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2015 年 11 月 11 日

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上午 10 時 03 分恢復聆訊

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

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何沛謙資深大律師及殷志明大律師，由羅夏信律師事務所延聘，代表香港房屋委員會

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王鳴峰資深大律師、陳樂信大律師及羅頌明大律師，由律政司延聘，代表水務署署長

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

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林國輝大律師，由孖士打律師行延聘，代表瑞安承建有限公司

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

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許佐賓大律師，由的近律師行延聘，代表保華建築營造有限公司

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

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石先生：主席。我哋就而家喺度討論緊一個好細節嘅問題，就係今日就原本係下一個證人就係嚴汝洲先生，就係啟晴邨嘅 Chief Architect。

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主席：係。

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石先生：但係佢同時亦都係另外幾條邨--榮昌邨嘅 Chief Architect，咁係關於榮昌邨嗰面嗰個證人供詞，就應該係前晚或者係琴日先至即係嚟到同埋可以即係派發到畀各方。

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咁啱啱主席同埋委員入嚟嘅時候，我哋就喺度討論緊一個 logistics 嘅問題，就係究竟一陣間引領證供嘅時候，應該淨係嚴汝

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洲先生係講佢啟晴邨嗰份，因為啟晴邨嗰份喺度好耐嚟嘞，咁大家都準備咗，定係一之過講埋啟晴邨同埋榮昌邨呢？咁因為如果講埋榮昌邨嘅話，個好處就係佢一次過講晒要講嘅嘢，就唔使話「啊，我哋先講啟晴。」咁隔一輪之後，佢就嚟過講榮昌邨，因為榮昌邨嗰份證人供詞其實 on top...

主席：大致譬如...

石先生：...of 啟晴邨有嘢要問嘅可能未能咁多，咁我哋要勞煩嚴先生遲啲又嚟多一轉，就可能費時失事；咁但係如果一次過問晒，我地又驚住其他嘅即係各方會唔會話「我琴日先至收到嗰份供證，你要我拿拿林起身問，就可能有啲問題。」咁呀剛才就正在討論緊呢一個問題嘅，logistics。咁但係可能其實就牽涉到其他各方，佢哋覺得佢哋係 re 唔 ready 係問埋嚴先生係榮昌邨嗰一份供證嘅內容嘅。

主席：咁有冇人...

石先生：咁我就為咗避免大家緊張，我起身向...

主席：好呀。

石先生：...主席先生同埋委員先生交代我哋講嘅嘢。

主席：有冇任何律師有任何嘅陳述想講？就住呢一方面。如果有...

石先生：即係在我本人嚟講，就我--我...

主席：係，Mr Pennicott。

MR PENNICOTT: Chairman, I am for China State, and we put the witness statement from Mr Yim exclusively in relation to Kai Ching, which is one of my affected estates. We've had that for some time.

I am ready and able to cross-examine Mr Yim on the Kai Ching Estate, on that witness statement. I've not even seen the other witness statement yet, but I would have thought -- and I don't know whose estate that is, to be perfectly honest with you, sir, as I stand here today -- it is a Paul Y estate, I'm told. I'm quite happy to have Mr Yim deferred. I'm not quite sure what means, in terms

of logistics, where we go from there. I ask the question rhetorically because I don't know the answer: is it going to be the same for the next witness, Mr Ng, the chief building services engineer, who again only exclusively deals with Kai Ching? Are we going to have the same problem with him? I simply don't know.

But if Mr Yim doesn't give evidence today -- again, I'm in a position to cross-examine Mr Ng, if that's become necessary, if that's the consequence of Mr Yim not being here today. It seems to me that the person who is in some difficulty is representatives from Paul Y, if they only got the statement last night.

何先生：主席，其實我相信呢個問題，係有個比較牽涉得到主席同埋委員想點樣去處理我哋嗰個進程嘅，不過如果你淨係--我哋可以集中精神去處理啟晴邨。因為可能你處理咗啟晴邨種種嘅問題之後，其他嗰啲邨可能係有好多嘢係重疊嘅，咁就可能會嚟得快啲。咁即使係證人要再去就唔同嘅邨去作補充嘅口供嘅時候，亦都可能個進程會嚟得快啲。

但係亦都有可能另外一個做法，就係你想做晒所有房委會嘅證人，就唔理咩嘢邨，然後先去到另外一組嘅證人，譬如好似水務局或者係其他啲承判商嗰啲咁嘅證人，咁就好睇--我哋亦都其實都想得到委員會嗰個指示，就係你想係一個邨做晒，即係譬如啟晴邨，我哋有關嘅證人啟晴邨上去講晒；水務嘅人，有關啟晴邨上去講晒；China State 其他嗰啲有關嘅承判商，做水工程嘅嗰個持牌水喉匠關於啟晴邨嘅，都做晒佢，然後其他嗰啲就稍後先再決定。因為...

主席：諗我...

何先生：對唔住，我可唔可以講埋呢一度？

主席：嘎，係。

何先生：我其實我係想除咗擺個指示之外，我都想提出我自己點樣睇呢件事。就係如果唔--如果我哋一路全部邨，譬如好似呢位主要 architect，佢做兩條邨，如果又去另外幾條邨，咁你變咗嗰啲 subcontractor 嗰啲證供，有--雖然佢係會話「啊，我絕--針對啟晴邨嚟問。」但係佢亦都可能問咗佢其他嘢。咁我就覺得有機會到最後睇番個證供嘅時候，就唔係咁清晰，有可能會有啲混亂。但係所

以如果係話我哋一條邨一條邨咁樣做，可能喺嗰個證供安排上面會比較清晰啲，呢個係我嘅睇法。當然我係需要各位有個指示。

陳先生：Chairman, on the part of the Water Supplies Department, we certainly see merits in the two different ways of proceeding. We have no strong view as to which one and we would leave it to the Commission's discretion.

The only point we would make is that if we are going to take an across-the-estates approach, then one logistical matter, as I think with other parties, is that we have not received the witness statements from the chief architect in respect of any other estate besides Kai Ching. So that may affect matters such as timing. Obviously, we would wish to have some time to consider and digest the statements in relation to other estates, if there's going to be just one single opportunity to ask questions in relation to a particular individual.

主席：我明你哋講乜嘢，不過如果譬如--如果你逐條邨、逐條邨做嘅話，咁係咪即係表示譬如有利咁樣樣，佢有六條邨牽涉，咁係咪即係換句話嚟講，佢嗰個 contractors 要上嚟六次，你個問題就係咁樣樣嘞。咁跟住下面嗰啲 sub-sub，一路落去就每一個都上嚟六次，可能你每一次都唔會有好多問題問佢，因為你第一次問晒，不過跟住嗰五次，你都要人哋返嚟五次，咁所以就有呢一個問題。

如果你好似我哋原本最初嘅諗法，就係話譬如好似嚴先生，咁佢牽涉到兩條屋邨嘅，咁佢一次過就畀晒兩條屋邨，咁佢就係嚟一次。當然嚴先生就係話「啊，佢榮昌邨可能就係遲咗少少先至有 witness statement，其他嘅人就未睇。」不過去到呢一個階段，又似乎未有人話「啊，我因為未睇到榮昌邨嗰啲佢所講嘅說話，所以我又有何處於不利嘅位置。」咁所以--即係當然如果講整齊嚟講，就梗係一條條邨做就好整齊，係咪啲 evidence？不過你就有機會一個人可能要返嚟六次。

何先生：有冇個折衷嘅辦法？主席。我亦都係提一個建議，就係請佢讀咗啟晴邨嗰個證供先，咁所有關於啟晴邨有邊一位嘅承辦商係需要問啟晴邨嘅嘢，就問咗先，完咗嘞，咁佢仲喺證人台，唔需要再返嚟一次

喇，就讀榮昌邨。

主席：都可以嘅其實。

何先生：咁就嗰個證供方面個表達同埋清晰，我就會覺得可能我哋第二時睇番嗰個--有需要睇番嗰個紀錄嘅時候，都會清晰啲。

石先生：就我都係咁諗，咁個好處就係讀緊啟晴邨或者處理緊啟晴邨嘅證供嘅時候，如果保華或者即係其他方面嘅即係承辦商，可能 part one 未必關佢事，咁佢就即係可能要趁呢個時候可能做功課，即係準備。其實第二啲邨一樣嘅，因為我哋個問題就係一個證人可以戴幾頂帽。

主席：係。

石先生：咁佢戴一頂、一頂帽，咁即係處理緊第一個邨嘅時候，其他啲邨未必關佢事嘅時候，可能佢哋就要即係可能個法律團隊一方面可能要 check 住究竟有冇講過啲關於佢嘅嘢，但係主要佢嘅團隊可能就要睇下面即係準備即係問下一 round 關佢條邨嘅事情。

主席：係，係。咁--Yes。

MR PENNICOTT: Mr Chairman, what's being proposed or may be being proposed appears to be a fairly fundamental departure from what I think all the parties understood to be the position as set out in paragraph 10 of Mr Shieh's opening of 2 November.

For my part -- I don't know what everybody else feels -- if there is contemplated a fundamental departure from that, I would certainly like the opportunity of at least a short adjournment to take some instructions and think this through. I don't want it to be very long but it's a bit difficult here, without any solicitors nearby, to try to understand precisely what the proposal is.

One can see some logic in taking estate by estate, but as you say, Chairman, it may be easy for those who only have one affected estate, but rather more difficult for those who have two or more affected estates, particularly Yau Lee, as you point out, although I'm not here for Yau Lee, it's a matter for them. But certainly I would like

a bit of time out, if at all possible, to see where this is all going.

主席：我諗我同黎生都要諗一諗呢一個問題，十分鐘呀，十分鐘，我哋而家暫時押後。

上午 11 時 14 分聆訊押後

上午 11 時 28 分恢復聆訊

出席人士如前。

許先生：Mr Chairman, I do apologise. Daniel Hui from Paul Y. I do add my tuppenny's worth to my learned friend Mr Pennicott's submissions. It would be logical to follow what counsel for the Commission have laid out in the first place, and it would be a fundamental departure to do otherwise.

If I may add one, perhaps a small point but significant, point is that there is a timeline involved here in the construction of different estates. The timeline, for example, splits the WHO's guidelines on water 2011, which features significantly.

I will stop there, Mr Chairman.

主席：我哋原則上係會跟番我哋最初定落嚟嘅程序嘅 rules and procedures 去做。即是換句話嚟講，首先係會--而家譬如 chief architect，咁我哋就會叫晒所有嘅 chief architect 先，跟住譬如 chief--應該咁講，某程度上，就係我哋會叫晒房署嗰啲人先，跟住就會叫啲 main contractors 嗰啲，跟住就 subcontractors 嗰啲人，跟住就 licensed plumbers，諸如此類。咁嚟叫呢啲人嘅過程裏面，咁當然佢哋係會有做唔同嘅嘢，係咪？不過基本上係一批批人上嚟畀嘅。

換句話嚟講，理論上，理論上就係呢批人就係會畀一次證供嘅，

就會講晒佢哋所處理嘅屋邨，就唔係逐條屋邨，譬如好似你哋頭先所講咁樣樣。譬如十一條屋邨，可能有--譬如有利，可能要上嚟六次咁樣樣，就唔係呢一個咁樣樣嘅意思嘅。

咁我明白，你逐條屋邨做，逐條屋邨做有佢嘅好處，就係去到--啲 evidence 出嚟就會好清楚，不過我好深信去到最後，每一位大律師都會就住每一條屋邨、每一條屋邨，係逐條屋邨同我講嘅。所以其實去到最後係冇分別，只不過係可能各住律師要做嘅工夫就多啲。所以原則上我哋係跟番我哋所訂立嘅規則去做。

好嘞，譬如嚴汝洲先生，佢涉及啟晴邨同埋榮昌邨，咁佢就會首先就係帶領之下，就會講啟晴邨所有嘅嘢出嚟，咁佢亦都會講埋榮昌邨 in-chief 佢要講啲嘢出嚟。好嘞，咁跟住就去到盤問，好嘞，如果去到盤問嘅階段，如果係啟晴邨--對唔住，如果係榮昌邨有任何相關嘅人士話--相關個律師就話「我太遲收到呢一個 witness statement，未有時間去睇，未有時間 take instruction。」咁你話畀我知你要幾多時間，咁我跟住再決定究竟嚴先生係譬如隔一日再返嚟畀你盤問榮昌邨嘅嘢，抑或係點樣點。咁同樣適用喺如果個 chief building service engineer 都係咁樣樣嘅情況，亦都係一樣。

但係基本上大體嚟講，以後啲屋邨--即係以後啲房署啲人，如果啲個 chief architect 係處理三條邨嘅，咁佢就一次過講晒三條邨，因為榮昌邨就比較你話時間--其實啲就應該唔會有呢一個大嘅問題。

石先生：或者我有一個小小嘅提議，...

主席：唔。

石先生：...係一個 variation on 呢個--首先就即係我想講一講，就係我諗我哋未必需要講到話而家我哋提議嘅呢個程序係與我哋開頭 11 月頭嘅時候提出啲個程序係所謂一啲咩嘢 fundamental departure，因為唔使太過戲劇性嘅，因為其實最主要就係時間咋嘛，其實講嚟講去就係時間，唔好講 fun 唔 fundamental。

如果譬如話諗 China State Construction 有任何嘅判--承辦商又好，只要佢有足夠嘅時間去準備某個證人，關於某條邨嘅供詞，咁我哋個 override consideration，即係話 fair（公平）已經係即係達到咗。

咁主要嘅拗撬嘅地方就係究竟係一條邨還一條邨，定係一個證人 --within 一個證人裏面一條邨還一條邨。咁我嘅理解就係即係主席先生同埋委員先生，就係話 within 一個證人都可以一條邨還一條邨。即係舉個例嚴先生，嚴先生係處理兩條邨嘅，咁唔好要佢返嚟兩次，邨 number one，跟住隔一輪之後，就返嚟邨 number two，一個人一個 stretch of 證供，可能佢要畀兩日或者三日，呢三日裏面佢畀兩條邨。

但係我提議有一個小小嘅 twist，就係同主席先生有些少唔同，就係話由於我哋開始呢個禮拜，就枕住有唔同嘅證人供詞開始入嚟，係從房委會嘅。咁所以其實我哋而家都未知道房委會嘅證人供詞嗰個 complete picture 係乜嘢，或者會唔會係有啲證人嘅供詞真係到禮拜一先至入，就係我哋而家排到佢禮拜二要畀證供，可能開頭呢一個禮拜就其他嘅律師，尤其是啲承辦商嘅律師可能需要多少少嘅時間準備都未定。舉個例，用番嚴先生，嚴先生佢會講兩條邨，啟晴同埋榮昌，剛才主席先生講，就係話讀佢哋嘅證人供詞出嚟嘅時候，一次過讀晒，然後就問問題，就開始--唔同嘅承辦商開始問，一個折衷嘅辦法就係先讀咗啟晴先，跟住先由啟晴有關嘅承辦商，譬如話 China State Construction 佢哋問先，跟 in the meantime，就唔讀榮昌住，咁保華佢哋嘅律師就搵人睇住個 screen 先，另外一方面佢哋咪去準備盤問。咁就即係佢哋可以安心啲，就唔會話真係好似即係一次過讀埋關佢事嗰份證人供詞出嚟。遲啲到到下个禮拜或者下个禮拜之後叫做 run 順咗，同埋大家起碼有晒證人供詞，...

主席：就有問題。

石先生：...咁就可以好似主席先生所講，就係話「啊，到時人人都有晒，咁就一次過 in-chief 可以讀晒所有一個證人有關嘅屋邨出嚟。

黎先生：呢個都係我哋主意嘞，一樣嘅。

石先生：即係而家呢一部分嚴先生，可以一陣問何大律師先讀啟晴，...

主席：可以。

石先生：...問晒啟晴先。因為 Mr Pennicott 佢準備好晒問啟晴。

主席：好呀。

石先生：咁 Mr Hui 佢話「我保華我 prejudice，因為我啱啱收到。」咁 Mr Hui 可能話問都禮拜一問，唔關係咪 fundamental

departure，呢啲戲劇性嘅語言就唔係好啱用。

黎先生：呢個事實上都係主席同我哋嘅意見嚟。

主席：有冇問題？冇問題，好，咁就咁樣樣，開始，咁呀嚴先生先。

請上嚟呢邊。

香港房屋委員會第三證人：嚴汝洲（房屋署總建築師（發展及標準策劃））
以本地話宣誓作供

主席：請坐，嚴先生，請坐。

殷先生：主席先生。

主席：係。

殷先生：我了解到根據頭先嘅指示，委員會作出嘅指示，雖然嚴先生喺佢嘅證供入面會畀關於啟晴邨同埋榮昌邨兩條邨嘅證供，係兩部分嚟做。

主席：係呀。

殷先生：第一部分，我哋就係畀咗啟晴邨嘅證供先。咁所以我讀呢，朗讀就係朗讀佢淨係有關啟晴邨嘅書面證供先。

主席：好呀。我想問一問另外榮昌邨係保華，係咪呀？

石先生：榮昌係保華係 main contractor。

主席：保華係 Mr Hui，又走咗嘞？

石先生：係。

主席：得嘞，我哋做住先，做住先。

殷先生：Yes, this is the witness statement of 嚴汝洲，Chief Architect of Kai Ching Estate.

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

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(Paragraphs 1 to 83 were read)

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WITNESS STATEMENT OF YIM YU CHAU,

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CHIEF ARCHITECT OF KAI CHING ESTATE

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

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

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

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U 4. For the purposes of this Statement I refer to the

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different work stages as Pre-contract, Construction and Completion.

BACKGROUND INFORMATION

5. Being Chief Architect/2 from September 2012 to February 2014, 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 Kai Ching Estate is 3.49 hectares. This development comprises the construction of six domestic blocks of 35 to 40 domestic storeys with flat production of 5,204, a 3-storey commercial cum welfare block and a covered car park, ancillary facilities and associated external works.

8. The HA awarded the building contract with contract number 20090097 to China State Construction Engineering (Hong Kong) Limited ("China State") on 25 June 2010 with contract sum of Hong Kong Dollars One Billion Seven Hundred and Forty Seven Million, Two Hundred and Sixty Two Thousand, One Hundred and Fifty Three and Forty Cents (HK\$1,747,262,153.40).

9. China State commenced the contract works on 28 July 2010. I certified the substantial completion of building works for the six domestic blocks on 9 April 2013, the non-domestic blocks including car park and commercial centre cum welfare block on 17 June 2013, and External Works and remaining works on 2 July 2013.

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

Request 1: Explain their respective roles and responsibilities and the respective roles and responsibilities of the main contractor, sub-contractor(s), licensed plumber(s) C'LP"J 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 China State by direct written contract under which China State was fully responsible for carrying out of the works required. China State, 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, underpinned by professionals of various

disciplines who were delegated with the authority under the Contract as CM's Representatives. The CM gave periodic supervision while China State 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 were recommended by Senior Building Services Inspector and approved by the Senior Building Services Engineer.

CHIEF ARCHITECT

13. As Chief Architect of the building contract for Kai Ching Estate, I acted as the administrator of the Contract, i.e. the CM as referred to in the General Condition of Contract (GCC) 1 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

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contract is shown to me marked "**Exhibit [1]**".

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CHIEF BUILDING SERVICES ENGINEER

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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) .

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

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

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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".

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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, Work Supervisor (Building Services)) inspected building services installation works.

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

20. 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 had all along believed that the

widely accepted and used soldering materials should have complied with relevant requirements. Checking of presence of lead in solder or lead in water was not built-in in to the site inspection system and therefore, we did not check for presence of lead in soldering materials.

MAIN CONTRACTOR

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

22. China State was permitted under the contract to sublet a part of the Works. Yet, the subletting of any part of the Works did not relieve China State 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.

23. Under the terms of the contract, China State was responsible for giving continuous supervision of the site works to ensure that the quality of works, including plumbing installations, complied with the statutory and contractual requirements. As required by the specifications, China State 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. China State 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, Structural Quality Control Coordinator, Site Agent, General Foreman, Block Foreman, Building Services Engineer and Safety Officer etc.

24. 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

DOMESTIC SUBCONTRACTOR AND NOMINATED SUBCONTRACTOR

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

26. In this contract, I knew that China State employed Ho

Biu Kee Construction 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 China State's submission of Investigation Report to the HA on 14 September 2015 which enclosed a copy of the subcontract document between China State and Ho Biu Kee Construction Company Limited for the plumbing and drainage works, that I was aware of the detail responsibilities of the subcontractor. The copy of the above subcontract document is now produced and shown to me marked "**Exhibit [3]**".

27. In this contract, Perfect Fire Protection Company was the nominated subcontractor for fire services and water pump installation. As for their responsibilities of this nominated subcontractor, my Colleague, Mr. Ng Tat Kwan, the Chief Building Services Engineer knows more than me and He will provide details in his statement.

LICENSED PLUMBER

28. 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. Lam Tak Sum. As far as I knew in the period I served as Contract Manager for this contract, the responsibilities of the LP for the plumbing installation included notifying the Water Authority of the commencement date and scope of plumbing works to be carried out at Part I of the Form no. WWO 46. The LP had to notify the Water Authority of the completion of plumbing works and requested for inspection and approval by the Water Authority at Part IV of form WWO 46. He also had to supervise the

execution of the plumbing works on site.

29. I relied on China State 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.

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

MAJOR PROCESSES FOR THE INSTALLATION OF FRESH WATER SUPPLY SYSTEM

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

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

32. Before commencement of plumbing installation, the LP

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

Submission of plumbing material proposal

33. There were two Sections in the Specification regarding plumbing installation, namely, PLU1 on Water Supply and PLU2 on Sanitary Appliances. Pursuant to Section PLU1, materials for pipes, fittings and joints, including soldering materials, China State 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, China State was required to submit material proposals with samples for CM's approval because CM had to consider factors including appearance, coloration, detail dimensions etc., other than technical requirements.

34. In this project, China State 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

35. After receipt of the Water Authority's approval for

commencement of the plumbing works, China State, with their domestic subcontractor, Ho Biu Kee Construction Company Limited, proceeded with plumbing installation works on site. China State was obliged to provide all necessary superintendence during currency of the Works and gave continuous supervision to ensure the Works were executed in strict accordance with the statutory requirements and specifications to the satisfaction of the CM.

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

37. In accordance with the Contract, China State was obliged to adopt the volumetric precast bathroom and volumetric precast kitchen construction in this project. Based on contract correspondences, China State proposed on 21 September 2011 and 28 November 2011 to adopt off-site installation of water supply pipes to the interior of the volumetric precast bathroom and volumetric precast kitchen respectively. The copy of the letters is now produced and shown to me marked "**Exhibit [4]**". CM accepted China State's proposals on 7 October 2011 and 16 December 2011 respectively. The copy of the letters is now produced and shown to me marked "**Exhibit [5]**". However, CM's approval did not relieve China State's responsibility for executing the required contract works in

accordance with the terms and conditions set out in the Contract. China State, with its domestic sub-contractor and Nominated Sub-Contractors, was obliged to execute the plumbing installation works and provided continuous supervision and necessary superintendence with the necessary managerial team.

38. All copper water pipes and sanitary fittings were of surface-mounted design, and the water pipes pre-installed in the factory were only part of the plumbing system, the inspection of which could be effected by China State and their subcontractors upon arrival on site. China State was responsible for checking the entire fresh water plumbing system to ensure that they all complied with the Water Supplies Department's approved drawings and relevant statutory and contract requirements. Based on the experience gained from this project of pre-installing sanitary fittings and water pipes in factory, it was observed that some of these pre-installed components were damaged during transportation. Upon further study and review, the HA decided not to pre-install sanitary fittings and water pipes in volumetric precast units in subsequent projects.

Housing Authority 's Periodic Inspection

39. In my capacity of Chief Architect, which served the CM role from September 2012 to February 2014, with the support of project senior professionals and professionals as the contract manager's representatives, site clerk of works, work supervisors, building services inspector etc., I gave periodic supervision and such inspection as necessary to ensure that the works met specified requirements. The Chief Building Services Engineer provided the engineering support and gave periodic supervision of the site works, including vetting of the materials submission, pump

and valves installation, testing and commissioning of the fresh water plumbing system inside fresh water up-feed pump rooms and booster pump rooms.

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

Testing and Commissioning

41. Upon completion of the plumbing installation, China State, with their domestic subcontractor, Ho Biu Kee Construction Company Limited, cleansed and disinfected fresh water inside service upon completion of the installation for the fresh water supply system. They conducted the required testing and commissioning of the system, which was performance based, in the presence of HA Site Inspection Team.

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

42. Having completed the testing and commissioning of the plumbing installation works with satisfactory results, the LP completed and signed Part IV of Form no. WW046 to China State. After checking and found to be in order, China State forwarded the completed form to me for signing. With the advice from the CM's Representatives that the plumbing installation, were satisfactorily

completed and the correctness of the meter positions, I signed Part IV of the Form no. WW046 for the domestic portion on 4 March 2013 and 13 May 2013, and project architect signed for non-domestic portion on 8 May 2013 under separate submissions. With the advice from the CM's Representatives that the plumbing fittings and pipes were in full compliance with Waterworks standards and requirements, I signed Part II of Form no. WW0132 on 12 April 2013 and 5 June 2013 applying for the Water Authority 's connection for water supply to the domestic and non-domestic portions of the development respectively. Copies of the forms are now produced and shown to me marked "**Exhibit [6]**".

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

43. According to records, Water Supplies Department tested the water sample taken at the connection between the water main and Inside Service, based on the eight parameters 4in WSD Circular Letter No. 2/2012, on 30 January 2013. The test results were satisfactory. Water Supplies Department forwarded the test report to the LP who gave a copy to China State. China State then forwarded it to the HA. The copy of the test report is now produced and shown to me marked "**Exhibit [7]**".

44. Water Supplies Department inspected the completed plumbing installation on 20 March 2013 after receipt of the above signed Forms. With satisfactory inspection results, the Water Authority issued Certificates (Form no. WWO 1005) regarding water supply connection for domestic portion on 16 April 2013 and non-domestic portion on 19 June 2013 of the development. The copy of the forms is now produced and shown to me marked "**Exhibit [8]**".

Request 2: Explain the procedures, their respective roles and responsibilities and the respective roles and responsibilities of the main contractor, sub-contractor(s), LP(s) and other person(s) in the procurement and variation of Plumbing Materials and in constructing, installing, inspecting, testing, checking and approving such Plumbing Materials as far as any requirement about the content of lead is concerned

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

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

46. Being a procuring entity governed by the Agreement on Government Procurement of the World Trade Organisation, 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 no. WWO 46 Part I. China State submitted material proposal for CM's approval. The submission list of plumbing materials would be subject to updating if China State's proposed plumbing materials, subsequently approved by CM in compliance with statutory and contract requirements, were different from that submitted to the Water Authority.

47. 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 [9]**".

48. Based on records, in the Annex to the Form no. WW046 Part I that the LP signed on 28 March 2011, there were 25 items of plumbing materials intended to be installed⁵ all complying with the statutory requirement. The copy of the Form no. WW046 Part I together with Annex of the material list is now produced and shown to me marked "**Exhibit [10]**".

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

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

Material submission and variation approval by Contract Manager

51. Materials used in this contract were governed by the specifications forming part of the Contract between the HA and China State. 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

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

a) Category A- Bearing the British Standard Institution Kitemark

b) Category B - Accepted by the Water Authority (Water Fittings) Regulations, United Kingdom (formerly known as the Water Byelaws);

c) Category C- Accepted by the Water Authority in writing

d) Category D - Bearing the Water Authority Stamping

53. 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.

54. In this contract, China State proposed to use "FRY" 99C Lead Free Solder under the Material Submission Form ref: KT1A/BLK/PLU/030 on 5 September 2011 together with material catalogue, testing report and job reference. According to the technical data provided by China State, Fry 99C complied with BS 1254-1 and was stated to be "lead-free". The copy of the sample submission document is now produced and shown to me marked "**Exhibit [11]**". The project building services engineer approved the material accordingly.

55. 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.

56. 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.

57. 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 [9]**".

58. After excess lead was found in drinking water in Kai

Ching Estate, I learnt that China State 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 no. 46 Part I in April 2011 and those as-built materials which differed from the submission list to the Water Authority is now produced and shown to me marked "**Exhibit [12]**".

Site supervision for plumbing installation

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

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

61. For the plumbing installation of the fresh water supply system under the domestic plumbing sub-contractor, China State 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 service installation, concreting at external areas etc., being simultaneously executed at site, which involved about 800 workers every day.

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

63. Soldering materials have been regarded as an insignificant 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.

64. 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 Perfect Fire Protection Company.

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

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

contract.

66. 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.

67. The monthly report, namely, Record of traded test

worker was prepared by China State and checked by HA Site Inspection Team. The checking was based on records of China State's Access Control and Recording System. The Trade Tested Workers information from China State was also being forwarded to Construction Industry Council for verification of he workers' identity and qualification regularly.

68. During the period that I served as CM of this contract, I did not have knowledge of the steps taken by the LPs in ensuring that the work in connection with the construction and installation of the Plumbing Materials was carried out by workers with sufficient training and qualifications.

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

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

70. 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 an insignificant 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.

71. Due to the above reason, the HA Site Inspection Team was not required to verify the materials delivered to site and check the lead content of the soldering material during the execution of plumbing installation as it was believed that the widely accepted and used soldering materials should have complied with relevant requirements. Further, copper pipes have been used in the fresh water supply system in Hong Kong for decades. Since it was not a new material or technology and there was no prior indication or alert of any particular health risk associated with the materials of the copper pipe fresh water supply system and there was no statutory requirement for testing of lead in water by the Water Authority until the Incident, the HA have 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.

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

73. Based on the available information, I cannot conclude how lead solder came to be used in Kai Ching 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

74. Before July 2015, I was not aware of the presence of excess lead in water of Kai Ching Estate water supply system. In July 2015, 7 out of 115 water samples from Kai Ching Estate were found with lead content exceeding the the WHO standard of 10 microgram per litre. As for World Health Organization (WHO), I learnt after the excess lead was found in drinking water in Kai Ching Estate that WHO's prevailing standard was 10 ug per litre of drinking water. Before July 2015, neither I nor the HA was aware of the WHO guidelines on the drinking water quality at the consumption point.

75. After excess lead was found in drinking water in Kai Ching Estate and Kwai Luen Estate Phase II, the Government Task Force led by Water Supplies Department was formed to investigate the cause of excess lead in water in Kai Ching Estate and Kwai Luen Estate Phase II. I learnt from their Preliminary Findings issued on 25 September 2015 that the Lead-solder joints were the source of excess lead in drinking water in Kai Ching Estate and Kwai Luen Estate Phase II, and Copper alloy fittings also leached lead but did not result in excess lead in drinking water. Lead Solder Joints

76. "FRY" 99C Lead Free Solder was submitted by China State and approved by the project building services engineer.

Pursuant to the contract provisions, China State 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.

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

78. After lead was found in two soldering joints in Kai Ching Estate in July 2015, the current CM requested China State to investigate why lead soldering material was applied in the fresh water supply pipes. It appears to me that lead solder was used by China State without permission and in breach of contract. I believe there was no irregularity in the contract specification, material selection and approval stage. China State submitted the Investigation Report to the HA on 14 September 2015 which the current CM of the contract gave a copy to me for information. But I am not able to validate the correctness of the said Investigation Report.

In the Investigation Report, China State stated that they sub-contracted the whole plumbing installation works including materials (i.e. solder material inclusive) and labour to Ho Biu Kee

Construction Company Limited. The service of the licensed plumber was provided by this tier of sub-contracting and Ho Biu Kee Construction Company Limited did, not further sub-contract the works.

Copper Alloy Fittings

79. According to the Preliminary Findings of the Government Task Force led by Water Supplies Department, six valves/stopcock and one basin mixer installed in Kai Ching Estate were tested and found to be not complying with the British Standard in respect of lead content. (6.8% to 8.7% for valves/stopcock and 2.9% for basin mixer not complying with British Standard BS EN1982, in which the lead content in copper alloy should be 4%-6% for valves and 0.5%-2.5% for mixers). Nevertheless, it was concluded that it did not result in the excess lead in drinking water. The copy of the extract of the Preliminary Findings of the Government Task Force led by Water Supplies Department is now produced and shown to me marked "**Exhibit [13]**".

80. China State had submitted samples of relevant copper alloy fittings (i.e. valves, stopcock and basin mixer) for approval. The building services engineer checked the material catalogue, testing report and approval letter of the Water Authority etc. submitted by China State. I learnt from the project building services engineer that he had checked all relevant submission documents and found them acceptable for approval at sample submission stage. The HA's quality control focuses on the operating performance of the copper alloy fittings, including flow rate and pressure test etc. Given the prior approval by the Water Authority, we expect the proprietary fittings are suitable for use in the fresh water supply system and Water Supplies Department is the authority to scrutinize the supporting documents provided by the suppliers of

these fittings in respect of its chemical composition.

81. In respect of the above defective fittings reported by the Government Task Force led by Water Supplies Department, I learnt from the current CM that China State had been instructed to investigate into the case and their investigation results are awaited.

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

82. 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.

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

I. During construction

a) Main contractor is required to -

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

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

b) Housing Authority project team is required to-

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

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

II. End of construction

a) The main contractor is required to -

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

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

iii) collect water sample -

- agree with WSD the locations for collecting water samples and arrange accredited laboratory for bacteriological and chemical analysis according to the water quality requirements specified in the WSD Circular Letter Nos. 2/2012 and 1/2015.

In the submission of WW046 part I, a supporting document of lead free grade soft solder or filler metal used in soldering, brazing and/or welding construction methods is required;

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

b) In the event lead content in water greater than 5 ug/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 HD's site inspection team for conducting re- test(s) by a Direct Testing Contractor employed by the HA.

III. After completion and before occupation of new buildings

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

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

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主席：仲有冇嘢問呀？

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殷先生：我有其他。

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主席：冇嘢問嘞，係咪？

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石先生：主席，你打算小休定係我可以一路照講。

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主席：咁我哋休息十分鐘，好唔好？十--唔好，十五分鐘。

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石先生：好。

P

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上午 11 時 44 分聆訊押後

Q

Q

下午 12 時 01 分恢復聆訊

R

R

出席人士如前。

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香港房屋委員會第三證人：嚴汝州（房屋署總建築師（發展及標準策劃））
宣誓繼續作供
石先生繼續盤問

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C 問：嚴先生。

D 答：係。

E 問：就我就你嘅證供，我就有啲問題想問下你。咁首先我有啲定義上嘅問
F 題，麻煩你睇睇第 18 段，37704，佢講緊個 site inspection
G team，佢就會喺地盤嗰度做咗啲定期同埋係隨機嘅抽樣嘅檢驗。咁你
H 講就話其實有兩隊，一隊叫 building works team，一隊叫做
I building services team。咁我哋行外人就唔係好清楚咩嘢叫做
J building works 同埋咩嘢叫做 building services。你
K building work team 你就話佢哋話係會去睇 builder's work,
L requirement for building services work，見到嘛？你下
M 面(b)嗰度就話 building service team 啲人就會去 inspected
N building services installation work，咁呢兩個概念係咩
O 嘢嚟？

J 答：係，building work...

K 問：你畀啲例子我啦。

L 答：好呀，好呀。Building works 主要譬如我哋喺番上蓋工程當中，
M 我哋係會譬如落石屎，成個上蓋一路上去上面，咁我哋呢啲係主要嘅
N building work，譬如 finishing 呀各樣嘢都係嘅，呢個係簡單
O 嘅例子。如果係 building service 方面，其實就係針對番成個--
P 我哋喺個合約裏面亦都係有一啲指定嘅分判商，指定分判商裏面佢亦
Q 都係若干，譬如我哋係有消防，消防系統，同埋嗰個嘅泵，喺如果係
R 水務方面嘅工程，我哋係有一啲泵需要安裝，咁嗰啲都係關乎到我哋
S 需要有 building services 嘅同事嚟到去支援。我唔知道呢啲例
T 子足唔足夠。

Q 問：得，我明白，我明白。即係譬如話地基，即係關於石屎或者一棟樓本
R 身，即係講得 layman 啲，就係即係層樓本身嘅，即係關於石屎或者
S 嗰啲，就會係 building，即係 A 嗰隊 team，building works
T team？

S 答：係。

T 問：Building services team 就係可能係外面要搭上去、加上去嘅啲
U 喉管嗰啲？

U 答：屋宇裝備，係嘞，係嘞，屋宇裝備。

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問：屋宇裝備，得。

主席：都唔一定。

答：係？

主席：安裝水喉就係 building works team 負責，安裝個 plumb 就係 building services team 負責，啱唔啱？

答：係，係。

問：點解會咁樣分？

答：我諗佢係...

問：都係裝落去，但係點解？

答：係，呢個本身都係我哋自己內部即係部門方面嘅分工，咁就過去一直以嚟，我哋都喺 building works 嗰方面，我哋係包埋水喉，因為水喉，其實水務呢一方面唔係需要好多嘅工程師，裏面即係專門嗰個嘅專業知識嚟到去睇。咁所以就一般嘅水喉，我主要就係睇番佢嗰個物料、dimensions，同埋就個 alignment 跟唔跟番個 layout plan 咁樣樣。咁呢個係基本上我哋嘅 building works 嘅同事其實係可以處理得到。咁但係技術上面一啲即係如果係去到泵呀，即係牽涉到泵側邊嘅 valves 嗰啲，咁其實嗰啲就會係需要我哋嗰個嘅 building services 嘅同事去支援。

問：Okay，得。我想你睇睇--直接就跳去 37709 頁，就係你嘅 32 段。就係關於同水喉工程有關，就係我哋知道水務署就好多呢啲 form，46 又 132 又盛咁樣。第 32 段你就講到就係喺開始做呢個喉管，即係水喉工程之前，持牌水喉匠就要先填呢個叫做 WWO 46 呢一張 form，咁佢填完之後就畀番 China State，即係個主承辦商，跟住就 pass 畀 contract manager 簽名，其實 contract manager 即係你。

答：係，不過當時唔係我，當時唔係我，因為...

問：你授咗權，我知，即係你-- okay，得。就簽 architect 呢個位？

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答：係，係，冇錯。

問：相關嘅簽 architect，咁就會簽名。我想你睇一睇個文件，就係 2011 年 3 月，就係 37807 頁。

答：37807，係。

問：呢個就係 WWO 46，對嘛？

答：對。

問：咁你睇番左下角就係個 licensed plumber，持牌水喉匠。右面就係 authorized person，咁當然即係公屋就有 authorized person 呢個概念，咁但係即係作類比，就係其實就係相關嘅 chief architect，當時就唔係你喇呢個位，不過你中間 12 年開始，就中間參加咗，okay。呢個就係 3 月簽嘅。好嘞，咁你睇一睇就係中間 2. 嗰度，purpose of submission。其實佢有 tick 到邊個 box，不過即係我哋都知道就係 “We hereby notify that the plumbing works detailed above will be commenced on...”，跟住 “We certify that the pipes and fitting installed / intended to be installed, including those as listed on the attached Annex, and are as prescribed by the Waterworks Regulations.” 即係話你入紙嘅時候，首先我想知道就係我哋聽過有一個講法，就係喉管嘅工程可能喺整棟大廈嚟講，可能係相對比較後期先至叫做做嘅，對嘛？

答：係，係，對。

問：咁但係做法就係成個地盤一開始動工冇耐，就已經先入咗呢個 WWO 46，對嘛？

答：係。

問：即係未有耐做水喉已經入定先，對嘛？

答：可以咁講，未開工，因為佢呢度係話 notify 咁，notify 個 Water Authority 係開工。

問：係。咁佢又有話幾耐前 notify，咁所以佢晨咁早 notify 都可以嘅其實？

答：係。

問：即係講得即係粗俗少少就係。咁同埋你入紙嘅時候，你會見到 37808 右手面就有一拵叫做 pipes and fitting installed 或者 intended to be installed，對嘛？

答：係。

問：就係有一拵嘅組件又盛，你係要喺呢個 Annex 裏面通知水務署，對嘛？

答：係，對。

問：咁但係就其實有啲規則就喺啲 notes 嗰度，其實就--另外即係呢一個 Annex 另外有份 notes，我哋遲啲睇下嗰份 notes，但係而家我哋唔睇住。

答：好呀。

問：嗰份 notes 其實講到明就係喉有啲咩嘢要寫落去，組件有邊類特定嘅組件先需要寫，有啲就唔使寫，對嘛？

答：對。

問：Solder，焊料就係唔使寫嘅？

答：係。

問：Okay。即係呢個水務署規定唔使寫，咁所以就冇寫？

答：唔，唔。

問：好嘞，但係 purpose of submission 嗰度就講到明，無論喺唔喺呢個 Annex 都好，入紙嗰兩個人，licensed plumber 持牌水喉匠同埋個 AP，所謂即係個 Chief Architect，都要去證實就係話喺將會裝嵌嘅喉管工程係會符合水務條例嘅規定。好嘞，咁水務條例裏面規定就係要符合英國標準，你知道呢個要求？

答：知道。

問：咁英國標準，我哋唔好即係--唔使翻箱倒籠搵出嚟，但係你知道英國標準其中有一項關於 solder，即係佢唔係直接用字眼講 solder，但係即係其中有一項就係代表就係唔可以用啲含鉛嘅焊料。好嘞，咁我就想問一問，就係呢份唔係你簽，我知道，但係我相信你即係都簽

過好多份類似嘅嘢，係咪？

答：係。

問：都會有包含呢一句嘢。咁你簽呢句嘢嘅時候，你憑乜嘢係令到你覺得可以 certify 或者 assure 畀水務署，就係話你將會起嘅嘢係會符合水務條例，尤其是係有關唔含鉛嘅 solder 呢一個部分？

答：係，係。我諗咁樣，因為呢張 form 就當時我諗任何一個嘅項目，如果係要填呢張表格，咁就個持牌水喉匠佢哋填晒所有有關嘅資料，咁喺番--正如頭先大律師你所講，就係話我哋係喺早階段嘅時候，本身其實我哋房委會所要求嘅物料，其實我哋都唔可以係有任何嘅 brand name。咁其實就喺呢個早階段嘅時候，其實當初呢個持牌水喉匠佢交呢個表格嘅時候，睇番呢度係有二十五項，咁呢個物料其實就裏面亦都係有齊晒個 brand name。咁實際上佢準備呢個表格嘅時候，好多時我哋寫 general practice，咁我哋都係會喺早段而未係佢哋提交嗰個嘅物料畀我哋去批核，咁換言之即係呢個就係 intended to be installed 或者係 used 嘅 material list 嚟。咁當然即係呢個 list 正如頭先所講，就係有一個嘅 solder，亦都係水務監督方面係有要求呢一樣嘅列名。咁但係喺我哋相信我哋嗰個嘅合約嘅要求，我哋係要 lead-free，如果 solder 嚟講。咁所以即係喺嗰個階段嘅時候，我哋係明白，即係有呢個咁樣嘅即係 standard 同埋 requirement，咁樣落去簽。

問：但係你連人哋會用乜嘢料都未知，咁即係唔係你，即係簽紙呢個人。佢淨係好籠統知道合約有呢個規定，咁但係實際上人哋打算用嘅係乜嘢料，嗰種實際上人哋打算用嘅料係唔係真係符合合約嘅規定，喺嗰個早期簽，撩呢個簽名嘅時候係未知。

答：當佢哋--我講佢哋嘅意思即係話主承建商，佢係接受呢份合約，同我哋房委會簽訂合約嘅時候，換言之佢哋所有嘅物料同埋個工程裏面個內容都要符合到嗰個合約嘅要求。咁既然我哋個合約係要求係有鉛嘅焊錫，咁其實呢度都好自然地，即係當入呢個表格，佢都需要係符合我哋合約，同埋--而合約亦都係訂明係需要符合 statutory 嘅 requirement。

問：即係你純粹就係講個信字，就係由於合約要求佢做，咁所以雖然你未仔細地話畀我聽有某啲嘢係會用乜嘢嘅料，不過就我就信你會符合，咁所以就簽呢個名？

答：係，呢個係 intended to be used。

問：Okay。我有一份文件想畀你睇一睇，就係香港工程師學會，佢就早排就做咗一個立場書，我哋叫做。我唔好話係一個報告，我會話係一個即係立場書或者係一份陳詞咁樣，即係發表咗佢對鉛水事件嘅一個意見，咁就已經入咗我哋個 bundle。個頁數就係第 66 頁，但係個 bundle number 係 U1，bundle U 裏面嘅第 1 頁，呢個就係香港工程師學會，應該喺個電腦嗰度睇得到。就先睇睇第 3 頁先呢個 bundle。咁個第 1 版就係香港工程師學會，咁我哋就嗱嗱即係收到工程師學會就即係呈交咗畀我哋調查委員會佢嘅一個報告。咁佢就--即係當然佢哋就有真係仔細地咁樣走去問個證人或者係取過啲咩嘢證供，咁佢哋係比較原則性嘅層面，對好多即係鉛水事件嘅一啲技術性嘅範疇，或者一啲監管上嘅層次嘅嘢，發表咗一啲嘅意見。咁就其中我想你睇睇嘅就係第 269 頁。咁佢對持牌水喉匠嘅監管，對好多 form 嗰個即係陳述其實都有好多意見。咁第 269 段，第 66 頁。工程師學會佢哋嘅意見就係喺 WWO46 呢張 form 嘅第一部分，即係我哋嗱嗱睇咗嗰部分，嗰個 AP 嗰個人，presumably it must be 房署，係咪？即係房署，其實。

答：唔。

問：簽得嗰個名，佢就應該對設計同埋嗰啲組件嘅詳細資料都應該係知道嘅。同樣地，簽 Part II 嘅時候，遲啲有個 Part II，我哋而家未睇 Part II，等陣先。

答：係。

問：嗰個簽名嗰個人，即係個 AP，都應該係知道整個設計同埋整個 project 會用嗰啲組件嘅詳細資料。咁你對佢呢一個嘅意見，佢呢個講法有咩睇法？即係簽得你要知道其實用咩嘢。

答：係。我諗咁樣樣，呢度我就咁樣睇...

問：呢個意見可能--就可以未必對--冇對錯，但係我想睇下你對呢個意見有咩睇法？

答：明白，明白。咁就着呢一段，好唔好？即係 269 段，因為我都係第一次睇呢一段。

問：係，係。

答：咁就我針對番去到房委會裏面嘅公營房屋嗰個嘅項目--發展項目嚟睇，本身即係正如我頭先都講，我哋唔可以係畀任何牌子，我只可以

係 performance-based, performance-based 換言之我哋即係喺嗰個 specification 上面個規範, 就係著重喺嗰個物料裏面, 譬如即係個喉管個大細, 佢可以係個 water-tightness、個 flow rate, 或者係個 pressure 可以去到幾多。咁所以呢啲物料喺早階段, 即係 submit 個 Part I 嘅時候, 冇錯, 我哋嘅同事、我哋嘅團隊係應該熟悉即係由水務監督所批核嘅圖則, 我哋嗰個嘅系統係點樣樣。但係去到每一個部件, 或者每一個嘅 piping, 其實主要係嗰個 performance 係啱乎個規格, 其實我哋喺嗰個階段嚟講, 都仲係需要等待嗰個承建商佢畀嗰個物料個 proposal。因為事實上同一個 performance, 可以有唔同嘅牌子可以達到嗰種嘅功能咁樣。咁所以即係呢個係我哋嘅情況, 即係呢個我哋嘅情況。

問：係, 但係你唔知牌子, 但係你連佢用乜都未知嘞, 入呢張紙嘅時候。舉個例, solder 咁樣, 佢 annex 嗰度有幾廿種寫左喺度。寫左嗰啲你會知道, 但係有啲冇寫, 譬如話 solder, 即係我哋講番同本案有關嘅 solder。

答：我明白, 明白。但係亦都曾經我--啱啱講過, 合約係規定咗佢係要用無鉛嘅焊料。咁所以即係如果我哋規定佢用無鉛嘅焊枝嘅時候, 本身佢用咩嘢牌子嘅無鉛焊枝, 我哋唔會去規範佢。但係我一定係要無鉛嘅 solder。

問：唔。

何先生：主席先生, 我唔想打斷石大狀問嗰個思路。不過如果佢係問緊呢一段, 佢因為而家嗰個問題嗰個基礎就係講緊第 269 段呢個 engineer 個 report。呢度好清楚係寫係嗰個 46 form 裏面嗰啲 submitted for approval 即係佢嗰個--假設佢呢度講緊嘅係嗰個 annex 裏面嗰啲嘢, 應該係個 AP 係清楚。佢就唔係講所有係唔係 submitted for approval, 所以我相信石大狀而家講緊嗰個問題係可能已經係超越咗呢個 269 段。我希望係即係當問個問題時候, 比較正確一啲, 等個證人亦都...

石先生：呢個係一個可以嘅睇法, 但係另外一個可以嘅睇法就係嗰個 submitted for approval 係指入面要用嗰啲嘢, 定係即係整個 project 會用嘅嘢呢? 咁即係我--但係我唔打算喺度糾纏, 因為我只不過係想即係睇睇佢對冇冇需要知道嘅呢一個方面佢嘅睇法。因為我頭先亦都話呢一個意見, 只不過係一個意見, 你點樣演繹呢個意見, 可能係遲啲我哋會即係再辯論都未定。

問：但係我而家就即係--我 move on，我而家係講下一個課題，就係關於--頭先我哋睇到就係嗰個 46 form 後面嗰個 annex，佢列舉咗一炸嘢。嗰炸嘢係提供畀水務署，對嘛？嗰個附表你做嘅嘢，係啱好早期畀水務署。而我哋之前聽馮女士佢作供嘅時候，佢就話一般嘅做法，可能係好早期入咗個附表。

答：係，係。

問：咁嗰陣時其實好多時候呢一啲嘅物料佢都係初步決定係用呢一炸嘅啫。

答：係，啱。

問：你實際做落，可能係做到一年半載之後，可能佢哋決定其實係用咗第二隻。

答：係。

問：咁後來嗰啲可能係後來會改然後定訂定，或者如果係好 minor，可能呢啲就係由個持牌水喉匠佢會直接同水務署去搞，但係嗰度就係以水務署方面嘅一啲交往。咁但係房委會作為個項目嗰個 employer，即係請承建商去做嘢嗰個叫做--唔係--唔可以叫僱主喇，即係嗰個整個項目嘅主任，佢自己分別地都要知道人哋打算用啲嘢料，喺某地方，呢個就係你跟住講，就係嗰啲 plumbing material proposal 嗰個。

答：唔，唔。

問：呢個就係同畀乜嘢水務署睇係兩回事，對嘛？第 33 段之後講嗰啲嘢。

答：我諗咁樣講番先，喺我哋監控番成個合約嘅過程當中，就我哋對口就係總承建商。

問：對。

答：咁總承建商佢就係聘用呢個持牌水喉匠，咁其實睇番個水務法規底下，其實就係嗰個嘅對於個持牌水喉匠係有一定嘅監管。咁而呢個持牌水喉匠亦都係要將呢啲嘅表格，當然有佢自己簽名，或者係需要 AP 嘅簽名嘅時候，咁呢啲都係成個嗰個持牌水喉匠同埋水務監督之間去處理番呢啲嘅水務範圍裏面要交嘅文件。呢個就係即係--我就想講就

係話持牌水喉匠同埋水務監督，整個喺嗰個水務法規裏面要做嘅嘢，就係佢哋之間去處理。咁但係當然我哋會知曉，咁但係最主要直接就係佢哋兩個 party 去處理。

咁而我哋所監控嘅就係嗰個主承建商，合約方面我哋要守住把關，就係主承建商所做嘅，或者所提供嘅物料，佢哋 proposal 係需要符合我哋合約嘅要求。咁所以好自然，即係當然我哋合約嘅要求亦都必定會包括埋嗰個嘅法規裏面需要，或者條規裏面需要。咁所以呢個要相輔相成。

問：唔。咁但係或者我用一個比較實際啲嘅例子，就係你 WWO46 係好早期入，裏面可能列舉咗有好多十種嘅物料，不能用牌子嚟界定。到到--呢個就係頭先你所講，就係與水務監督方面嘅交往，因為你要入紙畀佢，法律規定。咁但係 separately 分別嚟講，喺建築工程方面，主承建商佢施工前，可能合約規定 PLU2 裏面嘅佢一定要畀你 approve 先，對嗎？

答：係。

問：PLU1 我哋聽見就未必一定要，不過好多時候都會？

答：嗰個或者我咁樣樣去講多少少。PLU1 嗰度，主要就係我哋嗰個 sample 佢唔需要 submit。但係某...

問：Sample 唔需要 submit？

答：Sample 唔需要 submit。

問：不需要 submit？

答：不需要 submit。

問：不需要，係。

答：不需要 submit。

問：係。

答：咁就但係好多時喺 PLU1 裏面嘅物料，雖然唔需要 submit 嗰個嘅 sample，不過其實好多時我哋都同樣係需要有一啲嘅 test report，咁嚟到去 support 番整體...

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問：呢個「需要」係合約要求去畀，定係...

答：合約要求。

問：合約要求。

答：PLU1 有寫到。

問：Okay, okay。

答：即係個分別係個 sample。

問：I see, okay。即係 PLU1 同 PLU2 嘅分別，其實就係在乎 PLU1 未必一定係需要畀個實件你，但係佢都要起碼有啲證書去證明「諗我來源地喺邊度」或者「我有實驗過佢成分係乜嘢」咁樣。

答：冇錯，冇錯，冇錯，冇錯，呢個我補補充。

問：得。咁但係我講番先，就係房署喺審批人哋入嚟嘅樣本或者資料，根據合約嘅處理，就理論上--哦，純粹理論上睇，就同佢喺 46 form 後面列舉啲咩嘢，就有一個必然嘅關係。我意思係咩嘢？你入紙嘅時候 form 46 可能列舉咗一咩嘢，但係到到嗰個承建商畀物料你嘅時候，可能佢畀你嘅嘢同喺 form 46 後面列舉啲咩嘢可能已經唔同咗，因為佢可能改變咗主意。

答：喎。

問：會咁樣嘅，會咁樣發生？

答：喎，會咁樣發生。

問：咁而房署審批嘅時候，佢就唔會話對番「咦，喂，你 46 唔係咁寫。」唔會嘅？佢畀你嘅嘢合規就合規，對嘛？

答：冇錯，冇錯。

問：咁至於遲啲佢點樣執番正嗰份 46，咁呢個就係 AP, licensed plumber, 就要自己搞番掂？

答：喎，喎。

問：係咪呀，可以咁講？

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答：啱，啱。

問：Okay，好。咁就--你就喺今次呢個案件裏面，你 33 就係好籠統咁樣講個程序，就係 PLU1、PLU2 咁就幾時有啲咩嘢要畀 project manager approve。咁睇番 54 段，54 段你就直情係講與本案實際有關，就係關於呢個焊料就係用“FRY” 99C 呢一個 plumping...

答：唔好意思，第幾段？

問：54 段，37716 頁，37716。

答：Okay，唔該，係。

問：好。

答：第 54 段，係，點樣？

問：係。呢度你就係講喺今單案裏面所用嘅焊料就係 99C，即係打算佢 submit 畀你哋話佢會用，主承建商 submit 畀你哋嘅焊料，就係 PRY 99C。

答：係，係。

問：咁而實際上嗰張呈交嘅文件，我哋可以睇睇，就係 37811。呢個就係嗰個叫做 Sample Submission and Approval Form，對嗎？

答：係。

問：雖然佢個用字係叫“Sample”，即係「樣本」，即係呈交樣本嘅申請書。

答：係，唔。

問：咁但係就你剛才答咗我，打算你嘅問題就係實際上就根據 PLU1 嘅規定，就唔需要呈交一個--即係唔使畀嚟實際嘅...

答：Sample。

問：...焊料你睇。

答：不過佢都 submit。

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問：佢都 submit 咗，係咪，好似？

答：佢都 submit 咗。

問：哦，okay，okay。咁跟住佢就列舉咗，就係--你睇番上面就係 Material Description，就係“FRY”--即係 37811 嗰度，就係“FRY”咁樣，見到個牌子咁。

答：唔，係。

問：咁實際上畀咗你嘅用料，你哋會唔會真係走去 check 下佢化學成分，如果佢畀嘅話？

答：我哋唔會。

問：唔會？

答：嘎。

問：因為要番嚟做紀錄咁樣，收埋咁啫，都會係。

答：係。就好似第 37814 嗰版嗰度，我哋有個 approval label，我哋就會將呢個 label 係嚟嗰個 approved 嘅 sample 嗰度，就跟住鎖埋嗰個 approved sample 嗰間房。

問：就係好似你 55 段所講，37716。即係佢畀得你，咁你就嚟咗嗰度，就叫做擺嗰個版房嗰度就做個紀錄。咁就完咗之後，咁就 dispose of，即係可能會抹，或者即係處--即係另作處理，就唔會 keep 咁呀？

答：即係完咗之後，就唔會 keep。

問：係，okay，得。至於 PLU2 裏面嗰啲，就要畀埋嗰個實際嘅 sample 你之餘，你哋係會 test 埋，會唔會？

答：都唔係 test。嗰個--我諗咁樣樣，因為我哋 PLU2 要 sample 個原因，因為佢係主要譬如座廁、洗手盆，咁呢啲都係有佢自己嗰個款式、顏色、texture。咁呢啲係即係可以講--俗語講，我哋叫「揀料」，可以同一個 performance，喺--有唔同嘅款式。咁會變咗即係則師方面，佢可以係即係喺當中有個選擇。咁所以喺呢度就會係即係需要佢 submit 個 sample 咁樣樣。

至於係嗰個 test report 各樣嘢，其實嗰個要求即係同番

PLU1，其實係同等。除非我哋有懷疑，我哋就會係擺去 test。

問：好，明白。跟住，我想問一問你，第 36 段嗰度，就係關於嗰個 plumbing installation，即係嗰個水喉管嗰個 layout。呢一度就係即係其中一啲背景資料嚟，不過我諗我哋有番啲圖畫睇下，我哋就會知道即係——一陣間我會有啲問題係關於嗰個成個 layout。你第 36 段就講，就與其他嘅房署嘅項目都一樣，咁今次呢個 project，即係啟晴邨呢個 project 嗰個喉管嘅系統就有兩部分，一啲就向上，一啲就向下，咁樣講得即係平實啲，就係。

答：係，係。

問：我畀個圖你睇一睇，就係 B1 嘅第十一——第 14 頁，B1 嘅第 14 頁。你會見到呢度係一幅圖咁樣，就你呢個 statement 第 36 段就有度叫做 Upfeed System，你見到嗎？

答：係，見到。

問：向上行嗰個系統。向上行嗰個系統就係第 14 頁嗰度藍色嗰條——即係大約就係講藍色嗰條，對嗎？

答：係。

問：就一路係即係過咗嗰個所謂界 lot boundary 之後，咁就會即係經過有啲即係 Meter，或者即係我哋——仔細啲啲我哋唔好講，咁一路總之就上到去個...

答：水缸。

問：...天台嘅水缸，係咪？咁就由啲泵泵到佢就即係好多十層樓高，就上到天台個水缸。咁呢隻就係藍色嗰條線，對嗎？

答：係。

問：咁佢就——你嗰度就話，第五行嗰度就話，就係用“Exposed ductile iron piping mounted on the external wall”即係一啲喺外牆一啲即係接觸到外界嘅一啲——即係用啲 ductile iron，啲鐵嘅管，就一路就——即係啲係直情係日曬雨淋，喺即係嗰層樓外面。

答：係。

問：“Or in pipe ducts”或者可以係即係藏咗喺個樓宇入面。跟住你

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講，second part，第二部分就係 downfeed system。Downfeed 就係要睇下第 15 頁，15 頁就你見到就係橙色向下箭咀個部分，對嗎？

答：係，對。

問：咁就落，一路落到去每層--入到去每層，就會分叉就去即係每層嘅單位咁樣，又會。即係唔單只係落，落之餘，仲會有啲嘢係打橫出。

答：係，係。

問：係。你個度嘅形容就係 copper pipe 就用銅喉，就由天台個水缸就去到每一層樓，就會有個啲啲咪錶房，Meter Room。咁就又有啲--即係啲啲叫 Booster Pump Room，啲啲我哋唔好講。咁跟住你最耐個行，就話“The pipe work were surface-mounted to facilitate future maintenance.”咁呢個“surface mounted”係咩嘢意思，同埋點樣去 facilitate future maintenance 呢？

答：Future--surface-mounted 嘅意思，即係話全部嘅喉管都係外露，即係如果係牆身，佢就係會係經過啲喉碼，嚟到碼喺個牆身個度。如果係...

問：即係一個 bracket 嘅，即係...

答：係，個 bracket...

問：...扣住佢咁樣？

答：係，扣住佢，外牆又係咁樣，內牆都係咁樣樣。

問：係。

答：天花同樣都係，就不過喺天花吊番個 bracket 落嚟。就即係所有嘅大家見到...

問：即係電線亦叫明線咁樣睇到晒，就乜喉、物喉咁樣睇到晒？唔會藏咗人去？

答：冇錯，冇錯。就唔會係個喉管藏咗落去，唔會嘅。

問：因為藏咗，有事要整嘅話，就唔知點算，可以放番落埠牆整就好論盡。

答：冇錯，冇錯，冇錯，冇錯，啱。

問：咁跟住就你就講到--第 37 段就講到有部分呢一個合約就中國建築就係容許係用--唔單只係容許添，即係要求係用一啲事先預製嘅組件，就係浴室同埋廚房。

答：係。

問：我所知道呢一個就係即係個別例子，因為即係後來即係其他嘅 project 就有再用呢個預製組件呢一個概念。咁所以即係就算預製組件有乜嘢問題都好，我唔係話有問題，但係就算有咩嘢問題，都係限於係啟晴邨，係咪？

答：啱。

問：咁就佢裏面--你可唔可以同我簡單講講嗰個預製組件呢個概念，就係--係咪直情係成個浴室裏面，即係包括洗手盆、嗰個 shower，所有嘢都係直情係一早喺外面製造定，跟住就成個浴室運過嚟香港，跟住就插入去嗰個空位度，係咪？

答：係。或者我講講，呢度嗰個所謂預製浴室同埋預製嘅廚房，其實就係你--的確係一個盒咁樣，即係話即係成個盒嗰個嘅廁所同埋--嗰個浴室同埋個廚房都係兩個唔同嘅盒。咁樣就預早喺個工廠裏面係無論石屎，各樣嘢都做好，包括埋瓦仔。

問：牆、啲瓷磚，嗰啲冚□啲整好晒？

答：瓷磚。咁本身我哋嗰個個規範，其實就到呢度。咁而中國建築佢嗰個嘅即係開工之後，合約嘅要求以外，佢就想提議我哋傾一傾，就話好唔好--即係既然做咗個盒，即係頭先我所講咁樣嘅 enclosure，之後再喺嗰個嘅浴室同埋廚房裏面嘅喉管，同埋嗰個潔具都同樣喺度做埋。你明白嗎？即係呢個係佢哋嗰個建議，當時建議一部分。

問：即係原先嗰個預製，就淨係預製個「瓢」嘅啫，你可以話。

答：啱。

問：即係啲牆，或者個地嗰度。

答：同埋啲 furnishing，即係我哋話 furnishing，包括埋地台嗰個防水都係。

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問：係，係。

答：咁樣樣。咁就...

問：原本就係諗住喺境外嘅地方就整定一個咁樣嘅盒，就嚟到就一下套落去預先留咗個空位裏面，跟住先至再整啲啲洗手盆...

答：即係再結合理個個嘅結構。

問：係。但係就中國建築就提議就話不如整緊呢個外「瓢」，即係啲啲牆、甚麼嘅時候，就不如就整理啲啲水喉嘅嘢落去？

答：係。總之呢個就係佢哋個當時...

問：會包括洗手盆、浴室啲啲嘅即係仔細嘅喉管嘅裝備都整理？

答：係，冇錯。但係呢啲喉管佢係--即係只係限於去到啲個嘅廚房或者係浴室，即係換言之佢嚟到香港嘅時候，仲要再跟住駁番通佢，即係成個系統。

問：係因為條大廈，我哋頭先睇番橙色啲度落嚟，主要啲度喺幢大廈啲度，啲啲冇得預設。

答：冇錯，冇錯。

問：咁你 slot in 咗我哋叫做你外面嚟啲個盒插咗入去預先留啲個位嘅時候，都要有一個即係將兩者 inter-connect，即係接駁埋。你裏面--啲個廁所裏面啲啲喉點樣都好，你都要駁番與大廈啲啲喉一樣。

答：啱，啱。

問：得，我明白。好，咁就呢啲預製嘅組件就喺內地做，係咪？

答：係。

問：係。咁就所以如果呢啲預製組件裏面係包含要接駁一啲喉--我知最後啲步梗係要同大廈嘅喉駁番，但係裏面都好多喉，你洗手盆入面又會有喉，浴室好多都會有喉。啲啲喉嘅工人就唔係香港擺牌工人個啲，會？

答：我哋咁樣講先，我哋就當中國建築佢寫信上嚟，即係亦都喺我個 exhibit 有提供到。咁就佢希望我哋批准佢哋咁樣做，呢個佢係建

議。咁嘅建議過程當中，當然我哋亦都係審視過佢哋嗰個嘅 detail 嘅 proposal，建議嘅詳細情形。咁而後畀我哋係接受佢，其實係我哋嘅覆信當中，亦都指明我哋係接受佢嘅建議，但係所有合約裏面要求嘅，佢都要係符合番。咁呢個當然係包括嗰個嘅即係所有嘅 statutory 嘅 requirements，同埋 contractual 嘅 requirements。咁呢兩方面都係基於呢個考慮，如果佢係可以符合到，我哋就先至可以畀佢咁樣做。

問：唔，好。我問過馮女士，不過我都即係問一問你。就係香港嘅《水務條例》Waterworks Ordinance 裏面嘅第 15 條，就係 bundle C2，1145 頁。實際嗰條條文就係 Section 15，第 15 條，第 1149。咁第 15 條，就係 Construction by licensed plumbers，佢就話(1) Subject to subsection (2)，即係除第 2 段有另外規定之外，就 inside service 就只係能夠由一個受--獲授權嘅公職人員或者一個持牌水喉匠去做。

答：係。

問：咁我嘅理解就係雖然字面--我唔係同你講一啲法律嘅即係仔細嘅一啲演繹。因為字面睇佢就話即係「no inside service shall be constructed other than by 呢兩個人」，咁字面睇，一種嘅睇法就係話真係只能夠--我哋唔好理授權公職人員嗰 part。

答：Okay。

問：就真係要個 licensed plumber，即係要林德深先生自己落手落腳走去□幾千個單位。

答：係。

問：咁當然如果個法例真正嘅解讀真係咁嘅話，咁個後果係點，咁呢個就有啲人就好頭痛，可能係。咁但係我嘅理解就係水務署對呢個條文嘅演繹，就係話，佢唔使真係落手落腳，自己爬上爬落，自己做晒咁多個焊位，佢可以 supervise 就得。咁所以我咁睇啱唔啱，就係話--就即係你哋就係信賴個持牌水喉匠要走去 supervise，無論係邊個真係落手落腳做都好，你就信佢去監督？

答：係，因為喺水務法規嘅裏面，其實對於個持牌水喉匠嗰個嘅監管都好嚴謹，即係我所睇。因為如果持牌水喉匠佢有任何即係未能夠做到滿足嗰個法例要求嘅時候，其實係水務監督係會對佢有所懲處，咁所以喺呢方面，我哋都即係會相信佢哋係要做足佢哋嘅工夫。

問：寫就係咁寫，咁但係如果有人真係問你「你真係覺得林生佢真係會走上去間廠嗰度，真係走去叫做監督，真係望下，嘩，呢度焊得好唔好咁，即係真係會咁做？」我哋唔好理香港你會唔會咁做，但係間廠喺內地，你估你真係會走去監督？

答：如果去到呢個位，我就會係咁樣去講。呢個最主要就係話我哋房委會，我哋同番嗰個嘅持牌水喉匠個關係，最主要就係我哋係同呢個持牌水喉匠喺基本上、喺合約上係冇任何嘅關係。我哋最主要都係...

問：佢個牌都係水務署畀。

答：係，冇錯，我哋--個牌係水務署畀。咁另一方面，就係我--最主要係我哋係針對番嗰個主承建商，因為個合約係我哋同番承建商嚟到去訂定。咁而嗰個合約個裏面，嗰個承建商亦都係喺當中去行使佢個權利嚟到去建議即係「不如喺番內地嗰方面嘅工廠，就橫掂做開個預製廚房同埋廁所--浴室呀，咁就不如即係做埋啲喉管」咁。咁既然因為咁樣嘅建議嘅時候，我哋再三強調即係一定要跟番足合約裏面要求，包括埋嗰個 statutory requirements。咁所以呢個，其實中國建築佢係好清楚，因為呢個唔係我哋本身喺嗰個合約規範裏面要求，係佢哋自己一個建議咁樣樣，咁我哋接納。即係如果係咁嘅話，我哋都再三聲明，即係佢一定要有呢個--符合到呢個要求先。咁如果水務法規係要求呢啲嘅水喉匠--持牌水喉匠嚟到去...

問：Supervise，監督。

答：...supervise 番呢啲 works，咁我諗呢個就係自不然一定要係嗰個中國建築作為一個主承建商，佢要處理嘅問題。即係我唔可以直接去即係同嗰個...

問：得。或者話呢個問題應該問水務署，因為如果佢 license 得啲人，佢出個 circular 話佢...

答：可以咁講。

問：...呢個 licensed plumber 可以走去 supervise，咁佢點 expect 林生走上大陸 supervise，就呢個應該問番水務署，佢點樣去打算 monitor 呢個制度，對嗎？

答：係，可以咁講。

問：係。好，但係有一度你答到，第 66 段，你睇睇，37719.2。呢度就

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係關於房署自己個合約，第 66 段。咁佢哋根據番你哋嗰個 Specification Library，你哋嗰啲即係標準格式嗰啲合約，你哋有個--即係有啲--有個 library。

答：係，係，係。

問：咁佢裏面有啲標準嘅條文，就係 2008 年版本。應該 2008 年版本就適用於啟晴邨合約，對嗎？

答：係。

問：咁佢裏面有講到就係話相關水喉嘅工人，plumbers，第三行，見到嗎？

答：係，見到。

問：「Combine percentage for skilled and semi-skilled trade tested plumbers--啲 workers, plumbers, 就 100 per cent。」即係話因為香港法例嗰個建築業工人註冊條例，Construction Workers Registration Ordinance 裏面，對唔同工種嘅工人都要定究竟有啲乜嘢人係叫做“Skilled”，有技術嘅註冊工人，有邊啲係半技術嘅工人。

答：係，係。

問：有技術嘅 skilled 嘅可能你需要勁啲料，即係半技術可能就即係唔使識咁多嘢，不過都要符合一啲即係法定嘅要求，咁講啱唔啱？我哋唔使睇嗰啲實際嗰個 table。

答：啱，啱，啱，啱。

問：啱。即係以我嘅理解就係 plumber 呢個 category，如果你想做 skilled，可能你有三種途徑；如果你要做 semi-skilled，就一種途徑，嗰種途徑可能係唔使整咁多嘢，就大致係咁樣。

答：係。

問：好嘞，咁就有規定埋，就係話任何一個項目裏面，你用 semi-skilled worker 頂籠係可以用百分之十五嘅啫，即係起碼有 85 per cent 係要用 skilled。咁我諗你嗰個背後嗰個理念都係希望就係話你要有牌工人一回事，有牌工人你都唔可以全部用晒最平嗰種，即係 semi-skilled，你起碼打底要 85 per cent 係勁少少嗰種，即係

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講得俗少少，對嘛？

答：係。

問：好嘞，咁你就下面就有講，skilled workers 個定義係乜嘢，semi-skilled workers 嘅定義係乜嘢，你要持有某啲嘅證書呀什麼什麼咁，對嘛？

答：對。

問：咁你預計組件嗰班工人喺內地，咁你點樣去確保其實佢哋係有呢一拵嘅 quali？

答：我諗...

問：呢個係你哋嘅合約嘅要求？

答：係，冇錯。呢個我諗咁樣先，因為當時因為我就--呢啲嘅預計成個嘅組件嘅時候，我並唔係當時嗰個嘅總建築師。我根據紀錄嚟睇番，亦都同番啲同事傾番，咁就係本身呢個 requirement，當時中國建築佢畀番我哋嗰個嘅資料，就係話啲工人其實佢哋都有係輸入，即係啲工人係返入內地去做嘅，咁當然...

主席：啲工人咩嘢話？

答：咩嘢？

主席：啲工人咩嘢話？

答：返入內地去做呀，呢個係...

主席：返入內地？

答：呢個係聽番總承建商所講嘅，我講緊水喉呀，講緊水喉。

問：水喉，即係嗰啲其實係香港嘅 skilled 或者 semi-skilled，香港註咗冊，不過就 ship 佢哋返去大陸間廠度做？

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答：嘅，嘅。呢個係即係按紀錄，即係我...

問：聽返嚟？

答：嘅，我唔係第一身，咁呢個就係即係我可以提供到。咁但係當然呢個可以直接問番主承建商。

問：唔，okay。但係即係呢個就係你問番啲同事，你嘅同事就話係主承建商話畀可能當時你哋主事嘅同事聽，就係話主承建商話其實喺內地間廠度落手落腳做喉嘅工人，其實都係一啲香港 skilled 或者 semi-skilled 嘅註冊工人，不過佢哋就可能冇即係運輸車，每日就送佢哋返內地間廠度返工？

答：即係實際嘅情況真係要問番嗰個主承建商。

問：得，得，好，我明白，好。咁我哋而家就跳一跳，就講番就第 37712 頁。

答：對唔住，3...

問：37712 頁。就係關於起完--我而家 fast forward，即係去到真係整好啲喉管，即係嗰個供水嗰個系統整好，咁整好之後又有一大堆嘅 form 要填，即係 46 又會有 Part IV，又會有 132，又出張 1005，好多呢啲咁嘅紙。咁但係我想問你，就我哋而家跳走晒嗰咁嘅 form 先，我好籠統咁問你一個問題，就係你知道起完晒嗰個系統之後，咁填晒啲任何嘅 form，就即係話我證實我已經起好咁。咁到到最後水務署喺叫做正式駁喉同埋開始肯放水入去畀呢一個項目之前，佢咪要驗下啲水係咪符合有八個參數，你記得嘛？嗰八個 parameter。

答：咁記得。

問：你記得？

答：係呀。

問：咁呢八個參數嘅列舉，就其實就係喺水務署嘅一個通函嗰度就列舉出嚟，就係 2012，number two，2 號嘅呢個通函。你就接管呢一個項目，就係 2012，我嘅理解。

答：係，係。

問：咁所以應該係咁講，你接管呢個項目嘅時候，呢一個 circular 係生

效咗未，出咗未？

答：如果我記憶冇錯，就我就 9 月去接受呢個位，即係處理個啟晴邨嘅總建築師。當時如果呢個 2/2012 個 date 應該係 8 月，咁就...

問：係。咁但係總之就係你上任嘅時候，應該啱啱 come into effect 冇幾耐咁。

答：呢個認知。

問：Okay。好嘞，我哋睇睇嗰個時間，你睇一睇第 43 段，43 段。第 43 段你就講，根據紀錄，水務署幾時擺啲水嘅樣辦走去驗就係 1 月 30 號 2013 年。根據紀錄，就係根據水務署 No. 2/2012 呢個 circular 嗰個做法，就抽咗啲水去驗，就驗嗰八個參數。好嘞，咁抽完驗之後，就個結果係滿意。我哋睇一睇，時間上你記唔記得啟晴邨係幾時即係叫做駁喉，connected？你睇番你第 42 段，畀唔畀到啲頭緒我哋？

答：如果我記憶冇錯，...

問：嗰張所謂水紙，1005 就係 4 月同埋 6 月出，你睇番你嘅 44 段。

答：我嘅 44...

問：你嘅 44 段。水紙 1005，即係簡稱叫做。

答：係。就係 4 月 16 號出。

問：4 月 16 號，domestic 嗰度 4 月 16 號。

答：係呀，係呀。

問：咁通常駁喉正式叫做就而家 connected，都應該係出水紙之前？

答：就係喺 3 月 20 號至 4 月 16 號之間嗰段時間。

問：係，因為嗰個 1005 就 certify connection has been made，即係 connected 完之後，咁佢就出張 1005 畀你。1005 呢張紙嗰個字眼，嗰個 wording，你睇番 37802 頁。或者你面前嗰個電腦都應該 show 到。

答：Okay。

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問：呢個就係嗰張所謂水紙，form 1005，對嘛？

答：係。

問：佢個字眼係“I certify the permanent connection ... of filtered water from the Waterworks for the purposes of ... has been made ...”，咁所以就頭先你話齋，就係應該係喺即係3月，你頭先話3月幾？

答：20。

問：3月20，即係 inspection 同埋出嗰張 1005，即係4月16號，中間某個時候就叫做 connected 咗？

答：係，呢個我相信係咁。

問：係嘞。咁佢係抽水去驗係1月嘅事情嚟，你之前嗰段咁講，43。我對你嘅問題就係我哋唔好理嗰啲仔細嘅條例嗰啲、條文嗰啲嘢先，因為如果你睇番個 circular，佢裏面有就話7日之內要駁好，我一陣間畀你睇。但係1月30號抽咗水去驗，佢成3月幾、4月先至駁，咁中間直情係有成兩個幾月係即係抽咗水之後，嗰個喉冇駁到個喎，你明唔明我講乜嘢？

答：我明你意思，佢呢度...

問：點解會有咁樣嘅事情？

答：Okay。咁樣先，就第一樣嘢，即係成個，包括我頭先講咗話 submit 表格，即係畀表格畀去水務監督，又或者係安排嗰個嚟到地盤驗水，呢啲嘅行動，即係其實都一路一直以嚟，都係嗰個持牌水喉匠同埋水務監督之間嗰個一路嘅安排嚟。咁喺呢個嘅 project 裡面，我所知紀錄上面就係話1月30號就水務監督透過持牌水喉匠就嚟咗地盤係抽取咗水辦，咁就係喺嗰個即係所謂我哋叫大掣，即係 connection point 嗰部分係抽取咗嗰個嘅水辦。咁...

問：好，停一停先，停一停先。即係話安排水務署嚟到抽水去驗，就 Housing 係冇牽涉在內，定係你哋都有人喺度睇住？

答：我哋冇人喺度睇住，但係我哋會知道，我哋會知道。即係因為通常嗰個 as general practice 咁樣講，general practice 其實就係水喉匠佢如果係水務監督話幾時嚟地盤去抽取水辦，咁當然佢都會

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直接通知個水喉匠。咁然後水喉匠...

問：係水喉匠約佢，咁所以水喉匠會同佢喇...

答：係嘞，冇錯。有陣時係兩者相輔相成，即係有陣時係水務署嗰度就約番或者要求，有陣時亦都係個水喉匠，即係入咗 form 就約時間，咁呢個係兩者。咁喺呢個除咗 1 月 30 號之後，其實我哋喺紀錄上面亦都係水喉匠後扞話到畀我哋聽，喺 3 月 14 號同埋 4 月 9 號分別都有嚟抽水，抽水辦驗，水務監督。係，即係我哋認知係咁樣，但係實際...

問：但係證書係得一份，驗水證書淨係得 1 月嗰份。

答：我知。呢個就純粹係我哋即係後扞查番嗰個紀錄。

問：係。我畀你睇一睇，即係 1 月抽咗啲水去驗嗰八個參數嘅文件，就有白紙黑字喺度寫住嘅，37799，你都擺咗落去做你嘅證物，你睇睇 37799。可能係即係莎士比亞話齋，“much ado about nothing”，即係其實呢個可能係倒頭來係冇嘢。但係我哋睇文件做事，即係你都擺得出嚟即係擺喺度，水務署驗咗嘢嘅文件得呢張，係咪呀？

答：知道，係，係。

問：即係你有第二張水務署驗咗嗰八個參數嘅文件，係得呢張，即係有冇第二啲，你擺出嚟。就 1 月...

答：係。當時我做呢個 witness statement 嘅時候，我就係有呢個喺手。咁當我交咗嗰個 witness statement 之後，頭先我所講，話嗰兩個 date，3 月 14 號同 4 月 9 號嗰度，都同樣後扞知道番，即係我自己，知道番有番咁樣嘅抽水，原因就係喺嗰個持牌水喉匠裏面佢嘅證供都提到呢兩日，原來喺啟晴都有去抽水辦。咁當然我哋都因為咁樣嘅原因，我哋都係喺番我哋自己嗰個嘅 file 裏面嘅檔案當中都□番，咁結果亦都即係知道純粹原來係知道有咁嘅安排，但係個細節都係由持牌水喉匠同埋水務監督之間佢哋自己嗰個嘅安排。

問：Okay。即係有冇一個驗咗水嘅報告，我哋係唔知？

答：驗水報告嗰度我都有。如果有...

問：Okay。即係你話有個安排可能係約過，約咗有冇嚟，就即係你有第一身嘅資訊？

答：冇呀，我即係都純粹係睇番水喉匠嗰個嘅證供。

問：Okay，得。咁 37799 你望一望，37799 就係一個 2 月 4 號 2013 年嘅一個驗水嘅報告。咁詳情唔使講，佢驗咗嗰八個參數，咁就合格，因為唔合格就唔掂。咁佢抽水去驗嘅就係 daily sample，咁就 1 月 30 號。咁點解我問呢個問題，就係如果單純去睇呢一個驗水嘅日期 1 月 30 號，同埋你真係水務署出嗰張水紙，即係 4 月 16 號嗰張，而你話咁應該係 3 月幾、4 月嘅就正式嗰個供水系統就接駁咗。就如果個驗水個日期同埋接駁嘅日期係相差成兩個幾、三個月，兩個幾月嘅話，咁其實係有個好大嘅危險，未必關鉛事，但係從食水安全嚟講，我諗你都明我講乜嘢，就係話你驗咗水話安全，洗嗰個內籠都洗得好乾淨，1 月 30 號，你等到 3 月幾、4 月先至去駁，中間又可能污糟番或者發生啲咩嘢事，冇人知個喎。

答：呢度我諗即係首先咁樣講先，我諗...

問：但係你明白我問題嘛？

答：我明白，我明白你嘅問題，我明白你嘅問題。但係正正就係驗水裏面成個程序，我頭先都講咗，就係即係水務署佢要求，我哋就一定係即係遵從，即係同持牌水喉匠嗰面就佢哋相約個時間，即係幾時嚟驗水各樣嘢。咁我哋就跟番--當然持牌水喉匠佢要跟番嗰個水務法規同埋個條例底下就入 form，就邀請番水務監督嚟到去個地盤去視察同埋抽水辦，或者係佢指定嘅某些位置嚟到抽水辦，咁呢啲我哋都必定會係跟番水務監督嗰個嘅要求嚟去做。咁但係如果按紀錄呢面，就係即係當然我哋就知道 1 月 30 號佢抽咗水辦，亦都係做咗。咁成個過程當中，就好相信即係持牌水喉匠同埋水務監督當中，佢哋係有自己嗰個交往。咁就至於你話即係點解□咁多個月或者點樣樣，咁因為後耐我哋都知道係真係駁到水，對於一個即係業主嚟講或者 developer，或者係作為一個 contract manager，咁我睇得到即係水務監督亦都駁到水，咁亦都滿意到我哋成個 system 個情況，咁而持牌水喉匠亦都係相應係做足有關相關嘅要求。咁所以就係我哋都有理由相信，即係水務署佢駁得到水，佢會認為成個 system 係應該係可以即係清潔。

問：我頭先話齋，即係可能係其實唔係好大件事，可能其實真係有張 updated 啲嘅驗水報告，不過可能係 miss 咗，咁但係水務署律師睇見我講乜嘢，可能佢會□而家。咁但係即係我想你睇睇，就係關於有關嘅 circular B15.1，37560。

答：37--對唔住？

問：37506。B15.1，37560。如果你搵唔到張紙，可以睇螢幕。

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答：37560。

問：37560。呢張就係嗰個 2012 年嗰個 circular，你見到嘛？

答：係，見到。

問：佢係一啲指引嚟，其實 2012 年嗰份 circular 之前，就唔係話有驗參數呢一個步驟，係有張更加早期嘅 circular，係管轄關於即係抽啲水辦上去測試參數，對嘛？

答：係。

問：不過就 2012 年就即係出咗呢張 updated 啲嘅 circular。咁你望一望，就係第 1 段嗰度，佢話“Under the provision of Waterworks Regulation 7, a consumer or the agent shall be responsible for keeping an inside service clean.”即係一個即係消費者或者佢嘅代理人，就係即係有責任係確保 inside service 乾淨。“To this end, the consumer or agent concerned shall clean and disinfect a newly installed fresh water inside service before it is given a supply from the Water Supplies Department.”所以即係個消費者就要即係消毒佢自己嗰個 inside service，跟住先至可以即係駁水。咁跟住佢就列舉咗一拵嘅指引，就教啲人點樣去消毒，用咩嘢步驟咁樣。咁跟住就你睇睇 paragraph 3，即係呢一個頁最底嗰度，就係與水務監督安排，就係啲啲指定嘅一啲有代表性嘅抽水嘅樣本嘅點嗰度，就抽啲出嚟，抽啲水嘅樣本，就係去作化學同埋一啲細菌嘅測試，見到嘛？

答：係。

問：咁跟住 test parameter 就係 Annex，Annex 就係嗰八個參數，你見到。跟住睇番中間，第 4 段，“To avoid possible contamination”，為免污染，就你成功地消毒之後，7 日就要駁。咁所以正當嘅時序應該就係消毒，做好晒消毒嘅嘢，就叫水務監督話「喺，我而家消毒嘞，即刻急急嚟驗水」，驗完合格就 7 日之內，消毒 7 日之內就好駁，因為如果唔係，就啲菌又生過可能。呢個就係嗰個背後嗰個諗法，對嘛？

答：係。

問：你知道呢一個咁樣嘅應該順序嗰個流程係咁樣？

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答：係。

問：咁所以其實即係如果照你咁講，就係淨係睇文件就好似 1 月尾驗咗水，到到 3 月幾、4 月先至駁，就有段好大概距離，但係你就相信水務署放得水，佢應該就係即係佢都確保咗係有啲證據係消咗毒，同埋係做咗有關嘅測試，幾時做，你唯一嘅文件就係 1 月 30 號嗰份。

答：係，即係我哋而家有，但係間接嘅就係我所講，即係...

問：聽返嚟？

答：係嘞，咁樣講，應該話我哋喺番我哋自己嘅檔案紀錄，就係話喺 3 月底同埋 4 月中嘅時候，就 4 月初嘅時候，就係水務署亦都係曾經同番嗰個持牌水喉匠係嚟過地盤。咁但係當然，即係再加上埋即係持牌水喉匠裏面，佢嗰個嘅證供亦都講咗，直情講到喺 3 月，如果冇記錯，就係 14 號同埋 4 月 9 號，分別都有抽水辦，就係咁嘅樣。咁但係呢個要再正式，因為我哋冇直接嗰個嘅文件喺手。

問：但係你個人有冇試過喺抽水辦去驗嘅時候在場？

答：我有。

問：冇。你知唔知道抽咗啲水辦係喺個 lot boundary，即係喺個地界過冇耐，喺即係一啲指定嘅點嗰度抽，你知？

答：基本上係嗰個嘅 water link 入嚟，嗰個...

問：即係個 up-link 之前抽？

答：係，你可以咁講。

問：你明白？

答：喺，明白。

問：Up-link 之前抽，down-link 嗰度係冇抽到，你知道？

答：喺我哋呢個地盤，我認知就應該冇。

問：Okay。所以佢抽呢啲水嘅樣辦去驗，無論你驗幾多個 parameter 都好，就淨係頂籠係驗到 up-link 嗰個有冇事，你同唔同意？

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答：同意。

問：你 down-link 用戶個櫃有咩嘢事，你喺個地界附近抽，係驗唔到嘢，對嘛？

答：唔。

問：即係你個八個 parameter，我就算你包埋鉛都好，其實你係驗唔到落嚟個櫃係有冇鉛個嘢，同唔同意？

答：同意，係。

問：同意嘛？

答：同意。

石先生：我諗我而家...

主席：好呀，我哋晏晝兩點半再繼續，係午膳嘅時間，唔該晒。

下午 1 時 05 分聆訊押後

下午 2 時 32 分恢復聆訊

出席人士如前。

香港房屋委員會第三證人：嚴汝州（房屋署總建築師（發展及標準策劃））
宣誓繼續作供

石先生繼續盤問

問：嚴先生，剛才我哋食午飯之前，就講到水務署去驗水個證書，咁係你有啲嘢想補充，係咪？

答：係，我有少少補充。就係兩件事情，一個就係有關於嗰個 3 月--喺食晏嘅時間，我再睇一睇番我自己嘅紀錄，咁就應該係 3 月 12 號同埋 4 月 9 號，兩個日子，咁就係有關於係水務署就出番畀持牌水喉匠個

個嘅驗水報告。咁...

問：係，我正想 show 畀你睇，麻煩你睇 Q1，文件夾 Q1。

答：唔好意思，可唔可以我講埋第二個補充？

問：你講埋先，你講埋先。

答：即係第二個補充就係因為喺食晏之前，你個問題就係提到話即係 as consumer 就需要係 keep 個成個 system 係 clean。咁呢度我想補充番，就係我哋其實喺出咗入伙紙之後，喺 7 月底至到 8 月初嗰段時間，其實我哋自己係有進行到一啲嘅即係水辦嘅檢查。

問：「我哋」嘅意思係房署？

答：房署，房委會。

問：係，房委會？

答：房委會。咁亦都係做足有八個 parameters 嗰個 test，咁只不過就係喺嗰個證人供詞方面，我係冇填寫到。

問：嗰個人伙紙出咗之後，房委會係委託啲外面嘅化驗所做，應該係？

答：係，化驗所。

問：係。咁就驗番嗰八個參數？

答：呢個房過中國建築佢哋嗰面去安排。

問：係。咁攞水嘅樣本去驗，係喺 down...

答：Downstream, downstream。

問：Downstream 嗰個度，得。

答：我哋就六棟樓...

問：就抽啲唔同嘅座數、單位？

答：六棟樓都有，六棟樓都有。

問：六棟樓都有？

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答：咁就分別係喺低層同埋高層。

問：係，得。咁但係呢一個就唔係一個法定嘅一個要求，呢個係純粹係房委會即係自發性地去作為一個品質管理咁樣，去確保啲水貨係冇問題咁樣？

答：冇錯，啱。我哋其實喺嗰個抽驗水辦之先，我哋都係清洗成個系統一次先，亦都係用番 chlorinated 嘅 water，咁就係避免嗰個退伍軍人症嗰方面。

問：嗰陣時即係當然係啲住戶未搬入去嗰陣時係？

答：未搬入去，正正就係我哋想擺嗰個時間，佢哋擺鎖匙之前就清洗乾淨，亦都驗咗個水辦。

問：係。咁定嗰八個參數就跟咗水務署嗰個嘅參數？

答：冇錯，啱。

問：得。兩樣嘢，第一，就睇番 Q1，第 21、22 頁。呢度有兩個嗰啲驗水報告，係水務署嘅。咁呢個就係林德深持牌水喉匠嘅證人供詞，咁就一個就係正正你所講嘅 3 月 12 號抽啲水去驗，3 月 13 號分析咗個結果，右手面 22 頁，見到嘛，22 頁？

答：係，22。

問：Daily sample，3 月 12 號，date analysis completed 3 月 13 號。

答：啱。

問：21 頁就係 4 月 9 號抽嗰次，跟住就 date analysis completed 4 月 10 號，見到？

答：係。咁你所記憶中就係呢兩次嘅驗水？

問：啱。

答：係。咁但係呢兩份文件就係房署自己內部嗰啲 file 係冇？

答：冇。

問：所以你撰寫你嗰篇證人供詞嘅時候淨係擺咗 1 月嗰份？

答：喎。

問：咁但係呢一啲嘅文件傳嚟傳去，即係嗰個流程係點，點解會有一份嚟咗你度，另外嗰兩份冇，係咪即係純粹我哋英文講好 haphazard，即係佢選擇畀你就畀你，佢唔選擇畀你，咁你就--即係佢哋自己去處理，係水喉匠同埋水務署？

答：正如我今朝所講，其實一向即係水務監督同埋持牌水喉匠，佢哋無論係交 form 或者係交表格，或者係做番呢啲嘅水辦測試，邊個嘅位置擺水辦，即係全部都其實都係由番嗰個持牌水喉匠嚟到去同番水務署直接嗰個交往。咁當然我哋係需要知道，咁但係其實呢兩個其實我哋都有所係即係詫異。因為本身我哋紀錄上係未有，一般嚟講就水務署佢如果出咗呢個嘅驗水報告，就會直接係畀番個持牌水喉匠，咁持牌水喉匠一般嚟講，佢都需要係遞交番畀中國建築，即係個 main contractor，咁由番 main contractor 嚟到畀番房委會，做番一個人檔同存檔咁樣。咁呢兩份正正就係即係冇交到畀我哋，咁但係當然當中嘅原因係點樣樣，我哋唔清楚。

問：但係即係你哋內部嗰個紀錄嗰個流程，就有話要求所有呢啲一定要有一份畀你？

答：其實 as general practice 都應該係會畀我哋。

問：Okay。咁另外一個問題就頭先我有兩樣嘢，另外一個問題就係之前我哋都睇過，就係有眾多嘅驗水報告，有啲就係水務署做，嗰八個參數，咁就另外就有一啲係私人化驗所去做。咁私人化驗所做，我唔同你去即係擺番啲出嚟，即係逐個逐個去睇。其他嘅承建商嘅律師，可能佢哋會問你。

但係即係我想了解，就係即係籠統嚟講，就係如果有一啲出咗入伙紙之後，即係接駁咗之後，或者係直情出埋 OP 之後，作出嘅驗水報告，而係由街外嘅私人化驗所做嘅報告，就有可能佢哋就係頭先你所講係房委會自己即係主動地要求作出嘅一啲水質監控嘅報告，咁 commission 呢啲水質報告嘅就會係承建商，定係係房委會自己出去 commission 呢啲私人化驗所？

答：都係總承建商。

問：即係承建商，因為可能係你嘅要求，就係作為你哋對水質...

答：但係佢要交界認可嘅化驗所，即係實驗室嗰啲嚟做。

問：係。咁佢負責去清洗、去消毒，根據既定嘅一啲指引、程序，咁跟住就呈交，就即係滿足或者 satisfy 房委會嘅一啲即係對品質監控嘅一啲指引或者要求？

答：係嘞。即係嗰個化驗嘅過程一定係要合乎嗰個水務監督嗰個要求。

問：得。但係呢一啲就係非法定要求，係一啲自願性質，房委會要求承建商去 commission 返嚟？

答：自願性質，自願性質。

問：係，好。麻煩你睇一睇 37712 頁，頭先我哋睇過，第 42 段。呢度係即係好簡單咁樣 follow up，追問番一啲即係比較細節啲嘅嘢。第 42 段就講到做起嗰套喉管嘅系統之後，就需要填呢個 46 號 form 嘅 part IV。咁你嗰度有一句，第四行就話“With the advice from the CM’s representatives that the plumbing installation, were satisfactorily completed ... I signed part IV of the form WWO 46 ...”。With the advice from the CM’s representative，即係呢啲應該係房署嘅一啲同事，對嘛？

答：係。

問：咁佢哋報告畀你聽就係嗰一套水喉嘅裝置係即係滿意地完成裝置。嗰個滿意地完成，satisfactorily completed 係根據啲乜嘢嘅 yardstick 或者係因素嚟到決定係咪 satisfactorily completed？

答：好，如果係針對講番呢個 WWO 46 part IV 嘅話，咁喺個 form 裏面，如果我哋簽署嗰部分就最主要係 confirm 番係嗰個嘅 correctness of the meter position，我所知道...

問：係嘞，請你停一停，呢個就係 37792 頁同埋 37793 頁，對嘛？你睇睇。

答：係。

問：呢個就係 46 號表格嘅第 IV 部分，就係起完晒。咁個持牌水喉匠會簽一個名，但係 applicant 同埋 authorized person 都要簽，另外

分別簽。咁呢個好細微嘅嘢，咁就係 AP 同埋 applicant 簽嗰部分就純粹就係 confirm 話嗰個咪錶位係啱？

答：係呀。

問：即係其實呢份嘢你哋係純粹就係講個咪錶位啱，但係即係咪錶位啱呢樣嘢個重要性點解係咁緊要，喺呢個整個系統裏面？

答：整呢個重要性就係我諗在於水務監督佢張表格個設計嚟講，佢係分三部分，第一個部分，你見到佢係需要--正如我頭先所講，就係嗰個持牌水喉匠係佢去講明成個水務系統已經嘅工程完成咗。咁亦都係要求，用呢張 form 嚟到去要求水務監督就去到地盤去視察，即係佢 part I 係咁，即係啲字細啲。咁就喺呢方面嚟講，喺一個水務法規或者水務條例之下，今朝所提到，就係持牌水喉匠一路以嚟都係喺水務監督個監管之下，換言之即係佢亦都係有責任喺整個嗰個嘅水務工程完成之後，要合乎水務嗰個條例同埋規則。咁亦都因為咁樣樣，佢如果向水務監督申報番話完工，咁就亦即係要求水務監督嚟到去視察嘅話，亦即係表示佢亦都係--即係我講緊嗰個持牌水喉匠，佢係滿意成個工程係完咗，亦都係合例，就係話...

問：雖然個 form 係冇呢句？

答：冇呢句，亦都係即係起碼即係--但係佢...

問：即係我叫得你嚟睇，就即係隱含住嘅意思，就係我覺得已經做好？

答：係。亦都即係話--佢呢度有講做好。

問：佢張 form 嗰度係冇話滿意地符合所有嘅要求，佢冇呢句。

答：當然，嗰句佢冇講到。但係問題因為如果佢邀請得水務監督嚟地盤視察，當時如果喺視監過程當中，水務署嘅同事發覺有任何違規嘅話，咁呢個嘅持牌水喉匠係會被懲處，會扣分。咁所以即係我哋有咁嘅理解之下，就會覺得即係如果佢寫得出嚟話係完工，其實佢係背後嘅意思，佢係要真係睇過晒啲嘢，如果唔係，佢會接受水務監督嘅懲處。咁所以佢簽得到第 1 段呢個 part I --唔係 part I，即係上面第一格。

問：Part IV 上面第一句。

答：係，part IV 第一句。係咁樣嘅時候，就我哋個意會會係咁樣樣。咁

第二樣嘢，就係回答番你個問題，即係...

問：即係純粹就係因為你簽得張嘢，叫人嚟驗，如果驗咗，違咗規嘅話，有個 sanction，就係因為裏面有一條條款就係話，你持牌水喉匠如果違反咗水務條例裏面任何一條，嗰個最終極就係除牌，咁樣就係靠呢樣嘢？

答：係，即係咁樣樣。

問：係咪呀？

答：即係有個懲處，有懲處。

問：係，有個懲處，係嘞。

答：咁所以即係我諗嘅持牌水喉匠佢簽得呢一個報完工畀水務監督，即係唔係一個隨意簽咁樣。跟住如果係嚟到地盤，即係如果咁真係睇到有問題，係會懲處嘅，呢啲我所認知。

咁答番你頭先嘅問題，就係話即係如果即係我哋自己方面，簽嘅時候，就第一，嘅考慮就頭先講咗，持牌水喉匠已經簽咗頭一部分，就係佢都意識到，亦都係報告畀我哋聽即係整個嘅工程完咗，亦都係佢滿意嘅，合乎嗰個嘅規格嘅。

第二樣嘢就係喺番我哋嘅同事，但係當然未到同事之先，其實呢個持牌水喉匠佢應該去到中國建築，即係作為一個主承建商，佢要去交代嘅，咁所以呢張 form 就唔係話--即係個持牌水喉匠直接遞交界我哋嘅，而係佢都需要經過嗰個總承建商嚟到遞交界我哋。而總承建商其實佢自己都喺中間有一個責任，就係佢有個 role to play，就係佢有責任去再睇番佢自己所聘用呢位嘅持牌水喉匠係咪都即係所做嘅嘢--嘅工程係佢滿意呢，咁然後就由總承建商去交番畀我哋正式房委會嘅同事去審核。而我哋同事方面，喺我個 witness statement 裏面亦都提過我哋自己亦都有一個駐地盤嘅一班嘅同事去睇住嘅。咁換言之，喺佢哋日常嘅巡查，同埋因為完咗，我哋都有一個嘅 pressing commissioning，呢啲嘅 report 出番嚟，整個嘅系統都發現係冇大嘅問題，亦都冇任何異樣，咁所以亦都係根據以上幾方面嘅考慮，我哋就--我或者我嘅代表，即係所謂嘅 Contract Managers 嘅 representatives，就會喺呢張 form 第 III 部分嚟到去簽署。但係當然呢個就係針對番嗰個嘅 meters positioning 嘅 correctness。

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問：好喇，另外一份表格亦都係牽涉到 Contract Manager 嘅，就係 WWO 132 喇？

答：係。

問：WWO 132 就係如果你睇番呢度嘅文件，就係 37796 同埋 37797，呢度就係你簽㗎喇？

答：係。

問：就你嘅證人供詞嗰度，中間嗰度有一段就叫做“I confirmed that the plumbing” --兩面都一樣，所以你睇邊版都得嘅。

答：係。

問：“I confirm that the plumbing fittings and pipes used in the captioned project are in full compliance with Waterworks standards and requirements.”，見到呢句喇？

答：係。

問：你睇番你嘅證人供詞第 42 段，37712 頁，你中間有一句嘅，你 42 段嘅由底數起，一、二、三、四、五、六、七，第七行，“With the advice from the CM’s Representatives”，見唔見呀？

答：（沒有可聽到的回答）

問：And then “that the plumbing fittings and pipes were in full compliance with Waterworks standards and requirements”，見唔見到嗰一句？

答：係。

問：就話即係根據合約經理，即係合約管理人嘅代表人對你即係所給予嘅意見係話嗰啲水務--即係供水嘅喉同埋配件係符合水務嘅標準同埋要求，你就簽咗 Part II，...

答：係。

問：...頭先我讀嗰句，咁呢度你所指嘅 waterworks standards and requirements，你嘅理解係咩嘢呢？

答：喺我簽呢個 form 或者呢兩張 form 嘅時候，咁就正如頭先我所講，都係經過持牌水喉匠，我哋知道佢已經係入咗我嘅 form 46 part IV，報咗完工，咁換言之，亦都係頭先我所講，佢亦都應該係承認或者交代整個嗰個嘅工程系統係應該係合例嘅，咁跟住就...

問：合例嘅意思係合乎水務條例裏面嘅要求？

答：係喇，係喇。

問：即係 Waterworks...

答：即係法規同埋嗰個--係，Waterworks。

問：Okay，得，即係 Waterworks 條例，Waterworks Ordinance 同埋 Regulation 裏面嘅要求？

答：係，啱，啱，啱。跟住第二浸就係我所講嘅話，即係總承建商，即係佢自己亦都係有一個即係監察，咁佢亦都睇過成個系統係咪合乎佢嘅滿意，如果唔滿意，當然佢會即係叫番嗰個嘅持牌水喉匠同埋個分判商嚟到去處理番佢，咁直至到--而總承建商佢滿意之後，咁就會即係遞交番上嚟我哋嘅寫字樓，由番我哋嘅同事再 check 番頭先所講嘅即係測試、報告各樣嘢係咪合乎。我哋簽嘅時候，就係咁樣嘅理解嘅，咁就即係各樣嘢係工作即係合乎規矩或者係有任何異樣，咁我哋就簽署。最近呢兩日就我哋都過去我同番我哋嘅律師再傾，似乎我簽呢張 form，即係而家嗰個嘅意義似乎就係佢哋有佢自己另外一個嘅解說，或者我會唔會喺呢度我停喺度先？即係當時我簽嘅就係咁嘅樣，不過呢張 form 實際上如果所謂簽咗嘅 comply with 嗰個嘅“pipes and fittings in full compliance with Waterworks standards and requirements”，就住 132 呢張 form，咁我...

問：我頭先嘅問題就係話，以你理解，你 certify 話嗰啲 pipes and fittings comply with Waterworks standards and regulations，以你嘅理解，你係證明緊或者 certify 緊嗰啲 fitting 係 comply with 啲乜嘢嘢，符合緊啲乜嘢嘅要求？

答：係--當時我簽嘅時候係符合 Waterworks Ordinance 同埋 Regulations 裏面嘅，即係嗰個...

問：即係你嘅理解？

答：...理解，當時嘅理解係咁樣樣，但係而家就有少少唔同。

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問：而家你嘅理解係咩嘢？但係而家連份 form 都唔同喇而家，而家你哋改咗份 form，你知唔知？

答：唔係，我知，係改咗，但係問題始終張 form 係我簽嗰張係舊 form 咁嘛。

問：係，即係你簽嘅時候嘅理解，嗰個 Waterworks requirement and standard 就係指水務條例裏面嘅一啲要求？

答：唔。

問：咁但係你而家後來而家經過之後，你就覺得「啊，我而家睇番，原來嗰啲字係可以咁解㗎囉」？

答：係，係。

問：咁你而家個理解係咩嘢？

答：而家理解就係話嗰個嘅 fittings and pipes under 嗰個 portable water 係唔包嗰個食水，唔包飲用水。

主席：再講一次，唔該。

問：講多次。

答：喺呢張 form 裏面嘅 portable water，表裏面嘅 portable water 係裏面唔包括嗰個嘅 fresh water，因為佢喺嗰個 form 嘅頂部係嗰個 “Building (Standards of Sanitary Fitments、Plumbing、Drainage Works and Latrines、Regulations”。

問：但係你中間嗰度 “connection of water supply” 嗰度有兩個 box，你別咗 “portable” 同埋 “flushing” 㗎嗎？

答：係，flushing 就係純粹係沖...

問：廁所水。

答：...廁所水嗰方面嘅，但係 portable 仍然都係 under 嗰個 Building

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Standards of Sanitary Fittings 嗰個係有另外一個嘅意義嘅，或者我如果係可以嘅，我交界律師同埋...

問：嗰個係法律辯論，嗰個我哋遲啲如果要拗，即係仔細慢慢拗，但係即係呢度其實唔使話用好多時間，因為其實即係坦白講，法律上條條例講嘅係乜嘢嘢、正確意思其實同你內心嘅理解都未必有關係，因為你可能理解錯嘅，但係即係我只不過就係想問一問你當時簽嘅時候，你嘅理解就係總之就係符合晒 Water Ordinance 裏面嘅要求？

答：係。

問：你而家就同啲律師團可能傾過，又覺得「咦？喂，如果你嚟真啲嗰啲條文嘅意思，可能其實呢份 form 根本就唔係講緊飲用水嘅」咁。

答：係。

問：咁呢個遲啲--可能呢個係屬於法律辯論嘅部分。

答：係，好，好，好。

問：即係你律師可能覺得佢講法律辯論會比證人講得好，所以我諗我唔會即係搶咗佢嘅風頭。但係你知道而家嗰個 form，同樣一張 form 係改咗嘅，你知唔知呀？

答：我知道。

問：而家嗰張 form，我可以畀你睇一睇。我唔知道而家新嗰張 form 有冇擺走到，因為之前馮女士作供之前嘅時候，佢第一個版--即係佢初期第一次入嗰份證人供詞，佢裏面有個附表嘅，我畀你睇睇，第 B15.1，冇咗嘅，你惟有信我喇。因為原先馮女士入個證人供詞嘅時候，佢係曾經有一份附件，就係將一連串 132、46 呢啲 form 擺咗入去。

答：係。

問：但係後來佢就發現原來即係可能啲律師忙中擺咗入去，擺咗新嗰份，嗰個版本。

答：唔。

問：佢就後來就入番當時適用嗰個版本嘅。答：唔。問：咁呢就……

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石先生：你畀畀證人睇。我諗大家--即係證人望見喇，其他可能要信我喇。

問：總之當時用嘅版本，頭先我哋睇番你嗰個證人供詞見到，但係新嗰個版本就係 2015 年嘅 9 月就新整出嚟嘅，你見到嗰度，你面前而家有一張紙，見唔見呀？

答：9 月，係。

問：你右下角就會見到係“WVO 132 (9/2015)”咁樣嘅，見到嘛？

答：係，係。

問：跟住就你見到中間嗰度就有番喇，“Connection of Water Supply”咁，見唔見到呀？見到喇？

答：中間，“Connection of Water Supply”，見到。

問：羅馬數目字 II，見到嘛？

答：見到，part II。

問：跟住有一句，“I confirm that the pipes and fittings AND pipes installed or used in the captioned project are in full compliance with the relevant provisions in the Waterworks Regulations.”，呢度就寫得好清楚係 Waterworks Regulation，你見唔見呀？

答：係，見到。

問：呢個就係所謂出咗事之後，2015 年 9 月，你知唔知道點解個字眼會由舊嗰個字眼變咗新呢個字眼嘅呢？法理上未必有關嘅，即係法律上，對法律條文嘅解釋，咁佢寫乜就寫乜，但係即係我想理解下，你知唔知道其實內裏點解會有呢個改變，就字眼嘅改變？而家講到咁清楚係 Waterworks Regulations 呢？

答：我諗呢個要問番水務署，我交番畀佢哋。

問：Okay，好。好嘞，咁呢就...

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石先生：好，攞番張紙畀番般大律師先。

問：跟住睇番第 50 段，唔該，你嘅證人供詞第 50 段，你就講到就係關於
嗰個 form WWO 46 part I 嗰度，之前我哋咪講過啱啱開工冇耐，
WWO 46 一早入去嘅時候咪有個 annex，有一拵嘅建築物料列舉咗出
嚟嘅？

答：係，對唔住，係咪 48 段呀？

問：50。

答：50 呀？

問：係，你 48 就係講一早入紙嘅時候，2011 年 3 月就有廿五項...

答：哦，係，okay，50 都有，okay。

問：但係到到 50，你就提到就係話你就依賴中國建築就去監控持牌水喉匠
嘅工作，就你就 expect 祈求--期望呢個持牌水喉匠就會走去更新關
於呢個 46 號 form 後面嗰個 annex 裏面用嗰啲物料？

答：係。

問：即係話佢後來改變主意又好，點都好，咁佢就有責任，你覺得佢就要
同水務監督 update 番呢張 form，因為呢張 form 到到嗰個階段，
你就覺得就係持牌水喉匠同埋水務監督之間嘅交往？

答：係。

問：你睇睇第 37715 頁，37715 第 52 段，第 52 段，你就講到有一啲嘅
物料嘅類別，category A、B、C、D，見唔見呀？A、B、C、D。

答：係，見到。

問：呢啲 A、B、C、D 其實係咩嘢嘅呢咁，咁我就想你睇一睇 B15.1, 37628。

答：37628。

問：37628，37628 裏面...

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答：37628。

問：麻煩再搵多一頁，見 37629。因為我個 pagination 唔係好同。再
褪上 37627。

答：627 啱嘅。

問：冇--吓？

答：627，應該係 627。

問：627 裏面就有 categories A、B、C、D，冇錯喇。咁其實你呢一度
52 裏面嗰個 category A、B、C、D 就係跟番 form 46 後面嗰度嗰
個 annex 後面有一啲即係解釋嘅一啲 notes 咁樣係嗰度抽出嚟，對
嘛？

答：啱，對，係，係。

問：咁其實你嗰度所講，就係話呢啲完全就--其實你係咪想講係話呢一啲
嘅分類 category A、B、C、D 接受乜嘢、唔接受乜嘢，其實呢啲係
水務署方面做嘅事情，對嘛？呢啲係水務署做嘅分類嚟嘅？

答：佢做嘅分類，佢做嘅分類，但係我哋都要認知，即係如果我哋嗰個物
料係符合呢四類--四個類別裏面，就水務署係會接受嘅。

問：但係純粹以即係所謂行政、架構上嚟講，就貴署去睇總承建商畀你嘅
物料，你就獨立憑自己判斷決定佢哋係咪符合建築合約下面嘅一啲要
求，對嘛？

答：係。

問：如果符合，你就會所謂 approve，對嘛？

答：唔，唔。

問：至於呢一啲 category A、B、C、D，你睇番就係水務署佢喺張 form
嗰度就同啲持牌水喉匠講，就話「你喺個 annex 裏面事先同我講你
打算用呢一啲嘅物料，如果你嘅物料係符合 category A、B、C、D
其中一類，我都會批你㗎喇。」，作為水務署？

答：係。

問：咁所以其實你哋作為 employer，今朝我第一句問題都問過，去審批嗰啲物料，其實你哋所 go through，心裏面嗰個心路歷程去判斷同係咪 A、B、C、D 理論上應該冇關係嘅，對嘛？

答：冇關係，冇關係。

問：點解呢？

答：因為點解呢？我哋就好簡單講，我諗我哋當中有啲部件，啲 fittings，譬如 valves，even mixer 嗰啲，其實我哋都係好所謂倚賴即係水務署佢哋嗰個檢測，因為好多時呢啲嘅物料即係喺水務署方面，佢哋係即係某程度喺呢方面嘅專家，咁我哋即係喺佢哋檢測呢啲嘅部件或者物料當中，其實係要幾深入或者要幾多嘅 test report，可能係佢哋先至知道，我哋就仍然都係著重番啲嗰個嘅 performance，performance in terms of 即係我頭先--今朝講過，就係話個 flow rate，即係嗰個嘅 pressure 或者係個 water-tightness，即係 functioning 方面嘅，咁我哋著重呢個方面，但係裏面各樣，譬如 chemical composition 或者係即係有關於會影響水質嘅，其實呢個我哋係真係需要水務署方面嗰個嘅支持。咁所以呢個喺佢哋個 form WWO 46 part I 或者--呢個裏面就所列舉嘅 category，本身一定會係成為我哋嗰個嘅合約規範嘅一部分。

問：咁即係話其實實際上，嗰個運作有可能就係有人如果擺一啲嘅部件畀你哋審批，根據建築合約，即係你作為嗰個合約嗰個 employer，承建商擺啲嘢畀你睇，如果嗰樣物料係屬於 WWO 46 裏面涵蓋話一定要佢報上嗰啲物料係即係 overlap 嘅話，咁你就作為一個 working guide 又好，作為一個參考又好，你就會睇下水務署收唔收貨嘅先，...

答：啱，冇錯。

問：...如果佢符合水務署呢個 category A、B、C、D，...

答：啱，啱。

問：...即係如果水務署都收貨，咁你哋...

答：呢個基本嘅--呢個基本。

問：呢個就係一個基本嘅要求，咁可能你哋嘅合約有更大嘅要求，但係起

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碼你會覺得「水務署要收貨先」...

答：係，啱。

問：...「因為我 approve 咗佢，水務署唔收貨」...

答：係呀，係呀，係。

問：...「咁就會有問題出現喇」？

答：啱，啱。

問：而你嘅理解就係除咗水務署 set 咗 A、B、C、D，A、B、C、D 就係各種唔同嘅一啲 yardstick 啫，即係 British Standard Institute kitemark，咁可能有個印，跟住 D，Water Authority stamping，咁可能又即係一啲唔同嘅即係 quality 嘅一啲 mark，佢承認 A、B、C、D 咁樣，你見到？

答：係，我見到。

問：但係水務署自己有個--自己直情有個 list，係咪呀？有個 list，佢自己本身--你望一望嗰個 37627，第 7 段嗰個 notes 嗰度。

答：第 7 段嘅 notes。

問：佢第二行，“A directory of pipes and fittings approved by the Water Authority can be found in the website.”，你見唔見？

答：哦，嗰啲係嗰個嘅 general approval。

問：即係除咗佢根據 category A、B、C、D，即係話畀你聽，話「噏，如果你買咗件嘢係屬於 A、B、C、D 其中一項，我都會即係接受㗎喇」？

答：係，係。

問：但係 on top，即係除此以外，水務署直情亦都係有一個附--有一個列表，呢個 list，一個 directory，亦都係可以即係畀人參考，就話呢一炸嘅部件可能用牌子嚟到分，或者即係用某一啲嘅 description 嗰啲形容嚟到分喇？

答：係。

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問：咁就亦都係即係可以話佢公布咗畀天下，就係話你符合咗呢一個表個要求，水務署都會接受嘅？

答：係，係。

問：Okay。我想你睇一睇就係到到隔離嗰頁，37716。

答：37716？

問：係，第58段，58段，你咁講，你就話自從即係啟晴邨發現食水含鉛之後，你就發現中國建築就曾經建議過一啲建築嘅物料，係你話“subsequently approved”，即係approve咗嘅，批准咗用嘅。

答：係。

問：但係就有啲嗰個46嗰個form嗰個附件裏面更新番？

答：係。

問：跟住就你就話Contract Manager嘅代表，就喺個地盤度就即係確認咗所用嗰啲plumbing --即係用嘅水喉嘅部件喇？

答：係，唔。

問：咁跟住你就整咗個表出嚟，個表就叫做附件12，我哋就睇一睇37850頁--唔係，37845先，37845。

答：37845，係。

問：37845、37846直至到37848，見到嘛？

答：搵到。

問：呢度就係列舉咗就係有一拵係入紙嘅時候嘅牌子，可能即係總牌子，你見到“brands Submitted”，跟住“brand installed on site”，咁就係完全唔同嘅，見到，係咪呀？

答：係。

問：好喇，我麻煩你就睇一睇你嘅證人供詞裏面嘅另外一段，第79段。

答：可唔可以再講番蘇把，編號？

問：79 段，79 段係 37723 頁。

答：37723，得。

問：呢一度就係講緊一個現象，我哋就叫做--有啲叫做 discrepant material，即係話用嘅一啲部件，一啲 copper alloy fitting 就唔符合有關嘅英國標準。

答：係。

問：即係長話短說，就係後來水務署做咗一個報告，佢就發現就有一啲閥門同埋一個 mixer 就唔符合英國標準。

答：係。

問：喺即係鉛含量方面就唔符合英國標準，雖然即係嗰個 Task Force，嗰個工作小組嘅結論就話呢一啲咁嘅部件雖然即係過量含鉛，不過都唔係引致到食水含鉛嘅原因，即係唔係引致到呢個，呢度我哋擺埋一面先，究竟嗰啲部件含鉛。

答：好，好。

問：但係你睇番跟住嗰段，你話“China State had submitted samples of relevant copper alloy fittings for approval.”，你就話“The building services engineer checked the material catalogue, testing report and approval letter of the Water Authority”，你話“I learnt from the project building services engineer that he had checked all relevant submission documents and found them acceptable for approval at sample submission stage.”，跟住你就話“The HA’s quality control focuses on the operating performance”，“including flow rate”，“Given the prior approval by the Water Authority, we expect the proprietary fittings are suitable for use in the fresh water supply system and Water Supplies Department is the authority to scrutinize the supporting documents provided by the suppliers of these fittings in respect of its chemical composition.”，呢度我就想即係理解番即係成件事個前因後果，首先呢一度 80 段就有一個現象提到，就係--睇番之前嗰段，sorry，13 -- 79 段，裏面有個叫做附件 13 嘅，見到嘛，exhibit 13？

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答：附件--係，係，啱。

問：好喇，你睇番 37850 頁。

答：37850。

問：係，呢度就係水務署嗰個 Task Force 佢嗰個報告，應該係中期報告裏面嘅一個列表，佢裏面有顏色嘅，係喇，你就見到佢就係對啲閘門同埋啲 mixer，或者即係一大堆嘅水喉嘅附件作出咗一啲嘅即係歸類。

答：係。

問：你見到就係有一個類似其實頭先你嘅附件 12 嘅，就比較就係入紙畀水務署 WWO 46 上面所寫嘅牌子就係一樣嘢，但係實際上安裝咗嘅就係另外一樣嘢，你見到喇？

答：係。

問：譬如話 "Submitted to WSD in WWO 46 Brand"，就 "Waterfront"，見唔見呀？

答：唔，見到。

問：但係 "Installed on Site" 嘅 brand 就變咗 Victory。

答：唔。

問：咁跟住有一拵，含鉛量就有啲直情係紅色咗就係超咗標嘅，你見唔見？

答：係。

問：首先我就想你比較下呢個表 37850 同埋你之前嘅 37846、37847、37848，見到嘛？

答：（沒有可聽到的回答）

問：呢兩個表嘅表述大家有冇啲咩關係？係咪講緊同一樣嘢定係唔同嘅嘢？即係兩個表都好似講緊一個現象，就係入紙畀 WWO 46 寫嘅係一樣嘢，跟住實際上 check 到喺地盤上用嘅又係另外一樣嘢，即係呢一個現象。

答：係。

問：37846、37847、37848 就寫咗一連串嘅例子出嚟，跟住睇番 37850 就用另外一種嘅表述方法，但係呢兩者之間有咩嘢關係，定係大家都係講緊同一樣嘢呢？

答：我喺度再講一講喇。

問：好。

答：成個流程當中，就係入嗰個嘅 WWO 46 part I 嗰張表格嘅時候，最早期嘅時候，今天早上我都講過，就係因為我哋未批料，嗰陣時，即係中國建築或者係即係嗰個自選分判商佢未有將嗰個嘅 material proposal 就透過總承建商係畀我哋去批核，咁所以--但係問題因為亦都需要喺嗰個嘅水務條例當中，亦都需要係入呢張表格畀水務署，咁所以就--而我哋亦都係唔可以即係 specify 個 brand name，即係如果一早 specify 晒，就即刻就可以唔需要改動，即係已經有晒所有名，因為我哋當時未有。咁直至到我哋將所有嘅物料都批核咗之後，然後先至真係有晒所有嘅 brand name，而水務署過去一直以嚟，in general practice，都係容許即係持牌水喉匠係喺成個水務工程嘅過程當中嚟到去 update 嘅，直至到佢嚟驗，即係地盤視察之前仲可以 update 嘅。咁所以即係喺呢個表格，即係我所講嘅話 37850 或者係 37846 至到 48，呢兩個表之間嘅關係，所謂嗰個嘅 "Submitted to WSD WWO 46" 嗰個嘅表列其實就係應該係喺水務局--水務署嗰一個嘅紀錄嘅，就係持牌水喉匠一路應該係--即係我相信呢個會唔會係早期入畀或者係水務署佢自己有嘅最後嘅紀錄，我呢個要睇一睇番先。但係真正嗰個過程當中，就係話如果--假設個水喉匠一路係有 update 嘅話，就將我哋批核嗰啲嘅物料，而事實上亦都真係安咗喺地盤，就應該係佢簽嗰個嘅 WWO 46 part IV，報完工嘅時候順手就上去 update 番晒所有嘅物料，嗰陣時應該最後嚟喇，都叫啲人嚟視察喇，咁就唔會再有 further update 嘅，呢個都係呢個 final update，一次過嚟到去處理晒佢，應該係咁樣做，應該。咁但係即係當然，我哋都唔係好--即係而家嚟講，就已經知道好似有 update 到，如果唔係，就...

問：Update 就係持牌水喉匠...

答：係，持牌水喉匠 update 嘅。

問：...同水務署方面嘅 update？

答：同水務署之間嗰個關係，因為就係佢即係有責任去 update。咁但係我哋就係--我哋就最主要係即係照顧番成個合約方面，承建商係跟番我哋嘅要求--合約嘅要求，當然亦都係包括嗰個嘅水務條例同埋係我哋合約其他 contractual 嘅 requirement 嚟到去收貨嘅。咁所以即係我哋第一時間，喺呢個嘅 37846 至 37848 呢三版嘅表格裏面，其實我哋就係 check 番究竟真正安咗喺地盤呢啲嘅物料係咪我哋批准嘅，並且係水務署佢係接納嘅，就即係頭先...

問：接納嘅係咩嘢意思？

答：接納嘅意思即係頭先講話個 category A、B、C、D 同埋嗰個 general approval list。

問：係喇，即係佢嗰個 list 有或者係屬於佢嗰啲 category？

答：冇錯，冇錯，冇錯，即係呢個係緊要嘅，咁至於...

問：接納就梗係唔係嘅意思係喺嗰個 revised list of 嗰個 annex 喇，因為而家我哋講緊就係個 annex 冇 update 到咩嘢？

答：哦，係，即係嗰個就-- okay，嗰個就當係一個文件嘅 updating 先，但係真正嘅物料安裝上去最緊要就係要合乎嗰個要求，呢個就係喺整體，喺嗰個系統上面我哋要求係咁嘅樣，所以呢個表列嘅比較就係話即係而家真正安裝咗嘅，即係你睇番我哋嗰三版嘅表格，安裝咗嘅物料，佢側邊亦都係有番 either 係水務署--或者我哋先睇 37846。

問：我明。

答：係，嗰版，即係第一個就係 copper pipe，嗰度係有個「星星」嘅，頭嗰三項都有一粒「星」，即係表示呢啲係一個水務署嘅 general approval，咁而後面...

問：General approval 即係 7.1...

答：嗰個 list 裏面。

問：Okay, okay, 係，得。

答：咁而即係譬如第四項，第四項嗰個“Bronze Gate Valve”，裏面亦都係有 Victory 嘅兩個 cert number，係咪呀？

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問：係。

答：咁就譬如呢個 C19990071 同埋 C20000008 咁樣樣，咁呢啲都係水務署佢所批核物料裏面嘅一啲嘅編號嚟嘅，即係 cert 嘅 number。

問：咁佢係屬於 category A、B、C、D 邊項呢，呢個係？

答：咩嘢話？唔好意思。

問：呢個係屬於 category A、B、C 定 D 呢？佢有個咁嘅秤把。

答：如果係咁呢，我就 take 佢係 C 嚟喇。

問：係咪 C 呀，叫做，應該係？

答：係，即係水務署...

問：C，因為佢叫你“quote WSD reference number”。

答：冇錯，冇錯，冇錯，係。

問：所以你寫得個--用一個秤把嚟到代表就似乎...

答：張 cert number。

問：...--應該係等於 category C，即係靠 category C 呢一條路徑...

答：啱，啱。

問：...係成為所謂水務署收貨嘅一個指標喇？

答：啱，啱。

問：對嘛？

答：冇錯。咁第五項嗰個“Cast iron Gate Valve”，我呢度就寫咗“Not used”嘅，咁“Not used”即係表示其實就係佢先前喺 WWO 46 嗰張表格入咗嘅時候，結果其實係冇用到嘅，冇安裝到嘅，呢個物料喺地盤。

問：得。

答：就係咁樣嘅情況。呢個就係我哋即係喺事後再巡查一次，整個地盤安

裝咗嘅其實係都合乎而家嗰個嘅水務條例同埋法規嘅，呢個係第一樣嘢。第二樣嘢，就係講番即係頭先講話即係個 Task Force，喺佢哋嗰個嘅中期報告當中嘅 preliminary findings，發覺有幾個部件係所謂唔係符合到嗰個嘅...

問：唔合乎含鉛量。

答：...英國嘅標準咁樣樣。

問：標準，係。

答：但係嗰個就關乎到係嗰個--就唔係批辦，批辦我哋頭先講咗，即係合乎嗰個規格，只不過係佢嗰個貨到地盤之後，咁兼且亦都因為係我哋入咗伙，入伙嘅時間係 2013 年，2013 年，到到今年，即係 Task Force 去拆咗個部件擺去試嘅時候已經係兩年嘅時間，當中其實我哋--而家其實仲係大家仲調查緊，即係已經--因為我已經唔係嗰個總建築師，咁其實我哋嘅團隊當中嘅同事其實仲喺呢方面就聯同中國建築係調查緊呢幾個部件嗰個所謂超標嗰個嘅情況，咁可以講呢個係關乎到個批次方面嘅問題，即係話貨到地盤，佢已經係唔合乎嗰個嘅英國標準嘍，定係即係用咗兩年之後嗰個情況，呢個我哋都仲未係可以知悉，即係仲係喺度研究當中。

問：因為我就想了解呢一個 37850 呢一個圖表佢顯露出嚟嘅現象，...

答：37850。

問：...我想知道我應該問邊個啫，因為即係我聽你頭先所講，個理解就係 "Installed on Site Brand"，咁就有一炸 brand，Victory、Victory 咁樣，呢度係黃色嘅項，你見到？

答：係，係，係，係。

問：右手面你見到隔離就有 "Submitted to WSD in WWO 46 Brands"？

答：係。

問：咁呢一炸例子就其實就係頭先所講，一早入紙 WWO 46 一早寫咗，但係後來有 update 到嘅現象，但係你就講過，就係對於呢一啲有 update 過嘅嘢都好，你哋去現場 check 貨，實際用嗰樣嘢係其實水務署個 list 係包嘅，或者係佢啲 category 係符合嘅，所以係咪佢都會批喇喇應該，應該咁講，可唔可以咁講？

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答：係，係。

問：好喇，而你哋亦都跟於呢個基準去批，即係譬如話你哋當日，佢擺得個 Victory 落去，你哋當日亦都係 certify 咗你自己，就係話 Victory 係屬於水務署會批嘅嘢嚟嘅？

答：喺，係。

問：關於佢嗰個部件嘅一啲嘅標準，係會批嘅？

答：係。

問：至於佢開頭寫咗“Waterfront”呢個就算你知都好，你都會諗住呢啲會遲啲水喉匠會搞掂㗎喇？

答：係，係。

問：Okay，呢個一樣嘢。第二，就係至於點解用咗 Victory，係水務署批個番，但係點解會用 Victory 裏都居然會係唔達標呢？呢一個係一個分別嘅問題，呢個係一個 separate 嘅問題。

答：唔，唔，唔，唔，喺。

問：至於係因為間廠出呢批嘢有問題，定係可能係用耐咗，係即係個物料有轉變，呢一個就你哋調查緊喇？

答：係，係。

問：但係你係咪即係同我哋講緊就話即係總之在房署嗰個審批嚟講，就呢一個咁樣唔達標就即係唔係房署可以預見到嘅或者可以防止到嘅，你係咪想咁講呢？

答：可以咁講，可以咁講，因為即係等如其他物料一樣嘅之嘛，即係其他物料我當然個辦係完全符合嘅，即係符合合約嘅要求嘅，但係到佢貨到地盤大批嚟嘅時候，可能大批唔係話全部都唔合格，其實而家都有啲係咁㗎，即係可能大批當中有幾件係 defective，咁即係佢都要去--係咪呀？即係嗰啲唔可以用㗎喇，即係咁樣樣。

問：但係即係由於整個制度，學你咁講，就係即係冇一樣嘢其實係真係要實際上走去 check 佢嘅含鉛量嘅，以我所知，就係？

答：係，呢個都係我哋嘅認知不足，對於即係含鉛方面對食水嘅影響。

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問：但係即係其實整體上嚟講，你哋一般嘅做法就係睇文件、睇證書或者睇水務署嗰個 list 咁樣去做，咁即係你係想講就係根據訂下嚟嘅一啲程序，你哋已經即係做晒㗎喇，根據番水務署嗰個 list，係咪符合咁樣？

答：係。

問：至於佢出嚟呢批有鉛，咁呢一個就頭先你所講嘅...

答：其實我哋--當然喇，我哋一向嚟講，對於重金屬嗰方面嗰個嘅影響水質各樣嘢，我哋的確係認知不足嘅，咁所以喺呢方面個檢測，我哋都有喺呢方面嚟到著墨，而反而喺 functional 方面，其實譬如我嗰段講，就係話個 flow rate 或者係個 water-tightness 或者個 pressure 各樣嘢，因為我哋都好擔心佢係會 pressure 大過頭會爆喉，pressure 唔夠同樣亦都係會令到嗰個熱水爐係撻唔著，咁所以呢啲都係影響用家，咁即係 functional 方面我哋著意嘅，一路以嚟，但係重金屬就真係需要即係喺有關嘅部門嘅專家方面嚟到去即係喺呢方面畀我哋一個嘅認知。

問：好，但係我想問一問你，你即係頭先就講起即係對鉛認知不足，嗰個合約方面除咗寫話要符合 British Standard 之外，我嘅記憶--我哋唔使翻出嚟睇，除非你係需要，但係佢特別寫到明係“use only lead-free category solder”，零零舍有句㗎嘛係，即係有個人--係有心人係直情寫埋出嚟㗎嘛。

答：係，係。

問：點解要零零舍舍喺 British Standard 裏面抽出嚟寫“use only lead-free category solder”呢，當日草擬嘅時候？

答：呢個草擬就我有份。

問：係，我明。

答：但係我睇番同事傾過，就係嘅，當時喺整個研究當中，其實我諗都已經係十多年前嘅事情，當然亦都可能有的同事喺嗰個團隊裏面都已經唔喺部門工作，但係實際上呢個--嗰個源由其實我哋都仲要--需要有的紀錄去吵番，但係當然我哋係知道喺番個焊料係要避免唔用鉛嘅，就係知道嘅。

問：唔係，知道就實知，唔知就唔會寫落去，...

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答：冇錯，咁但係...

問：...咁但係即係點解會引致呢樣嘢？我問你，點解咁問呢？聽埋我講，就係工程師學會就做咗一個報告，或者咁，睇番個立場...

答：係。

問：佢都提醒咗我哋一樣嘢，我哋後來睇番都係嘅，就係如果你直情睇英國標準，British Standard，原來佢嘅用字真係唔係叫你用“lead-free category”咁樣嘅，佢用字係比較迂迴嘅，同埋佢係喺一個 footnote 嗰度去講嘅，我可以畀你睇一睇，工程師學會嗰個報告，今朝我哋睇過嘅。等等。我而家搵番個一頁畀你。

答：好呀。

問：但係我而家就即係問番...

主席：嗰個 footnote？

石先生：係呀，冇錯，冇錯，係。

主席：Footnote 就係咁寫嘅，“Soldering alloys with lead and brazing alloys with cadmium are not permitted in installations for water for human consumption”，Table 6，Table 6 裏面有一個 footnote 講緊 EN1 --不如我喺呢度問一問先，其實都之前問過。我哋知道水務條例裏面就講到 copper and copper alloys，尤其是講到“Fittings with end for capillary soldering”嗰度就 outdated 嘅，outdated 佢個 British Standard，佢有講 BS 1254-1 嘅，佢係講緊 BS 864 part 2 嘅，係咪？

答：係。

主席：換句話嚟講，即係當你哋定你哋嘅 specification 嘅時候，同埋你哋個 tender 又好，contract 又好，當你哋寫 1254 落去嗰陣時候就一定係有一個有心人係知道水務署水務條例係已經係 outdated，所以佢唔跟，佢係寫你哋自己睇嗰個落去嘅。

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答：如果我有記錯，係嗰個 864 嗰度其實佢都係寫咗 lead-free 嘅，即係嗰個 British Standard，British Standard 864 下面都係...

主席：唔好理佢，因為我就冇睇過 864，我唔知，不過我就知道水務條例就淨係講 864 嘅啫。

答：啱，係。

主席：你哋嗰個就 update 啲嘅，就 1254 嘅。

答：1254，係，係。

主席：咁換句話嚟講，就有人喺你哋個 department 裏面或者你哋個部門裏面就知道水務署都 outdated 㗎喇。

答：知道水務署 outdated 就係因為嗰個 British Standard 864 已經唔再喺網--即係 obsolete 㗎。

問：唔再係 prevalent 嗰個？唔再係即係最 update...

答：唔係 prevalent 嗰個，而 864 佢真係寫咗“lead-free”，如果我有記錯嘅話。

主席：Okay，好，唔緊要。咁跟住返番去頭先石大律師所問嘅...

石先生：我搵到嗰頁喇，而家我搵到嗰頁。

答：好呀。

問：你哋嗰個合約條文就寫咗 1254 of 1998 嗰一個 British Standard 喇？

答：係，係，係。

問：跟住就有個有心人就加埋“lead-free”，加多一句。

答：係。

問：我想同你表述嘅就係如果你睇番 1254 呢個 British Standard，你睇一睇工程師學會 U1 103 頁，佢裏面就有個好有趣嘅一個觀察嘅，佢呢個好有趣嘅觀察，佢喺個附件 C 嗰度，佢就話“Tin Solder - lead-free?”，呢啲叫做錫嘅焊料，真係寫住話「要唔含鉛？」咁，佢就話--佢就引述水務署嘅一個 circular，一個通函，2015 年 1，第一份，水務署就提醒啲讀者，就話有關嘅標準，水務條例嘅標準就已經講明係要用唔含鉛嘅 solder 嘅--含鉛嘅--焊料喇咁，水務署嘅一個單張，香港嘅食水供應，減少食水裏面嘅鉛含量，喺 8 月出呢份，亦都係講，就話用呢個即係由含鉛嘅焊料嚟到焊接呢個銅管係自從八十年代已經係禁止㗎喇咁樣。跟住就工程師學會就作出左一個即係調查，就睇下究竟呢個不含鉛呢個字眼係點嚟嘅呢咁。長話短說，你睇番第 4 段，“Clauses contained in BS EN 1254 were silent on leaded solder or lead-free solder.”，佢話“Except”，除左 4.2.2 就隱含地或者即係間接地就好似講，就話含鉛嘅焊料係唔可以喺即係製造 integral solder ring fittings 裏面係使用嘅。跟住佢就話佢係喺呢個第 6 個表裏面嘅一個註腳，一個 footnote，就搵到一句嘢，就係“Soldering alloys with lead and brazing alloys with cadmium are not permitted in installations for water for human consumption”，佢嘅即係一個 observation 嘅觀察，就係「不含鉛焊料」呢個字眼其實係喺嗰個主要嗰個 text 嗰度係搵唔到嘅。

答：係。

問：實際上嗰個 British Standard，即係我哋唔使而家走去特登去搵出嚟，但係總之即係我哋叫做“take his words with”，即係我哋當呢個觀察係正確嘅，就你知嗰啲 British Standard 有陣時係成本書咁厚，即係我費事攞出嚟，但係好多時候又有啲字喺個 main text，有啲嘢就喺個 footnote 嗰度，你知一般有好多嘅即係合約嘅條款都會係咁寫，即係工程師學會嘅一個觀察就係話你睇勻成個 British Standard，你睇個餡，我哋叫做，你睇個 main text，你係見唔到不含鉛焊料呢個概念嘅，你要睇其中一個附表佢下面一個 footnote，就有頭先我所講嘅嘢。

答：係。

問：但係無論如何都好，就係有人覺得 lead-free category solder 係好重要，值得抽出嚟講嘅一樣嘢，就零零舍舍喺貴署嗰啲 standard 合約嗰度寫埋出嚟，你知道嗰個合約，係零零舍舍有一句係寫...

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答：我明，我明。

問：...“use only lead-free category solder”，...

答：我明。

問：...我嘅問題就係你睇番個背景，你 British Standard 咁多句嘢好特登搵出嚟，就係你唔搵，你係零零舍舍你即係搵“lead-free category solder”呢句嘢出嚟，...

答：唔，明白。

問：...咁你可唔可以即係話到畀我哋聽其實即係當日草擬--唔係你草擬，我知，但係有啲咩嘢事情，有啲咩嘢令到當日嗰個有心人係真係零零舍舍抽“lead-free category solders”呢個概念出嚟？

答：我諗咁樣講，我諗我唔可以代表嗰個有心人，究竟有冇存在我都唔知，咁就...

主席：存唔存在都唔知。

答：係咪真係有--我諗每個人都有心嘅，即係做呢個 spec。但係就我哋做嗰個 spec 嘅過程，我諗要補一補充番先，其實我哋喺房委會裏面，即係做一個會更改--更新嘅每一個 edition 嘅 specifications 都係好嚴謹嘅。第一樣嘢就係--第一個，我哋一定要將最 update 嘅 statutory 嘅 requirements 就將嗰個 spec 如果有 outdate 嘅，要 update 先，呢個第一步。第二樣嘢就係我哋一定會係走勻成個即係 government、bureaus 同埋 departments，有關即係佢哋嘅 comments，即係佢哋嘅 feedback，即係因為我諗整個大政府裏面，如果--一定係有各方各面嘅專家，當然如果呢個係水質，我哋仍然都係認為即係水務署係我哋嗰個嘅專家，喺水質監控，咁所以我哋必定係會透過其他嘅 department 嚟到去--即係去 check 番。第三樣嘢，就係話我哋都係會有其他 stakeholders 嘅，包括就係我哋嘅 contractors 或者係一個 academia，即係學界方面嘅朋友，同埋我哋自己嘅同事，包括係負責保養維修嘅，因為佢哋係接觸啲居民嗰個 feedback 係最多，咁多唔同嘅渠道當中，我哋搜集番晒出嚟，就連同埋我哋自己同事嘅意見，一齊 comment，就融合成為一個 specification。我有參與到十幾年前呢個嘅 specification 嗰個嘅營造，不過我可以相信--即係正如我頭先--即係純粹係一個估

計，因為睇番嗰個嘅 British Standard，即係如果係英國嘅標準 864 嗰度佢寫咗係個 lead-free，而喺 1254 後嚟更新之後，竟然喺個 footnote 裏面隱藏咗，所以呢個就可能係一個--我覺得係可能，可能係一個嘅誘因，即係話點解會突然間隱藏呢？本來係 lead-free 嘅，咁就即係所以點解可能當時嘅同事就將番呢個 lead-free，我哋希望有番喺度，就喺個 spec 加多一句，呢個係純粹我自己個人估計。但係喺成個 spec 裏面嗰個嘅營造，頭先我所講嘅步伐係必定係到而家都行緊嘅。

主席：其實我有一個咁樣嘅 observation，就係你睇番你第 53 段，其實呢度 (i)、(ii)、(iii)、(iv) 裏面所講嘅嘢全部都係同嗰啲係焊接物料係有關嘅，因為點解呢？第一，佢係--佢唔係講成個 table 裏面嘅所有嘅嘢嘅，佢係講--即係我而家講緊羅馬數字 (i)，佢係講緊 Table 6 section II 同埋 III，section II 同埋 III 就係講緊 tin 同埋 silver、tin 同埋 copper 嘅嘢。

問：或者我提一提醒證人，係 bundle C19.1，10310 就係 Table 6。

石先生：麻煩可唔可以畀一畀證人睇？C19.1，10310。

問：你見到嗰度 Table 6 嘛？

答：見到。

問：主席就係講緊 Table 6。

主席：你見到個 table 囉呵？

答：見到。

主席：II 同埋 III 就係特登係講 soldering，就唔講 I 嘅，I 就係講緊有 lead 嘅嘢嘅，II 同埋 III 就講 tin、silver 同埋 copper，okay？

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答：係，係。

主席：咁所以呢個羅馬數字 I，講嘅嘢係好 specific 嘅，好針對性咁講嘅。第二，就係返番去頭先工程師學會裏面所講嘅嘢，就係 4.2.2，呢個 British Standard 裏面，佢係抽咗佢出嚟咁講嘅，因為 4.2.2，根據個 British Standard，就話 leaded 嘅 solders “shall not be used for manufacture of integral soldering fittings”，有一個人喺你哋個 department 裏面係將佢演繹咗出嚟嘅。

答：係，呢個真係唔知道。

問：4.2.2 就係 10305 嘅，10305，你見到。

主席：係咪呀？噏，...

問：4.2.2，British Standard 嘅 4.2.2 就係 10305 頁。

答：10...

問：10305 頁。

答：05 呀？

問：10305 頁，你見到 4.2.2。

答：係。

問：第二段嗰度你見到喇，“Leaded solders shall not be used”...

主席：因為你 4.2.2 就同你 PLU1.M160.5 個意思係一樣，不過啲 wordings 係全部唔同嘅。

答：係。

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主席：首先就有人就 update 咗你哋...

答：“shall not be used”

主席：...-- update 咗嗰個水務條例嗰個 86 幾就去到 1254，就首先有人就喺個 I 嗰度就講到明「唔好用 lead 嘅，因為你只係可以用 II 同埋 III 咋。」第二，就係有人就喺呢一個 standard 裏面就搵到 4.2.2，就係話 integral 嘅 fittings，integral 嘅 solder fittings，即係啲 solder 已經係擺咗喺個 end 嗰度嘅，又唔可以用 lead，係咪？

答：係。

主席：跟住第三，就有人將個 footnote 嗰度又將啲字眼又轉咗去，就變咗你嘅羅馬數字 III。

答：係。

主席：跟住第四，仲有一個有心人，即係呢個繼續係呢個有心人，係講埋啲 flux，因為我就暫時就未喺呢個 British Standard 就搵到有 flux 呢一樣嘢講嘅，似乎就係有人係做過好多係研究，做過好多 research，就睇過呢個 1254，就將佢係抽咗出嚟係特別講「呢啲焊料或者接駁物有啲乜嘢問題，你一定要點樣樣 comply。」

答：係。

主席：即係唔係--換句話嚟講，呢度我覺得唔係純粹有人話「啊，水務條例係咁，我哋就搬字過紙就抄嘅」，係有人做過好多嘢，然後先至擺到落去你嘅 PLU1.M160.5，似乎表面上就係咁睇。

答：都唔排除嘅，因為可能當時嗰個團隊，正如我頭先都講話，都有 consult 過即係不同嘅政府部門，同埋即係喺香港裏面好多唔同嘅專家嘅意見，咁呢個即係我都希望呢個高人仲未離開我哋嘅房屋署，未退休。

主席：唔係，因為點解呢？因為你哋嘅--我哋所聽到嘅，就係成日都講呢個認知不足嘅問題。

答：我哋認知係唔好用有鉛嘅焊料，呢個係嘅，但係我哋真係認知不足有關於呢個嘅含鉛焊料對於飲用食水嗰個風險嘅程度，特別係衛生健康方面。

主席：即係換句話嚟講，即係返番轉--返番去個大前提，因為你頭先先至講，就話對重金屬嘅認知不足，喺食水裏面，咁似乎而家聽落去就似乎就唔係話對重金屬喺食水裏面嘅認知不足，係對有人用咗一啲有鉛嘅 solder 嘅 material 呢一方面係認知不足，...

答：如果呢個係一個...

主席：唔係，所以我就想搞清楚啲先，因為其中有一樣嘢我都想問你嘅，就係你喺你嘅 statement 裏面就曾經講過，就話你對呢一個喺 2015 年 7 月之前對呢個食水嘅品質，嘅 quality of drinking waters，第 74 段，第 74 段就最耐嘅一句，你就話“Before July 2015, neither I nor the HA was aware of the WHO guidelines on the drinking water quality at the consumption point.”，我想問一問你，就係唔好理佢個“consumption point”呢一個字先，因為 WHO 嘅 water quality guidelines 就有話係喺邊一個 point 嘅，亦都有話係喺邊一個國家，亦都有話係喺邊一個地區，亦都有話究竟係喺邊一度，因為全世界佢都基本上係適用嘅，okay。你話你唔知道，係你哋係即係作為一個--我講你先，HA 唔好--你係從來冇見過呢一份咁樣嘅嘢嘅？

答：你講緊邊一份？

主席：WHO 嘅 drinking water qualities。

答：我喺 7 月之前冇見過。

主席：完全冇見過嘅？

答：係。

主席：Okay。我哋知道係咪 2011 年，嗰個最新嗰個 WHO 嗰個 guideline？係呀，2011 年，2011 年就 WHO 就出咗而家呢個第 4 版嘅 water quality 嘅 guideline，你係冇見過嘅？

石先生：而家係第 4 版本。

主席：第 4 版，冇錯。

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答：係。

主席：冇見過嘅？

答：未見過。

主席：Okay，得，fair enough。我就想問下你，其實喺 2011 年，同一年，WHO 仲出咗一樣嘢，就係講緊 drinking water，就喺 building 嘅，講緊 building 嘅，因為呢個世界好大㗎嘛，係咪？

答：唔。

主席：有啲非洲嘅國家可能喺個井嗰度擺水諸如此類，咁佢哋就出咗一個 -- 一本咁嘅嘢，係講話如果喺 building 裏面又有一啲特別嘅嘢我哋要 aware 嘅，你又冇見過呢一份嘢嘅？

答：我都有。

主席：冇見過呀？

答：係，世衛標準。

主席：咁喺裏面好 specifically，雖然佢唔係講得好多，但係佢有講到 the role and responsibilities of architects 嘅，都有見過？

答：都有。

主席：Okay，咁 apart from architects，仲有 developers、builders 諸如此類嗰啲都有見過嘅？完全冇見過？

答：我唔可以代表佢哋講。

主席：唔係，你呀，你呀。

答：即係我自己冇。

主席：冇見過，得，唔緊要。好喇，跟住我想問下你，好喇，你有見過我頭先所講嗰兩份嘢，咁你知唔知喺 2015 年 7 月之前，你知唔知道世衛就住呢一個食水係有唔同嘅 qualities，其中講到 -- 唔好講鉛先，重金屬，其實世衛係定咗唔同嘅標準嘅，喺食水裏面，你知唔知道有一個咁樣嘅標準？

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答：7月前我唔知，而家就知。

主席：而家就知，咁換句話嚟講，如果重金屬都唔知，就更加唔會知道鉛嘅嗰個可以接受嘅 level 係幾多喇？

答：即係對衛生健康方面。

主席：好喇，得，好喇，咁你知唔知道鉛過去喺食水--鉛喺過去喺食水嘅供水系統裏面係曾經製造過一--曾經--即係因為鉛嘅喺食水裏面出現，喺過往曾經係有過一啲問題出現，有啲健康嘅問題出現過，你知唔知道有呢樣嘢先？

答：曾經係聽--但係問題當時係全部係用鉛嘅 lead pipe。

主席：係喇，okay，即係...

答：用 lead pipe。

主席：即係你唯一知道嘅就係之前，當時如果係用鉛嘅水管嘅時候，鉛喺水裏面係曾經製造過一啲...

答：就唔好用。

主席：...健康上，即係風險嘅問題？

答：啱，啱。

主席：Okay，得。所以你係知道鉛喺食水裏面係曾經出現過問題嘅？

答：係，但係個程度係幾多我哋唔知，所以點解我哋都係 spec 嗰個 lead-free 嘅 solder。

主席：得，得，唔緊要。好喇，我哋而家知道鉛喺食水裏面出現問題嘅，就有兩個最主要嘅原因，第一個你已經講咗，就係鉛嘅水管，第二就係鉛嘅啲焊料。喺 2015 年 7 月之前，你知唔知道鉛嘅焊料係有問題，係導致個食水裏面係含鉛超標而引致一啲健康上高嘅問題，你知唔知呢一樣嘢先？

答：我諗我哋就會係話我哋用--要用一啲冇鉛嘅 solder，但係如果用咗冇鉛 solder 之後嗰個風險程度去到邊，我哋認知不足。

主席：係唔知嘅？

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答：係。

主席：係唔知嘅？

答：係，等等係嗰個衛生健康方面。

主席：係喇，因為你連鉛嘅嘢水裏面個可以接受嘅水平你都未知道，...

答：係呀，係呀，啱。

主席：...更加唔使講嗰樣嘢喇，係咪？

答：啱，啱，啱。

主席：Okay，得。你又話你哋房署嘅做法就同出面嘅業界嘅做法係一樣嘅，基本上，佢哋嘅 practice 同你哋嘅 practice 係一樣，咁當然喇，即係如果我咁聽你講嘅話，即係全香港都有人知㗎囉嗎？

答：可以--即係以我所知，就即係業界如果係有認知呢方面，咁相信即係都會係--即係咁嚴重嘅事情，一定會--我哋應該會知。

主席：即係我就唔係想話--即係就你嘅認知，即係我唔想講一竹桿打一船人，出面可能有人知，但是就你嘅認知，因為你話「我哋房署就跟足業界嘅標準做」，因為你成日都係喺你嗰度咁講，如果你都跟足業界做，咁業界都係差唔多嘅咋嗎？

答：可以咁講。

主席：好，唔該。繼續。

問：我就嚟去到最後一個課題，不過我哋而家就 follow up 緊一樣嘢嘅，咁就睇下證人幫唔幫到我哋。你睇一睇 C19.1。

答：C 十...

問：C19.1，呢個睇第 10451 頁，10451，呢度就係一個都頗舊嘅一個 British Standard，就係 specification for soft solders 嘅。我哋而家喺度 check 緊究竟呢一個 specification 嗰個沿用嘅經過，即係有冇幾時用，跟住幾時撙左，唔用。就係呢個 10451 開始嘅 Specification for Soft solders，你睇番到 10455，

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佢有個“Guidance on typical uses of solders”，即係對典型嘅焊料嘅用途嘅指引，你睇番右上角，有啲即係用嚟做焊料嘅一啲 fluxes，同埋一啲含鉛嘅焊料，或者含有 cadmium 嘅焊料，會危害健康，你見到，係咪呀？

答：（沒有可聽到的回答）

問：“Certain fluxes for soft soldering and solders containing lead and cadmium can be detrimental to health.”，見唔見到呀？

答：係，見到。

問：呢度就直情唔係叫你唔好用，呢度直情話危害健康，你見到嘛？

答：係。

問：咁當然我哋而家就即係 track down 緊究竟呢一個 British Standard 即係一路流傳到即係後來會唔會幾時開始冇咗又盛，即係可能有啲係舊嘢都好嘅，即係原來寫得咁白嘅，但係即係你知唔知道呢個 British Standard 即係從幾時開始再唔用，或者幾時畀第二啲嘢 take over 咗？

答：呢個真係唔知道。

主席：唔知。

問：呢個唔知道，唔緊要，即係呢啲白紙黑字可以 trace 到其實，不過你知就可以講到，如果唔知，唔緊要。

答：係，呢個唔知。

主席：我諗呢啲係講緊啲罐頭嘅，會唔會呢？係，可能係焊罐頭，因為食物嗰陣時擺落去啲罐頭裏面，當你將啲罐頭啤埋一齊嘅時候，你要焊實佢，因為係其中一個 health hazard 嚟嘅，所以...

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石先生：佢下面講好多 soldering 嘅，“typical uses”嗰度...

主席：即係我唔知，我純粹估嘅咋。

石先生：佢下面有好多 typical use of solder，有啲就真係罐頭，但係有啲就係要嚟“soldering of electrical connection to copper”咁樣嘅。

主席：係呀，係呀，係呀。

石先生：即係我諗係好籠統嘅一個講法。

主席：即係鉛走咗入去呢個食物或者食水裏面係可能係其實一直都係有呢一個問題嘅，因為譬如你罐頭，我唔知，湯，做罐頭湯，如果你個罐頭係用啲有鉛嘅就已經有問題，係咪呀？

石先生：係，但係佢呢度個頂嗰度就係好籠統嘅講法，同埋你睇到落底，佢有度係講“capillary joints in all copper plumbing installation”，係用 tin silver 咁嘅，如果你睇落去。

主席：係呀。

問：不過唔緊要，即係我哋可以 track down 到呢一個 British Standard 嗰個前因後果，同埋而家佢嘅下場係點樣，咁但係即係我諗如果你一時間講唔到呢個 British Standard 嘅應用或者而家仲有冇用，咁我哋唔緊要，我哋 skip 咗佢先。

答：係。

問：我最後一個課題想同你探討嘅就係關於工人，我想睇番你嘅證人供詞第 37719 頁第 66 段，你哋嘅標準嘅...

答：唔好意思，第幾多段係？

問：66。

答：66？

問：係。頭先我都同你睇過嘅，即係你哋嘅標準嘅合約條款就係講有百分之十五，最多就係可以半熟練工人，即係起碼有 85 per cent 係要

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即係熟練嘅技工，咁熟練工人同埋半熟練嘅工人係有定義嘅咁樣，即係要擺到某啲證書咁樣。

答：係。

問：你第 67 段就有講到就係即係點樣去確保係真係每一個 project 裏面做嘢嘅工人，做水喉嘅工人係真係有即係足夠嘅訓練、資歷，你咁講喇，你就話就每個月都會由中國建築就做一個每月嘅報告，就由你哋有一隊地盤嘅即係監察嘅隊伍就去 check 過嘅。

答：係。

問：呢一份咁樣嘅 record of traded test worker 係會點寫㗎，裏面嗰個 layout 係點樣㗎？人名、身份證號碼，係咪呀？定係所搵嘅 quali. 係乜嘢？

答：呢個就個表格裏面就我諗我--暫時我有紀錄㗎手，但係我就知道係有呢方面嘅 record 去 check，咁亦都係由番我哋自己嘅駐地盤嘅同事去處理嘅，咁樣樣，咁但係當然即係後面我亦都講㗎，即係呢度我哋呢個 record 之後其實都會再將呢咩人名表係畀番去 Construction Industry Council 去做一個 verification 嘅，反而呢一個 verification 返嚟，就會去到我哋去知道嘅，咁換言之，即係話佢嗰個 check 完嗰個 list 返嚟，佢列晒啲人名，事實上有邊啲係 okay 嘅，咁佢就會寫番 okay，有邊啲係唔 okay，佢就亦都係有個 note 㗎度。

問：哦，佢真係會勾啲名出嚟話唔 okay？

答：係㗎，有嘅，有，有。

問：哦，okay，okay。因為我有興趣嘅知道就係你知道--即係講得白啲，好多時候寫就寫一套，做嘅又做一套。

答：哦，唔係，唔係，係，係，係，我哋都係想個 system 係咁樣樣。

問：即係所以你呢一個講嘅呢個講法就唔係淨係啟晴邨呢個地盤嘅，個個地盤都會有呢一個咁樣嘅做法？

答：係，係，係，係，㗎。

問：咁你呢一個 85、15 呢一個比就個個地盤都係咁嘅？

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答：基本上係。

問：呢個係一個標準嘅一個比例嚟嘅？

答：係，要求，要求。

問：你哋係有一個制度，你哋喺嗰度抽查、睇身份證、要佢 show 張嗰個即係卡出嚟證明佢嘅資歷，即係你哋有一個咁樣嘅制度嘅，即係你哋係靠中國建築界你哋嘅資料？

答：唔係，最主要其實呢啲只要佢有個名，其實如果佢要工人證嘍嘛。

問：係，冇錯。

答：即係如果佢係 register 嘅話，佢喺...

問：佢有張證「證明我係咩嘢工」咁嘅。

答：...頭先嗰段，係，咁已經就唔單只係名咁簡單，即係有啲資料喺度，又或者根本上如果只要有個名，當然有埋個 registration number，頭先講到話 Construction Industry Council，其實佢哋已經可以即刻查得到，就係基本上呢啲咁簡單嘅資料已經得。

問：係喇，因為即係坊間就眾說紛紛，咁就即係我哋亦都即係聽到好多嘢，即係遲啲可能會有啲證人希望可以幫助到我哋去講，譬如話啲判頭講下佢哋可能有冇判上判咁樣，但係即係好籠統地講，就係你知道搵工人，你中國建築佢判咗落去畀人，佢可能又判多一浸咁樣，啲工人話就話又要簽合約又盛嘅啫，但係即係邊度可能好搵啲，可能佢就第二日就拉隊去咗第二度，個流動性會唔會好高。咁所以實際上你話要整個表，又 monthly 咁樣，實際上做起上嚟，會唔會好多甩漏嘅呢？

答：佢如果每一日即係出入--因為我哋本身嗰個嘅出入地盤，如果係工人嚟講，特別，就係我哋有一個嘅掌紋機嘅，即係出入一定要係經嗰個，嗰個就係認知即係每一個人佢本身嗰個身分，即係換言之，用咁樣嘅模式，呢個我哋都知道係有咁嘅情況，我哋就會有咁樣嘅做法，咁就一個嘅即係所謂監控，而呢一個就係已經係一個紀錄嚟嘅，咁就將呢個紀錄就已經去番即係總承建商嗰度做番一個表，咁就係個流程係咁樣，基本上。

問：而你嘅經驗就係 send 咗去 Construction Industry Council，即係話你要去報上去，就話「我呢個地盤有以下嘅工人」，咁佢就真

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係會 check 番？

答：係。

問：佢打番回頭嘅係咩嘢意思呢？即係嗰個工人冇註冊嘅，定係點呢？佢會點打回頭，勾番出嚟？

答：唔係，佢有機會會係即係話可能--即係話「喂，你睇下，呢個未必係個大工。」即係所謂嘅 skill。

問：Skill。

答：Skill，係，可能佢係 semi-skill 咁樣樣，類似諸如此類，咁有啲--但係就應該唔多嘅，即係我哋所睇，亦都有咁嘅情況出現，我哋就話畀嗰個嘅總承建商聽，咁就即係都某程度都叫佢要 rectify 番咁嘅情況，就同樣要監控番，唔可以再有咁嘅情形，即係佢都要控制番啲工人。

問：但係至於佢確保係 85 與 15 之比呢樣嘢，就應該係由房委會嘅代表做喇喇，因為呢個係合約嘅要求？

答：係，即係呢個就係所謂我哋叫 Site Inspection Team，呢度所講嘅，處理。

問：咁佢真係會攞住大判畀佢嗰個表，就真係會點下啲人數，裏面有一百個工人，佢真係望下係咪有八十五個係大工，十五個係...

答：喺紀錄上，我哋係會咁樣做法，咁就...

問：係會 check 番佢喇...

答：當然呢個係要 China State 佢要自己做--先做咗先，我哋同事去 check...

問：係，當然，咁但係即係真係有呢個步驟就係房委會嘅代表...

答：有呢個步驟。

問：...真係會攞住個 list 一百個名，佢真係會睇下呢個人係大工，剔咗佢，數下佢，「啊，八十五個」，即係有一個步驟去 go through 嘅？

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答：唔係，不如咁樣講，即係其實最終我哋都要係 China State 佢畀咗呢個名--即係呢個表。

問：你假設佢畀咗一炸名你。

答：係，畀咗一炸㗎喇，咁我哋當然我哋要睇番佢係咪真係個數目，數目上面係咪真係啱呢個嘅比例，但係至於啲人，佢就唔可以去 verify，唯有就係靠即係 CIC，即係 Construction Industry Council 嗰面再 send 過，就每一個人就去再睇一睇番，...

問：明白。

答：...咁返番嚟嘅時候，我哋先可以即係完晒成嗰個嘅 verification process。

問：即係佢報畀你，佢就會話「我今日有八十五個大工，有十五個係 semi-skill」，...

答：係，冇錯，冇錯。

問：...起碼個數啱喇？

答：係呀，係呀，係呀。

問：「咁但係你呢炸數我就捋上去畀 CIC check」...

答：冇錯，冇錯。

問：...「你話係大工嗰八十五個係咪先」咁？

答：係，即係大致上係咁樣嘅情況。

問：Okay，好。咁但係中國建築佢係大判，佢下面判咗一判，可能再落多一、兩浸，咁至於佢點樣去儲埋嗰啲名、點樣去搜集呢啲資料，呢個就係要靠佢喇？

答：係，係，亦都要分番個 trade。

問：Sorry？

答：分番個 trade，即係我哋叫做 trade，即係話...

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問：我知。

答：...即係可能係 plumbing，可能係即係唔同嘅 trade。

問：係，我知，我知，即係佢判咗畀 plumbing contractor，咁呢個就係由佢負責去追嗰個 plumbing contractor，就話「你判咗落去畀邊個？咁你就畀番一拵人名我喇。」咁樣。

答：喎。

問：即係你會期望佢會咁做？

答：喎。

石先生：我有其他問題。

主席：好。跟住邊一個想問先？Mr Pennicott？

MR PENNICOTT: Mr Chairman, I think there's an informal agreement...

主席：Sorry？

MR PENNICOTT: There's an informal agreement between counsel, at least, that whose-ever estate we happen to be discussing would go first.

主席：I see.

MR PENNICOTT: Subject to Mr Wong behind me making an application for the WSD to go first.

主席：王大律師就應該行先嘅，你係咪有嘢問？

王先生：No，我有嘢問，但係我唔介意 Mr Pennicott 問先。

主席：你唔介意，咁是但喇。Mr Pennicott，你行先喇，佢想你行先嘞。

MR PENNICOTT: I'm more than happy to, Sir.

MR PENNICOTT 盤問

問：Mr Yim, good afternoon.

答：Yes, good afternoon.

問：I am going to be addressing my questions to you in English, but please feel free to answer in Cantonese.

答：可唔可以大聲少少？因為可能有個距離。

主席：聽唔到呀？

答：係。

問：I apologise for not speaking quite so loud as Mr Shieh, but I will do my best. Mr Yim, first of all, can we get firmly fixed in our minds the period of time over which you were involved in the Kai Ching project, which as I understand it was between September 2012 and February 2014?

答：係。

問：So that, if I've got it right, was towards the end of the project, as the works were coming towards completion, and then for a good part of the maintenance period; is that right?

答：對。

主席：你一定要出聲先得㗎。

答：對，對，對。

主席：我哋要錄音。

答：對，係。

問：So that was a yes?

答：Okay. Yes.

問：Mr Yim, during that period, how many times did you visit the site?

答：我有咁樣嘅紀錄喺手，不過就可以話畀大家聽，喺我哋嘅團隊當中，例如啟晴邨呢個 project，我哋本身去到 completion stage，其實我哋都按需要嚟到去做呢個 site visit，基本上，我諗我哋嘅則師差唔多可以講，去到尾段，即係都我所認知嘅，差唔多日日都去，按需要，或者兩日都去，咁就即係其實我哋雖然有--亦都有個駐地盤嘅同事喺當中，咁所以我哋亦都係對於整體無論係地盤方面嘅進度或者嗰個質量個控制，我哋都係著意。但係我喺現階段呢個時間可以話畀你聽，喺我由 12 年嘅 9 月去到 13 年--即係 14 年嘅 2 月當中有幾次去地盤，我而家暫且真係我數唔到幾次，但係問題我可以話畀你聽我係都好多次，真係好多次落到呢個地盤，而係按個需要，我就係會落去。

問：Thank you. Could I ask you this, Mr Yim: when you took up your post in September 2012, what steps did you take to familiarise yourself with the terms of the contract between the Housing Authority and China State?

答：喺合約裏面當中嗰個嘅要求，當然即係喺成個運作嘅當中，其實我哋即係每一個嘅合約，基本上我哋有一個嘅所謂 general 或者一個 standard 嘅 specification 所按每一個嘅合約嚟到去 refine -- 去迎合嘅。咁所以即係基本上我哋喺譬如喺 site 裏面，譬如就講 preliminaries，所有嘅 site works，佢嗰個要求，因為就住每個 site，可能係有少少唔同，但係嗰個大體，我哋係喺度嘅。咁當然亦都係喺我哋 site inspection 或者喺信件來往當中，我哋亦都係成個團隊話畀我聽有任何嘅問題，我哋都係需要去找番嗰個嘅合約裏面嘅要求咁樣樣，亦都同樣係按需要。但係你問番我認知幾多，我呢方面可以話即係當時係我作為一個總建築師所需要認知嘅，整體嚟講，我係認知嘅，我可以咁樣答。

問：So are you telling the Commissioner that you physically

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asked for the contract and you looked through it, or did you do it in some other way?

答：我諗係我唔會係將成本嘅合約嚟到去讀，但係我哋嘅團隊，我哋係一個 teamwork，換言之，即係話我哋去到某一個情況或者某一個嘅部分係需要考查番整個合約嘅，我哋都會由番我哋--我會同番我哋嘅--我自己嘅代表，包括我哋嘅則師或者係工程師、有需要嘅同事，我哋都會係大家坐埋一齊傾，用咁樣嚟到去理解、去認知嗰個合約嘅要求。但係當然，我自己係會有一本合約咁樣樣，喺我個寫字樓。

問：All right. Could I ask you, please, to go, in file 15.1 -- this is an attachment to your witness statement -- to page 37729. Do you have that, Mr Yim?

答：係，睇到。

問：If you look, in the column headed "Group", and then you go down three boxes, you see the words "Chief Architect"; do you see those?

答：見到。

問：And you are highlighted, at least in my copy, in green; is that right?

答：係。

問：If one just focuses on the "Chief Architect" box and looks in the column headed "Name", am I right in suggesting to you that you had two predecessors as chief architect and two successors as chief architect?

答：係。

問：Are the four persons concerned still employed by the Housing Authority?

答：首先我講番我嘅前身嘅同事先，第一位就係 Ferna Shum，呢位同事當時佢係自己申請離開，佢係辭職嘅，簡單講。咁就而再上一任嘅嚴小玲小姐，佢都係升職，係離開呢個崗位嘅。至於我自己，喺 14 年 2 月嘅時候亦都調任去而家現行呢個嘅崗位，咁所以就係由番呢一位嘅

同事係處任--去填補番呢個位，就係黃生（譯音）作為一個嘅 Chief Architect（2）嘅，咁就主理番呢個嘅工程。而由於黃生亦都因為係我哋個部門係嗰個嘅工作量越嚟越大，過去呢兩年，所以就喺調任嘅方面，又按番個工作嘅需要，就黃生亦都係喺番 15 年嘅 7 月係調任另一個--主理另一個新開嘅崗位，咁所以就目前係由一位楊生係主理番啟晴邨呢個嘅項目嘅。

問：So I think the answer to my question is, apart from Ferna Shum, the other three people are still employed by the Housing Authority?

答：係嘅。

問：Now, so far as the drafting of the contract between the Housing Authority and China State is concerned, I assume that you do not know who was responsible for drafting that contract, so far as the Housing Authority is concerned?

答：我唔明你嘅問題，可唔可以問多一次？

問：Do you know who drafted, at the Housing Authority, the contract between the Housing Authority and China State?

答：呢個係當時即係出番嗰個嘅 building 嘅 tender 嗰位嘅主理--個主理嘅建築--總建築師嚟到去做嘅，喺呢一個嘅 project 當中，就開工嘅時間係 10 年 7 月嘅時候，應該就係由嚴小玲小姐係主理。

問：So she would have been involved in the drafting of the contract; is that what you are telling us?

答：我相信應該係。

問：Would she have been in charge of the drafting of the contract?

答：對唔住，我都係聽唔到你，你所講嘅係咪話即係嚴小姐係 in charge of 嗰個嘅 drafting of contract?

問：Yes. Would she have been in overall charge of drafting

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the contract?

答：應該係嘅。

問：Mr Yim, in your witness statement, you say on a number of occasions that China State was responsible for continuous supervision. Do you recall that?

答：係。

問：Is it your understanding that those words, "continuous supervision", appear in the contract?

答：如果我有記錯，係應該有嘅，不過起碼呢個字就係喺番個個嘅 statutory requirement 裏面一定有。

問：Can I suggest to you, Mr Yim, that the words in the contract, so far as China State are concerned, their obligation is to use "necessary superintendence". Do you recall that phrase?

答：唔好意思，最後嗰兩個字我聽唔到，即係可唔可以再問多一次？唔好意思。

問：In the contract, the words that are used are "necessary superintendence". Do you recall that phrase being used in the contract?

答：我要 check 番先得。唔緊要喇，我盡量即係--係，係。

問：Can I ask you this, Mr Yim: in practical terms, what do you mean by the words "continuous supervision"?

答："Continuous supervision"，我諗喺一個合約，作為房委會對一個總承建商嚟講，當然我哋作為一個 developer，我哋係同一個承建商有一個合約嘅建立，其實喺個合約裏面，正正就係我哋需要承建商幫我哋係成個工程去承託畀佢去營造，咁換言之，即係話承建商喺成個嘅即係 project 嘅 construction 當中，其實佢係最熟悉點樣去用最合適嘅方法嚟到去營造嘅，換言之佢亦都係需要因為符合個個嘅法例、法規嘅要求，同埋合約嘅要求，佢亦都係即係應該要有一直、不停嘅，即係恆常嘅一個嘅監管嘅作用，咁變咗即係我哋好簡單，就

係話承建商係需要有恆常嘅即係保障呢個嘅工程嘅質量同埋進度都係符合合約上面嘅要求。

問：So far as the Housing Authority is concerned, the phrase that you use in your witness statement is "periodic inspection". Do you recall that?

答：係，我哋係咁--我係咁講過。

問：And as I understand it, that periodic inspection is carried out by, as I think you explained -- so far as the general works are concerned, as you explained to Mr Shieh this morning, by a Building Works Team and a Building Services Team; do you recall that?

答：係，係。

問：So far as the Building Services Team is concerned, do they have different qualifications to the Building Works Team?

答：係有唔同嘅，如果係 Building Services -- Works Team，即係基本上佢哋係--當然係作為我嘅代表，喺一個 professional 嚟講，佢係一個 engineer 嚟嘅。而喺一個嘅地盤--駐地盤嘅同事，Building Services Inspector，佢同樣都係需要呢個 Building Service 當中嗰個嘅即係 qualification，基本上係唔同嘅，同 Building Works 嘅 Team 嗰個 qualification。

問：Can we look at paragraph 18 of your witness statement, just to see if we can get this a little clearer. If I have understood you correctly, Mr Yim, so far as the Building Services Team is concerned, they are essentially engineers of different disciplines: mechanical engineers, ...

答：喺。

問：...electrical engineers, ...

答：喺，喺。

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問：...that sort of qualification; is that right?

答：Yes. 係，基本上我哋俗語講係風、火、水、電，engineering 方面嘅 aspects。

主席：風係乜嘢呀？

答：風係通風，即係嗰個冷氣。

主席：Okay。

問：You contrast that with the Building Works Team, and what are they? Structural engineers, that type of qualification; is that right?

答：嗰個 team，冇錯係，亦都係有--因為呢個係駐地盤嘅同事，咁所以呢啲嘅 Building Works 嘅同事就--如果你話係 structural engineering 嗰方面，就未必係嘅，個 qualification 未去到嗰方面，但係問題個 trade 係唔同，我哋所講嘅 trade 係講緊係我哋喺工程上面，譬如係落石屎，又或者係我哋做批盪，或者係一啲嘅 drainage，即係排水方面嘅系統，呢啲都係列入喺番我哋嗰個嘅 Building Works Team 嗰方面去睇嘅，唔一定要係 structural engineering 嘅 aspect。

問：Could you please look at or be given bundle B1?

答：對唔住，又聽唔到，bundle B1?

問：Page 312, please.

答：係，睇到。

問：Do you have that, Mr Yim?

答：睇到。

問：It should be the front sheet to a document called: "Inspection Guidebook. Site Inspection Guide for

Building Works”.

答：係。

問：Then if we go to page 213 and following, we see various references to plumbing.

答：313, right?

問：313 and some following pages.

答：Yes.

問：So, as I have understood it -- I know you have made the distinction between Building Works and Building Services -- we are looking at the relevant document so far as Building Services are concerned; is that right?

答：Now, this part should be the Building Works, the Building Works Team.

主席：你用番廣東話喇。

答：哦。呢個就係喺番我哋嗰個嘅 Building Works Team，就唔係 Building Services Team 嘅嘅，因為呢一個本身--今朝其實都提過下嘅，就係有關於嗰啲嘅渠務--唔係，嗰個嘅水務，水務嘅講嘅就係水喉、喉碼或者係一啲嘅 joints, joint fittings, 呢啲都係屬於我哋所謂 Building Works Stream 裏面嘅，或者 Building Works Team 裏面嘅，而我哋嘅所謂嘅 Building Services，屋宇裝備嘅團隊，佢哋駐地盤嘅同事主要就係睇番一啲泵，同埋泵房裏面一啲嘅泵加「蛙佬」，即係閘掣，嗰掣都係佢哋負責，就係分別開出嚟就係個 Building Service 嗰 team 嘅同事。

問：If you please go to page 319, is that part of the manual or guidebook that is referable to building services?

答：基本上呢個係--呢個都會係我哋自己 Building Works Team 嚟到

去做嘅，或者我喺呢度補充番少少。其實係整體嘅分工嚟講，喺我哋批核嗰個嘅 sample 嘅時候，或者批核個料，material submission 嘅時候，牽涉到一啲 engineering 嗰方面嘅部件，其實當然我哋喺早期，就住啟晴邨嚟計，我哋係由一位嘅屋宇裝備工程師嚟到去處理嘅，咁所以喺呢啲就我哋批料，就需要有番部件或者 fittings 呢方面，特別好似頭先提到，有關一啲英國嘅標準，佢哋應該係可以嗰方面嚟到去 check。但係當呢啲物料係批核咗，亦都係貨到地盤嘅時候，咁就已經係去到一個地步，我哋將呢啲嘅批准咗嘅物料嘅 sample，咁就核對番喺即係起緊嘅時候，咁起緊嘅時候啲料係咪都係用番我哋批嗰啲呢？某程度呢個就純粹係對嗰個辦嘅啫，咁對辦方面嘅工夫，我哋就用番我哋 Building Works Team 嚟到去處理，咁就喺佢平時係行地盤巡查嘅時候，就頭先我所講過，包括水喉，睇番佢嘅 size、joints，包括水喉所接駁嘅呢個嘅閘掣，其實都係由番我哋 Building Works Team 可以去睇番。

問：Can I just ask a general question: again, if you look at -- I'm still on page 319 -- in the second column to the right, there's a figure 10; do you see that?

答：Yes.

問：You need jolly good eyesight to read it, but the title of the Column heading is "Recommended inspection percentage", and it's something that we have heard a little about already. Can I ask you this: the manuals or the guidebooks that set out the requirements so far as the Housing Authority inspectors are concerned, are they universal and not project-specific?

答：我都要再聽多次個問題。

問：Sure. The Housing Authority, for its own internal purposes, creates these guidelines or these guidebooks. One part which we have been looking at relates to inspection.

答：Yes.

問：Is the existence of the guidebooks applied -- sorry, are the guidebooks applied to all projects...

答：Yes.

問：...rather than any particular guideline being project-specific?

答：當然呢一個嘅 guideline 就係基本上我哋做嘅時候，就係畀所有房委會嘅供應房屋嘅項目嚟嘅，但係當然有一啲嘅特別嘅項目，如果去到一啲情況係需要有一啲額外嘅物料或者係新嘅物料，或者甚至乎係新嘅技術諸如此類，咁可以喺個別個嘅項目當中，我哋有一個額外嘅處理嘅，咁所以點解就係話我哋喺個制度上面，就係--我哋呢度係講咗係 10 per cent，因為啲字好細，即係 recommended 個 percentage 係 10 per cent，呢度百分之十個嘅巡查嘅百分比，其實喺開工嘅時間都係需要我哋個嘅團隊，即係由番個嘅 professional 就提交，即係當然喇，即係建議嘅就係一位嘅 Clerk of Works，咁我哋嘅工程監督，由工程監督就係做咗，跟住就畀我哋嘅 professional，professional 再上番去 senior professional 去 endorse 嘅，咁所以呢個 10 個 per cent 基本上我哋就係一個--我哋做呢個 manual 嘅時候，一個 figure，但係係咪唔可以變呢？實際上，亦都係喺番個別團隊，因應佢自己嘅項目嚟講，其實都仲可以有番個 senior professional 嘅去自己去決定。

問：Then in practical terms, what is your understanding of what that 10 per cent means?

答：呢 10 個 per cent 就係一般我哋會係用 10 個 per cent 嚟到去巡查，但係如果我哋睇到，因為按個時序，某些時序嚟講，有一啲事情發生，critical 嘅 items，我哋想係特別巡查多啲嘅，我哋就可以將個 10 個 per cent 可以提升，按番個 criticality 方面嚟到去處理。

問：Let me try and understand precisely what you are saying. Kai Ching comprised six housing blocks.

答：係。

問：5,204 individual units.

答：係。

問：I assume you are not saying that the 10 per cent means

that the Housing Authority only inspected about 500 of the units?

答：最主要我哋一定要係睇番我哋嗰個嘅角色，正如一開頭所講，就係 contractors 佢承擔咗呢一個嘅合約，佢一定有呢一個責任嚟到去將整個合約裏面所包含嘅，無論係幾多座樓、幾多個嘅住宅單位，其實即係一個合約就係合約，所以佢簽署咗落去，其實佢有責任嚟到去將整個嘅合約裏面包含嘅樓宇又好，或者係單位又好，都需要符合嗰個合約嘅要求。至於佢一個 continuous 嘅 supervision，呢個一定會係嘅，因為喺佢整個營造嘅過程當中，佢亦都係要保障番即係佢自己即係喺交樓嘅時候要合乎嗰個嘅合約嘅要求，如果唔係嘅話，其實個後果都好大，因為如果佢係--佢唔適當嘅監控，如果係有問題出現咗，就好似而家即係鉛水事件一樣，即係啲喉管要換番，我諗都係好大嘅問題。

主席：其實你都未答佢個問題，我估佢個問題就係起完收樓嘅時候，你哋係咪淨係查 10 個 per cent，抑或係每一個單位都查呢？

答：所以--不如呢個就係分兩個方面去答番，施工期間，我哋就係即係查 10 個 per cent，但係去到完工收樓嘅階段，我哋係所有 flat，我哋都有查晒。

主席：好喇，跟住你話 10 個 per cent，就我哋其實都有啲唔係好明，你水喉，譬如你安裝水喉，唔好講安裝水喉喇，譬如我安裝熱水爐，講安裝熱水爐，你話抽查 10 個 per cent 咁樣樣，譬如我第一個禮拜裝咗一百部，咁你嘅意思係咪即係話「哦，如果我第一個禮拜要抽查 10 個 per cent，我就抽查十部。」係咪咁嘅意思呀？

答：其實真正嘅運作就係我哋嘅同事，即係工程監工，佢喺成個施工期間，譬如座樓一路上緊，佢起緊嘅時候，譬如我哋喺個 working floor，頂樓就係個 working floor，咁好多時就按佢哋需要，我哋好緊張嗰個鐵同埋嗰個即係 reinforcement 或者係個 concrete 嗰方面嗰個嘅 strength，個 quality，所以喺落石屎之前，我哋--佢會一定會各樣嘢係睇嗰度，一個嘅必定嘅。而一路其他嘅樓層，落番落嚟，就要按番喺每一個 trade，即係譬如如果水務，水務，如果中國建築話番畀佢聽嗰日嗰座樓佢負責嘅，就係到 5 至 7 樓，咁就係啲工人就係做嗰度咁樣樣，咁嘅時候就會喺番即係正正就係佢做緊嗰十個單位或者係二十個單位裏面，就係抽一個單位、兩個單位嚟到去--即係咁樣叫十抽一，即係叫做 10 per cent。

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主席：我明，因為你 10 個 per cent，我哋就其實唔係好明你個--因為你抽樣抽 10 個 per cent 同埋你幾耐抽一次其實都有關係㗎嘛，係咪？你完晒之後抽一次吖，同埋你施工期嘅時候，即係因為你嗰個 10 個 per cent，你就淨係講 10 個 per cent，所以我哋就成日--起碼我唔明喇。

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答：我明，即係我諗咁樣講先喇，到佢未真正 report completion 嘅時候，簡單講，即係 5,204 個 flat，即係如果以 flat 嚟計，我哋係 target，即係喺成個施工未完之前，係純粹一個咁樣嘅 proportion，就係五百二十咁樣嘅模式，即係都要去到呢個咁樣嘅 10 per cent，到到完咗成個嗰個水務，或者係所有嘅 flat，不單只水務都完咗嘅時候，就我哋每一個 flat，所有嘅 trade 一齊去 check 晒嘅，就叫做 flat to flat inspection。

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主席：好喇，譬如而家呢啲咁樣樣，你話 valves 嘅 taps 10 per cent 咁樣樣，你一路做一路裝嘅，譬如第一個禮拜裝咗三十個單位嗰啲 taps，咁你 check 抑或唔 check 住㗎？

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答：呢個就係咁樣嘅，我哋會--如果你裝三十個單位，當然如果按百分之十，就係 check 嗰三個單位，因為佢安咗之後，佢唔會拆番㗎嘛，即係呢三十個單位就係我哋當已經喺個範圍裏面巡查咗㗎喇，如果我哋 check 咗三個嘅話。咁佢一路路再跟住再落去就再多三十，或者再多三十，咁一路路咁樣去 build up，即係跟番佢嗰個進度，...

O
主席：我知。

P
答：...我哋取番個 10 per cent。

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主席：咁即係換句話嚟講，譬如嗰度有五千二百個單位，就喺施工期間，前前後後你哋就總共就 check 咗五百二十個？

R
答：可以咁講，即係按道理。

S
主席：去到最後，就五千二百個都 check，係咪咁嘅意思呀？

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答：係，係，係。

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主席：好。或者我哋今日係咁多先，聽日再繼續。

V
答：好。

石先生：主席先生，有個少少請求，就係我哋海外嘅專家證人就佢聽朝早係想同律師團隊係有個會面，同埋另外我哋本地嘅專家證人，因為佢聽朝咁啱有個空隙，佢都可以嚟埋一齊，咁所以就即係我哋就要求可唔可以 11 點鐘開始我哋嘅聆訊，等我哋嘅海外專家同本地專家有機會趁早上大家都得閒嘅時候，可以同埋傾一啲...

主席：11 點鐘，有冇人反對？實冇人反對。咁我哋聽朝 11 點鐘繼續，好。

2015 年 11 月 11 日

下午 4 時 36 分聆訊押後

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 07 B

C Wednesday, 11 November 2015 C

D (10.03 am)

E (Transcript of simultaneous interpretation D

F except where otherwise specified) E

G MR SHIEH: We are now discussing a very minor issue here F

H today. The next witness is Mr Yim Yu Chau, the chief G

I architect of the Housing Authority, and he is also at H

J the same time the architect for Wing Cheong Estate. I

K With regard to the witness statement on Wing Cheong J

L Estate, that arrived last night and was distributed to K

M everyone last night. L

N Before you came in, Chairman, we were discussing M

O a logistical issue, and that is when we were asking N

P Mr Yim to give his witness statement, should we ask him O

Q to just give a statement on Kai Ching, or Kai Ching and P

R Wing Cheong Estate. If we do it both, in one go, that Q

S would be better, because for the written statement on R

T Wing Cheong Estate, that may be a little bit similar to S

U the Kai Ching Estate. T

V We would not like to have Mr Yim with us for another U

time on Wing Cheong Estate, so we were discussing this V

matter. R

I am asking the various parties whether they are S

ready to examine Mr Yim on both Kai Ching and T

Wing Cheong at one go. U

CHAIRMAN: Are there any counsel who would like to speak on this matter?

MR SHIEH: For myself --

CHAIRMAN: Mr Pennicott, please.

MR PENNICOTT: (In English) Chairman, I am for China State, and we put the witness statement from Mr Yim exclusively in relation to Kai Ching, which is one of my affected estates. We've had that for some time.

I am ready and able to cross-examine Mr Yim on the Kai Ching Estate, on that witness statement. I've not even seen the other witness statement yet, but I would have thought -- and I don't know whose estate that is, to be perfectly honest with you, sir, as I stand here today -- it is a Paul Y estate, I'm told. I'm quite happy to have Mr Yim deferred. I'm not quite sure what means, in terms of logistics, where we go from there. I ask the question rhetorically because I don't know the answer: is it going to be the same for the next witness, Mr Ng, the chief building services engineer, who again only exclusively deals with Kai Ching? Are we going to have the same problem with him? I simply don't know.

But if Mr Yim doesn't give evidence today -- again, I'm in a position to cross-examine Mr Ng, if that's become necessary, if that's the consequence of Mr Yim not being here today. It seems to me that the person

who is in some difficulty is representatives from
Paul Y, if they only got the statement last night.

MR HO: Chairman, we shall be focusing on only Kai Ching
Estate. If we just focus on Kai Ching, there may be
actually duplicated issues for other estates, then we
would be able to deal with the other estates better. So
we would be able to proceed with the other estates more
quickly if we focus on Kai Ching today.

Another possibility is that you would like to
examine witnesses for all the estates at one go, before
we go to the other witnesses.

We would like to get instruction from the
Commission, whether we want to get finished with one
estate first, perhaps, for example, the WSD, China State
and other plumbing contractors and licensed plumbers, to
give evidence first, and then we will deal with the
other estates later.

I would like to get the instruction from you.

This witness is working on two estates. If we deal
with all the estates worked on by the same person first,
then it will make things difficult. It will make the
testimony complicated too. I would suggest going by the
approach of one estate after another, and that works
better for examination of the witnesses.

MR CHAN: (In English) Chairman, on the part of the Water

Supplies Department, we certainly see merits in the two different ways of proceeding. We have no strong view as to which one and we would leave it to the Commission's discretion.

The only point we would make is that if we are going to take an across-the-estates approach, then one logistical matter, as I think with other parties, is that we have not received the witness statements from the chief architect in respect of any other estate besides Kai Ching. So that may affect matters such as timing. Obviously, we would wish to have some time to consider and digest the statements in relation to other estates, if there's going to be just one single opportunity to ask questions in relation to a particular individual.

CHAIRMAN: I understand what you say. If we do it by one estate after another, which means that, for example, Yau Lee, it is working on six estates -- in other words, the contractors may have to come here six times -- so the problem is this. And also for the subcontractors, they may have to come, say, six times. Because, well, for the subsequent hearings, we may not have too many questions for them, because in the first estate, all the questions have been asked, almost. So this is the problem.

Our initial thinking is that Mr Yim, he has worked on two estates, so he can give witness statements on two estates and he needs only to come here once. While the witness statement on Wing Cheong Estate may be provided later and which may not be furnished to the other parties yet, but then, at this stage, there is no party telling me that they have not had the opportunity to see the witness statement on Wing Cheong Estate and they are put in a disadvantaged position. That is not being said here.

Of course, it may work better if we just focus on one estate at one time, but then the same person might have to come here six times.

MR HO: He can read the witness statement on Kai Ching first, and then the counsel representing the subcontractors can ask him questions on Kai Ching Estate, and then he would read out the witness statement on Wing Cheong Estate. So I think that may work.

MR SHIEH: I share the same view. The advantage is that when we are dealing with the witness statement on Kai Ching Estate, say if Paul Y may take the opportunity and the time to get prepared; the same witness may wear different, several hats, maybe the legal team can check on what he says and then the other relevant legal teams may get prepared for the subsequent estates.

C MR PENNICOTT: (In English) Mr Chairman, what's being
D proposed or may be being proposed appears to be a fairly
E fundamental departure from what I think all the parties
F understood to be the position as set out in paragraph 10
G of Mr Shieh's opening of 2 November.

G For my part -- I don't know what everybody else
H feels -- if there is contemplated a fundamental
I departure from that, I would certainly like the
J opportunity of at least a short adjournment to take some
K instructions and think this through. I don't want it to
L be very long but it's a bit difficult here, without any
M solicitors nearby, to try to understand precisely what
N the proposal is.

L One can see some logic in taking estate by estate,
M but as you say, Chairman, it may be easy for those who
N only have one affected estate, but rather more difficult
O for those who have two or more affected estates,
P particularly Yau Lee, as you point out, although I'm not
Q here for Yau Lee, it's a matter for them. But certainly
R I would like a bit of time out, if at all possible, to
S see where this is all going.

R CHAIRMAN: I think Mr Lai and myself have to think through
S this too. Let's take a break for ten minutes.

S (10.15 am)

T (A short adjournment)

C (10.28 am) C

D MR HUI: (In English) Mr Chairman, I do apologise. D

E Daniel Hui from Paul Y. I do add my tuppenny's worth to E
F my learned friend Mr Pennicott's submissions. It would F
G be logical to follow what counsel for the Commission G
H have laid out in the first place, and it would be H
I a fundamental departure to do otherwise. I

J If I may add one, perhaps a small point but J
K significant, point is that there is a timeline involved K
L here in the construction of different estates. The L
M timeline, for example, splits the WHO's guidelines on M
N water 2011, which features significantly. N

O I will stop there, Mr Chairman. O

P CHAIRMAN: In principle, we will follow the procedures P
Q agreed -- we will follow the agreed rules and Q
R procedures. In other words, for the chief architects, R
S we will first summon all chief architects involved. We S
T will deal with them first. T

U Let me put it this way. To some extent, we would U
V summon everyone from the Housing Authority first, before V
we summon the main contractors and subcontractors,
followed by licensed plumbers, et cetera. Then, as we
summon these persons, they would naturally be involved
with different estates. So they would come in batches.

In theory, these persons would give evidence once,

to talk about all the housing estates they are involved in; they would not do it estate by estate.

Of the 11 housing estates, Yau Lee won't be here, say, six times. I understand the benefit of doing it estate by estate, because the evidence given might be clearer. However, I do believe that at the end of the day, each counsel would address the housing estates one by one, so at the end there's no difference, although counsel might have more work to do.

So, in principle, we would follow the agreed rules and procedures.

For Mr Yim Yu Chau, he was involved in Kai Ching Estate and Wing Cheong Estate. He would first talk about Kai Ching Estate, as well as the parts in-chief on Wing Cheong Estate, and then we have the cross-examination. During that stage, if any counsel feel that they received the witness statement late and as such they need more time, then please tell me how much time you would need and then I will decide whether we would ask Mr Yim to come back another day to give his statement on Wing Cheong Estate.

The same applies for the chief building services engineer. Basically, for all HA representatives, if the chief architect is in charge of three housing estates, he would go through all three estates in one go.

I think that applies specifically to Wing Cheong Estate.

MR SHIEH: I have a suggestion, which is a minor variation on what we talked about. I think there's no need to make it too dramatic. There's no dramatic deviation from what we agreed in November. Time is key, and for China State Construction or other contractors, as long as they have enough time to prepare questions on the witness statements, our principle of fairness would be achieved.

The main point of argument is whether we would do it estate by estate for the same witness. As I understand, as the chairman said, for the same witness, he can do it estate by estate.

Let's say for Mr Yim as an example, he was involved in two estates. Let's spare him the trouble of coming here twice, or coming here for two or three straight days. So I suggest a small twist, which is different from what the chairman said. Starting this week, we have received different witness statements from the HA, and to now we do not know the complete picture of the witness statements from the HA. Some of the statements might have been submitted only on Monday.

So, this week, various counsel, especially those from the contractors, might need more time to prepare.

Let's take Mr Yim as an example here. He will talk

about two estates, Kai Ching and Wing Cheong. The chairman asked him to cover both estates in the witness statement and then the different contractors can begin asking questions. I think one alternative is to read the witness statement of Kai Ching Estate first and then have counsel from the contractors, for example from China State, and the witness won't have to read out the part on Wing Cheong Estate first, and the counsel from Paul Y can monitor the screen. Then they would be happier, because the parts that concern them would not be read out that soon, and next week, by the time we have all the witness statements, we can do as the chairman suggested, and all relevant statements from the same witness can be read out in-chief.

So, for this part, Mr Ho can read out the witness statement on Kai Ching Estate by Mr Yim first, because everyone has prepared for that part. So for Mr Hui from Paul Y, he can ask questions on Monday, so let's not make it too dramatic. There's no fundamental departure.

COMMISSIONER LAI: That indeed works, we feel, as well.

CHAIRMAN: Any questions? If not, let's begin.

Mr Yim. Please come forward.

MR YIM YU CHAU (sworn)

(All answers via interpreter unless otherwise indicated)

CHAIRMAN: Please be seated.

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C MR YIN: Chairman, as I understand, according to the C

D instructions given by the Commission, although Mr Yim D

E has given witness statements on both Kai Ching Estate E

F and Wing Cheong Estate, the first part is on Kai Ching F

G Estate, so I will read the part only on Kai Ching G

H Estate. H

I CHAIRMAN: I would like to know, for Wing Cheong Estate, I

J Paul Y was the main contractor; right? J

K Mr Hui, is he still here? Never mind, let's K

L continue. L

M Examination-in-chief by MR YIN M

N MR YIN: (In English) This is the witness statement of N

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

P (Paragraphs 1 to 83 were read in English) P

Q CHAIRMAN: Anything to raise? Q

R MR YIN: Nothing. R

S MR SHIEH: Shall we have a break or shall I continue? S

T CHAIRMAN: Let's have a 10-minute break, or 15 minutes, T

U rather. U

V (11.44 am) V

(A short adjournment)

(12.02 pm)

R Cross-examination by MR SHIEH R

S MR SHIEH: Mr Yim, good morning. I have some questions for S

T you with regard to your witness statement. T

U

V

First of all, about definitions, let's refer to paragraph 18, page 37704. You were talking about the site inspection team.

A. Yes.

Q. You said that they conducted periodic and random checks at the site, and you said that there were two teams.

One is called the building works team, the other is building services team. Well, as an outsider, we are not very sure about what you mean by building works and building services.

Now, the building works team will examine the builders' works, requirements for building services works, and then in (b) the building services team inspected building services installation works.

So what are the meanings of these two -- can you give us some examples?

A. Building works is about -- in superstructure there is concreting right to the top floor. Also finishing is also considered building works.

As for building services, in the contracts, there are nominated subcontractors. We have fire services and water pumps nominated subcontractor. Water pumps have to be installed within the plumbing systems. So we need the building services Colleagues to support us in those works. Will that suffice?

Q. Yes, I've got it now. You talk about, say, concreting foundation and also the structure of the building.

Well, using laymen terms, we are talking about concreting works for the blocks, so that will come under team A.

Now, for building services team, you are talking about building services, plumbing systems, and so on?

A. Yes.

CHAIRMAN: Water pipes is building works team's responsibility, pumps are building services team's responsibility; right?

MR SHIEH: Why is there such a distinction?

A. This has to do with the division of work within the department. All along, with regard to building works, they would cover the water pipes. The water pipes do not require the professional input of a lot of engineers. Not a lot of professional expertise is required in plumbing installations. So, for water pipes, we look at the materials, the alignment, the dimensions, to see whether they match the approved plans. So the building works Colleagues can cope with this.

Now, if we are talking about pumps and also valves associated to the pumps, we need the building services Colleagues to look at those.

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C Q. Thank you. Let's move on to page 37709, paragraph 32. C

D That has to do with the plumbing installations. We know D

E that the WSD has a number of forms, various forms. E

F A. Yes. F

G Q. In paragraph 32, you said that before commencement of G

H plumbing installation, the licensed plumber must H

I complete form No. WWO46. After that's done it will be I

J handed over to China State, the main contractor, and J

K then will be signed by the contract manager, yourself? K

L A. Well, at that time, it was not myself who was the L

M contract manager. M

N Q. That was the chief architect at that time. N

O A. Yes. O

P Q. The relevant chief architect would sign the form. P

Q Can I refer you to page 37807, and a document for Q

R March 2011. This is WWO46; right? R

S A. Yes, correct. S

T Q. Let's look at the left bottom corner, that is the T

U licensed plumber; and on the right is the authorised U

V person. Now, of course, the concept of authorised V

person doesn't exist in a public housing estate, so at

that time it was the chief architect. It was not you at

that time. You joined the project in 2012 only. So

that was signed in March 2011.

Let's look at the purpose of submission,

paragraph 2. The boxes have not been ticked.

(In English) "We hereby notify that the plumbing works detailed above will be commenced on ..."

(In English) "We certify that the pipes and fittings installed/intended to be installed, including those as listed on the attached annex ... are as prescribed by the Waterworks Regulations."

We have heard this remark. The plumbing works or the pipeworks will be carried out at a relatively late stage with regard to the construction works. But as soon as the construction works of the building commenced, this WWO46 form will be filled out and submitted; is that right?

A. Yes.

Q. So they may be notifying the WSD well in advance, before the plumbing works are carried out; is that right?

A. Yes.

Q. On page 37807 or 808, that is this table, titled "Pipes and fittings installed", and this is the annex and these pipes fittings are reported to the WSD.

Now, in this annex, there is a separate piece of notes which we will take a look at later on. For that piece of notes, it specifies that the details to be provided in relation to the pipes and fittings were details that should be given to the fittings. So solder

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C materials don't need to be reported here, that's C

D a requirement of the WSD; is that right? D

E A. Yes. E

F Q. As regards the purpose of submission, it says that the F

G licensed plumber and also the AP must certify that the G

H pipes and fittings to be installed will be meet with the H

I requirements of the Waterworks Ordinance, and the I

J WWO says that the BS standards will have to be met. You J

K know about this requirement? K

L A. Yes, I do. L

M Q. Let's not go into the details of the BS requirements. M

N One of them actually has to do with solder. It doesn't N

O use the word "solder" as such, but anyway, there is O

P a clause saying that no lead materials should be used in P

Q the pipes and fittings. This is not signed by yourself, Q

R but I'm sure that you have signed many documents of R

S a similar nature which include this clause. S

T So when you signed on this document, what made you T

U think that you believe that the plumbing works to be U

V installed will meet with the Waterworks Ordinance, V

Q especially in relation to the lead-free requirement of

R all the materials?

S A. If we have to fill out this form for any project, the

T licensed plumber will first have to fill out all the

U information, and, as what you said just now, this will

V

be done at an early stage. And for the HA, our requirement is that we would not be specifying the brand name of the materials to be used.

So this licensed plumber, when he submitted this document or form, there is a total of 25 materials listed. Well, they've got all the brand names there. In fact, when he provided the form, as a general practice, at an early stage, before they submitted the materials to us for vetting, so these are the materials intended to be installed or used.

As what you said just now, there is no specific clause on solder, and the Water Authority doesn't require the solder materials to be listed here. But I am sure that under our contract, our requirement is clear, and it's that the materials are lead-free, the solder materials are lead-free.

So this is the kind of standard requirement which we adopt.

Q. But then you weren't even aware of the kind of materials the licensed plumber would use. The plumber might know roughly what kind of materials to be used, but then, at this early stage, when the signature was given, you were not aware of exactly the kind of soldering materials to be used; right?

A. Yes. When the main contractor signed the contract with

the HA, all materials they use should comply with the requirement of the contract. So since our requirement is that lead-free solder materials should be used, so naturally, when they submit this form, they should meet with that particular requirement. And also our contract sets out clearly, they have to be meeting with the statutory requirements.

Q. So you are just putting your trust in them. So, as long as there is a requirement in this contract and there is no specification in this form, then you trust them, and that's it; right?

A. Yes.

Q. Let me show you another document, and that is a position paper from the Hong Kong Institution of Engineers. Well, this is not a report but rather a sort of submission or position paper, setting out its position on the lead in water incident. It's already been included in our bundle, and the page number is 66, but the bundle number is G. Bundle U, page 1. That is from the Hong Kong Institution of Engineers. Let's show it on the computer screen.

Let's first take a look at page 3 of this bundle. The first page is about the report, study of the HKIE. This was a report submitted by the HKIE to the COI. Of course, they haven't actually collected evidence or

asked the witnesses, but they are setting out their positions in relation to their principles, in relation to the technical aspects and also the monitoring aspects, so they've given us some views.

Can I refer you to paragraph 269. The monitoring of the licensed plumbers and the forms are mentioned there. Paragraph 269, page 66. The HKIE has this view, in relation to form WWO46 part I, which we just took a look at just now, the AP, presumably it must be the Housing Department, when they put their signature to it they should be aware of the design and component details of the project submitted for approval.

Again:

"Equally, in affixing a signature on part II", which we will take a look at later on, the signee, ie the AP, should also be well aware on the design and component details for the project.

On this remark, what's your response? What do you make of it? You should be well aware of the component details before you sign on the form.

A. Yes, I think --

Q. Well, there is no right or wrong to this kind of comment, but I would just like to know your views on this.

A. Just on this paragraph, 269 -- it's the first time

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C I took a look at this paragraph. For public housing C
D estate projects of the HD, as I have said just now, we D
E would not give out our specify any brands; we would E
F adopt a performance-based approach. F

G So, in the specifications, we would put an emphasis G
H on the materials. For example, the pipes, the H
I dimensions, the water-tightness, the flow rate or the I
J pressure resistance level. So when part I is submitted, J
K it's true that our Colleagues should be very familiar K
L with the approved plans of the Water Authority, how the L
M system should work. But when it comes to the individual M
N components and individual water pipes, as long as the N
O performance meets with the specifications, then at that O
P stage we would find it okay, and then we would wait for P
Q the main contractor or the contractor to submit the Q
R proposals. R

S Actually, there are different types of products from S
T the same brand which can meet with the specifications. T
U Q. So you are not aware of the brand but you are not even U
V aware of the type of material to be used. Now, in the V
annex there are a dozen or so materials and you are
aware of them, but then solder is not included and you
were not aware of what soldering materials would be
used?

A. As I said, in the contract, it is set out clearly that

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C lead-free soldering materials should be used. If that C
D is the case, we would not put any restriction on the D
E type of soldering materials, but it must be lead-free E
F soldering materials. F

G MR HO: Can I interrupt a bit here? The line of G
H questioning, the basis of his question is paragraph 229 H
I of the HKIE, and that has to do with form 046 and the I
J materials submitted for approval, the annex. J

K He is not saying that all the materials need to be K
L submitted for approval. So I think Mr Shieh's question L
M goes beyond this paragraph. M

N MR SHIEH: I think this is one perspective, but then another N
O perspective is that it should be list submitted for O
P approval includes everything to be used for the project P
Q or just some of it? As I said, this is just a comment. Q
R The interpretation is another issue altogether. R

S Let's now move on to another topic. Just now, we S
T looked at the annex of WWO46 and the list of components T
U and the list is for the Water Supplies Department. U

V A. Right. V

Q. It was submitted to the WSD very early in the Q
R construction; right? According to Ms Fung, the normal R
S practice is that the list in the annex would be S
T submitted early on during the construction, and it is T
U a preliminary list of components to be used, and one U
V

year or two years later they might decide to do something else and there could be amendments. If such amendments are minor then the licensed plumber would deal with the Water Supplies Department directly.

So exchanges with the WSD are involved. As the employer, as the unit responsible for commissioning a main contractor, the HA must be aware of the materials or components to be used. That's in accordance with what you said. It has no connection with the list submitted to the WSD; is that correct?

A. Let me put it this way. In administering the entire contract, we deal with the main contractor. The main contractor hires licensed plumbers, and according to the Waterworks Rules and Regulations, the licensed plumber would be monitored or regulated, and the licensed plumber must sign on the form, or alternatively the AP must sign on the form.

So, such issues are to be dealt with between the LP and the Water Authority. The LP and the Water Authority have to deal with one another to fulfil the Waterworks Regulations. Of course, we must be aware, but mainly the LP and Water Authority would work with each other. The WSD would look at the list of materials or components, to make sure that they satisfy our contractual requirements. So both go hand in hand.

Q. Let me give you a concrete example. WWO form 46 was submitted early on and dozens of components or parts were listed, and some brand names were given. As you said, this issue is to be dealt with by the Water Authority, but on the other hand, in terms of the construction projects, before the works begin, the main contractor must seek approval under PLU2. PLU1 is not mandatory, but in many cases it would be submitted as well.

A. Let me give more on PLU1. PLU1 is the sample that does not have to be submitted.

Q. Sample does not have to be submitted; right?

A. Yes. But very often, materials in PLU1 do not have to be submitted, but in many cases, we would require test reports in order to fulfil the requirements. This is a contractual requirement for PLU1.

Q. So the difference between PLU1 and PLU2 is that for PLU1, actual samples do not have to be submitted but then test certificates must be produced, to prove their chemical composition, et cetera.

In vetting the samples or submissions, according to contractual requirements, it has no relation with the list in the annex of form 46. What I am saying is the list might list certain materials, but the actual materials used might be different because there might be

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C a change of mind, so in vetting the application, the HD C
would not check the initial form submitted?

D A. Correct. D

E Q. Whether or not -- well, it's the work of the licensed E
F plumber, if he wishes to amend the list on form 46 F
later.

G For this case, 33 is about the general procedures on G
H PLU1, PLU2, and what needs to be submitted to the H
contract manager.

I Let's look at paragraph 54, and the submissions I
J related to this case with regard to solder, Fry 99C, J
K lead-free solder is use. We are looking at K
paragraph 54. Page 37716.

L A. Thank you. Paragraph 54, yes. L

M Q. Here you said that in this contract, the list of M
N materials is listed. China State proposed to use Fry N
99C, that's the materials proposed by the main
O contractor, which is Fry 99C lead-free solder. O

P Now, let's look at the actual document, 37811. This P
is the sample submission approval form; right?

Q A. Yes. Q

R Q. This is a sample submission form, but as you said, R
actually according to PLU1, no actual sample of the
S solder must be submitted? S

T A. But nonetheless they did submit a sample. T

U

V

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C Q. Let's go down, under material description "Fry" -- you C
D can see the brand name "Fry". For the actual sample of D
E solder submitted, would you actually go and check for E
F its chemical composition? F
G A. No, we won't. G
H Q. So you will just keep the sample for record? H
I A. According to page 37814, we have an approval label. The I
J label would be affixed on the approved sample and it J
K would be locked in the room containing the approved K
L samples. L
M Q. As you mentioned in paragraph 55; right? You would fix M
N the label in the sample room for record, and afterwards N
O it would be disposed or processed; you won't retain the O
P sample, right? P
Q A. Yes, we won't keep it afterwards. Q
R Q. For PLU2, actual samples must be submitted, and are you R
S going to conduct tests? S
T A. No, we won't conduct tests. For PLU2, the reason T
U requiring them to submit samples for wash basins, U
V toilets, and so on, there are different models, Colours, V
textures. So, under the same performance standards, Q
different models are possible. So they can choose which R
models they want to use and, as such, they have to S
submit samples for test reports and so on. The T
requirements are saying the source of PLU1. If there's U
V

any suspicion, we might carry out tests.

Q. For paragraph 36, on the plumbing installation, the layout of plumbing -- this is just background information but it might help us understand the big picture. I will ask some questions of the overall layout later on.

Under paragraph 36, you said: as with other HD projects, the plumbing installation of this project, on Kai Ching Estate, comprises two parts, an up-feed system and a down-feed system.

Let me show you a diagram. B1/14. You can see a diagram here. According to paragraph 36 of your witness statement, you mentioned an up-feed system. Can you see that? So the up-feed system is denoted by the blue parts on page 14. After crossing the lot boundary, the system will go through some meters. Let's not go into the details.

So, in other words, it will go up to the rooftop water tank, and it will pass through multiple pumps and storeys. So that's the part in blue; right?

A. Yes.

Q. In the fifth line, you mentioned "exposed ductile iron piping mounted on the external wall". In other words, ductile iron piping mounted on the external wall, so that part is exposed to weather; right? And you

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C mentioned "or in pipe ducts", so, alternatively, the C

D pipes can be hidden in the pipe ducts. D

E You mentioned that the second part was a down-feed E

F system. Let's look at page 15. The part in orange F

G pointing downwards, so it would pass through each floor G

H into each unit, or different units. So some pipes would H

I extend horizontally at different storeys. And the I

J copper pipes would extend from the roof water tank to J

K water meter rooms of each domestic floor, including K

L booster pump rooms, and you said the pipework was L

M surface-mounted to facilitate future maintenance. What M

N does it mean by surface-mounted and how would it N

O facilitate future maintenance? O

P A. By surface-mounted, it means that all the pipes are P

Q exposed outside, and the pipes would pass through Q

R certain fixtures, fixture brackets, and the brackets R

S would extend from the rooftop. S

T Q. So, in other words, the pipes would be exposed? They T

U wouldn't be hidden, so-called. U

V In paragraph 37, you mention that for part of the V

contract, China State was allowed or even obliged to

adopt prefabricated parts, including a precast bathroom

and kitchen. I understand that precast components were

no longer used for other subsequent projects. I'm not

saying that there is an issue with the precast

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C	components, but if there is an issue, it's limited to	C
	Kai Ching Estate; right?	
D	A. Yes.	D
E	Q. Can you briefly explain the concept of precast	E
	components? Does it include all the parts in the	
F	bathroom, such as the shower, wash basins, and so on?	F
	Are all the parts precast? Were they transported to	
G	Hong Kong and installed in the bathroom?	G
H	A. For the precast bathroom and kitchen, it's like a box,	H
	basically, or a cube. The entire -- well, we have two	
I	separate cubes for the bathroom and kitchen. They were	I
	precast in the factory, including tiles, wall tiles, and	
J	so on. So that's all for our requirements. At the	J
	construction phase, outside of the contractual	
K	requirements, they told us that since the cubes were	K
	already finished, could the piping and sanitarywares be	
L	pre-fitted as well; that was their recommendation. So	L
	originally the precast bathroom and kitchen only	
M	included the finishings and the exterior.	M
	Q. So the plan was to precast the so-called cubes before	
N	they arrived in Hong Kong and some spaces would be	N
	reserved for internal structures. But then, China State	
O	suggested that pipes would also be included or precast,	O
	so that applies to bathrooms and kitchens; right?	
P	A. Yes. But these pipes would only apply to the bathroom	P
Q		Q
R		R
S		S
T		T
U		U
V		V

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C and kitchen. In other words, once they arrived in C

D Hong Kong, the connections would have to be made. D

E Q. So, for the part in orange, the main parts cannot be E

F precast; right? F

G A. Yes. G

H Q. After slotting in the precast cubes, you have to make H

I the connections between both; the bathroom pipes must be I

J connected with the mains, right? J

K A. Yes. K

L Q. These precast pipes were made in the mainland; right? L

M A. Yes. M

N Q. For these precast parts, if any connections have to be N

O made -- I understand that the pipes have to be connected O

P with the main building, and the workers who connect P

Q those pipes are not workers with the Hong Kong licence Q

R or with a licence obtained in Hong Kong? R

S A. China State wanted our approval for their suggestion, S

T and in considering the proposal, we have vetted the T

U details of the proposal, and in our reply letter we U

V stated that we would accept the recommendation. But all V

contractual requirements must be satisfied. This

includes all statutory requirements and contractual

requirements. So both must be considered. If both are

satisfied, we would allow them to do so.

Q. I asked the same question to Ms Fung but I would put the

same question to you again. According to the Waterworks Ordinance, section 15 -- bundle C2, page 1142 -- I am referring to section 15 of 1149.

Section 15, "Construction, et cetera by licensed plumbers", it is mentioned that subject to subsection (2). So apart from subsection (2), no inside service shall be constructed by a person other than a licensed plumber or public officer authorised by the Water Authority.

Now, according to the wording, I don't wish to go into the detailed interpretation with you -- from the wording, it says "no fire service or inside service shall be constructed ... other than a licensed plumber or a public officer authorised". So let's not consider public officer; it must be done by a licensed plumber or Mr Lam Tak Sum himself.

If this is a true interpretation of the law, it means that the implication is some people would have a big headache, but if WSD's interpretation of this requirement is that the licensed plumber doesn't have to do everything himself, he can just supervise, so you rely on the licensed plumber to supervise the work, whoever who really does the work, he would be supervised?

A. Well, under the Waterworks legislation, the regulation

of licensed plumber is very strict. If the licensed plumber fails to meet with any requirement, the Water Authority can punish him. So we believe, we do believe, that the licensed plumber would do whatever is required of him.

Q. So this is the wording. But do you think that Mr Lam would actually go to the factory to supervise the precasting and the soldering? Well, if the factory is in the mainland, do you expect him to do this?

A. Well, this is how I assess the situation here. The HA -- it's about the relationship between the HA and the licensed plumber. Basically, there's nothing contractual, there's no contractual relationship.

Q. Well, the licence is granted by the WSD; correct?

A. So we are mainly dealing with the main contractor. The contract is between us and the main contractor, and the main contractor can make proposals. For example, they would like to use the factory on the mainland, which is responsible for precasting the toilet and the kitchen, they would suggest that they would like to do the piping as well. So when you said that this can be done, provided that the contractual requirements and statutory requirements can be met, this is not something in the contract. This is a result of their proposal.

So we have repeatedly just stated that the

requirements have to be met. If there is such a requirement in the Waterworks legislation on supervision, then the main contractor will have to deal with this requirement.

Q. There's no direct dealing with the licensed plumber. Well, if they license the plumber and the department also issues a circular that the licensed plumber can just supervise the works, how can Mr Lam fulfil this? It is a question for the department to answer.

Let's go to 37792.

It's about the HA's contract, clause 66. According to your specification, there are certain standard clauses, specification library 2008 edition, which apply to Kai Ching Estate; right?

A. Correct.

Q. It states here: the plumbers, "combined percentage for skilled and semi-skilled trade tested workers (plumber) was 100 per cent".

Under Hong Kong law, according to the Construction Workers Registration Ordinance, for different trades there are different definitions, who are called skilled workers or registered skilled workers or semi-skilled workers. You have to be better as a skilled worker. A semi-skilled worker is not as skilled, but you are somewhat skilled.

We don't have to go to the specifics about plumbers.
If you want to be a skilled plumber, there may be three
ways to do it. If you want to be a semi-skilled one,
you may have to prove certain things.

So, basically, that's the requirement; right?

A. Yes.

Q. For a worker, you can only use 15 per cent of
semi-skilled workers, the maximum percentage was
15 per cent for semi-skilled workers, so you need to use
skilled workers and for that you cannot use those with
lower skills. At least 85 per cent must be skilled and
not semi-skilled workers. And the skilled workers has
a definition. You have to hold certain certificate and
meet certain requirements.

Right?

A. Correct.

Q. The workers in the factory on the mainland, they are
mainland workers. How can you make sure that this is
complied with? This is a contractual requirement;
correct?

A. Correct, this is a contractual requirement.

At that time, I was not the chief architect. I have
checked the records and I have talked to my Colleagues.
This requirement, we got some information back from
China State, and they said they also sent workers to

work on the mainland.

CHAIRMAN: To work on the mainland? They send workers?

A. To work on the mainland. I am talking about water pipes, plumbing.

MR SHIEH: So those were semi-skilled workers or skilled workers from Hong Kong, they would be, so to speak, shipped to China, to mainland China to work?

A. That's not my personal observation, but you may wish to put the question to the main contractor.

Q. So that's what you have ascertained from your Colleagues. At the time, your Colleagues who were responsible for this told you that they would send workers to work on the mainland, but these workers were skilled or semi-skilled workers from Hong Kong, so they would use a car or something and take them to work?

A. You may wish to ask this question of the main contractor.

Q. Let's now jump to 37712. Let's fast-forward. The pipe system has been completed and you have a lot of forms to fill in: 46, 132, and so on and so forth.

I want to ask you this question. Let's disregard the forms. I have a general question for you. You know, after it's done, after the plumbing is done, you fill in the forms to certify that everything has been done, and then the WSD would connect the mains and

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C supply water. Before that, would the department test C
D water for the eight parameters? You do remember the D
E eight parameters, don't you? E

F For the eight parameters, actually it's listed in F
G a circular. It's number 2/2012, WSD Circular Letter. G
H You took over this project in 2012, as I understand it. H
I That is to say that when you took over, the circular -- I
J was the circular in effect yet? J

K A. If my memory serves me right, I took over in September K
L as CA for Kai Ching Estate. It's dated August -- this L
M circular letter was dated August. M
N Q. So, when you took over, it should have just come into N
O effect. O

P Let's look at the timeline. Paragraph 43. You say: P
Q according to records, when the WSD tested the water Q
R sample, the date was 30 January 2013, according to your R
S records. And that's done in accordance with WSD S
T Circular Letter No. 2/2012, and then they tested the T
U water in regard to the eight parameters, and the results U
V were satisfactory. V

Q Can you remember when the pipes were connected for Q
R Kai Ching Estate? Can you get some clues from your R
S paragraph 42? S
T A. For example -- T
U Q. The permit 1005 was given in April and June. U
V

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C A. That is 1005, in short, 16 April. C

D Q. So when would the pipes be formally, so to speak, D
connected? I think it's before the permit was issued.

E A. Well, that's between March and June. E

F Q. 1005 is the certification of the completion and then you F
would be given a form, 1005.

G Let's look at the wordings. 37802 is relevant. G

H It's shown on the screen for you. It's so-called the H
permit:

I "I ... certify ... a permanent connection ... of I
J filtered water from the Waterworks for the purposes J
K of ... has been made ..." K

L It's March -- which date? L

M A. 20 March. M

N Q. Between the inspection and the issuance of 1005. At N
O some point in between, the connection was made. O

P The samples were taken in January, as you state in P
Q the previous paragraph, 43. Q

R A. Yes. R

S Q. Let's don't look at the details of the regulation. If S
T you look at the circular, it says the connection must be T
U made within seven days. U

V A. Yes. V

Q. So, on 30 January, the samples were taken, and then the S
T connection was actually made in March, from March to T

U

V

June. So it was a few months after the samples were taken. You know what I mean?

A. Yes.

Q. Why did it happen?

A. We submitted the forms to the Water Authority first, and then they came onto the site to test the water. All along, it was something between the licensed plumber and the Water Authority. For this project, according to our records, on 30 January the Water Authority, through the licensed plumber, came to the site and they took samples from the mains.

Q. Please pause. So the arrangement for the WSD to take samples for testing, it didn't involve the Housing Authority. Did you have someone there to oversee it?

A. No. The general practice is that the licensed plumber would have to deal with it. If the Water Authority wants to inspect the site on a certain date, the licensed plumber will be informed. But sometimes it's something discussed and agreed between the two parties, the licensed plumber and the Water Authority. Sometimes the date is proposed by the Water Authority.

According to our records, we were informed later by the licensed plumber that in March, I think it's 14 March, and 9 April there were other water samples taken by the Water Authority. That's what I know.

Q. There's only one test result, one permit for a test.

A. I know that. But what I told you is from our records.

Q. Well, there's a document, page 37799, which is part of your statement. Let's look at page 37799. It may be "much ado about nothing", as Shakespeare says, but if we look at the document, as since you have presented this document, there's only one, concerning WSD tests for the eight parameters. Do you have another one? If so, please produce them.

A. When I prepared this witness statement, I had this.

After I submitted the witness statement -- and I am talking about be the two other days, 14 March and 9 April -- I subsequently knew that there was such sampling exercise. It's mentioned by the licensed plumber's statement that on those two days, water samples were also taken, and that's why, in our own file, we have been able to trace the documents.

We knew about the arrangements, but the details were worked out between the licensed plumber and the Water Authority.

Q. Do we have any test report that we are not aware of now?

A. I don't have any test reports.

Q. So there may be another appointment made but you don't know whether the appointment, on the appointment date, they did come or not?

Let's look at 37799. It's a report dated 4 February 2013. They tested on the eight parameters and the results were satisfactory. The sample was taken on 30 January?

A. Correct.

Q. If we look just at this date, 30 January, and the permit dated 16 April, the certificate issued by the WSD. If the test date and the connection date are separated by more than two or up to three months, there's a big risk -- it may not have to do with lead, it may have to do with water safety -- you have tested the water, you have washed very cleanly the system, the water supply system, but in between, before March and June, there could be problems again?

You understand what I am driving at?

A. I do. The whole water testing procedure is done in accordance with the WSD's requirements and we will comply with the requirements. We would just fix the date for the test with the licensed plumber. Of course, the licensed plumber would have to comply with the submission of form requirements under the law and to ask the Water Authority to come to take samples at the specified locations.

So we would follow all the requirements of the Water Authority, but of course, if you look at the records, we

know that there were samples taken. On 30 January, we knew that there were dealings between the licensed plumber and the Water Authority, and the question is why a few months elapsed in between the two parts of the process.

As the contract manager or as the representative of the project owner, to us, the Water Authority did take the samples, and the results were to the satisfaction of the Water Authority. We also knew that the licensed plumber had to do whatever was required of him.

So we had reason to believe that if the WSD was willing to supply water, things should have been done to his satisfaction.

Q. It may not be a very major issue, but I think it would be better if we have a more updated water test report.

Can I refer you to page 37560, paragraph 15.1. This is the 2012 circular; can you see that? This is a set of guidelines. And before that circular in 2012, it's not that there was no testing in accordance with the parameters, but there was an earlier circular relating to water sampling.

But then, in 2012, there was an updating of the circular. Let's take a look at paragraph 1. Under the provision of Waterworks Regulation 7, a consumer or the agent shall be responsible for keeping an inside service

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C clean. C

D (In English) "To this end, the consumer or agent D

E concerned shall clean and disinfect a newly installed E

F fresh water inside service before it is given a supply F

G from the Water Supplies Department." G

H Well, he has to disinfect the inside service before H

I getting the water connection or supply. I

J Then there are a set of guidelines for how to clean J

K and disinfect the water system. K

L Let's take a look at subparagraph (3), towards the L

M very bottom. That is to arrange with the Water M

N Authority to COLlect samples at representative sampling N

O points as agreed by the Water Authority for O

P bacteriological and chemical analysis. The test P

Q parameters are in the annex, and these are the eight Q

R parameters. R

S Paragraph (4): S

T "To avoid possible contamination, the fresh water T

U mains concerned shall be put into operation within U

V 7 days from the successful disinfection." V

So the right approach is that after disinfection is done, ask the Water Authority to test the water, and then, once that is acceptable, please connect the water in seven days or else the germs and bacteria will grow again. This is the thinking behind this clause. So

this is how the flow should work.

Now, according to what you said, just going by the document, there was testing at the end of January and then a connection. Water connection only took place in March and April. So there is a big time gap in between. So the WSD gave you the connection, and should be satisfied that there was evidence that there were proper tests. But then the old document that we had in relation to the water test was on 30 January.

A. Yes. But then indirectly we heard that water tests were done some other days.

According to our documentation, at the end of March and also mid-April the WSD had, together with the licensed plumber, gone down to the site again, and the licensed plumber also gave a witness statement saying that on 14 March and 9 April, water sampling was also done.

So we have to further ascertain that we don't have the relevant documents right in front of us, at hand.

Q. But then were you there personally when they did the water sampling?

A. No, I wasn't there.

Q. Do you know that the water sampling was done within the lot boundary at specified points, locations, within the lot boundary? That was done before the up-feed or the

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C up-link of the water. There was no water sampling in C
the down-link system?

D A. Well, as far as I can understand, no, that was not done. D

E Q. So if we did water sampling, no matter how many E
F parameters we are talking about, we are just testing the F
G water at the down-link system, I mean at the up-link G
H system, so if there is a problem with the down-link H
I system, you wouldn't be able to identify that; right? I
Well, even if there was lead in the down-link system,
J you wouldn't be able to test that; right? J

K A. Yes. Agree. K

L CHAIRMAN: Hearing adjourned until 2.30 pm. L
(1.05 pm)

M (The luncheon adjournment) M
(2.33 pm)

N MR SHIEH: Mr Yim, before we broke for lunch, we talked N
O about the WSD's tests of water. Is it the case that you O
P want to add something? P

Q A. Yes. There are two points. First, over lunchtime Q
R I checked my records again, and it should be 12 March R
S and 9 April, and that is the WSD issued a test report to S
T the licensed plumber. T

U Q. Can I refer you to the Q1 in the bundle. U

V A. Yes. Can I say the second thing? Before lunch, you V
asked me, as consumers, we should keep the entire system

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C	clean or the inside system. Now, after the occupation	C
D	permit was issued, from the end of July and early	D
E	August, we conducted some tests of water samples.	E
F	Q. What do you mean by "we"?	F
G	A. The Housing Department. We did water tests based on the	G
H	eight parameters, but it's just that in my witness	H
I	statement, it didn't mention that.	I
J	Q. After the occupation permit was issued, the HD was	J
K	engaging some lab to do that, so you were testing the	K
L	water based on the eight parameters?	L
M	A. Yes, we arranged for that to be done through China State	M
N	Construction.	N
O	Q. You were testing water samples from the downstream	O
P	system? Well, taking samples from all the six blocks?	P
Q	A. Yes, and also at -- both at the upper floors and the	Q
R	lower floors.	R
S	Q. But then this is not a statutory requirement; right?	S
T	A. Yes.	T
U	Q. It was just an initiative of the HD's; right? You just	U
V	want to make sure that the quality of the water was	V
	acceptable?	
	A. Before we did the water sampling, we planned the water	
	system, we wanted to prevent Legionnaires' disease.	
	Q. That was before the people moved in.	
	A. Yes, exactly. We wanted to do it at that time. Before	

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C they moved in, we wanted to cleanse the water and make C
D sure that everything is okay. D

E Q. So that is based on the eight parameters; right? E

F A. Yes. F

G Q. Okay. Let's look at Q1, pages 21 and 22. There are two G
H test reports of the WSD, water tests, and that is H
I included in Lam Tak Sum's, the licensed plumber's, I
J witness statement. As what you said, the water sample J
K was taken on 12 March and then the test results were out K
L on 13 March. The date analysis was completed was L
M 12 March. On page 21, that was to do with the water M
N sampling on 9 April. So the test results were shown on N
O 10 April. O

P So, from what you can recollect, these are the two P
Q extra water tests done; right? Q

R A. Yes. R

S Q. So these reports were not included in the files of the S
T HD. So that's why, when you compiled the witness T
U statement, you only included the report that you U
V included. How come there were -- these documents were V
floating all around? Was it a haphazard situation and
you were just given whatever you were given, and that's
it?

A. As I said, the WA and the LP, whether they submitted
forms and whether they did water sampling exercises, at

what locations, it was all a matter between the WSD and the LP. We need to be notified, of course. We found it surprising that these two tests were done.

Normally, when WSD has a water examination report, it would be handed directly to the LP, and generally speaking, the LP had to hand in the report to the main contractor, and the main contractor would pass it on to the HA for our records.

So these are two reports which have not been submitted to us, and why was that the case? We didn't know.

Q. So, according to -- well, is it the case that in your internal procedure, all these reports have to be submitted to you?

A. Well, as a general practice, such reports should be submitted to us.

Q. Another question. Earlier on, we have looked at this. There are so many water test reports. Some were done by WSD based on the eight parameters, and some were done by private labs. For those done by private labs, I'm not going to go through the test reports with you. Other counsel may have questions for you in that regard.

But generally speaking, if, say, in some cases, after the occupation permit was issued and water connection was done, and water tests were done by

private labs, sometimes it may be that water tests may be done at the HA's own initiative. Would it be the contractors which are commissioning such water tests, such private tests, or is it the HA?

A. Well, it will be the main contractor.

Q. So maybe upon your request the main contractor would do extra tests?

A. Yes. They have to do it through accredited labs.

Q. They are responsible for cleaning and disinfecting the water system and then they will do the water tests and then submit to you the water test reports, to satisfy certain requirements of the HA?

A. Well, the tests have to be conducted in compliance with the WA's requirements.

Q. So these are done on the own initiative of the HA as a non-statutory exercise, so to speak.

Can I refer you to page 37712 -- we have looked at that before -- paragraph 42.

I would like to have some follow-up questions for you on this. Paragraph 42, it says, having completed the plumbing installation works, part IV of form WW046 has to be filled out.

The fourth line:

"With the advice from the CM's representatives that the plumbing installation, were satisfactorily completed

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C	... I signed part IV of the form WWO46 ..."	C
D	With advice from the CM's representative, they should be Colleagues from the HD; right?	D
E	A. Yes.	E
F	Q. Then they told you that the plumbing installation was satisfactorily completed. So on what basis or on what	F
G	yardstick would they say that the system has been	G
H	satisfactorily completed?	H
I	A. With regard to part IV of WWO46, on the form, for the part to be signed by us, we would mainly confirm the	I
J	correctness of the meter position.	J
K	Q. That has to do with 37792 and 37793.	K
L	A. Yes.	L
M	Q. That's part IV of form 46. So after the works have been completed, then the licensed plumber would sign, and	M
N	then the applicant and the authorised persons will also separately have to sign. Well, this is a minor point.	N
O	For the AP and the applicant, the parts to be signed by them, this is merely to confirm that the position of	O
P	the meter is correct?	P
Q	A. Yes.	Q
R	Q. So this has to do with merely the positions of the meters. Why is the positioning of the meter so	R
S	important within the entire system?	S
T	A. The Water Authority designed this form. There are three	T
U		U
V		V

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C parts. The first part, as you said, is that it requires C

D the licensed plumber to confirm that the plumbing system D

E installation has been completed, and for this same form, E

F the WA has to actually go down to the site to make F

G an inspection. The wordings may be a little bit small G

H here. H

I With regard to the WWO and WWR, as I said in the I

J morning, the licensed plumber has all along been under J

K the supervision of the WA. In other words, he is K

L obliged to, upon completion of the installation of the L

M plumbing system, declare so, and that the system is in M

N compliance with the regulations. So he is asking the WA N

O to make an inspection of the completing system. O

P In other words, the LP is satisfied that the P

Q installation is completed. Q

R Q. Although this is not categorically as set out in the R

S form. S

T A. Right. T

U Q. So I am asking you to comment and inspect, that means U

V that the installation has been to my satisfaction. V

Q. That last phrase is not included categorically in the Q

R form. Then you can imagine that if the WA is asked to R

S come and inspect the system on the site, and if S

T non-compliance is found during inspection of the WSD, T

U then the licensed plumber will be penalised and points U

V

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C will be deducted from him. C

D So, if this is the understanding, if he declared D

E here that he had completed the work, what he meant in E

F effect is he has already taken a look at the entire F

G system and made sure it's completed, or else he will be G

H penalised. H

I Q. You mean the first sentence under part IV? I

J A. Yes, that's our understanding. J

K Q. Once the form is signed, you are inviting WA to inspect K

L and then if it's found not to be okay, the licensed L

M plumber would be penalised. So you rely on this M

N arrangement? N

O A. Yes, there's a penalty if it's not done properly. So O

P the licensed plumber cannot just sign this form lightly P

Q and submit it, because if problems are discovered on Q

R inspection, he will be penalised. On our part, when we R

S sign this form, first we have to consider that the S

T licensed plumber has assigned his part of the form, and T

U if he is satisfied that the works has been completed to U

V his satisfaction and it is in line with the V

requirements, and before our people were involved, the

licensed plumber should have informed the main

contractor, China State.

This form should be submitted to us through the main

contractor, and the main contractor also has a role to

play here. It has the responsibility to ascertain whether the licensed plumber that it has engaged has done the job to his satisfaction, and then the main contractor should inform the Housing Authority for our verification. We also have resident staff there to oversee the works and they would conduct daily inspections. Also, we have got the testing and commissioning procedure, and if no major problems or nothing unusual or doubtful has been found, then I or my representative, the contract manager or the contract manager's representative, will sign this form. It's in respect of the correctness of the meter positions.

Q. This has to do with contract manager as well. WW0132 is also related to the contract manager's work. Please refer to 37796 and 37797.

This is your signature; right?

A. Yes.

Q. You see that it says here:

"(In English) I confirm that the plumbing fittings and pipes used in the captioned project are in full compliance with Waterworks standards and requirements."

Do you see that? Please also refer to paragraph 42, 37712. Counting from the bottom, in paragraph 42, the seventh line from the bottom:

"(In English) With advice from the CM's

representative that the plumbing fittings and pipes were in full compliance with Waterworks standards and requirements ..."

Do you see that?

A. Yes.

Q. Then the CM's representatives may give you advice, as regards the plumbing fittings and pipes were in full compliance with the Waterworks standards and requirements. Then you said you signed part 2.

What do you mean by "Waterworks standards and requirements"?

A. When I signed the two forms, as I have said, it's after what the licensed plumber has done, the submission of form 46, WWO46, and, according to him, the whole system was in full compliance.

Q. In compliance with the Waterworks Ordinance?

A. Right.

Q. Not regulations, Waterworks Ordinance.

A. Secondly, the main contractor has a supervisory role in this regard, and the main contractor must be satisfied that his plumbing system is okay, otherwise the main contractor should ask the subcontractor or licensed plumber to fix it. Then our Colleagues will be informed and carry out the testing, and I signed the form on the understanding that all this had been done, and

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C everything is in line with the standards or at least C
D there is nothing suspicious or doubtful. D

E I have talked to our lawyer that the significance of E
F signing this form is interpreted in a different way by F
G them, but when I signed the form, that's my G
H understanding. If you say it complies with pipes -- H
I that the pipes and fittings are "in full compliance with I
J Waterworks standards and requirements", that's in the J
K form. K

L Q. When you say that the pipes and fittings were in full L
M compliance with the Waterworks standards and M
N requirements, what standards and requirements do you N
O think they are? O

P A. I think it was in -- I thought it was in compliance with P
Q the Waterworks Ordinance and Regulations. That's what Q
R I understood it to be at the time. It's a little bit R
S different now. S
T Q. So what is your understanding now? T
U A. I signed the old form. U
V Q. So when you signed it, your understanding back then was V
that it was in compliance with the Waterworks Ordinance
and Regulations. So what is your understanding now?
A. The understanding is that fittings and pipes, the term
"fittings and pipes", potable water -- you see, the
potable water in the form does not cover fresh water.

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C Because, at the top: C

D "(In English) Building (Standards and Sanitary D

E Fitments, Plumbing, Drainage Works & Latrines) E

F Regulations" -- F

G Q. Yes. But in the middle, "(In English) Connection of G

H Water Supply", there are two boxes. You ticked both H

I "Potable Water" and "Flushing Water". I

J A. Flushing water is for the toilet. Potable is still J

K under the building standards and sanitation treatment; K

L it has a different meaning. L

M Q. Oh, that's about the provisions in the law. We don't M

N have to spend a lot of time on that. Well, your N

O understanding may be different from what is meant under O

P the law. P

Q I just want to know, at that time, when you signed Q

R the form, what your understanding was. You thought it R

S was in compliance with the Waterworks Ordinance and S

T Regulations. Now that you have discussed with your T

U lawyer, if you read the provisions carefully, you will U

V say that this form is not about drinking water. That's V

an issue that we will deal with later. Your lawyer may

think he is better in legal argument than you as

a witness. You know the form has been revised?

A. I know.

Q. I can show you the present form.

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C When Ms Fung testified, she had an annex to her C
D statement. B12.1. It's not with us. Then you have to D
E trust me. In Ms Fung's statement, there is an annex E
F setting out all the forms, and then the new one was F
G attached, and then later the form as used back then was G
H submitted. (Handed). H

I So the witness is seeing the form. Other people I
J here will have to trust me. J

K This is a new form, promulgated in September 2015. K

L A. Yes. L

M Q. On the lower left corner, it's "WWO132 (September M
N 2015)". "Connection of Water Supply" in the middle of N
O the form; do you see that? O

P A. In part 2. P

Q Q. "(In English) I confirm that the pipes and fittings Q
R installed or used in the captioned project are in full R
S compliance with the relevant provisions in the S
T Waterworks Regulations." T

U So it's Waterworks Regulations, very specific here. U
V That was what -- they changed in September 2015. Do you V
know why they changed the wording? It may not have to
do with anything legal or interpretation of legal
provisions. Do you know the reasons why they changed
the wording? Now it's very specific. It's Waterworks
Regulations.

A. I think you have to ask this question of the WSD.

Q. I will have to ask you to give the form back to Mr Yin.

Please now refer to paragraph 50 of your statement.

You state, in relation to form WWO46 part I, you said that when the WWO46 was submitted, there was an annex listing out the material.

A. Which paragraph?

Q. Paragraph 50. In paragraph 50 you mentioned that you relied on China State to monitor the work of the licensed plumber, and you expect the licensed plumber to update the list of materials in the annex to form 46. Whether the licensed plumber has changed his mind or whatever, he should use this form and inform the WA because this is a form used between the LP and the WA.

All right. Please now refer to 37715, paragraph 52. You state that there are certain categories of material, A, B, C and D. What are these categories? Please refer to 37628.

It should be 37627, yes. We have the categories A, B, C, D. In paragraph 52, you have categories A, B, C and D, and there are some explanatory notes following the categories.

Are you saying that the categories, A, B, C, D -- are you saying this is the work, this is the categorisation done by the WSD?

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C A. Well, if the materials are in compliance with one of the C
D four categories, they will be accepted by the WSD. D

E Q. But structurally, administratively, you will check the E
F materials submitted by the main contractor, and you have F
G to exercise your judgment to see whether they comply G
H with the relevant building standards. If so, you H
I approve the use of these materials. I

J For categories A, B, C and D, you can see that on J
K the form used by the licensed plumbers, you should tell K
L us what kind of materials you intend to use and if what L
M you are going to use falls within categories A, B, C, D, M
N approval will be granted. N

O This morning I asked the question, when you vet and O
P check the materials, how do you make the judgment; has P
Q it got anything to do with categories A, B, C, D? Q

R A. Well, it is related. For some parts and fittings, for R
S example, valves and even mixers, we count very much on S
T the checking by the WSD. T

U For many of these fittings -- well, actually, the U
V WSD is the expert on these fittings. They would be the V
only people who know how much tests need to be done on
these fittings. So we emphasise on the performance; on
our side, flow rate, pressure, and also water-tightness.
The functions, this is what we look at mostly. For
example, the chemical composition and other factors

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C affecting water quality; this is something that we count C
D very much on the expertise of the WSD. D

E So for this form WWO46 part I, these are the E
F categories listed. These classifications or categories F
G would become part of the contractual requirement. G

H Q. So, in effect, what happens is if somebody submits H
I fittings for your vetting, and, in accordance with the I
J contract, you are the employer of the contract, the J
K contractor submits some materials for your checking, and K
L if they meet with the requirements as set out in WWO46, L
M and as a working guide or reference, you would look at M
N whether the WSD approves such fittings, and if WSD N
O accepts or approves such fittings, then you would be O
P agreeable to -- of course, you may have requirements P
Q beyond and above the WA's or WSD's standards; right? Q

R A. Yes. R

S Q. To your understanding, apart from A, B, C, D set out by S
T the WSD -- these are the different yardsticks, British T
U Standard Institute Kitemark, there may be a mark, and U
V then category B, Water Authority stamping for V
category D, and so on.

R So these are different marks, standard marks, for R
S quality. But the WSD does have its own list; right? S

T A. Yes. T

U Q. Let's take a look at 37627, paragraph 7. There is U
V

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C a note: C

D (In English) "A directory of pipes and fittings D

E approved by the Water Authority can be found in the E

F website." F

G Can you see that? G

H A. That is for general approval. H

I Q. So apart from categories A, B, C, D, which list the I

J approved fittings, on top of that, the WSD also has J

K a directory of pipes and fittings for reference by K

L people. So they may be classified according to the L

M brands or some other descriptions. So there is this M

N directory, and it is made public. So, if you meet with N

O the requirements of this directory, then that's O

P acceptable by the WSD as well? P

Q A. Okay. Yes. Q

R Q. If I may refer you to the next page, 37716, R

S paragraph 58. You said: S

T "After excess lead was found in drinking water in T

U Kai Ching Estate, I learned that China State had U

V proposed material that was subsequently approved", in V

other words, they were approved -- "but might not have

been updated in the annex of form WWO46 part I ..."

Then you went on to say:

"... the CM's representatives ... have verified the

plumbing materials installed at site."

Then you went on to say that there is an exhibit, exhibit 12. Let's now look at page 37850. In fact, page 37845 first, please. Page 37845 up to 848. Can you see that?

A. Yes.

Q. This is the brand submitted in WWO46 and then "brand installed on site" in the next Column. It's different. You can see that?

A. Right.

Q. Can I refer you back to your witness statement, another paragraph, paragraph 79.

A. Can you give me the number again?

Q. Paragraph 79, and that's on page 37723.

A. Yes.

Q. Here, it is talking about a certain situation, discrepant materials. That is to say the copper alloy fittings used do not comply with the British Standard.

To cut it short, the WSD has compiled a report and it found that some valves and one mixer were not complying with the British Standard in respect of lead content, although the Task Force's conclusion was that there was excessive lead in certain components, it be did not result in excess lead in drinking water. So this was not the cause.

Now let's look at the next paragraph:

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C the valves and the water pipes were listed and they were C
D categorised into different categories. This is similar D
E to exhibit 12. E

F The brands submitted as on WWO46 were different from F
G those installed on site, for example "Submitted to WSD G
H in WWO46", a brand, Waterfront, installed on site, brand H
I becomes Victory. While some of the lead content is I
J highlighted in red, which is it is beyond the prescribed J
K level. K

L Can I ask you to compare 37840 and 37846 to 37848, L
M the various tables in these pages. M
N A. Yes. N
O Q. Can you see that? O

P Are these tables related? Are they talking about P
Q the same thing or different things? The two tables seem Q
R to show the same thing, and that is the brands listed on R
S the form is one brand, though the brands installed on S
T site are different. T
U 37846 to 37848 give us some examples and then 37850, U
V there is a different presentation format. How are these V
P tables related? They are talking about the same P
Q situation or phenomena. Q

R A. Let me go through the entire process with you. In R
S submitting part I of form WWO46, as I said this morning, S
T the materials actually were not approved. The nominated T
U
V

subcontractor or the domestic subcontractor have not submitted the materials via the main contractor for us for approval, but then, under the WWO, such forms have to be submitted to the WSD. So that's why we couldn't specify the brand name. We didn't have all the information then.

Then, after we approved all the materials, then the materials came with the brands. As a general practice, the WSD allows the licensed plumbers, in the process of the waterworks installation, to update the list of the brands. That should be done before the inspection of the completion of installation works. The updating can be done in that period.

For the table 37850 and 37846 to 37848, the relationship between these two tables, "Submitted to WSD in WWO46", that was in the record of the WSD, and the LP -- or rather, that was the latest record as held by the WSD. I have to check that point though.

But in reality, say that if the LP has been updating the list, they should be updating all the brands before the signing of the WWO46 part IV or the completion of the installation works. That should be done then.

Now we learned that there has not been any updating.

Q. Well, it is the LP's responsibility to update it.

A. Yes. That's the relationship between the LP and the

WSD. The LP has a duty to update the list.

But for us, we would mainly ensure that the main contractor complies with the contractual requirements, including the WWO's requirements and other contractual requirements.

So, from 37846 to 37848, the three tables, in the three pages, are about whether the actual material installed on site are those approved by us and accepted by the WSD.

Q. What do you mean by accepted? So it's a list in the directory?

A. Yes.

Q. Accepted, in the sense of in the revised list?

A. Well, the important thing is that the actual material installed must comply with the requirements. So we have a list to make the comparison, submitted on one side, and installed.

Let's look at 37846. Copper pipes are the first item. There's an asterisk for the first three items. It means general approval by the WSD.

Let's look at item 4, "Bronze gate valve". There are two specific numbers for Victory, C19990071, C20000008. That's the serial number of the two materials of WSD.

Q. Which category does it belong, A, B, C or D?

A. C. I think it should be C.

Q. So the number represents that it is category C. So it is accepted through this category, category C is accepted by WSD, because of C.

A. Next, "Cast iron gate valve", we state "Not used". In WWO46, something was submitted but there was nothing installed for this category.

That was compiled after the inspection to find out what have been installed and to make sure that they comply with the Waterworks Ordinance. In the interim report of the Task Force, they set out some preliminary findings, that certain parts were not in compliance with the relevant British Standards. It is not related to the sample approval process.

The occupation took place in 2013. We took out some parts this year for testing. That was two years after population intake. I'm no longer the chief architect for that project, but my team, our Colleagues, are still investigating the so-called substandard parts with China State. It may have to do with the specific batches of the material.

We have to find out whether the materials were not up to standard, up to the British Standard, when they were delivered, or they were not up to standard after using it -- after they have been used for two years.

Q. 37850, there's a table. I would just like to know to whom should I put my questions. My understanding of what you have said, "Installed on site brand", you have a number of brands, Victory and so on. In the yellow Column, on the right-hand side, "Submitted to WSD in WWO46", so when WWO46 was submitted, these brands were set out but there was no subsequent update and you said that there would be on-site inspection to find out the actual brands. You found that the brands were in the list of WSD or they belong to one of the categories that the WSD would accept.

A. Yes.

Q. And on that basis you gave your approval. For example, Victory was the brand installed, and you knew at the time that Victory would be accepted by the WSD, because it fulfilled certain standards, although they mentioned Waterfront as a brand in the first phase.

As regards why they used Victory, it's approved, it's accepted. Why is it that they failed to comply with the standard, even though the brand is an accepted brand? Is it because of the problems with that particular batch of material, or is it because of the materials' conditions having changed after using them for some years?

A. The Housing Department is saying this is not something

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C you can prevent. It is just like other materials. C

D I have the samples, the samples are in compliance with D

E the contractual requirements, but when the materials E

F arrive in bulk, there may be a few pieces which are F

G substandard, which should not be used. G

H Q. As you say, in the system -- under the system, you will H

I not check the lead content of these parts? I

J A. Well, we were not so aware of the lead-related risk. J

K Q. Usually, you look at the documentation, the K

L certificates, and also the lists or list prepared by the L

M WSD. You have done everything according to your M

N established procedure. You look at whether the N

O materials are approved by the WSD. But for these O

P specific components, they had excessive lead. P

Q A. Yes, actually, I have to admit, we were not too aware -- Q

R we were not very aware of the risk posed by heavy R

S metals. We were more concerned about the functionality, S

T flow rate, pressure, water-tightness. We were more T

U concerned about the bursting of the pipes or the U

V pressure being too low, affecting the functions of water V

heaters.

We would need to have our awareness raised by

experts when it comes to the risk of heavy metals.

Q. Well, I am talking about my memory. Apart from the need

to comply with British Standards, you also mentioned

that lead-free solder should be used. So why do you specify use only lead-free solder among so many standards and requirements under the British Standard?

A. Yes, at that time, I have talked to my Colleagues about that. I think it was more than ten years ago. But some of the Colleagues are no longer working for my department. We need some more time to dig out old records to trace the reasons why this was first proposed. But we knew, we knew back then that the solder should not contain lead.

Q. But why? Why did you have to make this requirement? The Institute of Engineers has compiled a report. You just look at the British Standard. They are not saying that you should not use lead-free solder. Actually, the requirement is in the footnote.

I can show you what the Institute of Engineers has said in their report.

I am trying to find the right page now.

CHAIRMAN: If you read the note, it says "soldering alloy".
(Chinese spoken).

I think it's table 6. There's a footnote. Maybe I can put a question first. Actually, it's been asked before. We know that under the Waterworks Ordinance, copper and copper alloys in respect of capillary soldering, the British Standard is outdated. It doesn't

say BS 1254-1. It's BS 864: Part 2.

So, when you set your specifications, when you prepare your tender or your contracts, when you state 1254, then someone who knew would not like to follow the outdated WSD standards, and you replaced it with the standard you knew was correct?

A. Actually, for British Standard 864 --

CHAIRMAN: I haven't read BS 864. I don't know. But I know that in the Waterworks Ordinance, only BS 864 is mentioned. Yours is more updated. It's BS 1254. So someone in your department knew this. He or she knew that the WSD's BS standard was outdated.

A. Well, it became more obsolete.

If I remember correctly, in 864 it really says that it should be lead-free.

CHAIRMAN: All right. I will give the floor back to counsel.

MR SHIEH: Your contract states BS 1254, and then someone inserted the sentence that it should be lead-free.

If you look at BS 1254, if you look at the Hong Kong Institute of Engineers' report, a new one, P103, there's a very interesting observation in appendix 3: tin solder, lead-free. So they quoted the circular of the WSD, number 1/2015, the WSD reminds the reader the requirements for using lead-free solder for copper pipes

in the Waterworks Regulations. There's also the leaflet, "Hong Kong's Water Supply -- Reducing Lead in Drinking Water", printed in August 2015. It states that the use of lead-based soldering to connect copper pipes has been prohibited in Hong Kong since the 1980s.

Then the HKIE conducted a study on how the words "lead-free" came about.

To cut it short, let's look at paragraph 4: clauses contained in BS EN 1254 were silent on leaded solder or lead-free solder, except clause 4.2.2 did tangentially perhaps stipulate leaded solder shall not be used for the manufacture of integral soldering fittings.

Then it says, however, in the footnote at table 6, it was stated that soldering alloys with lead and brazing alloys with cadmium are not permitted in installations for water for human consumption.

The observation of the institution was that lead-free solder was not specially mentioned in the main text.

We don't need to look at the British Standards in too great a detail. The British Standard is a thick book. There will be some words in the main text and some words in the footnotes. That's how the guidelines are normally presented.

If you look at the main text, as pointed out by the

HKIE, there was no concept of lead-free solder mentioned. That was mentioned only in the footnote to a table.

Anyhow, some people think that lead-free category solder was something very important, and it was categorically mentioned in the contract, lead-free category solder.

If you look at the background, you just extract this particular phrase from the British Standards, among different requirements of the British Standards. Can you tell us -- well, you were not the one who drafted the contract -- but what -- do you think that the one who drafted the contract would like to include it in the contract, the concept of the lead-free category solder?

A. Well, I can't speak on behalf of the person who deliberately put in that phrase. I don't know.

Anyway, in drawing up the specifications, I would like to tell you how it works. At the HA, we may update specifications and we do it stringently. As a first step, we would be including the most updated statutory requirements into the process. That's the first step.

Then the second step, we would also be circulating the specifications among all government bureaus and departments to gauge their feedback. There would be experts in various government departments.

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C With regard to water quality, of course the WSD is C

D the expert in that area, so we will definitely, through D

E other government departments, ensure that we are E

F updating the specifications properly. F

G We also have other stakeholders, including our G

H contractors and academia, friends from academia, and H

I also our own Colleagues, including those who are I

J responsible for maintenance and repair, because they are J

K in continuous contact with the residents, they gauge K

L feedback every now and then. L

M Through all these channels, together with our M

N Colleagues' comments, will be incorporated into the N

O latest specifications, the updating process. O

P I didn't participate in the compiling of the P

Q specifications a decade ago, but my guess is that, going Q

R by the British Standard 864, it says it's lead-free, and R

S then, for the updated, 1254, the updated version, that S

T phrase was embedded in the footnote only. T

U One possibility is that -- why was it embedded in U

V the footnote? At that time, my guess is that -- my V

W Colleague at that time thinks that it is still W

X an important requirement and that's why they bring it up X

Y in the contract. The specifications and the Y

Z requirements are still valid today. Z

CHAIRMAN: I have this observation myself. May I refer you

to paragraph 53 of your statement. (i), (ii), (iii),
(iv) are related to the soldering materials. Why?

Number (i), point (i): it doesn't refer to the entire
table. It is specifically only to sections II and III
of table 6. And sections II and III of that table are
discussing tin and silver and tin and copper.

MR SHIEH: Can I remind the witness, it's bundle C19.1, page
10310. Can you see table 6?

A. Yes.

CHAIRMAN: Sections II and III are about soldering, and not
section I. Section I has to do with lead. And sections
II and III are talking about tin, silver and copper.
Okay? So for this (i), it talks about something very
specific. (ii) -- let's go back to the HKIE, 4.2.2. It
is extracting that from that standard. According to the
British Standards:

"(In English) Leaded solders shall not be used for
manufacture of integral soldering fittings".

Someone in your department was putting
an interpretation to it, and then extracted it from that
standard.

MR SHIEH: That is on 10310, 4.2.2, clause 4.2.2, of the
British Standard. Page 10305, and clause 4.2.2, you can
see that there is leaded solder.

Now, 4.2.2 has to do with the PLU1.M061.5. The

wordings are different but it's basically similar in meaning. So there must someone who updated 865 of the WWO to 1254, and someone was saying that lead should not be used. And only sections II and III needed to be included.

Also, in the standard, they found this clause 4.2.2, that has to do with integral solder fittings, and no lead should be allowed. And also wordings from the footnote have been taken out, and that was modified to III.

That person talked about flux again and I haven't been able to find any mention of flux in the British Standard. So it seemed that someone had done a lot of research, a lot of studies, and took a thorough look at 1254, and then extracted relevant clauses in relation to soldering materials, and certain requirements have to be complied with.

So it's not the case that somebody was copying from the requirements of the WWO and then put it in the clause. There must be someone who has done a lot of work before he drafted the specification clause PLU1.M160.5.

A. That may be a possibility because the team then consulted various government departments and experts from different sectors in Hong Kong. I hope that this

very well learned person is still working within the
Housing Department.

CHAIRMAN: Well, you have been telling us all along that
there is a lack of awareness.

A. We know that we should not be using leaded soldering
materials, but we do lack awareness that the leaded
soldering materials may pose health hazards to people if
lead is found in drinking water.

CHAIRMAN: Now, going back to the basic principle or the
premise, you said just now that you lack awareness of
the presence of heavy metal in drinking water. But it
seems, from what we have heard -- that you lack
awareness of the presence of heavy metal in drinking
water. But, rather, your lack of awareness is that you
are not aware of people using leaded soldering
materials.

So I would like this clarify this. One of the
questions I have for you is that in your statement, you
said, "Before July 2015", towards the quality of
drinking water -- paragraph 74, that was what you said.
The last sentence was this:

"Before July 2015, neither I nor the HA was aware of
the WHO Guidelines on the drinking water quality at the
consumption point."

I would like to ask you -- well, let's not think

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C about the consumption point for now. The WHO water C
D quality guidelines didn't specify a specific point or D
E a specific country or jurisdiction or a location. The E
F guidelines should apply to places all over the world. F
G You said that you were not aware of the guidelines. G
H Well, perhaps talking about yourself only and not HA for H
I the time being, you have never seen such a set of I
J guidelines; is that right? J
K A. What guidelines are you talking about? K
L CHAIRMAN: The WHO drinking water guidelines. L
M A. Yes, before July, I have never seen the guidelines. M
N CHAIRMAN: The WHO Guidelines, the latest version was that N
O done in 2011? O
P A. Yes. P
Q CHAIRMAN: In 2011, the fourth version of the water quality Q
R guidelines was issued by the WHO. You have never seen R
S that? S
T MR SHIEH: This is now the fourth edition; right? T
U CHAIRMAN: Yes. U
V A. Yes. V

CHAIRMAN: You have never seen that; right?
A. I have never seen that.
CHAIRMAN: (In English) Fair enough.

I would like to ask you, in 2011, in the same year,
the WHO issued another publication. That has to do with

drinking water in buildings. We live in a big world.
Some people in different countries get their drinking
water from a well. So there's something for buildings,
something specific, you should be aware of. You haven't
read that?

A. No.

CHAIRMAN: They are very specific, but it's about the role
and responsibility of the architect. You haven't heard
about that?

A. No.

CHAIRMAN: Apart from architects, there are also builders,
developers and other people mentioned. You haven't
mentioned that? You, I mean you.

A. No.

CHAIRMAN: You haven't read those documents? Before July
2015, were you aware that the WHO had different quality
standards? Let's not talk about lead first. For heavy
metals, the WHO has set different standards for drinking
water quality.

A. Not before July 2015. I know now.

CHAIRMAN: So you didn't know anything about heavy metals,
not to mention just lead, the levels, the acceptable
level of lead, in regard to health hazards?

A. No.

CHAIRMAN: Do you know that in the past lead once created

C problems, health problems, in drinking water? Are you
D aware of that?

C

D A. Once upon a time -- well, back then, they used lead
E pipes.

D

F CHAIRMAN: So you know that back then, they used lead pipes,
G and lead was found in water, and there were health
H hazards arising from that; you knew that?

F

G

H A. Yes.

H

I CHAIRMAN: So you knew that back then, there were problems
J caused by lead in water?

I

I

J A. But I don't know the extent, I didn't know the extent.

J

K CHAIRMAN: That's okay. Now we know lead in water can cause
L problems, for two reasons. You have mentioned the
M first. For two reasons -- the first, lead pipes;
N second, leaded solders. Before July 2015, did you know
O that leaded solders could lead to problems, could lead
P to excessive lead in drinking water and therefore health
Q problems? Did you know that?

K

L

M

N

O

P A. We said lead-free solder should be used, but if leaded
Q solder was used, then to what extent the risk would be
R created, we didn't know.

P

Q

R CHAIRMAN: You didn't know?

R

S A. We didn't know about the health hazards.

R

T CHAIRMAN: Because you didn't know the acceptable level of
U lead in drinking water, let alone the hazards?

S

T

U

U

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C A. Correct. C

D CHAIRMAN: And you said the Housing Department's practice D
E was in line with the industry. You are doing what they E
F are doing, in other words. In other words, in the F
G entirety of Hong Kong, no one knew? G

H A. Well, if the industry knew that it would be a serious H
I problem, we would have known. I

J CHAIRMAN: I'm just talking about your awareness. Someone J
K might know, but as far as you are concerned, you said K
L the Housing Department back then just followed the L
M industry's practice, and if you followed the industry's M
N practice, so the industry's awareness should more or N
O less be just the same. O

P A. Well, you can put it like that. P

Q CHAIRMAN: Thank you. Q

R Please continue. R

S MR SHIEH: I am going to get to the last topic, but I would S
T like to ask something to follow up. T

U Please look at C19.1. Page 10451. This is an old U
V version of British Standard specifications for soft V
solders. I am trying to check when this was
promulgated, when it was replaced.
10451, on soft solders, then 10455:
"(In English) Guidance on typical uses of solders."
The top-right corner, please take a look at the

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C top-right corner: C

D "Certain fluxes for soft soldering and solders D

E containing lead and cadmium can be detrimental to E

F health." F

F Can you see that? F

G A. Yes. G

G Q. It doesn't say don't use it, it says it's detrimental to G

H health. H

H I am trying to track down this particular British H

I Standard and when it was deleted or replaced, but the I

J old version was very specific about this. When did this J

K particular British Standard become obsolete? K

K A. I don't know. K

L CHAIRMAN: I think you are talking about tins, cans -- tins, L

M because they have tinned food and you have to use solder M

N for the tins. It's one of the health hazards. N

N MR SHIEH: I'm just speculating. Some soldering are for N

O electrical connections. O

O (In English) Soldering of electrical connections to O

P copper. P

Q CHAIRMAN: Lead in water or in food has been a longstanding Q

R hazard, but you have a can of soup and if the soldering R

S material contains lead, it's going to cause problems. S

S MR SHIEH: Down at the bottom, it's "For capillary joints in S

T all copper plumbing installations". T

U

V

If you cannot tell us when this became obsolete,
it's okay.

The last subject that I want to talk about is
workers. Please refer to 37719, paragraph 66. We
looked at this some time ago. According to the
contract, at most the maximum permissible percentage of
semi-skilled workers was 15 per cent. In other words,
skilled workers must make up at least 85 per cent, and
there is definition of who are skilled workers and who
are semi-skilled workers.

In the next paragraph, you mention how you made sure
that the workers were properly trained and held proper
qualifications. You state that the monthly report is to
be submitted, was prepared by China State, and checked
by your HA site inspection team. The record of trade
tested workers, what's it like? Do they give you the
names, ID numbers, qualifications held?

A. Well, it's a form. I don't have the form with me, but
I know that there is such a record for checking, and the
checking is done by our site staff.

In addition to the record, we also refer the names
to the Construction Industry Council for verification.
We forward them to the council for verification. Then
they will be informed of the result.

After the list of names was checked, they would tell

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C us who are considered okay and who are not considered C

D okay. D

E Q. So there are names? E

F A. Yes. F

G Q. Well, to be honest, I think sometimes you wrote G something but you do something else. So it's applicable

H to every site? H

I A. Correct. I

J Q. And the ratio of 15 to 85 is a standard requirement for J all sites?

K A. Correct, that's a standard requirement. K

L Q. Do you have any sampling check of ID number, ID names? L Can you rely on information provided by China State?

M A. Well, they have a sort of certificate of workers. The M Construction Industry Council can check the names.

N Q. There are different sayings circulating in the N community. I would like to ask contractors not to do so

O many layers of subcontracting. China State subcontract O its work, part of its work, and then there will be the

P subcontracting down the line. Is there a high turnover P rate, because the workers would go to work for another

Q site that pay them better? So can you make sure that Q the workers were really those working on the site?

R A. For workers getting -- they have a fingerprint, R palm-reading machine for access. This is for ID

S

T

U

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C purposes. That's the arrangement. That's the access C
D control. And it's also part of the record. And the D
E main contractor would also compile a list. E

F Q. From your experience, you forward the names, the list to F
G the Construction Industry Council and they would check G
H it for you, and then what would be given back to you? H
I Would they certify that the workers are really I
J registered workers? J
K A. They would tell us that this may not be a skilled K
L worker. Here may be just a semi-skilled worker, and L
M things like that. But not many cases fall into this M
N category. If this is found out, we will inform the main N
O contractor. Then, in a way, the main contractor will be O
P asked to rectify it. They have to exercise proper P
Q control over workers. Q

R Q. As for ensuring the ratio of 85:15, it should be R
S something for the HA's team? S
T A. Yes. We have the HA site inspection team. T
U Q. So you count the number of workers and you have a list U
V to check, and you make sure that there's a ratio of 85 V
to 15?

A. Yes. But of course the first check should be done by
China State.

Q. But you do have site inspection staff to check that
there are 85 skilled workers to 15 semi-skilled ones; is

that what you actually do?

A. The names would be provided by China State, and then we would check them, check the number, whether the numbers tally. Also, as regards the individuals, it's difficult for us to verify the people. We rely on the CIC to check the individuals' names for us. The verification process is completed after the CIC has given us their feedback.

Q. So you will be tallying the number of workers on site with the number on record; so that's how you do it, right?

A. Yes, that's roughly the way it is being done.

Q. China State is the main contractor, there may be an subcontractor and another layer of subcontractor. As to how they are going to gather all the information from the subcontractors -- well, it would be up to them; right?

A. Yes. They would also be specifying the workers by their trade. For example, the plumbing workers, and so on.

MR SHIEH: So if the plumbing works are subcontracted to a plumbing subcontractor, then that contractor will give information on the number of plumbing workers and their details.

I have no further questions.

CHAIRMAN: So who would like to have a go at the questioning

now? Mr Pennicott?

MR PENNICOTT: (In English) Mr Chairman, I think there's an informal agreement between counsel, at least, that whose-ever estate we happen to be discussing would go first.

CHAIRMAN: (In English) I see.

MR PENNICOTT: (In English) Subject to Mr Wong behind me making an application for the WSD to go first.

CHAIRMAN: The senior counsel will have a go first.

DR WONG: (In English) But I don't mind Mr Pennicott going first.

CHAIRMAN: Mr Pennicott, he wants you to be the next one.

Please do so.

MR PENNICOTT: (In English) I'm more than happy to, sir.

Cross-examination by MR PENNICOTT

(All questions from MR PENNICOTT were in English)

Q. Mr Yim, good afternoon. I am going to be addressing my questions to you in English, but please feel free to answer in Cantonese.

A. Please speak louder, with the microphone closer to yourself, please.

Q. I apologise for not speaking quite so loud as Mr Shieh, but I will do my best.

Mr Yim, first of all, can we get firmly fixed in our minds the period of time over which you were involved in

the Kai Ching project, which as I understand it was
between September 2012 and February 2014?

A. Yes.

Q. So that, if I've got it right, was towards the end of
the project, as the works were coming towards
completion, and then for a good part of the maintenance
period; is that right?

A. Yes.

CHAIRMAN: Because there is recording, please speak up.

MR PENNICOTT: So that was a yes?

A. (Nodded head).

Q. Mr Yim, during that period, how many times did you visit
the site?

A. I don't have such records with me, but I can tell you,
within my team, the Kai Ching team, up to the completion
stage, based on needs, we conducted site visits.

Basically, the architect -- well, towards the end of the
project, as far as I understand -- visited the site
every day, on a need basis, or once every two days.

We do have a resident staff member. So, on the
progress of the works, and also the quality control
work, we were very concerned in putting a lot of
emphasis on these aspects.

From September 2012 up to February 2014, how many
visits did I make to the site? I couldn't remember.

But I can tell you that it's many, many times, many, many times, I visited the site. That was done on a need basis.

Q. Thank you. Could I ask you this, Mr Yim: when you took up your post in September 2012, what steps did you take to familiarise yourself with the terms of the contract between the Housing Authority and China State?

A. There are requirements in the contract. For every contract we sign, there are general and standard specifications which will be included in the contract. For example, for preliminaries, for site works, the situation of each site may differ, but there are preliminaries which are common to all sites, and also, for site instructions and correspondences between the two parties, and if we identify any problems, we might have to revise the contract clauses and we must make sure that the contractor must meet with the contractual requirements.

At that time, I was the chief architect. I familiarised myself with everything that I needed to know about the project.

That's all I want to say.

Q. So are you telling the Commissioner that you physically asked for the contract and you looked through it, or did you do it in some other way?

A. I would not read through the entire contract, but then we worked as a team. In other words, when a certain situation arose where we needed to take a look at the relevant part of a contract, then I would be discussing with the CMR, and the engineers and the other architects, we would sit down and discuss the issues.

So this is the approach we adopted.

Of course, I do have a copy of the contract myself, in my office.

Q. All right. Could I ask you, please, to go, in file 15.1 -- this is an attachment to your witness statement -- to page 37729. Do you have that, Mr Yim?

A. Yes, I've got it.

Q. If you look, in the Column headed "Group", and then you go down three boxes, you see the words "Chief Architect"; do you see those?

A. Yes, I saw it.

Q. And you are highlighted, at least in my copy, in green; is that right?

A. Yes.

Q. If one just focuses on the "Chief Architect" box and looks in the Column headed "Name", am I right in suggesting to you that you had two predecessors as chief architect and two successors as chief architect?

A. Yes, correct.

Q. Are the four persons concerned still employed by the Housing Authority?

A. First of all, my predecessor, the first one is Ferna Shum; she resigned on her own. And the one before her is Ms Teresa Yim; she got promoted and left that position.

As for myself, in February 2014, I was redeployed to my present position, so another Colleague took my place, and that is Mr Wong. He was the chief architect/2 dealing with the project. Then Mr Wong -- because the workload in the department got bigger and bigger in the past two years, and because of work needs, Mr Wong, in July 2015, was transferred to another newly created position within the department, and now Mr Yam is in charge of the Kai Ching Estate project.

Q. So I think the answer to my question is, apart from Ferna Shum, the other three people are still employed by the Housing Authority?

A. Yes, correct.

Q. Now, so far as the drafting of the contract between the Housing Authority and China State is concerned, I assume that you do not know who was responsible for drafting that contract, so far as the Housing Authority is concerned?

A. Can you ask your question once again, please, because

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I don't understand your question.

Q. Do you know who drafted, at the Housing Authority, the contract between the Housing Authority and China State?

A. The chief architect who dealt with the building tender, that's the one, and for this project the works commenced in July 2010, so that should be Ms Teresa Yim.

Q. So she would have been involved in the drafting of the contract; is that what you are telling us?

A. Yes, I believe so.

Q. Would she have been in charge of the drafting of the contract?

A. Sorry, can you repeat your question? Ms Yim is in charge of drafting the contract; is that what you are asking?

Q. Yes. Would she have been in overall charge of drafting the contract?

A. I believe so, yes.

Q. Mr Yim, in your witness statement, you say on a number of occasions that China State was responsible for continuous supervision. Do you recall that?

A. Yes, that's right.

Q. Is it your understanding that those words, "continuous supervision", appear in the contract?

A. If I remember it correctly, these words should be in the contract. This phrase should be in the statutory

requirement part of the contract.

Q. Can I suggest to you, Mr Yim, that the words in the contract, so far as China State are concerned, their obligation is to use "necessary superintendence". Do you recall that phrase?

A. Sorry, I missed the last two words. Can you repeat your question?

Q. In the contract, the words that are used are "necessary superintendence". Do you recall that phrase being used in the contract?

A. I have to check.

Q. Can I ask you this, Mr Yim: in practical terms, what do you mean by the words "continuous supervision"?

A. "Continuous supervision", in the context of a contract between the HA and a main contractor -- we are the developer and we have a contract with the main contractor -- we need the contractor to help us to complete the project, in an overall sense.

So, in the construction of the project, the main contractor is the one who knows best how to go about it, and of course the contractor would have to understand the contractual requirements and the statutory requirements, and the contractor should exercise continuous, day-to-day, uninterrupted supervision.

So the contractor must have exercised this, to

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C ensure that the quality and the progress is in line with C

D the contractual requirements. D

E Q. So far as the Housing Authority is concerned, the phrase E

F that you use in your witness statement is "periodic F

G inspection". Do you recall that? G

H A. Yes, yes, I did say that. H

I Q. And as I understand it, that periodic inspection is I

J carried out by, as I think you explained -- so far as J

K the general works are concerned, as you explained to K

L Mr Shieh this morning, by a building works team and L

M a building services team; do you recall that? M

N A. (Nodded head). N

O Q. So far as the building services team is concerned, do O

P they have different qualifications to the building works P

Q team? Q

R A. Yes. For the building services team, they are my R

S representatives. In terms of professional S

T characterisation, they are engineers. But for the T

U building inspectors, they also have to hold certain U

V qualifications, but the qualifications are different, V

different from those held by the building works team.

Q. Can we look at paragraph 18 of your witness statement,

just to see if we can get this a little clearer.

If I have understood you correctly, Mr Yim, so far

as the building services team is concerned, they are

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C essentially engineers of different disciplines: C

D mechanical engineers, electrical engineers, that sort of D

E qualification; is that right? E

F A. (In English) Yes. F

G A. Well, they are the engineering disciplines. They are G

H from different engineering -- H

I CHAIRMAN: What do you mean by "wind"? I

J A. Wind means air-conditioning, ventilation, and then water J

K and electricity. K

L MR PENNICOTT: You contrast that with the building works L

M team, and what are they? Structural engineers, that M

N type of qualification; is that right? N

O A. Yes. They are resident staff. For building works team O

P members, they are not really the structural engineers. P

Q They belong to different trades. Q

R They are there to check different types of works, R

S such as concrete, drainage, plastering. These come S

T under the work of the building works team. They are not T

U necessarily structural engineers. U

V Q. Could you please look at or be given bundle B1, V

page 312, please.

Do you have that, Mr Yim?

A. Yes.

Q. It should be the front sheet to a document called:

"Inspection Guidebook.

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C Site Inspection Guide for Building Works". C

D A. Yes. D

E Q. Then if we go to page 213 and following, we see various E
references to plumbing.

F A. (In English) 313, right? F

G Q. 313 and some following pages. G

H A. (In English) Yes. H

I Q. So, as I have understood it -- I know you have made the I
distinction between building works and building
J services -- we are looking at the relevant document so J
far as building services are concerned; is that right?

K A. (In English) Now, this part should be the building K
works, the building works team.

L CHAIRMAN: Please speak in Cantonese. L

M A. (In English) Okay. M

N A. This is about building works, not building services. As N
I said this morning, it's about plumbing, ie pipes, the
O brackets, the joints, fittings; they belong to the O
building works stream. For building services, the
P resident staff are there to look at the pumps, valves, P
Q the pump rooms, and they belong to the category of Q
building services.

R MR PENNICOTT: If you please go to page 319, is that part of R
S the manual or guidebook that is referable to building S
T services? T

U

V

A. This is done by building works team.

Maybe I can elaborate. When it comes to the division of labour, when we check the materials, submit the materials or the samples, parts involving engineering works. And in the initial stage of the Kai Ching Estate we have a building services engineer doing the job, we have to approve the materials used, and therefore we need to have someone who knows the British Standard and the fittings. And when these materials have been approved and when they are delivered to the site, the approved materials and the samples will be used to check whether the same materials, same approved materials, are used in the construction.

So it's a question of checking materials against samples. So this would be done by the building works team. During their normal site inspections, as I have said, they will look at the pipes and also the joints, the valves; they would be checked by the building works team.

Q. Can I just ask a general question: again, if you look at -- I'm still on page 319 -- in the second Column to the right, there's a figure 10; do you see that?

A. (In English) Yes.

Q. You need jolly good eyesight to read it, but the title of the Column heading is "Recommended inspection

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C percentage", and it's something that we have heard C
D a little about already. D

E Can I ask you this: the manuals or the guidebooks E
F that set out the requirements so far as the Housing F
G Authority inspectors are concerned, are they universal G
H and not project-specific? H

I A. I have to get the question once again, please. I
J Q. Sure. The Housing Authority, for its own internal J
K purposes, creates these guidelines or these guidebooks. K
L One part which we have been looking at relates to L
M inspection. M
N A. (In English) Yes. N
O Q. Is the existence of the guidebooks applied -- sorry, are O
P the guidebooks applied to all projects -- P
Q A. (In English) Yes. Q
R Q. -- rather than any particular guideline being R
S project-specific? S
T A. Of course, when we prepare the guidelines, they are T
U supposed to be applicable to all HA projects. But there U
V are special projects and there are special circumstances V
where we have to introduce new techniques, new
materials. Then, for that particular project, there can
be special arrangements.

That's why, in the HA system, we stipulate
10 per cent. The words or the phrase in small print,

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C	10 per cent is the recommended percentage.	C
D	When works commence, the team, the professionals	D
E	concerned, it's the clerk of works as recommended, and	E
F	also we have -- clerk of works, and then there are	F
G	senior professionals looking at the same matter. That's	G
H	the figure, 10 per cent, when we prepared the manual.	H
I	But is it set in stone? Well, the individual teams,	I
J	under the guidance of senior professionals, can make	J
K	a different decision.	K
L	Q. Then in practical terms, what is your understanding of	L
M	what that 10 per cent means?	M
N	A. 10 per cent means -- that's the percentage of	N
O	inspections. But that depends on the prevailing time.	O
P	If there's a critical item being constructed, then we	P
Q	may want to do more inspections. In that case, we can	Q
R	raise the percentage to higher than 10 per cent,	R
S	depending on the practicality of the time.	S
T	Q. Let me try and understand precisely what you are saying.	T
U	Kai Ching comprised six housing blocks.	U
V	A. Yes.	V
	Q. 5,204 individual units.	
	A. Yes.	
	Q. I assume you are not saying that the 10 per cent means	
	that the Housing Authority only inspected about 500 of	
	the units?	

A. We have to look at our own role. As I said at the outset, the contractor who signed the contract has the duty to make sure that the requirements are met. No matter how many blocks or individual units we are talking about, it has the duty to ensure that all the flats, all the blocks, would meet with the contractual requirement.

Now, concerning the continuous supervision, that would have already been done, because during the construction process it must ensure that when the works are completed and handed over to us, these works meet with the contractual requirements. Failing that, they would end up with serious consequences. If they don't do a proper monitoring job, then there will be big problems, just like what we are seeing here at the lead water incident; they have a serious problem because they have to replace all the water pipes.

CHAIRMAN: You haven't answered his question. My guess of his question is that when the flats are handed over to you, are you checking on 10 per cent of the units or are you checking on each and every individual unit?

A. Well, I can answer you on two fronts. During the construction works period, we check on 10 per cent, but when it's the completion stage, we checked on all flats.

CHAIRMAN: Then you talked about 10 per cent. We still

don't understand. Say, for example, if you install water pipes or if you install water heaters, say for example, you would check 10 per cent of the water heaters installed.

For example, if in the first week I installed 100 sets of water heaters, do you mean that if I want to check 10 per cent in the first week, then I will check on 10 sets; is that what you meant?

A. Well, in reality, in actual operation, the clerk of works, during the construction stage, when the blocks are being built, at the working floor -- the working floor is usually the top floor -- and on a need basis we are very concerned about the iron and reinforced concrete, the quality of such materials. Before the concreting work, he would be checking everything there.

Now, when we build downwards, say for example in waterworks -- now, if, say, China State told him that they would be working on the 5th to the 7th floor, then for the 10 or 20 units being worked on, we would check on, say, one to two units on those floors.

So that's what we meant by 10 per cent.

CHAIRMAN: 10 per cent, we don't understand it. You said that you would check on 10 per cent. That had to do with the frequency of your checking. Would you be checking them, doing the checks after the works had been

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C completed or during the construction stage? That makes C

D a difference; the different stages that you are doing D

E the checking are making a difference. E

F A. Let me put it this way. Before they report completion, F

G before the 5,204 flats are completed, before the G

H completion of works, we would be checking using that H

I proportion, and that is we would check on 520 units. I

J That would be the 10 per cent check. J

K Now, after all the works have been done, including K

L the waterworks, then we would be checking all trades, L

M for all flats. M

N CHAIRMAN: Now, you are talking about valves and taps N

O 10 per cent. Now, say for example, in the first week, O

P you install taps with 30 units. Are you going to check P

Q them for these taps installed in the first week or not? Q

R A. If we install taps on 30 units, so based on 10 per cent, R

S we would be checking three units only, because once they S

T are installed, the taps would not be dismantled. So we T

U would check on these three flats, and once that's done U

V then we consider we have checked the whole of the V

30 flats. Then, as more flats are completed, then we

would check more flats.

CHAIRMAN: So, in other words, if there are 5,200 units,

during construction stage, you would have checked 520

units during the construction stage, and after the

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

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C completion of works you would be checking 5,200 units; C

D is that right? D

E A. Yes, that's correct. E

F CHAIRMAN: So the hearing is adjourned for today. F

G MR SHIEH: I have a small request here. There will be some G

H overseas expert witnesses. The experts would like to H

I meet with the legal teams tomorrow morning, because they I

J have a time slot tomorrow morning. So can we ask that J

K the hearing starts at 11 am, so that the overseas K

L experts and the local experts can meet and discuss? L

M CHAIRMAN: Any objection to 11 am? No, I am sure nobody M

N would object to it beginning at 11 am. N

O So hearing adjourned until 11 am. O

P (4.37 pm) P

Q (The hearing adjourned until 11.00 am the following day) Q

R

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