

B

B

C

2015 年 11 月 19 日

C

D

上午 10 時 02 分恢復聆訊

D

E

出席人士：許偉強大律師，為外聘律師，代表食水含鉛超標調查委員會

E

F

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

F

G

麥高義資深大律師及許佐賓大律師，由的近律師行延聘，代表保華建築營造有限公司

G

H

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

H

I

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

I

J

K

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

K

L

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

L

M

N

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

N

O

P

殷先生：早晨，主席。我下一位證人就係 Theresa，嚴小玲。

P

Q

主席：係。

Q

R

殷先生：佢就係本來就係交咗一份證人口供係關於東匯邨，但係因為之前 Mr Pennicott 嗰個問題，關於 B5 嗰個 provision 係啟晴邨嗰個合約度嘅，...

R

S

T

主席：係呀，係呀。

T

U

殷先生：...佢就我了解係昨日入咗一份第二份嘅好短嘅口供，就係講 B5 嗰個 provision 嘅，係啟晴邨。

U

V

V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

主席：係，係。

殷先生：咁今朝我唔知應該係一次過讀晒兩份口供？

主席：一次過，冇...

殷先生：一次過讀，Okay。

主席：係，冇乜所謂，係呀。

殷先生：咁請阿...

主席：等一陣先。

Mr...

MR PENNICOTT: Chairman, if I may, I would like both the witness statements read together. That's absolutely fine. I'm in a position to cross-examine Ms Yim on the Kai Ching matter myself.

The reason I am standing up has nothing to do with Ms Yim, but it has got to do with an application that I think is supported certainly by all the main contractors. I'm not sure what the Housing Authority's position is on it, and I just wonder, because it's an application to modify the order in which some of the witnesses are called, I thought it would be appropriate to raise that now so that if there is going to be a change, if we can persuade you that there should be a change -- to make the application now so that everybody knows where we stand.

I know I am interfering with the run of the witnesses, but it just seemed to me that this could be potentially quite important, if there is a change of order.

So if I may make that application now or if I may be permitted to do so?

主席：Yes.

A
B
C MR PENNICOTT : The nature of the application is this,
D Chairman, that at the moment WSD's witnesses are all,
E as we understand it, to be called right at the end,
F towards the end of the hearing, I think just before
G the experts. It's the application, I think supported
H by all the main contractors, that five of the eight
I witnesses from WSD should be called immediately after
J the Commission has heard all the evidence from the
K Housing Authority witnesses.
L

H As I say, the WSD have eight witnesses. They fall
I into two categories. Three of the witnesses -- Mr Wong
J Chung Leung, Deputy Director of Water Supplies and
K chairman of the task force; Chan Kin Man, who is the
L chief waterworks chemist and deals with a lot of
M technical matters, including isotopic analysis; and
N Chan Hon Fai, who is the chairman of the Advisory
O Committee on Water Resources and Quality of Water
P Supplies, and a member of the WSD task force -- those
Q three witnesses, we accept, should come at the end.

M 主席 : Which three; Wong Chung Leung, Chan Kin Man and Chan
N Hon Fai?

N MR PENNICOTT : Yes, they should come at the end. We have
O no cavil with that. They can be described as the task
P force witnesses.

P However, the other five witnesses, it is submitted,
Q fall into a completely different category.

Q I wonder if I could make that good by inviting you
R to look at the witness statement of the Director of
S Water Supplies, Mr Lam Tin Sing, Enoch. That's in the
T bundle at C19.1, starting at page 10279.

T Mr Chairman, you will see from the first five
U paragraphs of Mr Lam's statement that he seeks to
V address the questions that the Commission, through its
solicitors, have put to the WSD Department, and he
makes mention of the fact that a number of his staff

will also give witness statements to deal with those questions that have actually been posed to WSD.

If one then flicks through his statement, one sees it is broken down into a number of parts. The first part is the water supply system in Hong Kong. The next part is the duties of the Water Authority under the Waterworks Ordinance. Then he deals with the question of supply of drinking water, the adequacy, reliability, affordability, smart technology and quality. Then he deals with the question of licensing plumbers.

Then, part five -- I wonder if I can ask you to look at this. At page 10295, part five, he says, "Other statements of WSD officers".

The first witness, apart from Mr Lam himself, who we suggest should be called early, is Mr Leung Wing Lim. He is the assistant director of new works, and his witness statement -- which I am not going to go to, because rather helpfully Mr Lam summarises, albeit it very headline form, what the various witnesses deal with -- his witness statement is at C19.3/10709. He deals with the stakeholder theory, the design, construction and maintenance of the waterworks, and answers certain paragraphs, questions that were posed by the Commission.

We can skip over B, because that's Mr Chan Kin Man who I accept shouldn't be called at this stage, but over the page at C, page 10296, Mr Lam Ching Man, assistant director of customer services -- his witness statement is at C19.5/13471 -- he deals with the monitoring and control of construction, maintenance of inside service, complaint handling and promotion of Quality Water Supply Scheme for Buildings, and so forth; water treatment plant through which water is supplied to each affected estate; approach to taking and testing of water samples from inside service before connection of water supply to affected estates;

inspection and testing of water samples in inside service; construction of inside service in affected estates by licensed plumbers, and so forth.

Then the next witness at D, Mr Chan Hing, deals with the regulations pertaining to the construction of the affected estates and prohibiting the use of plumbing materials; work of the Licensing Authority and qualifications, and so forth.

Then lastly, over at page, at E, Mr Cheung Yip Kui: existence of lead in plumbing materials, use of deviated plumbing materials, and so forth.

Chairman, it is my application that the Commission gives consideration, at least, to the five witnesses that I have identified by reference to the schedule to Mr Lam's statement, should come after the Housing Authority witnesses.

It's quite clear, in our view, that they are addressing factual matters that are relevant to the Commission's considerations. They are dealing with factual matters that have been asked by the Commission to be dealt with by the witnesses. And it would be helpful, we believe, to the Commission and to the following witnesses and the following parties, if one has the ground set as it were from WSD as to their position on various of these matters.

So, as I say, I would ask you to give due consideration to calling those five witnesses after the Housing Authority witnesses are concluded.

主席：All right. Thank you.

陳先生：Mr Chairman, to be clear, what's been proposed by my learned friend is a fundamental alteration of the schedule in terms of the sequence of witnesses. This schedule has been known I think since at least 2 November. The parties, certainly my clients, have

been working on the basis of that schedule. It's a publicly known schedule.

And with great respect, the original scheme or concept makes perfect sense, logically and practically. The focus plainly was to start at ground zero in terms of the construction process, and although there may be some involvement on the part of WSD in that, it's very much tangential. But what's at the centre of it are two sides: the Housing Authority, in terms of its specifications and its requirements, and the contractors who agreed, by way of contract, to provide the buildings built to a particular specification.

So what we have now is that we have come to the point where we have heard one side in great detail, and we are very familiar with certain documents and certain issues, in terms of the Housing Authority's perspective, and we say quite properly the natural, logical and practical way of proceeding is to then go immediately to examine the witness evidence of the contractors, because that's very much intricately tied to the same process.

In any event, that is very much the sequence that we have been working on. It's quite important, in our respectful submission, that for inquiries of this dimension, that unless there are strong reasons, really the original schedule needs to be maintained. We don't hear any strong reasons.

I hear what my learned friend says about there being statements that touch upon some issue or other. They have those statements. If they wish to ask questions or bring out evidence in response to their own witnesses to things which are said already in written documents, they may do so.

But the fundamental point remains is that there is a schedule, there's a good reason for having that

original schedule, and there are no good reasons for departing from it, certainly not strong reasons.

So we would oppose any alterations, Chairman.

MR McCOY: Sir, I support Mr Pennicott's position.

First of all, I would entirely accept that the chemistry and the technical witnesses from the WSD should go towards the end. That makes perfect sense.

The first response I would make really to what Mr Abraham Chan for the WSD just said is this. We didn't even receive the relevant WSD statements until after 2 November. So this point that things were set on 2 November in fact is undone by the substance that they held back or they did not deliver their statements until after that date.

I would submit that it is distinctly preferable, in a public Commission of Inquiry, that the governmental interests -- that is Housing Department, Housing Authority, WSD -- precede the contractors. There is a logical and a literal connection between the WSD and the Housing Authority. They are literally, in terms of their interests, joined by pipes, and the question is one says, "My jurisdiction stops at the start of the inside service", and the other one presumably has a different or a further view.

Until the resolution of how each party considered the demarcation dispute, as to where their jurisdiction stopped or started, until that's resolved by evidence and tested by cross-examination, it could be a very long time before this critical issue emerges.

So I would submit that the general relationship between the government departments, how they interacted -- frankly, how they failed to synchronise -- is going to be a critical matter before which we then turn to the individual roles of the contractors.

Otherwise, you have, as it were, the government at the start and the government at the end, and of course the members of the public will always wonder why one part of the government was able to listen to all the evidence, perhaps adjust its position or refine it, and not have to give its evidence at the start, because if it has a clear position, it should immediately follow on, in my submission, from the Housing Authority evidence.

So I support Mr Pennicott entirely.

主席：Okay.

陳先生：Mr Chairman, I have responded to Mr Pennicott; I haven't responded to Mr McCoy. I'm in your hands, please.

主席：First hear all the supporters' submissions first.

林先生：Mr Chairman, I also support both my learned friends for China State and Paul Y in support of this application. I think it's really logical to have the factual witnesses, as suggested by Mr Pennicott, and to have the government's side to be heard first, because otherwise, as my learned friend said, "You've got the pipe", and one is saying, "My duty only ends at the connection", and then the other is saying, "Your duty doesn't end at the connection."

So, Mr Chairman, I think that is a very valid point, and we say nothing is cast in stone, as Mr Paul Shieh says. It's a fluid matter. And therefore, Mr Chairman, you can decide how this matter could resolve itself.

So I support fully and strongly.

主席：仲有冇人支持？有，仲有，唔。

譚先生：Yes。主席，我都支持，咁當然我有幾位學友嘅陳詞，咁我有嘢補充。

主席：唔該。

MR PENNICOTT : If I can confirm one point that Mr McCoy made, and that is the date of these witness statements. It is right that Mr Lam's witness statement came in on 6 November. The other four witness statements came in on 11 November. So yes, I accept that what's in Mr Shieh's supplemental opening has been there for a while, but at the time he wrote that we did not have the five witness statements that I am now basing this application on, which is a very important point, in my respectful submission.

陳先生：Chairman, it's important not to lose sight of the fact that one of the key areas that this Commission of Inquiry is tasked to look at is what happened on the ground. Before you can make recommendations or properly evaluate whether there have been any regulatory failings, you need to know what happened and what went wrong in terms of the actual construction process.

As of yesterday, we were still hearing questions being put, suggesting the point of view from certain contractors, and they don't even accept necessarily that it's any particular fault in the construction chain, as to how it is that leaded solders came to be used. In my submission, unless we have greater clarity on what exactly happened or did not happen in terms of the construction process, we can't begin to make informed and educated assessments as to what should one or other regulator have done in terms of a particular type of mischief. We don't know what the mischief is, fundamentally.

So, in my respectful submission, again the original sequence makes perfect sense. We are halfway through the process of examining the construction sequence. We are very familiar with documents at this point. I am not willing to guarantee that certainly for our part

or anyone else, that we will be as familiar with certain key documents that we have been looking at time and time again with certain Housing Authority witnesses, if this were to be held over until, say, January or February next year.

So we are very much halfway through an important process. It makes sense to maintain the course that has been set. It's not a question of maintaining a course to the bitter end, but the point is even looking at it now there are powerful reasons as to why the original sequencing should be maintained.

許偉強先生：主席，我諗講嚟講去其實都係兩個問題，一個問題，就係即係你個時間佢個迫切性；第二，就係會唔會對任何一方會作出啲咩嘢利益嘅損害。咁我聽完咁多位所講，咁我又--而家就咁睇我哋目前嚟講個時間表，咁大家都之前都已經同意咗嘅，咁睇唔到有一個迫切性。

第一，剛才幾位講話個個證人口供，11月2號水務署嘅先至入，咁而家都有喇，我哋；第二樣嘢，就係話個個 insider service 同埋水務署佢所講嘅責任點樣去--個個分水嶺喺邊度，其實呢個喺水務署個個8月個個報告都有講過，咁而我相信每一方到水務署嘅人嚟畀口供個陣時，都可以攞住一--所有有關資料去盤問佢嘅。所以個個時間嘅迫切性我睇唔到，亦都睇唔到話即係邊一方，會因為而家個時間表唔轉，而即係引起有啲乜嘢損害。

至於成個 case management 嘅案件管理嚟講，因為我哋而家睇緊就係 housing 嘅問題，睇緊啲屋嘅問題，咁就變咗如果你一路咁睇落去，同埋 main contract、subcontract 嘅關係都係即係息息相關，即係會緊扣嘅，咁所以我相信即係呢個就係我嘅理解。

主席：係。

何先生：主席，我唔係特別有任何嘅 position 關於 contractors 呢一個咁樣嘅申請，關於個次序嘅調換嘅問題。我只不過想提出一點，就係當然每一個 party 其實都係想去到最後，聽下其他啲人會對於佢個方面作出一啲乜嘢嘅批評或者攻擊或者咁樣，咁等佢可以--如果我係押後啲嘅時候，就可能我會喺我個證人個準備方面，或者係點樣回應個方面可以做多啲準備嘅工夫，呢個係我相信都係正常嘅。咁但係我希望因為我哋要行先嘅問題，咁我希望同樣對於安排個方面嘅公

B
C 平嘅起見，委員會會 bear this in mind。

D 主席：即係其實你嘅意思即係話應該安排你哋行最後，係咪咁嘅意思？

E 何先生：如果我有權可以作出一個咁樣嘅安排嘅決定，我都希望我可以行
後啲嘅。

F 主席：我哋諗一諗呢個問題先，而家我哋唔會即刻畀個 ruling 出嚟。稍
G 後我哋有咗個結果之後，我再話畀各位大律師聽我哋嗰個 ruling 係
H 咩嘢，個命令係咩嘢。咁我哋而家繼續做房署嗰啲 architect 先，
唔該。我哋個錄音受到啲電話干擾，請你哋熄咗你哋啲電話，或者將
佢轉咗做呢個飛機模式。

I
J 香港房屋委員會第九證人：嚴小玲(房屋署(東匯邨總和啟晴邨總建築師))
以本地話宣誓作供

K 主席：請坐，唔該。

L 殷先生：主席，我開始讀嚴女士係作為東匯邨嘅總建築師嘅口供。

M 主席：好呀。

N 殷先生主問

O **COMMISSION OF INQUIRY**

P **WITNESS STATEMENT OF YIM SIU LING THERESA**

Q **CHIEF ARCHITECT OF TUNG WUI ESTATE**

R
S 1. I, YIM SIU LING THERESA, provide this statement in
T respect of the Commission of Inquiry into Excess Lead
U Found in Drinking Water ("COI") and in response to a
V request from the COI dated 12 October 2015. The
statement addresses matters relating to one of the
"Affected Estates" being Tung Wui Estate.

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 (Project) 2, and was involved in the contract administration for the construction of Tung Wui Estate from February 2009 to completion and part of the maintenance period till February 2012 serving as Chief Architect/2 at that time. I therefore have direct knowledge of the project in the above period. Where I have had to obtain information from other sources or pursuant to discussions with colleagues I have made that clear in this statement.

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

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

BACKGROUND INFORMATION

5. Being Chief Architect/2 from February 2009 to February 2012, I had served as the Project Manager, Design Team Leader and/or Contract Manager (CM) for over 25 public housing projects from inception to completion stages, including all associated housing-related infrastructures and supporting community facilities, provided steer and leadership for the projects. Through delegation of authority, contract administration and site supervision were discharged by the CM's Representatives and Site Inspection Team. The CM's Representatives and Site Inspection Team carried out their duties with reference to the Quality Manual - Contract Administration (Building) Guide.

6. The Chief Architect and Chief Building Services

Engineer were involved in managing the design and construction for plumbing installation works of buildings.

7. The gross site area of Tung Wui Estate is 1.12 hectares. This development comprises the construction of two domestic blocks of 34 to 38 domestic storeys with flat production of 1,333, a 3-storey community complex (comprising a community hall and one integrated family service centre) and associated external works.

8. The HA awarded the building contract with contract number 20080040 to Paul Y. General Contractors Limited ("Paul Y.") on 5 May 2009 with contract sum of Hong Kong Dollars Four Hundred Thirty One Million (HK\$431,000,000.00).

9. Paul Y. commenced the contract works on 15 May 2009. I certified the substantial completion of building works for the commercial complex on 30 May 2011, the two domestic blocks on 15 December 2011 and External Works and remaining works on 17 January 2012.

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

Request 1: Explain their respective roles and responsibilities and the respective roles and responsibilities of the main contractor, sub-contractor(s), licensed plumber(s) ("LP") and other person(s) in the contractual, construction, and post-construction stages relating to the installation, supervision of work, inspection, certification of completion, monitoring and maintenance of the fresh water plumbing system as far as controlling the content of lead of the Plumbing Materials is concerned, stating the procedures, criteria and standards involved.

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

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

CHIEF ARCHITECT

13. As Chief Architect of the building contract for Tung Wui Estate, I acted as the administrator of the Contract, i.e. the CM as referred to in the General

Condition of Contract (GCC) as supplemented by the Special Conditions of Contract and the Specification. I delegated the administration of the contract to a Senior Architect and Architect within my section. They acted as the Assistant Contract Manager and Contract Coordinator respectively. Senior professionals and professionals of other disciplines were delegated the authority as CM's Representatives to administer the part of the contract works in their respective areas of expertise as necessary. The CM's Representatives and Site Inspection Team carried out their duties with reference to the Quality Manual - Contract Administration (Building) Guide.

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

CHIEF BUILDING SERVICES ENGINEER

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

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

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

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

18. Under my overall supervision, the Site Inspection Team conducted periodic and random checks on materials and workmanship for conformance to Specifications and the progress of the main contractor's works. For inspection of the 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, Works Supervisor (Building Services)) inspected the installation inside water pump rooms under the Fire Services and Water Pump (FSWP) Nominated Sub-contract.

19. This building contract involved over one thousand materials and components and around thirty trades of sub-contractors and workers. To ensure effective use of manpower, the HA determined the quality control

standards for material approval, complementing the performance-based specification, site inspection and testing of various materials and construction process, while taking into account of the laws and regulations, industry/trade practices, past experiences and risk management. The HA and I believed that the widely accepted and used soldering materials should have complied with relevant requirements. Checking for the presence of lead in solder or lead in water was not included in the site inspection system and therefore we did not check for presence of lead in soldering materials.

MAIN CONTRACTOR

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

21. Paul Y. was permitted under the contract to sublet a part of the Works. Yet, the subletting of any part of the Works did not relieve Paul Y. from any of his liabilities or obligations under the contract. It was a common practice in Hong Kong, including HA projects, for the Main Contractor to employ domestic subcontractors² to take up various packages of works normally defined by trades and the plumbing installation works were among the packages. The service of Licensed Plumber (LP) which is a statutory requirement under the Waterworks Ordinance in the

installation of the plumbing system is usually provided by the plumbing domestic subcontractor. The HA did not have any direct contractual relationship with the domestic subcontractor or any direct contractual relationship with the LP. The requirement for the engagement of LP was mentioned in the contract specification.

22. Under the terms of the contract, Paul Y. was responsible for giving continuous supervision of the site works to ensure that the quality of works, including plumbing installations, complied with the statutory and contractual requirements. As required by the specifications, Paul Y. should also provide all necessary superintendence by providing a management team during currency of the works, and name a competent and authorized agent who should be constantly on site on a full time basis dedicated to the superintendence of the Works. Paul Y. established its Contract Management Team, the organization of which is now produced and shown to me marked "Exhibit [2]" according to contract requirements. Such management team included Project Director, Project Manager, Quantity Surveyor, Architectural Quality Control Coordinator, Quality Control Manager, Site Agent, General Foreman, Block Foreman, Building Services Engineer and Safety Officer etc.

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

DOMESTIC SUBCONTRACTOR AND NOMINATED SUBCONTRACTOR

24. The contract permitted Paul Y. to sublet the Works to their selected domestic subcontractors or to those nominated by the HA.

25. In this contract, I knew that Paul Y. employed Golden Day Engineering Company Limited as the domestic subcontractor for the plumbing and drainage works but I had no knowledge of the details of this domestic subcontract in the period I served as Contract Manager for this building contract. It was upon Paul Y.'s submission of Investigation Report to the HA on 14 September 2015 which enclosed a copy of the subcontract document between Paul Y. and Golden Day Engineering Company Limited for the plumbing and drainage works, that I was aware of the detailed responsibilities of the subcontractor. The copy of the above subcontract document is now produced and shown to me marked "Exhibit [3]".

26. In this contract, Shun Cheong Electrical Engineering Co., Ltd. was the nominated subcontractor for FSWP installation overseen by Mr. Leung Chi Kwong, Eric, the Chief Building Services Engineer. Concerning the responsibilities of this Nominated Sub-contractor, Mr. Leung is in a better position to provide details.

LICENSED PLUMBER

27. The roles and responsibilities of the Licensed Plumber are stipulated in the Waterworks Ordinance and Waterworks Regulations. The Licensed Plumber (LP) for the plumbing installation of this Contract was Mr. Cheung Tat Yam. As far as I knew in the period I served as Contract Manager for this contract, the responsibilities of the LP for the plumbing installation included notifying the Water Authority of the commencement date and scope of plumbing works to be carried out at Part I of the Form WWO 46. The LP had to notify the Water Authority of the completion of plumbing works and requested for inspection and approval by the Water Authority at Part IV of Form WWO 46. He also had to supervise the execution of the plumbing works on site.

28. I relied on Paul Y. to monitor the service of 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.

29. The FSWP Nominated Sub-contractor engaged a LP for the execution of the water pumps and associated pipework installation inside the water pump rooms in accordance with the WSD's approved drawings. Mr. Leung is in a better position to provide details.

MAJOR PROCESSES FOR THE INSTALLATION OF FRESH WATER SUPPLY SYSTEM

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

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

31. Before commencement of plumbing installation, the LP for the plumbing works completed and signed the Form WWO 46 Part I to notify the Water Authority of the commencement date and scope of plumbing works to be

carried out, quoting the Water Authority approval reference and approved drawing number, size and number of water meters involved, anticipated date when water supply would be required, also certifying that the pipes and fittings intended to be installed. It was then submitted to Paul Y. for onward submission to CM for signature.

Submission of plumbing material proposal

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

33. In this project, Paul Y. submitted proposals of materials, including copper pipe and fittings and soldering material specified under PLU1 as a general practice for CM's approval.

Execution of Plumbing Installation

34. After receipt of the Water Authority's approval for commencement of the plumbing works, Paul Y., with their domestic subcontractor, Golden Day Engineering

Company Limited, proceeded with plumbing installation works on site. Paul Y. was obliged to provide all necessary superintendence during. Currency of the Works and gave continuous supervision to ensure the Works were executed in strict accordance with the statutory requirements and specifications to the satisfaction of the CM.

35. 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 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 ductile iron pipe from roof water tank to booster pump room serving uppermost floors and copper pipes from roof water tank to water meter rooms or pipe ducts of each domestic floor, including pressure reducing valves at intermittent floors, then to the common corridor and distributing to each flat. The pipework was surface mounted to facilitate future maintenance.

Housing Authority's Periodic Inspection

36. In my capacity of Chief Architect, which served the CM role from May 2009 to February 2012, with the support of project senior professionals and professionals as the contract manager's representatives, site clerk of works, work supervisors, building services inspector etc., I gave periodic supervision and such inspection as necessary to ensure that the works met specified requirements. The Chief Building Services Engineer with the support of a team of Building Services staff, was responsible for overseeing the installation of water pumps and associated pipework inside fresh water up-feed pump rooms and booster pumps rooms under the Fire Services and Water Pump Nominated Sub-contract.

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

Testing and Commissioning

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

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

39. Having completed the testing and commissioning of the plumbing installation works with satisfactory results, the LP engaged by the Main Contractor and FSWP Nominated Sub-contractor completed and signed Part IV of Form WWO 46 to Paul Y. After checking and found to be in order, Paul Y. forwarded the completed Forms to the Project Architect (PA) for signing. With the advice from the Site Inspection Team that the plumbing installation, were satisfactorily completed and the correctness of the meter positions, PA then signed Part IV of the Form WWO 46 for the community complex on 15 March 2011 and the domestic blocks on 5 September 2011 under separate submissions. With the advice from the Site Inspection Team that the plumbing fittings and pipes were in full compliance with Waterworks

standards and requirements, the PA signed Part II of Form WWO 132 on 15 March 2011 and 17 October 2011 applying for the Water Authority's connection for water supply to the community complex and the domestic blocks of the development respectively. Copies of the Forms are now produced and shown to me marked "Exhibit [4]".

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

40. According to records, the LP arranged water sampling test at the community complex on 29 March 2011 and the domestic blocks on 11 November 2011. The testing parameters were matching the WSD Circular Letter no. 2/2012 issued later on 10 August 2012 involving eight testing parameters⁴. The test results were satisfactory. The copy of the test report is now produced and shown to me marked "Exhibit [5]".

41. Water Supplies Department inspected the completed plumbing installation of the community complex on 1 June 2011 and that of the domestic blocks on 29 November 2011 after receipt of the above signed Forms. With satisfactory inspection results, the Water Authority issued Certificates (Form WWO 1005) regarding water supply connection for the community complex on 14 June 2011 and domestic blocks on 13 December 2011 of the development. Copies of the Forms are 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 concernedSubmission of material list to the Water Authority before commencement of plumbing works

42. Before commencement of plumbing works, the LP and Project Architect signed and submitted to Water Supplies Department (WSD) in Form WWO

46. Part I together with an Annex showing details of pipes and fittings intended to be installed. For fittings, only draw-off taps, stop valves, gate valves, ball valves and combination fittings were required to be listed in the above Annex. Solder material was not required to be included in this material list.

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

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

45. Based on records, in the Annex to the Form WWO 46 Part I that the LP submitted to WSD on 10 June 2010, there

were 15 items of plumbing materials intended to be installed 5 , all complying with the statutory requirement. The copy of the Form WWO 46 Part I together with Annex of the material list is now produced and shown to me marked "Exhibit [8]".

46. The LP submitted Part I of Form WWO 46 to the Water Authority in June 2010. The Water Authority returned Form WWO 46 Part III to the LP on 13 July 2010 stating that "the Plumbing detailed in Part I and at the Annex was accepted" and "permission was given for you (LP) to proceed with the plumbing detailed in Part I and at the Annex".

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

Material submission and variation approval by Contract Manager

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

49. The specification for the materials was performance based. All pipes and fittings should be constructed of materials suitable for the required working and test

pressures and temperatures of the fluid carried and capable of withstanding working pressures, maximum static pressure, be of standard products and, inter alia, approved by the Water Authority. Provided the specification requirements could be achieved, there was no restriction on any particular manufacturer or brand that Paul Y. could propose. They should 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

50. The use of soldering alloys for copper and copper alloy capillary fittings used in this contract should comply with Specification Clause PLU1.M160.5 as follows -

- i) Comply with BS EN 1254:Part 1:1998, Table 6 Sections II and III;
- ii) Use of integral solder fittings is permitted provided they comply with BS EN 1254:Part 1:1998;
- iii) Use only lead-free category solders;
- iv) Use only a non-corrosive type of flux that is recommended by the solder alloy manufacturer.

51. In this contract, Paul Y. proposed to use "FRY" 99C

Lead Free Solder under the Material Submission Form ref: PYm9/DSs/A0181 on 13 December 2010 together with material catalogue, testing report and job reference. According to the technical data provided by Paul Y., Fry 99C complied with BS 1254-1 and was stated to be "lead-free". The copy of the sample submission document is now produced and shown to me marked "Exhibit [9]". The Project Architect approved the material upon the recommendation of the Project Clerk of Works.

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

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

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

55. After excess lead was found in drinking water in Tung Wui Estate, I learnt that Paul Y. had proposed material that was subsequently approved but might not have been

updated in the Annex of Form WW046 Part I submitted to the Water Authority. The CM's Representatives and Site Inspection Team have verified the plumbing materials installed at site. A table listing the materials originally submitted to the Water Authority in the Annex to Form WWO 46 Part I in July 2010 and those as-built materials which differed from the submission list to the Water Authority is now produced and shown to me marked "Exhibit [10]".

Site supervision for plumbing installation

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

57. In this contract, major plumbing materials checked by the Building Works Team of the HA Site Inspection Team included close-coupled WC suite, wash hand basin, mixer and shower handset etc. The 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 Paul Y. and LP. If we had been aware of the risk of presence of lead in solder and its implications for the drinking water quality and in turn, the associated health risk, we would have checked the materials delivered to site.

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

specification. During the plumbing installation period in this contract, based on records, there were numerous work trades, including paving, drain laying, plastering and finishing, painting, metal works, component doors and sanitary fitment installation, electrical, lift and fire services installation, concreting at external areas etc., being simultaneously executed at site, which involved about 320 workers every day.

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

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

pressure resistance, mechanical strength and endurance, and blend water extreme temperature.

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

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

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

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

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

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

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

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

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

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

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

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

65. During the period that I served as CM of this contract, I had no specific knowledge of the steps taken by the

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

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

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

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

68. Due to the above reason, the Building Works Team of

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

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

70. Based on the available information, I cannot say specifically how lead solder came to be used by Paul Y. and its sub-contractor in Tung Wui Estate and by which party such material was allowed.

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

71. Before July 2015, I was not aware of the presence of excess lead in water of Tung Wui Estate water supply system. In July 2015, 4 out of 52 water samples from Tung Wui Estate were found with lead content exceeding the World Health Organization (WHO) standard of 10 microgram per litre. As for WHO, I learnt after the excess lead was found in drinking water in Tung Wui Estate that WHO's prevailing standard was 10 11g per litre of drinking water. Before July 2015, neither I nor the HA was aware of the WHO guidelines on the drinking water quality at the consumption point.

72. After excess lead was found in drinking water in Kai Ching Estate and Kwai Luen Estate Phase 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 Final Report issued on 31 October 2015 that the Lead-solder joints were the source of excess lead in drinking water in Kai Ching Estate and Kwai Luen Estate Phase II, and copper alloy fittings also leached lead but did not result in excess lead in drinking water. The Task Force considered that the findings should be applicable to the other nine estates including Tung Wui Estate.

Lead Solder Joints

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

74. In respect of material procurement stage, the contractor was not required under the contract to

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

75. After lead was found in the soldering joints in Tung Wui Estate in July 2015, the incumbent CM requested Paul Y. to investigate why lead soldering material was applied in the fresh water supply pipes. It appears to me that lead solder was used by Paul Y. without permission and in breach of contract. I believe there was no irregularity in the contract specification, material selection and approval stage. Paul Y. submitted the Investigation Report to the HA on 14 September 2015. But I am not able to validate the correctness of the said Investigation Report. In the Investigation Report, Paul Y. stated that they sub-contracted the whole plumbing installation works including materials (i.e. solder material inclusive) and labour to Golden Day Engineering Co. Ltd. The service of the licensed plumber was provided by this tier of sub-contracting and Golden Day Engineering Co. Ltd. did not further sub-contract the works.

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

happening in the future

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

77. I am aware of and agree with the recommendations made concerning immediate and long term enhancement measures on the installation of fresh water supply system -

I. During construction

a) Main Contractor is required to -

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

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

b) Housing Authority project team is required to

-

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

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

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

II. End of construction

a) The Main Contractor is required to -

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

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

iii) collect water sample -

- agree with WSD the locations for collecting water samples and arrange accredited laboratory for bacteriological and chemical analysis according to the water quality requirements specified in the WSD Circular Letter Nos. 2/2012 and 1/2015. In the submission of Form WWO 46 part I, a supporting document of lead free grade soft solder or filler metal used in soldering, brazing and/or welding construction methods is required;

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

point of use of each distribution zone and a random point of the lowest zone of each vertical riser;

b) In the event lead content in water greater than 5 $\mu\text{g}/\text{litre}$ is identified -

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

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

iii) after completion of the rectification works, Main Contractor to coordinate with the HA Site Inspection Team for conducting re- test(s) by a Direct Testing Contractor employed by the HA.

III. After completion and before occupation of new buildings

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

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

B

B

C

use in each branch of the distribution system.

C

D

D

E 問：嚴女士，我剛才朗讀咗一次你係關於呢個東匯邨所作嘅書面證人口
E 供，你有冇嘢需要修改或者補充？

F

F 答：冇。

F

G

G 問：你願意佢作為你喺呢個研訊入面嘅證供？

G

H

H 答：願意。

H

I

I 問：嚴女士，你仲做咗一份係關於啟晴邨嗰方面嘅合約內容，關於呢個綠
I 色環評嗰部分嘅合約要求嘅書面口供。

J

J 答：冇錯，係。

J

K

K 問：我而家讀埋嗰份。

K

L

L 答：好。

L

M

M

COMMISSION OF INQUIRY

N

N

SECOND WITNESS STATEMENT OF YIM SIU LING THERESA

O

O

P

P

1. I, 嚴小玲 THERESA, provide this second statement in
Q respect of the Commission of Inquiry into Excess Lead
Q Found in Drinking Water ("COI").

R

R

2. In this statement I address:-

S

S

(i) the contract specification relating to the
HK-BEAM accreditation; and

T

T

(ii) the formation of Building Contract No.20090097
U titled "Construction of Public Rental Housing
U Development at Kai Tak Site 1A Phases 1 & 2" (the

V

V

"Kai Ching Contract").

3. I am a Registered Architect employed by the Housing Department ("HD"), which is the executive arm of the Housing Authority (the "HA"). I currently hold the post of Assistant Director (Project) 2. I served as the Chief Architect/2 of Kai Ching Estate from February 2009 to February 2012. I therefore handled the building tender for the Kai Ching project and was involved in the drafting of the Kai Ching Contract documents. For information relating to the period before February 2009 and after February 2012, I have obtained information for such periods from other sources and pursuant to discussions with colleagues.

HK-BEAM - BACKGROUND

4. HK-BEAM, the Hong Kong Building Environmental Assessment Method ("BEAM"), is an independent and voluntary initiative which provides recognition and an accreditation for buildings with due consideration to safety, health, comfort, functionality, efficiency and environmental sustainability. The BEAM assessment criteria are grouped into six main impact categories, namely, site, material, energy, water, indoor environmental quality ("IEQ") and innovation. BEAM was established in 1996, while BEAM Version 4/04 (established in 2004) was adopted for the Kai Ching Contract.

5. Premises are assessed against certain criteria and "credits" are awarded if the criteria are satisfied. The assessment includes two stages, a "provisional assessment" and then "final assessment". The objective is for buildings to gain improved accreditation on an upgrade in its BEAM rating. The final outcome of the assessment is presented on the BEAM Final Assessment certificate as a rating of Bronze/ Silver, Gold or Platinum. The ranking depends on the number of credits achieved.

6. Before committing to these two stages, it is common to conduct a preliminary environmental evaluation, which is an estimation of the probable rating of a project.

7. The HA has endeavoured to provide environmentally friendly housing and green living to the tenants in our public housing estates. As such, some of our projects were chosen for the BEAM certification.

8. Since the contractor has a role to play in the BEAM assessment process, it is important to embody appropriate contract provisions in the contract to set out the scope of works during the construction process and maintenance period.

9. The Business Environmental Council ("BEC") is a BEAM assessor which certifies buildings under the direction and on behalf of the BEAM Society which is a non-profit and membership-based organization which owns and operates BEAM.

CONTRACT FORMATION

10. Being Chief Architect/2 of the HA from February 2009 to February 2012, I handled the building tender for the Kai Ching project and was involved in the drafting of the Kai Ching Contract. Tenders were invited in February 2010 and the contract was awarded to China State Construction Engineering (Hong Kong) Limited in June 2010. The Contract commenced in July 2010.

11. One can refer to the Contract Documents which are the same as the tender documents so far as the specification clauses are concerned. The Contract Booklets can be found in the Hearing Bundle B5.1.

12. One of the tasks at the tender preparation stage was to compile a set of specification clauses (namely PRE. B13) to set out relevant contract requirements to facilitate the project to achieve a good rating in the

BEAM assessment. Water quality survey (HK-BEAM 5.1.1-Water Quality) forms part of the PRE.B13 section.

13. The Housing Authority (HA) appointed Scott Wilson Limited (later known as URS and subsequently as AECOM, "Scott Wilson") as the BEAM consultant for Kai Tak Development Site 1A Phases 1 & 2 on 17 November 2009. Extract of the agreement is now produced and shown to me marked "Exhibit 1". The reason for engaging Scott Wilson was to ensure that the Kai Ching project would comply with the BEAM standards.

14. The scope of the consultancy services to be provided by Scott Wilson included, but not limited to:

i. coordinating the collation of all assessments from the project team to satisfy the requirements set out under BEAM and attain BEAM credits; and

ii. overseeing, coordinating/ managing and monitoring all submissions necessary for the demonstration of compliance with BEAM at different stages.

15. Scott Wilson was responsible to draft specification clauses which were then incorporated into the specification clauses section PRE.B13 of the Tender Documents for meeting the BEAM standards. The correspondences between project team and Scott Wilson and whole PRE.B13 section are now produced and shown to me marked "Exhibit 2 and Exhibit 3".

16. Scott Wilson drafted Clause PRE.B13.060.P of the Tender Documents which states:-

"the Contractor shall carry out water quality survey and submit report to demonstrate that the quality of potable water meets the drinking water quality standards as defined in Guidelines for Drinking-water Quality, Vol.1 prepared by World

Health Organisation (WHO) at all points of use, as per HK-BEAM 5.1.1. The Contractor shall provide details on the systematic sampling, such as described in ISO 5667. The sampling points shall be taken as a minimum at all the furthest points of delivery from the storage tank used in the building."

Based on records, Scott Wilson did not brief HA on the WHO Guidelines in the preparation of the tender document nor during the period of its consultancy service.

PREPARATION FOR BEAM ASSESSMENT - Preliminary Environmental Evaluation (PEE) Stage

17. In March 2009, the HA invited the Business Environmental Council Limited ("BEC") to conduct a preliminary environmental evaluation for the Public Housing Development at Kai Tak Site 1A Phases 1 and 2.

18. In the preliminary report issued by the BEC on 15 April 2009, extract of which is now produced and shown to me marked "Exhibit 4", it was stated in credit 5. 1. 1(b) "Water Quality Survey" that "water sampling and analysis of potable water quality at the drinking point will be carried out upon project completion and the designers committed remedial measures will be applied to satisfy WSD standards. Credit shall be achieved."

PREPARATION FOR BEAM ASSESSMENT- Provisional Assessment Stage

19. On 15 July 2009, the HA commissioned BEC to undertake a BEAM (Version 4/04) assessment for the Kai Ching Estate with a view to obtaining provisional certification.

20. During the construction stage, Scott Wilson continued to provide Consultancy services to the HA regarding

the BEAM application. Consultancy services included advising the project team and contractor on the documents to be submitted and construction practices to be conducted in compliance with BEAM. Scott Wilson also coordinated the submission of documents to the BEC on behalf of the HA for 'Provisional Assessment' of the Kai Ching project.

21. In December 2012 (when I was no longer involved as the Chief Architect for this project), based on records, the domestic portion of Kai Ching Estate obtained provisional Platinum Assessment under BEAM 4/04. A credit for 5.1.1 (b) "Water Quality Survey" was granted in the assessment on the basis of HA's intention to conduct a water quality survey in future.

PREPARATION FOR BEAM ASSESSMENT- Final Assessment Stage

22. I was not involved at this stage. My colleagues have advised me that in order to ensure relevant credit would also be achieved in the final BEAM assessment, Scott Wilson recommended to conduct a potable water quality analysis upon completion of the Kai Ching Estate project.

23. After completion of the Kai Ching project in July 2013, the project team further consulted Scott Wilson to prepare for the final BEAM assessment.

24. Scott Wilson provided the HA with BEAM credit summaries from time to time and identified the HA specific aspects of the Kai Ching Estate which required improvement to achieve BEAM credits such that the Kai Ching Estate could achieve a BEAM rating of Platinum.

25. To obtain further BEAM credits, Scott Wilson advised the project team to (i) complete and submit a design checklist for avoiding Legionnaires disease in HVAC and DWS systems for new building developments to the

BEC and (ii) conduct a water quality survey and submit a water testing report to the BEC. As regards to the water testing, Scott Wilson advised the HA that a water sample test carried out in accordance with the WSD's requirement under the Quality Water Recognition Scheme (the "WSD Requirement"), now produced and shown to me marked "Exhibit 5", would be "good enough" for achieving BEAM credits.

26. Subsequently, the Kai Ching project team instructed the main contractor/ China State Construction Engineering (Hong Kong) Limited, to carry out water test in accordance with the WSD Requirement for the following 7 parameters in June 2014:

- i. pH value;
- ii. colour;
- iii. turbidity;
- iv. conductivity;
- v. iron;
- vi. E.Coli; and
- vii. total coliform.

27. The water testing report was then passed by the HA to Scott Wilson for further submission to the BEAM assessor in July 2014.

28. With reference to the Final BEAM assessment report in relation to Kai Ching Estate (Exclude Commercial Centre and Carpark) issued by the BEC in August 2014 (the "Final BEAM Assessment Report"), extract of which is now produced and shown to me marked "Exhibit 6", the Kai Ching project achieved a final rating of "Platinum", achieved 88 out of 107 credits available overall, and 26 out of 30 available credits for the

indoor environmental quality (IEQ) section.

29. As reported in section 5.1.1 "Water Quality/1 of the Final BEAM Assessment Report, one credit was awarded to the Kai Ching project where the fresh water plumbing installations complied with the good practice guides set in the BEAM checklist CHK-001, now produced and shown to me marked "Exhibit 7". Following the water quality survey carried out by the main contractor, the report of which is now produced and shown to me marked "Exhibit 8", another credit was awarded to the Kai Ching project. With the drawings attached to the test report, I noted the water samples are taken from all the furthest points of delivery from the storage tank and for each water supply tank of each domestic block with 7 parameters measured.

30. It appears to me that both the BEAM consultant and BEAM assessor considered the WSD requirement or the 7 parameters was "good enough" to satisfy the assessment criteria of 5.1.1 (b) under BEAM 4/04 which says, amongst other things, if water quality at all sample points meets with the World Health Organization (WHO) Guidelines the credit shall be awarded. Relevant page of the 5.1.1(b) under BEAM 4/04 is now shown and produced to be as "Exhibit 9".

31. BEAM 4/04 was replaced by subsequent versions namely BEAM Plus in 2010. It appears to me that the assessment criteria for Water Quality Survey of these updated and revised versions have made reference to WSD Guidelines instead. For example, the "Wu P1-Water Quality Survey" under section 5 of the BEAM Plus version 1.1, which is now produced and shown to me marked "Exhibit 10", says if water quality at all sample points meets with the Water Supplies Department (WSD) Guidelines the requirement shall be fulfilled.

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：嚴女士，剛才我又讀咗一遍你嗰個第二份嘅畫面口供，有冇嘢需要補充或者更正？

答：係。喺第 30 段，就最耐嗰行，應該“is now shown and produced to be as "Exhibit 9"”。

問：係，我都讀...

答：除咗呢--係，除咗呢個之外就...

問：...嘅時候改咗㗎嘞，係。你願意佢作為你嗰研訊入面嘅證供嘛？

答：願意。

殷先生：我有嘢問。

主席：唔該。我哋朝頭早休息廿分鐘先，唔該。

上午 11 時 37 分聆訊押後

上午 11 時 58 分恢復聆訊

出席人士如前。

主席：考慮各方嘅陳詞之後，調查委員會係睇唔到有啲乜嘢嘅理由需要更改原先定下水務署人員作供嘅先後次序，同埋個時間。所以 Mr Pennicott 嘅申請我哋係拒絕嘅，唔該。

許偉強先生：主席，或者就呢個證人嗰個安排，有一個--我少少嘅提議同埋更改嘅啫。

主席：係。

許偉強先生：就係今日如果我哋完成到嚴女士個證供之後，咁就由於我知道房署嗰度，佢其中有一個總建築師，就係一位叫趙不羈先生。咁佢因為佢時間上調動嘅安排，咁我就諗住聽日就叫佢嚟畀口供，咁所以

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

佢就會係跟住呢個嚴女士之後就作供。

另外仲有少少補充嘅，就係下個禮拜一、禮拜二，23、24 號，因為我哋大律師嘅團隊，即係個人手就調動唔到，所以我哋就唔夠人，基本上，所以我就睇下可唔可以 23、24 就即係唔開庭，咁由 25 號開始。

主席：即係 23、24 號，就我哋調查委員會就有一個比較特別嘅情況，就 instead of run out of witness，我哋就 run out of counsel。

許偉強先生：係，係。

主席：Okay，咁所以就冇 counsel 嚟，okay。咁有冇任何嘅人士想就呢一方面，run out of counsel，冇陳述？咁我哋聽日就聽咗嗰個 -- 另外一個總建築師嘅證供，跟住星期一、星期二就休息，如果咁樣就，星期三再繼續。唔該。

許偉強先生：至於下個禮拜開始個證人安排，我諗我哋可以聽日嘅會有個即係建議提到出嚟嗰個名單嘅。

主席：都係跟住嗰啲總建築師？

許偉強先生：都係跟住嗰啲總建築師。

主席：好呀。

許偉強先生：唔該。

香港房屋委員會第九證人：嚴小玲（房屋署（東匯邨和啟晴邨總建築師））
宣誓繼續作供
許偉強先生盤問

問：係，嚴女士，係，你好。

答：係。

問：首先，我哋想就住你 -- 就啟晴邨，即係有關 BEAM 嗰個當時所做嘅有啲 -- 當時搵到專家所做嘅一啲嘅安排，同埋一啲研究工作，我都想同你即係討論一下先。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：係，好。

問：我哋都知道 BEAM，我哋叫做即係綠建環評嗰個名，就係最主要個目的，都係希望即係佢哋起樓嘅時候--嗰個起樓嘅時候，或者係講緊個建築嘅過程之中，都希望可以考慮到一啲環保嘅因素喇。咁亦都當然除咗環保因素之外，都希望起完樓之後，就住住客嚟講，咁就即係佢哋個生活質素都可以提高，係咪？

答：係，冇錯。

問：咁我想...

答：同埋都喺譬如節能、節約方面都希望大大提升。

問：係，即係喺個節能、節約嗰方面都係可以做得好啲嘅。咁我想問一問，就係我知道你哋當時就搵咗嗰間公司，叫做 Scott Wilson Limited，...

答：係，冇錯。

問：...幫你哋做過研究，同埋--即係幫你哋基本上係草擬咗跟住落嚟你哋會引用嗰啲 preliminary 其中一項喇。

答：係。

問：咁我想問下呢個委任呢個--聘用呢個 Scott Wilson，你哋當時房委會，我而家係講緊房署，當時嗰個程序係點？係咪都係公開招標吖，定係點樣去聘請佢哋？

答：我哋都有 through 嗰個 tendering。

問：係，係。即係呢度都係一個 tendering 嘅 process 之後，你搵到佢哋？

答：係，係。

問：咁佢哋係咪都係即係呢方面嘅專家嚟？即係對於呢個 BEAM 嘅--即係作為一啲--畀一啲好似係 consult--即係 consultancy 嘅服務，係咪都係一個專家嚟，佢哋？

答：因為其實 BEAM，嗰個綠建環評嗰個 assessment，其實都相當複雜，所以 Scott Wilson 都係其中一個我哋認為佢係喺呢方面有呢個知

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

識嘅一個 consultant 嚟嘅。

問：係，明白。我哋睇一睇，就係你嘅證人口供嘅第 16 段，即係 39650。咁呢度都--第 16 段都講出咗佢當時嗰個 draft。

答：係，冇錯。

問：咁呢個 draft 你及後都引用咗嗰個合同裏面嘅咁。

答：對。

問：就呢個之前，我想亦都問一問你嘅，就係當時，你哋同 Scott Wilson，就住喺呢一方面，綠建環評嘅商討，即係話睇下呢一個啟晴邨嘅項目可唔可以攞到一啲 accreditation，即係攞到嗰個即係認證或者認可咁。喺呢方面，你哋當時個團隊，一開始嘅時候，你係咪都參與？

答：有部分喇。

問：有部分。

答：因為去到幾細節，就有好多時我都未必參與，就反而我啲同事，就譬如高級建築師、建築師。同埋其實嗰啲綠建環評好多項目，都係幾牽涉譬如 energy 嗰啲，所謂 Building Services Engineer 個團隊嘅參與都幾多。

問：都幾多。

答：所以我反而係幾後期，差唔多啲同事喺度 compiled 多啲資料時，可能就會有討論下。

問：明白。我哋知道大概呢一個成個程序，都係由 2010 年開始起，一路去到差唔多 2014 咁上下呢個嘅時間，但係譬如你個人嗰個參與，係由幾時開始，你記唔記得？

答：其實我做啟晴邨嘅總建築師，其實我 2009 年 2 月，其實我嗰陣時係主任嘅啫，我去到 2009 年 5 月就 confirm 咁就去到 2012 年 2 月，即係我做 Chief Architect。

問：係。嗰陣時就開始有即係正式咁參與呢一個就住綠建環評同埋 Scott Wilson 佢哋一啲嘅討論，都有嘅，係咪呀？

答：係，因為我哋真係好想呢個 project。因為啟晴邨有六座樓，咁五千

二百零四個單位，都係一條幾大嘅屋邨。所以我哋當時都希望喺呢個 Green 嗰度，特別係節能效能嗰啲都可以做得好啲。正話大狀你講，我哋都想嗰個去到即係啲居民入伙嘅時候，就更加好。

問：明白。咁我想知道大概--你剛才所講，就話你哋嘅團隊，即係你同 Scott Wilson 係大家商討嘅時候，你嘅團隊都包括咗，例如有建築師，同埋即係屋宇裝備工程師，係咪呀？

答：Build--係，冇錯，冇錯。

問：除咗呢兩個即係 professional 之外--兩種 professional 之外，仲有冇其他--喺你哋房屋署嘅其他一啲嘅職員係參與？或者係專業人士都參與？

答：我就係知道則師同埋 Building Services Engineer 就比較積極參與，其他我又唔係--我有乜印象，冇乜印象。

問：好。就住則師同埋屋宇裝備工程師，大概你個團隊有幾多人嘍，當時？即係討論呢一個啟晴邨個綠建環評嗰個工作，有幾多人嘍？

答：我記得我哋啟晴邨嘅負責嘅高級建築師得一位嘅啫，咁則師--因為啟晴邨都幾大，咁則師就有成--都有三個則師，不過 active 去做呢一個嘅就應該一個則師。

問：一個？

答：嘎，嘎，嘎。

問：係。咁至於屋宇裝備工程師，大概有幾多個係有負責？

答：我印象，我印象就好似係一個。

問：一個。咁我睇番你哋啲文件，都知道即係你哋就住啟晴邨申請呢個綠建環評嘅認證，其實就我哋淨係講水嗰方面先。淨係個食水安全嗰方面先。咁就應該係有即係兩個主要嘅事項，咁應該就係其中一個，就係有關嗰個 fresh water plumbing，即係關於嗰個水務個工程；咁另外就係 water quality survey，嗰兩個，兩個。咁我哋及後都知道就住呢兩項，你哋都即係攤到分嘅，即係每項都攤到一分嘅咁樣。

答：係，係，係。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：所以就我哋講 water quality，食水嗰個質量先。呢度我哋講緊你成個綠建環評呢一個研究工作，即係委任咗 Scott Wilson 做呢個，就唔係話去要制訂一套有關公屋嘅食水質量嘅一套制度，而係話即係你要睇下--即係你最主要 Scott Wilson 幫你哋做嘅，就係研究下點樣可以喺個 contract 入面去完善呢樣嘢，咁樣同唔同意？

答：或者可以咁講，其實綠建環評佢都有好多 criteria，咁佢啲 criteria 如何去擺到 credit 擺分呢，嗰個我哋都需要 consultant 畀 advice 我哋。所以佢並非同我哋另外製作一套特別同啟--即係特別係 for 啟晴，並非咁。主要我哋搵佢嚟幫我哋做，就係就住 BEAM 嗰啲 assessment，如何更好地可以擺到啲 credit，從而我哋--因為我哋就如果知道啲 criteria，我哋係需要喺嗰個 project 嗰度，係--譬如 contractor 需要參與，要喺個 constructing process，甚至完咗工之後嘅 maintenance period，亦都要積極參與。特別係 construction process 嘅時候，好多時我哋都要去 collect 啲 data，去 support 我哋日後嗰個 assessment。

問：明白。

答：所以就反而針對性就係 BEAM 嗰個，如果要擺分，就就住嗰啲 criteria，如何去做好呢一個工作。咁佢係呢啲嘅 requirement，我哋需要就要早早咁擺咗落去嗰個 specification，就因為要--contractor 都要積極參與。

問：係。即係主要目的都係要擺分喇，都係要擺分喇？

答：係，係，對。

問：咁而喺擺分嘅過程之中，即係其中一個比較主要啲要睇嘅嘢，都係--即係其中一樣就係嗰個合同嘅制定。即係入面睇下點樣可以加咗啲條款落去，等佢可以即係反映到呢個 BEAM 嘅 requirement 出嚟，係咪？

答：對。

問：係。咁...

答：因為 contractor 嘅工作都唔少。

問：係，我明白，明白。咁就我想你都睇一睇第 16 段所講嗰個--即係 Scott

Wilson 嗰個 draft。

答：係。

問：其實我哋之前都睇過嗰個合同本身入面寫出嚟嗰個有關 BEAM 嗰度，不過我哋都想同你睇一睇。

呢度就講：

"The contractor shall carry out water quality survey and submit report to demonstrate that the quality of potable water meets the drinking water quality as defined in Guidelines for Drinking-Water-Quality Vol.1 prepared by (WHO) at all points use..."咁樣。

跟住就講話：

"The Contractor shall provide details on systematic sampling..."

咁你入面有提到有個 ISO 5667 嗰個，咁我哋其實都有提過，之前。

咁就"Sampling point shall be taken as a minimum at all the furthest points of delivery from the storage tank used in the building."

咁呢個你都講咗話會取嗰啲水嘅樣本嘅時候，應該用一個咩嘢方法咁樣嘅，呢度。

答：係。

問：咁同埋我想知道，因為呢度就特別有提到 WHO，咁我想就問一問你，就係你後面都有解釋，都係話 Scott Wilson 當時就有 brief 到你哋關於 WHO 嘅 Guidelines 係點樣。咁我都想問一問，就係你哋當時睇到 Scott Wilson 畀你哋呢個 draft 之後，咁都見到有 WHO 提到，咁例如你哋個部門，或者你哋個團隊，咁會唔會諗下就係--有冇諗下就係話「喂，問下呢個 WHO 呢個 Guidelines 係咩嘢嚟嘅呢？」咁樣，即係有冇去做呢一個步驟呢咁？

答：係。因為我自己本人就有親身去經歷呢一個 stage，即係呢一個步驟。

咁我都就問過我的同事，理解番會唔會即係佢哋都會係有理解過呢個 WHO Guidelines，咁佢哋都話都有特別去理解，因為就我哋亦都好倚仗即係 consultant 佢畀我哋嘅 advice。而我哋睇番，呢一個其實都係跟 HK-BEAM 5.1.1 個度--即係大概個個規模，咁所以同事就畀番個資料我，就係冇就住 WHO Guideline 個樣，再去話有啲咩嘢深究咁樣。

問：係。即係我就係就住呢一點，就唔係好明白。因為--唔係，因為似乎 Scott Wilson 當時提出呢一個--即係 preliminary 嘅其中一個條款，睇番即係要符合 BEAM 嘅，咁佢都講出咗個 WHO 個 Guideline。但係即係你唔覺得奇怪，即係你而家問番--就算當時可能唔係直接參與，但係你而家問番，你會--覺唔覺得「啊，可能有啲怪，或者有啲唔係好恰當啲，即係當時點解啲同事唔去問一問個 WHO guideline 係何方神聖呢，係咩嘢嚟嘅呢」咁樣？

答：即係我都得到嘅知識，就係啲同事冇特別就住呢樣嘢去深究。

問：係。你覺唔覺得即係你哋需要做呢樣嘢？因為點解我咁問你呢？就係因為個 WHO 個 Guideline 寫喺呢度，係一個標準嚟。即係喺個合同--如果你制定個合同，有呢樣嘢嘅話，你哋作為一個 contract administrator，即係合同嘅執行者，你需要知道點樣去執行個啲，咁你應該係就住合同個細節都要明白係點樣，我先可以執行到嚟，係咪？

答：我相信係我哋都幾倚重 consultant 個個 advice，同埋佢係主要就係 BEAM 個個--因為呢個都係 BEAM 5.1.1 個個裏面啲啲項目抽出嚟，咁所以我哋就有特別去深究。

問：係。咁就所以變咗你都係即係總之聽佢講乜，咁跟住你哋就即係照去做，但係就實際到時嚟講點樣去就住呢一個條款，就住 WHO 個 Guideline，點樣去真係去到可以執行個合同，即係個方面你可能就有留意到？

答：所以反而喺後面，即係後啲 stage 嘅時候，就即係要攞水辦嚟嘛，咁攞水辦同埋做 report 咁，我哋反而就個陣時就--即係同事就「咦，攞水辦，咁究竟係即係攞咩嘢水辦呢？邊個 standards 先啱呢？」反而喺個個 stage 先至有去問 Scott Wilson，究竟應該係從邊個方向去攞水辦先至 meet 到 requirement。

問：而家嚟睇番--而家我哋--即係有時當然後知後覺，係咪？

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：嘎，嘎。

問：而家嚟睇番，如果你話作為一個合同個執行者，當時收到呢一個 draft 嘅時候，你覺得係咪應該要問一問--起碼都要問一問 WHO 嘅 Guideline 係講啲乜嘢呢，你同唔同意？

答：我哋都係比較信任 consultant，冇特別為意即係呢一個項目。

問：好。咁或者我哋又--因為我尋晚收到你呢個證人口供，咁我都走去睇一睇當時即係個適用個 WHO...

黎先生：可唔可以喺呢一段嘅個陣時，我可唔可以問一個問題先？

許先生：係。

黎先生：橫掂我講緊呢一段。

關於頭先你講，你話對 WHO 個啲嘅 mention 到佢哋嘅 reference，就有深究，呢度入面都提到 ISO 5667，當時你哋對呢樣嘢有冇深究？

答：冇。

黎先生：都唔知係咩嘢意思？

答：都唔知係咩嘢嚟，唔知。係...

黎先生：都係即係完全人哋話--Scott Wilson 提出嚟，係講到 WHO，或者講埋呢個 ISO 5667，你哋都唔知佢咩嘢原因？

答：冇特別去深究。

黎先生：Okay。

問：好。因為我就就住你尋日畀嘅口供，我都返去查番，「喂，當時適用個 WHO 嘅 Guidelines 呢，其實係講啲乜嘢嘅」咁。咁或者我哋

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

都可以而家好簡單咁嚟睇一睇呢一個 WH--因為你當時做呢一個 draft 嘅時候，應該係 2010 年左右嘅時間嚟嘅--2009 年、10 年嘅時間嚟嘅，咁我就搵到一個就係 2008 年當時嘅 WHO 嘅 Guidelines，A3。

許先生：我諗其他人可能未有 hard copies，不如我哋睇住個 screen 先，可以。

問：A3，1605。我哋先睇一睇 1653 頁。

答：好，係。

問：係。1653，見唔到有一個 1.2.0 (1.2.10?)，寫住“Plumbing”嗰度？

答：見到。

問：如果你睇個 Plumbing 下面嘅第 2 段，見唔見到“Numerous factors”嗰度？

答：係，見到。

問：嗰度數落去大概六、七行嘅，見唔見有個“plumbing materials”？
“Plumbing materials, pipes, fittings and coatings...”

答：見到，見到，見到，係。

問：呢度就話：

“plumbing materials, pipes, fittings and coatings can result in elevates heavy metal concentration in drinking water”等等，“and inappropriate materials can be conducive to bacterial growth”咁樣。

咁呢度都講咗話即係你嗰啲水喉嘅用料，都可能會導致即係有含鉛，釋出鉛嘅成分咁樣。

另外有一度，就係第 73 頁。

主席：73頁？

許先生：七十--Sorry，一--internal page 33 嘅，其實係個 bundle 嘅 1714。

主席：唔該。

答：Okay，係，見到。

問：係。咁呢度就係講緊“Verification of chemical quality”。

答：係。

問：咁你或者 4.3.2 一路數落去第 4 段嘅，就見唔見到“Sampling locations”？

答：見到。

問：咁佢就話“Sampling location depend will depend on the water quality characteristic being examined”。即係你要揀啲乜嘢樣本，就要睇下你當時想驗啲乜咁樣。

咁就跟住一路：

“Sampling at the treatment plant or at the head of the distribution system may be sufficient for constituents where concentration does not change during delivery”等等。

咁跟住去到--睇唔睇到再低多三、四行，“sample should include points”嗰度？

答：見到。

問：“Samples should include points near the extremities of the distribution system and taps connected directly to the mains in houses and large multi-occupancy buildings.”

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

跟住嗰句，就係個重點嚟：

“Lead, for example, should be samples as consumers’ taps, since the source of lead is usually service connections or plumbing in buildings.”

即係呢度都講番，即係有機會如果你要檢測嗰啲水嘅話，嗰啲樣本都--尤其是喺你用家嗰個樣本入面，都應該要驗一驗個鉛咁樣，呢度咁樣講喇。

答：係。

問：咁再睇多少少嘅啫，就係 1828。

答：搵到。

問：係。1828 嗰度有個表，咁嗰個表就即係基本上係話係有啲乜嘢你需要注意嘅--有啲 chemical 你需要注意咁。見到嗰個表嘅第 4 欄嗰度，見唔見到？

答：見到。

問：“Chemical used in water treatment or material in contact with drinking water”，咁講咗幾樣嘢出嚟，其中一樣嘢都係包括咗鉛。

答：見到。

問：咁就到最後，係嘞，1853。

答：搵到。

問：咁呢度都有講 -- 到最後嗰度講 -- 睇唔睇到個 lead 嗰個 sub-heading？

答：係。

問：咁就寫住：

“Lead corrosion ... is of particular concern. Lead piping is still common in old houses in some countries, and lead solders ...”

即係特別講到啲焊料，即係“Lead solders have been used widely for jointing copper tube”咁樣。咁呢度都即係有講到有關啲個鉛即係喺邊度會釋出呀，即係以前有用 lead piping，咁跟住但係而家有用 lead solders 呢啲咁嘅情況咁。

咁就另外有個表，喺 1872 頁個表。1872 頁個表，睇到最後個欄，睇唔睇到“Contaminants from pipes and fittings”個度？

答：係，見到，見到。

問：係，咁個度都有 copper，有 lead，有 nickel 等等啲咁樣嘅，睇到呢度。

答：係，係，係。

問：咁我哋當然--即係我哋而家睇番呢啲可能文件都知道，WHO 其實當時係講啲乜嘅咁。

答：係。

問：咁我想再問一問你，就係如果你而家睇番呢啲--好多文件，都知道其實即係世衛當時--如果我哋睇番佢嘅標準，都有好清楚去列明係關於一啲即係食水含鉛個問題點樣發生，或者係驗水嘅時候，需唔需要驗鉛呀呢樣嘢，咁都有提過嘅，咁都係幾重要嘅資料嚟，係咪呀？

答：係。

問：咁我都想問一問，就係如果你而家睇番呢樣--呢個文件呢啲內容，咁你再諗番當時就 Scott Wilson 畀你哋個建議，同埋個 draft，即係謹慎啲嘅做法，即係一個咁--即係你哋係香港最大嘅建--即係個發展商嚟，咁謹慎啲嘅做法係咪應該，喂，起碼問一問呢個 WHO 嘅 Guidelines 係咪啲乜嘢呢？

答：如果就住剛才我哋睇個 WHO 個 Guideline，即係我本人都係第一次睇。咁我相信當時我哋個團隊就--因為喺 7 月之前，我哋係唔係好 aware 即係 WHO Guideline 就住即係食水嘅一啲指引，我哋完全冇呢個 awareness。所以我只可以講，喺當時嚟講，我哋真係冇就住呢樣嘢去特別去問過 consultant。

問：係。即係因為呢樣嘢，我就係覺得比較有少少匪夷所思嘅，就係如果

你話7月之前有 awareness of 一個 WHO 嘅 Guideline，因為呢個成個 draft--即係我哋講緊 water quality 成個 draft 係--即係 Scott Wilson 提議嘅 draft，就係講緊 WHO 嘅 Guidelines 嗰，點可能有認知？

答：如果我哋都相信--我估，我哋都相信如果真係有一個好重要性嘅議題拎出嚟可以 brief 我哋，應該 consultant 都會 brief 我哋。不過再重申，就即係7月之前，我哋對於即係世衛嗰個食水嗰個要求，或者嗰啲 standard，我哋係完全冇呢個認知。

問：我哋睇番你跟住證人口供入面講，就係第18段。第17--18段，係。

答：係。

問：18段，就係講緊即係最初步嗰個環評，最初步你有個 environmental--preliminary 嗰個 environmental evaluation 咁樣。

答：係。

問：呢度就講話 "In the preliminary report"，佢有個 Exhibit 4，一個 stated in credit 5.1.1，係一個 "Water Quality Survey and water sampling and analysis of potable water quality at the drinking point will be carried out upon project completion and the designers committed remedial measures will be applied to satisfy WSD standards" 咁樣。

咁我想知道嘅，就係你哋當時就住呢個 WSD 嘅 standards 係乜呢？點樣去理解？

答：BEC 就作為嗰個 BEAM 嘅 assessor，就佢 advice 我哋。因為呢個我哋話佢如果 satisfy 到 WSD 嘅 standard，就可以攞到 credit，咁就停咗喺呢度，就有再 elaborate。因為呢個係 preliminary 嗰個 environmental evaluation，通常我哋喺 BEAM 嗰啲 assessment，就 before 我哋去做譬如 provisional，甚至之後 final 嗰個，我哋自己都會請番譬如 BEAM assessor，BEC 同我哋就檢視一下自己嗰個 project 究竟去到啲咩位置。即係因為佢有幾個等級，又 gold、又白金咁，咁呢個就係嗰個--當時嗰個狀況嚟。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：係，我知道。

答：所以如果佢 advice 話--如果擺到--擺水辦個啲咁，如果話要跟到水務署嗰個 standard，就擺到分，咁我哋就覺得呢個--咦，呢個 advice，我哋就有就住呢度，就再--即係照我 understand from project team，冇就住呢度就再即係去追問，或者 elaborate 落去。

問：係。但係我都要問番同樣問題，就係即係你就住你係--因為你係到最後把關，即係要去做嗰個合同，嗰個執行者，咁你睇到，喂，WSD standards，你起碼都要知，係咪？「起碼都要知係咩嘢嚟，我第二時點樣去引用番呢樣嘢，嚟到去執行個合同㗎。」即係，咦，即係點解唔--冇做到呢樣嘢呢咁？

答：我只可以講，我哋都係聽咗 advice from 個 consultant，係。

問：都係信咗佢咁就？

答：因為 WSD 係整個水務嘅 regulatory 嘅 department，咁我哋直覺覺得，即係如果 satisfy 水務署嗰個 requirement，都應該係即係可以滿足到呢個 credit。

問：就住啱啱我嗰兩個例子嚟講，WHO Guidelines 同埋 WSD standards 嚟講，我咁樣講，你同唔同意？就係你就住專家畀你哋嗰個意見，就咁照單全收，你完全係冇考慮過你執行合同嘅時候係應該要知道啲乜嘢，你同唔同意咁嘅講法？

何先生：對唔住，主席，我要提出一個疑問。因為對於個執行合同，到底個合同嗰個理解係乜嘢，我相信即係呢個可能係大家律師係有唔同嘅意見，到底嗰一句嘢講係...

主席：唔係，咁佢作為...

何先生：但係即係佢...

主席：...Chief Architect、Contract Manager，佢一定有佢自己一套嘅演繹方法，如果唔係，佢點樣去執行個 contract 呢？

何先生：即係佢係個 contract 到底個要求係乜嘢，...

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

主席：而家問佢嘅睇法啫。

何先生：佢嘅睇法對於嗰個合同真正個演繹，其實對於成件事係冇乜幫助。

主席：請坐，Mr Ho，唔該。

即係我明白你倚賴水務署嘅 standard，即係不過我就有一樣嘢，就即係其實都同許大律師所問嘅都係差唔多，佢就係問你，「哦，你如果都唔知道呢個咁樣嘅 standard，咁你點樣去執行你嗰個合約上高嘅要求呢，作為一個 contract manager？」係咪？不過我就想另外一個問題，就係你哋房署想擺呢個綠色環評...

答：環評。

主席：... 呢個獎項，想擺呢一個咁。

答：認證，嘅。

主席：係咪？想擺個獎項，咁你個心裏面就梗係會有啲目的。即係你想擺呢個獎項，咁你一定要知道「啊，我要擺呢個獎項，我要係喺邊一方面達標。」即係換句話嚟講，你嘅意思就即係話「哦，我哋想擺呢個獎項，但係其實嗰啲標準係乜嘢，我哋係唔知嘅，我哋總之就搵個 consultant 返嚟，佢就話『你做一、二、三』，咁於是我們做就叫啲 contractor 做一、二、三咁就得㗎喇」咁樣樣？

答：可以或者咁睇喇，其實呢個我哋想擺綠建環評嗰個認證，裏面牽涉嘅範圍，水係其中一樣。

主席：係呀。

答：咁就有好多其他 item，咁變咗亦都因為真係好 technical，我哋亦都有呢方面嘅太深嘅知識，that's why 我哋就搵 consultant 去幫我哋。

主席：咪係囉。即係換句話嚟講，你頭先就講咗畀我哋聽，因為你職位高，所以可能...

答：唔係。

主席：... 牽涉嘅少。咁但係實際上你下面，你都係話得一個 architect、

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

一個 building services engineer，就係負責晒成個啟晴邨嘅所謂...

答：唔係--係。諗...

主席：...環評呢一樣嘢，環評呢一樣嘢，係咪？

答：唔，係。

主席：即係當然你起樓係有另外，環評呢一樣嘢，咁實際上即係好話唔好聽，嗰兩個其實都係乜都唔知個嗎？

答：又唔可以話乜都唔知嘅，所以可能佢 through 即係個 consultant 嗰啲 advice。尤其是我喺 tender 嗰個 stage，我哋要將嗰個 requirement 點樣擺落去嗰個 tender document 嗰啲地方...

主席：唔係，因為你頭先話，你問過你啲同事，你啲同事其實都係「啊，我哋倚賴呢個 Scott Wilson，Scott Wilson 話乜就乜。」即係換句話嚟講，你明唔明？「總之就係我要擺到呢一個獎，點擺呢，我唔理你，總之你話畀我聽要做乜，我就做乜，係咁多。」係咪咁樣樣？

答：只可以話我哋都幾倚賴 consultant 畀我哋嘅 advice。

主席：係囉。即係總之你話畀我聽一、二、三、四，我裏面點解要做一、二、三、四，我就唔係好知嚟嘞，咁樣？

答：即係除非嗰樣嘢真係好特別，係有啲特別嘅 requirement 需要即係個 contractor 要配合。因為我哋要寫落個 tender document 度，所以就呢方面--嘎。

主席：唔，繼續。

黎先生：或者想問一問，除咗啟晴邨，你哋有冇其他屋邨都係嘗試係擺呢個綠建環評嘅獎？

答：因為其實 BEAM 嗰個喺我哋 department 嗰度，亦都有一個中央嘅部門去統籌，咁我就唔係做嗰個工作，我就未有機會即係檢視晒全部 project 有冇去做 BEAM 嗰啲。但係照我知道，譬如另外一個，就即

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

係鉛水邨，即係牛頭角下邨，都有做 BEAM，亦都有搵 consultant 幫手做啲 assessment。

黎先生：因為理論上，你就搵咗 consultant，你就--幫你做過之後，以後你應該就 suppose 係學咗點樣樣係達到呢啲綠建環評嘅標準，希望啲其他屋邨都達到呢啲咁嘅水平嘅，係咪？

答：係。

黎先生：咁理論上應該就係你哋啲嘅同事，係應該透過呢啲咁樣樣嘅機會係學識咗點做，日後唔使次次都倚賴係 consultant 嚟幫你做，係咪呀？理論上應該係咪咁嘅？

答：可...

黎先生：定係你哋係諗住「每一次我做嘅呢，如果要擺錄建環評獎，我都要搵個 consultant 返嚟幫我搞掂？」

答：照我所知，我哋就唔係單單 project 搵 consultant，有啲 pro--好似正話講，譬如 Lower 牛頭角啲，就有搵 consultant。另外，我哋有一個 team 就做 central function 嘅，佢都有睇住，同埋 BEAM society 嗰度有一個幾緊密嘅聯繫，去做呢啲關於 BEAM 啲聯繫工作。咁好多時反而我就係透過呢個即係比較 central function 嘅 division，就會同我--呢個 section，就透過佢哋，可能出一啲即係 guideline 畀我哋啲同事。

黎先生：但係啲就唔係去參獎㗎喇--唔係去擺獎啲嘅？

答：其實呢個認證就唔係擺獎，係我哋盡量想將啲綠色嘅 initiative 如果擺咗落屋邨，希望就可以擺到嗰個認證。起碼就譬如我哋之前就 BEAM，後嚟佢 migrate 咗做 BEAM Plus，咁我哋都有個內部嘅政策，就話我哋希望啲 project 都可以係 BEAM-Plus-ready，所以呢啲咁嘅 item 就會好倚仗我哋就係中央嗰個 team 啲同事畀番一啲譬如 template 啲去幫我哋手。

黎先生：Okay，唔該。

問：咁我想都係問番啲啲嗰個問題，就係 WSD standards，就係啲第 18 段嗰度。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：係。

問：咁去睇咗之後，你哋就話「啊，都有再--即係有再去跟進究竟係乜嘢」咁。呢度就係講緊 2009，我知道你成個過程，去到呢個所謂嘅“final assessment stage”，就去到 2014 年左右。

答：係完咗工之後。

問：係嘞，係嘞。咁就我想知道，2009 你收呢個 preliminary 嘅 evaluation，見到 WSD standards，你哋有冇話走去例如同水務署嗰邊有啲咩嘢討論話「喂，究竟個 standards 係乜嘢？」即係有冇呢啲咁嘅 inter department 嘅討論？喂，起碼就算唔係一啲好正式嘅，都可以問下水務署，「究竟你嘅 standard 係乜嘢呢？」有冇做過呢方面？

答：我唔知啲同事有冇做過，我唔 aware。

問：係，好。咁我哋睇番就再後期啲。

答：係。

問：後期啲就係你個證人口供 39652 嗰度，第 25 段。

答：係。見到。

問：係。呢度都係講番，就係話當時--即係接近尾聲嘍嘞，呢個係 final assessment stage。

答：係。

問：咁就中間度講，Scott Wilson advised 你哋房委，係有一個 water sample test carried out in accordance with 個 WSD requirement 咁樣，under Quality Water Recognition Scheme 嘅。

答：係。

問：咁就話--如果根據佢呢個 scheme，就“would be good enough for achieving BEAM credits”咁樣。

答：唔，唔，唔。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：我都想睇一睇，你呢度當時有啲書信來往，就喺呢一個 39741 嗰度。見唔見到對上有個紅嚟嚟嗰度，有個好似個 e-mail 咁喇。

答：係。

問：咁就應該係 BSE 嘅同事，有一位我諗係楊先生，咁佢就寫畀“Elaine and Patrick”，應該都係你哋嘅同事嚟，係咪？

答：Elaine 係個 Project Architect。

問：係，個 Project Architect 嚟嘅。

答：嘅。

問：咁就佢呢度都話，“As spoken with staff of URS”，URS，我哋而家知道係 Scott Wilson。

答：之後...

問：即係跟住改咗名，變咗做 URS？

答：係，啱。

問：“Although Ms Cindy is on leave today”，“Ms Cindy”，就應該係即係 URS 嘅同事嚟嘅。“It is confirmed that the sample test for water in accordance with WSD’s circular”就係“is good enough to get a credit for BEAM 4/04”咁樣。所以好明顯當時係 2014 年，我哋講緊都好後期嘅時候，其實仲喺度問緊，「喂，究竟要做啲乜嘢先至可以符合嗰個 BEAM 嗰個規格啫」咁，係咪？你同唔同意係咁嘅情況？

答：我可以話係最初期嘅時候，我哋就有特別去深究，即係究竟係做邊一本嘅 water sample 先可以達到呢個 credit 呢。所以去到後期，即係開始個進程，去轉變到去後期，呢個亦都需要要知道，從而你才可以進行到。所以我同意係去到後期嘅時候，我哋先去 raise 呢一樣嘢。

問：因為隔個時間都幾長下嘅。因為由 2009 年嗰個 preliminary 嗰個 evaluation，去到 2004 年呢個時間。呢一個 e-mail 我哋睇番，就係 39740，應該睇到大概係 2014 年嘅 5 月 27 號，大概都即係隔咗成五年左右。即係中間你哋唔知道究竟就住嗰個水嗰個質量，點樣去驗，驗啲乜嘢，或者驗啲乜嘢參數，呢啲咁嘅標準係乜嘢，都唔知

個喎，就呢五年入面有做過喎？

答：應該有做過特別咩嘢工夫。即係我哋喺 tender out--因為我哋呢個 deal，喺 2010 年 2 月出標，咁喺證人口供都有講，喺 preliminary 個 environmental evaluation stage，2009 年 3 月嘅時候，就-- 4 月呀，4 月，應該 BEC 嗰個 assessor，就話「欸，只要你跟到 WSD 個 standard 就可以嘞。」咁我哋於是乎「咦，WSD 嘅 standard」，咁我哋 take note 㗎。咁到後面，如果大狀你講，就係 final assessment stage，就我哋就再去問。因為我哋 take note--之前 take note 㗎呢個 WSD 嘅 standard，跟住我哋就問「咦，究竟應該要做啲乜嘢嘅 water sample test 先可以 meet 到呢個 requirement 呢？」

問：明白。

答：咁但係我都--照我所知，呢度中間裏面，我唔知同事有冇都有傾。因為我有參與，所以我唔可以代佢哋講。

問：明白。即係起碼我哋--我諗中間可能你唔係話好清楚個即係細節嘅情況，咁不過即係起碼我哋呢度睇到，就係 2014 年 5 月嘅時候，都仲問緊係即係有啲乜嘢要做，嚟到去取得呢個 BEAM 嘅認可嘅咁。

答：係，係，啱。

問：咁我就再睇番你個證人口供，呢度就話-- 39652，第 26 段。你呢度就係講緊梁先生畀你哋嘅 e-mail 之後，你哋就做咗--就搵咗承建商，就畀咗指示佢，就去做啲即係食水嘅測試咁樣樣。咁就就住嗰七個參數，就做呢個測試嘅。我哋而家知道就係呢七個參數，其實就係同水務署...

答：係優質水。

問：...其實當時係有少少唔同。

答：係，唔。

問：水務署當時就係講緊八個參數，咁你哋就應該係剔除咗兩樣，跟住就加埋嗰個鐵落去，加埋個 iron，咁就變咗成七樣。咁我呢度唔係好理解，就係話你問咗 Scott Wilson，佢哋就話「喂，跟番水務署嗰個安排就得㗎嘞，跟番佢哋個要求，咁跟番個 circular 就得㗎嘞」咁。咁個 circular 就講八樣。咁但係後畀你哋去到即係落手落腳做

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

嘅時候，叫啲 main contractor 做嘅時候，就改咗佢啲，就變咗七樣啲，咁呢度中間又發生咗啲咩嘢事呢？

答：我或者首先 clarified 先，去到呢個 stage，其實我已經唔係個 Chief Architect。咁但係照我從啲同事嘅口中話番畀我知，其實呢七個 parameter 係優質水嗰個 requirement，就唔係水務署嗰八個 parameter。即係水務署有個 circular，八個嗰個 parameter，呢個其實七個就係優質水嗰個 parameter。

問：係，因為呢個就係同你得返嚟嘅資訊有少少唔吻合，因為你 39741 嗰度，你個同事畀你個資訊係講緊直情係水務署個 circular 佢話。

答：係，即係嗰個 e-mail correspondence 嗰度有寫住 circular，咁但係我哋喺 25 段嗰度都有講，就係“Scott Wilson advised the HA that a water sample test carried out in accordance with the WSD requirements under the Quality Water Recognition Scheme ...”，咁嗰個就係 is good enough，嗰個就係優質水嗰個。

問：明白，明白。

答：咁就我唔知嗰個 e-mail 可能會唔會即係簡化版本，寫咗 circular。

問：我睇番你成個 e-mail，咁跟住有啲附件嘅其實。

答：係。

問：我哋睇番啲附件，就見到其中有一個就係講緊要驗嗰七樣參數，就係呢個 39746。

答：746，係，見到。

問：係。咁就呢個就係佢即係畀你哋個附件入面嘅其中一個 annex，咁入面就係講番呢七個參數出嚟嘅咁樣。

答：係。

問：咁因為我就咁睇嗰個 e-mail 就寫 circular 呀咁，咁但係個啲 attachment 入面，就係有呢一張紙，就寫住七個參數。咁你而家睇番，係唔係即係話你哋當時個同事得到嘅資訊，係話雖然嗰個 e-mail 係寫 WSD circular，不過你最後都係跟咗呢一個咁樣嘅附件嚟到去做呀，係唔係咁嘅情況？

答：同事嗰個 e-mail，有可能佢好籠統咁樣即係講咗 circular，我唔作無謂猜度。咁但係如果講實際嗰個 advice，你睇番嗰七個 parameter，就係正正就係嗰個 Quality Water Recognition Scheme 嗰七個 parameter。

問：明白，明白。咁但係我就想知，就係你 2014 年收到呢啲咁嘅資訊嘅時候，就話「喂，WSD circular 呀」，咁跟住後面又有一啲嘅 attachment，咁寫住嗰七個參數嘅字眼。咁我想問下你哋署方有冇話去同水務署嗰面又傾下，「喂，其實要驗邊幾樣嘢呢？」咁，有冇再做呢方面嘅工作？

答：我唔知同事有冇特別再同水務署傾。不過如果 under 嗰個優質食水，我相信呢個都唔係話一啲好新，即係重來未做過嘅嘢。咁同埋就通常我哋如果做 water sample test，我哋一定要搵啲 accredited 嘅 laboratory 去做。咁所以我相信呢度就都即係如果係搵到 accredited 嘅 laboratory 去做，就應該都 meet 到嗰個即係水務署嗰個 requirement。

問：就住呢個優質食水計劃，水務署推出呢個優質食水計劃，即係你都有認知，即係你都知道...

答：我唔係特別話好大認知，因為通常優質食水計劃係完咗工之後，就交咗畀即係我哋邨管同事，佢哋就就住每個邨，睇下佢會唔會參加呢個計劃咁樣囉。所以變咗就都 outside 我哋 DCD 嗰個。

問：明白。咁你都知道大概個程序都係即係例如每條邨，咁都要向水務署去申請一個即係優質食水個證明，呢樣嘢你知㗎？

答：係，係，係，大概有個概念。

問：係。咁你知唔知道申請呢個證明嘅時候，咁其實入面嗰個申請嘅過程之中，都有提及到呢一個世衛嘅標準呢樣嘢，你知唔知呀？

答：我唔知。

問：好。我咁樣講啱唔啱，就就住呢個世衛嘅標準，即係我哋講緊食水呢個質量嘅世衛標準。如果我哋睇番成個過程，由 2009 年開始，我哋講到--不如一路可以講到 2015 年 7 月，即係鉛水事件發生之前。即係你對世衛嗰個標準嗰個認知，都只係限於呢個 Scott Wilson 草擬咗呢一個條款入面，提過世衛標準呢一個名嘅啫，即係只係限於呢個啫？

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：可以話甚至會唔會因為佢寫咗呢個落去，我就對 WHO 個 Guideline 有個認知，我都未必可以咁講。

問：好，唔。咁我都想問番你啲比較即係 general，一般性嘅問題。

答：係。

問：咁你--我知道其實--我尋日都自己睇番每一位總建築師畀嘅證供，咁佢哋都有啲人物事件介紹圖，咁即係有個--即係...

答：Project team。

問：每個 project team，即係有邊啲人喺度嘅咁。咁我就見到，應該--我首先問一問你，元州邨，就住第二期同埋第四期，你係咪其中一位負責嘅總建築師？

答：唔係。

問：唔係嘅？

答：唔係。

問：咁就元州邨個 project team 入面，你有冇擔任呢個 Assistant Director 嘅角色？

答：冇。

問：都有？

答：係。

問：咁所以我就咁作咗一個統計，就如果我有計錯數，喺十一條即係涉事嘅邨入面，應該有五條邨你都係擔任呢個總建築師嘅，同唔同意？我睇番就應該係啟晴、榮昌、東匯、下牛頭角邨同埋呢個清河邨第一期，你都係總...

答：清河邨我唔係。

問：清河邨唔係？

答：嘎，嘎。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：咁可能我睇錯。即係有一、二、三、四，有四個屋邨你都係總...

答：啟晴我做過，東匯、榮昌我都做過，即係 contract 開初冇幾遠嘅時候做過，就係 Lower 牛頭角做過，石硤尾二期都做過。

問：係。咁而就呢十一條邨裏面，如果我哋剔除咗元州邨，咁個十--有十條邨，當時喺個 project team 度，你都係擔任個 Assistant Director, Project 2 嗰個角色，係咪？

答：唔係。

問：唔係？

答：即係 Project AD(P)2 係都轉過人。咁如果個十一條邨，鉛水邨我做 AD(P)2 就係有兩條邨，一個就係欣安，一個就係葵聯。

問：明白，唔該你。

答：即係事發之後。

問：係，好。我哋就住即係你有擔任呢個總建築師嘅呢幾條邨嚟講先。咁一啲簡單嘅問題，就係你作為總建築師，對於有關建築工程，即係興建公屋呢啲咁嘅工程項目，即係需要符合例如水務署嗰啲法例規則嘅標準，你都有認知？

答：有認知，知道有水務署嘅條例，可能好細節嘅，就因為有啲佢都幾 technical，我哋又係倚仗番可能我哋 building service engineer，因為佢哋 plumbing 嗰個設計，...

問：我都唔會問你啲好細節嘅，好細節嗰啲可能我都未睇可能。咁但係如果係講啲好--同呢個案件有關嘅事情，就係例如《水務條例》入面所講，話如果有一啲喉管或者係一啲嗰啲組件，話咁我哋都知道如果包括焊料咁樣，係需要符合英國標準，呢方面你都知，係咪？

答：係，知。

問：咁英國標準不斷更新，即係我哋每一次興建嘅工程，都用番係最近期嗰個英國標準，呢樣嘢你都知？

答：唔，唔，7月之後就比較更加多接觸。

問：我明白，我清楚。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：其實 7 月之前，就都係有一個印象，就唔係話好深究咁樣。

問：有印象，係，係。咁就我哋亦都睇到就係你啲合同裏面，咁如果我哋講番我哋比較討論得多啲嘅，就例如 2008 年嗰個 specification library 裏面，咁就住焊料嗰個標準，即係做呢個 pipe，例如 capillary fitting 嗰啲咁嘅標準，我哋都知道係用一個 BS 1254 嗰個 standard，亦都講出咗係要係用一啲係無鉛嘅焊料，...

答：Lead-free category。

問：...即係 lead-free 嘅焊料，呢個你都知道，係咪？

答：呢個知。

問：係。咁即係...

答：即係我知要用 lead-free category，但係為何要用，有啲咩嘢影響啲啲，我就唔知。

問：咁樣講喇不如，即係唔好太複雜化。即係首先就係我哋睇到 lead-free 呢個字咁樣，咁如果常理嚟講，我哋見到 lead-free 呢個字，咁如果我去問你就話「喂，你都知道呀，即係作為一個常識嚟講，即係鉛係有毒嘅，即係對人體有害嘅」，呢個你一定知道㗎？

答：唔，唔，呢個我知道。

問：係。咁如果你話用啲 lead-free 嘅物料，用啲 lead-free 嘅物料，例如我哋講緊焊料先，用 lead-free 嘅焊料，咁當然最主要我哋喺個合同度訂明用 lead-free 嘅焊料，其中一個最大嘅目的，都希望遵守個法例，即係個《水務條例》，係咪？

答：係，係。

問：咁而法例同埋合同都話係要 lead-free 呢樣嘢，咁即係其實個目的好簡單，都係唔想工程進行之中，用咗一啲有毒、含鉛嘅物料喺入面，呢個你同唔同意？

答：我同意，就如果我哋個 specification 寫得落去 lead-free category，我哋都期望 contractor 能夠符合嗰個合約去畀一個 lead-free 嘅即係焊料畀我哋，同意。

問：呢個--即係你哋同 contractor 嗰個瓜葛，我哋會慢慢再講一講。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

咁但係如果你話唔用合同同埋法例，都係想避免用咗含鉛、有害嘅物料，即係其中一個最主要嘅目的，都係唔想呢啲咁嘅物料用--我哋講緊水務工程，呢啲咁嘅物料係對嗰個水質造成有即係影響。呢個你都即係常識嚟講，我哋都會知道係咁嘅原因？

答：可能都有少少要講一講。即係如果鉛對身體有害，呢個知嘅，但係可能喺 7 月之前，如果我哋啲水管嘅焊位含鉛嘅話，佢如何影響食水嘅水質，呢方面我哋係唔知。咁再者，如果嗰啲真係食水裏面佢有含鉛量，而嗰個含鉛量去到邊個 extent，即係去到邊個即係程度先至會即係對人體造成一個好唔好嘅影響，呢個我哋亦都唔知。

問：係。我暫且唔係討論緊個程度嘅問題，或者嗰個影響有幾深遠個問題。我而家淨係講話即係一般嚟講，法例同埋合同都訂明用 lead-free 嘅譬如焊料咁，咁其實最主要個目的都係唔想有含鉛嘅物料，引致到食水係唔安全，即係一般嚟講，你同唔同意？

答：如果焊料有含鉛物，佢點樣入到去嗰個水管，從而影響個食水嗰個 extent，我哋就唔係太知。不過你正話剛才講，即係鉛，鉛都係對身體有害嘅，咁呢個我哋就係都知。

問：好，唔該。我哋之前都問過另外有幾位總建築師，不過既然即係因為你都負責過幾個工程，咁所以我都想同你澄清一下。就係就住嗰啲咁嘅我哋所講 sample 嘅 approval 先，咁我哋都聽過就係 PLU1 同埋 PLU2 就有唔同嘅做法。咁就 PLU2 就係嗰啲組件就係需要總承建商就呈交嗰啲樣本，即係實物，實物嘅樣本，同埋嗰個樣本嘅資料。咁就呢個 PLU1 一般嚟講，除咗幾樣 exception 之外，PLU1...

答：即係嗰啲咩嘢 pipe bracket 嗰啲，水龍頭嗰啲，...

問：係，bracket 同埋啲 pipe，係，嗰啲就係。

答：...即係 pipe，洗衣機個龍頭嗰啲。

問：係。除咗幾樣之外，咁就唔需要真係總承建商擺嗰個樣本嘅實物，一般嚟講，你哋就即係當咗係即係佢哋擺嚟一啲嘅文件，呈交咗，你哋覺得係 okay，咁就核准？

答：如果 under PLU1，就講呢個焊料，就係如果佢分兩部分，第一呢就係 documentary 嗰個文件，就係譬如佢 manufactory 嗰啲 catalogue、test report，甚至 job reference，咁都可以。咁如果譬如我講番我--譬如我 witness statement 嗰個東匯邨咁

先算。其實就住個 sample 個實物，即係嗰個 Fry 99C 加埋嗰個松香膏，個 flux，實物佢亦都有 submit 過。

問：唔，我知道。呢個係我會進一步同你討論。我而家先講就係嗰個你哋一般做法嗰個流程先。

答：唔，唔。

問：我想知道就 PLU1，好似呢啲焊料或者一啲即係唔係嗰啲例外嘅情況，PLU1，一般嚟講就係睇文件，就唔需要嗰個實物。我想問下你哋房署，例如就東匯邨咁講先，因為你個證人口供有講東匯邨。有冇話一啲指引或者一個清單咁樣，一個 list 咁樣，或者一個 checklist 咁，係講明「喂，就住 PLU1，有冇某啲物料、某啲材料，係需要總承建商係擺個實物畀你哋睇嘅，除咗文件之外，要擺埋個實物畀你睇嘅」，有冇呢方面嘅指引？我想知道。

答：照我知道就有。因為我哋點樣去執行，就係睇嗰個 specification 嗰個嘅要求。咁如果特別嘅焊料，就唔知好多 project，啲 contractor 就好似一個 practice 咁，都會畀埋實物。咁所以如果照我所知就有，我係有特別一個 list 去告知啲同事，關於呢個 sample submission 呢樣。

問：唔。咁所以咁講啱唔啱，就係話如果我哋就住嗰隻焊料嚟講先。

答：係。

問：你所負責嘅咁多條邨，或者你--例如我哋講緊--不如講番呢五年，除咗鉛水--有牽涉鉛水嘅邨，其他啲邨都係用銅喉嘅時候，要用到焊料，大部分嘅情況，差唔多一定就係嗰個總承建商係會提交焊料嘅實物畀你哋睇，係咪咁？

答：我負責嗰啲 project，因為我都有逐個去檢視，咁啱我畀證人口供，我東匯我就比較清楚。咁我聽番啲同事講，好多時都會 as 一個 general practice，contractor 都會畀埋嗰個實物，as 一個 sample 嘅 submission。

問：好。咁講啱唔啱，例如好似你哋講緊焊料嚟講，你哋就有指引，亦都有一個清單畀你哋啲即係職員，去即係睇下「喂，邊啲 PLU1，佢係需要呈交畀你」。就住焊料嚟講，就完全係靠嗰個總承建商畀或者唔畀個實物你哋睇，係咪？如果要睇實物嘅話。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：係因為我哋個 specification 冇要求佢畀實物。

問：係。咁就住 PLU1 嗰啲物料嚟講，總承建商，除咗焊料我哋知道係其中一樣。咁總承建商係咪大部分 PLU1 嘅物料，嗰個實物都會畀你哋睇？

答：照我所知，就係如果係我 under 個 specification，譬如 pipe bracket 同埋嗰個 draw-off tap 嗰個，佢就要入 sample。

問：嗰啲直情係個 specification 講到明佢要畀咩。

答：有寫嘅，係，有寫。

問：我係講緊話 specification 冇講到明要畀實物，係咪大部分都會畀你哋睇...

答：我唔...

問：...定係呢個焊料係一個比較特殊嘅一種情況？

答：其他嗰啲，就我唔係--即係我有太 go through 成個 PLU1 嗰啲，但係我唔覺得其他嗰啲，如果我哋 spec 冇特別要佢入，佢會入。

問：係。即係例如我哋假設，即係例如好似你話講緊一啲好--即係比較上簡單啲嘅物料，例如我哋講緊螺絲、螺絲帽嗰啲，咁你哋唔會期望個總承建商...

答：即係嗰啲--係。

問：...即係畀個實物你睇 for approval，即係唔會㗎嘛？

答：即係啲其餘嗰啲，譬如 sundry item 或者係扎鐵嗰啲都唔會。

問：Sundry item 唔會㗎嘛。咁你同唔同意我咁講，就係就住 sample submission, sample submission 嚟講，呢個 solder 呢個焊料，喺 sample submission 過程之中，你哋署方即係唔係當佢為一個 sundry item 個啲，因為如果 sundry item 嘅話，你唔需要睇實物㗎嘛？

答：我哋喺呢個 spec，冇要求即係 sundry item，我哋冇要求 contractor 去 submit，不過如果 contractor submit，我哋都會同佢睇。

問：係。但係佢唔會話佢 submit 乜嘢你都睇，例如我啱啱咁講，如果佢 submit 個螺絲、螺絲帽嘅實物畀你睇，「喂，你做乜嘢要大費周張搵啲同事嚟驗吓」，唔使㗎嘛，係咪？

答：佢亦都唔會 submit 螺絲，係。

問：係，佢亦都唔會。但係就算佢 submit 嘅話，你都唔會真係叫個同事話「喂，去剔剔剔，跟住去 approve」，唔需要做呢樣嘢㗎嘛？

答：唔，我唔係好明你嘅意思。

問：Check 下佢咁...

主席：即係 sundry items 都有好多種類，即係都有好多個 categories 個囉喎，即係如果根據你講咁樣？

答：我哋如果呢個焊料就係 sundry item，BQ 嗰啲都有 separately applies，我哋冇要求 contractor submit 實物，不過就即係嗰個喺過往，就 contractor 都會 submit 呢個實物，咁我哋似乎都好似當咗「咦，contractor 都多數 submit 㗎喇」，咁佢 submit，我哋亦都會幫佢睇。其實所謂睇，都係 document 一定要 check 佢嗰啲 manufactory 或者 catalogue 各樣各樣。咁就係我哋去 check against 佢嗰個實物，而嗰個實物我哋咪又擺落去嗰個 sample room 嗰度。

主席：我哋晏晝兩點半再繼續，唔該。

下午 1 時 02 分聆訊押後

下午 2 時 30 分恢復聆訊

出席人士如前。

香港房屋委員會第九證人：嚴小玲（房屋署（東匯邨及啟晴邨總建築師））

宣誓繼續作供

許偉強先生繼續盤問

問：就住今朝同你討論緊嗰個啲 sample submissions 嘅問題，我都想你睇一份文件，睇下你同唔同意嗰個講法嘅啫，就係 P1，P1 嘅第 11 頁，呢個就係其中有幾條屋邨嘅持牌水喉匠伍克明先生嘅證人供詞嘅，佢喺佢嘅供詞嘅第 4.2 段嗰度，你見唔見到有個“approval form”個英文字呀？

答：見到。

問：跟住下面就話，佢話「錫線」，佢話「等屬小五金」，佢話「並非『房屋署』規定必須呈交審批的物料，但很多時個別的『房屋署』工程人員會要求送審，所以『明合』亦會要求」個水喉分判商就呈交呢啲資料嘅。

答：見到。

問：你嘅認知，有冇呢啲咁嘅情況呀？即係嗰啲房屋署嘅工程人員會係即係佢主動去要求嗰啲咁嘅總承建商去呈交嗰個有關焊料嗰個樣--嗰個物料嘅樣辦？

答：我就咁睇，我覺得就有乜可能，因為就同事--但係我哋 specification 冇要求佢交嗰個 sample submission，而我哋啲同事因為都工作都極其繁重，佢哋都會跟嗰個既定嘅要求同埋指引去做，所以我又唔覺得佢會--即係有個別同事會特別去要求，我哋既然 spec. 冇要求，個別同事，我就想像唔到會有同事會要求佢去交嗰個 sample submission。

問：好，唔該，即係你唔同意佢睇法，係咪呀？呢方面。

答：我唔係好同意。

問：好，我哋今朝食晏之前亦都有討論過呢個問題，就係例如--當然你哋唔會期望總承建商就住一啲即係真係好常用嘅小五金，即係一啲螺絲、螺絲帽嗰啲，去遞交嗰個即係樣本個實物嘅，即係我當時個問題畀你，就係話就算佢哋有遞交，對你嚟講都微不足道，即係都唔需要一個審視嘅過程，係咪呀？你同唔同意，如果係咁嘅情況？

答：如果我哋 specification 冇要求交，而佢交咗，好似即係 Fry 99C 同埋松香糕咁，我哋都會同佢睇，但係就我就唔係好同意就話如果係

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

sundry item 就等如就唔重要，呢個我又唔同意，尤其是 7 月之後，即係 7 月之後，其實嗰啲焊料都係 sundry item，但唔等如 sundry item 就唔重要。

問：其實我想講嘅，就係睇下你同唔同意，就係其實一向嚟講，就住你負責嗰啲邨為例，嗰個焊料其實都係一個有需要去到檢測同埋批核嘅一個物料嚟嘅，同唔同意呀？

答：7 月之後，同意。

問：7 月之前，你唔同意？

答：7 月之前，因為我哋唔知道，冇認知到呢個焊料原來佢嗰個重要性。

問：但係咁嘅，總承建商呈交咗佢嗰個樣本嚟，佢係唔需要有責任去呈交嘅，佢呈交咗嚟，但係你哋都搵一班職員去真係認真地檢視過嗰個物料本身同埋個物料個文件，睇下合唔合規格個嘅，即係你哋係即係覺得有需要去做呢個過程個嘅？

答：因為佢呈交，我哋就會睇，咁可能亦都或者睇番點解承建商呈交，即係如果佢呈交得嚟，其實佢自己都覺得嗰樣嘢係都需要去檢視嘅。

問：佢覺得係一回事，你收到之後都係覺得你有需要去經過過程去審批㗎？

答：有，係，係。

問：我哋睇一睇呢個文件，9.3，文件夾 9.3，B9.3，22145，呢個就係就住呢個即係東匯個發展項目，其中一份即係有關呢個“FRY”嘅焊料嘅即係你哋房署入面嗰個審批嘅文件嚟嘅，你可以睇一睇先。

答：係。

問：我哋見到就係--你見到“DETAILS OF SUBMISSION”嗰度，上面嗰度，即係個嚟--嗰個嚟嚟下面有個“DETAILS OF SUBMISSION”？

答：邊度？框框？Sorry，可唔可以...

問：Sorry，喺 22145，而家。

答：22145，係。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：你睇唔睇到最頂嗰度有個嚟嚟喇？

答：係，睇到。

問：咁個嚟嚟下面就寫住“DETAILS OF SUBMISSION”，大楷嘅。

答：係，見到，見到，見到。

問：呢度佢又講出咗係同邊一個總承建商擺嚟喇？

答：係。

問：入面亦都講出咗有“General Information”，其中有“FRY”嗰個物料，亦都有“FRY”嘅嗰個松香糕同埋“FRY”嘅呢個 lead-free solder wire。

答：係，見到。

問：即係我所講嗰個錫線。

答：係，見到。

問：即係嗰個焊嘅錫線。你見到下面“Technical Information”，就入面有亦都講番佢個來源地等等嘅，見到嘛？

答：見到。

問：到 (f) 嗰度個“Appearance”，係寫咗“Refer to submitted sample”，見唔見到呀？

答：見到，見到。

問：即係就咁睇，呢份文件就咁睇，我哋都似乎佢哋係即係真係呈交咗嗰個實物嗰個樣本嚟嘅。

答：我確認佢實物係有交嘅。

問：確認有嘅，係咪？

答：係。

問：好，唔該。你見唔見到喺 22145 頁有個嚟嚟寫住“COW OFFICE”？

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：22145？

問：係，即係呢度，呢個，呢個嚟。

答：係，見到。

問：一個印嘅，一個好似打印嘅一個...

答：係，見到，見到。

問：見到嘛？

答：係，係。

問：COW 係應該指係咩嘢 office？

答：Clerk of works。

問：Clerk of works office？

答：即係我哋駐地盤嘅 clerk of work。

問：係喇，我哋見到呢個 date 就係 12 月 28 號，見唔見到呀？

答：係。

問：即係呢個文件本身嗰個日期 12 月 13 號之後嘅大概兩個禮拜嘅，咁應該 clerk of works 就會做一啲--即係可能係一啲檔案嘅工作，係咪呀？一啲存檔嘅工作，係咪呀？

答：係。

問：跟住我哋見到都有唔少人 initial 咗喺度㗎，例如見唔見到有 COW、assistant 嘅 COW，有幾位同埋 WS，幾位都喺度簽晒名嘅，係咪呀？

答：見到，因為我估呢個--因為佢入啲辦入嚟，就首先我哋 clerk of works，就可能你喺 22147 嗰度見到。

問：22147，係。

答：Clerk of works 佢首先就 check 晒佢啲 submission，in terms of documentary 嘅 check 先，跟住佢就 make 個 recommendation

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

畀我哋個 project architect，呢一個就 project architect 就喺 12 月 23 號就批准咗，咁我相信呢一份有個 chop 嘅，clerk of works 嘅 office，就係通常佢完咗之後，佢 chop 個印，就 circulate 番畀佢地盤同事。

我或者可能同大家睇一睇，clerk of works 就因為我哋呢個東匯邨嘅 site staff，clerk of works 有一位，就 ACW，即係 assistant 嘅 clerk of work 應該有三位嘅，就 work sup. 應該 -- 即係 work supervisor 應該都有三位，咁所以我相信呢個 chop 就係 circulate 番畀地盤嘅 -- 駐地盤人員，即係 for 佢 information。

問：我諗我哋咁睇，就呢份文件首先就我哋見到喺 22146 頁，中間嗰度，就 "For and on behalf of the Contractor"，呢個有個 Felix Chan，就 "Chan Ho Kin" 嘅，呢位人士就應該係即係 contractor 嘅代表嚟嘅，係咪呀？

答：冇錯，因為喺佢個 management plan 裏面，佢係屬於 quality control co-ordinator。

問：冇錯，冇錯。下面嗰一格，"CONTRACT MANAGER'S COMMENTS" 同埋有 approve 定唔 approve 嗰度，見唔見到？

答：係。

問：呢個 contract manager 嘅 representative 就係你哋房署個 contract manager 喇？

答：嗰位 project architect。

問：嗰個 project architect，冇錯，佢都要簽名核實即係佢擺嚟嗰啲嘢係即係核准咗咁樣，係咪呀？

答：係。

問：然後喇，然後我哋去到 22147，有一位 -- 我哋見到就應該有一位係 K. M. Wong 嘅應該係先生嚟嘅，我諗，係咪呀？

答：係，係。

問：佢就係 project clerk of works，佢最主要入面講嘅就係都係話呢個物料嚟咗，咁都係符合要求嘅，另外第二點佢都係話 -- 佢都

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

check 番啲 track records，因為我哋亦都知道你哋有一個 surveillance 嘅 system，即係可能即係有個即係 material alert 啲啲咁嘅 system，係咪呀？

答：係，我哋有一個 building material 嘅 database。

問：Database。

答：因為我哋有個 component and management team，佢轄下都有一啲好 organise 嘅 surveillance 嘅 visit 嘅，如果有啲咩嘢機制，好似正話你 rightly point out，如果有啲咩嘢 alert 嘅機制，佢就 through 呢個 building material 啲個 database 就通知我哋啲同事。

問：即係最主要佢啲個 database 就話畀你啲同事聽「可能有啲咩嘢物料曾經出現過問題嘅，咁就可能唔好 approve。」咁樣，會唔會係咁嘅情況？

答：要小心，或者有時就甚至譬如雖然 under 個 spec. 要做 testing，可能做多少少，...

問：要做多少少。

答：...要特別要加留意。

問：明白，明白。呢度即係表示咗佢呢個物料嚟到，亦都符合咗你哋嘅 database 入面即係嘅要求，即係唔會話有啲咩嘢特別好似有唔妥嘅地方咁樣。

答：係，因為佢呢個都要 standard，要 make sure 佢睇過呢樣。

問：冇錯，咁所以亦都係經過咗呢個 project clerk of works，之後就喺你講，啱啱去到 22145 呢一個蓋章啲個咁多人去 initial 嘅啲一個部分，就係喺個地盤去 circulate 畀咁多人，...

答：我相信係。

問：...就話畀人聽，就話「喂，呢隻物料我哋就即係核准咗。」咁樣，係咪呀？

答：係，係，係。

問：咁所以都係一個好嚴謹嘅過程嚟個啲呢個，你同唔同意？

答：可以咁講，就除非佢唔入 sample，如果佢入 sample，我哋都會跟呢一張我哋叫做 standard form DCMP-F716、718 呢兩張 form 去做。

問：明白。你哋做完呢個步驟之後，核准咗嗰個樣本--又樣辦，跟住就會係咪去儲起喺一間房度？

答：個 store room，係，係。

問：一個我哋知道就有一個 lock-up room 咁樣。

答：鎖住嘅，係，啱，啱，啱。

問：我都想睇下嗰個即係儲起嗰樣嘢喺個合同嚟講個目的喺邊度嘅，我哋睇一睇呢個 9.1，B9.1 20597，20597。

答：係，見到。

問：見唔見到頂頂嗰度寫住“SAMPLES”？

答：見到。

問：係咪呀？第一個 preliminary 嗰個 clause 就寫住“SAMPLES OF MATERIALS - GENERAL REQUIREMENTS”，人面就寫話“Submit samples of materials as requested by CM”，“do not confirm orders until Approval has been obtained.”

第二句係我想你睇嘅，“Keep Approved samples at the place agreed by the” contract manager，“for comparison with materials used in the Works, which must conform with the samples set aside.”咁樣，即係呢個講到好明白嘅其實，嗰個合約，就大家都知道呢啲咁樣嘅核准咗嘅樣本--樣辦，擺喺嗰間房度，儲存咗起嚟，個目的就係要睇下到時現場嚟到個貨要用，嗰啲貨係唔係同呢個 sample 符合，呢度係咁講喇，個 contract。

答：跟呢個 prelim.嘅 requirement，係。

問：呢個亦都係即係點解你啲貨要儲喺嗰個 lock-up room 嘅目的，係咪呀？

答：係，係。

問：我哋都知道而家--其實之前嗰幾個證人都同我哋講過，嗰啲咁嘅物料，即係焊料，嚟到核實咗之後，啲 sample 之後，其實就唔會--到達現場之後，唔會再檢測喇喇，唔會再檢測，即係唔會再 verify 係唔係符合個標準嘅？

答：係，首先如果嗰啲貨送到地盤，跟我哋嗰個既定嗰個機制，我哋就唔會做啲 on-site 嘅 delivery check。

問：係，冇錯。咁我就想問下，就係如果係咁，你合同同埋你個做法都係話核准咗呢啲咁嘅樣辦之後，擺喺度，就諗住第二時去 check 番，睇下送嚟嗰啲大批貨係咪符合合同要求嘅話，如果你到時都唔會再去 check 嗰批貨嘅，如果佢到現場嘅時候，咁咪同你原先成個 sample 嘅 submission 個審批過程即係完全係相違背，達唔到呢個目的？

答：係，可能就要睇另外一個要求，就係嗰個 on-site delivery 嗰個 6210 嗰幾十--嗰三十幾項嘅物料，即係如果跟我哋--我剛才都提過，就如果我哋都係跟既定嗰個機制，on-site delivery 佢嗰度有三--現時喇，現時有三十二隻材料，因為 7 月之後亦都加咗嗰隻，就係嗰啲--我哋都要睇嗰啲 flux 咁樣。跟住嗰個--即係如果跟嗰個嚟做，我哋係唔需要做嗰個 on-site delivery，咁變咗即係縱然呢度寫咗，我估嗰個情形就係如果我哋一般嘅 sample submission 就係呢一個 clause，但係照去到地盤 site inspection，駐地盤嘅同事都會跟番 6210 嗰個 on-site delivery 嗰個去做。

問：即係如果我哋咁講嘅話，即係如果你啱啱淨係死跟住 6210 嚟做嘅，其實你原先核准咗嗰啲 sample 同埋 keep 住喺度嘅 sample，其實你做呢樣嘢都有用，係完全白費工夫，同唔同意？

答：之前我哋 on-site delivery 6210 嗰個，就有呢啲 flux 嗰啲，咁所以冇呢個 item，原因就係我哋喺 7 月之前對呢個焊料原來佢嗰個影響咁大，我哋係嗰個認知真係不足，咁所以 7 月之後，我哋而家新嗰啲 form 都已經加番呢個落去。

問：好。我哋再睇一睇其中有一個送貨單，就係 B9.4，B9.4 嘅 22577。

答：唔該。

問：呢個就係就住...

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：睇到。

問：...即係東頭邨嗰度...

答：係，睇到。

問：...其中一個送貨單嘅，我哋見到第 3 項嗰度寫住「英國 50 力扁錫條」咁樣。

答：見到。

問：即係我個問題就係話以當時你哋嘅機制嚟講，即係唔係講而家即係最近嘅事情，喺當時嘅機制嚟講，如果好似呢個情況，佢嚟嘅係一種叫做 50 力扁錫條，同嗰個“FRY”係唔同嘅，即係你哋都完全唔會察覺到，喺當時嘅機制？

答：首先呢啲送貨單，我哋就唔會睇嘅，因為呢啲送貨單，如果雋景，我相信佢係--因為佢哋個交易都係--就我哋冇牽涉，所以我哋唔睇送貨單。

問：我知道你哋唔會睇送貨單，我純粹係講緊個內容啫，即係佢而家送貨單度寫咗佢嚟嘅物料，即係到達現場嘅物料，其中係包括咗一啲英國 50 力扁錫條嘅，同個“FRY”係唔同嘅，喺以當時嘅機制就完全察覺唔到㗎喇？

答：可以咁講，因為佢送呢啲--送貨落地盤，我哋亦都唔會喺地盤就同佢檢視、去 check 佢啲貨。

問：係，冇錯。我想問一問，你即係呢個事件發生之前，即係你作為總建築師，你知唔知道嗰個錫條同埋錫線嗰個分別呀？

答：如果喺 7 月之前，其實我都--我自己本人都有乜聽過錫條、錫線，7 月之後呢個討論就好多嘅，錫條、錫線，甚至有時佢哋有--我哋有聽過就係話高溫、低溫咁，但係邊樣係邊樣呢？其實都係幾混淆嘅。

問：明白。

答：咁所以可以講，7 月之前我係冇聽過。

問：冇。

答：就算 7 月之後聽過，都頗混淆嘅，即係唔知佢講緊係 exactly 係邊

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

隻係打邊隻咁。

問：明白，明白。有另外一個有關持牌水喉匠嗰個證供，我都想同你討論一下嘅。

答：好呀。

問：就係都係喺番 P1，都係剛才嗰位伍克明先生。

答：好。

問：佢呢份口供就住都有幾條邨嘅，其中我睇過，都包括咗牛頭角下邨同埋石硤尾嘅，嗰兩條邨入面，因為你當時都有做過嗰個總則師，咁...

答：係，係，雖然我有做到完工。

問：我想你睇一睇第 13 頁，4.8 嗰度，睇唔睇到？

答：見到，見到。

問：中間落少少，就見唔見到有兩行就有兩個「明合」嘅，嚟嚟嘅？

答：係。

問：「『明合』的駐地盤管工負責」，見唔見到呀？大概喺中間落少少。

答：見到。

問：佢呢度寫「『明合』的駐地盤管工負責在現場解答則師問題。我問過『明合』的駐地盤管工，他們其中有人曾在樣板房」，即係樣辦房係咪我哋所指嘅 mock-up，即係係啲 mock-up 嘅地...

答：我可以講少少，樣辦房係我哋嘅 sample floor 同埋 sample flat。

問：係，個 sample room，sorry，樣辦房。

答：就要嚟做我哋收貨嘅標準。

問：收貨嗰度。

答：主要就係睇佢嘅 finishes 同埋佢嘅 workmanship 嘅。

問：嗰個樣辦房係咪即係我啱啱講嗰個 lock-up room，係咪呀？

答：唔係，唔係，唔係，唔係。

問：都唔係，另外一個嚟嘅？

答：唔係，係另外一個嚟嘅。

問：Okay，好。呢度我繼續，就「見過水喉分判商的工人帶著一綑包裝符合『房屋署』要求的錫綫示範燒焊。」咁樣，「我會在『房屋署』則師及其工程人員到樣板房審批前，預先到樣板房以目測方式檢測有關水喉工程」等等咁樣，我想問你嘅嘢就係佢呢度講就話嗰啲水喉分判商會帶--嗰啲工人會帶住「一綑包裝符合『房屋署』要求的錫錢示範燒焊。」即係喺現場表演嗰下，嗰個有冇--你有冇認知？

答：我第一次睇佢呢一個，我覺得就有可能嘅，因為我哋嗰個 sample floor 或者 sample flat 係主要正話我講，我哋就係去 indicate 嗰個--譬如我哋選用咗啲咩嘢，我講廚房、廁所，選用咗咩嘢瓦仔、究竟對唔對個辦、顏色等等，我哋要確認，同埋要睇一睇，最緊要睇佢嗰個 workmanship，嗰個 finishes，其實嗰個都已經係話第二日，如果呢個 sample flat 就係作為我哋日後收貨嘅標準，如果你講燒焊嘅示範，我從未聽過我哋會喺 sample floor 會做呢個燒焊嘅示範，我覺得有可能。

問：好，有冇曾經聽過喺其他地方，地盤其他地方會做過呢啲咁嘅燒焊嘅示範？

答：首先我就覺得就個 sample floor 唔係咁用嘅，所以有可能，所以我更加亦都有聽過。

問：我明白，所以你就唔會知道有其他例子係有呢啲咁嘅示範表演即係喺現場？

答：唔係，如果照我哋嘅理念，sample flat，根本唔係 for 咁嘅 purpose，根本唔會有咁嘅嘢發生。

問：哦，明白。我想而家同你睇一睇另外一個問題，就係我哋之前問過副署長馮女士，同埋亦都有問過另外一位總建築師譚女士呢個問題，就係有關 2002 年嘅時候，就可能你都有啲印象，就係當時房署都有鼓勵嗰啲咁嘅總承建商去即係開始可以選擇會唔會用銅喉定係繼續用番以前一路--即係之前用緊嘅 GI pipes 嗰個情況，嗰個你有冇認知㗎，即係 2002 年嘅時候？

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：因為 2002 年佢會有一個通函，即係我哋內部嗰個 instruction 有出嘅，咁出 instruction，我哋啲同事就個個都會知。

問：嗰個 instructions 係主要係個內容係咩嘢，記唔記得呀？

答：我印象就係畀 contractor 就多一個 alternative 嘅即係 use，佢可以去 propose 銅牛--即係銅喉，alternative，因為當時嚟講，銅喉其實喺 2002 年嘅時候，就我哋雖然用緊 uPVC-lined GI pipe，但係銅喉其實喺一般其他嘅譬如 private sector，甚至嗰啲其他自己裝修嗰啲都係好 common 嘅，所以我哋就「咦？與其係咁，我哋不如就畀多個選擇 contractor 去 propose 都可以用銅喉。」即係大致上係咁。

問：明白。我就想睇下你有冇認知，就係當時，即係畀總承建商有多一個選擇用銅喉嘅時候，你知唔知道你哋署方有冇話做過啲乜嘢個風險評估，有冇話搵過出面一啲嘅專家做一啲即係風險評估，就係話「而家如果真係用多咗銅喉，以後，即係銅喉係即係會流行啲，咁會唔會因為用銅喉以引致嘅一啲即係有害嘅物質或者係對居民係有唔好。」等等呢啲咁嘅研究有冇做過，當時？

答：呢方面我唔 aware 究竟有冇做過，我唔知。

問：好。咁我想問下，就係你當時話用銅喉，即係話鼓勵人哋用銅喉，有冇啲乜嘢大家討論，即係同業界，有冇一個討論就話「喂，用銅喉呀？喂，用邊隻好呀？用啲 mechanical joint 嘅，定係即係我哋所講」...

答：即係個 jointing？

問：係，即係我哋所講 mechanical joint 或者係 compression joint，即係嗰啲咁嘅討論，你知唔知道有冇？

答：如果我記得，嗰張 instruction，主導負責嘅係 building services engineer 嘅同事，如果有--通常我哋嘅 instruction 最起碼度寫話「如果你有疑問，你就請--就可以 contact 邊個，就 chief building services engineer」，同埋如果關於個 cost，可能都有啲 cost implication，就係個 chief quantity surveyor，咁...

問：Chief quantity surveyor。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：我真係唔知道究竟喺個過程裏面 chief building services engineer 個 team 有冇特別就住嗰個 jointing 嗰啲 detail 去同業界傾，呢個我真係唔清楚。

問：好，明白。咁你自己有冇對其他一啲銅喉有認知呢，例如有種--我哋知道有種叫 push-fit 嘅，有冇聽過呀？

答：7月之前就冇聽過。

問：冇聽過。

答：7月之後就因為呢個焊料都有幾大嘅 impact，咁所以我哋都聽--有聽過話用 mechanical joint，咁就分別有 press-fit 同埋 push-type，兩用，咁就即係但係佢實際嗰啲就--因為我哋都有見過有人做過示範嘅，因為我哋都想睇一睇呢樣嘢，咁就...

問：呢個係最近嘅事？

答：最近，係7月之後嘅事。

問：我再想問下，就係講番2002年即係開始有呢個咁樣嘅即係趨勢，即係用多啲銅喉，你哋當時有冇話去參考下啲私人發展商嗰陣時嘅做法會係點樣？即係佢哋係咪用得更多銅喉定係佢哋用邊一隻銅喉，有冇啲咁樣嘅即係作為參考嘅做法？

答：因為我自己冇參與，所以我講唔到。

問：你講唔到？

答：係。

問：好，好。我另外一個問題，都有少少相關嘅，就係因為之前有一位總屋宇裝備工程師伍先生，佢嚟作供嗰陣時，佢都有同我哋講過，就係嗰個 nominated subcontractor 同埋呢一個 domestic 嘅 subcontractor 有咩嘢唔同嘅，即係一個我哋就叫做自選嘅分判商，另外一個就係指定嘅分判商，我哋而家都知道就係話例如我哋如果做一啲係防火，有關防火，或者係個泵房嘅工作，咁就會用指定嗰個分判商嘅，咁就而做水喉工程就有話用指定分判商嘅咁樣，即係用自選嘅分判商嘅啫咁。

答：係。

問：咁我想問下，你哋有冇曾經討論過話做水喉工程都應唔應該搵番指定分判商呢，有冇討論過呢個問題？

答：講番如果我哋邊啲要用即係 NSC, nominated subcontractor, 就正話大狀你都講咗，嗰啲都係牽涉譬如輓、消防水泵、電力裝置，呢啲都係牽涉一啲系統性同埋幾 specialise 嘅 -- 需要啲 specialise 嘅工種嘅，同埋佢哋都 -- 可能都 -- 所以呢個我哋就用 NSC, 即係主要呢一方面，咁 domestic subcontractor, 通常我哋係嗰個總承建商因應佢嗰個施工嘅 -- 佢哋自己嗰個施工嘅計劃，佢就搵一啲可能技術性或者非技術性嘅勞工嘅，譬如我簡單講，譬如搭棚，咁呢啲我哋一定會用 NSC, 因為佢亦都配合佢自己嘅工作嘅。

現時我哋 plumbing, 即係水喉，我哋都係 domestic, 因為其實嗰個技術性就 -- 雖然設計而家我哋知道原來唔係咁簡單，但係 in terms of 你即係安裝，佢又唔係咁複雜嘅，佢只要啲即係譬如 builders work, 佢可能預咗啲去同 main con. 個 builders work 夾嗰度就唔係太複雜，所以呢個就擺咗落 domestic 嗰度。

你話如果今次7月之後有冇諗過需唔需要做 NSC 呢？我自己本人覺得而家今次呢個鉛水事件係嗰個焊料嘅問題，似乎同嗰個合約嗰個嘅安排就唔係太大嘅關係，即係縱然即係你話如果就算7月之前唔知道呢個咁重要，我用咗 NSC 嚟到安排，會唔會就避免到呢？我覺得都未必可以避免到。

問：我咁講啱唔啱呢，就係如果你哋搵咗一啲指定嘅分判商嘅話，一般嚟講，我哋可唔可以咁講，就係話你哋房署啲地盤嗰個工作個監管上面係會比較即係容易啲嘅、直接啲嘅，即係比起啲自選嘅分判商，你同唔同意咁嘅講法？

答：都未必，因為自選分判商其實我哋都好倚賴 main contractor 嗰個去監管。

問：喺嗰個成本方面，一般嚟講，係咪嗰個自選分判商即係所計盤數，即係佢哋例如...

答：即係你講 domestic 嗰個？

問：係喇，如果講 domestic 同埋嗰個指定分判商係咪一般嚟講，指定分判商嗰個成本會係高啲？

答：我唔可以咁講，因為指定分判商，我哋點樣搵一個 contractor 出嚟，

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

都係 through 個 tendering 個 process 嘅。

問：唔該。另外我想畀你睇一睇一份文件嘅。

答：好呀。

問：就係 B15.3, 39597, 對唔住, 應該係 39600 先啱。

答：係, 見到。

問：呢一個我哋嗰陣時亦都係當伍先生--即係總屋宇裝備工程師伍達群先生, 佢畀口供嗰陣時就呈交咗一份資料畀我哋嘅, 呢個就佢所講, 就係當時 2002 年, 亦都係正值係即係房署同業界即係一路--即係鼓勵緊業界, 即係總承建商佢可以選擇用銅喉或者繼續用 GI pipes 嗰個情況, 佢亦都知道, 佢就話當時因為都--因為喺嗰個趨勢底下, 我哋可能會用銅喉多咗, 佢哋有啲同事就好有心咁, 就將一啲 specifications 就將佢整理咗嘅, 整理咗一啲即係 revised specifications, 其中我哋見到有一樣, 就係我哋所講嘅焊料, 就係 39616 嗰度。

答：係, 見到。

問：因為其實基本上呢個就係一個 supplement 嚟嘅, 即係話佢當時喺 2000 年之後, 因為 2000 年有個 specification, 2002 年嘅時候, 佢就睇咗有啲咩嘢可能會改變嘅嘢, 又或者睇咗一個 British Standard 可能有啲乜嘢變化咗, 佢就整理咗一套文件出嚟, 係就住有關可能係呢個即係 water supply 入面有機會用到銅喉嘅配件、其他嘅物料等等, 佢就做咗一個即係 supplement 出嚟。

答：即係個 spec. 嗰度?

問：係喇, 喺 39616...

答：39616, 係, 見到。

問：39616 就係有講到一個叫做“SOLDERING ALLOYS FOR COPPER AND COPPER ALLOY CAPILLARY FITTINGS”嘅。

答：係, 見到。

問：即係我哋講緊嗰啲咁嘅物料, 其中一個就係 BS 嘅 1254, 我哋都聽過好多次, 另外就係個 lead-free category solders, 即係當時

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

就像話「擺咗呢份嘢出嚟，即係等大家知道有啲乜嘢 specification 係需要去更新嘅。」咁樣，我想知道就係就住呢一份文件嘅討論，我見到呢份文件嘅 distribution，我哋見到喺 39605 嗰度，見唔見到個 distribution 下面呀？

答：見到。

問：即係都係分派咗去即係唔同嘅部門、唔同嘅同事咁樣，你自己有冇--記唔記得你當時有冇話收過呢一份文件呀？

答：我都有睇過。

問：都有睇過，係咪呀？

答：特別我哋有一個叫做“SM/TS2”嗰個係應該我哋啲 tech. sec. 又會再分派畀其他同事，因為我記得好似當時 2002 年仲未咁普遍啲 e-mail，所以都要用啲 controlled document 去分派。

問：好，咁你記唔記得你收過呢個文件之後，有冇就話就住呢啲 revised specification 作出啲咩嘢討論呀？記唔記得？

答：我唔覺得--我諗唔起，即係應該有，我有 come across 到。

問：好，得，唔該。最後，我想問一問你，就係呢個去番我今朝早嗰個問題，就係嗰個世衛標準嗰個問題，我想問下，就係我今朝早帶你睇咗嗰個 2008 年嗰個版本，世衛標準，關於食水嗰個安全嘅--即係質量安全。鉛水事件發生咗之後，你本人喇我哋講緊，你本人有冇話特別去即係睇番嗰個世衛標準，有冇再去研究？

答：我未有機會。

問：都未有機會，唔緊要。

答：同埋我諗世衛標準--我自己有機會睇，但係我經常聽人講，就世衛標準都好大沓，咁可能啲嘢都幾 technical，所以我自己都有去研究。

問：好。例如我而家睇番呢件事，睇番呢件事，我知道你哋就就住驗水或者擺水辦嗰個標準，我哋之前都聽過幾位你哋啲同事講，都諗住係跟番個水務署，睇下佢哋有啲咩嘢標準咁樣，你哋就跟番佢嗰個做法，呢次嘅事件發生咗，咁你哋覺得你哋房署或者房委會就住例如興建公屋嘅時候嗰個食水安全，你哋覺得你哋需唔需要即係除咗話聽水務署之外，需唔需要做一個你哋自己獨立請專家又好或者點都好，做一個

即係獨立嘅食水嘅安全嘅評估呢，就住即係每一個興建嘅項目？

答：你意思係再 on top 額外再做？

問：係喇，即係唔係淨係睇水務署。

答：即係唔係淨係水務署嗰個？

問：係，即係你哋自己覺得需唔需要做一個獨立嘅評估呢，喺呢方面？

答：係，...

問：譬如如果人哋叫你驗八樣嘅，可能我做咗獨立評估之後，可能要驗十二樣嘅，你就要跟人哋去做咁樣？

答：因為7月之後，其實水務署都好好，即刻都出咗張通函，即係1/2015，就 on top of 嗰八樣，再加四樣重金屬，當然當中其中有一樣就係驗鉛，照我所知，部門就未有計劃去話仲有啲乜嘢嘢再額外去做，因為我哋都係始終都係會求救番--即係求教番即係水務署係我哋本地嘅 regulatory 嘅 department，佢 set 嗰個標準，我哋就會去跟佢，因為我哋相信如果真係有啲--譬如今次鉛水事件發生咁，我哋認為就係應該係嗰個專科嘅部門亦都會適時地即刻就出張一個要求，即時地將佢轉化做一啲指引，可能因為立例都好耐嘅，所以就出咗通函，就畀業界去執行。我哋作為一個執行嘅部門，我哋梗係要跟隨。

但係或者可以大家分享，就係我哋就唔係話淨只淨係跟住水務署嗰八味啫，實在喺我嗰個書面嗰個供詞嗰度，最耐幾段就係個 way forward，其實我哋目標都係最終都係想啲食水唔好有鉛，咁所以我哋咪有一連串嘅工作做，喺執行細節上，例如啲物件要 quarantine，甚至邊個工人做邊個燒焊嗰啲，我哋都要登記，所以就呢方面我哋會做。但係你話另外一啲好技術性，好 technical 嗰啲，照我所知，部門就未有呢個計劃，都係會倚仗番即係水務署嗰個 advice。

問：另外就係你剛才提到你個證人口供裏面所講嘅建議，即係將來希望做到嘅嘢，或者即係而家一啲嘅舉措，將會做嘅，而家呢次鉛水事件，我哋就講緊即係鉛在水中嘅問題，但係我哋知道其實一啲嘅水喉佢即係所謂嘅喉或者嗰啲組件裏面，有啲除咗話會含鉛之外，亦都會有係--有啲係有 cadmium，你知唔知道有咁嘅情況？

答：我知道嗰四隻重金屬其中有一隻要驗 cadmium。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：你話如果你而家嘅舉措係只係針對鉛嘅話，而有針對其他重金屬，你覺得咁樣會唔會係唔足夠呢？

答：都唔會嘅，因為水務署佢出咗通函要驗嗰四隻重金屬，其實我哋最終做工程就嚟完結嘅時候，我哋都要驗嗰四隻重金屬，咁所以我哋而家就鉛水事件之後，7月之後，我哋知道有一個 XRF 嘅機，即係嗰個機就係可以--即係我哋喺 in process 嘅時候，即係臨到最尾先驗水，可能有時太遲嘅，咁所以我哋都唔淨係倚靠嗰個，我哋喺 in process 中段嘅時候，就可能都靠要承建商用嗰個 XRF 機嚟埋，即係嗰部機就好多重金屬都可以 check 到嘅，我哋喺嗰度都會做埋嗰四隻重金屬嘅即係一啲數據。

問：就住嗰架機，即係嗰個我哋叫快速測試。

答：XRF，係，係，係。

問：咁嗰架機，你本人係幾時知道即係有呢一種嘢存在，即係有呢種機存在？

答：肯定係鉛水之後。

問：之後？

答：係。

問：之前有冇人同你介紹過呢樣嘢？

答：從冇。

許偉強先生：我有其他問題。

主席：我想問一問，水務署就根據你講，就出咗個通函，就話要驗多四隻重金屬，係咪？

答：係，係。

主席：咁都有問題嘅，因為即係嗰水裏面就有呢啲重金屬啫，不過我諗你都知道其中有一個指控就係話你哋嗰啲部件裏面含鉛係超過晒英國

嘅標準嘅，就唔係講啲 solder，係啲 valve，...

答：即係部件。

主席：...係咪？

答：係。

主席：啲水務署唔會話畀你聽個嗎，啲超標喺個驗水嘅過程裏面係驗唔出個嗎，你又話「我乜」--水務署唔會同你去驗啲部件㗎嘛，即係你水含鉛係一--水個 water quality 係一件事，你用啲製成品啲--你用啲 components 究竟符唔符合 British Standard 又或者符唔符合你哋嘅 contract requirement 又係另外一件事㗎嘅，換句話嚟講，如果你淨係根據水務署嘅做法，你哋房屋署咪即係容許一啲比較無良嘅承判商用一啲次貨，而最後你哋又唔驗嘅，咪一樣係出現問題，你明我意思嘛？

答：明白，明白。但係如果喺啲部件，就當然我哋有個 spec. 去規管，我明白主席你...

主席：因為你哋從來都唔 check 咁嘛，因為你 PLU1 有一樣嘢要 check 啲部件，除咗係你頭先所講過話有一個...

答：個咩嘢...

主席：...洗衣機嘅 tap 有個 pipe 嘅 bracket 咁啲之外，其他所有嘢你都唔 check，咁你換句話嚟講，我哋而家見到話你啲部件完全唔合 British Standard，你都唔會知個嗎，你將來都唔會知個嗎。

答：我哋個 spec. 有咁嘅要求，咁就如果啲部件跟水務署個 Task Force，就都有講其實主要如果係影響食水個，就...

主席：我明呀，香港有好多香港法例，不過香港亦都有一支兩萬幾、三萬嘅警隊，咁個警隊愛嚟做咩嘢呢？就係去執行呢一啲法例，防止呢啲法例畀人濫用，即係你唔可以話「我有咗呢啲法例，就一定冇人犯法。」㗎嘛，有人係會違法㗎嘛？

答：係，多謝主席嘅意見，我都明白主席你意見嘅，成個供水系統，譬如除咗呢個焊料，譬如其他嘅部件係咪都需要再去睇一睇，我相信我哋部門都會睇下呢方面使唔使再加強。

主席：係呀，因為即係而家你睇到水務署未必會佢...

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：係，明白。

主席：係咪？

答：係，係。

主席：你冇可能㗎嘛，如果你係咁樣樣落去嘅話，你今日搞完呢個 solder，聽日你又可能要搞 valve，後日搞 tap，咁你咪永遠都搞唔完？

答：即係整個系統去睇喇。

主席：係呀。

答：係，好呀，好呀。

主席：即係我講--即係之前我所講嘅銅可能唔係一個大嘅問題嚟，不過銅都有標準㗎嘛，係咪？

答：唔。

主席：你銅都會超標㗎嘛。

答：就可幸就係今次 WSD 嘅 Task Force 驗到啲銅都係銅嘅，即係銅喉都係銅嘅。

主席：係囉，今次好彩啫，係咪？因為你...

答：但係好似主...

主席：因為個問題就係你成個 PLU1 就係講供水，...

答：係，明白。

主席：...就全部唔驗嘅，咁就畀人哋有意又好，無意又好，就加咗好多次貨，就入咗去，咁啲啲可能最終都唔影響你個個水質，不過就影響--其實係影響你個建屋嘅質量。

答：唔，好呀，明白。

主席：唔該。

陳先生盤問

問：My questions follow on from one of the questions that the chairman was putting to you. Ms Yim, we know by now that the role of chief architect includes contract administration.

答：Yes.

問：That is a term that appears quite frequently in your statement and I think in some of the other statements or all of the other statements from the other chief architects we have heard from. I want to better understand how this discipline of contract administration works in practice. I want to understand the Authority's whole mentality and approach to contract administration. Okay? Could I take you to paragraph 50 of your statement for the present estate. That's page 38412. Ms Yim, what you will see soon, if not already, is an extract that you very helpfully set out in your statement, which recites the detailed provision of specification that was included in the contract for this estate, and others, in relation to the use of solders. Do you see that?

答：Yes.

問：Do you agree that it was very clearly considered important to the Housing Authority that all of the matters set out from (i) to (iv) be complied with? That is why they were stated in black and white by way of a specification?

答：Yes.

問：Can we hone in on the third specification, just for now, the (iii): "Use only lead-free category solders".

答：係。

問：Now, similar to your previous answer, I assume you agree

that no doubt the Authority, the Housing Authority, would not have bothered to have included such a contractual specification unless it recognised at the time that there was at least some risk of non-lead-free solder being used without this specification having been made?

答：係，就我哋 specify lead-free category solder，但係正如我早前啲提及過，其實我哋知道鉛係有毒，咁所以我哋覺得應該要 lead-free，但係譬如喺水管裏面如果含鉛如何影響佢嘅水質，同埋如果嗰個食水裏面有鉛量，個量去到幾多先影響身體，呢個我哋就唔知，咁所以我哋就留咗喺呢一度，就 specify lead-free category solder.

問：Perhaps it would be helpful to take this in stages, in fairness to you. Firstly, there must have been a conscious decision at some point, when this draft was being prepared, to include this particular specification; you agree with that, yes?

答：正如正話睇嗰個 instruction，即係 2002 年嗰個 instruction，係特別有改過呢個 lead-free category solder 嘅。

問：Yes, and what I would suggest to you, on this basis, is that at the time when this specification was included, the Housing Authority would have recognised at least two important matters. The first important matter is that not all solders which might be used for plumbing are lead-free. That's why they specified specifically non-lead-free solders. Do you agree with that?

答：同意。

問：Secondly, the second important matter, which really follows from the first, is that there was at least some recognised hazard that unless clearly instructed by way of a specification, contractors or subcontractors might use leaded solders for pipes which provide drinking water?

答：我再重申，就係如果含鉛，佢如何影響個食水嘅質素，呢個我哋係冇認知嘅。

問：Ms Yim, we will come to this in just a moment. I appreciate, of course, that within a single building project there may be many contractual specifications, and I also understand that while all the specifications in a contract are significant, otherwise they wouldn't be in the contract, the Authority cannot put equal attention on all of the terms for the purposes of supervising or checking. Is that a fair statement, first of all?

答：你可唔可以重複你嘅問題？

問：We know, and I understand your position to be, that there's quite a lot of specification that goes into a single project. So unless there's some particular reason to focus on some particular specification, you may not place special attention when it comes to supervision or checking?

答：喺7月之前，就住呢個 item，我哋未 aware，雖然有特別--即係雖然有特別嘅其他嘅即係 site inspection 嘅配合。

問：You have already told the Commission that you knew, at least generally, that an excess of lead in water may be harmful to human health. Do you remember that?

答：我早前講我知道鉛對身體有害，但係如果食水含鉛要去到個量幾多先有害，呢個我係唔知。

問：All right. Well, this is what I am looking to explore with you, actually. At the very least, what would have been clear to anyone looking at this specification, seeing it there in the contract, is that it was fundamentally concerned with human health, protecting human health; do you agree?

答：我唔揣測佢嗰個原意。

問: Okay. We talk about different types of specifications. It's surely not a specification, quite plainly, on your experience, that's similar to something that specifies pink for the colour of the bathroom sink or a bathroom tile. I mean, if it's not concerned with health at some level, what would you make of the purpose of the specification?

答: 如果我哋 specify 嗰啲物料, 我估都要我哋 make reference to 一啲 international standard, 如果嗰個 -- 譬如個 international standard 如果有 point at, 即係特別講係譬如 health, 咁我哋會知, 如果唔係, 我哋都係會倚仗嗰個即係 international standard, 例如嗰啲 British Standard。

主席: 唔係, 你而家係咪即係話呢度點解要寫無鉛, 你係完全唔知道佢背後嘅目的?

答: 係, 我唔知道背後原因, 係。

主席: 係想點嘅?

答: 係, 我唔知, 係。

主席: 完全唔知嘅。

問: Why don't we proceed on this basis: if you or someone else within the Housing Authority recognised, at least in basic terms, that this specification was broadly to do with protecting the health of your residents, would you not proceed in this way -- you would at least want to take steps to identify the extent of the health-related risk that this specification was there to guard against?

答: 好似 7 月之後, 如果我哋知道呢個含鉛呢個重要性, 所以我哋都要做咗一連串嘅 enhancement, 即係 if only 我哋知, 就 7 月之後我哋知。

A
B
C 問：Ms Yim...

D 答：不過又要講番，就係縱然係咁，我哋嗰個合約都好清楚寫明當你用
E solder 嘅時候，material 你一定要用 lead-free category 嘅
F solder。

G 問：This goes back to my point, Ms Yim. You had taken the
H trouble of specifying this in your contract. You were
I responsible for administering the contract. As an
J administrator, did you take the time to consider what
K the point of this specification was?
L

M 答：我哋都係要 contractor 去 comply with 番嗰個 specification
N 嗰個 requirement 嘅。
O

P 主席：我哋明，我哋明，不過佢嘅意思就即係你係一個 contract 嘅
Q administrator --即係個問題係咁，你同一個人定 contract 嘅
R 時候，你就擺咗啲 terms 落去個 contract 嗰度，咁而家佢嘅意思
S 就即係話你擺咗啲 terms 落去嗰個 contract 度，你都唔知道實際
T 上你想要啲乜嘢嘢嘅。
U

V 問：Ms Yim, really the point is this. You have various
specifications to police or oversee. If you don't
even know what the point of this specification is, then
how can you decide, as a responsible administrator,
what to prioritise, in terms of the specifications that
are in the contract? How can you decide one way or
the other, "I will pay less attention to this, because
it's only to do with aesthetics; I will pay more
attention to this because it's to do with human health"?
Are you telling me that you didn't even know at the
time that this basic specification was generally to
do with human health?

答：真係唔知。

問：Is this the general of familiarity you have with the

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

specifications that appear in your contracts?

答：我只可以就住...

主席：第二啲唔好講。

陳先生：I will leave that for submissions, Mr Chairman.

主席：第二啲唔好講。

問：Now can I just put it to you this way...

主席：唔係，咁如果咁講，因為你暫時上到嚟我哋呢個 commission 畀口供嘅 chief architect 都似乎都係同你嘅認知都係去到--基本上即係換句話嚟講，冇認知，咁算唔算係一個 fair comment? 即係純粹就知道係鉛有毒，但是就係點解--咁都唔係好 fair 嘅，應該係，你淨係講你自己得喇，第二啲啲我哋冇問過。

問：Ms Yim, I think we have probably gone as far as we can go on this particular issue, but can we move to a related topic, and that's the purpose of the inspection regime of the Housing Authority, as you understand it.

主席：等一陣先，我又要問番我啲幾個問題。

陳先生：Please, please.

主席：啲幾個問題就係可能你都已經知道，係鉛有毒呢一個大原則你係知嘅？

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：係。

主席：好喇，咁你知唔知道呢個食水含鉛--食水裏面含鉛就係有啲好多嘅國家都曾經出現過問題呢，喺7月之前，你知唔知道呢個食水含鉛喺好多國家係曾經出現過問題？

答：唔知道。

主席：唔知道。咁換句話嚟講，你亦都唔知道係乜嘢嘅原因係引致呢一啲國家係出現食水含鉛嘅問題？

答：係，唔知道。

主席：Okay，換句話嚟講，你亦都唔知道過往用鉛造嘅水管曾經係令到有好多國家出現過呢啲食水含鉛嘅問題？

答：都有 come across 過，唔知。

主席：咁就更加唔知道焊料，係咪？

答：係。

主席：得，好，唔該。

陳先生：Thank you.

問：Ms Yim, would you agree with this: when it comes to ensuring the compliance with a specification that relates to human health, it's not sufficient to simply proceed on a passive basis? Because when it comes to human health, you should take active steps to see what risks are out there, whether within the Hong Kong context or from international experience. You can't just wait and see if anything has gone wrong and someone has told you about it. You have to take active steps, because this is to do with human health.

答：如果用番呢個焊料含鉛呢一個嚟做例子，因為而家我哋知道佢對嗰個

人體或者對啲個食水啲個影響，咁所以就住呢樣，我哋都會--正話都講過，我哋會 take 一連串嘅 steps，但係最終我哋都會倚靠即係水務署啲個 regulatory 啲個 department 佢嘅技術性啲面即係畀個 advice 我哋嘅。

問：Ms Yim, I suggest to you that the series of steps that you have just referred to would have been open to you, and should have been taken by you the moment it was recognised, or it should have been recognised, that this was a specification that was guarding against some human health risk; that there was a risk that non-lead solder would be used and that that would be harmful, to some extent, to human health. At that point, you should have taken steps to see exactly what the extent of harm was, and the extent of risk was, of non-compliance with this specification; do you agree?

答：如果我哋知道即係有呢一個 impact，我哋都會除咗睇番即係 local regulatory 嘅 department 嘅一啲 advice，我哋都會自己跟進去做一啲嘅工作，不過喺 7 月之前，我哋都唔知呢個咁。

問：Why don't we look at it this way, that if we go to paragraph 36 of your witness statement, page 38407, under the heading, "Housing Authority's periodic inspection" -- so we are looking at the Authority's approach to inspections -- and what you say, Ms Yim, is that you gave -- and I assume this is consistent with Housing Authority's policy -- periodic supervision and such inspection as necessary to ensure that the works met specified requirements. Do you see that?

答：見到，係。

問：So, if I understand you correctly, from the Housing Authority's own perspective, the purpose of having any sort of supervision system was to ensure compliance with your own contracts, including the specifications; yes?

答：我哋去做 periodic supervision，其中一個原因當然亦都要 make sure 嗰啲 works meet with specify 嘅 requirement，但係從另外一個角度，就算我哋唔去睇嗰樣嘢唔等如就可以用啲唔啱規格嘅物料。

問：Perhaps we'll just focus on your role for this moment. As far as I understand, as far as the Authority's objective in conducting inspections are concerned, that was precisely to ensure that its own specifications were met.

答：啱唔啱或者用一啲符唔符合合約嘅要求，我估呢個都係承建商嘅責任。

問：Now, do you agree with this, that while it may be that other public authorities may or may not have an interest in some specific aspects of Housing Authority buildings -- whether water, electrical safety or otherwise, air -- when it comes to the matter of contractual compliance with the specifications, that is a matter for the Authority itself? You don't ask, for example, the Water Authority whether your contract has been complied with?

答：唔係好明你嘅意思。

問：Yes. It's probably my fault. Now, you have just told us that the point of your inspection regime is to ensure your contracts are complied with, and I just wish to confirm with you that when it comes to the question of whether or not your specifications are met, contractually, not whether from the perspective of another regulatory scheme but contractually, that is a matter for the Housing Authority and the Housing Authority alone?

答：唔同意。

問：Okay. Would you care to explain?

答：因為要 meet 到 specification requirement，係都係我哋個合約嘅其中一個對口就係 main contractor，都係 contractor 都

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

係有一個責任。

問：I see. It's between the parties to the contract, in other words?

答：Sorry?

問：It's between the parties to the contract. I said you have a concern about ensuring compliance, and you said, "No, the main contractor is also responsible", and I'm saying I accept that. That's because the contract...

答：Yes.

問：...that contains the specification is between the Housing Authority and the main contractor and no one else; is that correct?

答：Contractor 固然有責任，而我哋身為個合約嘅另外一方，我哋所以就係去倚靠我哋一啲嘅 site inspection 各樣，希望去幫到做一個 surveillance，但係 even 我哋冇 cover 到，都唔等如嗰個即係合約嘅要求唔符合。

問：Two last questions. One relates to paragraph 67 of your statement. It's really just a point of clarification, for information. In paragraph 67, page 38417, there's a passage in the second half of that paragraph which has appeared numerous times, in essentially identical terms, in a couple of the statements of your colleagues as well, other chief architects. That's where you compare soldering materials to things such as iron tying wire, screws, bolts and nuts. You say specifically: "Soldering materials have been regarded [by the Authority] as a sundry item ..."

答：Yes.

問：“... similar to the iron tying wire used for fixing steel reinforcement, screws, bolts and nuts et cetera ...” Yes?

答：係。

問：Firstly, can I just check with you: as far as things like iron tying wire are concerned, are these the subject of any specifications in your building contracts, in the same way that lead solder is?

答：呢個我唔肯定。

問：Okay. I note your answer. Assuming even that they were covered in some way, presumably they would be in relation to, say, a screw, the diameter, or other technical matters, but not matters such as lead or unleaded, to do with health. Are you able to comment on that at all?

答：如果講緊呢一段，就其--我只可以講就係話縱然佢係屬於--即係嗰啲焊料係縱然佢係屬於 sundry item，亦都唔會 priced separately，但係因為我哋當時就唔知嗰個風險，咁所以我哋變咗呢樣嘢有特別去 flag up 去睇，但係雖然佢有一啲 sundry item，不過佢嘅重要性係大嘅時候，我哋而家都會 flag up 去睇。

問：Ms Yim, may I suggest this to you, that a possible error on the part of the Authority, which seems to be repeated in this paragraph, is to consider leaded solders, or the specifications of solders, to be of a similar level of importance as screws, as iron tying wire. I suggest to you that it's not, as the specification which goes into great detail as to the use of a safe type of solder shows.

答：係，正話我都講過，嗰一個物料嘅重要性就並非係咪佢因為佢細小就擺落去 sundry item，佢嘅重要性，譬如呢個 lead --呢個焊物，其實佢嘅重--雖然佢係 sundry item，其實如果 7 月之後，我哋知道，依然我哋都會擺喺 sundry item，但係佢嘅重要性就唔係話即係一般嘅 sundry item。

問：Okay. Now, the very last area is to do with the Authority's level of knowledge at the relevant times, especially in relation to international guidelines such as the WHO Guidelines. I believe one of the

contractors yesterday included a new document -- at least to us, it seems to be a new document -- at bundle G1, page 634. If I am right with that reference, what you will see in a moment is a copy of minutes of -- maybe you can scroll down first. I am told it may not be uploaded yet. I will tell you what the document is, to see whether it is in the system. It's a set of minutes dated 26 April 2000, of the Advisory Committee on the Quality of Water Supply.

答：係，見到。

問：G2, page 634. It's a Paul Y document. It says 634 on the bottom-right of the page. I'm working from my copy. Oh, good. Okay. Now, these are a set of minutes, and I am just going to ask what knowledge or view you may have as to what's said in these minutes. Could I just ask you to note a number of things first: firstly, the date, which I have mentioned, 26 April 2000; secondly, the nature of the committee whose minutes these are. It's an Advisory Committee in relation to water quality. Okay?

答：係。

問：There's a list of people present in the committee, and can I just ask whether, in relation to the individual third from bottom, Mr Wong Bay, you recognise that name?

答：係，見到。佢係我哋退咗休嘅一位助理署長，係喺邨管，EM，Estate Management 嘅 Division.

問：Okay. So he was formerly of the Housing Authority and a colleague of yours?

答：係，佢係房屋署嘅員工，係，之前，係。

問：Can I ask you to turn to page 636, internal page 3, item number 6. This is a discussion item referred to, identified as "ACQWS Paper No. 1", so it's the very

first paper that's been prepared for this Advisory Committee, and the title of the paper is "World Health Organization Guidelines and International Standards for Drinking-water Quality".

答：係。

問：And 6.1: "The purpose of this paper was to introduce and compare the three most well known water quality guidelines/standards in the world." It goes on; I won't read all of that. 6.2 refers to no fewer than 94 health-related chemical parameters which are to be found within the WHO Guidelines. We don't need to look at the guidelines themselves. The paper tells you, and the members of this Advisory Committee are also being told, it seems, from the minutes.

You will see there's some active discussion, 6.3, "In response to a member's request" -- I don't know which member -- the WSD promised to provide certain details in relation to the parameters, beyond the ones that were already detailed in the paper and at the meeting.

Ms Yim, can I suggest to you that given what we see from the minutes, including the paper, that it was known to some, at least, within the Housing Authority that the WHO had very specific and detailed guidelines in relation to the management of water quality?

答：係，其實呢一份文件或者呢個 minute，我自己本人係第一次睇，咁我亦都見到黃比先生係其中有一個有出席，但係我完全冇印象佢其實係 under 一個 context 去講呢堆嘢，同埋我有印象黃比先生，即係以我本人喇起碼，就有冇將裏面啲討論帶番去房屋署，我呢個唔知道。

問：Fair enough. Can I just suggest to you that the reason why your colleague, Mr Wong, was there at the meeting, is that it's generally recognised that matters such as these WHO Guidelines were matters of importance, potential importance, to a number of different bodies, including the Housing Authority?

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：我諗要問番黃生本人先知。

問：That's fine. Lastly, would you agree, if you would, that the whole point of this committee, which is an Advisory Committee, is precisely to ensure that people such as Mr Wong, representing the Housing Authority, would be aware of such matters as the WHO Guidelines?

答：黃比先生有出席，但係我自己本人覺得啫，如果喺裏面有啲問題係譬如嚴重嘅或者係要值得成個業界去關注嘅，我都相信呢一個要求就有關嘅部門，譬如相關嘅部門，譬如水務署咁，都會將呢樣嘢適時咁樣轉化做一啲譬如指引、guideline 去畀業界去即係遵守，就 rather than 即係可能開完呢個會就個個走番去就自己做嘢咁。

問：Ms Yim, ...

答：我估都要，係。

問：...Mr Wong was your colleague, from your department at the Authority; yes?

答：係。

問：And if I understand your evidence correctly, despite having attended this meeting and been given this information, as far as you were concerned, there was nothing that Mr Wong did to communicate the content of this meeting to you? In fact, you just said this is the first time you have seen anything in relation to...

答：係，我本人係。

問：Okay. Could I just ask you to note and comment on one last thing: item number 5 at page 635. It will be in the same document that's in front of you, just one page over.

答：係，見到，係。

問：Yes. Paragraph 5.3, do you see, in the first sentence,

"It was clarified that the responsibility for water quality of WSD was up to the connection point"?

答：見到。

問：Can I suggest to you two things: firstly, this was and remains the position that was communicated and known to the Housing Authority, at least, from at least this point of time, in 2000?

答：我見到呢句係咁寫，咁但係照我哋嘅認知，就其實譬如 inside service 水務署係咪完全冇即係涉獵，呢方面我又覺得亦都商榷，因為就算喺 WWO46 part I 嗰個 annex 嘅附表，其實要用啲咩嘢材料都要符合番即係水務署嗰個有一系列嘅要求嘅，咁所以喺就算嗰個物料個監控，佢都係有參與嘅。

問：Thank you. Is there anything else you wish to say about this paragraph?

答：冇乜。

陳先生：Likewise, I have no further things to say to this witness.

MR McCOY 盤問

問：Ms Yim, you have just been asked questions about this document from the year 2000, and you have said you hadn't seen it before.

答：係，對。

問：Let me tell you that I have been able to obtain the minutes of all of the minutes of this committee, and let me tell you there are 35 separate references to the World Health Organization report in the minutes -- 35 separate references, spread over 11 years -- and at every meeting there is a directorate officer from

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

the Housing Department in attendance. Can you tell the Commission of Inquiry why meetings of this significance would not have been circulated at least to other directorate officers in the Housing Department or Authority?

答：我唔知你指嗰個係--除咗黃比先生，仲有邊啲嘅 meeting minute 我哋有同事喺度呢。

問：Who was Mr Chan Siu Tack, Assistant Director of the Housing Department? Which unit or division is he in?

答：你指係陳少德先生，就應該都係 Estate Management Division 嘅，AD。

陳先生：Right. Now, can the witness please be shown page 37440? That's B15.1/37440.

答：係，見到。

問：It's a circular letter, that's right, from the WSD. If we could come down to page 37441, please. This is the circular letter of 13 July 2005. You have now seen this letter, I assume?

答：係，見到。

問：Thank you. Turn to the page, please, that contains the list of the four heavy metals there.

答：係，見到。

問：These are the four heavy metals which have now been added to the testing by the Housing Authority or Housing Department; is that correct?

答：我哋都係跟隨水務署 circular letter，呢幾樣我哋都會係會驗嘅。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：So you now have added this to your testing regime; is that correct?

答：係，係，正確。

問：Looking at the four heavy metals, they all have, but in terms of relativity, different acceptance criteria. We see lead, less than or equal to 10 micrograms per litre, all the way up to nickel, at 70; do you see that?

答：見到，係。

問：And you would accept that on the face of it, the most dangerous of the four heavy metals is cadmium, because the permissible tolerance is less than or equal to 3 micrograms per litre?

答：以個 acceptance criteria 個數據，就係，但係 cadmium 係咪比其他更加嚴峻，我呢方面有呢個知識。

問：Well, can you think of a rational reason why the Water Supplies Department, after the crisis involving lead, would now not have some scientific basis for the relativities under acceptance criteria?

答：我唔係好清楚水務署背後嗰個 intention。

問：On the face of it, you would accept that cadmium appears to be the most dangerous of those heavy metals; do you agree?

何先生：即係如果呢一位證人係一個 chemist，我覺得呢個會係一個比較公平啲嘅問題，但係呢一位係一個 chief architect，到底呢個咁樣嘅份量係唔係 more dangerous 抑或係 most dangerous，可能你食粒糖同埋你食山埃--我唔知即係因為咁樣嘅比較，你就咁睇份量，咁完全係一個好--我相信唔係好科學化嘅一個講法，就咁去睇份量。即係如果呢一位係一個 chemist，我相信會比較公平啲。

主席：應該咁講，我相信 Mr McCoy 而家問嘅都係一啲 common sense

嘅問題嚟嘅啫，單從份量去睇，單從份量去睇，即係換句話嚟講，cadmium --因為你要知道呢啲咁樣嘅 parameters，呢啲咁嘅參數係講緊佢對人係有一個 significant 嘅 health risk，先至定出嚟嘅，咁換句話嚟講，即係換句話嚟講，cadmium 就係 3 個 micrograms per litre，就對人係產生一個 health risk，whereas lead 就要 10，所以單從數值上嚟講，係可以嘅。

何先生：法官閣下，我唔係 chemist，我唔可以答到你，不過...

主席：你唔係 chemist，答唔到我唔緊要，...

何先生：即係我自己覺得...

主席：...我係 chemist，我答到我自己。

何先生：法官閣下係 chemist，咁即係當然我...

主席：同埋我亦都好相信 Mr McCoy 只不過係從一個 common sense 嘅 approach 去答，譬如好簡單，譬如好簡單，我哋見到有七個--應該咁講，如果你蘋果同橙比就當然係冇得比，因為你七個 parameters，如果你話呢個 colour、turbidity 個數值係大過呢一個 whatever，或者細過 whatever 個個 nickel 或者 lead 嘅，咁蘋果同橙比，冇得比，係咪？但係如果純粹用呢一個 toxicity，呢度一定係講緊 toxicity，究竟會唔會 cause 一個 health 嘅 hazard。

何先生：法官閣下，即係法官閣下對於 chemistry 熟悉嘅，我有異議嘅。

主席：唔係，唔係，唔係，我唔好--將我啲撥埋一邊，我...

何先生：只不過我覺得...

主席：你講，你講。

何先生：法官閣下，對唔住。我只不過我覺得即係如果要繼續問落去，問到係比較深入嘅時候，...

主席：咪睇下佢究竟...

何先生：...當呢一位被盤問嘅證人係一個 chief architect，喺呢一方面，如果我哋只係問一啲係比較普通嘅常識，咁 fine，...

主席：嗰啲常識嚟嘅啫。

何先生：...但係如果係話要問到佢深入嘅，邊一樣嘢係比較 toxicity 係高啲或者係更加危險啲，我相信呢個唔會係一個公平嘅 line of question。

主席：唔係，我同意，即係你嘅意思即係話譬如你問嚴女士 cadmium 點解定 3，嗰個點解定 10，咁佢梗係答唔到，係咪先？啱唔啱呀？不過就係話呢個定 3 嘅時候，呢個既然已經定咗出嚟係 3 嘅話，咁呢一個個 toxicity 就一定係犀利過 10 嗰個，呢個我諗答到啫。

答：係，主席，其實方才我都有講過，如果單憑數字，cadmium 因為 3，即係每公升就微克唔得多過 3，單憑數字，呢個係重要嘅，咁但係我都講過，就係究竟佢對人體嘅影響係啲咩嘢，生癌、腦遲鈍啲啲，我就唔知。

主席：佢唔係問呢樣嘢，佢唔係問呢樣嘢，佢而家即係好簡單，即係簡單啲嚟講，我哋唔會將佢咁高深，你食十羹鉛你死㗎喇，whereas cadmium，你食三羹，你就死喇咁之嘛。即係最簡單，究竟點樣樣死咁就另外一回事，究竟係你個 liver 死咩，抑或你個 kidney 死就另外一件事，係咪？我哋唔知。

答：同埋我哋唔知道水務署佢背後可能因為好多數據去支持呢樣嘢，咁所以我正話都講過，就係我哋而家喺我哋嘅 testing 嗰度，因為既然水務署喺個 circular letter 都話要驗呢四隻，所以我哋都會驗嘅。

主席：得，唔緊要。

繼續問，Mr McCoy。

MR McCOY: Thank you, Sir, mine is a very simple question.

問：Just looking at the numbers, it is obvious that at least the Water Supplies Department have determined that cadmium is more dangerous than lead and lead is more dangerous than chromium and chromium more dangerous

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

than nickel, and I suggest that's common sense, from the numbers. There's a reason I am asking this question, and I will come to it soon.

Do you accept -- when was the last time that you read PLU1.M, "Plumbing -- Materials"? When was the last time you read that?

答：幾日前，last time。

問：Did you read the whole of it?

答：部分。

問：Yes, because PLU1, you would agree, is about 32 pages long; yes?

答：係。

問：And PLU2 is about 28 pages long?

答：係。

問：Right. Do you agree that in fact there is a specific reference to cadmium in PLU1; do you agree?

答：我唔係好為意。

問：I will help you. Could that be put up, please, and the relevant page is at page 13700, B6.2. That's right. Now, if you look, first of all, at PLU1.M160.5, item 3, we see the well-known: "Use only lead-free category solders". Go up one -- go up to the top of the page, please, and look at number 2: "Use cadmium-free category brazing alloy". Do you see that?

答：係，係，我...

問：Hang on. I haven't asked the question.

答：Sorry。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問: Just wait. That's always your problem. You are always answering when I haven't asked. When did the cadmium-free category brazing alloy specification first go into PLU1.M?

答: 因為我唔係製作嗰個 2008 嘅 specification, 所以我有呢個資料。

問: When did you first notice that there was a provision for cadmium-free brazing alloy in the specifications?

答: 我或者有少少更正, 其實呢個 clause, 我都最近都有睇過嘅, 不過背後嗰個意義, 我就唔知曉。

問: And prior to reading it recently -- and by that, do I take it, after July 2015, "recently"?

答: 我記憶, 就最近會睇得較多, 之前嗰咁多年都有冇即係好認真睇過, 我唔記得, 但係最近會睇得較多。

問: There's no doubt about that. Now, you see there a specific reference involving a cadmium prohibition; right?

答: 係。

問: And I have shown you that at least the Water Supplies Department would consider it even more dangerous than lead, from a common-sense point of view. I showed you that, didn't I?

答: 係。

問: Now, you took no steps in relation to testing for lead. Is the Commission to be told that you took no steps in relation to testing for cadmium prior to July 2015?

答: 都可以咁講嘅。

問: Why, do you imagine, there is a prohibition on cadmium brazing alloy?

答: 我唔認知。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：I am asking you now to do your best to assist as to why you think -- what reason there would be for such a prohibition. Is it because it's dangerous?

答：如果睇番水務署 2015 年嗰個 circular, cadmium 都係其中一個重金屬需要去 test, 我有理由相信, 即係邏輯上, 呢個都係需要去 look into 嘅。

問：So at all times cadmium has been dangerous, yet there were no steps taken by the Housing Department or Housing Authority to test for it prior to July 2015; correct?

答：可以咁講。

問：Is there selenium, S-E-L-E-N-I-U-M -- is there selenium, which is an element in the periodical table -- is there selenium in the water in housing estates in Hong Kong?

答：呢方面我唔認識, 我亦都唔知。

問：Is the reason you don't know because you haven't tested for it?

何先生：法官閣下, 我一定要提出反對, 因為而家我哋講緊係鉛水嘅問題, 而家我哋講到好多唔同嘅 chemicals, 我唔知道法官閣下嗰個 terms of reference 係唔係我哋要包括埋要睇埋啲 cadmium, 睇埋其他嘅物料, 因為如果係嘅時候, 咁起碼上, 我哋要預早知, 即係你要畀我知道, 係我要去起碼要問下我自己嗰啲 witnesses, 我哋要準備啲其他嘅材料, 然後先可以提供到資料畀呢個委員會, 我唔知道法官係咪真係有興趣要知道埋 cadmium、selenium, 仲有我唔知道仲有幾多其他十種嘅物料我哋應該要去準備。

MR McCOY: I intend to raise no other materials.

主席：最尾嗰個, 我就有少少保留嘅, 不過 cadmium 其實喺呢一個 BS 1254-1 1998 已經出左嚟, cadmium 點解會寫左落去, 就係因為 1254-1 1998 之嘛, 咁有啲咩嘢唔--即係純粹如果從 cadmium 嚟講, 有咩嘢問題呢? 冇問題, 係咪?

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

殷先生：主席，個問題係咩嘢呢？如果我哋而家淨係話純粹 cadmium 同埋 lead 個 reference 係 come from BS 1254，咁冇問題嘅，

主席：係。

殷先生：但係而家個問題就係個 line of questioning 就係 direct against 一個 architect...

主席：我知，我明。

殷先生：...就問佢關於呢啲嘢對身體或者對水質嘅影響，一個 architect 如果睇落去...

主席：佢可以話唔知㗎嘛，冇人話一定要知㗎。

殷先生：個問題而家唔係問佢知唔知，而家啲問題係 loaded，就係話 on the basis 「你知，你畀一個答案我。」

主席：唔係，而家知唔知先，係咪？咁...

殷先生：咁問咗知唔知先喇。

主席：係，知唔知先？

答：我唔知。

主席：咪係囉，答完。

MR McCOY: I am asking her on the basis that she is a contract administrator and these are terms of the contract. She must be able to enforce them. She must know what the purpose is, and if she doesn't know, that ignorance is something that has its own consequences.

何先生：It lies very ill in the mouths of those who actually breached the contract.

主席：使唔使我休一休庭，等你哋自己兩個 parties 自己 settle 呢？

應該咁講，Mr McCoy，呢位證人已經其實頭先 Mr Chan 問問題嘅時候都已經 -- 我哋都知道佢對呢一個 -- 起碼就住呢一個 PLU1.M160.5 嘅認知去到幾多，我哋都知，咁所以其實就某程度上，其實你嘅問題都唔會加咗啲乜嘢 -- 再加多啲乜嘢份量落去，不過我又唔會話你嘅問題係完全係唔 relevant 嘅，係咪？咁係 relevant。

因為你作為一個 contract manager，當然你要知道你啲 contract terms 係乜嘢 terms，同埋究竟你加呢一個 contract terms 落去個背後嘅意義係咩嘢，咁當然如果你唔知嘅話，當然我哋究竟有啲咩嘢 consequence，就基本上都 follow 喇，都唔需要 -- 有陣時都唔需要我哋俗語所講畫公仔就畫出腸。

MR McCOY: That's exactly where I am going. My questions now are directed to just exactly that.

問: Now, Ms Yim, in paragraph 5 of your witness statement, you tell us you have been involved in over 25 public housing projects, from inception to completion.

答: 係。

問: And you have served as the project manager, design team leader and/or contract manager.

答: 係。

問: What's the difference between a project manager and the contract manager? What are their respective and different roles, please?

答: Project manager 就要 oversee 整個 project，就唔係淨係關乎合約，譬如嗰個 project 佢就算係同出面其他嘅 -- 譬如 interdepartmental 嘅 liaison，因為除咗合約之外，其實我哋嘅 project 有好多其他嘅範疇係需要兼顧嘅，例如要同可能規劃署傾嗰啲土地嘅問題、其他嘅 department 各樣，咁所以個 project manager 係 project management of 個 project，係 in terms of 嗰個 progress, time, contract 同埋個 quality。咁 contract manager 就好明顯就係去 administer 嗰個 contract。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：Right. Now, design team leader, what's the precise role of the design team leader?

答：Design team leader 就係 specific，因為我係 chief architect，咁喺嗰個 design team，就--design team 就係有 architect 同埋其他嘅 discipline 嘅同事，如果 design，就係真係去到嗰啲 layout，係 architectural 嘅 design 多啲，但係同埋都要整合其他 disciplines 相關，譬如 structural engineer 佢有 input，building services engineer 有 input，甚至你 civil engineer 至到 technical engineer 各樣嘅 design input 擺落去嘅，咁所以呢個就 design team，而我身為 chief architect，就係要 head 住呢一個 team。

問：And have you previously worked in what is called the design and standards unit?

答：有，有做過。

問：And what does that do?

答：Design and standard，因為我哋之前係做好多 standard block design 嘅，因為係譬如和諧式、新十字型，全部 standard block design，咁之前嘅 the design and standard team 就 primarily，佢係專注係做好多 standard block 嘅 design，咁但係喺 2002...

問：Does the design...

主席：等等，等等。

MR McCOY：Sorry, but I...

主席：未答完，繼續。

問：Forgive me. I didn't realise that, sorry.

答：Sorry，係。但係喺大概我諗十零年前嘅，我哋就唔再用 standard block design，就 move to 用啲 modular flat，就即係好似砌

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

積木咁樣，就做啲即係 prototype 嘅 modular flat design，但係 design and standard team，尤其是而家，佢主要都係 provide 一個 central function，就係整合一啲 central 嘅資料，甚至係一啲 guideline 去畀同事去用嘅，因為其實呢個 team 就係一啲專工嘅同事，因為我哋喺人力資源運用比較好，有啲專工嘅同事佢負責做咗呢啲嘢，就去發放畀同事去運用。

問：In this centralised role, is that where specifications or new specifications are drawn up?

答：佢有一個 team 都會幫手睇 specification，主要都係喺 management 同埋 administer 嗰個 Specification Library 嗰個範疇多啲。

主席：我想問下你，你幾時做呢一個 design and specifications 嘅 CA 呀？

答：我係--我嗰時 acting 啫，acting for administrative convenience，係 2001 年 2 月至到 2002 年 4 月嘅，thereafter 就係有另外嘅 chief architect 做。

主席：我哋都知道 01、02 年就最敏感嘅時期，因為嗰陣時就討論緊引進呢個銅喉，請問嗰陣時你自己本人有冇任何嘅 input 喺呢一方面嘅呢？

答：我記唔起有咩嘢特別嘅即係連繫。

主席：係咪都係--呢個銅喉係咪都係 under 呢個 design and standard 呢一個 CA 嘅？

答：唔係，唔係。

主席：唔係，係 chief building services...

答：係 building services engineer。

主席：得，唔該。

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
VA
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

問：When a new specification is being evolved, presumably it's drafted in various stages and circulated to a number of people for input; would that be right?

答：原則上係嘅，因為我哋去--即係照我所知，因為我有做過 specification team，照我嘅認知，就係如果當有個 specification 要做嘅時候，我哋都會去同本地嘅譬如 government --有關嘅 government departments，甚至業界，甚至有時都會同我哋邨管嘅同事攞啲 feedback，咁去整合去攞 comment 同埋 feedback 嘅。

問：And once the final form of the specification has been agreed, the next and logical step would be to determine what tests would be required to ensure compliance with that specification?

答：係，我哋個 Specification Library 主要就係分開--我諗大家而家都好清楚，material、commission 同埋 testing，我諗係喺譬如如果有需要嗰個 material 要做任何嘅 testing，照計，應該相關嘅 clause 就會出現，但係就未必隻隻 material 都會有。

問：The specifications mandating the use of copper pipes, do you know who drafted that specification?

答：如果照我哋可能個討論，就係我估係 2002 年嗰個 instruction，即係我哋 Development and Construction Management Board 個 Instruction。

問：Once the specification has been finalised, who or which unit or body determines whether or not there has to be some specific testing of that specification, when the product is actually used or incorporated?

答：我估都要睇一睇嗰個 specification clause 係講緊啲乜嘢，咁始終 specification team 就唔係一個人，都係成個 team 嘅同事，我估當佢哋 consult 可能業界，甚至如果可能有好 technical，會 consult 學界都未定，咁可能喺嗰啲討論過程，就如果覺得有需要嘅話，我相信佢哋會適當地去即係再 enhance 個 spec.。

問：And when there needs to be a testing requirement drawn up, which unit or group of people draws that up?

答：好似我正話講，因為我哋都有一班嘅同事係專工，雖然佢哋未必係專家，即係我就--佢因為人力資源運用比較好，咁所以專工去做呢樣嘢，佢都係負責去整合嗰啲嘅 comment，當佢個 specification 如果真係成形嘅時候，佢都會可能要 circulate within department，甚至可能我哋要去一啲 management board 再討論都未定嘅。

問：I want to ask you something quite different now. We are aware of the fact that the Housing Authority is exempt from the Building Ordinance.

答：係。

問：But of course it would be an impossibility that the Housing Authority is exempt from basic requirements, such as structural stability, et cetera. So how does it work?

答：其實...

問：This is right up your line. How does it work?

答：其實 Housing Authority exempt from Buildings Ordinance，但係就唔等如我哋唔依隨個 Buildings Ordinance，我哋自己 Housing Department 裏面有一個叫 the Independent Checking Unit，我哋簡稱佢做 ICU，佢功能就係做咗--其實係 BD delegate 個 authority 畀 ICU，係最幫我哋睇 Buildings Ordinance 裏面 building control 嘅 aspect，所以正話方才你提過，就話「會唔會你嗰啲 structure 有啲你又唔使理？」其實絕對唔會，我哋都係照跟番 Buildings Ordinance 同埋相關嘅法例，我哋去執行嘅，反而 Waterworks Ordinance 同埋 Regulation，我哋就有 exempted，即係 just like other government departments。

問：Right, and equally you have to comply with fire rating and all those types of issues?

答：係，對，對。

問：Thank you. Now, in a sense, the Independent Checking Unit takes up the same role as the Buildings Department,

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

doesn't it?

答：Sorry?

問：The ICU takes up the same job as the Buildings Department?

答：可以咁理解。

問：An authorised person is a specialist in one of the accredited professions; yes, like architecture?

答：佢有分幾個 list，list 1 係 architect。

問：That's right. Now, I understand that there are something like 207 practice notes which have been issued by the Buildings Department.

答：係。

問：Do they apply to the persons inside the Housing Authority or Housing Department that are taking up the role of architect?

答：嗰啲 practice notes 同樣--其實嗰啲 practice notes 都係 Buildings Ordinance 旗下，所以同樣我哋都會依隨啲 practice notes 嗰個做法去做嘅。

問：And does the relevant individual actually sign as an authorised person under the Buildings Ordinance?

答：如果喺 Housing Authority，其實我哋就有呢個 AP 呢個角色嘅，因為我哋如果喺--譬如如果你講 WWO 嗰啲 form，嗰度有個 AP，其實嗰個 AP 就係--因為我哋係 Buildings Ordinance exempted，嗰個 AP 個角色只不過係一 co-ordinator，而喺譬如 WWO 嗰啲 form，呢個 co-ordinator 呢個角色就係由咗我哋嘅 chief architect 或者佢旗下嗰啲同事，可能則師，甚至有時就係 building services engineer 去 take up 咗呢一個 role，但係呢一個 co-ordinator 嘅 role 都要 being supported by 可能我哋自己嘅同事，同埋如果喺 WWO46 嘅 form，當然就係要經過 main contractor，特別係有個 licensed plumber，要經過個

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

contractor, 要畀嗰個 advice 我哋, 咁我哋先簽個名落去, 但係 it's more like a co-ordinator.

問: Ultimately, the authorised person for the Waterworks and Regulations provisions is trusting the licensed plumber; is that what it comes down to?

答: 我哋係咁理解。

問: And before July 2015, had you read the Waterworks Ordinance and Regulations yourself?

答: 我本人冇特別去深究, 因為可以講...

問: Since you...

答: Sorry。

問: Forgive me.

答: Sorry。因為可以講即係我嘅日常工作都好多, 咁就有時真係做到邊一個 critical 部分我哋可能去特別去睇, 特別如果喺日常運作上面, 如果啲同事都已經處理到嗰啲, 就未必時時會嚟到我嗰度傾, 即係如果去到個 chief architect 傾, 可能係一啲都比較重要啲嘅議題。

問: Inside the Housing Authority, at what stage is the building works contested by a performance approach, or at what stage is it tested by a risk approach? Is that too general a question? It may be unfair to ask you that question.

主席: 再問多次, 唔該。

MR McCOY: Yes, thank you. I anticipated that. Thank you.

問: The Director of Housing and the Deputy Director have said that the Housing Department has set even higher

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

standards on a risk-based approach than is required. Is the Housing Authority using a risk-based approach throughout its processes?

答：真係要睇下咩嘢項目，即係如果我哋能夠 identify 佢真係有一個 high risk，咁可能我哋會做一啲嘅措施去堵塞嗰啲漏洞或者做多啲 checking 咁樣，有時 risk-base 同埋 performance-base 可能都係併行都未定。

問：Am I correct that the Housing Authority exercises quality control under a two-tier approach: one is specifications and the other one is testing?

答：Testing 都 part of 個 specification，係咪--我諗係 terminology 啫，whether or not 佢係兩個 tier。

主席：Inspection，係咪呀？Specification 加 inspections？

答：係，對，即係 surveillance、inspection 咁，係。

問：And if the specification does not specifically require a test, then how is it determined what testing is appropriate for that specification?

答：正話都講過，如果 specification 有 material、commissioning 同埋 testing 或者 workmanship，如果我哋制訂個 specification 嘅時候，未見到需要做 testing，都應該有佢嘅原因嘅，但係通常如果我哋發覺嗰隻 material，佢需要 couple with 一個 testing，我都相信即係又去番我哋即係點樣樣去做個 spec. 嘅時候，都係要點樣樣去整合番一啲即係可能 technical 嘅 input from various sources。

主席：好抽象，你講到，如果嗰個 specifications 冇 establish 一個 testing 嘅話，你哋房署就好簡單嘅啫，就叫人哋交啲 certificate，交啲 material 上嚟，你哋就咁睇就 on document

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

咁，你哋就當佢 fulfil 咗嗰個 specifications，係咪？

答：係，係。

主席：係囉，即係如果你哋自己又有定埋要測、點樣樣去測試嘅，咁就另外一件事，如果有嘅，你哋純粹都係信人嘅啫。

答：好似之前 7 月之前咁，我哋都淨係睇嗰啲 document 同埋 sample。

主席：譬如好似好簡單，譬如好似即係我哋成日講，講嚟講去，PLU1.M160.5 講呢個 lead 咁樣樣，佢裏面有講 test，係咪？

答：係，即係之前有。

主席：係，之前有，而家都有㗎？

答：係，對。

主席：而家都有--唔係...

答：我哋往後會...

主席：唔係，而家我唔知有冇，因為 2014 年之後就出咗一個 lead soft solder 嘅 British Standard，可能有都唔奇，不過個問題就係你而家暫時嚟講，喺你哋嗰個 PLU1 裏面都係有 testing 㗎嘛？

答：係。

主席：你係信佢交上嚟嗰啲嘢嘅之嘛？

答：係，可以咁講。

問：We are close to the end of the day. I just want to ask you one or two more short questions, with permission. I put it to you that the excess lead in the water problem that has now been discovered simply would not have occurred unless a number of things had happened. First of all, someone has had to have used lead solder. That's one part of the problem; right?

A
B
C 答：Yes.

D 問：But I suggest the second part of the problem is that
E because there was no proper in-progress examination
F or no tests on solder, and no water samples taken
G involving lead, that's the combination of reasons
H which allowed the excess water problem to occur.

I 答：喺 7 月之前，呢一連串嘅 measure 都未有，又從另外一個角度，就
J 就算 7 月之前呢啲 measures 未有，亦都如果真係跟足個
K specification 嗰個 requirement 去做，每一個 party，咁我哋
L 亦都有啲 case 係有問題嘅。

M 問：I know you are always going to come back to contract,
N and I'm just parking that to one side. Just try and
O answer my question. A number of things had to go wrong.
P Someone had to use lead solder. Someone had to use
Q lead solder. But if someone had used lead solder and
R if the Housing Authority had tested that solder earlier,
S the problem would have been discovered earlier; that
T must be logical?

U 答：如果我哋完工嘅時候，譬如驗水辦，而攞到水--驗水係需要驗鉛嘅時
V 候，我相信呢一連串嘅 measures，我哋都會 step up 嘅。

問：You have just said "upon completion", but I am saying
if there were in-progress examination or tests...

許偉強先生：我諗雞先、蛋先嘅問題，都可以我諗 submissions 嗰度處
理，未必一定需要喺呢度處理。

主席：問埋喇，問埋喇，問埋，唔緊要。

問：I'm suggesting, at the end of the day, that if there
had been in-progress examination or tests, it's
logical and obvious that the matter would have been
discovered much earlier?

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

答：簡單可以咁講，不過如果我哋早知呢個係有一個咁嚴重性，同埋我哋就會 step up 呢個 measure。

黎先生：如果可以 in-progress 嘅嗰個 examination，亦可以等第二個 parties 嘅，包括係 contractor 都可以係 test 嘅。

MR McCOY: Yes, agree. Of course, and that's where I am going to go tomorrow, in terms of the contract. Is that a convenient time?

主席：Yes。你都可以問嘅啫，佢嗰啲證人上嚟嗰時，一樣之嘛。

何先生：我等得好辛苦。

主席：一樣之嘛，即係佢今日咁對你嘅證人，你第二日咪咁樣對番佢嗰啲證人囉，係咪？我哋聽朝早 10 點繼續。

2015 年 11 月 19 日

下午 4 時 32 分聆訊押後

C Thursday, 19 November 2015 C

(10.03 am)

D (Transcript of simultaneous interpretation D

E except where otherwise specified) E

CHAIRMAN: (Chinese spoken).

F MR YIN: (Chinese spoken). We have been given a witness F

G statement in respect of Tung Wui Estate, but because of G

H the questions raised by Mr Pennicott concerning B5, in H

I respect of Kai Ching Estate contract, I understand that I

J yesterday a second statement was submitted in respect of J

B5, Kai Ching Estate.

I don't know whether I should read both of them in

K one go -- K

L CHAIRMAN: (In English) Do both is okay. Wait. L

M MR PENNICOTT: (In English) Chairman, if I may, I would like M

N both the witness statements read together. That's N

O absolutely fine. I'm in a position to cross-examine O

Ms Yim on the Kai Ching matter myself.

The reason I am standing up has nothing to do with

P Ms Yim, but it has got to do with an application that P

Q I think is supported certainly by all the main Q

R contractors. I'm not sure what the Housing Authority's R

S position is on it, and I just wonder, because it's S

T an application to modify the order in which some of the T

U witnesses are called, I thought it would be appropriate U

C to raise that now so that if there is going to be C
D a change, if we can persuade you that there should be D
E a change -- to make the application now so that E
everybody knows where we stand.

F I know I am interfering with the run of the F
G witnesses, but it just seemed to me that this could be G
H potentially quite important, if there is a change of H
order.

I So if I may make that application now or if I may be I
permitted to do so?

J CHAIRMAN: (In English) Yes. J

K APPLICATION RE ORDER OF WITNESSES K

L MR PENNICOTT: (In English) The nature of the application is L
M this, Chairman, that at the moment WSD's witnesses are M
N all, as we understand it, to be called right at the end, N
O towards the end of the hearing, I think just before the O
P experts. It's the application, I think supported by all P
Q the main contractors, that five of the eight witnesses Q
from WSD should be called immediately after the
Commission has heard all the evidence from the Housing
Authority witnesses.

R As I say, the WSD have eight witnesses. They fall R
S into two categories. Three of the witnesses -- Mr Wong S
T Chung Leung, Deputy Director of Water Supplies and T
U chairman of the task force; Chan Kin Man, who is the U
V

C chief waterworks chemist and deals with a lot of C
D technical matters, including isotopic analysis; and Chan D
E Hon Fai, who is the chairman of the Advisory Committee E
F on Water Resources and Quality of Water Supplies, and F
G a member of the WSD task force -- those three witnesses, G
H we accept, should come at the end. H

G CHAIRMAN: (In English) Which three; Wong Chung Leung, G
H Chan Kin Man and Chan Hon Fai? H

H MR PENNICOTT: (In English) Yes, they should come at the H
I end. We have no cavil with that. They can be described I
J as the task force witnesses. J

J However, the other five witnesses, it is submitted, J
K fall into a completely different category. K

L I wonder if I could make that good by inviting you L
M to look at the witness statement of the Director of M
N Water Supplies, Mr Lam Tin Sing, Enoch. That's in the N
O bundle at C19.1, starting at page 10279.

O Mr Chairman, you will see from the first five O
P paragraphs of Mr Lam's statement that he seeks to P
Q address the questions that the Commission, through its Q
R solicitors, have put to the WSD Department, and he makes R
S mention of the fact that a number of his staff will also S
T give witness statements to deal with those questions T
U that have actually been posed to WSD. U

T If one then flicks through his statement, one sees T
U
V

it is broken down into a number of parts. The first part is the water supply system in Hong Kong. The next part is the duties of the Water Authority under the Waterworks Ordinance. Then he deals with the question of supply of drinking water, the adequacy, reliability, affordability, smart technology and quality. Then he deals with the question of licensing plumbers.

Then, part five -- I wonder if I can ask you to look at this. At page 10295, part five, he says, "Other statements of WSD officers".

The first witness, apart from Mr Lam himself, who we suggest should be called early, is Mr Leung Wing Lim. He is the assistant director of new works, and his witness statement -- which I am not going to go to, because rather helpfully Mr Lam summarises, albeit it very headline form, what the various witnesses deal with -- his witness statement is at C19.3/10709. He deals with the stakeholder theory, the design, construction and maintenance of the waterworks, and answers certain paragraphs, questions that were posed by the Commission.

We can skip over B, because that's Mr Chan Kin Man who I accept shouldn't be called at this stage, but over the page at C, page 10296, Mr Lam Ching Man, assistant director of customer services -- his witness statement

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 13 B
C	is at C19.5/13471 -- he deals with the monitoring and	C
D	control of construction, maintenance of inside service,	D
E	complaint handling and promotion of Quality Water Supply	E
F	Scheme for Buildings, and so forth; water treatment	F
G	plant through which water is supplied to each affected	G
H	estate; approach to taking and testing of water samples	H
I	from inside service before connection of water supply to	I
J	affected estates; inspection and testing of water	J
K	samples in inside service; construction of inside	K
L	service in affected estates by licensed plumbers, and so	L
M	forth.	M
N	Then the next witness at D, Mr Chan Hing, deals with	N
O	the regulations pertaining to the construction of the	O
P	affected estates and prohibiting the use of plumbing	P
Q	materials; work of the Licensing Authority and	Q
R	qualifications, and so forth.	R
S	Then lastly, over at page, at E, Mr Cheung Yip Kui:	S
T	existence of lead in plumbing materials, use of deviated	T
U	plumbing materials, and so forth.	U
V	Chairman, it is my application that the Commission	V
	gives consideration, at least, to the five witnesses	
	that I have identified by reference to the schedule to	
	Mr Lam's statement, should come after the Housing	
	Authority witnesses.	
	It's quite clear, in our view, that they are	

C addressing factual matters that are relevant to the C
Commission's considerations. They are dealing with
D factual matters that have been asked by the Commission D
to be dealt with by the witnesses. And it would be
E helpful, we believe, to the Commission and to the E
F following witnesses and the following parties, if one F
G has the ground set as it were from WSD as to their G
H position on various of these matters. H

I So, as I say, I would ask you to give due I
J consideration to calling those five witnesses after the J
Housing Authority witnesses are concluded.

K CHAIRMAN: (In English) All right. Thank you. K

L MR CHAN: (In English) Mr Chairman, to be clear, what's been L
M proposed by my learned friend is a fundamental M
N alteration of the schedule in terms of the sequence of N
O witnesses. This schedule has been known I think since O
at least 2 November. The parties, certainly my clients,
P have been working on the basis of that schedule. It's P
Q a publicly known schedule. Q

R And with great respect, the original scheme or R
S concept makes perfect sense, logically and practically. S
T The focus plainly was to start at ground zero in terms T
U of the construction process, and although there may be U
V some involvement on the part of WSD in that, it's very V
much tangential. But what's at the centre of it are two

sides: the Housing Authority, in terms of its specifications and its requirements, and the contractors who agreed, by way of contract, to provide the buildings built to a particular specification.

So what we have now is that we have come to the point where we have heard one side in great detail, and we are very familiar with certain documents and certain issues, in terms of the Housing Authority's perspective, and we say quite properly the natural, logical and practical way of proceeding is to then go immediately to examine the witness evidence of the contractors, because that's very much intricately tied to the same process.

In any event, that is very much the sequence that we have been working on. It's quite important, in our respectful submission, that for inquiries of this dimension, that unless there are strong reasons, really the original schedule needs to be maintained. We don't hear any strong reasons.

I hear what my learned friend says about there being statements that touch upon some issue or other. They have those statements. If they wish to ask questions or bring out evidence in response to their own witnesses to things which are said already in written documents, they may do so.

But the fundamental point remains is that there is

C a schedule, there's a good reason for having that
D original schedule, and there are no good reasons for
E departing from it, certainly not strong reasons.

E So we would oppose any alterations, Chairman.

F DR McCOY: (In English) Sir, I support Mr Pennicott's
G position.

H First of all, I would entirely accept that the
I chemistry and the technical witnesses from the WSD
J should go towards the end. That makes perfect sense.

K The first response I would make really to what
L Mr Abraham Chan for the WSD just said is this. We
M didn't even receive the relevant WSD statements until
N after 2 November. So this point that things were set on
O 2 November in fact is undone by the substance that they
P held back or they did not deliver their statements until
Q after that date.

R I would submit that it is distinctly preferable, in
S a public Commission of Inquiry, that the governmental
T interests -- that is Housing Department, Housing
U Authority, WSD -- precede the contractors. There is
V a logical and a literal connection between the WSD and
the Housing Authority. They are literally, in terms of
their interests, joined by pipes, and the question is
one says, "My jurisdiction stops at the start of the
inside service", and the other one presumably has

C a different or a further view. C

D Until the resolution of how each party considered D
E the demarcation dispute, as to where their jurisdiction E
F stopped or started, until that's resolved by evidence F
G and tested by cross-examination, it could be a very long G
H time before this critical issue emerges. H

I So I would submit that the general relationship I
J between the government departments, how they J
K interacted -- frankly, how they failed to synchronise -- K
L is going to be a critical matter before which we then L
M turn to the individual roles of the contractors. M
N Otherwise, you have, as it were, the government at the N
O start and the government at the end, and of course the O
P members of the public will always wonder why one part of P
Q the government was able to listen to all the evidence, Q
R perhaps adjust its position or refine it, and not have R
S to give its evidence at the start, because if it has S
T a clear position, it should immediately follow on, in my T
U submission, from the Housing Authority evidence. U
V

P So I support Mr Pennicott entirely. P

Q CHAIRMAN: (In English) Okay. Q

R MR CHAN: (In English) Mr Chairman, I have responded to R

S Mr Pennicott; I haven't responded to Mr McCoy. I'm in S
T your hands, please. T

U CHAIRMAN: (In English) Let's first hear all the supporters' U
V

C submissions first. C

D MR LAM: (In English) Mr Chairman, I also support both my D
E learned friends for China State and Paul Y in support of E
F this application. I think it's really logical to have F
G the factual witnesses, as suggested by Mr Pennicott, and G
H to have the government's side to be heard first, because H
I otherwise, as my learned friend said, "You've got the I
J pipe", and one is saying, "My duty only ends at the J
K connection", and then the other is saying, "Your duty K
L doesn't end at the connection." L

M So, Mr Chairman, I think that is a very valid point, M
N and we say nothing is cast in stone, as Mr Paul Shieh N
O says. It's a fluid matter. And therefore, Mr Chairman, O
P you can decide how this matter could resolve itself. P

Q So I support fully and strongly. Q

R CHAIRMAN: Any other supporters? R

S MR TAM: Chairman, I support the proposal as well. S

T I support my learned friend's submissions. I have T
U nothing to add. U

V MR PENNICOTT: (In English) If I can confirm one point that V
Mr McCoy made, and that is the date of these witness
statements. It is right that Mr Lam's witness statement
came in on 6 November. The other four witness
statements came in on 11 November. So yes, I accept
that what's in Mr Shieh's supplemental opening has been

there for a while, but at the time he wrote that we did not have the five witness statements that I am now basing this application on, which is a very important point, in my respectful submission.

MR CHAN: (In English) Chairman, it's important not to lose sight of the fact that one of the key areas that this Commission of Inquiry is tasked to look at is what happened on the ground. Before you can make recommendations or properly evaluate whether there have been any regulatory failings, you need to know what happened and what went wrong in terms of the actual construction process.

As of yesterday, we were still hearing questions being put, suggesting the point of view from certain contractors, and they don't even accept necessarily that it's any particular fault in the construction chain, as to how it is that leaded solders came to be used. In my submission, unless we have greater clarity on what exactly happened or did not happen in terms of the construction process, we can't begin to make informed and educated assessments as to what should one or other regulator have done in terms of a particular type of mischief. We don't know what the mischief is, fundamentally.

So, in my respectful submission, again the original

sequence makes perfect sense. We are halfway through the process of examining the construction sequence. We are very familiar with documents at this point. I am not willing to guarantee that certainly for our part or anyone else, that we will be as familiar with certain key documents that we have been looking at time and time again with certain Housing Authority witnesses, if this were to be held over until, say, January or February next year.

So we are very much halfway through an important process. It makes sense to maintain the course that has been set. It's not a question of maintaining a course to the bitter end, but the point is even looking at it now there are powerful reasons as to why the original sequencing should be maintained.

MR KHAW: Chairman, I think there are just two issues here. First, whether there is any urgency, and second, whether any part party is prejudiced.

Having heard submissions from the learned counsel, I think judging on the present schedule, it has been previously agreed, and there is no urgency, in my submission.

First of all, in relation to the witness statements of the witnesses for the Water Supplies Department, it was available only on 2 November, then for the inside

service, what is the division of responsibility in relation to inside service, in the report of the WSD in August it was mentioned.

I think, based on all the information provided, the witnesses can still be cross-examined. I don't see the urgency of the matter and I don't see any party which will be prejudiced because of the original schedule being maintained. We are looking at the Housing Department, and if we follow that line, the Housing Authority's witnesses would be very much related to the contracts, the main contract and subcontracts.

MR HO: I don't have a particular position or point of view in relation to the schedule of witnesses. But I want to point out that in fact each party would like to, you know, wait until the final round, after hearing from all the witnesses and the criticisms before they give evidence, so that they can be better prepared for giving evidence as witnesses. I believe this is just normal, because we started first, so in all fairness, I suppose the Commission will bear this in mind.

CHAIRMAN: So you are suggesting that you should have been the last?

MR HO: Well, if I had this power to make this arrangement, I would have preferred to come in later.

CHAIRMAN: We will give this thought. We won't give

a ruling at this stage. Later, when we have a decision, we will inform all the counsel of our ruling, of our decision.

So let's continue with the Inquiry. Let's proceed with the Housing Department's witnesses.

The recording is being disturbed by mobile phones, so please either switch off your phones, take it away, or switch it to airplane mode.

MS THERESA YIM SIU LING (sworn)

CHAIRMAN: Please be seated.

Examination-in-chief by MR YIN

MR YIN: Chairman, I will begin to read out Ms Yim's statement. She is the chief architect of the Housing Department.

(Paragraphs 1 to 77 were read in English)

I just now read out your statement, Ms Yim, in relation to the Tung Wui Estate. Is there anything you wish to add or amend?

A. No.

Q. Are you willing to adopt this as the evidence in this hearing?

A. Yes.

Q. Ms Yim, you have also prepared a document in relation to the contract of Kai Ching Estate, in relation to BEAM Plus, the contractual requirement. You have a statement

on this. Is that right? Let me read it out.

(Paragraphs 1 to 31 were read in English)

I have just read out your 2nd written submission.

Do you want to amend or supplement anything?

A. In paragraph 30, the last line, "is now shown and
produced to me as 'Exhibit 9'".

Q. I have corrected it. I corrected it when I read it out.

Do you want to adopt this as your evidence in this
hearing?

A. Yes.

MR YIN: (Chinese spoken).

CHAIRMAN: Let's have a break of 20 minutes.

(11.38 am)

(A short adjournment)

(11.58 am)

R U L I N G

CHAIRMAN: Having considered submissions from all parties,
the Commission of Inquiry does not see any reason to
change the schedule originally set in relation to the
Water Supplies Department's witnesses. So we reject
Mr Pennicott's application.

MR KHAW: Chairman, in relation to the order of witnesses,
I would like to make a suggestion. If we are able to
complete the testimony of Ms Yim, as I understand, from
the Housing Department there will be a chief architect,

C Mr Chiu. Because of other engagements, I would like to
invite him to give evidence tomorrow, first. So he will
D follow Ms Yim in the order of giving evidence. D

E So another point to make: on the 23rd and 24th next
week, because of our counsel team arrangements, we are
F short of manpower, so I would like to apply for F
G an adjournment on the 23rd and 24th and for the hearing G
to resume on the 25th. H

H CHAIRMAN: On the 23rd and 24th, we have a special H
I situation. We are not running out of witnesses but out I
J of counsel. So counsel are not available. J

K Any submission from any party in relation to the K
running out of counsel? K

L So tomorrow we will hear from the chief architect, L
and then we will adjourn on Tuesday. M

M MR KHAW: In relation to the actual arrangement, I think M
N tomorrow I will come up with a suggestion. N

O CHAIRMAN: Yes, we will start with the chief architects, O
follow that order. O

P Cross-examination by MR KHAW P

Q MR KHAW: Ms Yim, I want to ask you about Kai Ching Estate Q
and the BEAM accreditation. You engaged some experts in
R the process. I want to have a discussion with you. R

S BEAM is about the green building accreditation. The S
T main purpose is to make sure that the construction would T
U
V

take on board certain environmental protection considerations, and it is also hoped that after completion the tenants would enjoy a higher quality of life?

A. Correct, and we also want to cover energy conservation.

Q. Yes, energy conservation.

At that time, you engaged this company, Scott Wilson Ltd, to help you with the study, the planning, and also the preliminary assessment. With respect to the hiring of Scott Wilson, the HA or Housing Department, what's the process? Open tendering or through what process?

A. Well, it's through the tendering process.

Q. It's also done through the tendering process?

A. Yes.

Q. So the experts in respect of BEAM, so they provided consultancy service. So were they experts?

A. The BEAM assessment is rather complicated. Scott Wilson is one of the consultants which, in our view, have the right expertise.

Q. Please refer to paragraph 16 of your witness statement. Page 39650. Paragraph 16 refers to the draft, and reference is made to the tender documents. But before I ask a question about that, at that time, in your discussion with Scott Wilson, you wanted to find out whether Kai Ching would be able to get the relevant

accreditation. Were you involved in your team, right from the start?

A. I was partially involved. I did not participate in the discussion of some details. But my colleagues, architects, senior architects, were involved. Because the BEAM assessment has to do with energy, so the building services team participated to a great extent. So I was involved more at the later stage, when the information had been compiled.

Q. Okay. You started in 2010, all the way to 2014. When did you start to participate personally?

A. I was the chief architect of Kai Ching Estate -- I was the acting chief architect in February 2009. I was confirmed to the post in May 2009. And it's up to February 2012, acting as chief architect.

Q. So you were formally involved in this BEAM accreditation and discussion with Scott Wilson?

A. There are six blocks for Kai Ching, 5,204 units. It's a big estate. That's why we wanted to do something in respect of BEAM, especially in respect of energy conservation, and we also wanted to make it a good environment for tenants.

Q. So your team discussed with Scott Wilson, and your team included architects and also building services surveyors? Apart from the two professionals, two

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 13	
C	disciplines, what about other Housing Department colleagues, other professionals?	C
D	A. I know building services engineers and architects were active participants. I have no recollection about the involvement of other people.	D
E		E
F	Q. How was your team composed; architects, plus building services engineers, in respect of this Kai Ching assessment?	F
G		G
H	A. We have only one senior architect; three architects, I believe. Of those actively involved, there was only one architect actively involved.	H
I		I
J	Q. What about building services engineers?	J
K	A. I am speaking from my impression: there was only one building services engineer involved.	K
L		L
M	Q. From your documents, from your records, I learned that when you applied for the BEAM accreditation for Kai Ching Estate -- and I am talking in particular about water quality -- there are two major items for you. One is the fresh water plumbing, plumbing works. Second, water quality survey. In both items, you got credits?	M
N		N
O		O
P	A. Yes.	P
Q	Q. On water quality -- let's go to water quality first -- for the entire BEAM accreditation in which you engaged Scott Wilson, it was not about setting a water quality system for public rental housing estates. You actually	Q
R		R
S		S
T		T
U		U
V		V

wanted Scott Wilson to help you how to make this possible, through your contracts?

A. Well, let me put it this way. BEAM accreditation contains many criteria. We needed the consultant's advice on how to get the credits for the different criteria. It was not about setting a different standard or separate standard on water quality for Kai Ching. We asked them to advise us how best or how we would get the credits under BEAM, for which the contractors might have to participate, and even after completion, in the maintenance period, after the construction process was over, we still had to collect some data for subsequent assessment.

So it was about credits and BEAM criteria and how we could do our job to fulfil that, and the requirements had to be incorporated into the specifications, and there's an element of contractor participation.

Q. So you want to get credits, and one of the main things that you look into would be the formulation of the contract, how you could incorporate the relevant provisions, so that they would reflect the BEAM requirements?

A. Yes, because a lot of work would be required of the contractors.

Q. Please refer to paragraph 16, the draft from Scott

Wilson. There's something in the contract about BEAM.

It said:

"(In English) The Contractor shall carry out water quality survey and submit report to demonstrate that the quality of potable water meets the drinking water quality standards as defined in Guidelines for Drinking-water Quality Vol. 1 prepared by (WHO) at all points of use ..."

(Chinese spoken).

"(In English) The Contractor shall provide details on the systematic sampling ..."

(Via interpreter) Then reference is made to ISO.

"(In English) The sampling points shall be taken as a minimum at all the furthest points of delivery from the storage tank used in the building."

So you had to take water samples, and there's a requirement on the method of sampling. And reference was made to WHO. You have explained in your statement that Scott Wilson did not brief you on the WHO Guidelines.

I have a question. When you saw the draft prepared by Scott Wilson, and you saw the WHO was mentioned, your department or your team, did it occur to you that you should ask what the WHO Guidelines were about?

A. I was not personally involved in this step or in this

stage. I did ask my colleagues and try to understand whether they enquired about WHO Guidelines. They said, "No, not in particular", because we rely very much on the advice from our consultant. And this is also in accordance with HK-BEAM 5.1.1. According to my colleagues, there was no further exploration into the WHO Guidelines.

Q. I don't quite understand. This is one of the factors referred to by Scott Wilson; they mentioned WHO Guidelines. Now, looking back, do you think it's curious or rather inappropriate that your colleagues did not ask about the WHO Guidelines and what they were at that time?

A. From what I have learned, the colleagues did not look any deeper into those guidelines.

Q. Should you have done something about that? Because according to the WHO guidelines, it's a standard. If you want to formulate the contract with this requirement, as the contract administrator, you should know how to enforce the contract, and therefore, in respect of the details in the contract, you have to understand what they are before you can enforce the contract.

A. I think we relied, to a great extent, on the advice from the consultant, and this is actually -- BEAM 5.1.1, this

is from BEAM 5.1.1, so we didn't ask for details.

Q. So you listened to the advice and you did what you had been advised, but as regards how WHO Guidelines would be used to enforce the project, you have no specific ideas?

A. Well, yes, at a later stage, water samples would have to be taken and a report to be compiled, and then my colleagues would ask what's the standard to apply and how should the samples be taken, and that's why Scott Wilson was asked about water sampling, how to do the water sampling.

Q. Now looking back, as a contract administrator, when you received this draft, do you think you should have at least asked the question, "What are the WHO Guidelines about?" You should have asked this question?

A. Well, we trusted the consultant. We were not aware of this particular point.

Q. Last night, I received this witness statement.

COMMISSIONER LAI: Maybe I can put a question first. Since you are on this paragraph, you said, with regard to the reference to the WHO, you did not explore deeper, and you have also mentioned ISO 5667. Did you look into that as well?

A. No.

COMMISSIONER LAI: You didn't know what it meant, so Scott Wilson raised this and referred to WHO or ISO 5667, and

you didn't know what they were?

A. We didn't conduct any particular study into that.

MR KHAW: Okay. In relation to yesterday's evidence, I went back to check the WHO Guidelines, what it is about. So perhaps we can briefly look at the WHO Guidelines now, because in 2010 you were -- I mean between 2009 and 2010 you prepared a draft contract, and I retrieved the 2008 WHO Guidelines. A3. I don't think the hard copies are available to other parties, so we can just look at the screen for the time being. A3/1605.

Let's turn to page 1653. Can you see 1.2.10, "Plumbing". The second paragraph under "Plumbing", you can see "Numerous factors ...", and then from the sixth or seventh line you see:

"Plumbing materials, pipes, fittings and coatings ..."?

A. Yes.

Q. Here it says:

"Plumbing materials, pipes, fittings and coatings can result in elevated heavy metal concentrations in drinking water, and inappropriate materials can be conducive to bacterial growth."

So here it says that plumbing materials may also lead to lead being released.

Then on page 73 --

CHAIRMAN: Page 73?

MR KHAW: Sorry, it's page 33 of this paper, page 1714 of
this bundle.

CHAIRMAN: Yes.

MR KHAW: This is "(In English) Verification of chemical
quality". 4.3.2, all the way down to the fourth
paragraph, do you see "(In English) Sampling locations"?

A. Yes.

Q. "(In English) Sampling locations will depend on the
water quality characteristic being examined."

(Via interpreter) That is what samples to be taken
depend on what characteristic you want to examine.

"(In English) Sampling at the treatment plant or at
the head of the distribution system may be sufficient
for constituents where concentration does not change
during delivery."

(Via interpreter) Then you see further down, three
to four lines down:

"(In English) Samples should include points near the
extremities of the distribution system and taps
connected directly to the mains in houses and large
multi-occupancy buildings."

(Via interpreter) Then the next sentence, that's the
key sentence:

"(In English) Lead, for example, should be sampled

as consumers' taps, since the source of lead is usually service connections or plumbing in buildings."

So here it says, if you want to take water samples for examination you should take samples at consumer taps, to check for lead.

Then page 1828. Here, there is a table that sets out the chemicals that you need to pay attention to, and in the fourth column, "Chemicals used in water treatment or materials in contact with drinking water", one of the chemicals is lead.

Then finally page 1853.

A. Yes.

Q. In the last part, do you see the subheading "Lead"? It says:

"(In English) Lead corrosion ... is of particular concern. Lead piping is still common in old houses in some countries, and lead solders ..."

(Via interpreter) Particularly, lead solders is mentioned here.

"(In English) ... have been used widely for jointing copper tube."

So here it talks about where lead could be released, and in the past lead piping is used and then lead solders have also been used.

Then at page 1872 there is a table. At page 1872,

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 13 B

C do you see "(In English) Contaminants from pipes and fittings", and you see copper, lead, nickel, et cetera? C

D A. Yes. D

E Q. Of course, in hindsight, when we read the document, we E
now understand what the WHO Guidelines are about.

F A. Yes. F

G Q. So you understand, on reading the WHO Guidelines, that G
there are clear standards in relation to lead content in
H drinking water, how sampling should be taken, whether H
I lead should be examined, and this is quite important I
J information. J

K So having read the paper, and then in relation to K
L Scott Wilson's recommendations, as the major developer L
in Hong Kong, as the largest developer in Hong Kong,
M wouldn't it be prudent to ask about the WHO Guidelines? M

N A. In relation to the WHO Guidelines, which we just went N
O through, it's the first time that I read these O
P guidelines. I believe that before July, our team wasn't P
Q aware of the WHO Guidelines for Drinking-water. We did Q
R not have this awareness. So I could only say that at R
S that time, we really did not ask the consultant of this. S
T Q. So I find this quite puzzling, because if you said that T
U before July you were not aware of the WHO Guidelines, U
V then the whole draft proposed by Scott Wilson related V
heavily to the WHO Guidelines. How can you say you were

not aware?

A. We believed that if there was an important issue that we should be briefed, we believed that the consultant would have briefed us on it. But I reiterate that before July, we were not aware of any WHO Guidelines for Drinking-water.

Q. Let's go back to your witness statement, paragraph 18. In relation to the preliminary environmental evaluation, here it says:

"(In English) In the preliminary report ..."

(Via interpreter) And in exhibit 4.

"(In English) ... it was stated in credit ..."

(Via interpreter) 5.1.1(b).

"(In English) ... 'Water Quality Survey' that 'water sampling and analysis of potable water quality at the drinking point will be carried out upon project completion and the designers committed remedial measures will be applied to satisfy WSD standards'."

Right?

A. Yes.

Q. So, in relation to WSD standards, what was your interpretation?

A. BEC is the assessor of BEAM, and it gives us advice. If WSD standards can be satisfied, then we will achieve credits, and we just stop there, without further

elaboration, because this is the preliminary environmental evaluation.

Normally, for BEAM assessment, before we conduct the provisional or even the final assessment, we would ask the BEAM assessor, BEC, to review our project, because there are several different ratings: platinum, gold, et cetera. We would ask BEC for advice; say, for water sampling, we were told that if we satisfy WSD standards, we would achieve some credit. So we just stopped at that; we did not further pursue this issue.

Q. But I have to ask the same question again. Because you were the final gatekeeper, because you are the contract administrator, so when you read the WSD standards, you should know what they are about, so that you can really enforce the contract later. Why didn't you do it?

A. I can only say that we relied on the advice.

Q. Right.

A. Because the WSD is the regulatory department for waterworks, we believe that if the WSD requirements are met, we should be able to achieve the credit.

Q. Based on the two examples I mentioned, the WHO Guidelines and WSD standards, would you agree with me that in relation to the consultant's advice, you just took on board what was said, instead of verifying the information; would you agree?

MR HO: Sorry, Chairman, I have a question, because the enforcement of contract, what is the interpretation of a contract, different counsel may have different views.

CHAIRMAN: But as the chief architect and contract manager, she must have her own interpretation, otherwise how could she enforce the contract?

MR HO: Now he is asking her view. Her view on the contract, it doesn't relate to the true interpretation of the contract.

CHAIRMAN: Please be seated, Mr Ho. I understand that you rely on the WSD standards, but I have a similar question to Mr Khaw. He was asking this. "If you were not aware of the standards, how could you enforce the contractual requirement as a contract manager?"

But I want to ask another question. The Housing Department would like to get the BEAM accreditation for the project, definitely for a certain objective, for getting the accreditation. So you must have, in your mind, the criteria to be satisfied, so maybe you would say you had in mind you wanted this BEAM rating but you had no idea how the criteria were to be met, so you engaged a consultant which told you that you should do 1, 2, 3, and then you just followed suit and that was it?

A. Well, let me put it this way. In order to get BEAM

accreditation, waterworks -- water quality was just one of the many areas. It was quite technical and we did not have sufficient technical knowledge, so we engaged a consultant for help.

CHAIRMAN: So you hold a high position, you did not have a great degree of participation in the actual project, but there was only one architect, one building services engineer, in charge of the whole Kai Ching BEAM accreditation. Of course, other personnel might be involved in the construction, but I am talking about BEAM.

So I think I am safe to assume that the two colleagues of yours also didn't know what they were?

A. Well, the consultant did provide advice, and also we had to incorporate those in the tender document.

CHAIRMAN: You said you had asked your colleagues, your colleagues said they had relied on Scott Wilson, so you wanted to get this accreditation, "I don't care how, tell me what I should do and I'll do what you tell me to do, that's it." Is that what happened?

A. I can only say that we rather relied on the advice from the consultant.

CHAIRMAN: Okay. So tell me 1, 2, 3, 4, why 1, 2, 3, 4?

A. I don't know. Unless there's something very special, some special requirements which requires co-operation

from our contractors, because we had to put that in the contract document, unless it's special.

CHAIRMAN: Please continue.

COMMISSIONER LAI: Apart from Kai Ching Estate, what about other housing estates which you had tried to get BEAM accreditation?

A. We had a central unit to co-ordinate work on BEAM accreditation. I was not involved -- I am not involved in that. I have not had a chance to review all the work on BEAM accreditation. Another one with water in lead, Ngau Tau Kok lower estate, it was also involved in BEAM assessment, and there was another consultant.

COMMISSIONER LAI: You were supposed to have learned how to meet the BEAM criteria, once you have engaged this consultant, and the other estates would just do the same. Theoretically, your colleagues should take advantage of the consultancy service and learn how to do it, and then you do not have to rely on another consultant in future. Or you would rather engage another consultant every time?

A. Well, we do not engage a consultant for every project. There was some involved in this incident, where we had a consultant. And also there's a central function team, looking at the BEAM requirements and accreditation. Through this section, this central team, some guidelines

would be made available to our colleagues.

COMMISSIONER LAI: But those are not for accreditation?

A. But it is not an accreditation or award as such. We wanted to incorporate more green features to get the accreditation. It was BEAM, and then it was migrated to BEAM Plus; we have introduced an internal policy that our projects should be BEAM-Plus-ready. For these items, we rely a lot on our central team for facilitation and support.

MR KHAW: I will return to my previous question: WSD standards, in paragraph 18.

You said you did not take further follow-up action in ascertaining what they were. It's 2009. At the final assessment stage, it went all the way to 2014. In 2009, you got this preliminary evaluation, and there's a reference to the WSD standards.

Did you discuss or take it up with the WSD, to ascertain what those standards were? Was there any interdepartmental discussion, albeit not very formal; did you talk to WSD about what the WSD standards were?

A. I don't know whether my colleagues did that. I am not aware of any.

Q. At a later stage -- let's take a look at a later stage -- page 39652 of your statement, paragraph 25.

A. Yes.

Q. It states here, towards the end, in the final stage, in the middle of that paragraph:

"(In English) Scott Wilson advised the HA that a water sample test carried out in accordance with the WSD's requirement under the Quality Water Recognition Scheme ..."

And he said it would be good enough for achieving credits.

We can refer to some correspondence. Page 39741. You see the red frame there? It's from the BSE, I think it's Mr Yeung, to Elaine and Patrick; I think they are your colleagues.

A. Elaine was the project architect.

Q. "(In English) As spoken within staff of URS ..."

(Via interpreter) We know it was Scott Wilson, which was renamed subsequently.

"(In English) ... although Ms Cindy is on leave today ..."

(Via interpreter) Ms Cindy is from URS.

"(In English) ... it is confirmed that the sample test for water in accordance with WSD's circular is good enough to get a credit for BEAM 4/04."

So in 2014, at a very late stage, you were asking what had to be done to satisfy BEAM requirements; is that correct?

A. First, we did not ask for details on how water sampling should be done to get the credit. Then, when we progressed to the stage of this test, I agree that we raised this only at a late stage.

Q. So you started in 2009 with the preliminary evaluation, all the way to 2014. At page 39740, it's dated 27 May 2014. So it was five years, from 2009, and in the meantime, in the interim, you didn't know how to test for water quality or what parameters should be tested. You had no idea, in the five-year period?

A. Nothing special was done in that period. The tender was issued in February 2010. In the preliminary environmental and evaluation stage, that is March 2009. In April 2009, the BEC assessor said, "As long as you follow the WSD standards, it would be okay", so we took note of that. And at this final assessment stage referred to you by Mr Khaw, we took note of WSD standards, and then at that point we asked what should be done for the water sampling test, to meet the requirement.

I don't know whether there was some discussion among my colleagues. I was not part of it.

Q. Anyway, so you didn't know the details, but at least we know that as late as May 2014, your colleagues were asking about what to test in the sampling exercise.

Let us now turn to page 39652, paragraph 26. It's subsequent to the email from Mr Yeung. You instructed the main contractor to carry out water test, in accordance with the WSD's seven parameters. We now know the seven parameters are different from the eight parameters required by the WSD at that time. Two were taken out and now we have a new one, iron. You asked Scott Wilson and they advised you to follow WSD requirements; just follow what the circular required. The circular referred to eight parameters.

When you actually asked the contractor to actually do the tests, you changed the parameters; there are only seven. What happened between the two stages?

A. Well, at this point, I was no longer the chief architect, but from my colleagues I have learned that the seven parameters are for the Quality Water Recognition Scheme, not the eight parameters mentioned in the WSD circular. These seven parameters are for the Quality Water Recognition Scheme.

Q. So the two sets don't tally. If you look at page 39741, your colleagues refer you to or mention the WSD circular.

A. Yes. You mean the email which refers to the circular? But in paragraph 25:

"... Scott Wilson advised the HA that a water sample

test carried out in accordance with WSD requirements under the Quality Water Recognition Scheme ...", and so on.

So the reference was Quality Water Recognition Scheme. So I --

Q. Well, there were annexes, attachments to the email. One of those is on the seven parameters. It's 39746.

A. Yes, I can see it.

Q. This is one of the attachments, one of the annexes, setting out the seven parameters. The email refers to the circular, but in one of the attachments with this form, you can find the seven parameters. So your colleagues were informed or were referred to the WSD circular, but ultimately you acted in accordance with this attachment?

A. Well, the email might be more general in wording.

I won't speculate. But for the advice, you can see that the seven parameters are those under the quality water regulations.

Q. You received the information about the WSD circular in 2014, and there were attachments, and one of those sets out the seven parameters. Did you contact the WSD and enquire about what should be tested?

A. I don't know whether my colleagues contacted WSD. But the Quality Water Recognition Scheme was by no means

something new to us. And when we carried out such tests, we would ask for the service of a qualified laboratory. So I believe the laboratory would be able to satisfy the WSD requirement.

Q. On the WSD's Quality Water Recognition Scheme, you were aware of that?

A. Not a lot of knowledge. After the estate is completed, our housing management colleagues would decide whether that particular estate would be interested in joining this recognition scheme.

Q. Okay. So the individual estates would have to apply to the WSD that they meet the criteria?

A. That's the idea.

Q. So do you know that in applying for this certificate, the WHO Guidelines are also mentioned; do you know?

A. No.

Q. Is it fair for me to put it this way: as far as the WHO Guidelines are concerned, if we start with 2009, all the way to July 2015, right before the lead in water incident occurred, your knowledge on the WHO Guidelines was based on the brief mentioning of the WHO Guidelines in the clause drafted by Scott Wilson?

A. I cannot really say if my knowledge of the WHO Guidelines is enhanced, based on the clause.

Q. Another general question. You also reviewed the

testimonies of each chief architect. Each project team, there was a chart showing the persons in each project team. For Un Chau Estate, Phase 2 and 4, were you one of the chief architects in charge?

A. No.

Q. For the project team of Un Chau Estate, were you the assistant director?

A. No.

Q. So, if my calculations are correct, of the 11 affected estates, in five estates you were the chief architect: Kai Ching, Wing Cheong, Tung Wui, Ngau Tau Kok Lower Estate and Ching Ho Estate Phase 1?

A. No, not Ching Ho Estate.

Q. Pardon me -- so you were the chief architect for four estates?

A. For Kai Ching, I was involved. For Tung Wui, Wing Cheong, I was involved at the beginning of the contracting work. For Ngau Tau Kok Lower, yes, and Shek Kip Mei Phase 2.

Q. So, of the 11 estates, if we take out Un Chau Estate, then for the remaining ten estates, in the project team you were the assistant director for the project?

A. No, because the AD(P) 2 was taken up by different persons. So for affected estates, for AD(P) 2, I was AD(P) 2 for two estates. One is Yan On, one is

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 13 B

C Kwai Luen. C

D Q. Thank you. D

E A. I mean after the incident happened. E

F Q. So you were the chief architect for a number of estates. F

G Let's start with some simple questions. As the G

H chief architect, in relation to the public housing H

I construction projects, some statutory requirements and I

J standards should be met, such as the WSD's, and you have J

K knowledge; right? K

L A. Yes, I know about the WSD's regulations, the Waterworks L

M Regulations. As for the technical details, we rely on M

N building services engineer. N

O Q. No, I won't go into the details. But in connection with O

P this case, for example, the Waterworks Ordinance, water P

Q pipes and other components, as we understand, including Q

R the soldering materials, they should meet certain R

S guidelines: British Standards, which is constantly S

T updated? T

U A. Yes. U

V Q. For building projects, we should use the latest version. V

You know about that?

A. Yes, after July, I have more awareness about this, but

before July, I have this impression but I did not

consider it in great detail.

Q. So, going back to the contract, the 2008, about the

Specification Library, there was a standard for capillary fittings for solder -- for pipe solders. We know that BS 1254 should be adopted, and that lead-free solders should be used; you know, right?

A. Yes. I know lead-free category should be used. As to why it should be used, its implications, I don't know.

Q. Let's not complicate things. We see this expression, "lead-free". So judging by common sense, if I ask you, as a matter of common sense, you know that lead is toxic, it's harmful to human health?

A. Yes, of course, I know.

Q. So if lead-free materials are to be used, say soldering materials, for example, they should be lead-free, and if this is stipulated in the contract, the objective of course is to comply with the Waterworks Ordinance. And if the law and the contract requires that lead-free materials be used, then very simply, of course, toxic or materials which contain lead should not be used in the construction of buildings?

A. I agree that if lead-free category is stipulated, we did expect that contractors would provide lead-free solders to us.

Q. We will come to the relationship between you and the contractors. But if the contract and the law, both seek to avoid the use of lead-tainted materials -- then

of course we are talking about waterworks -- the objective must be to avoid any contamination of water quality?

A. I may need to elaborate on this. Lead is harmful to humans, we know. But before July, for pipe joints, if lead is found in pipe joints, how it would affect the water quality, that we didn't know. And also, if lead is found in drinking water, and what is the level of lead found in water for it to have an impact on human health -- well, we didn't know.

Q. No, I'm not talking about how deep the impact is. I am just talking about the requirement of using lead-free materials in the contract and in the law. The purpose is of course to avoid using lead-tainted material, causing an impact on water quality.

A. We don't know the extent of the impact of materials containing lead and how lead is released in drinking water, in the piping system. We don't know. But we know about the harmful effect of lead to human health.

Q. We put this question to other chief architects before, but since you were in charge of this project I would like to ask this question, in relation to the sample approval process. For PLU1, PLU2, there are different methods. For PLU2, for the components, the main contractor should submit samples and information in this

regard. For PLU1, pipe brackets and taps, valves, taps for washing machines, et cetera, the main contractors were not required to produce the actual sample. You would approve based on the documents provided?

A. Under PLU1, there are two parts. First, test reports, documentary catalogue, job reports, et cetera, all can be regarded as documentary submission. As for the other parts, Tung Wui Estate, the actual samples, and 99C, the flux, et cetera, they did submit actual samples.

Q. Let's come to that later. I am just talking about the general flow of work. For PLU1, normally the actual samples would not be required; you would base your approval procedure on documents. Now, are there any guidelines, is there any checklist, that provides that in relation to PLU1 or certain materials under PLU1, apart from documents, actual samples should also be obtained from the main contractor?

A. Not as far as I know, because in terms of execution, we rely on the specification requirement.

For other materials, like solder, some contractors would also give us actual samples, but we don't have -- as a matter of practice, as far as I know, there is no guideline on such requirement.

Q. So, on solders, for the estates undertaken by you, such as Tung Wui, if copper pipes are used and if solder is

required, most of the main contractors would submit actual samples?

A. For projects undertaken by me, I did not check every one of them. Because I come to give evidence, I checked Tung Wui Estate, and usually there would be sample submission from the general contractor, as a general practice.

Q. So, for solders, there is no guideline or no checklist for you to require main contractors to submit that to you. The soldering material, in fact, if you want to check the actual sample, you rely on the main contractor and it's up to them to submit actual samples. For PLU1 materials, we understand that apart from soldering materials, for PLU1 materials, is it the case that most contractors would give you actual samples?

A. Under the specification, as far as I know, pipe bracket and draw-off tap, for these components, samples have to be submitted.

Q. So it's stipulated in the specification. What about others not specified in the specification? Would solder be regarded as a special case?

A. I didn't go through everything in the PLU1, but I don't think samples should be submitted if it's not required in the specification.

Q. Let's talk about bolts, screws, nuts. These sundry

items, they will not submit those for approval; right?

A. Sundry items, right, not for sundry items.

Q. So would you agree that as far as sample submission is concerned, solder, in the process of sample submission, your department didn't take it as a sundry item, because for sundry items you would not require sample submission?

A. We did not require contractors to submit solders, but if they submitted the sample we would check it.

Q. Let's say for screws, nuts and bolts, you would not check them; you would not even ask your colleagues to check? They would not submit anyway, but if they submitted, you would not ask the colleagues to check and give a tick to approve them? You wouldn't ask them to do the task?

A. I don't quite understand.

CHAIRMAN: So for sundry items, there are different categories.

A. Solder is a sundry item. We did not ask the contractor to submit samples. But in the past, the contractors did submit samples. Usually, they did submit some samples and we would check the sample. By this, I mean the documents, the catalogues, and so on and so forth, would be checked against the sample, and then the sample would be put in the sample room.

CHAIRMAN: We will resume at 2.30 pm.

(1.02 pm)

(The luncheon adjournment)

(2.31 pm)

MR KHAW: This morning, we were discussing the sample submissions with you.

If I may refer you to a document. Let's see if you agree to it. P1, page 11. Here, Mr Ng Hak Ming, the licensed plumber of several estates, gave this witness statement. In paragraph 4.2 of the witness statement, do you see the term "approval form" in English?

A. Yes, I do.

Q. It says here the tin wire, et cetera, are not consumables; as they are metal fittings, they are not required by the Housing Department for approval, and very often individual Housing Department work staff may ask for these materials to be submitted for approval.

So have you come across such cases? In other words, usually it is for the Housing Department to take initiative and require the contractor to submit such material samples; is that the case?

A. Well, the way I read it, as I said already, I don't think it's possible. In the specification, there is no requirement for sample submission for our colleagues, they have an onerous workload, so they will go by the

established requirements and guidelines.

So I would not think that individual colleagues would require that; because it's not required in the spec, I cannot imagine that individual colleagues would require the submission of such sample submission.

Q. So you don't agree to that statement?

A. No, not really.

Q. Before lunch, we also discussed another point.

Of course, you would not expect the main contractor to submit material sample for the commonly used metal fittings like screws, screw caps, and so on. And I said this morning, even if they did submit such materials, you would think these are petty items and there may not be a formal approval process?

A. Well, in our specification there is no such requirement for approval, and then if they do submit it like the tin wire and so on, if they submit it we might take a look at it. But then I would not agree that because it is a sundry item, so it means it is not important, especially after July. After July, soldering materials are sundry items, they need to be checked.

Q. Would you agree, say for the estates under your supervision, for the soldering materials, it's actually one material that needs to be vetted and approved; do you agree?

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 13	
C	A. After July, I agree.	C
	Q. Before July?	
D	A. Before July, we had no awareness about the importance of	D
E	the soldering materials.	E
F	Q. But the main contractor submitted the material samples,	F
G	they didn't have the obligation to submit it, but still	G
H	you would ask your staff member to carefully consider --	H
I	inspect the materials and documents to see if they are	I
J	in compliance? You have to do that process; right?	J
K	A. If they submit it, we will take a look. If it is	K
L	submitted by the main contractor, it must be because the	L
M	contractor believes that this is one item that needs to	M
N	be inspected.	N
O	Q. Well, if they think so, it's their business, but after	O
P	you receive the materials you would still go through	P
Q	a process to approval the materials; right?	Q
R	A. Yes.	R
S	Q. Let's refer to B9.3/22145. This is the Tung Wui	S
T	project, and about this soldering material, Fry, this is	T
U	the approval form of the Housing Department. Please	U
V	take a look. You see "(In English) Details of	V
	submission" there, at the top, just under the box,	
	"(In English) Details of submission"?	
	A. Yes, I see it.	
	Q. Page 22145, we are on.	

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 13 B

C A. 22145, yes. C

D Q. Now, you see a box at the top? D

E A. Yes, I see it. E

F Q. And under the box, you see "(In English) Details of submission"; right? F

G A. Yes, I do. G

H Q. It says here where the materials come from, from which main contractor, and then general information: Fry, the material, the Fry Powerflow Flux and the Fry lead-free solder wire; do you see that? H

I A. Yes, I see that. I

J Q. Then you see technical information further down? J

K A. Yes. K

L Q. There's mention of the origin as well; do you see it? L

M A. Yes, I do. M

N Q. Then (f), "(In English) Appearance", it says "(In English) Refer to submitted sample"; do you see that? N

O A. Yes I do. O

P Q. So if you read this document, it seems they did submit the actual material sample? P

Q A. I confirm the actual sample was submitted. Q

R Q. Okay, fine. Thank you. R

S On page 22145, in this box here, "(In English) COW Office"; do you see that? S

T

U

V

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 13 B

C A. 22145? C

D Q. Yes, here, this box here (indicating). It's a chop, D
actually. Do you see that?

E A. Yes, I do. E

F Q. "(In English) COW", what does it mean? F

G A. Clerk of works, clerk of works on site. G

H Q. The date is 28 December; do you see that? H

I A. Yes. I

J Q. It was about two weeks after the date of the document, J
which was 13 December. So maybe the clerk of works

K needed to do some filing work; right? K

L A. Yes. L

M Q. And we see quite a number of people initialled there: M
COW, assistant COW, several assistant COWs and several

N Wses' initials there? N

O A. Yes, I see that. Because when they submit samples, O
first the clerk of works -- perhaps you will see that on

P page 22147 -- the clerk of works will first of all check P
all these submissions in terms of documentation, and

Q then a recommendation would be made to the project Q
architect. The project architect, on 23 December, gave

R approval. R

S Now, this document with the chop of clerk of works, S
that means, after it is done, this is circulated to site

T staff. T

U

V

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 13	
C	For Tung Wui Estate, there is one clerk of works as	C
D	site staff. ACOW, that means assistant clerk of works,	D
E	there should be three; worker supervisors, there should	E
F	be three also. So I believe, therefore, for this chop,	F
G	it is just to circulate the document to the site staff,	G
H	for their information.	H
I	Q. On page 22146, in the middle, "(In English) For and on	I
J	behalf of the contractor", there's a Felix Chan here,	J
K	Felix Chan Ho Kin. I believe he is the representative	K
L	of the contractor?	L
M	A. Yes, correct.	M
N	Q. Under the management plan, he is the co-ordinator of	N
O	quality control.	O
P	The next box, "(In English) Contract manager's	P
Q	comments", "Approved" or "Not approved"; do you see	Q
R	that? The contract manager's representative is the	R
S	Housing Department's representative?	S
T	A. Yes, the architect.	T
U	Q. So the architect had to sign too that the materials	U
V	submitted were approved; right?	V
	A. Yes.	
	Q. Let's go to page 22147 now. There is a KM Wong.	
	I think it's a Mr?	
	A. Yes.	
	Q. He is the project clerk of works. It says here,	

primarily, that the materials have been received and they are in compliance. The second point, that is the track records, I understand you have a surveillance system in place, that is some sort of a materials alert system; right?

A. We have a building materials database, because we have a component and management team; under the team, there are organised surveillance visits. As you rightly pointed out, if there is any alert mechanism, that is through the building materials to the base, that colleagues would be informed.

Q. So the database is mainly to inform your colleagues that maybe for certain materials there have been problems or they have to pay attention?

A. Well, they have to take care. Maybe they have to do a bit more tests. It means they have to pay extra attention.

Q. Okay, understood. So this material was submitted, and here it says that it is in line with the database requirements, there's nothing improper; right?

A. Well, yes, it's a standard we have to make sure.

Q. So after this project clerk of works, then going back to the chop on 22145, so many people initialled on that, so that's the state when the document is circulated on site; right?

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 13 B

C A. Yes. C

D Q. So you are telling people this material has been D

E approved; right? E

F A. Yes, correct. F

G Q. So it is a stringent process; do you agree? G

H A. Well, you can put it that way. Unless they don't submit H

I samples. If they submit samples, we will go by this I

J standard form, DCMP-F716 and 718; we will go by these J

K two forms. K

L Q. Okay. Understood. After you have completed this step, L

M the material samples are approved, and then do you save M

N them in a certain room? N

O A. Yes, it's a locked room. O

P Q. So it's some sort of a sample room. Now, you save this P

Q sample in that room. What is the purpose to be served, Q

R in terms of the contract? R

S Can we go to B9.1/20597. S

T A. 20597, yes, I see it. T

U Q. Do you see at the top "(In English) Samples"? U

V A. Yes. V

Q. The first preliminary clause says, "(In English) Samples of Materials -- General Requirements". It says here:

"(In English) Submit samples of materials as requested ... do not confirm orders until approval has been obtained."

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

B Commission of Inquiry into
Excess Lead Found in Drinking Water Day 13 B

C (Via interpreter) The second sentence is what C

D I would like you to read: D

E "(In English) Keep approved samples at the place E

F agreed by the [contract manager] for comparison with F

G materials used in the Works, which must conform with the G

H samples set aside." H

I So here it is stated explicitly what is required of I

J the contract. We all know, for such approved samples, J

K they are kept in a room and stored there. The purpose K

L is, when there is delivery to site, when the materials L

M are to be used, you have to check whether those M

N materials are the same as the samples; right? N

O A. Yes, going by the preliminary requirement, yes. O

P Q. So that's why your samples have to be kept in P

Q a locked-up room; that's the whole purpose, right? Q

R A. Yes. R

S Q. But then we know now, in fact the previous witnesses S

T told us, for the soldering materials, when they were T

U delivered, the samples were delivered, you approved it, U

V but then when the actual batch of goods were delivered, V

there would be no further inspection again, to see if

they comply with the requirements; is that right?

A. Well, when the goods are delivered to site, in

accordance with our established mechanism, system, there

will be no on site delivery check.

Q. Okay. Understood. May I ask then, if that is the case, because in a contract, in your practice, for approved samples, they have to be kept, the purpose is so that in future, when there's delivery, you can check if a large batch of goods delivered is in compliance with the requirement. If at that stage you do not check the goods again when they are delivered to site, then the whole process of sample submission for approval, the purpose of that cannot be achieved; right?

A. It will depend on another requirement, and that's in 6210, on site delivery. There are 30-odd items. As I have said, we follow the established practice. As for on site delivery, 32 materials were there, and after July a few more added.

So even if it is written here, for general sample submission it is regulated by this clause as for site inspection, they will follow 6210 on site delivery, to deal with on site delivery.

Q. So if they just follow strictly 6210, then with regard to the kept samples, kept approved samples, it is just useless; it's a waste of effort; do you agree?

A. With regard to on site delivery, 6210, there was no flux. There was no such an item. Before July, with regard to welding material, we had little awareness about it. We had little awareness of its importance.

Therefore, after July, we have added this item.

Q. Let's look at a delivery receipt or delivery note.

B9.4/22577. Now, this is in respect of Tung Wui Estate.

This is one of the delivery notes. Item 3, "UK 50 flat tin wires". Now, according to the present arrangement, according to the arrangement then, when it became as the so-called 50 power flat tin wire, you would not check that; right?

A. With regard to these delivery slips, we do not look at them. With regard to Prosperity --

Q. I know you didn't look at the delivery note or the delivery slip. Now, the delivery note provided the materials delivered. That included the 50 B wire, and you didn't check and you didn't discover that?

A. When they delivered the goods, we didn't check the goods on site.

Q. I have a question then. Before this incident, you were the chief architect. Did you know the difference between tin wire and tin rod?

A. I have not heard about the tin rod, tin wire, but after that, there were a lot of discussions, and they also mentioned items which are low temperature. It was rather confusing. Before July, I haven't heard it before. Even if I heard it after July, I still find that confusing.

Q. With regard to the statement of a licensed plumber --
P1, Mr Ng Hak Ming -- according to his statement, the
statement covers several estates, including Ngau Tau Kok
Lower Estate. Since you were also the chief
architect --

A. Not until completion.

Q. Right, not until completion.

Page 3. Page 13, paragraph 4.8, somewhere in the
middle: "Ming Hop, the site supervisor of Ming Hop", and
then the middle, "The Ming Hop site supervisor was
responsible for answering the question of the architect.
I asked Ming Hop; they said that someone at the mock-up
room ..."

Does it refer to the mock-up room?

A. Yes. Let me explain. Sample room, it's the sample
room, for the standard of receiving the goods. We
looked at finishing and workmanship.

Q. Is it the locked-up room I referred to?

A. No, it's another room.

Q. Okay, let me continue: "We met the workers of the
plumber contractor. They have a roll of tin wire
required by the Housing Department and demonstrated the
welding process. Before the Housing Department
architect and engineering staff are coming to the sample
room and gave the approval, I went to the sample room to

conduct a visual inspection."

They have an on-site demonstration of welding. Were you aware of that?

A. When I read the statement for the first time, I don't think there is any possibility, because the sample flat or sample room is to indicate what sort of tiles we have chosen, whether the colour is right, we want to confirm that, and we also look at the workmanship, the finishing. The sample flat is the standard for our commissioning.

As for demonstration welding, I have never heard it. We did it in the sample floor.

Q. Have you ever heard that there was welding demonstration in other places?

A. No, the sample floor was not used for that. I have never heard about it.

Q. So you were not aware of any example that there were such demonstrations?

A. According to my understanding, the sample flat is not for this purpose. It will not happen like this.

Q. Let me then ask you another question. Earlier on, we asked the Deputy Director, Ms Fung, and also another chief architect, Ms Tam, it was in the year 2002 -- you might have recollection about it -- the Housing Department encouraged main contractors to start

considering using copper pipes instead of GI pipes.

A. In the year 2002, there was a circular, on internal instruction. We are all aware of that because it was an instruction.

Q. What was the content of the instruction?

A. According to my impression, it was to allow the contractors one more alternative. The contractors can propose or could propose copper pipes. In the year 2002, we used uPVC-lined GI pipes, but in the private sector or in other self-renovation works, copper pipes were very common. Therefore, we propose a choice for the contractors. The contractors can make such a proposal.

Q. Did you know that when giving more choice to the main contractors, what sort of risk assessment had been made and whether outside experts were asked to conduct risk assessment, say with more use of copper pipes, would that lead to harmful materials or would that cause adverse impacts on the residents?

A. I am not aware of that. I am not aware of whether they have done that or not.

Q. Now, you refer to encouraging them to use copper pipes. Were there any discussions on what type of copper wires and mechanical joints or what type of joints, compression joints, were there discussions? Were you

aware of that?

A. According to my recollection, with regard to the instruction, it was by the building services engineer: "If you have any doubt, please contact the chief building services engineer, and if there is any cost implication, you should contact the chief quantity surveyor."

I do not know, in the process, whether the chief building services engineer discussed with the trade.

Q. With regard to copper pipes, do you have any understanding or knowledge about push-fit?

A. I have not heard about it before July. After July, the welding materials had great impacts, I heard about mechanical joints, press-fit and push-type, we saw demonstrations.

Q. Was it recently?

A. After July.

Q. Now, starting from 2002, there was this trend. Did you make reference to the practice of private developers, what kind of copper pipes did they use; did they use copper pipes widely?

A. I was not involved, therefore I cannot say anything about it.

Q. There is a question which is slightly related to this. Now, Mr Ng, a chief building services engineer,

mentioned nominated subcontractors and domestic subcontractors, and he pointed out the differences. One is domestic subcontractor and the other is nominated subcontractor. If we are to do something in respect of fire services or the pump room, it will be the nominated contractor. As for plumbing works, one can use a domestic contractor. With regard to plumbing works, have you ever discussed the need for nominated contractors to do the jobs?

A. With regard to the use of NSCs, as you have said, the lifts, the fire services pumps, they are specialised works and they deal with the system. Therefore, we have the NSCs.

As for domestic subcontractors, the main contractor, in respect of his work plan, can get skilled and non-skilled workers. Say, for example, scaffolding, we will not use NSCs. They need to fit in with their own work plans.

As for plumbing, we also allow domestic subcontractors. We now know that it is not very simple, but it is not very complicated. Say for buildings work, there can be co-ordination with the main contractor. Therefore, it's put under domestic.

As for the situation after July, whether we should have NSCs, I think it is a matter of welding material.

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 13 B

C It is not quite related to the contract or contractual C
D arrangement. Before July, even if we used the NSC, we D
E might not have avoided this problem. E

F Q. Can I put it this way -- can we put it this way: in F
G general, the Housing Department, in supervising site G
H works, it's easier for you to do so, or more H
I straightforward for you to do so, when compared to the I
J domestic subcontractors; do you agree? J

K A. Not necessarily, because we rely on the main contractor K
L to supervise the domestic subcontractors. L

M Q. On cost -- M
N A. Yes. N

O Q. -- is it the case that in general, the DSCs, the O
P domestic subcontractors, in other words -- P
Q A. You are referring to the domestic? Q

R Q. Yes, I am talking the domestic. Now, the DSCs and the R
S NSCs would say that in general the cost for the NSCs S
T would be higher? T
U A. No, I wouldn't put it that way. For NSCs, how do we U
V identify a contractor? It's through the tendering V
process.

Q. Thank you.

R May I now show you a document? R

S A. Yes. S

T Q. B15.3, page 39597. Sorry, it should be 39600. T
U
V

A. Yes, I see it.

Q. Now, Mr Ng Tat Kwan, the chief building services engineer, when he gave evidence, he submitted a document to us. He said that in 2002, at the time the Housing Department was actually encouraging the main contractors and the industry to choose copper pipes, and so on.

Now, at the time, Mr Ng was aware that under the trend, there may be more frequent use of copper pipes.

A. Yes.

Q. So his colleagues took the effort to organise some specifications or revise them, rather.

A. Yes.

Q. And one of the items is the materials we referred to -- that's 39610.

A. Yes, I see it.

Q. Now, here, after 2000 -- because 2000, there was the specification, and then in 2002, the colleague looked at what could be changed or he referred to the British Standards to see what changes were made, and then the document was put together.

On water supply, it's where copper pipes or other materials might be used for some of the parts. So he came up with a supplement. That's a spec.

A. Yes.

Q. 39616.

A. Yes, 39616, I see that.

Q. "(In English) Soldering alloys for copper and copper alloy capillary fittings."

So we see the materials, and one of them is BS EN 1254, we have heard it many times, and then the lead-free solders.

A. Yes.

Q. At the time, this document was put out, so people know what specifications needed to be renewed or updated.

A. Yes.

Q. On the discussion of this document, I see the distribution of this document, on page 39605. Do you see that, the distribution list?

A. Yes.

Q. It was distributed to different departments and colleagues. Do you recall if you received this document at the time?

A. I read this document. There's an SM/TS2. So our tech secretary should distribute it onwards to other colleagues, because I recall, in 2002, email wasn't that common yet, so we had to distribute through controlled documents.

Q. Do you recall, after you received the document, was there any discussion on the revised specifications? Do you recall?

A. I couldn't recall. I don't think -- I haven't come across it, rather.

Q. Okay. Thank you.

Last point. If I could go back to my question this morning on the WHO standards. This morning, I referred you to the 2008 version of the WHO water quality guidelines. After the lead in water incident, for yourself -- I am talking about yourself.

A. Yes.

Q. Did you go back to read the WHO standards?

A. I haven't had a chance yet. I personally haven't had a chance yet. I often hear people will say that the WHO standards is a bulky document, it's rather technical, so I haven't actually studied it myself.

Q. Okay. Looking at this incident --

A. Yes.

Q. -- I understand, on water testing or the collection of water samples -- well, there are certain standards. We heard several other witnesses refer to that. And you actually go by the standards of the WSD?

A. Yes.

Q. Okay. Now, this incident happened. For the Housing Department and the Housing Authority, when it comes to the construction of public rental housing estates and water safety, apart from listening to the Water Supplies

Department, do you believe there is a need for you to either engage an expert or do your own independent water safety assessment?

A. You mean on top, extra?

Q. So you don't just look at the WSD guidelines. So do you think you need to do any independent assessment? Let's say if the WSD asked you to test eight items, maybe after the assessment you decide to test 52 items, for instance?

A. After July, in fact the Water Supplies Department immediately issued the circular 1/2015. In addition to the eight items, there's the testing of the four heavy metals, including lead.

As far as I know, the department has no plans to do anything extra, because after all, we would have to seek advice from the WSD, because it is the local regulatory department, it sets a standard and we follow the standard, because we believe -- okay, now, like this lead in water incident, this time, we believe the expert department would turn that requirement into a guideline in a timely manner, because it may take a long time to enact legislation. So circulars can then be issued for the industry to follow.

As an executive department, of course we must follow the circulars.

Perhaps I could share this with you: we do not just follow the eight items stipulated by the WSD. In my witness statement, in the last few paragraphs, the way forward, our aim is to make sure water is lead-free, so we have a series of action to take in the implementation details, like quarantining of materials and who does the soldering works, and this has to be registered, and so on. So this is something we will do.

But on the technical aspects, as far as I understand, the department has no plans; we will have to rely on the WSD.

Q. Now, you mentioned the proposals in your witness statement, what you plan to do in future to improve the arrangement, and so on.

A. Yes.

Q. Now, was this lead in water incident -- we are talking about lead in water -- we understand, for some pipes and their components, some may contain lead. They may also contain cadmium. Are you aware of that?

A. I know about the four heavy metals, and one metal to be tested is cadmium.

Q. Yes. So, if your measures only target lead but not the other heavy metals, would you say it won't be adequate?

A. No, I don't think so, because the WSD has already issued a circular to test for the four heavy metals. So,

towards the end of construction works, we must test for the four heavy metals.

After the lead in water incident, after July, we know there's this XRF device or machine. If we leave the water testing too late, it may be too late, so we won't rely on that, but rather in process, that means midway, we will ask the contractor to use the XRF device to check, because that device can check for many different heavy metals. So we will therefore do scanning for the four heavy metals.

Q. Now, this quick test --

A. Yes, the XRF.

Q. -- for this device, when did you come to know about the existence of this device?

A. Definitely after the lead in water incident.

Q. Before then, did anyone ever tell you about it?

A. No, never.

CHAIRMAN: Can I ask: according to you, the WSD issued a circular to test for four heavy metals, in addition to the list. Well, that's fine, no problem. Water does not contain these heavy metals, but I think you know there was one allegation that for the components you used, the lead content was way above the British Standards. We are not talking about soldering; we are talking about valves, right? The WSD won't tell you

C about those components. If there's existence in the
D standard of these items, you can't find out during the
E water testing process. The WSD won't test those
F components for you.

F Water quality or lead in water is one issue.

F A. Yes.

G CHAIRMAN: The products you use, the components you use,
H whether they comply with British Standards or your
I contract requirements, that's a separate issue. In
J other words, if you just follow the WSD's advice, that
K means the Housing Department is actually allowing some
L of the more scrupulous contractors to use substandard
M products, and at the end you don't test for them, there
N will still be a problem; do you get what I am saying?

M A. Yes, I do. For components, there is a spec to regulate
N the components.

N CHAIRMAN: But you never checked them. Concerning the
O components, you never checked them, except those you
P mentioned. For example, the tap, there was a pipe
Q bracket. Otherwise, you don't check other things.

Q Now, concerning the components, it is alleged that
R they do not need the British Standard. You will never
S know.

S A. If there is such a requirement in the spec, and if the
T component complies, that would be okay.

C CHAIRMAN: According to the task force of the WSD. C

A. Yes, I understand.

D CHAIRMAN: There are many laws in Hong Kong, and there is D
E a police force with a strength of about 20,000 to 30,000 E
F officers. They are to enforce the law. They are to F
G prevent people breaching the law. You cannot say G
H because the law is there, nobody will breach it. H
I Somebody may breach the law. I

A. Thank you for your view, Mr Chairman. With regard to
I the water supply system, apart from welding materials, I
J whether other parts should be looked into, we will J
K consider whether we need to strengthen that. K

CHAIRMAN: You can see that the WSD may not --

A. Yes, I understand.

L CHAIRMAN: So, if you allow it to go on like this -- today L
M it's about solder, next will be wire valves, and next M
N will be taps -- there will be endless problems. Copper N
O may not be a problem, but there is a standard for O
P copper; right? And that can also be exceeded, in terms P
of copper.

A. Fortunately, the WSD conducted tests. Copper wires --
Q copper pipes are copper pipes. Q

R CHAIRMAN: The PLU1 is about water supply. It's about R
S plumbing. And you don't test the water. Therefore, S
T people add substandard materials. At the end, that may T
U
V

not affect water quality, but that affects the quality
of your building.

A. Yes.

CHAIRMAN: Thank you.

Cross-examination by MR CHAN

(All questions from Mr Chan were in English)

MR CHAN: My questions follow on from one of the questions
that the chairman was putting to you.

Ms Yim, we know by now that the role of chief
architect includes contract administration.

A. (In English) Yes.

Q. That is a term that appears quite frequently in your
statement and I think in some of the other statements or
all of the other statements from the other chief
architects we have heard from. I want to better
understand how this discipline of contract
administration works in practice. I want to understand
the Authority's whole mentality and approach to contract
administration. Okay?

Could I take you to paragraph 50 of your statement
for the present estate. That's page 38412.

Ms Yim, what you will see soon, if not already, is
an extract that you very helpfully set out in your
statement, which recites the detailed provision of
specification that was included in the contract for this

estate, and others, in relation to the use of solders.

Do you see that?

A. (In English) Yes.

Q. Do you agree that it was very clearly considered important to the Housing Authority that all of the matters set out from (i) to (iv) be complied with? That is why they were stated in black and white by way of a specification?

A. (In English) Yes.

Q. Can we hone in on the third specification, just for now, the (iii):

"Use only lead-free category solders".

Now, similar to your previous answer, I assume you agree that no doubt the Authority, the Housing Authority, would not have bothered to have included such a contractual specification unless it recognised at the time that there was at least some risk of non-lead-free solder being used without this specification having been made?

A. With regard to specifying lead-free category solders, as I said earlier, we know that lead is toxic and therefore we should use lead-free solders. As for the water pipes, how lead can affect water quality, and if there is lead in fresh water, how much lead will affect human health, we don't know. But we still specify lead-free

category solders.

Q. Perhaps it would be helpful to take this in stages, in fairness to you.

Firstly, there must have been a conscious decision at some point, when this draft was being prepared, to include this particular specification; you agree with that, yes?

A. As we have just read the instruction, in 2002, there was this lead-free category solder.

Q. Yes, and what I would suggest to you, on this basis, is that at the time when this specification was included, the Housing Authority would have recognised at least two important matters. The first important matter is that not all solders which might be used for plumbing are lead-free. That's why they specified specifically non-leaded solders. Do you agree with that?

A. I agree.

Q. Secondly, the second important matter, which really follows from the first, is that there was at least some recognised hazard that unless clearly instructed by way of a specification, contractors or subcontractors might use leaded solders for pipes which provide drinking water?

A. Let me stress this again. If there is lead in solders, we don't know how that will affect quality of water.

Q. Ms Yim, we will come to this in just a moment.

I appreciate, of course, that within a single building project there may be many contractual specifications, and I also understand that while all the specifications in a contract are significant, otherwise they wouldn't be in the contract, the Authority cannot put equal attention on all of the terms for the purposes of supervising or checking. Is that a fair statement, first of all?

A. Will you please repeat what you said?

Q. We know, and I understand your position to be, that there's quite a lot of specification that goes into a single project. So unless there's some particular reason to focus on some particular specification, you may not place special attention when it comes to supervision or checking?

A. Now, before July, with regard to this item, we were not aware of that. There were other site inspections.

Q. You have already told the Commission that you knew, at least generally, that an excess of lead in water may be harmful to human health. Do you remember that?

A. I said earlier on that lead was harmful to health. With regard to lead in drinking water, what is the quantity that will cause harm to health, I don't know.

Q. All right. Well, this is what I am looking to explore

with you, actually. At the very least, what would have been clear to anyone looking at this specification, seeing it there in the contract, is that it was fundamentally concerned with human health, protecting human health; do you agree?

A. I do not second-guess its intention.

Q. Okay. We talk about different types of specifications. It's surely not a specification, quite plainly, on your experience, that's similar to something that specifies pink for the colour of the bathroom sink or a bathroom tile. I mean, if it's not concerned with health at some level, what would you make of the purpose of the specification?

A. Now, concerning the specification for materials, we have to make reference to international standards. Say if the international standard points at health, then we will be aware of that. Otherwise, we will just rely on the international standard; for example, the British Standard.

CHAIRMAN: So are you saying that lead-free is put here and you don't know the reason behind that?

A. I don't know the reason behind that. I don't know.

MR CHAN: Why don't we proceed on this basis: if you or someone else within the Housing Authority recognised, at least in basic terms, that this specification was

broadly to do with protecting the health of your residents, would you not proceed in this way -- you would at least want to take steps to identify the extent of the health-related risk that this specification was there to guard against?

A. After July, we became aware of the importance of lead content and therefore we did a series of enhancement. If only we knew it.

Q. Ms Yim --

A. But having said that, the contract put it down very clearly: when solders were used, one had to use lead-free category solders.

Q. This goes back to my point, Ms Yim. You had taken the trouble of specifying this in your contract. You were responsible for administering the contract. As an administrator, did you take the time to consider what the point of this specification was?

A. We required the contractors to comply with the specification requirements.

CHAIRMAN: Yes, we know, but his point is, you are the contract administrator. Now, you enter into a contract with somebody else, you put down the terms in your contract. His point is, now you put the terms into the contract, and you don't know the purpose, you don't know what you are looking for?

MR CHAN: Ms Yim, really the point is this. You have various specifications to police or oversee. If you don't even know what the point of this specification is, then how can you decide, as a responsible administrator, what to prioritise, in terms of the specifications that are in the contract? How can you decide one way or the other, "I will pay less attention to this, because it's only to do with aesthetics; I will pay more attention to this because it's to do with human health"? Are you telling me that you didn't even know at the time that this basic specification was generally to do with human health?

A. I really don't know.

Q. Is this the general of familiarity you have with the specifications that appear in your contracts?

CHAIRMAN: Please don't digress.

MR CHAN: I will leave that for submissions, Mr Chairman.

CHAIRMAN: Because for chief architects who have been to this Commission to give evidence, it seems that their level of awareness is similar to yours. Basically, that means there's no awareness. Do you think that is a fair comment? That is, you just know that lead is toxic, but -- well, perhaps it's not fair. Well, just talk about yourself actually, because we have asked the other witnesses already.

MR CHAN: Ms Yim, I think we have probably gone as far as we can go on this particular issue, but can we move to a related topic, and that's the purpose of the inspection regime of the Housing Authority, as you understand it.

CHAIRMAN: Please wait for a minute. I want to go back to my questions on this. I have a few questions. Perhaps you already know what I am going to ask.

Lead is toxic. That's something you know. That's a broad statement; you know that. Do you know that if there is lead in water, in fact it has led to a problem in many other countries before July. Were you aware of that? That is, in many countries there was a problem of lead in water.

A. No, I wasn't aware of it.

CHAIRMAN: So, in other words, you did not know for what reasons, why in these countries there was a problem with lead in water?

A. No, I did not know it.

CHAIRMAN: So, in other words, you also did not know that for pipes made with lead, they had caused the problem of lead in water in many countries?

A. No, I haven't come across that.

CHAIRMAN: And of course then you didn't know anything about soldering materials?

A. Correct.

MR CHAN: Thank you. Ms Yim, would you agree with this:

when it comes to ensuring the compliance with a specification that relates to human health, it's not sufficient to simply proceed on a passive basis? Because when it comes to human health, you should take active steps to see what risks are out there, whether within the Hong Kong context or from international experience. You can't just wait and see if anything has gone wrong and someone has told you about it. You have to take active steps, because this is to do with human health.

A. Well, let's take the lead in soldering materials just as an example. Now we know its impact on health and water quality. As I said, we would take a series of steps. But at the end of the day, we would still have to rely on the regulatory department, that is the WSD, to give us technical advice.

MR CHAN: Ms Yim, I suggest to you that the series of steps that you have just referred to would have been open to you, and should have been taken by you the moment it was recognised, or it should have been recognised, that this was a specification that was guarding against some human health risk; that there was a risk that non-leaded solders would be used and that that would be harmful, to

some extent, to human health. At that point, you should have taken steps to see exactly what the extent of harm was, and the extent of risk was, of non-compliance with this specification; do you agree?

A. If we had known there was this impact, apart from looking at the advice of local regulatory department, we would also take some follow-up action and do a bit more, but before July we did not know about it.

Q. Why don't we look at it this way, that if we go to paragraph 36 of your witness statement, page 38407, under the heading, "Housing Authority's periodic inspection" -- so we are looking at the Authority's approach to inspections -- and what you say, Ms Yim, is that you gave -- and I assume this is consistent with Housing Authority's policy -- periodic supervision and such inspection as necessary to ensure that the works met specified requirements.

Do you see that?

A. Yes, I see that.

Q. So, if I understand you correctly, from the Housing Authority's own perspective, the purpose of having any sort of supervision system was to ensure compliance with your own contracts, including the specifications; yes?

A. When we do periodic supervision, one of the reasons is of course to make sure that the works meet with

specified requirements. From another perspective, even if we do not look at that, it does not mean then materials not in compliance with the standards are allowed.

Q. Perhaps we'll just focus on your role for this moment. As far as I understand, as far as the Authority's objective in conducting inspections are concerned, that was precisely to ensure that its own specifications were met.

A. Well, whether they comply with the contractual requirements or the specifications, I guess that's the responsibility of the contractor.

Q. Now, do you agree with this, that while it may be that other public authorities may or may not have an interest in some specific aspects of Housing Authority buildings -- whether water, electrical safety or otherwise, air -- when it comes to the matter of contractual compliance with the specifications, that is a matter for the Authority itself? You don't ask, for example, the Water Authority whether your contract has been complied with?

A. Sorry, I didn't get your point.

Q. Yes. It's probably my fault.

Now, you have just told us that the point of your inspection regime is to ensure your contracts are

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

complied with, and I just wish to confirm with you that when it comes to the question of whether or not your specifications are met, contractually, not whether from the perspective of another regulatory scheme but contractually, that is a matter for the Housing Authority and the Housing Authority alone?

A. I do not agree.

Q. Okay. Would you care to explain?

A. Because to meet specified requirements, it's because the other party of the contract is the main contractor, so the contractor also has the duty.

Q. I see. It's between the parties to the contract, in other words?

A. Sorry?

Q. It's between the parties to the contract. I said you have a concern about ensuring compliance, and you said, "No, the main contractor is also responsible", and I'm saying I accept that. That's because the contract --

A. (In English) Yes.

Q. -- that contains the specification is between the Housing Authority and the main contractor and no one else; is that correct?

A. The main contractor of course has the duty, but we, as the other party to the contract, would rely on site inspections and so forth. Hopefully then we could

conduct surveillance. But even if we do not cover something, it doesn't mean that they have not met the contractual requirements.

Q. Two last questions. One relates to paragraph 67 of your statement. It's really just a point of clarification, for information. In paragraph 67, page 38417, there's a passage in the second half of that paragraph which has appeared numerous times, in essentially identical terms, in a couple of the statements of your colleagues as well, other chief architects. That's where you compare soldering materials to things such as iron tying wire, screws, bolts and nuts.

You say specifically:

"Soldering materials have been regarded [by the Authority] as a sundry item ..."

A. (In English) Yes.

Q. "... similar to the iron tying wire used for fixing steel reinforcement, screws, bolts and nuts et cetera ..."

Yes?

A. Yes.

Q. Firstly, can I just check with you: as far as things like iron tying wire are concerned, are these the subject of any specifications in your building contracts, in the same way that lead solder is?

A. That I am not sure.

Q. Okay. I note your answer. Assuming even that they were covered in some way, presumably they would be in relation to, say, a screw, the diameter, or other technical matters, but not matters such as lead or unleaded, to do with health. Are you able to comment on that at all?

A. Well, if you are talking about this paragraph, all that I could say is this. Soldering materials may be a sundry item and so they would not be priced separately, but at the time we were not aware of the risk. That's why we did not flag up this particular item for inspection. But for us, even though it's a sundry item, if it's important we will still flag it up.

Q. Ms Yim, may I suggest this to you, that a possible error on the part of the Authority, which seems to be repeated in this paragraph, is to consider leaded solders, or the specifications of solders, to be of a similar level of importance as screws, as iron tying wire. I suggest to you that it's not, as the specification which goes into great detail as to the use of a safe type of solder shows.

A. Yes. As I said earlier, the importance of a material is not whether it is -- because it's small so it's included

under sundry items -- say lead in soldering materials, although it is a sundry item, in fact, after July, we knew about it, we would still put it under sundry items, but the importance of the item would not be the same as general sundry items.

Q. Okay. Now, the very last area is to do with the Authority's level of knowledge at the relevant times, especially in relation to international guidelines such as the WHO Guidelines.

I believe one of the contractors yesterday included a new document -- at least to us, it seems to be a new document -- at bundle G1, page 634. If I am right with that reference, what you will see in a moment is a copy of minutes of -- maybe you can scroll down first. I am told it may not be uploaded yet.

I will tell you what the document is, to see whether it is in the system. It's a set of minutes dated 26 April 2000, of the Advisory Committee on the Quality of Water Supply.

G2, page 634. It's a Paul Y document. It says 634 on the bottom-right of the page. I'm working from my copy.

Oh, good. Okay. Now, these are a set of minutes, and I am just going to ask what knowledge or view you may have as to what's said in these minutes.

Could I just ask you to note a number of things first: firstly, the date, which I have mentioned, 26 April 2000; secondly, the nature of the committee whose minutes these are. It's an Advisory Committee in relation to water quality. Okay?

A. Yes.

Q. There's a list of people present in the committee, and can I just ask whether, in relation to the individual third from bottom, Mr Wong Bay, you recognise that name?

A. He is a retired assistant director, from the Estate Management Division.

Q. Okay. So he was formerly of the Housing Authority and a colleague of yours?

A. Yes, he was a staff member of the Housing Authority.

Q. Can I ask you to turn to page 636, internal page 3, item number 6. This is a discussion item referred to, identified as "ACQWS Paper No. 1", so it's the very first paper that's been prepared for this Advisory Committee, and the title of the paper is "World Health Organization Guidelines and International Standards for Drinking-water Quality".

A. Yes.

Q. And 6.1:

"The purpose of this paper was to introduce and compare the three most well known water quality

guidelines/standards in the world."

It goes on; I won't read all of that. 6.2 refers to no fewer than 94 health-related chemical parameters which are to be found within the WHO Guidelines. We don't need to look at the guidelines themselves. The paper tells you, and the members of this Advisory Committee are also being told, it seems, from the minutes.

You will see there's some active discussion, 6.3, "In response to a member's request" -- I don't know which member -- the WSD promised to provide certain details in relation to the parameters, beyond the ones that were already detailed in the paper and at the meeting.

Ms Yim, can I suggest to you that given what we see from the minutes, including the paper, that it was known to some, at least, within the Housing Authority that the WHO had very specific and detailed guidelines in relation to the management of water quality?

A. With regard to the minutes, this is the first time I read it, and I have seen that Mr Wong Bay was present, but I have no recollection of under what context he said this, and I do not have any impression whether Mr Wong Bay brought the discussion back to the Housing Department. I don't know.

Q. Fair enough. Can I just suggest to you that the reason why your colleague, Mr Wong, was there at the meeting, is that it's generally recognised that matters such as these WHO Guidelines were matters of importance, potential importance, to a number of different bodies, including the Housing Authority?

A. I think you have to ask Mr Wong.

Q. That's fine.

Lastly, would you agree, if you would, that the whole point of this committee, which is an Advisory Committee, is precisely to ensure that people such as Mr Wong, representing the Housing Authority, would be aware of such matters as the WHO Guidelines?

A. Mr Wong Bay attended the meeting. My feeling is this. Say if there were important issues which was worth the concern of the whole industry or trade, then I believe the departments concerned, such as the WSD, would turn that into guidelines for the trades or industries.

Q. Ms Yim --

A. Rather than after having a meeting, each department just did its own work.

Q. -- Mr Wong was your colleague, from your department at the Authority; yes?

A. Yes.

Q. And if I understand your evidence correctly, despite

C having attended this meeting and been given this
D information, as far as you were concerned, there was
E nothing that Mr Wong did to communicate the content of
F this meeting to you? In fact, you just said this is the
G first time you have seen anything in relation to --

F A. Yes, myself, personally. F

G Q. Okay. Could I just ask you to note and comment on one
H last thing: item number 5 at page 635. It will be in
I the same document that's in front of you, just one page
J over. Yes. I

J Paragraph 5.3, do you see, in the first sentence,
K "It was clarified that the responsibility for water
L quality of WSD was up to the connection point"? K

L A. (Chinese spoken). L

M Q. Can I suggest to you two things: firstly, this was and
N remains the position that was communicated and known to
O the Housing Authority, at least, from at least this
P point of time, in 2000? M

O A. I see that it is written there. As far as we know, as
P for inside service, whether the WSD has no
Q responsibility, that is debatable. Under WWO46, part I,
R annex, what materials should be used should comply with
S the requirements of the WSD. So in terms of materials
T supervision, the WSD is involved. R

S Q. Thank you. Is there anything else you wish to say about
T U V

C this paragraph? C

A. No, nothing else.

D MR CHAN: Likewise, I have no further things to say to this D
E witness. E

F Cross-examination by DR McCOY F

F (All questions from Dr McCoy were in English) F

G DR McCOY: Ms Yim, you have just been asked questions about G
H this document from the year 2000, and you have said you H
I hadn't seen it before. I

A. Correct.

J Q. Let me tell you that I have been able to obtain the J
K minutes of all of the minutes of this committee, and let K
L me tell you there are 35 separate references to the L
M World Health Organization report in the minutes -- 35 M
N separate references, spread over 11 years -- and at N
O every meeting there is a directorate officer from the O
P Housing Department in attendance. P

Q Can you tell the Commission of Inquiry why meetings Q
O of this significance would not have been circulated at O
P least to other directorate officers in the Housing P
Q Department or Authority? Q

A. I don't know, apart from Mr Wong Bay, who were the other R
R colleagues present. R

S Q. Who was Mr Chan Siu Tack, Assistant Director of the S
T Housing Department? Which unit or division is he in? T

U

U

V

V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A. You refer to Mr Chan Siu Tack? Estate Management
Division AD.

Q. Right. Now, can the witness please be shown page 37440.
That's B15.1/37440.

A. Yes, got it.

Q. It's a circular letter, that's right, from the WSD. If
we could come down to page 37441, please. This is the
circular letter of 13 July 2005. You have now seen this
letter, I assume?

A. Yes, got it.

Q. Thank you. Turn to the page, please, that contains the
list of the four heavy metals there.

A. Got it.

Q. These are the four heavy metals which have now been
added to the testing by the Housing Authority or Housing
Department; is that correct?

A. We followed the circular letter of the WSD. We will
test these four metals.

Q. So you now have added this to your testing regime; is
that correct?

A. Correct.

Q. Looking at the four heavy metals, they all have, but in
terms of relativity, different acceptance criteria. We
see lead, less than or equal to 10 micrograms per litre,
all the way up to nickel, at 70; do you see that?

A. Yes, got it.

Q. And you would accept that on the face of it, the most dangerous of the four heavy metals is cadmium, because the permissible tolerance is less than or equal to 3 micrograms per litre?

A. With regard to acceptance criteria, as for the number, it is. But whether cadmium is more toxic, I don't have the knowledge.

Q. Well, can you think of a rational reason why the Water Supplies Department, after the crisis involving lead, would now not have some scientific basis for the relativities under acceptance criteria?

A. I don't know. I'm not sure what's the intention behind the WSD.

Q. On the face of it, you would accept that cadmium appears to be the most dangerous of those heavy metals; do you agree?

MR HO: I think the witness is not a chemist. It's not fair. I think she is just a chief architect. Whether that amount is more dangerous or most dangerous, maybe you take a lump of sugar or you take cyanide -- I don't know whether by this comparison you just look at the numbers. I don't think it is a scientific way of going about it.

If she is a chemist --

CHAIRMAN: Well, maybe let us put it this way. I think Mr McCoy is asking a common-sense question. It's just simply, looking at the quantity, just simply looking at the quantity, cadmium -- now, you have to know that these parameters are referring to significant health risks to human health. In other words, cadmium 3 micrograms per litre will have a health risk, whereas lead 10 micrograms -- just looking at the numbers, you may say so, or one may say so.

MR HO: I am not a chemist; I cannot answer your question.

CHAIRMAN: It's not the problem. I'm a chemist, I can answer my question. If you are a chemist -- and I also believe that Mr McCoy is just adopting a common-sense approach -- just to put it simply -- now, if you compare apples with oranges, you can't do so. Concerning the seven parameters -- colour, turbidity, the value is higher than others or lower than nickel or lead -- then you compare an apple with an orange; you can't do that.

But if you simply compare toxicity -- here, it's all about toxicity -- will that cause a health hazard?

MR HO: Your Honour, you are a chemist.

CHAIRMAN: Well, you just set it aside.

MR HO: Your Honour, if they want to ask a question, and if getting deeper and deeper, then you have to see that the witness is a chief architect. If it's just common

sense, that's okay, but if you ask in-depth questions, which one has a higher toxicity, which one is more dangerous, I don't think that's a fair line of investigation.

CHAIRMAN: Well, I agree.

You mean that if you ask Ms Yim why cadmium is set at 3 and the other is set at 10, she of course cannot answer your question. But when this is set at 3, since this is set at 3, the toxicity must be stronger than the one which is set at 10; she should be able to answer this question.

A. Well, chairman, I just said that just looking at the numbers, because cadmium is set at 3 micrograms per litre, just looking at a number, this is important. But I have also said that the impact on human health, whether it is cancer or what --

CHAIRMAN: That's not the question. This is not his question. He just asked you a simple question. Now, to put it simply -- let's not make it too difficult -- now, if you consume 10 spoonfuls of lead, you die, whereas 3 spoonfuls of cadmium will kill you. That's a simple analogy. Why one dies, we don't know whether one dies because of liver failure or a kidney failure.

A. But we don't know the things behind the WSD. They may have a lot of data supporting that. In our testing,

since it is stated in the WSD's circular letter, asking
for testing --

CHAIRMAN: Mr McCoy, please go on.

DR McCOY: Sir, mine is a very simple question.

Just looking at the numbers, it is obvious that at
least the Water Supplies Department have determined that
cadmium is more dangerous than lead and lead is more
dangerous than chromium and chromium more dangerous than
nickel, and I suggest that's common sense, from the
numbers.

There's a reason I am asking this question, and
I will come to it soon.

Do you accept -- when was the last time that you
read PLU1.M, "Plumbing -- Materials"? When was the last
time you read that?

A. A few days ago.

Q. Did you read the whole of it?

A. Part of it.

Q. Yes, because PLU1, you would agree, is about 32 pages
long; yes?

A. Yes.

Q. And PLU2 is about 28 pages long?

A. Yes.

Q. Right. Do you agree that in fact there is a specific
reference to cadmium in PLU1; do you agree?

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A. I am not aware.

Q. I will help you. Could that be put up, please, and the relevant page is at page 13700, B6.2. That's right.

Now, if you look, first of all, at PLU1.M160.5, item 3, we see the well-known:

"Use only lead-free category solders".

Go up one -- go up to the top of the page, please, and look at number 2:

"Use cadmium-free category brazing alloy".

Do you see that?

A. (Chinese spoken) --

Q. Hang on. I haven't asked the question. Just wait.

That's always your problem. You are always answering when I haven't asked.

When did the cadmium-free category brazing alloy specification first go into PLU1.M?

A. I did not prepare the 2000 specification so I do not have that information.

Q. When did you first notice that there was a provision for cadmium-free brazing alloy in the specifications?

A. If I may make a correction. I read this clause recently, but the meaning or the significance behind it, I'm not aware of it.

Q. And prior to reading it recently -- and by that, do I take it, after July 2015, "recently"?

A. My recollection is that I would read it more frequently recently, but in the previous years, whether I had a good look at it, I couldn't recall, but recently I have been reading it quite a bit.

Q. There's no doubt about that.

Now, you see there a specific reference involving a cadmium prohibition; right?

A. Yes.

Q. And I have shown you that at least the Water Supplies Department would consider it even more dangerous than lead, from a common-sense point of view. I showed you that, didn't I?

A. Yes.

Q. Now, you took no steps in relation to testing for lead. Is the Commission to be told that you took no steps in relation to testing for cadmium prior to July 2015?

A. Yes, you could put it that way.

Q. Why, do you imagine, there is a prohibition on cadmium brazing alloy?

A. I do not know.

Q. I am asking you now to do your best to assist as to why you think -- what reason there would be for such a prohibition. Is it because it's dangerous?

A. Well, if I read the 2015 circular from WSD, cadmium is one of the heavy metals that needs to be tested, then

I have reasons to believe, logically, then this is something we need to look into.

Q. So at all times cadmium has been dangerous, yet there were no steps taken by the Housing Department or Housing Authority to test for it prior to July 2015; correct?

A. Yes, you could put it that way.

Q. Is there selenium, S-E-L-E-N-I-U-M -- is there selenium, which is an element in the periodical table -- is there selenium in housing estates in Hong Kong?

A. I don't know about it. I'm not sure.

Q. Is the reason you don't know because you haven't tested for it?

MR HO: I have to raise objection here. Here we are talking about lead in water. We have to talk about a lot of chemicals. Your Honour, I don't know whether it's in your terms of reference that we have to look at cadmium and other materials, because if that is the case, then we should know in advance. Then you should let us know, because then for other witnesses we may have to prepare the relevant materials. I don't know, your Honour, whether you are interested in learning about cadmium, selenium, I don't know how many other materials he is going to raise.

DR McCOY: I intend to raise no other materials.

CHAIRMAN: The last one, I have some reservation. Cadmium,

in BS 1254, 1998, it's already there. Why was cadmium written into there? It's because of 1254, 1998. So we are just looking at cadmium, is there a problem? No. There's no problem.

MR YIN: Chairman, the problem is were you just saying that the cadmium and lead reference comes from BS 1254?

CHAIRMAN: Yes.

MR YIN: But then the problem now is the line of questioning is directed at an architect. The architect is asked about the impact of these materials on the body or on water quality. The architect --

CHAIRMAN: Well, she could perhaps say she doesn't know.

MR YIN: It's not a matter of whether she knows a lot, but rather the question is loaded. It's on the basis that "You know, so give me an answer".

CHAIRMAN: Then he should ask her first whether she knows or does not know.

A. I do not know.

CHAIRMAN: Well, then, question answered.

DR McCOY: I am asking her on the basis that she is a contract administrator and these are terms of the contract. She must be able to enforce them. She must know what the purpose is, and if she doesn't know, that ignorance is something that has its own consequences.

MR HO: It lies very ill in the mouths of those who actually

breached the contract.

CHAIRMAN: Shall I adjourn so the two parties could settle
this on your own?

Mr McCoy, this witness, when asked questions by
Mr Chan, we have learned from this witness that on
PLU.1M160.5, we know how much she knows about this
M160.5. So to some extent your questions would not
actually add any more weight to what we know. But then
I would not say that your questions are totally
irrelevant. They are relevant, because as the contract
manager, you should know the contract terms, what they
are and the reason or the significance behind including
such a contract term, and if you do not know, of course,
what would be the consequence, I think we could follow
that. There's no need to imply it. So we don't have to
be explicit about it.

DR McCOY: That's exactly where I am going. My questions
now are directed to just exactly that.

Now, Ms Yim, in paragraph 5 of your witness
statement, you tell us you have been involved in over 25
public housing projects, from inception to completion.

A. Yes.

Q. And you have served as the project manager, design team
leader and/or contract manager.

A. Yes.

Q. What's the difference between a project manager and the contract manager? What are their respective and different roles, please?

A. Project manager has to oversee the entire project, not just matters related to the contract. Say for a project, there may be interdepartmental liaison involved, because apart from the contract, in our project, there are many other aspects we need to take care of.

For example, we may need to talk to the planning department about land issues and we have to talk to other departments about various things.

So the project manager looks at the progress, time, contract and quality. As for contract manager of the estate, it's to administer the contract.

Q. Right. Now, design team leader, what's the precise role of the design team leader?

A. Design team leader -- because I'm the chief architect, so in the design team, the design team consists of architects and other disciplines, or colleagues of other disciplines. Design means the layout, architectural designs, primarily. But then at the same time we need to integrate other disciplines into that.

For example, structural engineers may have input, building services may have input, even civil engineers

C and technical engineers may also have design inputs. C

D So that's the design team, and as the chief
architect, I have to head the team. D

E Q. And have you previously worked in what is called the
design and standards unit? E

F A. Yes. F

G Q. And what does that do? G

H A. Design and standards -- well, we do a lot of standard
I block design before, like Harmony blocks, the trident,
I the cruciform blocks, and so these are all standard
J designs. So the design and standards unit primarily
J focuses on standard designs. That's before 2002.

K Q. Does the design -- K

L CHAIRMAN: Sorry, wait, please. She hasn't finished. L

M DR McCOY: Forgive me. I didn't realise that, sorry. M

N A. I think it was about ten years or so ago, we no longer
N used standard block design. We moved to modular flats
O design, it's like building blocks. So we do prototypes
O of modular design. The design and standard unit now
P primarily provides a central function. It's to put
P together central information or guidelines for
Q colleagues, because this team consists of specialist
Q colleagues, but we have a proper division of labour, so
R we have dedicated colleagues who would do this and then
R the information would be passed on to other colleagues.
S
T
U
V

C Q. In this centralised role, is that where specifications
or new specifications are drawn up? C

D A. Well, there is a team that would help with the
specifications. D

E Primarily, it's to do with management and
F administration of the Specifications Library. F

G CHAIRMAN: Can I ask, when were you the CA of design and
specifications? G

H A. I was only "acting", at the time. For administrative
I convenience, it was in 2001, February 2001, to about
J April 2002. Thereafter, there was another chief
architect doing that. J

K CHAIRMAN: We know that for 2001-2002, that's the most
L sensitive period, because at that time there was the
discussion on introducing copper pipes. L

M A. Yes. M

N CHAIRMAN: So, at that time, did you give any input yourself
into this? N

O A. I cannot recall what special link there was. O

P CHAIRMAN: Were the copper pipes under design and standard
CA? P

Q A. No, building services engineer. Q

R CHAIRMAN: Okay. Thank you. R

S DR McCOY: When a new specification is being evolved,
presumably it's drafted in various stages and circulated
T T

U

U

V

V

to a number of people for input; would that be right?

A. Yes, in principle that's so. As far as I know, I was not in the specification team. When there is a specification to be drawn up, then we will talk to the government departments concerned, we would talk to the trade and industry, and we also get feedbacks from the estate management colleagues, we will get the comments and feedbacks.

Q. And once the final form of the specification has been agreed, the next and logical step would be to determine what tests would be required to ensure compliance with that specification?

A. Correct. Our Specification Library -- I think you are very familiar with that -- it's divided into material commissioning and testing. Say if a material is to be tested, then the relevant clause will appear, but not each material will have that.

Q. The specifications mandating the use of copper pipes, do you know who drafted that specification?

A. According to the discussion, I think it was the 2002 instruction, Development and Construction Management Board Instruction.

Q. Once the specification has been finalised, who or which unit or body determines whether or not there has to be some specific testing of that specification, when the

product is actually used or incorporated?

A. Well, I think one has to look at the specification clause. The specification team is not made up of one person, it's a whole team. I think, when they consult the trades, or when they may consult academics when it's very technical, and in the discussion process, if there is a need, they will suitably enhance the spec.

Q. And when there needs to be a testing requirement drawn up, which unit or group of people draws that up?

A. As I have said, we have a team -- though they may not be experts, that's for better human resource allocation, they are dedicated to this job. They consolidated the comments, and when the specification is formed, then it will be circulated within the department. Then maybe we have to go to the management board to discuss that.

Q. I want to ask you something quite different now. We are aware of the fact that the Housing Authority is exempt from the Building Ordinance.

A. Yes.

Q. But of course it would be an impossibility that the Housing Authority is exempt from basic requirements, such as structural stability, et cetera. So how does it work? This is right up your line. How does it work?

A. The Housing Authority is exempted from the Buildings Ordinance, but it doesn't mean that we don't need to

comply with the Buildings Ordinance. Within the Housing Department, there is an Independent Checking Unit, ICU, in short. This is the BD delegated the authority to the ICU to look at the building aspects of the Buildings Ordinance.

Now, you ask whether we don't need to care about the structure. We have to comply with the Buildings Ordinance, and the relevant laws.

As for the Waterworks Ordinance and Waterworks Regulations, we are just like other departments; there is no exemption.

Q. Right, and equally you have to comply with fire rating and all those types of issues?

A. Correct.

Q. Thank you. Now, in a sense, the Independent Checking Unit takes up the same role as the Buildings Department, doesn't it? The ICU takes up the same job as the Buildings Department?

A. You can understand it this way.

Q. An authorised person is a specialist in one of the accredited professions; yes, like architecture?

A. There are several lists. Yes, architect is one of the lists.

Q. That's right. Now, I understand that there are something like 207 practice notes which have been issued

by the Buildings Department.

A. Yes.

Q. Do they apply to the persons inside the Housing Authority or Housing Department that are taking up the role of architect?

A. Concerning the practice notes, they are under the Buildings Ordinance, and we will follow the practice notes.

Q. And does the relevant individual actually sign as an authorised person under the Buildings Ordinance?

A. With regard to the Housing Authority, there is no AP role. Say, with regard to the WWO form, there is an AP. Now, we are accepted by the Buildings Ordinance. The AP's role is just a co-ordinator. Concerning the WWO forms, the co-ordinator is played by the chief architect or the colleagues under the chief architect, say for example the architect, or sometimes the building services engineer, who will take up the role. This co-ordinator role is being supported by other colleagues, and with regard to the WWO46, the main contractor, in particular a licensed plumber, the main contractor will have to give advice to us before we put our name down. It's more like a co-ordinator.

Q. Ultimately, the authorised person for the Waterworks and Regulations provisions is trusting the licensed plumber;

is that what it comes down to?

A. Yes, that's our understanding.

Q. And before July 2015, had you read the Waterworks Ordinance and Regulations yourself?

A. I myself did not study in deep. We have a lot of work to do, and when we come to a critical part, we may go to read it. In our daily operation, if the colleagues are able to deal with them, then they will not come to us and discuss the matter with us. When it comes to the chief architect for discussion, it will be an important issue.

Q. Inside the Housing Authority, at what stage is the building works contested by a performance approach, or at what stage is it tested by a risk approach?

Is that too general a question? It may be unfair to ask you that question.

CHAIRMAN: Can you please ask your question again.

DR McCOY: Yes, thank you. I anticipated that. Thank you.

The Director of Housing and the Deputy Director have said that the Housing Department has set even higher standards on a risk-based approach than is required. Is the Housing Authority using a risk-based approach throughout its processes?

A. It depends on which item. If we can identify that it is high-risk, then we may introduce certain measures to

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

plug loopholes and do more checking. Risk-based and performance-based may go together sometimes.

Q. Am I correct that the Housing Authority exercises quality control under a two-tier approach: one is specifications and the other one is testing?

A. Testing is part of the specification. It is a matter of terminology, whether or not it's two tiers.

CHAIRMAN: How about inspection then, specification plus inspection?

A. Correct, correct, surveillance, inspection.

DR McCOY: And if the specification does not specifically require a test, then how is it determined what testing is appropriate for that specification?

A. I have just said that if there is material commissioning and testing in the facilitation of its workmanship specification, when we draw up the specification and we do not see the need for testing, there must be a reason for that. But when we find a material that's to be coupled with testing, then it goes back on how we draw up the spec, how we integrate technical inputs from various sources.

CHAIRMAN: It's very abstract. It's very abstract. Well, if specification does not establish a testing, then the Housing Department is very simple: ask people to send you certificates, materials to you, you look at them,

and then you look at the documents and you assume they
have fulfilled their specifications; is it correct?

A. Yes.

CHAIRMAN: If you said how to test it, that will be another
thing. If there is none, then you just trust other
people?

A. Before July, we just rely on the documents and the
samples. It's very simple.

CHAIRMAN: Say PLU1.M160.5, about lead, it doesn't mention
tests?

A. Not in the past.

CHAIRMAN: And not now?

A. Not now. In the future.

CHAIRMAN: Not now. I don't know whether now, after 2014,
there is a lead soft solder British Standard. There may
be such a specification, but up until now, in your PLU1,
there is no testing; you just trust them?

A. Yes, you may say so.

DR McCOY: We are close to the end of the day. I just want
to ask you one or two more short questions, with
permission.

I put it to you that the excess lead in the water
problem that has now been discovered simply would not
have occurred unless a number of things had happened.
First of all, someone has had to have used lead solder.

That's one part of the problem; right?

A. Yes.

Q. But I suggest the second part of the problem is that because there was no proper in-progress examination or no tests on solder, and no water samples taken involving lead, that's the combination of reasons which allowed the excess water problem to occur.

A. Before July, the series of measures were not there. But from another angle, even if there were no measures before July, if the specifications were complied with by each party, then there were cases in which there was no problem.

Q. I know you are always going to come back to contract, and I'm just parking that to one side. Just try and answer my question. A number of things had to go wrong. Someone had to use lead solder. Someone had to use lead solder. But if someone had used lead solder and if the Housing Authority had tested that solder earlier, the problem would have been discovered earlier; that must be logical?

A. If at completion we had tested water samples, and if the testing should include lead, then we would not have this series of measures.

Q. You have just said "upon completion", but I am saying if there were in-progress examination or tests --

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 13 B

C MR KHAW: This is a question of chicken and egg. I think it C
can be done during submission.

D CHAIRMAN: Let him finish. Let him ask his questions. D

E DR McCOY: I'm suggesting, at the end of the day, that if E
there had been in-progress examination or tests, it's
F logical and obvious that the matter would have been F
G discovered much earlier? G

H A. Put simply, yes, but if we had known this was so H
serious, then we would have stepped up the measures.

I COMMISSIONER LAI: In-progress examination could be about I
J other parties. Even the contractor could have done the J
testing.

K DR McCOY: Of course, and that's where I am going to go K
L tomorrow, in terms of the contract. L
Is that a convenient time?

M CHAIRMAN: (In English) Yes. M

N (Via interpreter) You could ask the same when the N
O other witnesses come up. O

P MR HO: This is the same. P

Q CHAIRMAN: If he does this to your witnesses, you can do the Q
same to his witnesses in future.

R So we resume at 10.00 tomorrow. R
(4.33 pm)

S (The hearing adjourned until 10.00 am the following day) S

T

U

V

C

INDEX

C

PAGE

D

APPLICATION RE ORDER OF WITNESSES2

D

E

MS THERESA YIM SIU LING (sworn)14

E

Examination-in-chief by MR YIN14

F

F

R U L I N G15

G

G

Cross-examination by MR KHAW16

H

H

Cross-examination by MR CHAN71

I

I

Cross-examination by DR McCOY90

J

J

K

K

L

L

M

M

N

N

O

O

P

P

Q

Q

R

R

S

S

T

T

U

U

V

V