謂一個 step up 嘅 arrangement 嘅，但係 ultimately，我哋始終都係相信就係水務監督本身亦都喺呢一方面會多啲嘅即係提升一啲嘅要求，而呢一樣嘢牽涉到佢點樣 licensed plumber 個 performance 做好啲，喺個供應鏈嗰方面又會做好啲，呢個可能喺業界嗰方面要多啲即係溝通

嚟去達致一啲更好嘅方法。

問：你唔使擔心，我相信水務監督嚟畀口供嗰陣時候，一定有一大班人會問佢同樣嘅問題嘅。但係我就就住如果我剛才嘅問題，就係話喺房署內部嚟講，你覺得而家睇番轉頭，係咪應該對呢一個持牌水喉匠嘅工程應該係作多一啲嘅檢視，作多一啲嘅監督，你同唔同意咁嘅做法？

答：呢個可以係一個加--即係改善嗰個所謂嗰個 quality 嗰方面，可以係咁做嘅，但係更加重要嘅就係點樣可以將呢啲要求反映番喺一個 contract 裏面而又可以 enforceable 嘅一啲嘅 spec.，我諗呢個係重要嘅。

問：好，唔該。就住呢個工程上面個情況，我想你睇一睇 I1 82 頁，82 頁第 9 段，請你睇一睇先，然後我先再問你有關問題，最主要我想你睇嘅就中間第一、二、三，第四行開始，「清河邨第一期最初由深記」嗰度開始，呢個都係有利建築嘅嗰個證人口供。

答：唔，okay。

問：因為呢度都講話係清河邨當時第一期原先就由深記做嘅，跟住由於進度就欠佳，跟住就搵咗另外一間永興係接手完成嘅。我都想問一問你，就係關於呢個佢講個清河邨嗰個進度，你當時有冇話特別聽過就住水喉工程嚟講，個進度比較慢或者係需要喺一段時間要搏命趕工咁樣，有冇啲咁嘅情況，以你嘅理解？

答：呢個因為都事隔一段頗長嘅時間，就我唔記得 specifically 喺呢個工程上面係咪個水喉匠嗰方面做得唔妥當，不過過往如果有一啲工程中途發覺啲 subcontractor 係做得唔妥當嘅話，main contractor --我哋實會問個 main contractor 究竟發生咩嘢事，因為大家要完成一項工程嘅話，一樣--一環扣一環，所以 trades 應該要協調，然後去前進，某一個 trade 佢做得唔妥當嘅話，就要即時要作出一個補救方法，咁有可能就係喺清河邨佢換呢一個 subcontractor 都係咁嘅原因，但係 exactly 當其時係咪有咁樣嘅提出嚟嘅話，我唔記得。

問：如果就住水喉工程咁嚟講，如果真係有段時間係需要趕工嘅，有時候可能係個水喉嘅外判商或者持牌水喉匠佢可能都會自己即係加入一啲自己嘅可能啲團隊或者工人嚟就係即係進行嗰個趕工個工程，我想問下，就住例如工人進場去做嘢，首先邊啲係例如持牌水喉匠帶嚟嘅工人，邊啲係例如外判商，即係水喉外判商帶嚟嘅工人，你哋會唔會有啲咁嘅分別嘅紀錄，即係唔同嘅紀錄？

答：佢帶咩嘢工人，呢個就我哋係唔清楚，不過我哋係有個所謂掌骨機，入地盤嘅時候，所有工人都係 log 住晒，係即係佢哋係 authorise 嘅，可以入得去。而 licensed plumber 下低佢有啲 skilled workers，係 plumber 嘅話，都有呢一啲嘅紀錄嘅。

問：咁即係話每一個工人進場，都一定會有紀錄嘅，即係會唔會有啲時候，我就想知道就係由於可能趕工，因為可能有唔同嘅人士，佢自己會帶咗自己嘅班底嘅工人返嚟，喺地盤嗰度做嘢咁，會唔會有啲漏網之魚，即係話例如佢哋可以會帶啲人入嚟做嘅，而可能經過總承建商核准咗，「好喇，你入嚟喇。」咁所以而有一個話紀錄去紀錄低有啲工人個名，可能喺你哋個制度底下，喺你哋個 system 底下係有紀錄到，會唔會有咁嘅情況出現？

答：應該唔會。

問：最後我想同你睇一睇，就係有關呢一個就係向水務署呈交嘅有一啲嘅表格，我哋睇一睇--或者我哋睇一睇水務署畀我哋嘅紀錄，C16.1，C16.1，如果 C16.1，麻煩你睇一睇 9560，9560 就係水務署就係當時就住有八個參數，係做一個--即係嗰個水辦嘅測試嘅，我哋睇到呢個測試就係應該係 2007 年 12 月 10 號做個測試嚟嘅，你睇到右上角嗰度可能有少少朦，不過你應該都睇到個 date of issue，喺右上角嗰度就寫住 07 年 12 月 10 號嘅咁樣。如果我哋睇番呢啲文件，就其中有一個係我哋一路講嘅，就係個 form 1005，form 1005 就係話即係開始水務署係提供個 water supply，即係確實咗呢樣嘢，佢會寫番畀你哋有個咁嘅 certificate 嘅咁樣。

我哋見到其中一個嘅有關 portable water supply 嘅 certificate 就喺 9561 嘅，呢個我哋睇到大概係講緊 2008 年 1 月份嘅文件嚟嘅，咁即係話亦都係試咗--即係測試咗嗰個水辦個樣本之後，大概係隔咗個零月左右，就出咗呢一張嘅咁嘅證明，呢度我哋都睇到，就寫住個 address 就係粉嶺 Area 36 Phase 1A 嘅咁樣。

我哋如果揭去後面一頁 9562，就 9562 係另外一張有關嗰個 water supply connection 嘅證明，呢個就係講緊 10 月 8 號，即係離開我哋睇到個驗水報告嗰個日期都隔咗成大概有九至十個月嘅時間，睇唔睇到呀？我哋 9562 嗰度。

答：冇錯。

問：我就想問一問你點解會有咁嘅情況出現呢，就係即係驗水嘅時候，我哋--如果我呢個資料唔正確，我相信水務署代表律師都會即係糾正番

我嘅，但係我而家睇番呢個紀錄，就係 9560 頁，我哋係見到嗰個測試水嗰個日期就係 07 年 12 月，但係就住 phase 1B 嗰個 water supply connection 個 certificate，9562，就係 10 月份嘅，你即係解唔解釋到點解會有一個咁長嘅時間個差距呢？

答：我唯一覺得有可能嘅，因為喺我哋 certify 一個 project 佢完工嘅時候，未必一定需要到有呢一張所謂 water certificate，只要水務署係接駁到呢一個 supply 畀我哋個 project 嘅話，其實理論上就應該個工程完結喇喇，complete 喇喇，至於個 water certificate 幾時出嘅話，其實就真係要睇番嗰個水喉匠佢幾時可以收到呢一張 form 畀我哋，而我而家見到就相隔都有幾個月之間，所以喺我哋嗰個--即係如果你話以個合約佢嘅完成嘅話，佢又做完晒個 water test，又肯--即係水務監督做完晒個 test，又肯供應水畀我哋呢個合約，基本上嗰個項目就已經係完結。

問：因為點解我問你呢個問題呢，就係根據水務署佢哋嘅指引，就係喺驗水之前，當然要洗乾淨個水缸，要做啲消毒嘅工程--即係啲工序咁樣嘅，亦都佢喺水務署嗰啲指引入面亦都講，就話你消完毒、清潔咗個水缸之後，去驗水，然後都要喺一定嘅時間之內就係要接駁嗰個水管咁樣，咁所以即係就咁睇落去，似乎有一個都幾大嘅時間嘅差距，即係會唔會有啲咩嘢特別嘅原因，除咗你剛才講話持牌水喉匠可能畀你哋嗰個時間係咁樣之外？

答：呢個我真係唔記得。

問：好，我想問下 2002 年嘅時候，2002 年即係我哋之前聽其他啲證人講，就係話大概就係講緊當時開始要鼓勵啲總承建商用銅喉，即係去選擇用銅喉或者用番以前啲 GI pipes 嗰段時間，嗰段時間，你當時係咪都係任職緊喺房署？

答：冇錯。

問：我想知道就係當時就住呢個咁嘅轉變，你知唔知道房署有冇話特別做過啲咩嘢風險評估嘅工作？即係話可能會用多咗銅喉，會唔會因為咁而有啲乜嘢即係唔好嘅影響或者對住客會帶嚟啲乜嘢即係害處，有冇呢方面嘅評估工作，你有冇記得？

答：評估我相信一定有嘅，因為以前我哋用開 GI pipes 嘅，但係 GI pipes 就會生鏽，而 copper pipes 喺個 industry 嚟講，亦都係好普遍，反而用 copper pipes 係有佢嘅好處，就起碼唔會生鏽先。

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問：至於你話對於當時用咗 copper pipes 之後，會有機會因為你用 copper pipe 嘅時候，嗰啲物料會唔會對身體有害嗰方面，都會唔會做一啲即係類似嘅評估呢？

答：因為當其時我嘅崗位就唔係喺 central support 或者 design standard 個 team 嗰處，就我有特別留意到有啲乜嘢嘅即係 assessment 或者 risk assessment 呢方面，但係就知道個 specification 亦都反映番嗰個轉變。

問：就當時嚟講，有冇話特別考慮過除咗 soldering joints 嘅銅喉之外，會唔會用啲其他嘅銅喉，例如我哋即係而家所知嘅 compression joint 或者係即係我哋之前都有聽過一啲叫做 press-fit 嘅 joint，有冇呢啲方面嘅討論，你記唔記得，當時？

答：以我嘅 knowledge，當其時就--即係如果你話 copper pipes，係不外乎有兩種嘅，就燒焊或者係 mechanical joint，即係所謂嘅 compression joint，至於個選擇會用邊一類型嘅話，就我有份參與呢一個討論。

許偉強先生：我有其他問題。

主席：唔該。水務署。

王先生：法官閣下，有利想問先。

主席：你想問先，係咪呀？

王先生：唔係，有利。

李先生：有所謂嘅。

王先生：要嘅。

李先生：好，我諗按邀請，我問先喇。

#### 李先生盤問

問：樂女士，我代表有利、明合嗰方面嘅。其實有一個議題，剛才許大律

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師就問過你話點解嗰個 form 1005，如果我睇番剛才畀你睇嗰個頁碼，就係第 9560、9561、9562 嗰幾版。

李先生：麻煩秘書處幫幫手，因為我聽得唔係好清楚嗰個部分係第幾部。

講者（不能辨別）：C16.1。

李先生：C16.1，唔該晒。

問：C16.1，9560 嗰度，見到個日期就係 07 年 12 月 10 號，就係水務監督嗰啲驗水嗰八個參數嘅一個證書。好喇，去到 9561，唔該。我哋喺呢度隱約見到 08 年 1 月二十幾號，9562，就突然間，就許大律師問過你，就跳到去 08 年嘅 10 月 8 號，呢個其實呢幾張咁嘅證書就係關注清河邨嘅，如果我哋睇個 address 嗰度，“Fanling Area 36, Phase 1B”嗰度其實就係清河邨嗰個地盤嘅關於，啱唔啱，我個理解？

答：係。

問：其實清河邨，睇下你記唔記得你個證人口供提及過有兩部分嘅，一個就係一個商場，commercial 嘅 complex，一個就係 residential，其實 commercial，睇下你同唔同意講法，commercial 嗰部分係興建先嘅，正如你口供第 9 段，第 38714，第 9 段都係咁講，去到住宅嗰度就後期啲，08 年 10 月 10 號就完成埋嗰五座嘅剩餘嘅工作，咁喺呢度，我咁樣去--即係都好多資料嘅，可唔可以協助到你其實可以都解釋到呢個疑惑點解隔咁耐，呢幾張紙，其實可能有一部分開頭 9560 就係講緊商場，9562 就係講緊個住宅嗰部分，即係會唔會有啲嘢係撈亂咗，可能個文件夾嗰度？

答：多謝你提供嘅意見，我而家睇番個紀錄，其實成個大樓同埋嗰個 domestic block 嘅 completion time 其實就係 2008 年 10 月嘅，變咗就呢張嘅水紙就係畀嗰個 domestic block 之用嘅。

問：就係 08 年 10 月 10 號嗰張水紙，你講緊？

答：係喇，係喇。

問：明白。另外一個議題，我哋呢一部分可以放開一邊先。剛才許大律師

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問過你，就係邀請你睇有利嘅口供紙第 28 段，嗰部分就係 I 嘅部分，第 93 頁。

李先生：唔該秘書處嘅。

問：第 28 段下面嗰部分，就係講到話「有時按個別項目要求，水喉分判商亦要在樣辦房向『房屋署』工程人員示範燒焊工序。」見唔見到？

答：見到。

問：我想問一問你，其實一般你幫我了解下個情況，樣辦房或者 sample flat 砌出嚟，砌嘅時間其實工--應該話個總承判商會唔會話畀你聽「我哋幾時會砌呢個樣辦房或者 sample flat」，會話畀你聽一個時間表㗎？

答：冇錯，我哋喺正話所講嘅 programme chart 嗰度，佢會有一個時段就係會將個樣辦房由開始至到完結一段幾個月嘅時間去完成嘅，而喺每一個過程裏面，我哋啲 site staff 都有機會去上去睇呢個樣辦房嗰個即係建造過程嘅。

問：呢個建造過程當然需時，正如你剛才所講，可能都要幾個月，係咪呀？

答：冇錯。

問：所以不時喺呢幾個月入面不時都有你哋嘅 site staff 係去睇呢個樣辦房嘅建造嘅？

答：係。

問：喺呢個樣辦房嘅建造嘅期間，睇下你會唔會有一啲第一身嘅資料，你會唔會都有參與，落去睇下起成點咁樣？

答：Contractor 唔會一開波嘅時候就叫我落去睇嘅，佢反而就去到差唔多埋尾，因為所謂一個樣辦房所有嘅 trades 都已經齊晒，亦都因為呢個樣辦房個作用就係畀承建商佢嘅個別嘅工人或者係一啲嘅判頭睇下佢嗰個手工同埋嗰個設計，因住呢一個樣辦房嘅標準就去做佢其餘--所謂其餘嘅單位嘅。

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問：明白，所以我咁理解，睇下話如果你自己本人需要去睇的話，就應該係個樣辦房個興建個尾期嘅部分，就會係你去睇？

答：大概，係。

問：如果早前喺樣辦房嘅興建期間，會有你哋嘅譬如 site staff 或者個 inspection team 嘅咩嘢名稱都好，都會有睇個樣辦房嘅興建嘅過程，都會有人喺度睇嘅，啱唔啱？

答：啱，但係我哋就算即使係睇，都唔會 take over 咗 main contractor 佢去監察住嗰個樣辦房嗰個進度或者嗰個履行我哋嗰個 specification requirement 嗰啲嘅 standard。

問：呢個我明白嘅。會唔會有個情況，睇下有冇人匯報畀你聽啫，譬如話啲前線嘅同事或者下屬，就話其實喺興建期間，你哋啲同事都可能--咩嘢原因都好，未必係有你哋白紙黑字下達任何命令，譬如話見到啲樣辦房有啲師傅喺度砌緊嘢，多口又好，八卦都好，同啲師傅話「喂，師傅，可唔可以整整畀我睇下你點整嘅。」有冇人會匯報呢啲咁嘅情況畀你聽？

答：我有收過呢一啲嘅資訊。

問：但係呢個可能性你排除唔到，係咪？因為一路興建期間，一邊你哋同事會睇緊點樣興建，一邊就個承判商就喺度砌，佢哋嘅溝通唔會樣樣都同你講嘅？

答：佢哋平日傾啲咩嘢我唔知，但係如果牽涉到 quality 嗰部分嘅 works，我有收過呢一方面嘅資訊。

問：同樣，我相信你都會--唔會否定就係話其實你哋當然係有任何下達嘅命令叫你前線嘅同事係去叫啲工人示範畀你睇，你哋就有，啱唔啱？

答：其實如果去到講示範嘅話，我哋有一啲 critical trades 係需要個 main contractor 做示範，例如我哋做啲 adhesives，因為一個磚瓦要黏上牆嘅話，要好睇嗰個工人佢控制個時間、幾時 apply 個 adhesive 上埤牆，掃咗之後就再黏瓦仔，有啲嘅 critical time 嘅，需要 adhere 嘅話，main contractor 佢就會做呢方面嘅 demonstration，其實就主要就話畀佢啲 foreman 同埋啲工人聽個工序應該係要咁樣。而如果牽涉到呢一個 soldering joint 話要做 demonstration，我真係未聽過。



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問：因為佢唔係屬於一個 critical 嘅部分係需要係按合約又好，你哋要求都好，向你哋示範㗎嘛？

答：因為我哋都係去番個樣嘢，就係佢本身都係一個 sundry item，同埋佢係一個 experienced workers，亦都係 main contractor 係要負責佢嗰個 quality requirements，即使喺個燒焊嘅過程裏面，我哋都有特別要求佢會做呢個 demonstration。

問：明白，但係你都唔能夠完全抹殺呢個可能性，即係多口又好，八卦都好，你嘅前線嘅同事話「師傅，你燒焊呀，駁喉呀，睇一睇吖，喂，試試畀我睇下你點整嘅」？

答：我有聽過。

問：有聽過，唔排除呢個可能性？

主席：問咗好多次喇。

李先生：唔該晒，我有其他問題。

主席：得，請坐。有陣時啲答案係唔係好想聽到嘅，不過你都要--繼續，仲有冇人想問？

MR PENNICOTT 盤問

問：Good afternoon. I represent China State, the main contractors for Hung Hom, as I am sure you are aware. I'm sorry I'm asking my questions in English, but please give your answers in Cantonese.

答：Sure.

問：Ms Lok, I hope you won't regard this as an impertinent question, but are you or have you also been known as Rosa Ho?

答：我係 Rosa Ho。

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問：That'll save me asking some potentially false questions.  
Could I ask you please to be given or shown bundle B10.1  
at page 23025. Do you have that, Ms Lok?

答：Yes，係。

問：You make a passing reference to this in your witness  
statement, and I just want to try and get it clear  
there's no difference between us. The Hung Hom  
project was very firmly divided into two separate and  
distinct parts; would you agree with that?

答：冇錯，你所謂嘅 distinct part，應該就係講緊紅磡 site 同埋馬  
坑 part，係咪？Okay。

問：Yes, that's right, and there were only residential  
blocks built at the Hung Hom site, and the other site,  
known as the Ma Hang Headland Park, was, as its name  
suggestion, a park that was built by China State?

答：正確。

問：Right. Then could I ask you then to look at exhibit  
1 to your witness statement, in obviously the one that  
relates to Hung Hom. Could you go, please, to page  
38984 in bundle B15.3? 38984.

答：係。

問：We see, as I understand it, Ms Lok, you highlighted  
in green, but called Rosa Ho, and you are there the  
chief architect between February 2009 and November  
2013; do you see that?

答：喺。

問：But if you look up two lines from the highlighting in  
green, we see that you were CA/2 (acting) between March  
2008 and August 2008; do you see that?

答：睇唔到。呀，睇到，yes，CA/2，係。

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問：Between March 2008 and August 2008?

答：冇錯。

問：Is that right; were you the CA/2 (acting) between those two dates?

答：正確，因為當其時應該就係做設計。

問：Yes. You were asked some questions earlier by counsel for the Commission about your involvement in the tender and specification, and I understood you to say that you weren't involved in the tender and the details of the specification. Is that correct?

答：因為如果我記得當其時就我係做緊 CA/2，紅磡呢個 project 係喺設計嘅階段嚟嘅，而要睇--...

問：Well -- sorry。

答：...要睇番係幾時個 tender 做 preparation，同埋幾時開工。

問：Would it surprise you if I told you that the Hung Hom tender was let to the various tenderers in March 2008? March to April 2008, the tenders came in May and June, and, as you say in your witness statement, was awarded to China State in August 2008, the month you appear to have left for the first time.

答：有可能，因為真係事隔太耐，如果呢個時段喺嗰個 tendering period，我係嗰個 CA responsible for 嗰個 tender 嘅話，我有置疑嘅。

問：Right. We have heard from other witnesses that ordinarily, although of course a team of people is drafting the contract, the chief architect is normally in overall charge; do you accept that?

答：正話我所提到喺個供詞嗰度都講到成個合約裏面係需要一個 team 嘅，一個團隊嘅，每一個人要 contribute 佢嗰個 discipline 嗰個 professional 即係嗰個 input 嘅，冇錯。

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問：What was your input, if any?

答：如果我作為 CA contract manager，牽涉到嘅應該就係要將呢一個工程項目裏面所有嘅細分嘅工程擺-- compile 個 tenders document、drawings 同埋要跟住番個時段去 properly put up the tender。

問：All right. Could I just ask you a couple of other questions on this document we're looking at, at page 38984. The personnel that you list there, I see the heading is "Hung Hom Estate Phase 2 and Ma Hang", so is it dealing with both parts -- is this document dealing with the personnel involved in both parts of the contract?

答：我相信--係喇，應該係，冇錯。

問：Yes. What I wanted to ask you about actually is on page 38985, and in particular can I draw your attention to the middle of the page where it's "COW", which stands for clerk of works; do you see that?

答：睇到。

問：My understanding is that one of those clerks of works, Mr Chan, was engaged on Hung Hom, whereas Mr Tang was for Ma Hang; do you know if that's right?

答：因為兩個項目分開唔同地方，咁所以有兩個 clerk of works 係唔出奇嘅。

問：All right. With regard to the clerk of works, would you agree with this: the China State witnesses say that on Hung Hom itself, there were four assistant clerks of works, just for Hung Hom itself; would you agree with that?

答：四個 clerks of works 呀？

問：Four assistant clerks of works on Hung Hom.

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答：On Hung Hom，就如果我睇番啲紀錄，我唔記得係咪有咁多，不過通常我哋嘅 manning scale 或者人手分配就係 work supervisor 就每一棟樓一個，兩棟樓就一個...

問：Yes.

答：...ACOW，咁因為我哋有三棟樓，再加埋有個 carport，咁四棟樓，起訴有兩個 ACOW，至於有冇可能變四個 ACOW，好可能會多啲啲，呢個要睇番紀錄先得，我唔記得清楚。

問：But we're agreed, though, there would have been four works supervisors?

答：或者有可能，係。

問：And you agree that the assistant clerk of works and the works supervisors would be on site full-time?

答：冇錯。

問：All right. Could I just ask you a couple of questions on a topic that you were asked some questions on earlier by counsel for the Commission, and that's the question of sampling and samples submitted. Do you remember those questions?

答：係。

問：Now, we know that China State and the other contractors were not required by the contract to submit its samples of lead-free solder.

答：喺。

問：But we know that in fact they did.

答：喺。

問：We know that in other contracts, all the contractors here -- that's China State, Yau Lee, Shui On, Paul Y -- all submitted samples of lead-free solder. I don't know whether you are aware of that.

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答：知道。

問：The China State witnesses will say, if asked, that really this grew up over time as a sort of long-term practice between all the contractors, that the Housing Authority, whilst not putting everything in writing, always required as a matter of practice lead-free solder samples to be submitted. Would you agree with that?

答：我相信有呢一個 practice，佢哋繼續去做，我哋亦都唔會阻止。

問：No. If they didn't submit a sample of lead-free solder, would you have asked them to do so?

答：若果我啲 site staff 佢過往有呢一個經驗，同埋佢有呢一個嘅做過嘅話，喺呢一個合約上面佢有呢一個要求嘅話，係唔出奇嘅。

問：We know there's no requirement...

主席：我...

MR PENNICOTT: Sorry.

主席：我唔係好明你個答案，即係你明佢個問題問咩嘢嘛？

答：佢...

主席：不如你再問多次，因為似乎好似唔係好--可能翻譯上高有問題，好似答非所問或者問非所答咁樣。

MR PENNICOTT: Yes.

問：Ms Lok, I think potentially there's no disagreement

between us that the process of the contractors submitting samples of lead-free solder is something that has gone on for a very long time and it's become standard practice, effectively. Do you agree with that?

答：同意。

問：So sometime, at some point in history, which we can't identify, samples of lead-free solder were given to the Housing Authority and it's just carried on; that's really what's happened, isn't it?

答：可以咁講，係。

問：Could I ask you lastly please to look at paragraph 75 of your witness statement, so far as Hung Hom is concerned, which is in bundle B15.3 at page 38980, paragraph 75. Do you have that, Ms Lok?

答：有。

問：What you say here is this: "In respect of the material procurement stage, the contractor was not required under the contract to submit any purchasing record of the soldering material to the [Housing Authority]." Then you say: "At the material delivery and installation stage, the [Housing Authority] site inspection team did not check the delivery notes or purchase orders of solder materials." That sentence, Ms Lok, is that piece of evidence specifically related to Hung Hom, or is that a statement of general practice?

答：呢個係一個 general statement，因為如果 refer to 呢啲 sundry items 嘅話，呢個係啱嘅。

問：Could I ask you to focus on the words "delivery notes"; do you see those in that sentence?

答：（沒有可聽到的回答）

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C 問：I accept that this is a bit of a hypothetical question,  
D certainly so far as Hung Hom is concerned, but, Ms Lok,  
E if the project or assistant clerks of works of the  
F Housing Authority were in fact given delivery notes,  
G what would you expect them to do with them? Where  
H would they end up in the Housing Authority, if that  
I happened?

J 答：若果本身個合約係唔需要到一啲嘅 delivery notes for 某一種嘅  
K material 嘅話，即使呢個 contractor 係真係交界我哋嘅同事去睇  
L 或者係去審視嘅話，其實同事係有一個 obligation 去同佢 check  
M 嘅，基本上可以去退番畀個 main contractor 嚟去作番佢哋自己嘅  
N 紀錄，我哋有需要一定同佢 check 晒所有嘅 delivery notes for  
O all materials.

P 問：If a site agent of the main contractor wrote a formal  
Q memorandum attaching a quantity of delivery notes, and  
R submitted it to the assistant clerk of works on site,  
S would you expect him simply to file it, to pass it to  
T his boss? What would you expect him to do with it?

U 答：若果呢個 delivery note 兼埋個個 material delivered on site  
V 出現咗，因為所有我哋入得地盤嘅物料，若果係合格嘅話，其實就唔  
可以再搵出去，咁所以有機會佢係會將呢啲一資料 file 咗佢，以備  
將來--因為我哋個 quantity surveyor 定期都要去睇一睇個 site  
有啲乜嘢 material in stock 嚟去出 payment 嘅，咁但係因為而  
家呢個 soldering material 屬於一個 sundry item，唔會  
separately priced，咁因此我相信呢一個 delivery note 冇  
bear 一啲嘅咩嘢 significance，有機會佢係個別嘅 clerk of  
works 或者 site staff 可能係真係 file 咗。

問：Okay. That's a fair answer. There's one question I  
forgot to ask you about the sampling: who had the key  
to the room?

答：Key to what?

問：The sample room that we were talking about earlier.

答：應該係個 clerk of works.



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問：The clerk of works. Thank you very much.

主席：Thank you.

王先生盤問

問：樂女士，我代表水務署，有幾個問題想請教你嘅，首先我想睇清河邨  
嗰度，你嗰個證人供詞，個 exhibit 38773 頁，呢張 form 我有睇  
過好多次嘅，就叫做 WWO46 form，你見過呢個 form，係咪？

答：見過。

問：我哋先睇 38773 呢一頁，如果你喺嗰個右下角，你見到有個 AP 簽署  
嘅，仲有呢個房屋署個蓋章嘅，見到嘛？

答：冇錯。

問：個日期，如果我有睇錯，就係 2007 年嘅 10 月 8 號。

答：冇錯。

問：然後你睇過嗰個左邊嗰度就有個 licensed plumber，個持牌水喉  
匠簽署嘅。

答：冇錯。

問：個日期似乎係 2008 年嘅 3 月 31 號。

答：冇錯。

問：我咁樣講你同唔同意，即係話喺個 AP 簽呢個文件嘅時候，其實佢係  
冇倚賴到個 licensed plumber 嘅簽名嘅，啱唔啱？即係佢簽先嘅  
--即係個 AP 係簽名先於個 LP？

答：唔同意，因為我哋嘅同事佢每簽一份文件，而呢一個 WWO form 係  
licensed plumber 自己去預備嘅，佢預備好之後，佢會畀 main  
contractor，然後 main contractor 審視咗裏面個內容，就再  
畀我哋嘅同事就係簽署，有機會嘅就係我哋嘅同事睇得到呢一個

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licensed plumber 佢本身係有一個簽署，不過可能係 undated 嘅，有機會。

問：可能係，有機會？

答：係喇，當 A --即係我哋個同事，呢個 project architect 嚟嘅應該，佢睇完晒嗰個裏面嘅內容之後，簽咗同埋 dated 之後，就會交番畀個 main contractor，然後再由個 main contractor 畀番個 LP，再去 dated，然後入水務署。

問：你頭先講話個 AP 簽呢份文件之前會睇咗另一份文件先嘅，嗰份文件係咩嘢嚟嘅？

答：其實我都係講呢一個 WWO form 嘅文件啫。

問：即係你意思就話個 LP 會先簽一份 undated 嘅文件先，然後畀個 AP 睇，AP 先簽，你意思個次序係咁咁呀？

答：我覺得係，應該係。

問：Okay，如果呢個係你嘅證供嘅話。我想請你睇下一頁，下一頁，38774，呢度又有一個簽名同埋呢個房屋署嘅蓋章嘅，個日期就係 2007 年嘅 10 月 11 號嘅，見到嘛？

答：見到。

問：上面嗰度就呢個 Part II，嗰度就寫“To the Water Authority”，即係畀水務監督喇？

答：啱。

問：下面有一行字咁寫嘅，“I endorse the information submitted by My Licensed Plumber and the Authorised Person in Part I.”，咁即係話佢喺呢個 2007 年嘅 10 月 11 號簽署呢份文件嘅時候，其實佢就係 endorse 緊前面我頭先畀你睇過嗰一頁，嗰個 AP 簽名嘅內容，係咪？

答：照呢一個內容咁睇，係嘅。

問：係喇，咁但係如果我哋睇番頭先嗰頁，其實個 LP 就 08 年嘅 3 月先簽㗎嘞，咁點樣佢喺 2007 年嘅 10 月可以簽呢一個文件去 endorse 個 information submitted by licensed plumber and the

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authorised person in Part I 呢？以你嘅理解。

答：我嘅理解就係應該呢一個 licensed plumber 佢 prepare 呢個 WWO form 嘅時候，佢應該係夾埋呢一個 list of materials 同埋呢一啲嘅資料一齊上，咁雖然個 form，本身呢個 licensed plumber 冇 mark 個日子，但係已經認可咗呢一個 licensed plumber 所列舉嘅內容，係由呢個 licensed plumber 所預備同埋做嘅。

問：我聽到你嘅講法，呢個喺 38773 個頁，我哋係講緊嗰個 Block 1 嘅，即係“Constructional Fanling Area 36 Phase 1b”，係 Block 1 嘅，啱唔啱？

答：係，係。

問：好喇，咁我帶睇另一張，就係喺 38780，38780，呢個就係 Block 2 & 2a，係咪？

答：係。

問：又係一樣嘅，個日子都係 identical 嘅，一個就係 07 年嘅 10 月 8 號，一個--呢個睇得清楚啲，就係 08 年嘅 3 月 31 號，係咪？

答：係，啱。

問：我相信你嘅答案同頭先都會係一樣嘅，啱唔啱？

答：冇錯。

問：Okay，38781 又係 2007 年嘅 10 月 11 號嘅，係咪？

答：係。

問：你嘅答案都會係一樣嘅，啱唔啱？

答：係。

問：好，我再帶你睇 38787，38787，呢個就係 Block 3 & 3a，同埋 RCP。

答：係。

問：個日期都係相似嘅，都係 07 年嘅 10 月 8 號，另外隔離嗰個都係 08

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年嘅3月31號。

答：係。

問：然後如果你睇38788，嗰個日子都係07年嘅10月11號，相信你嘅答案都會同頭先一樣嘅，啱唔啱？

答：啱。

問：好，我就睇咗呢個清河邨，我想睇下一條邨，彩福邨，彩福邨，我麻煩你睇38904，38904嗰度，我哋睇到就係“Block 9、10 & 11 of”彩雲道嘅。

答：係。

問：下面又係，嗰個AP簽名嘅日期就係08年嘅12月29號。

答：係。

問：但係個LP簽名，我睇落去似係09年嘅1月22號，啱唔啱？

答：冇錯。

問：咁都係AP簽名先過LP嘅，不過你嘅講法就係可能佢先簽名，然後就後期先加日子上去。

答：因為我相信個licensed plumber 喺佢集齊晒所有嘅簽名之後，佢最後因為要把關入水務署，咁所以佢會係最後dated嗰個form嘅。

問：Okay，呢個就係彩福邨。最後想睇呢一個--等陣先，紅磡邨二期，紅磡邨二期就係39018，39018，又係嗰張文件，呢個--呢次你睇到個AP簽名嘅日期就係09年嘅7月27號，見到嘛？

答：係，啱。

問：個LP就係09年嘅7月25號。

答：冇錯。

問：咁咩嘢情況之下嗰個LP會簽名先過AP嘅呢？

答：呢方面嘅問題其實我都好奇怪，似乎...

問：即係你覺得正常唔奇怪就係 AP 先簽嘅？

答：根據呢個 form 本身，我會覺得個 best practice，最好嘅 practice 就係個 AP -- sorry，LP 簽晒所有嘅嘢，連同所有嘅 details，dated，然後交畀個 project professional 去簽，project professional 睇晒所有嘅嘢，in order，簽咗，交番畀個 LP，然後就再入水務署，但係我相信有呢一個情況，先後唔同，亦都好可能就係過往即使個時間係早或者遲都好，水務署都容許有呢一個有前後嘅 difference。

問：我唔係問你水務署容唔容許呢樣嘢發生，呢個唔係我問題嘅主旨，係咪？我個問題嘅主旨就係話以你嘅理解，正常嚟講，即係根據個次序，係咪 AP 先簽咗先，然後畀 LP 簽，抑或 LP 簽咗，然後先至畀 AP 簽嘅呢？

答：我會覺得最後就係因為個 LP 本身去把關，佢嘅時間幾時去 dated 嘅話，呢一樣嘢就由番嚟 LP 佢去集齊晒所有嘅人嘅簽名之後，若果佢 initially 第一個 first step 已經自己簽咗，又 dated 嘅日子，而再最後集齊晒所有人嘅簽名去入呢一張 form 嘅話，我覺得係可以嘅。調番轉，如果佢就算自己唔 date 呢一個日子，但係都係 go through 一個 checking process，最後佢自己呢個 LP 去簽番呢個日子，入去呢一個 form，而喺過往好多嘅 project 都有類似咁嘅情況，而本身亦都喺個系統上面係容許嘅，我只係覺得就係係有一啲嘅即係唔同嘅 practice，不過喺個系統上面都係可以 make the submissions。

問：我明白你講乜嘢。樂女士，我咁樣講你同唔同意呢，即係你自己親身有冇見過 LP 淨係簽咗個名，但係 undate 嗰個文件嘅呢，定係你自己估計嘅呢？

答：喺呢三單 project，我見到呢啲 forms 全部都 dated 嘅。

問：係囉，咁以你自己親身嘅經驗，你係未見過個 LP 淨係簽咗名，而 undate 個文件，你自己親身未見過咁嘅情況，啱唔啱？

答：我本身因為唔係需要到我簽呢一個 WWO form，所以我自己都未見過一啲嘅有 dated 嘅 form 入水務署。

問：Okay，因為你三個屋苑有兩個日期，我哋望落去就係 AP 先簽嘅，有一個屋苑就係嗰個 AP 簽後過嗰個 LP 嘅，你可唔可以幫到我哋理解點解會有咁嘅唔同嘅 practice，即係個時序，三條邨都係你嘅 in

charge 嘍嘛？

答：我都係即係估計，評估番，因為要走番轉頭，嗰個當其時點會有咁樣嘅情況，就本身最後把關入水務署係 LP，而喺 LP 去預備呢個 form 嘅時候，佢唔打算若果係--即係既然係一個最後嘅把關嘅話，佢有機會就係唔去簽呢--即係唔去 dated 呢一個 form，而畀我哋嘅同事去簽咗先，咁本身因為呢一個 form 亦都係一個所謂擬訂嘅 materials、fittings 各樣嘢，喺我哋嘅同事收到呢張 form 之後，亦都係既然有 LP 嘅簽名，再睇埋裏面嗰啲嘅 material 嘅 spec. 係 in proper order，我哋冇特別去 query 點解呢一個 AP -- sorry，點解呢個 LP 唔去 date 埋，咁我哋自己嘅同事亦都係簽番，簽咗之後，而到到最後個 LP 入去畀水務署嘅話，佢係 suppose 應該要有一個日子簽咗嘅，當然我哋都係成日講番嗰個 results，個 results 就係喺過往嘅 practice，水務署冇話到咁樣嘅情況佢係唔收張 form。

問：樂女士，其實個真實嘅情況會唔會係咁呢，就係其實個 AP 其實佢係先簽咗個文件先，date 埋個文件，然後某啲情況或者 at least 喺呢三條邨入面有兩條邨個真實情況就係個 AP 先簽咗呢個 form WW046 先，and then 最後先至叫個 LP 先嘅，會唔會真實情況係咁呢？

答：應該唔會係咁，因為我哋嘅同事唔會簽一張 blank form。

王先生：Okay，我有其他問題。

黎先生：唔知，我可唔可以問問題呢？嗰啲日期係咪即係大家覺得好唔緊要呢，嗰個部門嚟講？嗰個 date 又有乜所謂，我見到好似張張都有乜所謂，因為 suppose 就係話工程幾時開工嘅，係咪呀？但係我睇落去啲 form，開工個日期根本就係同佢簽嗰個日期好似完全冇關係咁嘅，即係好似睇落去，好似個 form --純粹大家有個 form 就得㗎喇，有個 form 交界 Water Supply 就搞掂㗎喇，嗰個 date 係 irrelevant 嘅。

答：我正話都提供個資料就係 best practice 嘅話，樣樣都係要簽妥晒，個 works 唔好 start 住。

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黎先生：即係呢度幾個都唔係--冇 follow 個 best practice？

答：但係因為我睇番嗰個 form 嘅本身嘅設計，佢係容許個 commencement work 係開咗工，佢呢度係講緊“were commenced on site”。

黎先生：“Will be commenced”，係咪呀？

答：有“will be” and “were”嘅，兩個情況都可以產生，但係 ultimately 點解有...

黎先生：冇劃㗎㗎，冇 cross 到㗎㗎，冇啲就講明係 cross 㗎，“will be commenced”，譬如你個最後嗰張 39018，話 6 月開工，但係簽嗰陣時個 date 已經係 7 月㗎喇。

答：係，啱。

黎先生：7 月簽話將會 6 月開工。

答：係，但係我會睇就係因為所謂 commencement 亦都可以牽涉到本身嘅 material preparation、預備定嗰啲工夫，同埋 LP 去做呢一個 form 嘅時候，好有經驗，佢所選擇嘅 material 全部都係 conform to 水務署嘅條例嘅要求，見唔到 from experience 係有啲咩嘢嘅 refusal，因為佢自己本身喺 site 嗰處做所謂 commencement on site，可能係有呢個咁樣嘅理解。

黎先生：我覺得好難理解。

主席：好難理解。

何先生：都唔係話太難理解嘅，可能有啲好啲嘅解釋。

主席：仲有 Mr Hui 想問佢。

何先生：哦，仲有人，對唔住。

許佐賓先生盤問

問：Ms Lok, last Friday, my learned friend Mr Ho was asking

questions of chief architect Mr Chiu Pbut Kay. In relation to the Housing Department's change of material from non-copper pipes to copper pipes, Mr Chiu let this Inquiry know that for the transition, there was a unit within the Housing Department called the spec. team. The full name possibly was the specification team. Do you agree with that?

答：如果講 2002 年呢一個 transition，或者以架構嚟講，我哋本身房屋署裏面嘅內部係有一個 central support team，而呢一個所謂 spec. team 係咪淨係專做 spec. 咁，還是佢本身亦都係 support 所有制定一個標準嘅要求而成立，我估呢一個所謂 spec. team 應該就係喺番我哋 department 裏面 central support team 裏面嘅一個 unit，但係佢有可能就唔係淨係做 spec.，有可能亦都會做埋其餘一啲嘅 central support function 嘅嘢。

問：To your personal knowledge, in around 2002, was there such a unit called the spec. team?

答：要睇番嗰個架構，不過我覺得你無論叫佢係一個 spec. team 還是係 central support function 還是係 under CA/D&S 裏面嘅一個 senior team 去 take up 一個 specification review and writing 嘅話，係絕對有可能嘅。

問：In that case, I would like to take this senior team, as you call it, slightly further. Perhaps you could assist the Inquiry. Approximately how many personnel would have worked for this senior team?

答：其實有機會或者一個 senior 佢要 lead 住嘅可能係講緊有兩個或者三個嘅 architect，但係因為我本身唔係 involve 喺呢一個 central function 裏面，所以我好難作一個好 firm 嘅 answer。

問：I appreciate that. No one here is suggesting that you were a member of the spec. team. Please tell us, in that case, what staff grade would have been the senior, the leader of this senior team or spec. team?

答：因為呢一個--或者講番嗰個日常運作，我哋嘅 central support function，generally 我哋會係 CA/D&S 或者 design and standard 嘅同事係一個 chief architect，佢下低會有幾個唔同



嘅 senior team，要做日常作呢一個 specification review 嘅話，當然會係由個 senior architect 去 lead，但係大體上最後作成個 specification 嘅 endorsement 嘅話，有機會亦都係經我哋部門一層一層嘅架構，最後 endorse 嘅話，係利用一個所謂 DCMB，一個 board 嘅，一個 construction and -- Development and Construction Board endorse 嚟去 promulgate 成個 specification，即係我哋係制定成個 spec. 嗰個過程就係咁。

許佐賓先生：Chairman, I have quite a few questions to ask. I just want to take an indication, if I may, from you, whether you intend to take a break. Ms Lok has been here for quite a while now.

主席：有冇人想要 break？冇就繼續，好唔好呀？我哋繼續。

許佐賓先生：Very well.

問：Ms Lok, I am still this topic of the spec. team, as we were informed by Mr Chiu last Friday.

主席：不如咁，佢哋每一個人上嚟都有唔同嘅名稱嘅，畀佢哋嘅理解，會有唔同嘅名稱嘅，我哋而家知道你頭先所講嗰個 management board，因為我哋已經有一份 paper 睇到嗰個 management board 出嘅 paper，就係話用呢個 copper pipe，係咪？呢個係 DCD 裏面嘅 management board 出嘅，我哋知道 DCD 裏面有一個 chief architect 係負責 design and...

許佐賓先生：Standard。

主席：...standard，呢個 chief architect --即係我哋而家所知，其實就係嚴汝洲先生而家做緊嘅。

答：Current，係。

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主席：係咪呀？Currently 就係佢，係咪？2002年邊個做，我哋就唔知。

答：唔記得。

主席：唔記得，好喇，你嘅意思就係即係換句話嚟講，呢個 CA，呢個喺 DCD 裏面個 CA/C&S，呢個，係咪呀？

答：CA/D&S。

主席：CD&S，CA...

答：CA/D&S。

主席：CA&S。

黎先生：D&S。

主席：D&S，design and specific...

答：Standard。

主席：Design and standard，就呢個 CA 就決定，即係佢就 head 一 team 人嘅，係咪咁嘅意思？

答：其實又係 back to 番嗰個專科專項，因為 CA 本身就係 profession 係 architect，佢對於個 building works 裏面嘅 building elements 佢會熟。

主席：喎。

答：例如 plasterer 或者啲 tiler。

主席：喎，喎。

答：但係如果 plumbing 嘅話，佢唔係一個所謂專科，應該就係 CBSE。

主席：CB，一定係 CBSE 嘅，係咪 CBSE 係負責？

答：冇錯。

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主席：冇錯。

答：同樣 structure，就會有 C/E。

主席：啱，得，好喇，咁即係換句話嚟講，2002 年要改呢個用銅喉嗰陣時候，基本上就係有個 CBSE 就係去 head 呢一個點樣樣改呢個 specifications 嘅？

答：呢個講法啱嘅。

主席：係喇，我哋聽到上嚟第一個 CBSE 當時就係做緊 senior 抑或--唔係，做緊一個 BSE，即係普通嘅，當時有一個--佢話有一個叫做咩嘢？張先生抑或咩嘢，而家做咗 AD 嘅，就係嗰陣時嘅 CBSE？

答：係梁生。

黎先生：梁生，梁生。

主席：梁生，冇錯。所以如果你要問 2002 年嗰陣時究竟點解會變，最好就係問梁生，因為梁生就話會話畀嗰個 CA/C&S 聽 -- D&S 聽，跟住嗰個 CA/D&S 就會話畀 DCDMB 嗰啲人聽，於是佢哋就出張 paper 出嚟，啱唔啱呀，我嘅理解？

答：應該係咁講，head 住成個 specification review 可能真係一個 CA 統籌，但係專科專項嘅改善或者喺個 spec. 嘅 review 喺每一科裏面有佢一個所謂 professional 嘅 expertise 去睇，所以上一張所謂 DCMB 嘅 instruction，係由 CA 去做嘢，還是係由 CBSE 就要睇下佢個 contents。

主席：如果講銅喉，純粹講銅喉就會係 CBSE 抑或 CA 呀？

答：CBSE。

主席：CBSE。咁所以我哋就咁，由而家開始就唔好用又咩嘢 spec. team，又咩嘢 central support unit，又乜嘢、乜嘢、乜嘢嗰啲，okay，用--因為我就好簡單嘅啫，簡單嘅人就用簡單嘅說法，統一口徑，唔

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係，大家講大家嘅嘢，到最後，大家都唔知大家講緊乜嘢嘢，okay。  
明白喇嘛，得，繼續。

問：At the time of the transition -- I know you were not  
in the thick of the action, Ms Lok -- at the time of  
the transition, do you agree with Mr Chiu's comment  
that HD would have done reviews and liaised with the  
industry?

答：我知道如果每一項嘅 specification review，部門唔會單獨自己  
去改嘅，係一定會同業界同埋有關嘅人等，同埋有啲內部嘅  
feedback、EMD 嘅 feedback，收齊晒呢一啲嘅資料，再作檢討，  
嚟去訂出嗰個 spec.嘅要求。

主席：你頭先講 EMD 就係 estate management division?

答：冇錯。

主席：唔該。

問：And also stakeholders, such as the Department of Health?

答：呢個我唔敢肯定，若果牽涉到用嘅物料會有個 health  
implications 嘅話，有機會嘅。

主席：嗰陣時就係 head 呢個 EMD 嘅就係呢個黃比先生，就係副署長--  
助理署長？

黎先生：唔係，助理署長。

主席：係咪呀？

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答：當其時 EMD 其實有--都係有三個 AD。

主席：有三個 AD 嘅，EMD 裏面？

答：係呀。

主席：哦，唔，繼續。黃比先生就係其中一個？

答：係呀。

問：I know the phrase "industry practice" has appeared in your statement. Could you tell us, when you say "industry practice", is that industry practice confined to Hong Kong?

答：我相信用得呢一個所謂"industry practice"都係以 local Hong Kong context 去睇嘅，但係當然你話背後佢哋嘅作業會唔會多去考慮 overseas practice 嘅話，呢個我唔敢講。

問：Actually, every time you talked about industry practice, you meant Hong Kong industry practice?

答：呢個係我嘅演繹。

問：Is there any internal departmental standardisation, as far as the term "industry practice" is concerned?

答：呢個冇嘅，但係我哋去作為 professional 去處理工程嘅時候，都知道業界係會點做。

問：But you do accept that the material your department uses to build buildings is used all around the world?

答：我相信亦都香港我哋房...

主席：呢個問題其實有陣時其實人哋答咗你，不過你唔鍾意嗰個答案啫又係，佢嘅 understanding，就係話 industry -- 佢嘅理解，"industry practice"就係講緊佢--當佢用--寫呢份口供嘅時候

就像 local industry 嘅 practice，係咪？

答：（沒有可聽到的回答）

主席：咁所以呢個就係佢嘅答案，佢嘅意思即係話--我知道你其實想問咩嘢，不過佢就係話 confine to local 嘅 industry practice，呢個可能你唔係好鍾意嘅答案，不過都有辦法。

許佐賓先生：I have no preference, Mr Chairman. I think Ms Lok just told me how to take an answer; if the Civil Aviation Department tells me, industry standard means Hong Kong industry standard.

主席：呢樣嘢唔同喎，Civil Aviation 就唔同，Mr Hui，我知道你都好熟飛機，因為--我話畀你知，因為香港基本上就有 local industry practice of 飛機嘅。

許佐賓先生：I am grateful for that, Chairman.

主席：係咪？

許佐賓先生：I want to move on to a completely different subject.

主席：即係你講緊 Typhoon 同呢一個米格二十幾，邊度有--都有揸呢嘅大家都，啱唔啱呀？你嗰隻 Typhoon，即係英國嗰啲，戰機。

許佐賓先生：Mr Chairman, much obliged. Much obliged.

問：I would like to take you, Ms Lok, to the Advisory Committee on the Quality of Water Supplies, committee meeting No. 3. That would be in file G2. Ms Lok, do you see the minutes of the third meeting?

答：Third meeting, yes。哦，okay，睇到，係。

問：It was held on a Monday, 15 January 2001, at 2.30 pm.

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答：係，冇錯。

問：Can we scroll down the screen, about halfway, and we will see the name "Mr Wong Bay".

答：係。

問：Do you accept that Mr Wong Bay at the time was an assistant director for the Housing Department?

答：應該係。

問：I know that prior to lunch, Mr Chairman asked you whether you were personally not aware of the threat posed by lead in solder prior to July 2015 this year, and I note that your answer was that you were not.

答：啱。

問：Do you now believe that the HA, as an institution, was not aware of the threat or risk posed by lead in the solder material and lead in the water prior to July this year?

答：我相信鉛藏喺呢個 solder material 裏面而釋放喺個水喉嗰啲水嘅裏面而導致到有呢一個 health risk 嘅話，喺 7 月之前的確唔係好知。

問：Do I take it you mean the HA as an institution was not aware?

答：起碼喺我呢一個認知嗰方面，我自己唔係好知道，我唔可以 generalise 成個 HA 每一個 component。

問：Do you accept that the HA might have known?

答：呢個我唔清楚。

問：Do I take it that you will not rule out and you will not rule in whether the HA knew?

主席：呢個答案點答呢？

何先生：This is not a fair question.

主席：你唔 rule out，又唔可以 rule in。

許佐賓先生：I'll move on。

主席：呢個唔使答，呢個。

問：In the afternoon session, Ms Lok, you mentioned something about the Water Authority might do more to encourage awareness; am I right?

答：我記得我去答其中一個大狀嘅問題嘅時候，講到就係話若果認知到鉛本身可以釋放嘍水喉裏面而導致到有 health risk 嘅時候，各個 parties，包括水務監督，可以做多啲嘢去改善。

問：Yes. And of course you don't mean that the Water Authority hadn't done enough. Can we scroll down on this set of minutes to about paragraph 6? What happens here, Ms Lok, is that there was a paper that was produced for the benefit of the members of the committee. At paragraph 6.1 you will see that the chairman introduces the purpose of this paper. I would like to give you a moment to read it, please. Please give me an indication when you are finished with 6.1.

答：我睇完喇，6.1，係。

問：What is very unusual about this paper is, first of all, is that not only is it submitted for the consumption of the members of the committee; at 6.2, the minutes record that the paper has actually been presented by the waterworks department. So it is both submitted and presented to the members, and it talks about properly maintaining the plumbing systems.



許佐賓先生：If I may now ask our colleagues of the Secretariat to call up paper 7.

問：That would also be in G2, item 60-something. This is paper 7, and I would like you please to go to paragraph 8, please. There's a big heading.

答：睇到。

問：The heading, for the record, is "Current practice elsewhere in the world on how to ensure quality of water in buildings". For the record, I will read paragraph 8 and some of paragraph 9. Paragraph 8: "The problem of water quality in buildings is not unique to Hong Kong. A literature research of publications and through the internet has been conducted. The situation in the United Kingdom, United States of America, Canada and Singapore has been briefly reviewed."

Paragraph 9: "In the UK and the USA, the most common problem is the presence of lead in water since during their development stage, lead pipes and lead-soldered copper pipes were widely used. The problem has to be addressed by dosing inhibiting chemical additives during the water supply treatment process to suppress ionisation of lead and by re-plumbing." And the paragraph goes on.

Would you agree, Ms Lok, that the WSD people have actually brought to the attention of at least one assistant director of the Housing Department's attention that lead-soldered copper pipes was the most common problem in water in the United States of America and the United Kingdom?

答：我覺得呢一個 Advisory Committee 本身佢嗰個 terms of

reference 可能係擴大好多，包括全香港嗰個所謂 water quality 嘅問題，而我係唔 aware 呢個 committee 裏面係討論呢一啲嘅問題，所以如果以個 context 嚟講，喺呢個 committee 裏面所討論嘅嘢係有佢自己嗰個 terms of reference。

何先生：委員會，當然我唔係想阻止許律師想問佢嘅問題，即係我淨係想即係作一個好 general 嘅 comment，就係委員會都就呢一連串嘅會議紀錄，關於呢一個委員會，advisory committee，都要求某一啲相關嘅人士去畀資料嘅，我唔知道許律師知唔知，但係如果佢唔知嘅話，而家即係我係趁呢個機會話畀佢聽。

既然會有直接嘅出席者係呢個委員會係要求畀資料嘅說話，與其問樂女士關於呢一連串可能仲唔只係一個--一小段，可能有其他嘅會議紀錄裏面有另外嘅一段，亦都有可能係嗰個小段裏面所 refer 嘅 paper 咁樣，與其係問樂女士，叫樂女士要佢自己而家去睇呢一連串嘅會議紀錄去作出一個評論，我感覺上，如果係用--從一個用時間，我覺得比較好嘅角度去睇，就可能留待有相關嘅人士如果畀咗資料嘅時候或者畀咗口供嘅時候，所有有興趣去研究或者去問嘅 parties 到時間嘅問題可能仲有意思一啲。

許佐賓先生：Mr Chairman, I was actually about to move on to a totally different topic, which is contracts, and looking at the time, would it be an appropriate moment to call it a day?

主席：可以，你仲有幾耐要問呀諗住？

許佐賓先生：A bit more than half an hour.

主席：跟住你哋都要半個鐘頭，係咪？

何先生：我哋會有啲覆問嘅。

主席：好，我哋四點半就休庭，而家都係差唔多，仲有五分鐘。佢哋仲有一個鐘頭問你，請你聽日朝頭早 10 點鐘再返嚟，好唔好呀？

答：好。

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主席：Okay，我哋聽朝早 10 點鐘再繼續，唔該。

2015 年 11 月 25 日

下午 4 時 25 分聆訊押後

C Wednesday, 25 November 2015 C

(10.03 am)

D (Transcript of simultaneous interpretation D

E except where otherwise specified) E

MR YIN: Good morning.

F My next witness is Ms Lok So Fun. She is chief F

G architect responsible for Ching Ho Estate Phase 1, G

H Choi Fook Estate and Hung Hom Estate Phase 2. H

MS ROSA LOK SO FUN (sworn)

I CHAIRMAN: Please be seated. I

J Examination-in-chief by MR YIN J

MR YIN: I will read out the witness statement of Madam Lok

K So Fun, Rosa, with regard to Ching Ho Estate Phase 1. K

L (Paragraphs 1 to 80 were read in English) L

M (In English) I think request 6 should be "Describe M  
N the measures and/or recommendations (after the discovery  
O 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."

P (Via interpreter) Ms Lok, I read out your written P  
Q witness statement. Is there anything you would like to  
amend or add? Q

R A. I would like to correct some of the wording. R

S In paragraph 76, the part, "(In English) After lead was S  
T found", I want to add "(In English) soldering joints", T

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 15 B

C "in Ching Ho Estate". C

D Q. So it should read, "(In English) After lead was found in soldering joints in Ching Ho Estate"; right? D

E A. Yes, I have nothing more to add. E

F Q. Are you willing to take this as part of your witness statement? F

G A. Yes, I do. G

H MR KHAW: (Chinese spoken). H

I INTERPRETER: Apologies, the speaker is not coming through. I

J CHAIRMAN: (Chinese spoken). J

K MR YIN: For the two other estates, one of them was taken up by Yau Lee. China State, another contractor, was responsible for the other estate. K

L CHAIRMAN: (Chinese spoken). L

M MR YIN: The second was Choi Fook Estate, also by Yau Lee. M

N Chairman, shall we follow the existing practice that the witness statements from the same witness might be rather redundant? N

O CHAIRMAN: Do you want to read it all out? Perhaps we should use the time for discussion instead. O

P MR YIN: Let's not read out the redundant part. I won't repeat the first line. P

Q "(In English) This statement addresses matters relating to one of the 'Affected Estates' being Choi Fook Estate." Q

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A	<i>Annex: Realtime English Transcription based on floor / Simultaneous Interpretation</i>	A
B	Commission of Inquiry into Excess Lead Found in Drinking Water	Day 15 B
C	(Paragraph 2 was read in English) Let's skip paragraph 3.	C
D	(Paragraphs 4 to 6 were read in English) Let's skip paragraph 7.	D
E	(Paragraphs 8 to 12 were read in English)	E
F	"(In English) ... expertise as necessary."	F
G	I will skip the rest of paragraph 12. (Paragraphs 13 to 14 were read in English)	G
H	I will skip paragraphs 15 to 18.	H
I	(Paragraph 19 was read in English)	I
J	I will skip paragraphs 20 to 24. (Paragraphs 25 to 27 were read in English)	J
K	Paragraphs 28 and 29 are "Licensed plumber".	K
L	(Paragraph 30 was read in English) I will skip the next two paragraphs.	L
M	(Paragraph 33 was read in English)	M
N	I will skip the following three paragraph. (Paragraphs 37 to 38 were read in English)	N
O	I will skip paragraphs 39 and 40.	O
P	(Paragraphs 41 to 48 were read in English) Paragraphs 49 and 50 I will skip.	P
Q	(Paragraphs 51 to 52 were read in English)	Q
R	I skip paragraph 53.	R
S	(Paragraphs 54 to 56 were read in English)	S
T	I skip paragraph 57.	T
U		U
V		V

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 15 B

C (Paragraph 58 was read in English) C

D Paragraphs 59 to 61, the first and second sentences D

E I'll skip. I'll start from the last sentence of E

F paragraph 61: F

G "(In English) Similar to building PASS, building G

H service PASS assessments were also carried out for water H

I pump installations undertaken by Ryoden Engineering I

J Co Ltd." J

K I will skip paragraphs 62 to 71, and let's resume at K

L paragraph 72: L

M (Paragraphs 72 to 77 were read in English) M

N We will skip paragraph 78. N

O (Paragraph 79 was read in English) O

P Ms Lok, I just read out parts of your witness P

Q statement on Choi Fook Estate. Part of your statement Q

R is different from that for your witness statement on R

S Ching Ho Estate Phase 1, so is there anything you would S

T like to add? T

U A. No. U

V Q. Would you take this witness statement as your account? V

A. Yes.

Q. Now I will read out the witness statement for Hung Hom

Estate Phase 2.

"(In English) This statement addresses matters

relating to one of the 'affected estates' being Hung Hom

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B Commission of Inquiry into Excess Lead Found in Drinking Water Day 15 B

C Estate Phase 2." C

D (Paragraph 2 was read in English) D

E I will skip paragraph 3 and now move on to E

F paragraph 4. F

G (Paragraph 4 was read in English) G

H I will skip paragraph 5. H

I (Paragraph 6 was read in English) I

J I will skip paragraph 7. J

K (Paragraphs 8 to 9 were read in English) K

L (Request 1 and paragraphs 11 to 13 were read in English) L

M I will skip paragraphs 14 to 16. M

N (Paragraphs 17 to 19 were read in English) N

O I will skip paragraphs 20 and 21. O

P (Paragraphs 22 to 27 were read in English) P

Q I will skip paragraph 28. Q

R (Paragraphs 29 to 32 were read in English) R

S Paragraphs 33 to 35, the last sentence: S

T "(In English) Pursuant to section PLU2 on sanitary T

U appliances, China State was required to submit material U

V proposals with samples for contract manager's approval V

because contract manager had to consider factors

including appearance, colouration, detail, dimensions

et cetera, other than technical requirements."

(Paragraphs 36 to 37 were read in English)

I will skip paragraphs 38 and 39.



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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 15 B

C (Paragraphs 40 to 44 were read in English) C

D Chairman, is it a convenient time to take a break? D

E CHAIRMAN: We will take a short break of 20 minutes. Thank E

F you. F

G (11.39 am) G

H (A short adjournment) H

I (12.03 pm) I

J CHAIRMAN: Please continue. J

K MR YIN: Ms Lok's witness statement with regard to Hung Hom K

L Estate Phase 2. L

M (Request 2 was read in English) M

N Skip paragraph 45. N

O (Paragraphs 46 to 48 were read in English) O

P Skip paragraph 49. P

Q (Paragraphs 50 to 52 were read in English) Q

R Skip paragraphs 53 and 54. R

S "(In English) Site supervision for plumbing S

T installation": T

U (Paragraphs 55 to 57 were read in English) U

V Skip paragraphs 58 and 59. V

(Paragraphs 60 to 63 were read in English)

Skip paragraphs 64 to 70.

(Paragraphs 71 to 79 were read in English)

I have read out part of your witness statement on

Hung Hom Estate Phase 2. Having heard what I read out,

do you know need to make any amendments or add anything?

A. No.

Q. Would you accept this as your witness statement for the purpose of this hearing?

A. Yes, I do.

Cross-examination by MR KHAW

MR KHAW: Ms Lok, I represent the Commission of Inquiry and I have several questions for you. I have asked similar questions for other estates. For the three estates you were in charge of, I would like to go through some of the questions again with you.

First of all, I would like you to turn to your witness statement on Hung Hom Estate Phase 2: B15.3/38968. Paragraph 35, "Submission of plumbing material proposal".

According to your witness statement, with regards to this part, it's the same across all three estates. In paragraph 35 you talked about the difference between PLU1 and PLU2, and in the second line you said, "(In English) Pursuant to section PLU1, materials for pipes, fittings and joints, including soldering materials, China State", and so on and so forth, and "(In English) China State was not required to submit material proposals ... for CM's approval ..."

On this line, on the line "(In English) was not

required to submit material proposals" and so on --  
earlier, we have heard from other witnesses that on  
PLU1, in some cases samples of the materials have to be  
submitted.

So on PLU1, generally speaking -- let's not talk  
about exceptions -- even if you don't check the actual  
samples of materials, you would still check the  
information of the relevant samples?

A. Correct.

Q. So here it says, "(In English) China State was not  
required to submit material proposals with samples", and  
so on. Were you referring to the fact that actual  
sample does not have to be submitted?

A. Let me clarify that. We feel that the solder jointing  
item is a sundry item, and as such no information has to  
be submitted. PLU1 requires the contractor, that under  
the requirements of our specifications, they have to  
fulfil their responsibility in producing conforming  
materials and, as such, documentation submission is  
adequate.

Q. For the three estates you were in charge of, according  
to the witness statements, the main contractor,  
including China State and Yau Lee, they both did submit  
the material submissions?

A. Yes.

Q. On PLU1, with regards to the soldering material, did you actually see the actual samples? Did you rely on submission from the contractor? Was that the case?

A. The submitted documents already included photographs of the actual samples. Even if the samples were not submitted, we could see how they looked like.

Q. In terms of the actual samples, you have -- well, it depends on whether the main contractor would submit them. If they don't, there's no requirement stipulating that they must submit the PLU1 samples.

A. Correct.

Q. Apart from these three estates, before the lead in water incident, in the past -- well, over the previous five years -- of all the housing estates you were in charge of, did most main contractors submit samples of the soldering materials for vetting? Generally speaking, was that the case?

A. After the lead in water incident, I looked up some records. In these three projects, they did submit samples.

Q. Am I correct that for the sake of these three estates or projects, the main contractors felt that they needed to submit the actual samples for your vetting?

A. All I can say is that the normal practice is that main contractors would submit samples, and as such, for these

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

**B** Commission of Inquiry into Excess Lead Found in Drinking Water Day 15 **B**

**C** three projects, they also submitted samples. **C**

**D** Q. So they were merely following the norm; right? **D**

**E** A. Yes. **E**

**F** Q. According to the Housing Department, if the main contractor feels they need to submit actual samples, **F**

**G** from the Housing Department's point of view, do you feel **G**

**H** that after receiving the samples you have to conduct **H**

**I** some tests? **I**

**J** A. Well, let's go back to the specification requirements. **J**

**K** If samples do not have to be submitted according to the **K**

**L** specifications, and if materials -- if samples and **L**

**M** documentations are submitted, then of course we would **M**

**N** look at it. **N**

**O** Q. You mentioned sundry items or miscellaneous items. We **O**

**P** have heard the term "small fittings", such as screws and **P**

**Q** screw caps. For those materials, the Housing Department **Q**

**R** does not need to check either their documents or **R**

**S** samples; correct? **S**

**T** A. Yes. **T**

**U** Q. Am I right that in terms of the system for testing **U**

**V** samples -- well, for sundry items like screws and caps, **V**

no samples have to be submitted. However, you did test

the soldering materials; am I correct in saying that?

When you dealt with the samples submissions, you did not

consider soldering materials as sundry items; do you

agree?

A. I have to qualify this statement. It's not a testing process, but instead a vetting. We checked the materials against the documentation, and if we feel that everything is in order and meets our lead-free requirement, we will approve.

Q. Well, whether we call it an examination or a vetting, my question is you said you don't need to test or vet sundry items like nuts and bolts, but for soldering material, you need to go through the procedures.

So my question is: soldering item was not considered a sundry item; do you agree?

A. No, I do not agree. It is not required by the contracts, but sometimes contractors would like extra assurance, to confirm that their materials used are compliant, and as such they would be considered sundry items but then we can still grant approval.

Q. What's the HD's practice? Is there a list stipulating the sundry items, or would you make the judgment by experience or trade practice?

A. Generally speaking, we have some materials in mind for sundry items. Some items must be inspected or verified.

Q. For sundry items, I'm not sure if I'm correct, for small fittings, nuts and bolts, usually there won't be any contractual specifications; right?

A. Yes, you may say that.

Q. I would like you to look at a witness statement from  
Yau Lee, I1/93.

Let's look at the document first, before I put  
questions to you. At page 93, let's look at  
paragraphs 28 and 29.

Have you read it?

A. Continue.

Q. Page 12 of P1. Paragraph 4.7, please read it as well.

Have you read it?

A. (Nodded head).

Q. I would like to ask you on sample boards mentioned in  
this paragraph, regarding sample boards, according to  
the witness statement, the materials have to be placed  
on a sample board for submission to the Housing  
Department.

I would like to know whether soldering materials  
included in the sample board, is it true that on your  
sample board you also have the soldering material; is  
that right? And after testing, you would place the  
sample board in a locked-up room; where needed, you can  
check? So I would like to know the practice with regard  
to soldering materials.

A. Well, according to this document, perhaps after the  
approval they placed the materials on a sample board

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

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C which will be placed in a sample room. C

D Q. Have you yourself seen any sample board with the soldering materials? D

E A. I can't recall, because it was a very long time ago. E

F Q. Now, for soldering materials, after submission by the main contractor and after your checking, we understand F

G that on delivery to the site, you would not conduct another test, right, according to your statement? G

H A. Yes, correct. H

I Q. Am I correct to say that after you have looked at the I

J sample board, it will be placed in a locked-up room, and the sample board would not be used again, throughout the J

K course of works; right? K

L A. I can only say that for the soldering materials, there is the possibility that it may contain lead. Back then, L

M there wasn't sufficient awareness. Had we known that M

N there was such a potential risk, for sure colleagues N

O would have checked all the materials based on the sample board. O

P Q. Please see if my understanding is correct. So you had P

Q samples in the sample board, in the sample room. The Q

R purpose is, when the materials were delivered, you could R

S examine whether they were in compliance with requirements approved by the department; is that right? S

T A. Yes, that was the purpose. T

U

V



Q. If that was the purpose or requirement, it appears that if the materials were not examined or tested upon delivery, it would appear that you failed to achieve the purpose for keeping the sample boards; do you agree with me?

A. I don't quite agree with you, because if the awareness was high back then, the sample board had its function, I would assist colleagues for on-site inspection.

Q. Can we look at the functions for storing the sample board. B10.1, page 23057. Preliminaries on specifications.

Madam Lok, please take a look at the paragraph on samples.

"(In English) Samples of materials -- general requirements.

Submit samples of materials as requested by the CM and do not confirm orders until Approval has been obtained."

After that:

"(In English) Keep Approved samples at the place agreed by the CM for comparison with materials used in the Works, which must conform with the samples set aside."

That's what it says here. The contract made very clear that samples approved should be placed inside

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

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C a room so that when materials were delivered, you could C

D check whether they were up to requirements. Do you D

E agree? E

F A. I agree. F

G Q. So, if you've checked the samples and placed it in G

H a locked-up room and you do not do further examination H

I or checking upon delivery, then you won't be able to I

J achieve the purpose in this preliminary? J

K A. This is because the requirements in the specifications K

L required counterchecking. For soldering materials, L

M since it was hard, was a metal item, and after approval M

N the contractor was supposed to use such materials for N

O works, even we didn't check, that doesn't necessarily O

P mean that without our checking the contractor could use P

Q such materials indiscriminately. Q

R Q. So you believed that a main contractor would be the R

S gatekeeper and yet you do not have any system for actual S

T checking of materials upon delivery? T

U A. We base on risk-checking. If we know that a certain U

V material has a potential risk, we will enhance our V

checking.

Q. With hindsight, would you agree that with regard to the

risk-based approach, when you decided on materials that

had to be checked upon delivery to ensure that they

complied with the approved requirements and

specifications, perhaps you didn't have a very comprehensive consideration of whether soldering material would contain toxic materials?

A. Well, this material has potential risk. I can only say that if we had done more, things would have been better.

CHAIRMAN: I would like to ask a question. With regard to that locked-up room for placing samples by the HD, other than HD staff, I would like to know whether the main contractor or its subcontractors are allowed to enter the locked-up room or not.

A. The locked-up room is really a locked-up room, belonging to our site inspection team. Even if I go to visit our site, someone must get the key to open it for me.

CHAIRMAN: I do know that, but I am asking, other than HD staff, for instance, assuming that the main contractor or his subcontractors would like to see whether materials delivered today are identical to the samples submitted to you, can they ask HD staff to open the room and let them take a look?

A. Yes, that is possible, but must be accompanied by our staff.

CHAIRMAN: So you are worried that people would swap the materials?

A. For sure.

CHAIRMAN: Right. I would like to ask a question about

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 15 B

C a lack of awareness and also risk-based approach. C

D You did know that lead was poisonous or toxic? D

E A. Yes. E

F CHAIRMAN: But, for this incident, did you know that in many F  
other countries there were cases of lead found in  
drinking water? F

G A. Prior to July, there was really no knowledge. G

H CHAIRMAN: In other words, you didn't know the reasons why H  
lead was found in drinking water of these countries? H

I A. Unless they were really using lead pipes. I

J CHAIRMAN: So you mean that you knew that excessive lead was J  
found in drinking water because lead pipes were used;  
K you were aware of that? K

L A. Yes, I learnt that from books. L

M CHAIRMAN: So you knew that for lead pipes, that would give M  
rise to the problem, and you didn't know that soldering  
N materials containing lead would lead to the same N  
problem? N

O A. Now, if soldering joints contained lead and if lead is O  
P released into drinking water, leading to health hazard, P  
Q well, I didn't know that before July. Q

R CHAIRMAN: Okay. Did you know that for jointing of pipes, R  
there were both lead-free and leaded soldering R  
S materials? S

T A. I knew that our specifications required lead-free T

U

V

soldering materials.

CHAIRMAN: I know that, but prior to July, of course with hindsight we all know about this specification, but prior to that did you ever take note of this specification?

A. I can't recall but there was no special focus on that.

CHAIRMAN: Am I fair to say this: prior to July, in fact prior to July, basically, you didn't know that for soldering joints or for pipes, lead-free soldering materials must be used?

A. Well, you can't say so, because the specification requires lead-free soldering materials to be used.

CHAIRMAN: Yes, I know that's in the specifications, but prior to July, first, you must have read the specifications before you could know. Now, if you have never read the specifications or you didn't take note of that, that means it would be blank.

A. Yes, I get your point, but the contract was too long ago so I didn't pay particular attention to that.

CHAIRMAN: So you cannot recall and you don't know how to answer this question.

Please go on.

MR KHAW: I have one further question. On samples, the witness statement from Ng Hak Ming, I1/93, the statement from Yau Lee, paragraphs 28 and 29.

I have a question on paragraph 28. I will read out the last part of paragraph 28. Maybe I will read out the whole paragraph: In the procurement of solder, although soldering wire is not part of the items that must be submitted to the Housing Department, but as mentioned before, certain HD offices would require the soldering material to be submitted.

Just now, you said that the Housing Department did not have requirements on the soldering material and they did not ask the contractor to submit actual samples. Then here it says: Specifically, Housing Department officers might ask for soldering material to be submitted.

So do you agree with this statement?

Would any HD officers request for the solder to be submitted? Here, it's a deviation from what you said. It's a deviation from what you gave in your witness statement for Yau Lee.

A. At the construction sites, we have site inspection teams, a clerk of works or other colleagues are aware of the lead-free requirement in the soldering material, and there is a chance that the relevant samples would have to be submitted.

Q. What was the basis of such request? Was it a normal practice or were there any internal guidelines, that

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C	main contractors are required to submit the samples?	C
D	A. I cannot answer on behalf of them, but I would expect it's by practice.	D
E	Q. Now let's look at the final part of 28. It says:	E
F	Ming Hop would request the plumbing subcontractor to	F
G	purchase solder samples that comply with the HD's	G
H	requirements to Yau Lee and the Housing Department for	H
I	approval. In some projects the plumbing subcontractor	I
J	is also required to demonstrate the soldering procedures	J
K	to the HD's officers in the sampling room.	K
L	So sometimes, in the sampling room, the	L
M	subcontractor has to demonstrate the soldering process?	M
N	A. I believe you are referring to sample flats.	N
O	Q. So they have to demonstrate the soldering process in the	O
P	sample flats; do you agree with that? Have you heard of	P
Q	it before?	Q
R	A. I don't agree. Having overseen so many contracts, no	R
S	contractor was ever asked to carry out the demonstration	S
T	in the sample flat.	T
U	Q. Have you ever requested labourers to demonstrate the	U
V	soldering process at any of your sites? Do you have any	V
	recollection?	
	A. No.	
	CHAIRMAN: Mr Yin should be asking these questions. Why	
	didn't you put these questions forward?	

MR KHAW: On the lack of awareness I have further questions.

Just now, you told us you know in general that heavy metals are harmful to health. You also have considerable knowledge of the relevant Waterworks Regulations or Ordinance on the requirements of pipes and fittings and that they have to comply with the British Standards; you are aware of those, right?

A. Yes.

Q. From the contract specifications, with regards to the solder, it is said very clearly that the relevant British Standard must be complied with, and they also make it very clear that lead-free soldering material must be used. That's a contractual specification.

On the issue of lack of awareness, we know that both the contract and the law had certain requirements on soldering material. For example, the British Standard, and so on. Do you agree that both the law and contracts have very clear stipulations and that the objective is to avoid the use of leaded solder in construction projects? Do you agree with what I mean?

A. There are legal and contractual requirements, and I believe there's a reason behind that. I believe that the purpose is to safeguard others' health.

Q. We asked a chief building services engineer before, Mr Ng, and he told us that with regards to plumbing



works, and on the assignment of nominated subcontractors for fire services and water pumps, they would look at the specifications. So my question is, for each housing estate or each project, the specifications set out in the contracts and whether provisions or amendments are required, for each project, who was the main person in charge?

A. Before the tendering, we had to come up with a tender document. We have a standard Specification Library for drawing up contracts. As the contracts manager, when preparing the tender booklet, I would draw up a particular specification, and the specification is tailor-made for a specific project. So I am referring to the preliminary part. The remaining clauses can be applied to most new projects and we won't touch them. They would be retained along with the specifications and that would form our tender booklet.

Q. After the tendering, the same sets of specifications would still be used. So, as we look at the issue estate by estate, and the contract supervision is the responsibility of the chief architect.

A. In the tendering process there are many different minor works. For many of the parts, we have to rely on teamwork. The contract manager is merely a leader for the team. We have building services engineers,

C structural engineers. They would introduce specific C  
D requirements in line with the standard specifications in D  
E order to come up with a tender document. E

E CHAIRMAN: What about the water supply specifications? E

F Would that be the responsibility of the building F  
G services engineers or architects? G

G A. For PLU1 and 2, it wasn't prepared by our own contract G  
H team. It was drawn up according to the library or H  
I standards of specifications. After the tendering, it I  
J will become part of the contract. J

J CHAIRMAN: Yes, I see what you mean. For PLU1, would they J  
K be added by default or does the chief architect have to K  
L say, "We would introduce that", or the chief building L  
M services engineer would make the call? M

M A. The items are the same between different projects. So, M  
N in our standard booklet, this item must be included, and N  
O we have to rely on another team to update the O  
P information, and that's the central support team. P

O MR KHAW: Now, for Hung Hom Estate --

P CHAIRMAN: Are you referring to the standard support team? P

Q At DCD, there's a chief architect in charge of design. Q  
R Is that the same person? R

R A. Yes, but he would be backed up by a CBSE. R

S MR KHAW: Now let's look at the specifications for the S  
T Hung Hom Estate. B10.1, page 22950. T

T

T

U

U

V

V

Let's look at the requirements under PLU1. You can look at page 23096. Starting from page 23096, let's scroll down, up to 23100. These are to do with pipes and joints and fittings; do you see that?

A. Yes.

Q. Now, let's turn to page 23102, on workmanship. For Hung Hom Estate, I understand that the 2004 edition of the Specification Library was used, if I am correct, but when we look at 23100 to 23102, there's no mention on the requirements for solder.

So in PLU1, the materials for soldering material was not expressly listed.

A. Only lead-free solder or BS 1254, nothing else was given.

Q. So when drawing up PLU1, at that time, why don't we include the table from the 2004 edition of the Specification Library? How did you arrive at the decision? How did you decide which clauses had to be added and which could be ignored? How did you come up with this decision?

A. The project already started when I took over. I wasn't involved in the preliminary preparation works. But from a common-sense point of view, under the specifications, if the relevant requirement such as BS are already present, then we would not need to expand them in this

document, because there's already enough reference information, and we also trust our central team, that when they came up with the central specs they already considered the different factors.

CHAIRMAN: So your question was why did you have to separate them? Why did you have to highlight certain items or things? What do you want to express? In theory, the specifications have been listed in your standards. Why did you have to highlight them?

A. I don't know for sure.

MR KHAW: One more question on this bundle. Deciding items to single out -- now, I don't see any criteria for soldering, for B10.1. These are specifications included here.

If you look at page 23100, joints, fittings and pipework, if you look at "PLU2.M120.B, Copper pipes", on page 23100, under "Copper pipes":

"(In English) 1. Be of seamless drawn copper tubes ..."

Do you see that?

"(In English) ... manufactured to BS EN 1057:1996 with nominal wall thickness as below."

Then there are specifications. You said that for those written out, if they were already in the Specification Library, they wouldn't be singled out

here. But if we look at the 2004 Specification Library, 2004 edition -- B2, page 644, "Copper pipes", number 1 -- they are more or less the same as the previous page. But in these specifications for Hung Hom Estate, this has been singled out here.

So what are the criteria in deciding on the selection of items from the Specification Library?

A. In the past, we used the standard clauses from the Specification Library as far as possible, to become our contract requirements.

Q. So did you copy the whole text or just by reference to the library?

A. I think we should have copied the whole text, with the exception of the preliminary part, it was tailor-made, and if alterations have to be made project-specific, we have to seek the CM's agreement.

MR KHAW: (Chinese spoken).

CHAIRMAN: We will break for lunch and continue at 2.30.

Thank you.

(1.04 pm)

(The luncheon adjournment)

(2.31 pm)

CHAIRMAN: Please carry on.

MR KHAW: Before lunch, we talked about the specifications for Hung Hom Estate, PLU1, contains certain

requirements. I did put some questions to you.

Regarding the 2014 specifications, they may not follow these entirely. They may follow some but not the others.

Before luncheon, I asked you the question as to how the bits are selected for inclusion into the specifications.

A. I must clarify that I wasn't the one who devised the tender document, but if the standard Specification Library clauses are deemed necessary to be changed, then the contract manager's consent must be sought.

Q. In the light of your experience, if you see that for a certain project, let's say PLU1, if there are certain clauses that have to be included into the contract, what considerations would there be, what criteria would you adopt to include or not include certain bits?

MR HO: Let's see whether we can speed things up a little bit.

Later on -- I've got a very clear answer. Since Mr Khaw is engaging in some sort of fishing expedition.

I have a very clear answer for Mr Khaw. Notwithstanding the fact that there is a Specification Library for a particular year, 2014, and subsequently there was an update, but in the contract there are certain clauses that are included.

CHAIRMAN: Why don't you tell him straightaway?

MR HO: I don't really mind doing so.

CHAIRMAN: You can just have a word with him.

MR HO: If Mr Khaw doesn't really mind, he can drop this line of enquiry, and -- Mr Khaw will certainly put questions to another witness if he doesn't agree with this witness.

MR KHAW: I would object to that. Since I've started with these questions, I would like to hear from the witness.

A. PLU1, as contract manager, I don't see the need for any changes to the clauses, unless in the approval process the colleague were to tell me that the clause has to be adapted in the contract. In the light of previous experience, I didn't receive this request.

Q. Thank you. Let me go to another area. There are other witnesses of the Housing Authority who mentioned the nominated contractor and the domestic contractor and the difference between the two, the nominated contractor and domestic contractors.

I understand that in a contract for these contractors, there are different specifications. From the testimony of other witnesses for certain fire services installation or water pumps, there is a requirement for higher technical expertise, and for these projects they would appoint nominated contractors.

For plumbing work, they would adopt this domestic contractor arrangement.

Let me put this to you. Do you agree that for fire services installation and pumping work, that since the technical element is larger, and therefore it is the usual practice of the Housing Authority to appoint nominated contractors; would you agree with that?

A. Let me supplement. Now, for nominated subcontractors, other than the element of technical complexity, there is also the element of design of the system. So for subcontracts of that nature, there is such a requirement. The same thing is said about electrical subcontractors; we also use nominated subcontractors.

Q. Can I say this: for the pump room and the piping work, there are different treatments. For the plumbing work and pumping work, they are interconnected, aren't they?

A. Yes.

Q. I'm not sure whether you agree with me on this: if we have nominated subcontractors, the Housing Authority has a set of subcontracts for them to sign with the main contractor; is there such an arrangement?

A. For nominated subcontract, we do have the specification requirements. We required it for plumbing work; there is a specification requirement.

Q. All right. Let's take a step at a time. In terms of



the specification for nominated subcontractors, I'm not sure whether you agree with me on this: for nominated subcontractors, when they enter into an agreement with the main contractor about the fire installation and water pumps, the Housing Department is aware of the details of the requirements?

A. Yes.

Q. Now, for domestic subcontractor, can I say this: for domestic subcontractors, they are identified by the main contractor?

A. Yes.

Q. From your statement, it says that -- now, in terms of domestic subcontractors, is it the case that normally you don't look at or you don't ask the main contractor or the subcontractor to let you have sight of the specifications?

A. Let me supplement a little bit here. Recently, or not recently, in the light of the Tak Shun incident, there was a contractor who owed wages in arrears, and we have a specification for the main contractor to produce the original copy of the contract.

Under this clause, we can ask the main contractor to produce the original copy of the contract, of a domestic contract.

Q. Let's take the example that you cited. Is it a recent

arrangement?

A. No, it wasn't a recent arrangement; it's still going on for some time.

Q. The three housing estates that you were responsible for, was it the practice that for domestic subcontractors, you don't normally ask the main contractors to produce a subcontract for you to look at?

A. This may not be entirely correct. Ching Ho Estate is a re-entry contract. That's in the aftermath of the Tak Shun incident and all the subsequent contracts have this built-in requirement, so we could ask for it.

Q. For Hung Hom Estate, was it before the incident?

A. I think -- I have to check the timing. Hung Hom Estate was afterwards.

Q. My question is very straightforward: for domestic subcontracts, these are not your nominated subcontractors; you have to rely on the main contractor to identify the domestic contractors themselves. So is it the case that you should have a more stringent regulation or supervision, to make sure that the contents of the contract measure up to the requirements?

A. Let me come back to the spirit of the main contracting parties. When a contract is entered into, it is between the HA and the main contractor. In the contract document, it is stipulated the main contractor is

responsible for the quality and the specification conformity of the entire contract. So, if the contract is not implemented in a proper way, it's not for us to ask for the subcontract.

Q. In other words, you trust the main contractor to do their jobs and you don't normally ask the main contractor for the subcontract; is that right?

A. I think to ask for the subcontract, we can manage by exception. We can exercise the right to ask for the document.

Q. Would you agree that if you do not ask for the production of the subcontract from the main contractor, then you would not be in a position to know whether the content measures up to all the requirements?

A. Basically, the main contractor and the domestic subcontractor have their own relationship. There is no need for us to delve into that.

Q. After this lead in water incident, do you think you should do more in the way of gatekeeping? For the domestic contractor, not nominated subcontractor, do you think there should be a more stringent arrangement, like there should be sight of the subcontract to check for compliance?

A. I think the key thing is the main contractor executing the contract and how we can take more steps, like more

testing, more sample testing and so on. The HA entered into the contract with the main contractor, after all.

Q. For the Housing Department, let's talk about the CA and the licensed plumber, the relationship between the two. Let me discuss this with you here. I did put this question to other CAs before.

One of the questions is, as far as these housing estates are concerned, at different stages of works, what was the LP doing, and you as the CA -- well, anyway, you were the incumbent CA -- did he ask the LP to submit certain information for your record during the course of works? Were there such requirements?

A. Can you please clarify what is meant by "records"?

Q. For instance, assuming that the LP entered the site in December or when, and then during the period, what works he was doing or what works was he supervising and how many workers were working for him on such works -- do you maintain such records in relation to the LP?

A. For every contract, the main contractor has the responsibility to produce a programme chart for us, and on the basis of the programme chart, there will be a breakdown of the date of commencement and completion of works, so that we can deduce the completion date for the whole project. We will not specifically ask the LP to produce such documents. Rather, in the

administration or management of the contract, it is a process management. By certain dates, the main contractor has to produce on a regular basis the number of workers on site and the stage of work he has reached. The whole process involves different trades, including plumbing installation, certain WWO regulations have to be satisfied and form submissions have to be made, to seek approval on time.

For instance, the time when WSD's consent can be obtained for commencement of work and approval of materials. We keep track of such things throughout the process, but will we specifically ask the LP to produce such documents? We don't think it is necessary. It still rests with the MC, main contractor.

Q. You told us that the LP's duty is to make applications and submit forms to the WSD. We will deal with that later.

The WWO requires the LP to carry out supervision work in relation to plumbing works. Are you aware of this?

A. Yes.

Q. My question to you is, under the law, the LP has to supervise the works. You, as the project employer or developer, may want to know whether the LP has supervised the relevant plumbing works in accordance

with the law. I believe this is something you would want to ensure; right?

A. HA has no contractual relationship with the LP, so in the whole process, as I said, we follow our programme. So long as everything is on schedule and satisfactory, we do not mind who supervises the LP. We believe that the main contractor must subcontract an LP to carry out the works. Now, if an LP has legal obligations to comply with, and if the progress is okay, we believe that the main contractor has already discharged its responsibilities, and if the LP is not working, probably we will hold the main contractor accountable.

Q. For plumbing works, you cannot ask just any workers to carry out the works. They must be qualified and under the law. In addition to having qualified workers, he has to supervise the plumbing works. So are you saying that as far as how the HA supervises the LP in his work, you rely on the main contractor to carry out this; am I correct?

A. I believe the main contractor, in delivering the project, has a site management team. He has his own project manager, and proper liaison with the LP and proper supervision -- well, I don't have any knowledge of such matters. I think, for the sake of the final quality of the product, I believe the main contractor

will monitor or supervise the LP, who will honour his obligations under the requirements of the WWO.

Q. Now, with the benefit of hindsight, what do you think, looking forward: should the HD supervise the LP in the supervision of works by workers? Do you think the HD should review its arrangement in this regard? Do you agree with me?

A. Yes, with the benefit of hindsight, the crux of the matter and how to prevent further incident, yes.

I think all parties should do more. Now I'm not in the works post anymore and I believe my department has got stepped-up arrangements.

Ultimately, we believe that the Water Authority would enhance its requirements. This is about how LP can perform better, how the whole supply chain can do better. I think there must be more communication with the industry to achieve better arrangements.

Q. You don't have to worry. I'm sure there will be loads of questions to the Water Authority, when they are in the witness box.

Now, I am asking, as far as the HD is concerned, looking back, would you say that the HD should review and enhance its supervision on the work of the LP?

A. Yes, to enhance and improve the quality, this can be done. More importantly, it is about how such

requirements can be reflected in the contract, and there must be enforceable steps as well. I think this is important.

Q. Can we turn to I1, page 82, paragraph 9. I would like to refer you to, starting from the fourth line, Ching Ho Estate, the works are -- this is the witness statement from Yau Lee.

It says here: for Ching Ho Estate Phase 1, the works were contracted to Sum Kee, but because of unsatisfactory progress Ming Hop took over subsequently.

Regarding the progress of Ching Ho Estate, did you hear anything about the slow progress of plumbing works, and that they had difficulties finding workers? Did you hear anything to this effect?

A. Because that was quite a while ago and I cannot recall specifically whether there is anything improper in the performance of the LP. But for past projects, when some contractors were not performing satisfactorily, we would always ask the main contractor what was happening, because to ensure timely completion, there must be good co-ordination among all trades. When there is a problem with a particular trade, remedial action has to be taken immediately.

Perhaps that was the reason for changing the subcontractor for Ching Ho Estate, but whether that was



raised, I couldn't recall.

Q. Now, for LP, sometimes works were rather rushed and the LP might employ more workers, in order to complete the works quickly. For workers, do you have a record as to what workers were employed or brought in by the LP and what workers were brought in by a subcontractor of the LP?

A. Well, we do not know, but we have a log-in/log-out machine to authorise workers to go into the site. Now, if there are workers under the plumber, we should have such records.

Q. In other words, there should be records for all workers coming into the site. My point is, could it be that when works were rushed, some subcontractors brought their own workers to come in to work? Could they be approved by the main contractor and yet there was no record of the names of workers? Under your system, would that happen?

A. I don't believe so.

Q. Lastly, may I refer you to forms submitted to the WSD. Let's take a look at records from the WSD. C16.1, page 9560. There are eight parameters to test the water samples with. The test was conducted on 10 December 2007. You must be able to see the date, do you see it, 10 December 2007?

We keep referring to form 1005. That is the certificate regarding the water supply. Here, the certificate regarding potable water supply is on page 9561.

That's January 2008, a water sample has been tested, and about a month or so later this certificate was issued. This is Fanling Area 36, Phase 1A.

Over the page, 9562, this is now the water supply connection certificate. The date is 8 October 2008. This is about nine to ten months after the water testing, sample test, was conducted. If you go back to page 9562.

A. Right.

Q. Why did it happen like this? I'm sure that the counsel for the Water Supplies Department will correct me if I've got it wrong, but from these records, page 9560, the date of water testing was December 2007, but Phase 1b, page 9562, that is dated 8 October 2008.

Can you explain this long time gap?

A. The only possibility I can think of is when we certify completion of a project, we may not need this water certificate. As long as the WSD can make connection with the project, then the project would have been completed.

As regards the issuance state of the water

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C	certificate, it all depends on when the licensed plumber	C
D	makes available this form to us. There is a gap of some	D
E	months here.	E
F	So in terms of completion of the project, the water	F
G	test was completed and the Water Authority has completed	G
H	a test and water supply was made available, then the	H
I	project would have been completed.	I
J	Q. I put this question because, according to the Water	J
K	Supplies Department's guidelines, before water testing	K
L	was conducted, the water tank had to be sterilised and	L
M	disinfected, and according to the guidelines, after	M
N	disinfection, after cleansing, water test would take	N
O	place, and within a certain period of time the water	O
P	supply would be connected.	P
Q	It seems there is quite a big time gap here. Is	Q
R	there any particular reason why this is so, other than	R
S	what you say about the licensed plumber?	S
T	A. I don't remember about it.	T
U	Q. In the year 2002, we heard from other witnesses that the	U
V	main contractors were encouraged to use copper pipes	V
	instead of the traditional GI pipes. Were you in the	
	employ of the Housing Department?	
	A. Yes.	
	Q. With regard to this switch, do you know what risk	
	assessment was conducted by the HD? Like, with more	

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

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C copper pipes being used, would there be any undesirable C  
D consequences? What implications would there be on the D  
E residents? Did the Housing Department conduct any risk E  
F assessment in this regard? F  
G A. I'm sure there must have been some assessment. We used G  
H to use GI pipes which were prone to rusting. Copper H  
I pipes were quite popular in the industry. There were I  
J advantages with copper pipes, because they are not prone J  
K to rust. K  
L Q. After the adoption of copper pipes, the materials might L  
M have implications on human health. Were there any M  
N studies being conducted? N  
O A. At that time, I wasn't involved in the central support O  
P or the design team. I didn't pay particular attention P  
Q to any assessment or risk assessment for that matter. Q  
R But I am aware that the specifications did reflect the R  
S changes. S  
T Q. At that time, other than soldering joints, were any T  
U considerations given to things like compression joints U  
V or press-fit joints; any consideration of these other V  
types of joints?  
A. To my knowledge, with regard to copper pipes, and there  
are two types, solder joints or mechanical joints or  
compression joints. As regards the selection of the  
types, I wasn't involved in discussion myself.

MR KHAW: I have no further questions.

CHAIRMAN: WSD?

DR WONG: Yau Lee would like to put questions first.

Cross-examination by MR LI

MR LI: All right, at your request, I will take the floor.

I'm on behalf of Yau Lee and Ming Hop.

A couple of moments ago, Mr Khaw asked you about form 1005. That's on page 9560, 61 and 62. Perhaps the secretary may wish to assist. C16.1.

C16.1/9560, there is a date, 10 December 2007, that's the testing -- first the eight parameters and there's a certificate.

Let's turn over the page to 9561, please. Here, it's rather blurred but we can see 20-something January 2008. Mr Khaw SC did put a question to you, and then we move on to the date, 8 October 2008. These couple of certificates are in relation to Ching Ho Estate, Fanling Area 36, Phase 1b. That's in fact the site of Ching Ho Estate; is it correct?

A. Yes.

Q. In your statement, you mentioned two parts and there is a commercial complex, and also residential portion. For the commercial -- I'm not sure whether you agree with me on this -- part, it was built first, as paragraph 9 of your statement, page 38714. For the domestic part, it

was in 2008 that the remaining five blocks were completed.

There is quite a bit of information here, so we can try and explain why there is such a long time gap. Maybe -- on page 9560, it is in relation to the commercial portion, and then 9562 is in relation to the domestic portion. Maybe there was some mix-up there.

A. Thank you very much for your advice. Looking at the record, the completion time of the domestic blocks was October 2008. So this water certificate is in relation to the domestic blocks.

Q. That's 10 December 2008 water certificate.

Let's put this aside for the time being. Mr Khaw asked you a question a moment ago and he asked you to refer to Yau Lee's statement, paragraph 28. That's I1/93.

Paragraph 28, the latter part there: sometimes, depending on the project, the subcontractor will have to show the HA staff the procedure of soldering. You might be able to help. For these sample flats, they were put together. When they were put together, would the main contractor tell you when the sample flats would be put together? Would there be any timetable for you?

A. In the programme chart, there would be a time when the sample flat would take some time to complete. In the

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B	Commission of Inquiry into Excess Lead Found in Drinking Water	B
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C	process, our site staff would be able to look at the construction process.	C
D	Q. Well, this building process would take time. As you	D
E	said, it might take a couple of months.	E
F	A. Right.	F
G	Q. So, in these couple of months, there will be site staff	G
H	looking at the construction of the sample flat. In the	H
I	course of building this sample flat, I'm not sure	I
J	whether you have any personal experience, would you go	J
K	there and have a look yourself?	K
L	A. The contractor wouldn't ask me to turn up at the very	L
M	beginning. It would be towards the end that they would	M
N	ask me. Because towards the end, everything would be	N
O	there in the sample flat. The purpose of this is for	O
P	the contractors and subcontractors to look at the	P
Q	workmanship and the design, and for them to get on with	Q
R	the rest of the project.	R
S	Q. So if you turn up to have a look for yourself, it would	S
T	be towards the end of the construction of the sample	T
U	flats?	U
V	A. Yes, more or less.	V
	Q. In the course of building the sample flats, there would	
	be site staff or an inspection team, whatever they are	
	called; they would look at the process, wouldn't they?	
	A. Yes. Even if we look at it, we would not take over the	

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 15	
C	supervision of the main contractor, because the main contractor will have to execute this.	C
D	Q. All this we understand, but would there be anyone, such	D
E	as your subordinates or your finance staff, to report to	E
F	you? For whatever reason, there may not be any black or	F
G	white order, but when skilled workers are found to be	G
H	assembling something in the sample flat, would somebody	H
I	report such things to you?	I
J	A. I have never received such information.	J
K	Q. But you can't rule out this possibility? While the	K
L	sample flat was being built, the contractors are	L
M	arguing; they may not report all their communications to	M
N	you?	N
O	A. I do not know what would be their daily dialogue, but	O
P	when it comes to quality of works, I have not received	P
Q	any information of this kind.	Q
R	Q. But you won't rule out that of course you have any	R
S	formal order to ask your frontline staff to ask these	S
T	workers to demonstrate to you; right?	T
U	A. When it comes to demonstration, for some critical trades	U
V	we do require the main contractor to demonstrate. For	V
	instance, the use of adhesive, when tiles have to be	
	pasted to the wall, it really depends on the control of	
	time by the workers, when adhesive is applied and when	
	the tiles are placed up to the wall. The main	



contractor would perform such demonstrations to let their foremen and workers know the proper work procedures. When it comes to a demonstration of soldering joints, I have never heard of it.

Q. Because it's not among the critical types; right? Would it be according to the contract or your requirement, they are not required to demonstrate to you?

A. Yes. As I said, this is a sundry item, and we talk about experienced workers and the main contractor is responsible for the quality and requirement. So even for soldering we have not asked for this to be shown.

Q. But you cannot rule out this possibility. Maybe just as an extra requirement, your frontline colleagues may ask the staff to show them how to do the soldering joints?

A. I have never heard of it.

Q. But you can't rule out this possibility.

CHAIRMAN: You may not like some answers but you have asked a number of times.

Any more questions?

Cross-examination by MR PENNICOTT

(All questions from Mr Pennicott were in English)

MR PENNICOTT: Good afternoon. I represent China State, the main contractors for Hung Hom, as I am sure you are aware.

I'm sorry I'm asking my questions in English, but

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C please give your answers in Cantonese. C

D A. (In English) Sure. D

E Q. Ms Lok, I hope you won't regard this as an impertinent E

F question, but are you or have you also been known as F

G Rosa Ho? G

H A. Yes, I'm Rosa Ho. H

I Q. That'll save me asking some potentially false questions. I

J Could I ask you please to be given or shown J

K bundle B10.1 at page 23025. K

L Do you have that, Ms Lok? L

M A. Yes. M

N Q. You make a passing reference to this in your witness N

O statement, and I just want to try and get it clear O

P there's no difference between us. P

Q The Hung Hom project was very firmly divided into Q

R two separate and distinct parts; would you agree with R

S that? S

T A. Yes. The distinct parts you refer to would be the T

U Hung Hom site and the Ma Hang site; is that correct? U

V Q. Yes, that's right, and there were only residential V

blocks built at the Hung Hom site, and the other site,

known as the Ma Hang Headland Park, was, as its name

suggestion, a park that was built by China State?

A. Correct.

Q. Right. Then could I ask you then to look at exhibit 1

to your witness statement, in obviously the one that relates to Hung Hom. Could you go, please, to page 38984 in bundle B15.3.

A. Yes.

Q. We see, as I understand it, Ms Lok, you highlighted in green, but called Rosa Ho, and you are there the chief architect between February 2009 and November 2013; do you see that?

A. Right.

Q. But if you look up two lines from the highlighting in green, we see that you were CA/2 (acting) between March 2008 and August 2008; do you see that?

A. I can't.

I get it. Yes, CA/2.

Q. Between March 2008 and August 2008?

A. Correct.

Q. Is that right; were you the CA/2 (acting) between those two dates?

A. Yes, because back then I was responsible for design.

Q. Yes. You were asked some questions earlier by counsel for the Commission about your involvement in the tender and specification, and I understood you to say that you weren't involved in the tender and the details of the specification. Is that correct?

A. If I remember correctly, I was CA/2 and the Hung Hom

project was in the design stage. It depends on when tender preparation was done and when works started.

Q. Would it surprise you if I told you that the Hung Hom tender was let to the various tenderers in March 2008?

March to April 2008, the tenders came in in May and June, and, as you say in your witness statement, was awarded to China State in August 2008, the month you appear to have left for the first time.

A. It could be that it was too long ago. If, during the tendering period, I was the CA responsible for that tender, I have no objection.

Q. Right. We have heard from other witnesses that ordinarily, although of course a team of people is drafting the contract, the chief architect is normally in overall charge; do you accept that?

A. As mentioned in my witness statement, the contract would require a team. Everyone has to contribute his professional input.

Q. What was your input, if any?

A. As the CA contract manager, things would involve all the breakdown of works in the tender document and drawings, and to properly put out the tender according to the programme.

Q. All right. Could I just ask you a couple of other questions on this document we're looking at, at

page 38984.

The personnel that you list there, I see the heading is "Hung Hom Estate Phase 2 and Ma Hang", so is it dealing with both parts -- is this document dealing with the personnel involved in both parts of the contract?

A. I believe so, yes.

Q. Yes. What I wanted to ask you about actually is on page 38985, and in particular can I draw your attention to the middle of the page where it's "COW", which stands for clerk of works; do you see that?

A. Yes.

Q. My understanding is that one of those clerks of works, Mr Chan, was engaged on Hung Hom, whereas Mr Tang was for Ma Hang; do you know if that's right?

A. Because the two sites were separated, so it was not unusual to have two clerks of works.

Q. All right. With regard to the clerk of works, would you agree with this: the China State witnesses say that on Hung Hom itself, there were four assistant clerks of works, just for Hung Hom itself; would you agree with that?

A. Four clerks of works?

Q. Four assistant clerks of works on Hung Hom.

A. Checking the records, I can't recall there were that many, but according to our manning scale, there should

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C be one work supervisor per building -- C

D Q. Yes. D

E A. -- and one ACOW for two blocks. There are three E

F buildings and one carport, there should be at least two F

G ACOWs. Could it be four ACOWs? Perhaps that is G

H a little bit too many. I have to check my records H

I first; I cannot recall clearly. I

J Q. But we're agreed, though, there would have been four J

K works supervisors? K

L A. That could be possible. L

M Q. And you agree that the assistant clerk of works and the M

N works supervisors would be on site full-time? N

O A. True. O

P Q. All right. Could I just ask you a couple of questions P

Q on a topic that you were asked some questions on earlier Q

R by counsel for the Commission, and that's the question R

S of sampling and samples submitted. Do you remember S

T those questions? T

U A. Yes. U

V Q. Now, we know that China State and the other contractors V

were not required by the contractor to submit its

samples of lead-free solder.

A. Yes.

Q. But we know that in fact we did.

A. Yes.

Q. We know that in other contracts, all the contractors here -- that's China State, Yau Lee, Shui On, Paul Y -- all submitted samples of lead-free solder. I don't know whether you are aware of that.

A. I know.

Q. The China State witnesses will say, if asked, that really this grew up over time as a sort of long-term practice between all the contractors, that the Housing Authority, whilst not putting everything in writing, always required as a matter of practice lead-free solder samples to be submitted. Would you agree with that?

A. I believe there was such a practice that they continued with; we wouldn't stop them.

Q. No. If they didn't submit a sample of lead-free solder, would you have asked them to do so?

A. If the site staff had the experience, under the contract, if there is such a requirement, it wouldn't be surprising.

Q. We know there's no requirement -- sorry.

CHAIRMAN: I don't quite understand your answer, Ms Lok.

You got the question, didn't you?

Perhaps you can ask the question again.

It seems strange. Maybe it's translation because the answer wasn't really correct.

MR PENNICOTT: Ms Lok, I think potentially there's no

disagreement between us that the process of the contractors submitting samples of lead-free solder is something that has gone on for a very long time and it's become standard practice, effectively. Do you agree with that?

A. I agree.

Q. So sometime, at some point in history, which we can't identify, samples of lead-free solder were given to the Housing Authority and it's just carried on; that's really what's happened, isn't it?

A. Yes, you can put it this way.

Q. Could I please ask you to look at paragraph 75 of your witness statement, so far as Hung Hom is concerned, which is in bundle B15.3 at page 38980. Do you have that, Ms Lok?

A. Yes.

Q. What you say here is this:

"In respect of the material procurement stage, the contractor was not required under the contract to submit any purchasing record of the soldering material to the [Housing Authority]."

Then you say:

"At the material delivery and installation stage, the [Housing Authority] site inspection team did not check the delivery notes or purchase orders of solder



materials."

That sentence, Ms Lok, is that piece of evidence specifically related to Hung Hom, or is that a statement of general practice?

A. This is a general statement, because if you refer to the sundry items, this is correct.

Q. Could I ask you to focus on the words "delivery notes"; do you see those in that sentence?

A. (Nodded head).

Q. I accept that this is a bit of a hypothetical question, certainly so far as Hung Hom is concerned, but, Ms Lok, if the project or assistant clerks of works of the Housing Authority were in fact given delivery notes, what would you expect them to do with them? Where would they end up in the Housing Authority, if that happened?

A. If the contract doesn't require any delivery note for certain materials, then even if the contractor were to hand over the delivery note to our colleagues, then our colleagues don't have the obligation to check them. Basically, they can return them to the main contractor, for their record. We don't have to check the delivery notes for them, for the materials.

Q. If a site agent of the main contractor wrote a formal memorandum attaching a quantity of delivery notes, and submitted it to the assistant clerk of works on site,

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would you expect him simply to file it, to pass it to his boss? What would you expect him to do with it?

A. If the delivery note and the materials are delivered on site, all the materials being delivered on site, if they are considered good enough, they will not be taken back out, and we do have the quantity surveyors who would look at the materials on site, in stock, and then issue the payment. For the soldering materials, they are the sundry items, they will not be separately priced. Therefore I don't think the delivery note would bear any significance. Maybe certain site staff or the clerk of works might file them.

Q. Okay. That's a fair answer.

There's one question I forgot to ask you about the sampling: who had the key to the room?

A. (In English) Key to what?

Q. The sample room that we were talking about earlier.

A. It is the clerk of works.

MR PENNICOTT: The clerk of works? Thank you very much.

CHAIRMAN: (In English) Thank you.

Cross-examination by DR WONG

DR WONG: Ms Lok, on behalf of the Water Supplies

Department, I have a couple of questions for you.

Ching Ho Estate, if I may refer you to the exhibit 38773. We have seen this form many times, WWO46. You

have seen this form before, haven't you?

A. Yes.

Q. Page 38773, on the bottom right-hand corner there is a signature of the AP, together with the stamp of the Housing Authority.

A. Yes.

Q. The date, if I read it correctly, is 8 October 2007.

A. Correct.

Q. To the left, there is a licensed plumber, the signature there also?

A. Right.

Q. It is dated 31 March 2008?

A. Correct.

Q. Would you agree with me in saying this: when the AP signed the document, he didn't rely on the signature of the licensed plumber; is that right? So the AP's signature predates the LP's signature?

A. I don't agree, because when our colleagues signed the document, this WWO form is prepared by the licensed plumber, and the licensed plumber would make it available to the main contractor, for onward submission to our colleagues for signature.

It is possible that my colleague saw the licensed plumber's signature but it wasn't dated; possibly, possibly, yes.

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C When the colleague, project architect, I presume -- C  
D when the project architect looked at the details, signed D  
E and dated it, he would hand it over to the main E  
F contractor, and then the main contractor would ask the F  
G LP to date it for submission to the Water Supplies G  
H Department. H

I Q. You said before the AP signed on the paper, he would I  
J read other papers. What other paper would he read? J  
K A. I am talking about this form, WWO. K

L Q. You mean the LP would sign an undated document and L  
M then -- the AP or the licensed plumber would sign M  
N an undated document and then the AP would look at it; is N  
O that right? O

P A. Yes. P

Q Q. This is your evidence. Let's turn over the page. Q  
R Page 38774. There is another signature and the stamp of R  
S the Housing Department. 11 October 2007; can you see S  
T that? T

U A. Yes. U

V Q. This is part II, to the Water Authority: V  
"(In English) I endorse the information submitted by  
my licensed plumber and the authorised person in  
part I."

So, when the document was signed on 11 October 2007,  
he actually was endorsing the details, the content of

what the AP signed?

A. From this, yes.

Q. But if you look back on the previous page, it wasn't until March 2008 that the AP signed on the paper. How could he have signed on the paper in December 2007 to endorse the document in part I?

A. When the licensed plumber prepared this WWO form, he must have appended the list of materials or the information there.

The licensed plumber may have not dated the document, but the form was prepared by the licensed plumber, the list of things were prepared by the licensed plumber.

Q. I heard what you say. On page 37873, we talk about block 1, Area 36, 1b.

Let's have a look at page 38780. This is blocks 2 and 2a. Again, the dates are identical: 8 October 2007. This is clearer. 31 March 2008. I am sure that your answer would be the same.

A. Yes.

Q. Page 38781, 11 October 2007 is the date. I am sure your answer would be the same.

A. Yes.

Q. Let me take you to 38787. This is block 3 and 3a and RCP.

A. Yes.

Q. The dates are similar: 8 October 2007 and 31 March 2008.

If you look at page 38788, the dates are also 11 October  
2007 -- your reply would be the same, I would imagine.

A. Yes.

Q. All right. We've got Ching Ho Estate out of the way.

Now let's turn to Choi Fook Estate.

Please turn to page 38904, blocks 9, 10 and 11 of  
Choi Wan Road.

A. Yes.

Q. Then down below, the date of signature by the AP,  
29 December 2008. But the LP's dated 22 January 2009.

Again, the AP signed before the LP did so, but according  
to your reply it would be dated afterwards?

A. Yes, I believe the AP, because it was responsible for  
submitting all the forms to the WSD, he would be the  
last to date these forms.

Q. All right. This is Choi Fook Estate.

Finally, if you look at Hung Hom Estate Phase 2,  
page 39018.

A. Yes.

Q. Again, the same document, the AP signed on 27 July 2009?

A. Correct.

Q. And the LP, 25 July 2009?

A. Yes.

Q. Under what circumstances would the LP sign earlier than the AP?

A. Well, I find it strange.

Q. If the AP signed first you would not find it strange; right?

A. I think the best practice should be, sorry, for the LP to sign everything first, together with all the details properly dated, for submission to the project professional to sign, who would see that everything was in order and signed and return all the documents to the LP for submission to the WSD. But this difference in practice could be that the WSD allowed this difference in the timing of signature.

Q. No, no, the theme of my questioning is whether the WSD allowed it to happen. The crux of my question is, according to your understanding, normally is it the usual procedure for the AP to sign first, to be followed by the LP, or should it be the other way around?

A. Because the LP is the gatekeeper, the LP hasn't collected everyone's signature. Now, if initially he has already signed and dated the documents before he collected signatures from all other parties for submission to the WSD, that is okay. If it's the other way around, he leaves the form undated, yet has gone through the checking process and then he dates the form

finally for submission to the WSD, this has happened in previous projects in the past, and this is also allowed under the system.

I can only say that there are different practices, but submissions can be made, all the same, under the system.

Q. I would like to know whether you have seen a form just signed but not dated by the LP, according to your experience?

A. In these three projects, all the forms I saw were dated.

Q. According to your personal experience, you have never seen a document just signed and not dated by the LP?

A. Because I was not required to sign the WWO form, so I have never seen any undated form for submission to the WSD.

Q. In two out of three housing estates, the forms were signed by the AP first, and in one housing estate the AP signed later than the LP. Can you help us to understand why the difference in practice and in timing, because all housing estates were under your charge?

A. Now, this is my guess. We have to go back and guess why it was so. Because the final party who submitted the form to the WSD was the LP, and in preparing the form, since he was the final gatekeeper, there's the possibility that he didn't date the form first before



our colleagues signed it. Because the form was about fittings, proposed fittings and installations, when our colleagues receive the form, we will look at the LP's signature and if the specifications were in order, we wouldn't query why the LP didn't date the form. Our colleagues would then sign it and if the LP submitted the form to the WSD, he was supposed to date it.

Of course we always talk about the result. In previous practice, the WSD never rejected such form on that basis.

Q. Could this be the actual situation: the AP signed and dated the form first; at least in two out of the three of the estates here, what happened was the AP signed WWO46 first, dated it, before he asked the LP to sign? Could it be the actual situation?

A. It should not be so because our colleagues would not sign on a blank form.

DR WONG: I have no other questions.

COMMISSIONER LAI: Did the department feel that the dates didn't matter, because suppose about when works would start. But looking at the forms, the date of commencement of works has nothing to do with the date when the form was signed. So was it the feeling of the department that the dates didn't matter; so long as there was a form submitted to the WSD, the date was

C irrelevant? C

D A. As I said, the best practice should be for everything to  
be signed before works started. D

E COMMISSIONER LAI: But for all of these forms, they did not  
follow the best practices. E

F A. But the design of the form is such that they would allow  
G the commencement of works here, because it says here,  
H "were commenced on site". There were two options,  
"were" or "will be commenced". H

I COMMISSIONER LAI: No, but it was not crossed. For  
J instance, for the last, 39108, it said works started in  
K June, but then the form was signed in July, informing  
the department that works would start in June. K

L A. Because it involves material preparations and  
preparation work. When the LP worked on this form, he  
M was very experienced and all the materials were  
N according to the WSD's specifications. Perhaps that was  
his understanding when he commenced works on site. O

O COMMISSIONER LAI: I find it hard to understand. O

P MR HO: Perhaps there could be better explanation. P

Q CHAIRMAN: Yes, hard to understand. Q

R Cross-examination by MR HUI R

(All questions from Mr Hui were in English)

S MR HUI: Ms Lok, last Friday, my learned friend Mr Ho was  
T asking questions of Mr Chiu Pbut Kay. In relation to  
U  
V

the Housing Department's change of material from non-copper pipes to copper pipes, Mr Chiu let this Inquiry know that for the transition, there was a unit within the Housing Department called the spec team. The full name possibly was the specification team.

Do you agree with that?

A. If you talk about the transition, in 2002, the HD had a central support team, and this so-called spec team, was it solely responsible for specifications or was it responsible for supporting standard formulation?

I believe the spec team would be a unit under the central support team. But it was likely that it was not solely responsible for specifications; it could also be responsible for central support functions.

Q. In around 2002, was there such a unit called the spec team?

A. I have to check the structure, but whatever you call it, whether you call it spec team or a central support function or a senior team, under the support team to take up specifications and review in writing, that was very possible, very likely.

Q. In that case, I would like to take this senior team, as you call it, slightly further. Perhaps you could assist the Inquiry.

Approximately how many personnel would have worked

for this senior team?

A. There is possibility that there may be one senior leading two or three architects, but because I was not involved in the central function, it's hard for me to give a firm answer.

Q. I appreciate that. No one here is suggesting that you were a member of the spec team.

Please tell us, in that case, what staff grade would have been the senior, the leader of this senior team or spec team?

A. Talking about the daily operation, the central support function would be a chief architect from design and spec team, and under him there would be a few senior teams. For specifications review, the work would be led by a senior architect, but when it comes to specifications endorsement, it's likely that it had to go through various tiers within the department. And then the development and construction board would be the final tier to endorse and promulgate these specifications.

This is the process of specifications formulation.

MR HUI: Chairman, I have quite a few questions to ask.

I just want to take an indication, if I may, from you, whether you intend to take a break. Ms Lok has been here for quite a while now.

C CHAIRMAN: Does anyone want a break? If not, why don't we  
go on.

D MR HUI: Very well.

E Ms Lok, I am still this topic of the spec team, as  
we were informed by Mr Chiu last Friday.

F CHAIRMAN: When they appear here, they do have their own  
G titles. We know that the management board that you  
H refer to, there is a paper from the management board  
I regarding the use of copper pipes. That's the  
J management board of the DCD, there's a paper from the  
K management board. There is a chief architect in the DCD  
L responsible for design and standards. This chief  
M architect, as far as we know, is Mr Yim Yu Chau. He is  
N currently the post-holder. In 2002, we are not sure who  
occupied the post; we don't remember.

M So what you are saying is that this CA in DCD,

N C&S --

O A. CA/D&S.

P CHAIRMAN: CA/D&S. D&S is design and standards. This

CA/D&S heads of a team of personnel; is that correct?

Q A. Yes, with respect to the specialised expertise, the CA  
R is a professional architect. He is familiar with the  
S building elements like plasterer and tiler. For  
T plumbing, he is not really specialised and it should be  
U CBS that is responsible. Structural, we have C/E.

CHAIRMAN: In other words, in 2002, when the change was made to copper pipes, there was a CBSE that headed the change of specifications?

A. That's correct.

CHAIRMAN: The first CBSE appearing here was a BSE at the time. He said that there was a Mr Cheung who is now an AD, who was the CBSE at that time.

A. That was Mr Leung.

CHAIRMAN: So if you want to put questions regarding the change back in 2002, I think the best person to ask is Mr Leung, because Mr Leung would tell the CA/D&S and then the CA/D&S would instruct the DCMB to put out the paper. Is my understanding correct?

A. Yes, he heads the specification review. This is a CA co-ordinated exercise. But in terms of the spec review in different disciplines, there is an element of professional expertise. So, for DCMB instruction, should it be the responsibility of the CA or the CBSE? It would depend on the content.

CHAIRMAN: If we are talking about the copper pipes, then should it be CA or CBSE?

A. It should be CBSE.

CHAIRMAN: So, from now on, please do not use the terms "central support unit" or "spec team" or whatever. I will make it very simple. I will try to make it

simple. We have to be on the same page, because if we are not on the same page, we are not sure what we are all talking about.

Please continue.

MR HUI: At the time of the transition -- I know you were not in the thick of the action, Ms Lok -- at the time of the transition, do you agree with Mr Chiu's comment that HD would have done reviews and liaised with the industry?

A. I know that for review of specifications, the department would not do so on its own; it would liaise with the industry and the stakeholders, and there would be EMD feedback. We would collect all the information for the review exercise before we put together the specs.

CHAIRMAN: Earlier you were talking about EMD, estate management division; is that right?

A. Yes.

MR HUI: And also stakeholders, such as the Department of Health?

A. I am not sure on this one. If it involves the health implications of materials, it is possible.

CHAIRMAN: The one heading the EMD is Mr Wong Bay, the assistant director; is that right?

A. At that time, the EMD, there were three ADs.

CHAIRMAN: Three ADs in the EMD?

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C A. Yes. C

D CHAIRMAN: Mr Wong Bay was one of them? D

E A. Yes. E

F MR HUI: I know the phrase "industry practice" has appeared F

G in your statement. Could you tell us, when you say G

H "industry practice", is that industry practice confined H

I to Hong Kong? I

J A. I think, when we use the phrase "industry practice", we J

K are talking about the local context. In terms of the K

L practice, would they have regard to overseas practice, L

M I'm not sure. M

N Q. Actually, every time you talked about industry practice, N

O you meant Hong Kong industry practice? O

P A. This is my interpretation, yes. P

Q Q. Is there any internal departmental standardisation, as Q

R far as the term "industry practice" is concerned? R

S A. No, I don't think so. However, as professionals dealing S

T with the building works, we would know what the industry T

U practice is. U

V Q. But you do accept that the material your department uses V

to build buildings is used all around the world?

A. I believe that --

CHAIRMAN: Well, this question has been answered but it's

just that you don't like the reply. Her understanding

is that industry practice is the local industry practice



when she put together this statement. So that's her answer. Her meaning was that we are confined to the local industry practice. Maybe you don't like the answer, but you can't help it.

MR HUI: I have no preference, Mr Chairman. I think Ms Lok just told me how to take an answer; if the Civil Aviation Department tells me, industry standard means Hong Kong industry standard.

CHAIRMAN: That's a different story. Civil aviation is a different issue altogether, Mr Hui. I'm sure you know aircraft very well yourself. I'm telling you that in Hong Kong we don't have the local industry practice for aircraft.

MR HUI: I am grateful for that, Chairman.

I want to move on to a completely different subject.

CHAIRMAN: If you talk about Typhoon and a MiG-20-something, there is no relation. Your Typhoon, the UK one, a fighter jet.

MR HUI: Mr Chairman, much obliged.

I would like to take you, Ms Lok, to the Advisory Committee on the Quality of Water Supplies, committee meeting No. 3. That would be in file G2.

Ms Lok, do you see the minutes of the third meeting?

A. Yes.

Q. It was held on a Monday, 15 January 2001, at 2.30 pm.

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C	A. Correct.	C
D	Q. Can we scroll down the screen, about halfway, and we will see the name "Mr Wong Bay".	D
E	A. Yes.	E
F	Q. Do you accept that Mr Wong Bay at the time was an assistant director for the Housing Department?	F
G	A. I think so.	G
H	Q. I know that prior to lunch, Mr Chairman asked you whether you were personally not aware of the threat posed by lead in solder prior to July 2015 this year, and I note that your answer was that you were not.	H
I		I
J	A. Correct.	J
K	Q. Do you now believe that the HA, as an institution, was not aware of the threat or risk posed by lead in the solder material and lead in the water prior to July this year?	K
L		L
M		M
N	A. I think lead in solder materials which has leached into the water in the pipes and caused health risk, before July this year we were not aware of that.	N
O		O
P	Q. Do I take it you mean the HA as institution was not aware?	P
Q	A. At least I don't know about it myself. I don't think I can generalise and say this about the HA.	Q
R		R
S	Q. Do you accept that the HA might have known?	S
T	A. That I'm not sure.	T
U		U
V		V

Q. Do I take it that you will not rule out and you will not rule in whether the HA knew?

CHAIRMAN: How do you expect her to answer that?

MR HO: This is not a fair question.

CHAIRMAN: Not ruling out, not ruling in. I don't think you should answer that.

MR HUI: In the afternoon session, Ms Lok, you mentioned something about the Water Authority might do more to encourage awareness; am I right?

A. I remember in answer to one of the SC's questions, I mentioned that if we were aware the lead could have been leached into the water in the pipes and cause health risk, then all the parties, including the Water Authority, could have done more to improve the situation.

Q. Yes. And of course you don't mean that the Water Authority hadn't done enough.

Can we scroll down on this set of minutes to about paragraph 6. What happens here, Ms Lok, is that there was a paper that was produced for the benefit of the members of the committee. At paragraph 6.1 you will see that the chairman introduces the purpose of this paper. I would like to give you a moment to read it, please.

Please give me an indication when you are finished with 6.1.

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 15 B

C A. I am done with 6.1. C

D Q. What is very unusual about this paper is, first of all, D

E is that not only is it submitted for the consumption of E

F the members of the committee; at 6.2, the minutes record F

G that the paper has actually been presented by the G

H waterworks department. So it is both submitted and H

I presented to the members, and it talks about properly I

J maintaining the plumbing systems. J

K If I may now ask our colleagues of the Secretariat K

L to call up paper 7. That would also be in G2, item L

M 60-something. This is paper 7, and I would like you M

N please to go to paragraph 8, please. There's a big N

O heading. O

P A. I've got it. P

Q Q. The heading, for the record, is "Current practice Q

R elsewhere in the world on how to ensure quality of water R

S in buildings". For the record, I will read paragraph 8 S

T and some of paragraph 9. Paragraph 8: T

U "The problem of water quality in buildings is not U

V unique to Hong Kong. A literature research of V

publications and through the internet has been

conducted. The situation in the United Kingdom,

United States, Canada and Singapore has been briefly

reviewed."

Paragraph 9:

"In the UK and USA, the most common problem is the presence of lead in water since during their development stage, lead pipes and lead-soldered copper pipes were widely used. The problem has to be addressed by dosing inhibiting chemical additives during the water supply treatment process to suppress ionisation of lead and by re-plumbing."

And the paragraph goes on.

Would you agree, Ms Lok, that the WSD people have actually brought to the attention of at least one assistant director of the Housing Department's attention that lead-soldered copper pipes was the most common problem in water in the United States of America and the United Kingdom?

A. This Advisory Committee -- well, with regard to its terms of reference -- its terms of reference are much wider. It covers water quality issues for the whole of Hong Kong. I was not aware of the items discussed by the committee.

So, to put things in context, things discussed by the committee has its own terms of reference.

MR HO: Of course, I have no intention to stop Mr Hui's questioning. I just make a general comment that the COI has been asking relevant persons to provide information on minutes of the committee. I don't know whether

Mr Hui knows or not, but I would like to take this opportunity to tell him that since there will be directly relevant persons from the committee to attend our hearing, rather than putting questions to Ms Lok, on not just a paragraph but a few sets of minutes of the committee, rather than putting questions to Ms Lok, asking her to comment on such minutes, from a time management point of view, I suggest that we put them to directly relevant persons and persons who have submitted those minutes to us.

MR HUI: Mr Chairman, I was actually about to move on to a totally different topic, which is contracts, and looking at the time, would it be an appropriate moment to call it a day?

CHAIRMAN: How much longer are you going to take?

MR HUI: A bit more than half an hour.

CHAIRMAN: And they will need another half an hour?

MR HO: Yes.

CHAIRMAN: We are supposed to adjourn at 4.30, since there is only five minutes left and they have about an hour left, so why don't you start tomorrow morning at 10 am?

All right, we will continue at 10 am tomorrow.

(4.25 pm)

(The hearing adjourned until 10.00 am the following day)

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