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2016年2月19日

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上午9時35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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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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李柱銘資深大律師、譚俊傑大律師、吳思諾大律師及吳宗鑾大律師，由何謝韋、李偉業律師事務所延聘，代表啟晴邨及葵聯二邨公屋居民代表 Lee Pui Yi、Chong So Nga 及 Lui Hui Ping

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何沛謙資深大律師，由羅夏信律師事務所延聘，代表香港房屋委員會

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

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許佐賓大律師，由的近律師行延聘，代表保華建築營造有限公司

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孖士打律師行陳宇文律師，代表瑞安承建有限公司

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羅先生：主席，水務署而家想傳召簡國樑先生出嚟作供。

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主席：好呀，好呀。

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請宣誓，簡先生。

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水務署第三證人：簡國樑（水務署專家證人（本地建築及水喉業））以本

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地話宣誓作供
羅先生主問

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問：簡先生，早晨。

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答：早晨。

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問：我係代表水務署嘅大律師其中一位。請你翻開你面前嘅文件夾 C21 號，同埋揭去 18976 頁。係，簡先生，你為咗今次嘅研訊，其實係準備咗一個嘅專家證人報告。

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答：唔，唔。

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問：一陣間我係會將佢讀出，咁亦都請你確立一下，你會唔會採納佢成為你嘅主問證供一部。但係喺做呢樣嘢之前，我想先請你揭去 18995 頁。

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答：1899...

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問：5。

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答：18995。

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問：18995，呢一個係你嘅個人履歷嚟嘅。簡先生，搵唔搵到？

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答：係，係。

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問：係，係。咁呢一度，呢份履歷表係將簡先生你嘅即係教育背景、工作履歷，同埋一啲嘅專業資格亦都係列出嚟嘅。我好簡單咁問幾個問題，第一，就關於教育背景方面，你係有一個嘅理學士嘅學位，可唔可以簡單同委員會講一講呢個學位嗰個背景個資歷係點樣樣？

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答：呢個係我喺九十年代嚟講，係一個美國嘅銜授課程嚟嘅。

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問：係。另外，喺你嗰個工作履歷方面，睇到你由 72 年開始做學徒，之後，你係一直喺呢個建築行業、水喉行業，定有冇做過其他工，可唔可以簡單同委員會講一講？

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答：其實嚟講，我由 72 年入行到而家為止，一路都係喺呢個行業裏面做嘅，咁雖然我其中有啲時間係做消防工程，但係都係同做水有關嘅業務。

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問：係，唔該。然後，去到呢一頁較下嘅部分，係有一啲嘅關於你嘅公職或者專業資格等等。我想請問一下，第一項，“Chairman of The Institute of Plumbing and Heating Engineering - Hong Kong Branch (2011-2014)”。咁睇番你嗰個專家報告，我哋知道呢一個會就係所謂英國特許水務學會嘅香港分會，可唔可以簡單同委員會講一講呢一個會其實係咩嘢嘅組織嚟嘅呢？

答：呢個會係喺世界上一個幾乎係最早成立嘅一個水務學會，咁佢主要嚟講，就係促進呢個係水務工程行業嗰個發展，做一啲係 design guideline 嘅工作，同埋一啲係--佢哋亦都有--因為佢哋有個會員資格叫做 RP 嘅，喺英國嚟講係叫做註冊水喉匠，咁係做一啲培訓嘅工作。現時香港水務署用緊喺佢哋嗰個 design，或者喺香港好多嘅顧問工程，都係有用我哋母會嘅 guidebook 嚟做一個 design guide 嘅。

問：作為呢個會嘅會員，喺香港同嗰個持牌水喉匠 (LP) 嘅資格會唔會有啲咩嘢關係呢？

答：而家嚟講，香港水務署係認可我哋嘅 member 嚟講，就可以豁免係讀嗰三年嘅全科水喉技工課程。

問：係，唔該。然後，去到第四項，你亦都係一個“Advisory Board of the Licenced Plumber”嘅成員嚟嘅，可唔可以簡單講一講呢個“Advisory Board”係咩嘢？

答：其實呢個 Advisory Board 嚟講，主要就係喺去年嘅七月嚟講，香港發生鉛水事件之後，咁水務署嚟講，就同我哋水務業界就開咗唔少嘅會議，咁佢就喺商會、學會，或者係呢個持牌水喉匠會，都係邀請咗一啲代表去加入呢個會，就就住點樣去進行持牌水喉匠嘅監管係提出一啲建議。

問：係，明白。下一項，“Advisory Board of the CICTA (courses of plumbing and sanitary installation)”，呢個又係乜嘢嘅會嚟嘅呢？

答：其實嚟講，喺而家香港嚟講，除咗呢個 IVE 嚟講，CICTA 係其中一個係提供水務工程學員嘅培訓嘅機構。咁佢哋嚟講，就同我哋商會或者學會、整個業界嚟講都有好緊密嘅聯繫，咁佢哋就會喺每年都有一啲定期嘅會議畀大家去 review 一下，而家喺香港整個培訓課程裏面係咪能夠與時並進，有啲咩嘢新嘅嘢嚟講，係需要提供畀畀學員嘅。

問：唔，唔該晒，簡先生。咁簡先生，而家我會開始讀出你嘅專家證人報告，即係由 18976 頁開始，咁請你亦都慢慢咁聽，睇下會唔會有啲咩嘢地方，你需要有啲咩嘢澄清或者更正等等。

簡國樑的專家證人報告

1. 本人簡國樑，自 1986 年起成為一級持牌水喉匠，從事水喉工程超過四十年。我於 2011 至 2014 年，擔任英國特許水務學會香港分會主席，現於美利華亞洲有限公司任職董事總經理兼任技術董事。我公司主要承辦公私營供水、排水及消防工程。

2. 我過去曾參與之水喉工程項目有：七十至八十年代的大元邨、大興邨及愉景灣私人濾水廠等；在成為持牌水喉匠後，於九十年代以項目持牌水喉匠身份負責機場地面運輸中心和東涌港鐵站；以及近期的西九戲曲中心。我的履歷見附件一。

3. 我是應律政司的要求，代表水務署署長作提交專家證人報告，而該項要求乃律政司於二零一五年十二月四日致本人的信件中提出。除另有表明外，這報告所述的事實乃基於個人所知，或來自本人可查閱的辦公室檔案及記錄和本人可獲知的來源，而盡本人所知、所得資料和所信，這些事實均屬真確。

4. 本專家證人報告涵蓋以下範疇：

(i) 概括描述在高層住宅大廈中建造、安裝、保養、更改、修理或移動食水水喉系統的每個階段當中，包括其申請/審批，及建造/安裝/保養/更改/修理/拆除各階段，所需的人力資源，和於建造/安裝/保養/更改/修理/拆除階段時所涉及的機械需否多人同時操作，及各階段牽涉的不同人士所需要的經驗/技術知識水平；

(ii) 就一個公共房屋住宅項目（例如：啟晴邨），描述本人對以下事項的認知和理解：

(a) 整條屋邨的建造時，一般所需的人力資源（包括監督人員及工人）及時間；

(b) 屋邨內所有水喉系統及設施建造/安裝時，一般所需的人力資源及時間；及

(c) 只由持牌水喉匠親自進行每一項水喉工程工序的可能性(包括技術上是否可行,及若所有水喉工程的工序都須由持牌水喉匠親自進行,所牽涉的額外建築時間及成本);

(iii) 就水喉行業於過去三十多年的建造及安裝等作業模式,包括但不限於監督及審查該等水喉工程的一般做法或常規,根據當時的項目規模/複雜性、水喉物料、水喉接駁方法及水務署要求,提供意見;

(iv) 根據個人超過三十年的經驗,就香港水喉行業是否適合採用一個或多個持牌水喉匠親自進行建造、安裝、保養、改造、維修、及拆除內部供水系統每一項水喉工程工序的制度,提供意見。若認為不適合,請解釋這個要求一個或多個持牌水喉匠親自進行建造、安裝、保養、改造、維修、及拆除內部供水系統每一項水喉工程工序的制度,所需的修改為何;

(v) 個人對過去多年持牌水喉匠的培訓及發展的認知和理解;及

(vi) 針對在鉛水事件曝光前,評論持牌水喉匠於大型樓宇項目中所擔任的角色及安排是否恰當。

5. 在撰寫本專家證人報告時,我曾參閱以下由水務署提供的文件:

(i) 水務署助理署長梁永廉於2015年11月11日的證人陳述書;

(ii) 水務署助理署長林正文於2015年11月11日及2016年1月27日的證人陳述書;

(iii) 發展局助理秘書長陳慶於2015年11月6日及2016年1月27日的證人陳述書;

(iv) 水務署高級工程師張業駒於2015年11月11日的證人陳述書;及

(v) 一篇於2015年7月15日就科技大學擴建時發現焊料含鉛的報導,見附件二。

特別就林正文於2016年1月27日的證人陳述書內容,雖然我對於當中提及的外國例子沒有認知,但是當中提及香港持牌水喉

匠的職責、水喉工人的工作及專工專責等事項，如實反映業界的情況，我是同意的。

(一) 一般大型住宅樓宇進行水喉工程的程序

1.1 水喉工程設計階段

6. 就一般大型住宅樓宇發展項目而言，發展商會指示公司內的專業團隊或外聘顧問公司根據賣地條款及法例要求為發展項目進行設計及規劃。以水喉工程為例，專業團隊中的屋宇裝備工程師會根據相關要求，準備「水管工程計劃」(plumbing proposal)，內容包括平面圖及垂直水管路線圖，以標示水喉的路線、直徑及所有內部供水設備（包括防水箱、減壓缸、水錶房），以及相關的通道等。由於已有顧問團隊的參與，持牌水喉匠一般都無機會參與大型住宅樓宇發展項目「水管工程計劃」的準備工作。

7. 當「水管工程計劃」完成後，申請人（通常為發展商或其顧問團隊）會向水務監督提交水務表格 WWO542（申請供水/要求水務監督施工書）及「水管工程計劃」供水務署審批，水務監督會根據《水務設施條例》、《水務設施規例》、《香港水務標準規格》及《致持牌水喉匠及認可人士之水務署通告》的相關規定審核「水管工程計劃」，包括水喉系統的設計及擬使用之水喉物料等，以確定符合法例要求。水務署在「水管工程計劃」的批准信上均會提醒申請人須聘請持牌水喉匠進行水喉工程。

1.2 水喉工程建造及安裝階段

(i) 水喉分判商

8. 在建築階段，以公共房屋工程為例，房屋署會要求總承建商就一些特定工種所聘請的分判商，必須在房屋署的工程承辦商名冊內或由其指定的承辦商進行，當中包括屋宇設備工程的風（冷氣）、火（消防）、電；唯水喉分判商（但不包括水泵系統分判商）並未有同樣的安排。據我所知，房屋署就其合約工程的水喉分判商資歷亦沒有特定要求。

9. 當水喉分判商承接總承建商的工程後，會根據水喉工程之規模安排工程管理人員長駐地盤以進行與水喉工程有關的協調、解決技術困難及管理工作。水喉分判商亦會根據已批核之圖則準備施工圖(Shop Drawing)。

(ii) 持牌水喉匠的角色

10. 就水喉建築工程而言，持牌水喉匠負責進行內部供水系統或消防供水系統的建造及安裝，並確保有關水喉工程符合法例的規定及水務監督的要求。持牌水喉匠須在水喉工程開展前，向水務監督申請許可，以進行該工程，亦須在工程完成後，向水務監督申報完工，並要求水務監督檢查該已完成的工程。

11. 持牌水喉匠可以是總承建商或水喉分判商的僱員，甚至是水喉公司僱主。以本人為例，我是持牌水喉匠，亦是水喉公司僱主。不論作為一個持牌水喉匠或水喉公司僱主，在承接工程及簽署水務表格 WWO46 後，便須確保水喉工程按照《水務設施條例》、《水務設施規例》、《香港水務標準規格》及《水務署通函》之要求進行。因此我會選擇由自己擔任持牌水喉匠之角色，並因應水喉工程之規模，安排合適的人員協助。雖然我公司已有僱員取得持牌水喉匠的資格，但由我自己擔任持牌水喉匠，既可以統一物料的採購，又可以免卻個別僱員離職後需申請更換持牌水喉匠的繁瑣手續。至於受總承建商或水喉分判商僱用的持牌水喉匠，則會根據其聘用條款履行相關工作。

12. 本人作為水喉項目之持牌水喉匠，雖然並非長駐地盤，但亦會不時透過受聘的駐地盤工程人員監察工程項目，包括物料的採購、運送、跟進工程的進度及質量和與地盤內其他持份者聯絡等。而一般駐地盤之管理團隊內，均有僱員已達獲取持牌水喉匠資格或更高資歷（例如高級文憑或學位等），以確保水喉工程按照法例及合約要求進行。

(iii) 水喉物料及配件的審核

13. 水喉分判商的持牌水喉匠會根據由顧問團隊準備，並已獲水務署批准之「水管工程計劃」、圖則、已獲審批採用的喉料和掣類及相關資料，準備水務表格 WWO46 第一部份及填報工程所使用之物料及配件，然後透過總承建商交回認可人士及申請人查閱及確認。當表格 WWO46 第一及第二部份分別由持牌水喉匠、認可人士及申請人簽署後，便會呈交水務署。最近，水務署推出一系列措施，包括更新表格 WWO46，水務監督會檢查表格內所列之喉料和掣類，包括如需採用的焊料是否齊全及已取得認可，若認為所填報資料符合規定，才會批准水喉工程開工。

14. 就水喉工程所使用之物料，其實行內一般並不會使用不符合規格 /

未獲批准之水喉配件。這是因為如要在其後進行糾正工作將會十分繁複，所牽涉的費用亦可能十分龐大。

(iv) 水喉工程所涉及的人手及資歷

15. 以我公司現正進行的西九龍戲曲中心為例，該項目之水喉及消防工程合約總額約為港幣五千多萬，除了本人擔任持牌水喉匠一職外，我公司派駐該地盤的管理人員有項目經理一名、項目工程師一名及助理工程師和管工各兩名。該項目預計所需之水喉工人人手約為四千六百工日；以項目合約期為一千零七十天計算，減去約五百天作準備工作，當中約有五百七十天需要水喉工人進行工程，即預計平均每天約需 8 至 9 名水喉工人，但實際水喉工人需求會隨工程進度配合增減，但預算之總工數基本不變，這亦是水喉公司投標估值時的基本預算。另外水喉及消防工程均有長駐的管工，協助駐該地盤的管理人員進行準備工作。

16. 另一例子為一座位於中環的單幢式甲級寫字樓，水喉及排水工程合約總額約為港幣一千多萬。除了本人擔任持牌水喉匠一職外，我公司委派負責該地盤的管理人員包括項目經理、項目工程師及助理工程師各一名。而該項目預計所需之水喉工人人手約為二千二百工日；以項目合約期為七百日計算，減去約一百八十天為準備工作，當中約有五百天需要水喉工人進行工程，即預計平均每天約有 4 至 5 名水喉工人於該項目工作，但實際情況亦與西九項目雷同，水喉工人需求會隨工程進度配合增減。管理人員每天監察工地的進度，並於有需要時通知管工到工地協助準備工作，該管工會於水喉工程安裝期間長駐工地管理水喉工人。

17. 派駐地盤的工程管理人員的資歷一般視乎工程項目之規模及複雜性，而一般工程項目亦會於合約上指定其資歷要求。一般而言，項目經理會有多於五年之相關經驗，項目工程師則有大約五年經驗，而助理工程師則可能是剛畢業的學生。前線管工通常經驗則比較豐富，會具多於十年之工作經驗；而部份行內的管工都已備有持牌水喉匠或水喉大工的資格。

18. 然而，上述兩個例子均未包括寫字樓之支援工作（例如人事、物料採購及提交文件等）所需之人手。而水喉工程所需物料的採購工作，尤其喉管物料，通常會由水喉分判商進行。倘若水喉分判商再將水喉工程分判，分判的部份子見乎雙方合約，但一般都只會要求三判淨包人工或連雜項，當中的雜項是指一般都是很難量化的消耗品，例如焊料。

19. 事實上，住宅樓宇內水喉及其配件的安裝非常簡單，幾乎所有工程合約均要求為典型住宅單位內部喉管做樣辦房，樣辦房經各監管人員驗收合格後，工人便可根據樣辦房式樣開大料和施工。最重要的步驟反而是事前的準備工作，例如水喉工程分判商須根據合約文件預備施工圖紙和物料清單經總承建商呈交給顧問、建築師和業主等的代表審批。分判商再按照已審批的施工圖紙和材料清單訂購符合規格/已獲批准之水喉及其配件、安排物料適時和適量地運送至地盤、按照施工圖則在適當位置預留穿牆孔和安排適當人手進行工程等等。

20. 水喉工程所需之物料及配件會因應工程進度分批運送地盤，水喉分判商的管理人員會預早通知總承建商到料的時間，約同總承建商和建築師委派駐工地的屋宇設備工程人員進行驗收工作，利用吊運工具或物料升降機等將水喉物料及配件儲存於特定位置或工場。一般水喉工程分判商均會聘用有豐富經驗的管工負責工地的安裝安排。如果類似房署的大型住宅工程，由於不包括水泵及機電安裝部份，相對私人發展商的項目就較簡單。管工除會聘用水喉工人外，亦會聘用小量雜工協助處理非技術性的工作，將單一非技術性的工作，由指定的工人進行，簡單的事天天做，任何工人都會很快成為熟練工人。由於房署的住宅屬於典型工程，管工一般會考慮將部份工序於工場內以流水作業型式完成，以減輕熟練水喉工人的工作。工場內的流水作業包括由半熟練水喉工人負責使用喉管切割機按樣辦房式樣開大料，再由雜工清理喉管和配件的接駁口，如有部份較短的喉管焊接工作能於工場內進行，管工亦會安排熟練工人在工場內完成。雜工再將半完成的喉管按指示和其他所需物料按各住宅類型捆扎，再經吊運工具運送至安裝地點。

21. 若事前的準備工作都做得妥當，水喉工人在各住宅樓層的裝嵌工作就相對比較簡單，半熟練水喉工人或雜工會將已裁好的大料和半完成的喉管分派到安裝地點。而安裝水喉時，一般亦會採用流水作業式操作，安裝供水喉和排水喉會由不同工人組合進行，以安裝供水喉為例，會先由指定工人組合負責安裝喉碼，這部份工作需使用手電鑽、手鋸、鉗和電線拖板等。水喉工人會先利用錯射機射出的平水線按距離定好喉碼的位置，然後鑽石屎，裝好一邊喉碼後再由幫工將已裁好的喉管掛上喉碼並收口，最後便由熟練水喉技工進行喉管焊接工作。銅喉的連接方式可分為壓合式、內含錫圈焊接式或無錫圈焊接式。過去的連接方式主要是壓合式或內含錫圈焊接式；但現時一般都會使用無錫圈焊接式接駁銅喉

(這演變可見下文第 35 及 36 段)，當中牽涉的工具和材料包括手提石油氣火槍、畫筆、抹布、鏢絲批、鉗等輕型工具和錫線及焊膏。始終，住宅單位內的水喉都很輕，而且工序都是安裝喉碼、放喉及焊接。基本上，一個熟練水喉工人，一個人都可以處理一個單位內的所有供排水設施及潔具的安裝。至於外牆的企身喉或水泵的安裝，由於比較重，則需要兩個水喉工人同時進行。其餘的管道內主喉管或外牆的主喉管或水泵設備等的安裝，由於比較重，則按個別需要可能由兩個或多個水喉工人同時進行。

22. 上世紀九十年代前銅喉的連接方式主要為壓合式和內含錫圈焊接式。雖然兩者價錢分別不大，但由於當時不多水喉工人懂得以燒焊方式接駁內含錫圈的配件，因此當時銅喉多數使用壓合式配件連接銅喉。1987 年，我做置富花園更換喉管工程時仍是使用壓合式配件連接銅喉。

23. 直至九十年代，市場開始較為開放並提供較多種類的焊接物料及配件，並有供應商引入無錫圈的喉管配件及焊膏。根據我的記憶，1994 年，我做深圳富臨酒店工程時，便開始使用無錫圈的喉管配件連接銅喉。相較於利用壓合式或內含錫圈的配件接駁喉管，使用無錫圈的喉管配件並以錫焊接駁，無錫圈的喉管配件價錢約便宜 5 至 7 倍。再加上香港於八十年代末開始，由職業訓練局開辦水喉全科技工課程，並就水喉工程提供有系統的培訓。故此，業界開始對燒焊方式接駁喉管的工藝有所掌握，燒焊接駁方法才慢慢變得普及。

(v) 水喉工程的巡查

24. 由於樓宇能否得到供水是取得人伙紙的其中一個重要因素，地盤內各相關的持份者均在水喉工程施工期間都有高度參與。因此，他們都會委派合適的駐地盤工作人員對各項工程(包括水喉工程)作出相應的監管，例如總承建商須就完成的工序呈交表格要求發展商代表視察及驗收(Request for Inspection)。另外，各持份者亦會透過定期召開會議互相緊密協調，商討工程進度，解決施工或技術困難。例如總承建商、認可人士及發展商代表會召開雙週會議；總承建商及分判商會召開週會等等。

25. 當水喉工程部份或全部完成時，持牌水喉匠會要求水務署就完成之工程進行視察，檢視其水喉路線及物料等。雖然水務署會作出巡查，但是工程的監管工作主要應該由駐地盤之團隊進行。這是由於不同物料的接駁方法，應跟供應商提供的 Catalogue 去做。

例如鋸喉後，如喉內身出現披口，便要立刻跟進刮平，否則接駁之後根本看不見喉內隴的披鋒，亦無法再跟進。又例如推插式 Ductile Iron Pipe 的接駁指明要用非油性的潤滑劑，如不是由駐地盤之團隊監管工作質量，接駁之後亦不會知道用了哪種潤滑劑。同一道理，在水務署作出巡查時，是不可能單憑目測知道已接駁喉管上的焊料是否合鉛。

1.3 水喉系統之保養、更改、修理或移動

26. 根據法例，持牌水喉匠亦負責進行內部供水系統或消防供水系統的保養、更改、修理或移動。就水喉之維修工作，據我所知，房屋署會以定期合約型式聘請維修承建商，作定期檢查、清洗水缸及緊急維修等工作。而一般較大型之屋苑會亦有其指定之水喉承建商，於需要時進行緊急維修工作。有關維修承建商都會聘請持牌水喉匠及相關熟練技工為僱員。至於其他小型住宅樓宇，倘若需要就內部供水系統或消防供水系統進行維修或保養，一般會聘請市面上的水電公司進行，而這類公司通常亦聘有持牌水喉匠及相關熟練技工為僱員。

(二) 一般公共房屋工程所需的人手及時間

27. 雖然我近年未有參與公共房屋的發展項目，但是其建築工程的一般安排和水喉工程的技術與私人發展項目大同小異。根據我的認知，一般公共房屋的建築期為一座 850 - 1000 天，當中涉及的工序有地基、樓宇結構（釘板、紮鐵、落石屎）、屋宇裝備（風、火、水、電）和室內裝修等。以前公共房屋的樓面一般是 8 - 10 天一個 Cycle，自部份採用預製組件後，更縮短至 5 - 7 天一個 Cycle。至於人手方面，我未能提供其他工序所涉及的人手數目，但一般而論，每個工種在整個建築期內都有不同的人手高峰期。

28. 就水喉工程方面，公共房屋項目通常會待完成約一半樓層的模板拆卸工序後才由水喉工人開始安裝上水喉。在此之前，水喉工序多為於建築組件內預留喉管穿越位置，並只需要少數工人。

29. 據我所知，公共房屋項目的施工方法與其他發展項目也有不相同的地方；由於其建築採用預製組件，並不會搭建外牆棚架，外牆部份的水喉工程需待大樓工程完結後才以吊船進行。這與私人住宅樓宇中水喉工程由下而上的施工方式有很大分別。項目後期亦需進行安裝潔具等工作，需要大量人手。公共房屋水喉工程的施

工高峰期通常為建築項目完工前三數個月，所需之人手比平時，即平均每天約需 8 至 9 名水喉工人多出四至五倍。由於在這短短數月內所需要之水喉工人一般每天超過 30 至 40 名，所以公共房屋項目之水喉工程會較其他發展項目較難監控安裝工人。

(三) 水喉工程業界過去三十年的作業模式

3.1 工程規模及複雜性

30. 以往的內部供水系統較為簡單，隨著社會發展，水喉工程的規模逐漸變大，複雜性亦較高。以公共屋邨為例，六十年代末期興建的第一代公共屋邨，大多樓高 12 至 13 層，只有「單冷水」的供水系統。七十至八十年興建的第二代公共屋邨，樓高已達 20 層，仍採用「單冷水」的供水系統，當時平均每座只需要 5 至 6 名工人進行水喉工程。

31. 現時的水喉工程，除牽涉食水、鹹水及消防系統外，有時更需要興建清潔用水、灌溉用水及雨水集蓄系統等等。如上述，現時興建的公共房屋普遍採用預製組件模式，水喉工程因而往往被安排於樓宇興建工序的後期階段的三數月內完成，因此在這高峰時候，每座需要超過 30 至 40 名水喉工人同時施工。

3.2 喉管物料

32. 在七十至八十年代，供水系統一般採用符合 BS 1387 的鍍金辛鐵管(galvanized steel pipe, G.I. pipe)；而鹹水供水系統採用符合 BS 3505 的低塑性緊氯乙稀喉管(unplasticized P.V.C. pipe)。雖然當時市場上已有銅管供應，而且其傳熱性較佳，亦不會生鏽，適合使用於熱水系統；但由於其價錢較貴，所以一般住宅亦多採用鍍金辛鐵管於冷水及熱水供水系統。當時只有較高級之住宅及建築物會使用銅管於熱水供水系統。

33. 其後，由於發現使用無內搪層鍍鋅鋼管(unlined G.I. pipe)容易生鏽並令食水變色，在九十年代初，市場便出現內搪層鍍鋅鋼管(lined G.I. pipe)，而水務署更於 1995 年起禁止屋內食水供水設備採用無內搪層鍍鋅鋼管。自此，室內喉管便改為內搪層鍍鋅鐵管或銅管。而因為銅管較為便宜，所以私人樓宇大多採用銅管。但是銅管受碰撞時較易變形及容易被鋸走變賣，所以較少於戶外及容易觸及的位置使用（例如灌溉系統及走廊之水錶

位)，相信這也是房屋署初期不採用銅管的原因。除此之外，亦有個別高級大廈採用不銹鋼喉管。

34. 據我所知，房屋署自禁止食水供水設備採用無內搪層鍍鋅鋼管後，曾試用其他水管物料，當中包括內搪層鍍鋅鋼管。然而，儘管供應商表示內搪層鍍鋅鋼管的使用期限可超過三十年，但其耐用性會受施工工藝所影響。如喉管切割不當，內搪層便會剝落而引致容易生銹並令食水變色。因此房屋署於約 2000 年後開始考慮由內搪層鍍鋅鋼管轉用銅喉。

3.3 連接銅喉的方式

35. 七十至八十年代的市場上，銅喉的連接方式主要為壓合式和內含錫圈焊接式。雖然兩者價錢分別不大，但由於當時不多水喉工人懂得以燒焊方式接駁內含錫圈的配件，因此當時銅喉多數使用壓合式配件連接銅喉。1987 年，我做置富花園更換喉管工程時仍是使用壓合式配件連接銅喉。

36. 直至九十年代，市場開始較為開放並提供較多種類的焊接物料及配件，並有供應商引入無錫圈的喉管配件及焊膏。根據我的記憶，1994 年，我做深圳富臨酒店工程時，便開始使用無錫圈的喉管配件連接銅喉。相較於利用壓合式或內含錫圈的配件接駁喉管，使用無錫圈的喉管配件並以錫焊接駁，無錫圈的喉管配件價錢約便宜 5 至 7 倍。再加上香港於八十年代末開始，由職業訓練局開辦水喉全科技工課程，並就水喉工程提供有系統的培訓。故此，業界開始對燒焊方式接駁喉管的工藝有所掌握，燒焊接駁方法才慢慢變得普及。

37. 而有關焊接銅喉的燒焊物料，我公司內全部工程員工都知道是不可含鉛的。這主要是因為我比較多僱用於職業訓練局就讀相關水喉課程的畢業生，而課程中有教授食水喉管須使用無鉛焊料，以及無鉛及含鉛焊料之分別等的知識。

38. 就地盤施工燒焊時使用焊料的方法，市場上售賣的無鉛焊料均是卷裝的，而條裝的焊料均是含鉛的。如果來貨是卷裝的，我認為一般水喉工人不會浪費時間於架步先將焊料剪成一條條，才帶上工地進行燒焊，我亦看不到有此需要。這是基於三個原因：第一，水喉工人流動性很高，他們一般都曾於不同的地盤、伙拍不同的管工工作，但自 1994 年我開始使用無錫圈的喉管配件連接銅喉後，我及我公司所有的水喉工人均是使用英國出產的卷裝焊料及

焊膏，並拿著整卷焊料在任何環境/位置進行燒焊工序，包括室內、室外、外牆或天花的喉管。而且，根據我聘請的學徒的親身經驗，培訓機構教導學員亦是手持整卷焊料進行焊接訓練；第二，拿著整卷焊料進行燒焊工序可確保工人的手跟熱點保持一個特定的安全距離，而卷裝焊料包裝為不傳熱之塑膠物料，除不傳熱外，亦有手感。反之，若焊料剪成一條條後則太輕太幼，沒有手感，而且焊料會愈燒愈短，每一次燒的時候距離都不一樣，而手持之部份最終會變成損耗的材料，造成浪費。第三，上述是我的親身經驗和認知，然而我並不排除有水喉工人習慣於天花或外牆燒焊會先將焊料剪成一條條，但其實一個建築工程，亦有不少喉管位於低處或室內的，無需每一個位置的燒焊都必須先將焊料剪成一條條。倘若工人於低處或室內進行燒焊時都使用卷裝的焊料，當地盤管工於巡察時見到綠色卷裝的焊料，一看便會知道是不合鉛的焊料。

3.4 內部供水系統收集水樣本進行化驗

39. 一直以來，水務監督都要求在新敷設的地下食水管的接駁位置，收集水樣本進行分析，以確保政府供水系統不會受其污染。因此水務監督只會在水樣本測試結果符合接受標準的情況下才提供供水。我對於各種水質測試參數沒有深入研究，只知道須按水務監督要求對水樣本作出測試，測試參數包括大腸桿菌等，以確保市民飲用後不會做成身體不適。而水務署通函第 2/2012 號所指對內部供水系統其他部份所進行的水樣本收集和分析，其測試結果符合接受標準並不是提供供水的前設。直至水務署發出通函第 5/2015 號，才首次列明水務監督只會於所有水樣本測試結果（包括於地下食水管的接駁位置及內部食水供水系統所抽取的水樣本）符合接受標準的情況下，才會提供供水。

(四) 只由持牌水喉匠親自進行水喉工程的可能性

40. 水務署通函第 2/90 號已指出，持牌水喉匠可僱請其他人協助工作，而該等工人毋須為持牌水喉匠，但持牌水喉匠須承擔監督的責任。其實，由工人協助持牌水喉匠進行水務工程的安排，自本人人行至今未曾改變。

41. 理論上，持牌水喉匠能親自施工，這是因為三年的水喉全科技工證書 (Craft Certificate in Plumbing and Pipefitting) 已包括水喉實習課程，而在修讀 39 小時的香港水務設施課程證書 (Certificate in Plumbing Services (HongKong))

前，有關人士已擁有至少四年的水喉業實務工作經驗。但是由於一般持牌水喉匠會學習較多水務條例、供水系統理論、香港水務標準規格及水務署的申請程序等，他們大多可以比單純施工的水喉工人勝任需要更多工程知識的崗位，例如工程管理人員等。因此市場上願意擔當水喉工人的持牌水喉匠數量相信不多。再者，雖然持牌水喉匠有一定技術程度，有能力擔當水喉工人之角色，但是其技巧亦未必夠一般市場上的水喉工人純熟。若要求所有水喉工程均須由持牌水喉匠進行，相信一般項目不太可能找到足夠的持牌水喉匠進行工程。即使能夠找到足夠的持牌水喉匠，亦難免令工程項目造價及成本上升。

42. 此外，根據水務署提供的資料，全港持牌水喉匠現時約有 3000 個，當中約 700 多名仍有進行遞交申請書(表格 WW046)的工作。但這不代表餘下的 2200 多個持牌水喉匠已退出水喉行業，因為其中為數不少其實於水喉工程公司擔當著不同的崗位，例如管工或工程師。但是，即使加上現時約 7900 多名的註冊水喉工人，我估計現時整個水喉行業仍缺 2000 至 3000 人。由此可見，若要求只由持牌水喉匠親自進行所有水喉工程，從現實情況來看是完全不可能的。

(五) 持牌水喉匠的培訓和發展

43. 我早於 1977 年已開始嘗試申請成為持牌水喉匠。當時要成為持牌水喉匠，須填妥申請表格、申報個人工作經驗，並繳付費用，然後參加筆試。筆試內容主要考核如何設計一套內部供水系統，亦包括在圖則上標上適當的圖例及喉料標準。通過筆試後則可進行面試，考核有關《水務設施條例》的知識。我於 1986 年取得持牌水喉匠資格。八十年代末至九十年代初，持牌水喉匠須進行實際操作考試，包括接駁膠喉及銅喉等等。

44. 八十年代末，職業訓練局開始就水喉工程提供有系統的培訓課程，並頒發水喉全科技工證書。政府亦相應修改法例，提升申請水喉匠牌照所需持有的學歷資格。

45. 現時要成為持牌水喉匠需要持有 (i) 職業訓練局於 1987 年後頒發的水喉全科技工證書或相等資格；及 (ii) 職業訓練局頒發的香港水務設施課程證書或相等資格。

46. 水喉全科技工證書課程是一個三年制的課程，主要提供有關水喉全科之工藝理論及實習訓練。水務監督亦接受以下的資歷為相等

資格：

(i) 持有倫敦城市公聯會頒發的水喉工藝證書 (Plumbing Craft Certificate issued by the City and Guilds of London)；或

(ii) 是英國特許水務學會 - 香港分會（前身是英國水務工程學會）會員。

47. 香港水務設施課程證書則是一個 39 小時的課程，主要教授有關水務設施規例及標準要求。報讀者須持有水喉全科技工證書相等資格，及擁有最少四年水喉業實務工作經驗。

(六) 對現行制度的意見及建議改進空間

48. 今時今日，一個住宅發展項目內的水喉工程已有多個持份者參與及監督，但現時的制度也不可能是完美的，當然亦會有相當的改進空間。以下是我的建議：

(i) 可推行公司制，規定所有從事水喉工程的承辦商須註冊，確保工程只會經由合資格的承辦商聘用合資格的人員進行。

(ii) 與時並進，提高新申請水喉匠牌照所需持有的資格。

49. 以上的建議需要多方面配合，例如我們必需要增加為申請水喉匠牌照所認可的水務課程，才有機會提高持牌水喉匠的資格。英國特許水務學會香港分會、香港水喉潔具業商會、香港給排水學會、香港持牌水務專業學會、香港水務專業協會（簡稱「五會」）於 2012 年已提出要增加水務相關課程。最終香港專業教育學院 (IVE) 於 2014 年開辦了一個相等於資歷架構水平 4 級的文憑課程 (Level 4)，而香港高等科技教育學院 (THEi) 於 2015 年亦開辦了一個相等於資歷架構水平 5 級的水務工程專業文憑課程 (Level 5)，完成上述課程後可銜接升讀屋宇設備工程學士的第三年級課程。但 2014 年 Level 4 文憑課程預計畢業人數只有約 30 人，根本不能填補業界人才的流失。

(七) 對一篇報導關於科技大學焊料含鉛事件的看法

50. 就一篇報導關於 2015 年 7 月 15 日就科技大學擴建見發現焊工料含鉛的報導，內容提及“多年前科技大學擴建工程，校方按自行標準檢驗出水質含鉛量超標，最後是校方自行把內牆所有組裝焊

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51. 謹此確認，盡本人所知、所得資料和所信，這份專家證人報告的內容全屬真確。

H

H

日期：二零一六年一月二十九日

I

I

簡國樑

J

J

K

K

問：簡先生，你聽過我閱讀--讀咗你嘅專家證人報告一次，咁喺 18994 頁上面有個簽名，嗰個係咪你簽名嘍？

L

L

答：係。

M

M

問：係。簡先生，你願唔願意採納我剛才讀過嘅呢一份報告成為你嘅主要證供？

N

N

答：願意嘅。

O

O

問：有冇任何其他嘢你想澄清或者更正？

P

P

答：冇需要。

Q

Q

問：好，唔該晒。跟住會有其他大律師去問你問題。

R

R

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石先生盤問

T

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問：簡先生，早晨，就我有啲問題係想請教下你嘅。就麻煩你睇一睇你嘅履歷，就係 18995 頁，中間嗰度就關於 employment history 嗰度，即係關於你嘅就職嘅經驗。咁就你一開始就係學徒，係咪？Apprenticeship。

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答：係。

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問：你跟住就有好多唔同嘅職位，做過技工咁樣，即係可以話係即係實戰出身嘅，可唔可以咁講？

D

E

答：可以咁講。

E

F

問：呢啲叫紅褲仔出身，係咪呢啲叫做？

F

G

答：可以咁叫。

G

H

問：係，係。就由低做到高可以叫做，可唔可以咁講？

H

I

答：可以咁講。

I

J

問：係。即係我哋有陣時聽過喺呢個聆訊裏面，就好多唔同嘅工種，或者做水喉嘅職位嘅名，睇番你就係持牌水喉匠，就大工嘅職位，你有冇曾經試過擺到，即係我哋而家嗰啲叫大工、中工咁樣嗰啲呢？

J

K

答：其實咁樣講，因為我喺 1986 年已經係擺到呢個...

K

L

問：LB。

L

M

答：...持牌水喉匠。

M

N

問：係。

N

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答：咁當初係呢個摩利臣--Morrison Hill 係去制訂一啲係 trade plumber，或者係嗰啲咁嘅 cert 嚟講，我哋持牌水喉匠係唔需要再考嘅。

O

P

問：因為已經包晒，即係高級嘅直情包埋可以，係嘞。

P

Q

答：我哋去擲嘅，即係當時我係有呢個制度嘅時候，我係擲咗嗰個 trade plumber 嘅牌返嚟，因為持牌水喉匠係可以直接擲嘅。

Q

R

問：得，我明，得。我亦都聽過，就好多時候喺呢個地盤、工地嗰度，就有啲叫做「打理」，有冇聽過呢一種叫法？

R

T

答：有。

T

U

問：因為...

U

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答：我哋行內通常叫「執位」。

C

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問：就無論用邊一種嘅叫法，即係呢一個崗位，你之前都有曾經擔當過嘅應該？

D

E

答：有。

E

F

問：係相對於你個 employment history 裏面嘅邊一個 description？因為你用英文寫，所以我哋想知道。

F

G

答：Site Foreman。

G

H

問：Site Foreman？

H

I

答：係。

I

J

問：Okay。咁就呢個就譬如話整個--整條邨咁就有個即係總嘅負責關於水喉工程嘅，嗰個叫打理，或者你叫執位，咁你做過。咁當然就一個大嘅地盤，可能佢有唔同座數，咁每一座可能佢會有自己嘅一個人去負責嘅，咁嗰啲崗位你都做過嘅，係咪？

J

K

K

L

答：有。

L

M

問：有，咁就得。我就可以一陣間會問你一啲關於即係工地實際發生嘅事情。你嘅公司而家就叫做美利華亞洲有限公司？

M

N

答：係。

N

O

問：咁亦都係嘞，我想套番落去我哋曾經聽過呢個聆訊裏面出現過嘅一啲公司，佢哋扮演嘅角色。好多時候我哋知道就房委會，我哋講番即係公營房屋（公屋），房委員就批咗個合約出去就畀個總承建商，總承建商當然就會判啲嘢落去畀分判商，咁水喉工程就會畀咗一啲叫做 plumbing subcontractor（水喉分判商），咁你嘅公司係咪就係即係水喉分判商呢個角色？

O

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Q

Q

R

答：係。

R

S

問：係。我哋都會聽過行內有好多唔同第二啲嘅分判商，即係唔好介意，當然大家可能覺得話，我同佢唔同嘅咩嘢盛，但係即係其實你有冇聽過，譬如話好多時候我哋聽見過 main contractor，我哋都聽過佢哋會判過畀譬如話何標記或者係金日，或者諸如此類。即係你--公司

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梗係間間唔同，但係即係你扮演嘅角色其實係同何標記或者係金日，佢哋扮演嘅角色都係類近嘅，就係喺主承建商度擺個合約返嚟做，對嘛？

答：類似喇，可以講，因為始終就我唔知佢哋內部所簽嘅合約，...

問：係。

答：...所包嘅範圍去到乜嘢。

問：得。但係總之就籠統嚟講，我哋講籠統，份份合約都唔同梗係，佢要你包乜都可能唔同，但係總之你話主承建商擺咗合約返嚟，...

答：係嘞。

問：...佢有關於要鋪設喉管，咁佢就判咗畀貴公司去做？

答：或者咁講，喺成個業內嚟講，總承建商嚟講，都係會將水喉工程或者係其他屋宇設備工程係分包畀唔同嘅分包商。

問：係，嘎。

答：而我哋呢種咁嘅分包制度嚟講，我哋叫 domestic subcontractor，...

問：係。

答：...係一個--內部係兩個一個商業嘅 deal 嚟嘅。

問：係。

答：咁就同我哋--又或者我哋公司除咗做呢類咁嘅分包商，我哋亦都有做一啲 specialist 嘅政府工程。

問：係，係。

答：咁啲啲就好有系統，就會係好劃一，我哋必須係根據政府嘅要求去承包某個責任，但係內部嘅，你可以拆到好細。所以你問我同佢哋係咪相同，我又唔敢講，係。

問：總之你嘅合約嘅對家就係政府又有，政府可能直接委派你又得。

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答：係，咁啲就標準嘅。

C

D

問：係。但係亦都可能係政府已經判咗畀個主承建商做晒成個項目，主承建商同你有個合約關係，就叫你，「唔該你負責水喉呢部分。」

D

E

答：係，啲啲可以拆到好細嘅，究竟包乜我哋唔係唔清楚。

E

F

問：得，得，我明，得，得，好。我就想你睇一睇你嘅 18978 頁。

F

G

答：18978？

G

H

問：係，第 6 段。你裏面就講到即係一般大型屋宇嘅即係發展項目，呢個係亦都係好籠統咁樣去講法？

H

I

答：係。

I

J

問：你就講到嗰個一般嘅做法，就係個專業團隊裏面就有屋宇裝備工程師，呢個就係 building services engineer，對嘛？

J

K

答：係。

K

L

問：咁就會準備咗 plumbing proposal 諸如此類。你就話持牌水喉匠一般就有機會參與大型屋宇樓宇--住宅樓宇發展項目呢個水管工程計劃嘅準備工作嘅，你就咁講。

L

M

M

N

答：係。

N

O

問：呢個你覺得喺即係從事作為一個持牌水喉匠或者叫做一個即係資深嘅水喉從業員，會唔會對你做嘅工作會有啲窒礙，呢一個即係行業一般嘅做法？

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答：唔會...

Q

R

問：我可以 specific，即係特別少少咁講，就係屋宇裝備工程師佢要顧好多瓣嘢，佢哋未必真係會讀過，或者係進修過關於水喉呢方面嘅嘢，同唔同意？

R

S

答：我唔係好同意嘅。

S

T

問：唔係好同意，係。

T

U

答：頭先喺我嘅證供裏面都提到，其實香港呢間登記咗嘅持牌水喉匠係接

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近有三千個嘅，實際進行緊呢個工程嘅係大約得七百個嘅，其實二千幾個係緊咩嘢呢？就正正就係話去咗一啲顧問工程師行，去做一啲顧問工程師。就以我哋學會為例，我哋 committee 裏面，我哋而家有十五個 committee，咁係超過半數都係顧問工程師裏面做嘅，全部都係持牌水喉匠。

問：所以就雖然名義上一早去策劃、去 plan 呢一啲嘅水喉嘅計劃嘅時候，名義上唔係由一位 LP 去做，但係其實實際上係個顧問工程師嘅團隊裏面，可能佢其中一個僱員都可能係有 LP 嘅資格，對唔對？

答：或者因為我哋咁樣去睇，因為喺呢個口供裏面，我哋針對個 LP 嚟講，係指某一個項目負責去建造、安裝嗰個持牌水喉匠，咁我哋就定性咗佢係一個 LP。

問：係。

答：但係嚟講，喺一個前期工程嚟講，呢位負責去設計嘅屋宇設備工程師嚟講，佢並唔係日後嗰個工程嘅 LP 嚟。

問：我明，我明。即係話 LP 理論上係叫做--實際點，我哋遲啲慢慢講。即係理論上，LP 就叫做係做水喉方面，理論上係應該最識嘢嗰個嚟嘅，同唔同意？

答：就唔可以話 LP 係最識嘢，因為而家我哋 LP 嚟講，喺行內有幾千個人，有啲人喺攞到 LP 資格之後嚟講，佢就只係停留喺地盤一個實務工作嘅階段。

問：明白。

答：但係有啲人攞到 LP 之後嚟講，佢會繼續去進修，由 cert 或者 high cert 一路讀上去，直至攞到 degree，亦都去咗一啲公司做一啲管理層嘅職位。所以其實 LP 嚟講，係有唔同嘅層次，可以咁講。

問：得，我明，不如咁，我哋唔好糾纏於究竟你有冇 LP 呢一個銜頭。你講嘅意思--其實我睇下我可唔可以即係準備地反映到你所講嘅嘢，就係其實由 building services engineer 因公司去負責做一啲前期嘅嘢，而到後來真係簽名嗰個 LP，佢未必有機會參與呢個前期工作，其實你未必覺得係一個好大嘅問題。因為 building services engineer 個團隊裏面，自然係會--應該會有啲識嘢嘅人喺裏面策劃嘅，可能佢哋都包含咗一啲有 LP 資格嘅人，都係識嘢，同唔同意？

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C

答：可以咁講。

C

D

問：即係唔會存在咗一啲所謂外行領導內行嘅事情嘅，你 BSE 裏面 plan 得做水喉嘅嘢，自然佢要確保做嘢嘅人係識嘢嘅？

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E

答：或者咁樣講，一個屋宇裝備工程師嚟講，佢係咪擁有一個 LP 資格唔係一個最重要嘅。

E

F

問：我明。

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G

答：佢哋喺個 design 嚟講，佢係主要做一啲係計數，呢座樓有幾大，需要用水量係幾多，咁佢去設計個喉管嘅大細。而持牌水喉匠喺作為一個監工嘅角色嚟講，佢最主要就係要確保喺整單工程裏面，嗰個工程嘅進行係根據香港水務條例、水務規例，同埋呢個係水務標準去做。

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問：明白。

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答：大家所負責嘅範疇完全唔一樣。

J

K

問：明白，係，我正想就係問。即係所以其實你之前前期嘅嘢，你識唔識 LP 要學嘅嘢，其實未必有關係？

K

L

答：未必有關係。

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M

問：所以其實你第 6 段最耐兩行，其實唔係一個含貶義嘅一個說話嚟嘅，即係話「一般沒有機會參與水喉...」

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答：我係講係大型嘅住宅項目，就話嗰個項目嗰個持牌水喉匠係唔會有機會參與，因為呢個持牌水喉匠喺幾時出現呢？就話--我喺口供有講嘅，就話當個 plumbing proposal 批咗出嚟之後，就嗰個持牌水喉匠就係填咗嗰 WW046 先成為呢個項目嘅水喉匠。

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問：明白，明白。

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R

答：根本喺前期嚟講，佢可能就未出現喺呢個地盤。

R

S

問：明白，明白。即係話根本文件上、制度上需要有 LP 呢個名叫做浮面，就係開始要入 WW046，嗰陣時開始就要？

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答：但係係咪全部都係咁呢，就唔係嘅。

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問：我明。

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答：就以我自己實--自己為例，我喺十幾年前，我亦都有一啲好大型嘅香港嘅機電公司有邀請我做一啲係香機 contract 裏面嘅 team mem，就同我簽一啲 agreement，就話如果佢哋 award 個 contract 嘅時間，就會我成為嗰個工程嘅分包商。咁我亦都有同埋啲顧問團隊一齊去做一啲前期嘅 design 工作，即係唔可以話係一起過。

問：我明。

答：但係就比較係少機會，就話如果喺一啲個別工程要喺前期參與，因為嗰時佢都未出現。

問：得，明白。跟住我就想你睇一睇第 8 段，呢一度係我想同你探討一個即係比較系統性少少嘅一個問題，第 8 段你就講到--我哋聽到就好多時候，一個建築嘅項目，就有啲叫做「風、火、水、電」四樣嘢，即係唔係層樓咁嘅問題，風、火、水、電，即係供應方面嘅嘢都係重要，對嘛？

答：係。

問：就你嗰度就講到，就係風、火、電都有一啲比較制度性強少少嘅一啲系統，譬如話你話房屋署嘅工程承辦商嘅名冊內，就有包咗風、火、電，就係睇在水係冇，你提到呢一點。當然，即係寫出嚟可能就未必咁方便講，但係你覺得呢一個其實係唔係即係叫做可能係影響咗一般人對水喉工程，或者水喉匠呢一個崗位嘅尊重或者睇法，可能係會覺得即係大家咁樣嘅制度，令人哋會覺得對呢一個工種未必咁重視，你會唔會有呢個咁嘅觀感或者感覺？

答：呢個其實實際喺個行內係有咁嘅情況出現嘅。

問：有嘅？

答：有，因為始終嚟講，因為我呢度主要係講呢個房署嘅工程。

問：係。

答：因為房署嚟講，就好特別嘅，咁個水喉分包商就唔需要係裝水泵同埋啲機電嘅工程嘅，你其實就真係裝條水管上去嘅啫，總之就話駁到出嚟唔漏水，就真係相對外面嘅工程係簡單好多。

問：係。因為純粹就係我哋叫 mechanical，呢啲硬件整咗嘅嘢。

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答：係。但係如果我哋作為一個水喉分包商，喺其他嘅工程嚟講，我哋係高度參與嘅，即係話喺好多方面，我哋所有機電設備我都要做埋。其實喺水喉工程裏面嘅機電設備包括啲咩嘢，我哋一般見到嘅水泵、太陽能加熱熱水系統；一啲係 water treatment 嘅--啲啲咁嘅係即係水處理嘅機械，我哋喺外面嘅工程，我哋係有做。係單單就係房署嚟講，佢就拆晒，將所有嘅即係相關嘅嘢都唔使你做，就淨係擺條喉嘅啫，咁所以我就係講係房署嘅呢個特定嘅嘢。

問：但係頭先...

主席：即係你嘅意思，即係私人嘅發展商甚少咁樣樣做，係咪咁樣樣？

答：我未試過，拆到咁樣。

主席：即係通常都係一包就包到尾，...

答：成個合約做晒嘅。

主席：...即係成套咁包，係囉，唔。

問：即係私人嘅承建商，譬如話我要搵人負責做水喉呢 part，佢就搵咗即係類似貴公司嘅一個 contractor，貴公司就唔係淨係負責搵工人同佢所謂焊喉，或者整喉碼擲上去咁簡單，就由頭 plan 到落尾會係？

答：就以頭先我提到，我哋--有提到我哋西九嗰個工程，我哋有個團隊喺地盤長駐，包括項目經理同埋工程師。我哋差唔多每日都會同 main con 一齊，同埋 consultant 去開會，將成個工程點樣去 prepare 啲圖，點樣可以做到合乎合約嘅要求，又符合香港嘅水務條例。其中我哋係參與有策劃同埋修改，直至到可以喺水務局擺到個 proposal 為止嘅。

問：就係--但係淨係房署嘅公營嘅房屋，就即係將水喉--分判出去水喉嘅部分，就係變成一個咁狹窄嘅範疇？

答：暫時我所知，睇到係咁囉。

問：係，好。

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主席：房協呢？房協呢？

答：我本身我就有做開房署同埋房協嘅工程，但係嚟講，就即係我唔係直接參與，我唔敢講我哋個制度。因為房屋--呢個房委會嘅工程嚟講，我曾經有參與過，亦都我曾經係有投標過嗰啲工程嚟講，所以對於佢個工程範圍，我係比較熟悉少少。

問：好。第 10 段嗰度，第三行，「持牌水喉匠須在工程水喉開展前，向水務監督申請許可」，呢個就係所謂 WWO46，係咪？

答：係。

問：睇番 18980 頁，第 11 段。你就講出咗業內持牌水喉匠可以即係有唔同嘅所謂營運嘅方式，有啲自己做老闆，有啲打工。我哋都聽過其他--之前我哋其他嘅證人都有講過類似嘅即係做法嘅，有啲自己開間公司，有啲打工。

業內--我哋撇除咗有好多係可能退咗休，或者即係可以講話 N 年前擺咗個牌，跟住已經淨係掛住個牌，有咩嘢實際做嘢嘅，我哋撇除咗嗰咩先；我哋亦都撇除咗一啲叫做有 LP 牌，但係可能而家打緊工去做一啲唔係以 LP 名義簽名嘅人，你明我講乜喇，即係好多人有 LP 牌，但係佢喺間公司度打工，佢唔係簽名做 LP 嘅，譬如頭先你話去 BSE 啲公司裏面做前期工作，我哋撇除埋嗰啲先。

實際上簽名做 LP 嘅，佢哋各自即係做嘢嘅方式都有所不同。有啲我哋聽過就可能其實真係落手落腳去焊又未必識，真係可能畀嚟錢佢，佢就真係負責--講得白啲，就係要入 form，有啲一定要 LP 簽嘅，佢就真係負責去簽個名嘅啫。你有冇聽過，或者你知唔知道業內真係有啲咁嘅做法嘅呢？

答：喺...

問：唔使講名，我知道有啲時候即係個行頭...

答：即係咁樣講，喺好早期嚟講，我係曾經有聽過嘅，但係就其實近年就比較少。你話純簽名就好少嘅，其實大部分嚟講，持牌水喉匠佢哋係有監管。但係嚟講，就話其實我有好留心成個今次鉛水事件嘅發展，

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有啲持牌水喉匠都話，就話因為佢係礙於個受僱嘅條件，個僱主又唔聽佢話，佢又唔能夠堅持自己嘅立場，所以搞出個大頭佛。咁你話完全唔睇嘅，我暫時就真係冇乜點樣聽到嘅。

問：唔。

主席：佢又唔係完全唔睇，但係佢睇嘅嘢可能係好局限性嘅，即係佢唔會話完全連地盤都唔落，連水錶都唔去 check，連水務署嗰啲人嚟嘅時候佢都唔現身，佢又唔會咁樣做。不過就係總之就係基本上就係簽個名，水務署啲人要嚟查，佢咪係在場，「噏，冇問題嘞」咁樣樣。

石先生：籠統咁講。

主席：即係唔係話純粹係真係瞓埋隻眼，簽個名。

問：籠統嚟講，會唔會有呢個現象，其實？即係我明你講--不如我簡撮咁講，就係你頭先都講過，礙於受僱條件，即係老闆畀你睇乜樣，叫你去睇乜樣，你咪睇囉，即係你睇咗嘅嘢，叫做睇咗喇，叫做，你唔可以話冇監管，係咪？咁咪簽名囉，跟住。係有呢個情況發現嘅--發生嘅？

答：即係我聽到係咁嘅情況，即係如果而家--其實大家都知，喺鉛水事件之後，大家都好留心呢個新聞，我哋都睇到，原來有啲持牌水喉匠喺受僱嘅時間，係受到咁嘅規限嘅。

問：因為如果你純粹睇理論，水務條例，其實 LP 係要預好重飛嘍嘛？即係講得白啲。

答：我絕對贊同，就以我自己為例，就話其實我係由--每個工程，我係由最--第一步，由報價開始我已經係參與，我自己就，或者係 design 我已經開始參與。

問：係。但係即係講得仔細啲，我哋唔使睇張 form 都知，你好熟㗎。046 裏面，你一簽簽落去，就係話--你要證明，就係話呢一個成個水務工程裏面，係會--將會進行嘅水務工程係會符合水務條例。水務條例 N 咁多樣要求，包括你用嘅嘢符唔符合 British Standard 諸如此類嘅嘢，係咪？

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答：嘅。

問：所以其實即係理論上，係咪即係 LP 呢樣嘢，就唔係話即係同--應該咁講，佢所負嘅責任，同實際上好多 LP 運作嘅模式，其實中間係有個好大概落差個啲，係咪？LP 理論上，佢要真係有個主動性去了解係咪符合水務條例，佢先可以理論上應該簽個名？

答：我想相信大部分嘅 LP 能夠履行到自己嘅工作嘅。

問：但係如果你話唔係啲，有好多人--有啲人就係做老闆，但係佢自己話到事，梗係得。但係好多人係打份工嘅，礙於老闆畀佢睇乜就睇乜，咁呢樣嘢佢就未必真係能夠符合到 LP 實際應該做嘅嘢個嘢，如果咁樣嘅情況之下？

答：我諗如果喺一啲普遍我哋所見嘅工程嚟講，其實 LP 嚟講，係真係做到佢自己嘅責任嘅。因為點解呢，就話佢作為一個 LP，佢個牌嚟講係一個搵食嘅資源嚟，佢點會唔珍惜自己嘅搵食資源。即係我亦都曾經試過擔當一啲工程嘅 LP 嘅，喺--即係我曾經係受僱過，我就會好堅持就話，當我發現啲嘢係唔 fulfil 香港嘅水務條例嘅時間，我係必須要佢更改，佢唔更改，我幾大都唔簽名嘅，你最多咪炒我，我有本事，我唔憂搵唔到嘢做，只不過你能唔能夠堅持你嘅立場咋嘛。

問：即係你嘅意思，就係話就算你係打份工，可能個老細對你 impose，或者佢對你加諸一啲--權宜嘅做法，就係「唉，快快脆脆喇，簽個名喇。」即係如果你自己係叫做真係有尊嚴，或者係真係珍惜自己呢個 LP 呢一個名堂、呢一個資歷嘅話，就靠你自己腰骨硬，就話「喂，我向你提出話應該做多 A、B、C、D、E 個嘢，你堅持要我簽一啲我簽唔落手嘅嘢，我就至多就係唔做嘅啫。」即係會唔會係咁樣講呢，應該係即係？

答：係呀，你睇番我個資歷嚟講，其實我喺 1986 年擺到 LP 之後嚟講，我都受僱過喺明威工程公司，同埋呢個係余康記（水務工程）公司。當時嚟講，就亦都老闆要我去做一啲係 LP 嘅工作嘅。其實我當時，我係堅持就話每樣嘢都要跟正嚟去做，係你自己個人嘅行為嚟喇嘛，呢啲係。

問：至於即係 LP，即係最終如果佢即係被委屈，簽咗一啲唔應該簽嘅嘢，或者係監督唔足夠，最終嗰個 sanction，我哋叫做最終嘅後果，就係水務署作為 LP 最終即係控制，或者係去監管 LP 嘅部門，就可以扣分或者係除牌，咁呢個就係即係或者制度上，就係咁樣去做。個別

LP 佢堅唔堅持，就呢個係個別 LP 嘅事？

答：個人行為，我覺得係。

問：我想你睇一睇第 18982 頁，第 19 段。你嗰度就講到，就係分判商--第 6 段--唔係，第五行落嚟，第 19 段，「分判商再按照已審批嘅施工圖紙和材料清單訂購符合規格／已獲批准之水喉及其配件」，呢度所指嘅分判商就係水喉分判商，對嘛？

答：係。

問：已審批嘅施工圖紙和材料清單，我哋都知道就係一般嘅房委--即係房署--Sorry，即係呢個公屋佢嘅房委--佢作為個 employer，咁佢就判咗畀 main contractor，好多時候 main contractor 佢哋有啲乜嘢嘅施工嘅材料，佢都要遞交個辦去畀個 employer，房委去審批嘅，就係呢個步驟。就下面，譬如話水喉分判商，佢哋可能會將一啲部件就呈交畀主承建商，再交畀房協--就去畀 Housing Authority 佢去審批，呢個--你係指緊呢個步驟，係咪審批？

答：係。

問：以你嘅理解就係呢，...

答：唔係，喺呢度--你如果針對喺第五行呢度講呢，就話其實之前已經做晒，當我哋已經係做晒審批嘅程序，業主已經係接受咗我哋使用某一啲材料嘅時間，我哋就會馬上--如果以我自己個人嚟講，我就會同我哋嘅供應商就簽訂一啲合約，就話我成個地盤要用幾多物料，但係我哋會係 partially delivery，係分階段係配合水喉工程同埋地盤進度，送去地盤嘅，咁呢個係講已經係之後嘅嘞。

問：我明，我明。即係--我明。我想同你即係擺番個背景，就係你所指嘅審批，跟住按照已審批嘅材料清單，就係經歷晒呢一啲步驟，上面老細，即係 HA 批咗落嚟話「啊，呢個清單我批晒你嘞，咁呀啲 sample approval form...」，我哋成日見到嘅，「...批晒嘞。」跟住就會即係照單咁樣去執，呢個就係一般嘅做法。

我哋就知道，就係好多嘅部件就係一定要呈交去畀 HA 嗰方面係去審批，浴缸、水喉頭，一般好多嘅部件都係--即係根據合約嘅要求係一定要擺上去審批嘅；有啲就合約未必一定要求要審批，但係好多時候啲水喉分判商都會將一啲合約未必要求審批嘅嘢，呈交去審批，可能擺個安心，或者係即係全面啲，擺埋喇，而焊料呢樣嘢，就係屬於

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呢一個類別。你...

答：或者我咁樣講，其實嚟講，你所講緊，就係話喺法例上嚟講，就個焊料就有要求要去審批嘅。

問：係，合約上，即係合約上。

答：但係其實喺合約上嚟講，就喺個 general requirement 嗰度一定寫，就係所有用喺個工程嘅物料嚟講，其實每一樣都要審批嘅。所以通常我哋作為一個分包商嚟講，我哋係 award 咗個工程之後，我哋一落去地盤，kick-off meeting 之後嚟講，我哋就會做一個材料嘅審批表，就係由我哋呢個分包商自己去做嘅，我哋就詳細列出我哋將會呈遞嘅審批嘅物料，就畀我哋嘅上家去先批咗個 schedule 先嘅，就唔係一開始就去 submit 嘅物料嘅。即係話我哋 submit 呢個 schedule 嚟講，就話我哋上面嘅監管嘅，包括 RE 或者係 consultant 或者則師就會睇，我哋個物料清單係咪已經詳盡列晒所有有機會用喺料--即係嗰個地盤嘅物料...

問：你所指你嘅上家即係 main contractor，或者佢會用嘅專業團隊？

答：Main contractor 或者佢上面業主嘅團隊，佢哋會批我哋嘅 schedule 嘅。其實每間公司--有啲公司就可能就話佢求其執一拈常用嘅就算嘞；但係有啲公司就會執得好詳盡，咁亦都呢個係視乎嗰個分包商佢自己嘅行為嘅。但係嚟講，無論你列出嚟嘅係詳盡或者唔詳盡都好，其實你嘅監管嘅團隊，佢係可以係要求你係加入佢覺得唔詳盡嘅項目嘅。咁實際喺合約要求嚟講，其實乜嘢都要批，甚至乎用口螺絲都要批嘅。好似我就前年我做呢個高鐵項目 823，我哋甚至買口螺絲，我哋都全部審批。

主席：咩嘢項目話？對唔住。

石先生：高鐵。

主席：哦，高鐵。

答：高鐵 823 合約，我哋每口螺絲我哋都審批嘅，只不過係你一個行為，你係做緊乜嘢咋嘛，就唔係話個合約唔使你審批，係而係你有去呈遞

B

B

C

嘅時間，上家監管又冇去睇嘅，咁咪冇囉。

C

D

問：好嘞，...

D

E

答：但係你呈遞嘅，佢一定要睇。

E

F

問：我哋呢個研訊就聽過一啲嘅證供，就係有好多嘅分判商佢哋係有呈交過一啲焊料嘅樣辦去畀上家，再交咗畀 HA 去審批咗，你面前綠色嗰卷嘢，你見過？

F

G

答：見過。

G

H

問：貴公司都係用呢啲--呢種嘢，係咪呀？

H

I

答：係呀，成公司都係。

I

J

問：其實即係我哋都好似即係聽香港--我哋見到咁多個分判商都係用呢種嘢，起碼呈交嚟講。咁貴公司都係用呢隻“FRY”呢個牌子嘅，綠色呢一卷嘢嘅，對嘛？

J

K

K

L

答：喺過去近呢十年都係用緊嘅。

L

M

問：好。就批咗落嚟，HA 又係嗰，有張 approval form approve 咗就係“FRY”，咁樣啲文件做得--執得好正嘅。但係以貴公司嚟講，貴公司審批之後，咁點呢？就即係真係你哋內部會有個即係機制去確保審批乜嘢，就真係 order 番個樣嘢嘅？

M

N

N

O

答：會，其實就...

O

P

問：點做嘅呢，你哋內部其實係？

P

Q

答：我哋自己為例，我哋就會根據合約要求，我哋就做嗰個 submission schedule，咁畀上家去睇過晒，佢同意嘞，我哋就按住個 schedule，按住個進度去 submit。佢批完之後嚟講，因為我哋所有而家呈遞畀上家嘅所有嘅材料表咩嘢嘢，全部都係英文嘅，我就會要求啲員工將佢譯番做中文，就交番畀地盤個管工，我哋係批咗啲乜嘢嘢，甚至乎...

Q

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問：即係你有個溝通機制，批咗乜嘢，你會上呈就要下達，就話畀呢個下面真係落手落腳 on the shop floor 負責嘅話事人，或者係打理，或者即係你叫咩嘢崗位都好喇吓，即係負責喺地盤要貨嘅人，佢要知

T

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A
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C 道要啲咩嘢貨？

D 答：係嘞。因為我哋唔單只話要咩嘢貨，其實一個地盤嚟講，用嘅喉料係
E 好多嘅，即係尤其是我哋做開啲私人嘅發展嚟講，就甚至乎會話到，
F 就話我哋喺一啲 lift lobby，或者係一啲係某啲特定嘅場合嚟講，
G 我哋需要係去包豬腸膠嘅。

H 咁你--其實銅喉有包膠同唔包膠，如果你要套豬腸嘅時間，即係
I 保溫嘅時間，我哋係用乾身銅喉嘅。所以就係其實我哋仲會要求個伙
J 記喺個圖則係特別 highlight 某啲部分係用乾身銅喉，邊啲係用包
K 膠銅喉，邊啲需要加呢個保溫，其實我哋係要話晒畀佢聽，如果唔係
L 佢做咗包膠銅喉落去，然後你先至發現要包保溫嘅，你咪做咗雙重嘅
M insulation，你咪跌錢囉。

N 因為呢個係牽涉公司係一個--營運嚟講，係一個利益嘅嚟講，你
O 點會唔重視呢？

P 問：唔。好嘞，...

Q
L 主席：喺呢一度，我想問一問，因為我哋其實可能遲啲都會知嘅，房署嘅
M 啲合約--主合約，全部都係用英文寫，冇中文，係咪呀？

N 石先生：見到佢都係英文啫，冇中文嘅。

O 主席：係喇，冇用中文寫--唔係，你嘅經驗係咪咁？

P 答：我就--因為我自己冇直接去做房署嘅合約，我而家喺外面私人我哋所
Q 揸住嘅合約嚟講，基本上，所有嘅圖紙或者係所有嘅工程規格嚟講，
R 都係英文嚟嘅。

S 主席：係，係。

T 答：所以我哋喺 submission 完晒之後嚟講，我哋就會用中文寫一份畀地
U 盤嘅管工，話畀佢哋聽，「喺，地盤批咗啲乜嘢，邊啲嘢要用喺邊度
V 嘞。」

主席：得。因為即係你個啲--譬如個啲咁嘅 plumbing proposal，啲
vertical plumbing drawings、diagrams 個啲，全部都係用
英文，即係個啲...

B

B

C

答：我做緊啲啲全部係。

C

D

主席：...房署都唔會有例外，唔會突然之間有啲中文出嚟，係咪房署？唔該你稍後話聲畀我聽。因為點解我咁樣問呢，就係有一啲 plumbing subcontractors、有啲 LP 就話「我一個英文都唔識嘅，英文字都唔識嘅，我就擺咗--我就可以擺咗房署啲啲合約，啲啲 plumbing subcontract 返嚟做嘞。」咁你又覺得呢樣嘢又點樣睇呢？

D

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答：其實喺大部分嘅合約嚟講，我唔知房署嗰度點寫，就話我哋私人發展商嘅合約嚟講，都有個 general requirement，就話我哋要派一個地盤，at least 有一個係能夠係流利去閱讀同埋書寫，或者係 verbal、oral 去接受英文 instruction 嘅人去同上家去溝通嘅。

G

H

H

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J

主席：即係私人就有，我唔知房署啲啲有冇嘞，...

J

K

K

L

石先生：或者較有規模就有，可能。

L

M

M

主席：...有冇嘍？

N

N

答：或者--我唔敢講房署嗰個係點，因為我有閱讀過，我唔知。

O

O

主席：唔係，得，唔緊要，得嘍嘞，我哋遲啲會...

P

P

Q

何先生：Main contract 嗰個 site agent 嗰度係有。

Q

R

主席：係，有嘍嘛，係咪？

R

S

何先生：喺個 main 度。

S

T

主席：跟住...

T

U

何先生：即係 subcontract 嗰度就有中文翻譯...

U

V

V

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C

主席：Subcontract 我知道佢哋用中文寫，好多時都。即係我想知道你個 main contract 就淨係得一個英文版本嘅啫，係咪？因為你唔知...

C

D

D

E

何先生：嗰個我要 check check。

E

F

主席：係，因為...

F

G

何先生：但係話即係有一個--而家講嗰個 site agent 嗰個需要--一定係需要...

G

H

黎先生：即係係咪啲 specification 都係英文㗎喇，係咪？

H

I

主席：冇中文㗎嘛，係咪？

I

J

黎先生：冇中文嘅？

J

K

何先生：我會 check 一 check。

K

L

主席：係。

L

M

何先生：我可以稍後補番。

M

N

石先生：係，但係你 as between--即係需要有人識英文呢個要求，就未必係喺個 subcontract 嗰度寫出嚟，係咪？

N

O

主席：當然，係，當然。不過個問題就係好多時個 subcontract 裏面，就寫到明你一定要跟足個 main contract 裏面嗰啲嘢做，係咪？如果有人--你唔識英文嘅，你點知個 main contract 講乜啫，係咪？啱唔啱？

O

P

P

Q

問：除非行內就係大家覺得呢啲嘢手板眼見工夫，份份都係咁嘅啫，使乜睇，有冇呢個心態嘅呢，其實？

Q

R

R

S

答：呢個會有嘅。其實嚟講，就話譬如就以我哋為例咁，就話譬如我哋做開某間顧問工程師，做開佢哋--因為顧問工程師嚟講，基本都係千篇一律，都係執落去嘅啫，...

S

T

T

U

問：係囉，就係。

U

V

V

B

B

C

答：...啱唔啱先？

C

D

問：嘎。

D

E

答：譬如我上個地盤夾開呢班 consultant，我呢個地盤再遇番佢嘅，我哋通常都會問佢，「喂，呢個地盤有咩嘢特別嘢呀？」佢話「冇呀，你照番上個地盤一樣㗎嘞。」我哋就會都係跟番個套㗎嘞，就唔會逐隻字去睇。

E

F

F

G

問：係囉，所以...

G

H

H

I

主席：唔係，我明。但係即係呢個 general specifications 可能係喺譬如好似房署嗰啲咁，佢已經有晒既定嘅，喺個 library 嗰度抽出嚟咋嘛，係咪？但係有陣時，好多時候去到 specific projects 嘅時候，就會加一啲 specialise 嘅 specification，可能就住呢一個 project，我要有一個好特別嘅 specifications。如果你唔識英文嘅，根本你冇得做個嘢，係咪呀？你明我意思嘛？

I

J

J

K

K

L

答：我明你意思。

L

M

M

主席：係呀。

N

答：但係嚟講--或者咁樣講，其實嚟講，因為喺法例上嚟講，持牌水喉匠嚟講，就有規定要識英文嘅。

N

O

主席：係，啱。

O

P

答：因為香港大家都知道作為一個國際城市嚟講，中英文都係並重嘅，亦都係接受你用中文去考持牌水喉匠。

P

Q

主席：係。

Q

R

答：因為其實--或者咁講，現時嚟講，香港嗰個持牌水喉匠制度嚟講，我係接受一啲係中三以上嘅同學去報讀嗰個水喉全科技工工課程嘅。我哋亦都唔可以話期望呢班同學仔...

R

S

S

T

主席：唔係，我唔係講中英文都有問題，只不過即係我哋今次個研訊好特別，因為其中有一個又係老闆，又係持牌水喉匠，就話畀我哋聽，「啊，我完全一個英文字都唔識嘅」咁樣樣啫。咁我就覺得即係有冇咁嘅可

T

U

U

V

V

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B

C

能性嘅存在呢？係囉，你笑笑口...

C

D

答：我唔敢講。

D

E

問：即係舉個例，咁你要知道有啲咩嘢叫做英國--譬如話你要熟悉水務條例，你就要識得英國標準係乜嘢，你真係話如果真係揸正嚟做，我要查下英國標準，英國標準佢賣本嘢畀你千幾釵，佢唔會譯埋中文畀你。

E

F

F

G

答：或者咁樣講，我哋作為一個分包商嚟講，我哋唔係去做一個 manufacturer，即係一個製造商，其實我哋唔會深究個 BSEM 或者係 BS 係啲乜嘢嘢。其實我哋買一件嘢嚟講，我哋係只需要話畀個分--個個供應商聽，「我希望你 quote 一個價畀我，我要買 BS 乜嘢嘢物料，你嘅供應係幾錢呢？」

G

H

H

I

I

J

問：得，明白，得。

J

K

答：佢畀完我報價單畀我之後嚟講，我就會跟住問佢，「你點證明你啲嘢啱 BS 呢？」

K

L

問：佢有張 cert 畀你，有個實驗室文件，嘎，嘎。

L

M

答：包括即係--佢會有個--總之佢畀足夠嘅文件。

M

N

問：佢個 origin 個張文件畀你，就係話「我符合」，咁就信嚟嘞？

N

O

答：係嘞。

O

P

問：係，得，明白。介唔介意話畀我聽，貴公司用邊一個物料供應商，如果係訂焊料？

P

Q

答：我哋而家現時嚟講係用緊雋景嘅。

Q

R

問：用緊雋景嘅。咁貴公司如果要用雋景要擺焊料嘅時候，譬如話 unleaded solder，即係我--你貴公司係用“FRY”呢卷嘢，即係實際上就落單點樣叫，可能你係大老細未必知道，但係如果知道，你話畀我聽，你哋落單畀雋景，你會點叫嘅呢？叫綠色一卷...

R

S

S

T

答：我哋係叫「無鉛錫線」。

T

U

問：無鉛錫線？

U

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C

答：係。

C

D

問：好。你有聽過有一隻係一條條、一卷卷，即係直條嘅，...

D

E

答：哦，我知，我知你講邊種。

E

F

問：...唔係一卷卷，係一條條直條，嗰隻就一般我哋而家叫「英國 50 力」嘅。

F

G

答：其實 50 力個「力」字嚟講，就係...

G

H

問：Lead 囉。

H

I

答：...呢個--個個即係...

I

J

問：Lead，鉛。

J

K

答：...鉛嘅英文嚟㗎嘛。

K

L

問：係。

L

M

答：只不過啲人就習慣叫佢做「50 力」，就話你聽，「喺，呢度有 50 個 per cent 係鉛㗎。」

M

N

問：50 per cent 係鉛，咁又 fifty lead，50...

N

O

答：其實大家都知㗎。

O

P

問：係，大家都知嘅。就...

P

Q

主席：大--唔係，對唔住。「大家都知」係...

Q

R

黎先生：邊個係「大家」？

R

S

主席：...邊個係「大家」？

S

T

石先生：即係...

T

U

主席：即係你講做水喉嗰啲人就知？

U

V

Transcript by DTI Corporation Asia, Limited

V

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答：唔係，即係我講我同我哋嘅供應商大家都好清楚，就話 50 力就係你要買一啲含鉛嘅焊料。但係即係係咪全部外面嘅人都清楚，我又唔敢講嘅，即係我自己就好清楚。

D

D

E

E

問：你哋就同雋景擺貨，就會話要無鉛錫線，講明嘅？

F

F

答：係嘞。

G

G

問：就要加埋無鉛嘅，如果唔講無鉛，淨係講錫線呢？有冇--即係...

H

H

答：如果通常 supplier 都會問你嘅，...

I

I

問：呢個係所謂行頭嘅叫法，我而家問緊係？

J

J

答：...佢係如果你擺錫線嘅時間，佢會問你「你係要擺邊隻呀？你係要擺 50 力定係無鉛錫線呀？」

K

K

問：你指係如果你走去同雋景擺貨，淨係講話「我要錫線」，佢會問你，「喂，咪住，錫線，你要含鉛定無鉛？」佢會咁問㗎？

L

L

答：但係如果雋景一般佢--你講錫線，佢都知你要無鉛，因為佢係--其實我哋同雋景做咗咁多年，我哋大家都知，就係話佢哋係擺錫條同埋擺錫線嘅咋嘛。

M

M

N

N

問：兩樣都得賣㗎嘛，佢哋？佢哋有張菜單，我哋都見過。

O

O

答：兩樣都有，你擺錫條嘅，佢咪畀啲錫條你囉，就係啲隻 50 力；如果你要擺錫線，佢咪畀啲卷裝你囉。

P

P

問：停停先。

Q

Q

答：只不過就係話我哋嘅--通常我哋班管工，我哋會就話畀佢聽，同埋我哋管工亦都知，因為我哋本身大部分我哋工程管理，即係擺地盤嘅班，全部都係有讀過晒水務條例，讀過晒盛，亦都--即係其實我公司除咗我自己，亦都有--仲有三、四個持牌水喉匠，亦都即係大家都知係個要求，同埋我哋請嘅員工亦都係喺訓練局出嚟，佢哋有讀過晒㗎嘛。

R

R

S

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T

T

問：唔，唔。即係話貴公司向雋景落單，就唔單只會講「錫線」兩個字，仲會加埋話明要無鉛嘅。但係你嘅理解，就係就算即係雋景嗰方面，

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你唔同佢講「無鉛」，淨係用「錫線」，佢都識得畀圓形一卷卷“FRY”
嗰隻你嚟嘞？

C

D

答：係，如果你要錫線，佢係會畀你嘅其實。

D

E

問：如果你講「錫條」，佢就會畀 50 力你，係咪？

E

F

答：係。

F

G

問：即係你係咪講畀我哋聽，就係話即係撇除貴公司嘅做法，你話貴公司
會特別用無鉛。即係你係咪講法，就係話起碼以雋景嘅做法，你嘅理
解，都係錫線就係圓形一卷卷呢啲；錫條就係一條條 50 力？

G

H

H

I

答：因為雋景佢下面有好多 sales 嘅，咁呢個 sales 跟我哋戶口跟咗好
多年，大家都知大家會買啲乜嘢嘅，但係其他啲 sales 係咪咁，我
唔敢講。即係你所講係雋景，我哋所講就係我哋對緊某個 sales。每
間供應商嚟講，佢哋都有個 sales 係 particular 去跟某個戶口
嘅，咁佢跟開我哋個戶口，佢就會知道我哋想要啲乜嘢囉。

I

J

J

K

問：唔。所以其實即係你所講嘅一啲即係口頭嘅叫法，其實就好大程度上
亦都係受影響於真係服侍你個 sales 嘅叫法，因為你都講話，第
二啲 sales 點樣叫，你未必知？

K

L

L

M

答：係，因為我哋做 submission，會問佢擺嘢，就話我哋--通常我哋
--我頭先都講過，我哋 award 一個 contract，我哋會搞
submission，我哋搞 submission 嘅時間，我哋會打電話畀個
sales 話畀佢聽，「我中咗某個 project，呢個 project 嚟講，我
哋要做 material submission，我哋而家要上 sample。咁就我哋
係--呢個地盤係用某一樣嘢嘅，你要擺某一樣嘢畀我。」咁佢已經好
清楚知道我哋呢個地盤係要用啲乜嘢，咁唔會有錯㗎。

M

N

N

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P

P

Q

問：我哋又聽過有人同雋景擺貨，即係--對唔住，我哋要可能擺一啲我哋
喺第二度聽到嘅證供問一問你，因為你係即係老行專。又有人同雋景
擺貨，就話「我要高溫錫條」個嘢。如果我問你，你有冇聽過呢個叫
法，「高溫錫條」？

Q

S

答：冇。

S

T

問：冇聽過，okay。因為點解呢，錫條--如果淨係講錫條，你又知道，
就係一條條 50 力，又講高溫嘢，高溫即係好高溫先燒得熔，我哋嘅
理解就係好高溫先燒得熔嗰隻，就係無鉛先至要高溫燒得熔，咁所以

T

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即係叫法，行內好多時候，...

C

D

答：唔敢講。

D

E

問：...你又「高溫」，又「錫條」呢...

E

F

主席：都唔一定嘅，唔一定嘅，睇下你咩嘢 context 講。

F

G

石先生：相對喇。

G

H

主席：都唔一定嘅，因為我哋而家知道，當然無鉛錫條相對 50 力係高溫，
但是含鉛嘅錫條裏面，視乎含鉛量多少亦都有高溫、低溫，...

H

I

石先生：係，對。

I

J

主席：...所以就要講清楚啲。即係 in...

J

K

石先生：明白，係。

K

L

主席：...嗰個 context 如果咁樣樣講。

L

M

M

N

即係首先你有聽過乜嘢叫做「高溫錫條」先？

N

O

答：冇。

O

P

主席：咁所以如果係--基本上唔需要問下一個問題。

P

Q

石先生：係，得。

Q

R

R

S

答：即係總之就係我哋公司，就係話我哋會係--通常我係大量採購啲物料，我哋都會係擺喺個倉嗰度。其實喺舊年，即係鉛水事件之後，有好多傳媒都上過嚟我哋公司，根本你通地擲，全部都係呢啲嘢嚟喇，見唔到有第二樣嘢嚟喇，已經。

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問：唔。因為食水喉在你嘅理解，就係係用一卷卷呢啲綠色嘅“FRY”係無鉛嘅，而你哋係...

答：唔係，我哋係會根據個合約要求去做嘢咋嘛。其實合約嘅要求或者法例要求係唔畀你用，你唔會去用。即係好似傳媒上到嚟我個倉，咁其實我哋就算一口螺絲，都會有個牌子打喺個螺絲個頂，BS 幾多嘅，就係你自己去買乜嘢，唔關事係人哋畀咩嘢你，係你落 order，你會話畀佢聽你要乜嘢。

黎先生：貴公司有冇用過啲有鉛嘅錫線、錫條？你有冇用過？

答：或者咁講，...

黎先生：有啲工程可能係嘅。

答：...我哋公司嚟講，喺呢個 95 年成立，喺我哋成立嘅時間，喺 Merry China 嚟講，我哋係冇用過嘅。但係之前，95 年之前，我係亦都有登記另外一啲公司，當時就係叫做 Hugo Engineering，就係 1986 年註冊嘅。咁喺當時嚟講，我哋就未聽到要用無鉛錫線，當時我係唔識嘅，我都口供有講咗，我哋係真真正正知道法例係必須用無鉛錫線嚟講，就我哋 2000 年之後。

但係點解我會呢個無鉛錫線嚟講，其實就喺 94 年嚟講，我有個 supplier 嘅 sales 就上嚟我哋公司，佢就--我識佢好多年，即係佢行街嚟嘅啫，佢唔係水喉工人。佢就攞住呢罐松香膏同埋卷錫線就上嚟我公司話畀我聽，「用無--即係無錫圈嘅配件，用咗呢啲嘢嚟講，就好易做嘅。」咁示範畀我睇，揸住個曲，揸住個銅喉，因為我識佢好多年，即係行街嚟，佢唔係水喉工人，佢好容易就係話一夠熱，一撥條錫線落去，佢就走得好靚嘅，因為我哋一條好短嘅喉，我哋好清楚可以睇到個錫嚟講，喺個配件裏面係完全冇滲出嚟嘅，係封得好靚嘅。所以由當時開始，我由 94 年開始，我就用呢隻嘢，就係話我發現可以去慳番好多人工。

問：呢個係深圳富臨酒店，你嘅口供講過？

答：係呀，嗰陣時就係話我當時就係買咗，就係愛嚟用呢啲咁嘅松香膏，因為我發覺可以慳番好多人工，因為佢好容易就可以走得好靚。但係我真正知道用無鉛錫線，我係 2000 年之後，因為我請咗一啲喺 CIC 受訓出嚟嘅員工，同埋就因為當時 BS 就轉咗，我哋早期嘅銅喉嘅 BS

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係 BS 2871，後來就轉咗 BS EN 1057，即係而家嘅標準。咁喺 BS EN 1057 嘅新嘅 catalogue，就會有介紹到係用無鉛錫線嘅。

問：亦即係講--即係一陣間我會講到你頭先講嗰段嘢，即係 94 年你做富臨，咁啱就學識原來即係唔好用個錫曲，用個錫曲裏面有啲--嗰個都有咁好，你不如直情就係用錫線，呢個就係 94 年有個 sales 教你㗎喇？

答：係嘞。

問：但係當時就可以話係即係你知其然，不知其所以言，原來你知道呢樣嘢原來係無鉛，而無鉛係一個要求...

答：當時我買佢咗，因為佢係慳人工。

問：係，你係因為慳人工而買，但係你叫做誤打誤撞，原來呢隻嘢係無鉛嘅，你 2000 年知道，原來呢家嘢直情就係符合咗無鉛呢個要求添，係咪--可唔可以咁樣講？

答：係，可以咁講。

問：係，得。我想問一問你，有一個名詞，你喺你嘅口供嗰度講過，就叫做「開大工」，係咪叫做？

答：開大料。

問：開大料。「開大料」其實即係咩嘢意思？

答：其實就好簡單，喺製造業或者喺一個手工藝業嚟講，大家都會知道，如果一啲簡單嘅工序，係每日都做相同嘅嘢嚟講，我有理由揸住啲喉上到去嗰個安裝個樓層逐條逐條去 cut 㗎嘛，我只需要就話喺個士多房，即係工場嗰度，求其搵個工人，任何工人都可以跟住個材料清單去做嘅。

問：即係可能每層樓，你知道走廊需要啲 pipe，層層樓個走廊都係咁長，你就切定有 N 咁多條咁長嘅？

答：係每個--長啲嚟講，我哋就會原支運上去。因為走廊啲就即係我哋叫駁足，長拉拉咁照擺上去。

問：係，短啲，譬如話入到房裏面，嘎。

B

B

C

C

答：但係因為一個單位嚟講，就話房署嚟講，通常佢哋就喺咁多年代以嚟都係嘅，叫做乜嘢單位、乜嘢單位咁，係有晒個代號。只要你做咗間辦房嚟講，你量到個尺寸之後嚟講，一座樓五百個單位，五百個都一樣咋嘛，即係你一 cut 可以 cut 五百條做落去...

D

D

E

E

問：即係有幾多條要幾多吋，有幾多條要轉彎，嗰啲全部一早已經轉定、拗定晒，整好晒，係咪？

F

F

答：以前甚至乎好早期，喺呢個上世紀嘅九十年代，就算嗰陣時用緊鉛水喉，甚至喺大陸有啲工場係幫人...

G

G

H

H

問：Galvanised steel，係咪，你講緊鉛水喉係叫做？

I

I

答：係。幫人係開料，上埋配件先運落嚟嘅。其實嗰陣時已經有，我哋都有參觀。

J

J

問：喺大陸焊埋嘅？

K

K

答：係呀，有㗎。

L

L

問：唔應該個嗎？

M

M

答：即係有人咁樣做，嗰陣時開大料開到。

N

N

問：理論上係唔應該個嗎？

O

O

答：點樣講呢？其實任何嘢嚟講，就睇個合約嘅要求嘅啫。如果你話應唔應該，你只要有足夠嘅監管，跟到個合約，跟到個法例，其實喺邊度做唔重要。青馬大橋條鋼纜都喺大陸做，大家都知㗎喇，我相信當時個合約係容許佢畀外面做嘞。

P

P

Q

Q

問：係。但係香港法例，你都知道有一條就係即係要 licensed plumber 去做呢個水喉工程，...

R

R

答：我哋所講，就...

S

S

問：...係咪要落手落腳做，唔知，起碼要監管。

T

T

答：...你係唔係有去監管。我一路都講，個法例嚟講係上世紀沿用嚟落嚟嘅，其實立法個原意由頭到尾冇講到叫我落手去做嘅。因為當時個 licensed plumber 其實係一個商號嚟，商號唔會去做嘢，一定係請人。

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C

問：當年係 licensed plumber 其實可以係公司，盤古初開，好耐以前。

C

D

答：係呀。

D

E

問：但係後來就成為咗一個個人，佢而家？

E

F

答：佢係去...

F

G

主席：我諗我哋唔需要...

G

H

石先生：我哋唔需要呢個，呢個其實係法律理解，不過即係你講起，我咁講。

H

I

主席：係呀，係呀，係呀，唔需要。

I

J

J

K

問：即係開大料其實就係一早已經係設定，跟住就擺上去，呢個我明白。我就想同你再探討一下，你嘅 23 段。23 段，呢個就係你頭先所講，你 94 年富臨嗰個工程。亦即係話，我想將個時序搞清楚先。你就講到有好多種焊接嘅方法，一種就係我哋叫做--即係比較機械式嘅，我哋叫做係 mechanical 嘅，即係完全唔牽涉...

K

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答：混合式嗰隻，唔燒焊嘅，嗰隻。

N

O

問：係，嗰隻就唔燒焊，嗰隻就直情擰實佢嘅，用手，係。

O

P

答：係。

P

Q

問：跟住你就講到就有一種就係內含錫圈嘅配件，你知道，就係即係你睇番 22 段嗰度，內含錫圈嘅配件，我哋就聽見有啲工人就叫呢種做「錫曲」嘅，你有冇聽過呢個叫法？

Q

R

答：有。

R

S

問：即係都係錫曲，基本上就係，係咪？

S

T

答：其實我哋喺七十年代用嘅時間嚟講，就話當時即係香港識燒走錫嘅人唔多。我哋當時做嗰個工序就好繁複嘅，如果--我哋係要用一啲係無錫圈嘅配件嘅話，我哋當時學叫「抹錫」。點樣抹錫呢？就係話我哋

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燒熱條喉，條喉本身冇錫嘍嘛，我哋就燒到佢夠熱，就將啲錫熔咗喺條喉先，咁我搵塊布抹靚佢，然後套落去，咁等於係有錫圈。

問：嗰啲叫「抹錫瓜」，我哋聽過好似有一種叫法叫做？

答：係嘞，即係我哋當代嚟講係--所以啲老細諗下你做多兩次，燒嚟燒去，你樣樣都係錢，你不如買啲有錫圈嘅配件。所以當時嚟講，大部分都係用有錫圈嘅配件，因為你用冇錫圈嘅，你要抹瓜嚟講，你仲咁時間、咁工夫。

問：唔。即係所以以你嘅經驗，講番你嘅認知，就係即係開始就係完全冇錫嘅，就咁用手擰，機械性地咁樣擰；跟住就用一啲內含錫圈嘅配件，就裏面已經預設咗有啲焊料，你就喺外面焊熱佢就得；跟住到到 94 年，你就聽呢一個 sales 教你，就係做富臨酒店嘅時候就學識，原來唔使買一啲錫曲嘅，直情係兩條管，跟住中間你自己買一卷呢啲“FRY”就可以焊好。呢個就即係你個人嗰個知識嗰個發展就係咁樣，係咪--咁樣係咪一個公允嘅講法？

答：可以咁講。

問：Okay，好。跟住就到到即係八十年代末，九十年代就--Okay，得。你揸一揸去 18985 頁，第 25 段。第 25 段，你最脛嗰句，「在水務署作出巡查時，不可能單憑目測知道已接駁喉管上的焊料是否含鉛。」呢度就係講一個即係大家經常講嘅，就係即係錫--即係焊料呢樣嘢叫 consumable，即係小五金，好多時間即係用咗之後，就食咗入去你都見唔到，...

答：係。

問：...所以就有可能事後焊咗之後，水務署去驗嘢嘅時候，肉眼驗唔到嘅。

即係呢個又想你睇下你個人嘅意見，呢一段你開頭就話「工程嘅監管工作主要應該由駐地盤之團隊進行」，你嘅帶出嘅就係話，即係好多嘢你事後先至 spot 就太遲，spot 唔到，你應該一早嘅時候，喺用料嘅時候就應該係已經--相關嘅持分者就應該邊個都好，喺嗰陣時應該有一個監測，或者去...

答：啱。

問：...監管嘅。即係你嘅了解，亦都係呢，就即係總之我哋都經歷過好

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多，就係話就個個都係零零舍舍係冇 check 到實際施工用嘅焊料係唔係無鉛嘅焊料。即係審批嘅係審批，但係實際去到地盤，我哋大家都知道，你知道就係 HA 嗰張 6210 係冇要你 check 焊料，你知道喇吓？

D

D

E

E

答：噏，係...

F

F

問：有張 form 叫 6210，你知唔知？

G

G

答：唔知。

H

H

問：唔知。不如我單刀直入咁問你，以你嘅認知，就係喺一個施工過程之中，係冇人真係走去地盤嗰度望一望你啲人會用咩嘢焊料，你知唔知？

I

I

答：又唔可以咁講嘅，其實就係話...

J

J

問：邊個有咁做？邊個有咁做過？即係關於係...

K

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答：人哋點樣我唔知，我亦都做過好多個職位，我--你睇番我履歷嚟講，我都負責過睇地盤，去驗收。其實我當時我睇地盤，就唔好講話焊料，就算潤滑劑我都去睇。我喺呢度我都有提到，就係話譬如嗰個--而家嗰啲球墨鋼管，而家香港政府好多時都係用球墨鋼管嚟做即係馬路嗰啲地喉嘅，因為佢係用一個膠圈令到佢係唔漏水，係推插式嘅，推咗入去就唔漏水，就純粹靠呢個膠圈嘅啫。

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問：唔，唔，係。

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答：但係如果呢個膠圈嚟講，佢係 EPDM 去做成嘅，如果我哋用一啲係油脂性嘅潤滑劑嘅話，做入去嗰時冇問題，但係佢會好快就老化，就會脆，就引致到漏水。如果你監管嘅時間唔去做嘅，畀佢用咗嘅，係呀，做嗰時冇問題，驗水冇問題，水務局接收都冇問題。但係兩年之後，就啲地喉開始滲水嘅，就因為你用咗啲唔啱規格嘅嘢，

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問：嗰啲...

S

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答：...你自己去睇唔睇嘅問題。

T

T

問：呢個就係 25 段講。不如我又單刀直入問你一個問題，焊料方面嘅要求，喺工程方面就有合約嘅規定，對嘛？Main contract，房署即係批落嚟嘅 main contract，就通常嗰啲要求就帶到落去與水喉分

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判商嗰個 subcontract，好多時候都係照辦話跟番。主合約好多時候都會要求--例行公事，就要求用無鉛嘅焊料，呢樣你知道，係咪？講合約，講合約。

答：主合約嚟講，佢會唔會咁樣講，其實我哋未必知嘅。其實嚟講，最重要一樣嘢，就話嚟所有嘅合約嚟講，不論私人好、公營好，或者係房署嘅都好，我所知佢係必須要要求你係跟法例去進行。

問：好，得。

答：喺法例方面，就已經大家都 make sure understood，就係話你係唔可以用一啲含鉛嘅嘢。

問：好。法例就係水務嘅條例，你所認知，對嘛？

答：嘅。

問：水務條例就係講咗好多英國標準...

答：如果根據我哋分判合約嚟講，我哋未必一定係淨係講水務合約。

問：得，我明。

答：其實喺我哋成本合約裏面會列晒出嚟，就話邊啲嘅條例，消防處嘅條例、水務條例，呢啲咁嘅...

問：明白。

答：總之就係水蛇春咁長列晒畀我哋睇，已經係。

問：明白。但係我哋焦點而家就係講用嘅焊料，針對焊料嘅法例就係水務條例，同唔同意？

答：係。

問：同意。其實成單案好多時候我哋睇，就係水務署同埋 HA，佢哋雙方監管嘅範圍都有叨到焊料嘅，我同你講講。合約方面，固然合約學你話齋，起碼要求要依法去做。所以合約嗰度，作為最頂嗰個 employer，HA，佢所需要睇嘅範圍就係你用嘅焊料合唔合法，係咪？所以房委會佢 administer 佢個合約，呢樣係屬於房委--理論上，需要睇嘅嘢，同唔同意？合唔合乎合約要求，同唔同意？

B

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答：啱。

C

D

問：房委需要睇嘢嘢嚟嘅。但係水務條例裏面要求你用無鉛或者即係唔含鉛嘅焊料，亦都係水務條例要求嚟個啲，你知道嘛？你知道嘅，係咪呀？

D

E

答：知。

E

F

問：亦都係水務署方面佢嘅範圍，你同意嘛？所以我而家又問你一個問題，而我哋亦都知道--我問你，水務署同埋 HA 其實都係冇喺任何時候叫做你--企圖睇下喺地盤施工係用乜嘢焊料，你知道嘅，係咪？

F

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答：水務署嚟講，就 so far 嚟講，就係--真係喺個工程過程裏面，就係冇嚟去巡查你用咩嘢焊料嘅。但係你話嗰個制度嚟講，佢係咪要中間去巡呢啲嘢嚟講，我相信就亦都唔可行嘅。你諗下，香港有咁多地盤，即係我哋成日講係一個成本效益，即係話喺個法例上規定咗即係個持牌水喉匠去 undertaking 成單工程嘅時間有個法律嘅責任，去巡視整個地盤，監管佢，所有都係依法去進行。你點會期望呢樣嘢又由你嘅上家同你一齊去做呢？即係等於你請咗阿 A 去做一樣嘢，但係你就搵阿 B 去監管 A，然後又搵--又驚阿 B 唔搵，就搵到阿 C 去監管佢，咁你架床疊屋係冇意思，其實大家喺呢個工程裏面係各施其職。

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問：即係你嘅講法就係話，其實雖然用唔含鉛焊料呢個要求係屬於水務條例方面嘅一個要求，但係你嘅意見就係要求水務署派一個所謂水務署嘅 officer 走去叫做抽樣巡查，就係唔係好 practical 嘅，因為已經制度上，LP 呢個角色就已經係要確保呢樣嘢，你係咪咁講呢，你個意見？

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答：因為我哋去睇番成個地盤嘅工序，就係話如果我哋一開始，根據個法例，根據個合約，做晒所有合資格嘅審批，我哋訂番嚟個材料全部都係啱嘅，有乜好睇啫？就好似我啲工人，我全部--喺個倉嗰度派晒畀佢全部都係呢啲嘢嘅，工人點會咁傻，自己買啲唔啱嘅嘢用落去呢？

P

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黎先生：可唔可以咁講，你個講法就即係冇得監管嘅？

S

T

答：唔係冇得監管，我哋工程地盤係有人去巡，而係話如果全部嘢都係啱嘅，我哋唔會 particular 搵個人去跟住個工人。你諗下，如果我哋一個地盤嘅高峰期，二、三十個工人同時喺度進行緊呢個咁嘅工序，你係咪搵二、三十個水務署嘅幫辦去看住呢二、三十個人呢？因

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為你唔係 particular 睇住佢燒嘅，事後你係睇唔到㗎嘛。

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主席：唔係，梗係唔係，不過你--即係如果簡生你呢個講法係啱嘅，理論上全香港所有嘅市民都要奉公守法，...

E

F

黎先生：冇錯，冇錯。

F

G

主席：...就一個差人都唔應該--唔需要用。

G

H

黎先生：法官冇嘢做個啲。

H

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主席：唔係，應該咁講，講開法官呢個問題，法官嘅做嘅每一個決定都有人睇住，仲有幾級嘅人睇住添啲，錯會畀人鬧個啲，你知唔知？不過我哋而家飲杯咖啡先。

I

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上午 11 時 29 分聆訊押後

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下午 12 時 03 分恢復聆訊

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出席人士如前。

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水務署第三證人：簡國樑（水務署專家證人（本地建築及水喉業））宣誓繼續作供

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石先生繼續盤問

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問：簡先生，咁我同你講番你嘅第 25 段。實際上喺工地嗰度，我哋叫地盤，水務署同埋 HA，佢哋其實實際上做乜嘢嘢，其實我哋大致都有個印象，我講一講，睇下你有冇即係類似嘅認知。入紙 WWO46 嘅時候，個 LP 要填一個 annex 嘅，即係 WWO46 後面咪有一個附件？

Q

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答：係。

S

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問：咁呢個附件裏面就係要求--佢特別講到明，就係將會用嘅一啲嘅部件，係邊一類嘅部件，佢就係 set out 晒，就要你寫落去，對嘛？你知道有呢樣嘢？

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答：係。

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D

問：但係打算用乜嘢焊料，焊料呢一啲即係小五金嘅嘢，就唔包括喺嗰個 annex 需要填寫落去嘅物料其中一樣，你知道嘛？

D

E

答：知。

E

F

問：所以個 LP 填 WWO46 嘅時候，就有一個需要，要佢所謂 focus 焦點落去用咩嘢焊料，就有呢樣嘢嘅，制度上。佢本身需要知呢樣嘢擺埋一面唔好講，但係起碼制度上 WWO46 係冇要求人啲去聚焦落去用咩嘢焊料，冇呢樣嘢？

F

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答：同意。

H

I

問：同意。而水務署喺施工期間，亦都係有一個制度係會派水務署嘅人員，我唔係講 LP，LP 係水務署畀牌佢，我知，但係水務署本身嘅工作人員或者 staff 亦都係有一個所謂巡查嘅制度，走去驗下你用咩嘢料，喺施工期間，對嘛？

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答：佢係冇呢個制度，但係水務署就以我所知，佢係有啲員工係都會去巡查啲地盤，但係個目的就唔係去查你用咩嘢料。

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問：係。咁...

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主席：巡查地盤係查你...

N

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答：即係話譬如...

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主席：...搵番啲水泥之前，鋪好啲啲水管駁好未啲啲？

P

Q

答：嗰個就通常就係個 LP 嚟講，係完成咗一啲係隱藏喉管，佢就會呈報話畀水務署聽，嗌佢嚟睇。但係我所講嘅唔係呢種，就係話譬如有個水務署嘅佢啲嗰個叫做係客戶服務部嘅員工。

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問：Customer service？

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答：係嘞。咁佢去睇某個 site 嘅時間，如果隔離見到有個 site，咁就都見到有人開始做嘢嚟講，有陣時佢都會入嚟巡視。咁其實佢就會去

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睇番，就話「喂，呢個地盤」--可能喺佢印象之中仲未批開工，點解有人喺度開工，咁佢都會嚟睇。

問：但係就有一個特別嘅清單，你所知就係入去特別要望下，特別要 take 咗某幾樣嘢，唔，okay 嘞咁樣，係冇一樣咁嘅嘢？

答：呢個通常就係當你報--我哋叫 partial completion，部分完工嘅時間，咁你就會 highlight 份圖話畀水務署聽你已經完成咗某一啲工作，要求佢嚟檢視，佢就會嚟。咁點解佢即係話唔會即刻嚟睇，就話因為其實地盤大家都知，香港嚟講，就唔係話真係 fully design，去到 final 先至開工，係一路做一路會改。咁其實你做落去嘅嘢嚟講，可能就係話喺你做嗰陣時嚟講，你未必係跟嗰個批准圖則。咁而業主同埋顧問團隊，加埋即係我哋啲持分者，我哋都認為咁樣做係合法例嘅，我哋有可能就係話喺批准開工之後，就住地盤嘅需要，去做一啲修改嘅工程。咁但係通常我哋嚟報畀水務署報完工之前，我哋就會入一份 amendment，通知水務署，我哋嗰個喉路已經更改咗，咁先叫佢嚟。所以你話佢平時派人嚟睇嚟講，係義意唔大。

問：但係無論係平時我哋叫做 random 抽樣地有陣時出現下，或者係因為特別約佢嚟睇，有個特別嘅原因要佢嚟睇，檢查都好，佢查嘅項目都唔會包括你嘅用料，對嘛？即係佢唔會特登有個責任？

答：會睇料。

問：會睇料。但係就...

答：就係話佢會根據嗰個 annex 裏面，去睇番你用嘅喉啱唔啱，...

問：得，係。

答：...你嗰個配件、掣類，咁同埋亦都會睇你嗰個喉路，係咪已經係批准嘅 alignment。

問：得。咁但係由於你個 annex 裏面係冇焊料，咁所以佢哋睇都唔會睇到焊料，對嘛？

答：係呀，即係正如我頭先所講，就係話佢唔會嚟睇你用咗咩嘢潤滑劑，啲水喉個披鋒有冇刮番出嚟，佢都唔會睇。

問：得。所以水務署做嘅就係咁樣？

B

B

C

答：嘅。

C

D

問：HA 嗰方面，佢哋啲用料，即係啲供應商啲料送到去地盤嘅時候，頭先我同你講過有一張 form 叫做 6210，但係你同我講過，你就唔係咁熟悉呢樣嘢，係咪呀？關於 HA 方面嘅文件。因為我諗你主力就係同水務署方面嗰啲 form 你會熟啲，係咪呀？同--係咪呀？

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答：唔係叫做熟啲，而係話我--因為我近呢幾年有參與房署嘅工程，...

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問：哦，okay。

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H

答：...呢個 form 可能係房署裏面內部嘅 form，咁所以我就...

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問：Okay。唔好講 number，但係即係啲物料送到去地盤，以你嘅粗略嘅認知，房署都會有一啲特定嘅步驟去 check 某一啲嘅用料，你知唔知？

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答：知。

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問：知。但係房...

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答：一路成個行頭都知，就係話房署係有個要求，所有送落去地盤嘅物料嚟講，都係需要抽驗，呢個成個業界都知。

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問：但係房署其實我話畀你聽，有個清單係某啲佢要 check，咁就 check 好多--都係 check 文件嘅啫，但係就有包括要 check 焊料，呢樣你知唔知？

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O

答：我係今次鉛水事件出咗之後嚟講，就有聽聞呢樣嘢，咁之前係唔知。

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問：好。個問題就係咁，你亦都喺你嘅 25 段講過，就係即係事後抽驗啲水都--即係或者你事後先至走去目測，又已經睇唔到，可能就你話主要嘅即係監管都應該喺前期。我哋唔好講 main contractor，我哋講即係叫做政府部門或者公營機構，水務署同埋 Housing Authority。咁兩間，我啱啱同你講，其實佢哋所需要呈交嘅一啲即係文件，個 annex，水務署方面個 annex，或者 HA 嗰方面，送貨去地盤，佢哋要驗嗰個清單都係唔包焊料。我問一問你，你覺得如果要搵人喺嗰陣時去 check，應該係邊個 check，或者直情係唔需要 check，因為講個「信」字？

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答：呢個係根據合約嘅要求，咁其實話地盤嚟講，送物料，即係我又冇做

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過 Housing。譬如我哋喺外面嘅私人嘅發展項目嚟講，大家都知香港係地方比較細，咁好多時私人發展商就唔會好似 Housing 有個咁大嘅地盤，有個範圍畀你可以入車，根本就係話可能係一啲廿四小時禁區嘅地方，咁你架車嚟到就要入去個地盤，就要卸低啲物料。我哋點樣可以保證你送去嘅料係符合個合約嘅要求去送落去呢咁，其實我哋事前就要將我哋個送貨清單，就交畀呢個總承建商，由總承建商去通知駐喺地盤嘅業主代表或者係一啲顧問工程師，當我哋到料嗰陣時去抽驗我哋嘅物料。咁其實我哋送咩嘢落去嚟講，我哋就要通知畀佢。

問：唔係，我諗我個問題未必問得咁好。剛才我都講過，宏觀嚟講，水務署同埋 HA 其實工作嘅範圍都會牽涉到焊料，監管或者佢哋所睇嘅範圍都會包括焊料。但係我剛才同你講過，就係驗收地盤，房署驗收就唔包要驗焊料；水務署要你哋啲人寫上去用乜嘢，又唔包要你寫用咩嘢焊料。呢兩個其實都係機會嚟嘅，可以 spot 啲人原來係用緊一啲唔符合規格嘅焊料，但係我哋就知道原來大家呢個機會都有用到，要嚟 spot 到原來係用緊一啲唔符合規格嘅焊料。我哋撇除啲就算即係想去坤人啲啲可能，即係我特登話咗畀你聽會用 A，但係我特登選擇去用 B，我哋撇除呢樣嘢先。呢兩個都係機會，你同唔同意可以去 spot 到有人用一啲唔符合規格嘅焊料，你同唔同意？

答：係一個機會嚟嘅，即係如果喺個制度上面有訂立嘅嚟講，佢係即係針對性要睇埋呢樣嘢。

問：如果有寫，就應該...

答：咁但係就算冇針對性嘅話，其實嚟講，如果所有地盤嚟講，喺做物料嘅時間有通知佢係送啲咩嘢落去，其實對送貨單已經睇到。

問：但係對送貨單，冇人特別聚焦要去 check 合規呢樣嘢？

答：其實大家都知，其實我哋都睇到就係話如果--就如焊料咁嚟計，就算雋景送貨落嚟，佢都會寫得好清楚係無鉛錫線。

問：咁但係房署未必一定係有個機制去 check，我哋而家係講機制，簡先生，你聽清楚。即係送貨單梗係會 check，收貨梗係會 check。

答：係囉。

問：但係收貨嗰個唔係政府嘅部門，或者唔係公營嘅機構，我哋而家係講緊制度上，大家嘅制度都有一個機會，一係就要你寫到明你用乜嘢，一係我就 check 你送乜嘢貨，但係大家都叫做 miss 咗呢個

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chance，即係如果我講得即係白啲就係。咁我想問你一個問題，就係即係你覺得如果我要你去評論，大家 miss 呢個 chance，即係邊個 miss 得即係過份啲或者緊要啲，定係你覺得話呢啲真係冇啲怨人嘅呢啲嘢，係即係...

答：或者我哋咁樣講，水務署嚟制定法例嘅時間嚟講，佢係要求個持牌水喉匠去做好個工程，咁亦都係話事後去驗收，咁佢係會擺水辦各方面去做。咁亦都我頭先講過，喺一個地盤嘅運作，你今日有冇開工，你唔會通知水務署，佢嚟睇亦都睇唔到。水務署亦都有可能就係話去請咁多嘅僱員去巡視--即係話喺每日去巡你地盤做緊啲乜嘢。尤其是私人發展商嚟講，你係你自己起座樓，你都有可能期望呢啲，每日企個幫辦企喺度望住你係做緊啲乜嘢。大家都知有好多嘢叫做 latent defect，就係話譬如我哋要起一座樓...

問：隱藏嘅缺乏？

答：係嘞。你譬如要落石屎，其實大家都知石屎同個鐵嘅 cover 嚟講係有個 minimum 嘅 size 係定咗喺度，咁你係咪要求 BD 嗰個人去睇住佢落石屎之前，嗰條鐵同個板係真係有呢條罅畀佢去做，有可能發生嘅事。

問：唔，唔。

答：所以其實就係話，所以所有嘅建築工地嚟講，業主都係會委派佢嘅代表，喺地盤去監察住工程嘅進行。咁而呢個監察嘅人佢係每日去巡視個地盤個進度，所做嘅嘢係咪符合約嘅要求，佢唔單只睇建築，佢亦都會睇埋水喉。即係話如果佢係真係有呢方面嘅知識，佢應該係睇到啲人用咩嘢。

問：咁呢度你講業主嘅代表係邊個？喺即係公營房屋。

答：咁如果你喺公營房屋，業主嘅代表咪係 Housing。

問：就係 Housing？

答：係嘞。

問：Okay。

答：咁如果係私人房屋嚟講，就係睇佢委派咗邊個駐工地工程師。

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問：但係 Housing 睇就係以合約嗰方面，睇下你合唔合乎合約，咁但係水務署方面你覺得係冇責任，因為直情佢係應該係執行法律，即係執行法例本身？

答：我唔係話佢有冇責任嘅問題，而係話我頭先都講咗，嗰啲 latent defect 嚟講，你而家譬如--我哋都見到香港曾經出現過好多個案，啲樓起好之後，外牆嚟講跌嚟石屎落嚟揸到人，最後發現嚟講就係因為嗰個石屎個 cover 唔夠，咁引致到 spalling，咁跌嚟石毆落嚟。咁呢個係咪 BD 唔去睇，我又--即係你唔可以咁樣去話「喂，呢個監管機構冇去做到嘢喎。」你日日香港咁多嘅工地，你 BD 要請幾多人去睇住啲人落石屎，呢個唔係一個 practical 可行嘅方案。

問：但係即係如果你話有嘢剝落咁樣，你可以話「喂，即係」--你就算真係做咗，你都未必 spot 到，即係你唔通監硬...

主席：唔係，我同意你嘅講法，係唔可以咁多工程，咁你唔可以日日都派個人去睇住，但係抽查都要啱？

答：如果以我所知，我喺地盤咁多年，我都有見過 BD 係會即係落石屎嗰陣時嚟抽查。

主席：唔係，佢 BD 唔做，就唔係我哋今次呢個委員會調查嘅，可能第日有機會我都唔知。

石先生：希望唔好。

主席：呢個另外一件事，係咪先？即係你--因為其實大狀嘅意思就好簡單，水務署你要監管。你啲法例寫到幾靚有用，係咪？你 enforcement，你原來係有 enforcement，有 enforcement 嘅時候，你寫到天衣無縫，過咗一年幾--一頭幾個月，一年或者兩、三年之後，跟住人哋發覺，咦，冇牙老虎嚟個喎，咁我就唔跟㗎喇嘛，係咪？所以你話訂立法例，冇問題，訂立法例，訂咗出嚟之後，你要有人 enforce 先得，如果你有 enforcement，冇用㗎，係咪？即係如果話畀你聽雙黃線係任泊，唔會有差人抄牌，你估啲人會唔會咁守交通規例，搵停車場車位泊，梗係唔會，係咪？即係當然你話「咁我係

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咪需要全香港每一條街，由街頭街尾都要搵個警察企喺度抄你牌？」梗係有可能，但係如果個問題就係你完全都唔 enforce，咁人哋就唔跟你，其實即係大狀其實某程度上就係問緊呢一方面嘅嘢，你明唔明？

答：明白。

主席：Housing 有佢要做嘅嘢，因為你係一個 employer，最後你亦都要收貨。咁你話水務署咁係咪冇責任，你定咗條法例出嚟，係，我同意，有可能咁多個地盤，係咪？日日咁多個 households，可能做緊裝修，唔通你日日都每一個 households 派個 inspector 去咩，有可能。但係如果你完全唔做，又唔得個啲，係咪？你同意吓嘛？

答：所以喺今次事件之後，其實我哋都同水務署同業界都有啲會議傾過，我哋都覺得就係話係咪我哋要建立一個制度，嗰個--即係譬如我哋作為一個持牌水喉匠，係咪應該係終身負責，好似小型工程或者電器工程咁，你去簽名證明你係做咗嘅嘢，就係由一個商號，一個註冊嘅商號，佢有一個係基本嘅工程人員，再加上一啲制度去--即係話如果喺個法例好清楚話畀你哋聽，如果你任何發現到係唔符合法例嘅嘢，你作為呢個監管人士嚟講，你係一個終身責任，咁我諗大家就會即係好留意去做。

主席：唔係，呢個係另外一件事嚟嘅，你講緊嘅嘢當然係一件事，不過個問題就係就算你頭先所講個制度係真係實行，咁你水務署，你都要確保呢一個制度、呢一個系統係真係執行先得，你明唔明？

答：如果喺之前嚟講，我哋回望，水務署真係冇呢個制度。

主席：係囉。

答：但係喺鉛水事件之後嚟講，我哋大家都知喺七月份嘅時間，水務署出咗好多嘅通函出嚟，咁就而家嚟講就係話要求係有 spot check，即係話以前冇，而家係有，呢個實際做咗已經。

問：唔，明白。但係有陣時即係一個咁嘅調查，佢調查嘅焦點就唔係淨係出咗事嗰樣嘢，因為出咗事，而家大家都知道即係一定要驗鉛，驗多三樣又盛，但係即係有陣時睇嘢睇宏觀啲，即係今日就水務署，下次唔知咩嘢署會。咁所以我哋睇宏觀少少，就係即係我哋講番頭先嗰兩個 chances 先，即係 HA 同埋水務署各自都有個 chance，即係起碼

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如果要求人哋驗，如果要求送嘢嚟驗一驗，「唔該睇埋你個啲 solder，哦，唔係呢啲嚟，唔係“FRY”嚟個啲，錫條嚟個啲，唔啱。」

答：佢係有呢個機會。

問：可能有一個 chance。水務署亦都係，水務署如果要求啲人寫上去，寫個 annex 寫埋用咩嘢焊料，咁大家有個焦點，「欸，唔該你用咩嘢焊料。」咁即刻大家會 focus 咗，大家冇即係 focus 到呢樣嘢。我哋都問過水務署同埋 HA 嘅證人，即係大體嚟講，其實佢哋嘅講法就係呢一啲叫做 sundry materials，小五金嘅嘢，就真係大家用完就燒咗佢，就見唔到嘅，大家嘅焦點唔係在於呢樣嘢，亦都有諗過大家--即係有人係會即係喺呢一啲咁小嘅嘢度係做違規，所以大家都喺各自嘅文件、表格上，都有寫呢樣嘢。咁即係而好多人亦都話--你知道房署嘅講法就係認知不足，咁即係你對呢個講法，針對性地有咩嘢評語，即係你--尤其是我想即係你了解到你嘅睇法，...

答：其實我就或者...

問：...就係即係你覺得係情有可原，定係話唔係啲？

答：我覺得係有啲受到坊間好多人講嘅嘢去誤導。我好記得就係話鉛水事件，我第一次接受訪問係 7 月 8 號，舊年。我接受完訪問之後，因為喺行內，我都叫做係有啲人識，咁有好多行家就會打電話答畀我，就話「Hugo，我哋咁多年都係用呢個係英國錫條嘅，咁所以我哋從來都唔偷雞減料㗎，我哋用英國錫條，我個盒寫住乜嘢㗎咁。」因為我已經知佢係用緊一啲含鉛錫條，你而家就成個行頭就會有個錯覺，就係我用英國嘢就唔出事。咁就亦都有--即係我都喺 7 月、8 月，我都接受好多電台、電視訪問，咁有啲立法會議員都當住啲公眾講「欸，你用英國嘢咪冇事囉。」其實而家就係調查出咗嚟，唔係英國嘢冇事，係你要買冇事嘅嘢，買不含鉛嘅錫線，係好多人係受到某啲人誤導，就係買來路嘢就冇事，而家。

問：係。但係我問番你，唔係，我個問題就係話，你覺得--即係大家都叫做漏招，或者係冇利用到呢個 chance 去 spot 到，各自都係話「我哋覺得呢啲係小五金，即係冇人會喺呢啲地方出蠢惑，或者又係唔會焠樓，我當你係會合規㗎嘞咁樣，呢啲燒咗就唔見嘅嘢，冇乜嘢人留意。」你對呢一種嘅取態，即係各自都係咁樣講，大體嚟講。你有咩嘢評語，你覺得係都情有可原，呢啲咁細嘅嘢，即係冇人會諗到出事，定係你會覺得就係話唔係啲，即係合約要求，主席話齋，你點都要即係要求大家--即係起碼你做個樣都要做畀人睇，等人哋大家有個警覺

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性，咁你會點睇？

答：我覺得係...

問：即係對佢呢種咁嘅講法，就係話「冇嘢，我哋即係」...

答：喺呢次事件，我覺得係一個疏忽，即係我又唔會評論其他嘅行家點樣做嘢。我成日都講，就係話我作為一個專家證人，我只能夠就我自己所知同埋我自己嘅行為去負責嘅啫。我頭先都引用到就係話我早兩年做咗一個高鐵地盤 823，咁我哋甚至乎油漆，即係調稀油漆嘅啲啲調稀水，我哋都做埋 submission，亦都我哋到咗嘅時間，我哋會邀請個業主出嚟去收貨、去睇。其實就係話其實有好多呢啲咁嘅行為嚟講，係取決於個分判商佢個係咪負責任個態度，我覺得係。

問：唔係，我哋唔好講分判，分判商方面用錯--訂錯料又盛。

答：係嘞。

問：但係我哋講緊最高--即係可以制止到嗰兩個，不如講得直接啲。

答：因為上面嗰咁人嚟講，其實我哋大家都睇到，就話我哋地盤咁多年，嗰啲監管嘅人員嚟講，其實佢哋係都幾忙。因為咁多個行業，因為喺成個地盤嚟講，就每樣嘢都要驗收，咁亦都佢哋要制訂好多嘅報告。咁我哋地盤嚟講，基本上係大部分嘅工程人員嚟講，好多都係 OT，即係仲要係冇人工嗰種。就以我而家--我頭先講到我哋做緊西九，我而家個地盤係完全未開工，一條喉都未做過，但係我哋舊年嘅 4 月到而家，由 4 月到到舊年嘅 10 月，平均我哋員工喺地盤係七點半或者至到九點先收工，咁其實佢哋嗰個工作時間係至六點嘅啫，佢哋係無償咁每日幫我做多兩、三個鐘頭。其實就係話地盤有咁多要睇嘅嘢，佢哋根本做唔切，如果你係冇人 particular 要去做一啲監管某類嘢嚟講，佢哋都已經係做到身心疲累，我諗佢哋都即係冇乜嘢時間去做，我公平啲...

問：唔係，我明，我而家唔係怨地盤嗰啲，地盤嗰啲攞住張清單，你要我剔乜我咪剔乜囉，你有叫我剔乜嘅話，我已經 O 緊 T，我唔會同你另外加 check 十樣冇要我 check 嘅嘢。但係制訂呢一啲 form 嘅人，我講緊高層次啲，我哋呢個案件唔係...

答：係嘞，即係其實當時如果有制訂嚟講，就可能就唔會漏招。

問：咁即係兩家都有責嘅其實，可唔可以咁講？

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答：可以咁講，一定有。即係你制訂一個法例出嚟去實行嘅時間，咁你如果喺個監管方面嚟講，如果你每樣都監管制訂到係咁，其實我哋係講--一路都講話喺--所有嘅訪問問我嘅時間，我都會提到一樣嘢，就係成本效益。如果你當你有個制度要實行嘅時間，你亦都睇到就係話而家地盤個個運作已經係 full load 嘅時間，你就要攞資源落去咁解。就係當時大家都覺得呢啲嘢，其實我由開始我都係咁講，佢根本係唔值錢，喺一個工程合約嚟講，我哋從來都有諗到有行家會去偷雞，即係用一啲唔啱嘅嘢，可以咁講。

問：即係所以你就覺得情有可原？

答：唔係講情唔情有可原，即係我又唔會即係有呢啲咁去畀一啲定義佢。我只不過就係話，我自己一向做嘢嚟講，我自己係循規蹈矩，咁人哋點樣做，我係唔會去理會，最緊要就係話我哋自己做嘢係守好自己本份。

問：我明。但係我想你明白，就係即係專家證人就唔係淨係講自己做乜嘢，專家證人就係講即係你要即係叫做發表一個意見，就係話人哋咁樣做，你要講下邊度甩漏咗，或者甩漏咗，咁係咪真係有人要--即係疏忽咗，定係邊個疏忽咗，或者最緊要就係即係下面疏忽咗，上面點解睇唔到，好多時候都牽涉呢啲咁嘅嘢。咁所以就少不免我會要求你唔好淨係講自己點做，可能你仲係...

答：因為地盤有好多嘢嚟講，實際都係冇驗。你譬如你話扎鐵用嘅火線，咁大家都知扎鐵嚟講係一個係好--即係喺地盤嚟講係好重要嘅環節，牽涉樓宇嘅結構，咁佢哋用嘅扎鐵嘅鐵線嚟講，係需要係燒軟咗佢，令到佢有個軟性、韌性嚟講去做扎鐵，但係呢啲--呢類咁嘅小五金都係冇驗。

問：吓？

答：即係你話如果地盤每樣都去驗嚟講，係咪真係 practically 可以做到即係話個成本效益咁樣。

問：係，我明。但係有陣時唔係淨係用錢計，你個樣嘢可能唔係好值錢，但係學你話齋，「嘩，原來個樣嘢唔係好值錢，但係原來有啲即係 substandard 嘅話，原來個後果係影響健康，或者話原來你個啲嘢燒落去可能唔穩嘅，會杯嘅。」

答：或者咁講，喺今次嘅事件之前嚟講，其實喺個公眾教育嚟講係唔夠，

對於食水含鉛嗰個教育。

問：唔好淨係講鉛，好多人覺得話即係鉛咋嘛，唔會死，七十年先死。但係我諗都講呢樣嘢，但係即係整體嚟講，即係唔好淨係講鉛，今次講鉛，下次可能係第二種金屬，係咪？即係睇遠啲，係咪？即係就純粹講成本效益，淨係講即係呢樣嘢係即係金錢上唔係好值錢，呢個係咪一個即係咁嘅取態，你要了解下點解有呢個規定至得，呢個規定係同健康有關嗎，你會唔會咁睇？你講成本效益，就係話呢樣嘢唔會有人偷雞啞？

答：或者咁講，喺當時呢個鉛水事件之前嚟講，我都有去深究食水含鉛呢樣嘢，好坦白講，我係事後我先至去上網，去即係搜尋啲資料，有關食水含鉛，世衛標準各方面嘅知識。其實我當時我作為一個持牌水喉匠或者作為一個水務行業嘅持分者，我係只係會著眼於法例嘅要求，同埋就係話我嗰個合約嘅要求。其實每個合約嚟講，佢都會講明就係話你要用乜嘢嘢，當你 submit 之後嚟講，通常上家 approve 你去用嗰樣物料嚟講，通常都係會有一啲 condition 加落去，就係要求你必須要根據嗰個生產商嘅指引去使用呢啲物料。咁其實就正正頭先我所講，我係 2000 年之後，我喺個銅喉嗰個 catalogue 就睇到，佢圖文並茂咁去話畀你聽，係要使用一啲無鉛嘅焊料。咁如果你係跟足嗰個生產商嗰個指引去做嚟講，其實係冇問題。咁就係話如果呢個跟足生產商個指引去做嚟講，其實呢個就係地盤團隊要做嘅責任。

問：你頭先講到，就係話即係其實你之前就淨係知道原來合約或者法例有呢個要求，你都係出咗事先至走去吵下，原來呢個要求係同健康有關嘅，可唔可以咁講？即係喺之前，就淨係知道唔可以含鉛...

答：唔係，鉛對健康有危害嚟講，我之前係知。但係嚟講就係話世衛標準，我哋係冇去深究，即係話究竟食水含鉛點樣話為之安全，點樣唔安住，我哋只需要就係話我哋根據嗰個法例嘅要求，水務署嘅要求，做足。既然係法例規定嘅嘢，係佢係跟最新嘅 standard 去定出嚟用咩嘢物料，畀你去用嘅，你跟足嚟講，我哋係相信呢個制度係健康。

問：好嘞，不如我就問一問你對業界嘅認知，頭先你講咗關於業界嘅認知嘅問題。我想你睇一睇一個文件，AB1。AB1，tab 7，有位陳尚仁先生，你聽過未？

答：聽過，認識。

問：認識嘅添，好。佢就嚟過作供，你睇下 AB1 嘅 tab 7，佢係呢個香

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港水喉潔具業商會有限公司嘅一個委員、副理事長。呢個文件 tab 7，第 93 頁，你見到呢個商會。你嘅公司係咪呢個商會嘅成員？呢個商會嘅成員應該係以公司做單位，定係以個人做單位？

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答：其實佢係有個人，亦都有公司。

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問：係。

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答：咁係現時我哋公司係佢嘅會員，但係當時未係。

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問：嗰陣時未係？

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答：嗰陣時未係。

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問：Okay。因為陳先生嚟作供嘅時候，佢就提供咗一啲嘅文件，佢就話喺 1998 年嘅時候，你睇下呢份文件，喺 94 頁，就 1998 年，呢個商會嘅秘書處就出咗一份咁樣嘅文件，就係畀應該係各大嘅會員，「此致各會員，接駁冷熱水鉛喉及配件時，請留意以下事項：就如用走錫配件」，走錫配件即係話啲錫曲啲啲，即係裏面包埋焊料啲啲，「必需用無鉛成份，如用無錫配件」，即係如果用番而家新興用啲隻，即係平啲隻你話，就係即係兩--就係你哋用錫條咁樣即係焊，就要用無鉛嘅錫條。陳先生就即係未必幫到我哋當年點解--即係佢幫唔到我哋，就係當年點解 98...

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主席：整高啲。

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石先生：吓？

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問：就即係會有呢份嘢出嚟，就零零舍舍走去提點啲行家要咁做，咁呢個 98。你記憶中，九十年代末期，有冇啲咩嘢嘅事件，即係事故或者咩嘢話題係令到業內突然間有出份咁樣嘢，有冇記憶？

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答：呢個我當時嚟講，我有咩嘢特別記憶，喺 98 年嘅時間。因為第一，我唔係商會嘅會員，...

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問：當時唔係。

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答：...我亦都有收過呢份嘢。咁如果我收到，我都可能會去查下，會上

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網去搵下點解會有呢啲咁嘅文件會出嚟，但係當時我未係，所以我有收過。

問：而你亦都有記憶就係話當時--即係唔好講呢份文件，即係你亦都醒唔起話當時香港有咩嘢事情喺業界，會令到呢個商會突然間會醒覺要提點大家，會唔會係突然間邊個地盤爆咗件事，即刻--通常呢啲喺個出咗事之後就會出個 circular 提下大家咁樣？

答：我真係冇聽過。

問：冇聽過？

答：係嘞。反而我當時比較 alert 就係話--當時我哋就係喺我哋嘅僱員，一啲喺建造業訓練局出嚟，讀水喉全科技工課程嘅僱員。同埋我都講就係話因為我自己會係好詳細去睇唔同嘅物料，佢個 catalogue 佢寫嘅裏面嘅嘢，咁我哋就留心到就係話當時 BS EN 1057 係圖文並茂，係講到佢個標準係要使用無鉛焊料。

問：你睇番 tab 8，即係跟住嗰個 tab，第 95 頁。呢份就係一份即係業內嘅行業資訊，就係呢個剛才我同你講嘅水喉潔具業商會有限公司，係一個即係周年嘅 event，嘅 function，即係一個晚宴上面就即係派。就講到“Development of Lead Free Copper Alloys for use in Drinking Water Applications in the European Union”。就係講歐聯，即係長話短說，就係講歐聯裏面，就其實就有四個即係相對先進少少嘅一個成員國，就即係喺度籌劃緊一啲水平合標啲或者係安全啲嘅食水嘅配件咁樣，咁就即係主要就係關於唔含鉛嘅配件。

睇番跟住 97 頁，就係一個本地嘅從業員，呢個 Joe Ku，呢個 Technical Advisor，佢就係講到就係即係就住唔含鉛嘅食水供應系統，就寫咗一篇嘅文章。咁亦都係長話短說，佢就係講到就係即係食水含鉛係比較危險，咁就係講到就係美國就有立咗法，就係就即係針對食水含鉛就訂立咗一啲嘅法例，但係就香港就未有。跟住就即係作出一啲建議咁諸如此類。

你後面睇番 99 頁，直情有晒啲相咁樣，即係銅喉焊接嗰啲咁樣嘅銜接嗰啲咁樣嘅 fitting 嗰啲，就有埋啲相喺度咁樣。即係個背景就未必真係話預見到食水含鉛，而家見到嘅嘢，如果係就中咗六合彩可能。但係即係佢其實係有另外一啲嘅背景，佢就係講緊應該係因應於英國嗰方面，就呢一篇文章，係因應於美國嗰方面係有一啲關於食

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水含鉛嘅法例。我想問你嘅問題，就係你對呢兩篇文章，當時你有冇出席呢個商會嘅...

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答：第一個有，第二個冇。

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問：第一個有，第二個冇。咁你有冇認知，即係有陣時出席呢啲場合，佢可能會有一啲文--即係有啲贈品或者有一啲紙擺喺你臺面咁樣，你有冇記憶或者認知係曾經睇過或者攞過？

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答：其實當時嚟講，就第一個我有出席嗰個嚟講，其實嗰本書我應該係有擺番去，咁但係因為...

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問：係喺本書裏面，一本場刊裏面咁？

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答：一本場刊裏面。

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問：係，okay，okay。

J

K

答：因為當時一本場刊嚟講，大約嚟講都有七、八十頁，咁我哋通常就係話我哋會喺嗰度嚟講，係好簡單去攞一攞個 topic 嘅啫。咁就係話佢譬如話要用咩嘢標準嘅，咁我哋攞一攞眼，而家嗰度係用緊啲咩嘢標準。但係實際喺嗰度嚟講，佢就即係都冇--佢講咗係話佢哋想係點點點點嘅啫，但係喺我哋作為一個持牌水喉匠，我哋要跟本地法例去做嚟講，我哋係以本地法例為主。而呢位作者 Joe Ku，我都知係咩嘢人嚟，咁其實佢係一個...

K

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L

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N

問：Joe Ku 係後啲嗰份，唔係前啲。你去咗第一個，第一個就係 2014 嗰個就係 tab 8 嗰個，。

O

O

P

答：Joe Ku 其實我哋知佢係邊個嚟。

P

Q

問：Joe Ku 係 2015 年嗰次，你有去嗰次咁嘛，嗰本嘢？

Q

R

答：係嘞。咁其實佢--就正正我頭先所講，其實香港有好多持牌水喉匠嚟講，佢哋係有好專業嘅知識，就從事一啲係比較高層位嘅，咁佢其中係一個。咁佢係從事一啲前期嘅規劃設計，喺呢個顧問工程師行，作為一個水務 division 嘅 head。點解我哋一路都講話點解前期嘅設計係好重要，就係話佢就係正正係揀選用咩嘢物料嘅人，啲顧問工程師佢哋唔單只會接香港嘅工程嚟做，佢哋會即係國際視野比較廣闊，佢哋接觸到外面唔同嘅世界。咁好似我哋 committee 都有好多即係 member 嚟講，都係去到中東、去到美國、星加坡，去從事唔同嘅水

R

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喉行業嘅工作。佢哋喺呢個工作個經驗嚟講，就會返嚟同我哋喺學會裏面去分享，咁變咗我哋就係話點解我哋會加入一啲學會，我哋係比較先係接觸到一啲外國嘅資訊，雖然呢啲資訊未必係會拎番嚟香港去用，但係起碼我哋知外面有人去 focus 緊一啲嘢。

D

D

E

E

問：或者出咗事，咁你會即刻諗下，「香港會唔會同樣出事呢？」或者「我哋嘅制度足唔足以防止類似嘅出事發生呢？」咁樣，係咪呀？

F

F

答：可以咁講。

G

G

H

H

主席：返番去其中石大律師啱啱講嘅 1998 年，...

I

I

石先生：係，tab 7，93 頁。

J

J

K

K

主席：Tab 7，係，1998 年 3 月出嘅呢個咁樣嘅通告。你頭先就話畀我哋聽，你去到 2000 年先至知道有呢一個要用無鉛焊料呢一件事？

L

L

答：係規定要用。

M

M

主席：規定，得。我知道水務規例裏面，到而家都仲係講緊 BS 864 part II，係咪？寫就仲係咁寫。

N

N

O

O

問：即係特別寫出嚟嘅？

P

P

答：係，係。

Q

Q

R

R

主席：係嘞。咁你知唔知道其實去到 1998 年，啱啱咁躉，1998 年嘅 1 月，就係出咗呢一個 1254/1998，就係將 854 就完全掃走佢。即係 1998 年 1 月就 British Standards 呢個咁嘅 institution 就出咗呢一樣嘢，當時你係完全唔知？

S

S

T

T

答：當時我有去留心。

U

U

主席：得。

V

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C

答：因為其實我哋當時嚟講，就話佢唔係唔畀用，864 其實當時--喺我哋 submit 喺水務署嗰個材料清單裏面嚟講，我哋係冇必要去 submit 個配件。

C

D

D

E

主席：冇必要去 submit 嗰個焊料？

E

F

石先生：焊料？

F

G

G

H

答：唔係焊料，係個配--係個喉配件都唔需要嘅當...

H

I

主席：係，係。咁你...

I

J

答：咁所以我哋主要就係講係條喉，條喉就係要符合呢個 BS EN 或者 BS 2871 嗰個 standard。但係因為香港始終係一個自由社會，就話你唔可以話我今日咁出一樣嘢，就即刻會你今日就你做緊嘅地盤都唔畀你完成。

J

K

K

L

主席：呢樣嘢我都想問你，既然你講到。864 part II，1983年，最初訂立嗰陣時候，其實係可以用含鉛嘅焊料個嘞，你知唔知？

L

M

M

N

答：我哋冇去特別去深究，因為其實當時嚟講就係話我哋--我入行係一九七幾年。

N

O

主席：係呀。

O

P

答：咁我哋當時全個行業嚟講，都係買錫條返嚟，就唔...

P

Q

Q

問：含鉛嗰隻？含鉛嗰隻？

R

R

答：而家事後我哋大家知道係含鉛。

S

S

T

主席：事後知道，係。

T

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C

問：事後知，係，係。

C

D

答：但係其實我哋入行嘅時間，我哋嘅師傅就永遠唔會話畀你聽啲焊料含唔含鉛。

D

E

E

F

主席：係，含鉛。

F

G

G

H

問：係，明白。

H

I

答：但係我係七幾年入行。

I

J

主席：係呀，我明。

J

K

K

L

問：明白。

L

M

答：然之後，就我哋八幾年考牌嘅時間，其實就係大家都係用緊相同，係用錫條嘅啫。

M

N

N

O

主席：得，我明白。即係 864 part II，我話畀你聽 1983 年訂立出嚟嗰陣時候，其實就係有講到好明，其實就係裡面係可以係用呢一個含鉛嘅焊料，嗰啲叫做 grade C and G。好嘞，你頭先就講到一個問題，就係話唔係即刻可以實施到，要睇下人哋出面，人哋嗰啲仲係用緊，咁你點樣樣可以話畀人哋聽唔用，係咪？好嘞，我哋知道去到 1987 年，就呢個 854 就改，就話你如果用做食水嘅話，你個含鉛嘅份量最多去到 0.001 個 per cent 諸如此類。好嘞，水務署就從來都唔改佢嗰個規例，佢淨係話 8642 嘅啫，咁但係佢就好得意嘞，佢又話佢個 definition 嗰度，就話要用最新嗰個嘞，咁究竟用邊個？究竟我如果做開嘅，可以繼續用含鉛嗰個，抑或唔含鉛嗰個先至得？

O

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U

問：你嘅認知，我哋講緊你個認知。

U

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D

主席：你明唔明？

D

E

E

問：我哋講緊你個認知先，我哋...

F

F

G

主席：因為 BS 就不斷咁改，係咪？

G

H

答：係吖。

H

I

主席：咁我嘅理解，點解當時，即係你喺個水務條例裏面要講最新嘅標準，
就用最新嘅 BS，我嘅理解你睇下有冇錯先，譬如如果我喺個水務條例
裏面定咗話 BS 1234，1234 會不斷咁演變，有 amendment 嘅，我
哋見到有好多 amendment 出嚟，係咪？

I

J

J

K

答：係。

K

L

主席：咁當然你如果用 BS 1234，你喺呢個時候，唔該你用，你就要用最
新 BS 1234，amendment 第三，我明。但係水務署唔係個啲，BS 1234
已經有咗，係變咗 BS 4567，你明唔明，864 就變咗做 1254，佢都
唔改，咁我用邊個？

L

M

M

N

答：通常...

N

O

O

P

問：我哋唔係問緊你喺個法律演繹嘅問題，...

P

Q

答：喺我哋當時成個業內，...

Q

R

R

S

主席：係呀，係呀，係呀，你用邊個？係。

S

T

T

問：你嘅認知，你嘅認知。

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答：我哋業內嚟講，我頭先都講，就係話我哋第一嚟講，我哋會睇法例；第二，就會睇合約。咁如果喺個法例裏面冇去清楚去明確 definite，究竟係即係話某樣嘢係唔啱，咁我哋就唔會假設佢唔啱先。只要行內仲係可以即係話喺市面上嘅供應商買到嘅嘢嚟講，我哋都會係買番白紙黑字所寫嘅 standard，就以--我頭先提到，我哋行內除咗用銅喉嚟講，啲主喉都好多時會用呢個係球墨鋼管。

主席：係。

答：咁球墨鋼管喺--即係我唔清楚佢係邊年轉咗係呢個 BS EN 545，咁但係喺--其實喺用咗 BS EN 545 之後，嗰五、六年嚟講，我哋都仲收到好多合約係要度我哋用 BS 477。

主席：啱，係。

答：咁其實呢個就係話行內係的而且確有 confuse 嘅有啲嘢係。

主席：係，exactly。譬如好簡單，我如果做水喉，即係當然我好簡單，當然我喺 VTC 去教我無鉛，係咪？

答：嘎，嘎。

主席：譬如如果我今日打開本水務規例，仲係寫緊 864，part II，咁我應該用邊隻？

問：加上如果我信你就話你寫得出嚟，即係提點我話用呢隻，我就唔會真係走去睇下 up-to-date 嘅 BS 個囉嗰，你 highlight 咗呢隻畀我。

主席：你明唔明，咁多隻，用邊隻？你水務署又有出過 circular 話畀我聽「喂，嗱，我哋而家改咗個囉嗰，唔准用第一隻呀，因為你 version one 就可以有鉛，version two 就已經少啲，version 3 就話唔得喇，唔准用喇」，咁原來佢又要睇下業界，嘩，業界究竟追唔追得上先，追唔上嘅話，舊嗰個都要用住先個嗰，係咪？因為有陣時冇貨，因為署長嚟係咁講，有陣時啲嘢...

B

B

C

答：真，呢個係事實嚟。

C

D

主席：係囉。咁咪好麻煩個囉喎？

D

E

答：因為我哋公司有做呢個公共工程，咁我哋就喺 1996 年，已經係消防工程嘅承辦商係公共工程，我哋就都會有接觸做政府工程。咁政府工程嚟講，通常佢個啲 spec 就好 update，即係話通常政府一話要用乜嘢，咁個本 spec 就好快就會擺咗落去。

E

F

F

G

主席：啱，ASD 1993 年我哋見到就已經整咗要用無鉛，係咪？

G

H

答：係。

H

I

主席：係囉。

I

J

答：咁我哋即刻就會去市場上去搵個 BS Standard。

J

K

主席：係囉。

K

L

答：最經典就係話我哋當時做呢個係井財街個消防局，咁當時要求個個鉛--即係我哋叫做鍍鋅鋼管，佢要求用呢個 BS EN 10255，但係我哋搵勻全香港，原來都仲未有人擺到 approval 係可以用喺香港工程，咁當時我哋係搞咗好耐去點樣去擺 exemption。

L

M

M

N

問：但係我哋講番呢個無鉛、有鉛呢樣嘢先。你如果睇水務條例相關個部分，佢會零零舍舍凸顯咗一個 British Standard 寫咗出嚟，但係個個其實而家我哋如果你真係肯做功課，就知道原來已經係唔啱用，但係佢排面仲寫出嚟個喎。佢跟住有一個就係話不過你都要用最 up-to-date 嘅 British Standard，勤力個啲就會走去同你啲，但係如果我真係一個普通人，我一打開，我就見到你寫咗個，原來已經我哋叫做 obsolete 咗嘅 BS，我就會照用。咁就想問你對...

N

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R

答：其實呢方面嚟講，就大公司嚟講，就會相對着數。咁因為點解，就係話...

R

S

S

T

主席：唔係，我明。

T

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C

問：咁但係法例就唔應該淨係畀啲大公司識啲嘢？

C

D

答：點解我咁講，因為其實喺九幾年嘅時候，...

D

E

主席：唔係，我知，我哋明，因為...

E

F

答：...我都係細公司，咁就啲 sales 就唔會第一時間有新嘅 standard，就有啲 sales 會--即係啲供應商會嚟我公司話畀我聽。

F

G

G

H

主席：係，啱吖。

H

I

問：唔會吖嘛，你話？

I

J

答：大公司就有。

J

K

問：係嘞，細嘅唔會？

K

L

答：即係好似今時今日，即係我哋公司唔算係好大，但係喺即係行內有人識。咁無論有咩嘢新嘅 standard，啲 sales 就會第一時間打電話嚟，「簡生，而家有啲咩嘢新嘅 standard。」我哋就會馬上知。所以就係其實點解話持牌水喉匠有啲知，有啲唔知嚟講，其實我哋亦都幾 rely 個 supplier 提供畀我哋個資訊。因為其實...

L

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M

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O

問：咁你覺得呢個係咪一個令人滿意嘅做法，真係靠下你自己真係識唔識邊個，邊個 sales 熟唔熟你？

O

P

答：唔係，因為...

P

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主席：係嘞，exactly，因為 ultimately 係水務署發牌，水務署睇住全香港嘅水質，你明唔明？

R

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答：明。

S

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主席：係囉。

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問：你覺得呢個係咪一個即係令人滿意嘅制度，你叫人哋用，你有個叫做打底的，一定冇死錯人，唔該你最用最 up-to-date 嗰個，但係你又零零舍舍整嚟嘢出嚟，整個 number，但係個 number 嗰個 BS 已經原來係冇--唔啱用個囉嗰，你有咩嘢評語，對呢種做法？

答：呢個可以有改善空間，其實大家都知，任何嘢嚟講，你出咗事之後嚟講，點都係 improve 佢嘅啫。其實我哋睇到就係話任何制度都係不斷去完善，社會係不斷進步。

主席：係。

答：咁而家我哋都睇到，原來而家我哋發現有啲持牌水喉匠佢真係跟唔上個資訊嘅，咁可能就話水務署要將來做多少少工夫，有新嘅 standard 嚟講，就做，即係盡量出多啲通函去出畀持牌水喉匠同埋啲認可人士。

主席：唔係通函，即係我唔係好信呢啲嘢，咁點解唔改咗個法例，寫到明幾時開始生效？British Standards，譬如咁講，一九一-- 1234，幾多，一，effective 幾多個月，幾多年邊一月邊一日生效，講完。

答：但係法例嚟講，以我所睇到嘅法例，就從來都冇寫到每樣嘢用某個 British Standards 個嗰。

主席：你畀 circular 輔助性，冇問題，by all means，你鍾意咪畀多啲都得，但係你可以寫，幾時生效。因為譬如你話好簡單，你話業界追唔上，我哋畀個 grace period，畀一年、兩年你，咁咪寫到明囉，係咪，話埋畀人哋聽，「噏，由幾時開始呢就 British 1234 就冇用嚟嘞，你就要用 British 5678」咁樣樣。你明唔明？

答：呢個我...

主席：因為你持牌水喉匠，老老實實水務條例，除咗水務署之外，我諗睇得最多嘅可能就係持牌水喉匠或者啲 building service engineer 嘅啫，即係我同你，即係我兩個，老老實實我就真係未揭過水務條例添。

答：所以就話而家就行內就各種唔同嘅...

主席：即係呢件事之前。

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答：即係各種唔同嘅持分者同埋工作者嚟講，佢哋本身係咪能夠與時並進係好重要。譬如我而家公司新入職嘅一啲 new grade、fresh grade 嘅細路仔入到嚟我公司，咁我就會介紹佢點樣上去水務署個網，去睇番佢《水務設施條例》、《水務設施規例》，同埋個安裝標準。咁其實而家所有嘅政府部門嚟講係非常之透明，佢哋將所有嘅標準係擺晒喺度畀你去睇，只不過係你自己願唔願意去睇。

問：個 British Standards 本身就冇擺到上去，成千幾釵一本。

答：呢個真係有，因為我都知。因為點解我哋以前唔去深究 BS，其實我自己係一個求知慾非常之強嘅人嚟，咁我喺八十年代，我哋就揸住個工程，我哋會 BS 係咩嘢嚟㗎？咁去圖書館搵書，其實係發現搵唔到，即係所有公眾圖書館都係冇，咁喺邊度可以搵到，就喺 Poly 嘅圖書館，Hong Kong U 嘅圖書館就搵到。咁就好僥倖嗰陣時我有個細佬就讀緊 Poly，咁我就會--我有疑問嘅，BS 我就會嗌佢幫我鼠出嚟，睇下點樣影份出嚟畀我睇下。咁但係我哋又好難去--即係話你有個人喺裏面讀緊就擺到出嚟睇啫，...

問：係嘞，你好彩啫，係。

答：... 冇就有㗎喇嘛，因為唔喺裏面讀就。咁所以其實 BS 呢個 Standards 嚟講，係公眾認知係非常之少。

主席：咁咪係囉，即係我嘅意思就係即係既然係咁樣樣，好大程度上水務署更加應該要話畀人哋聽添。

問：同唔同意？

主席：你明唔明？譬如好簡單...

答：我同意佢係必須要話畀人聽係用咩嘢 standard 嘅。

主席：係呀，即係你唔會...

B

B

C

答：咁但係嗰個係咪要寫個法例嗰度嚟講，我就有少少保留，因為大家都知，香港嘅立法嚟講係需要好多嘅程序。

C

D

主席：你錯，規例其實係好簡單嘅啫。

D

E

E

F

問：正式嗰份法例就可能好麻煩，但係嗰啲附屬嘅法例要改，就有真係要去立法會經過又盛，未必真係需要成班人舉手，亦都未必會有拉布。

F

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H

主席：黎生話畀我聽其實超級簡單嘅啫。

H

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J

問：但係即係講番轉頭先，就係話其實而家法例個問題個癥結就係咩嘢，佢裏面寫住，其實打底佢係話要用最與時並進嗰份 British Standards，就寫咗嘅？

J

K

K

L

答：係，係。

L

M

問：但係個問題就係話如果今日出一份最新嘅 British Standards，如果你根據本子辦事，聽日開始你已經真係要用最 up-to-date 嗰一份 British Standards。水務署唔去所謂執行，畀個 grace period 你，就係水務署長寬大為懷，或者佢知道原來你業內好多時候真係需要時間去適應。即係有啲人根本已經違反緊法例，用緊唔 up-to-date，由嗰日開始，只不過就係因為行政上或者即係嚟執行上，佢用佢嘅酌情，佢唔搞你嘅啫，如果佢真係所謂依法辦事，要搞你嘅話，就真係會搞到，咁你有咩嘢睇法對呢樣嘢？

M

N

N

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P

答：因為之前嚟講，就我就有認真同水務署比較係即係...

P

Q

Q

R

R

S

主席：諗過呢一方面嘅問題？

S

T

答：...多接觸呢方面嘅 topic。咁其實如果我聽你咁講，即係話既然法例係即係有個咁嘅灰色地帶，引致到一啲奉公守法嘅人都會犯法，咁就可能要界定得清晰一啲嚟將來。

T

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問：好，我想問一問你，就係抽水，39段，我問完你呢個之後，我仲有少少問題嘅啫。我問完呢一段之後，睇下有冇時間剩，跟住咁...

答：係，邊本呀？

問：第39段，你嘅證人供詞第39段，18990頁。

答：哦，18990？

問：係。你裏面就講到水務署喺即係正式所謂接駁水喉之前，佢會要喺嗰個 connecting point，地下食水管個接駁位抽水，發生鉛水事件前就驗八個參數，你記得呢樣嘢？

答：記得。

問：跟住就加多咗四個。我想問一問你，就係我哋聽咗好多人講，水喉分判商又係咁講，房署高官都係咁講，就話其實業內，即係業內即係關於做水喉都有一個嘅感覺，對錯一回事，就係話水務署經過咗呢一個驗水之後，出咗一張叫做大家俗稱叫做「水紙」嘅嘢，1005，你有冇聽過？

答：聽過。

問：出咗水--即係驗咗嘢，出咗 1005，1005 係要嚟畀你擺入伙紙用，擺 OP 用？

答：係。

問：經過咗呢個步驟，業界就有一個感覺就係水務署做咗呢樣嘢，就差唔多已經係水務署就畀咗個紅色嘅小白兔你，就係你已經係符合咗水務規則裏面嘅要求。你個人有冇呢個感覺，就係業界有呢一個咁樣嘅理解？我哋唔好講呢個理解對定錯先，而家事後我哋知道原來水務署話驗呢樣嘢，其實係要嚟確保啲食水唔好倒流。但係我哋唔好講而家，當時你知唔知道業界其實原來係有呢個咁嘅感覺，就係出咗 1005，就等如水務署已經係滿意，成個水務系統係符合水務嘅要求，你知唔知？

答：其實當時嚟講，我哋--我好早就對於水務條例嚟講，我都有個認知就係話所有水務條例佢嘅設施嚟講，係希望能夠係保障到香港，係能夠持續供應足夠嘅食水，優質嘅食水。我記得我係最初我係同水務署開會，我係喺呢個係 2009 年，我就參加咗水務署個 Smart Programme

裏面做個 member。咁曾經我都指責過水務署某啲同事，就話「喂，你水務條例係好 out source 喎，大佬，你上世紀寫嘅時間，就係有好多法例係針對呢個--嗰個制水而制定出嚟，而今日香港有個東江水嘅時間，已經係唔會有制水呢樣嘢，咁有關制水嘅嘢其實係咪可以放寬呢？」咁我當時就提出個論點，就係話其實水務條例寫出嚟嚟講，係要保障所有嘅食水，所有全香港能夠持續供應優質食水，同埋係防止所有嘅食水嘅管網受到污染。咁當時其實水務署嗰啲同事都幾震驚，望住我，「點解你會咁樣講嘅呢？」咁其實我覺得就係話，其實我一路都知呢個洗喉，其實就唔係話講滿唔滿意，其實洗喉就係要保證我哋所做嘅喉，當接駁個水源嘅時間，唔會係污染番個管網。

問：倒流？

答：係。其實呢個我好早就知。

問：係。但係你知唔知道業界好多人...

答：但係業界知唔知嚟講，我就唔敢去妄作猜測有幾多人知、有幾多人唔知，但係我自己就係會知。

主席：你 check 水辦係兩度 check，一度就係喺個 connection point 嗰度 check，嗰度就 check 究竟你會唔會倒流，污染番。另外一度 check 嘅就係喺個 tap 嗰度要 check，擺水辦去 check，...

答：係嘞。

主席：...嗰度唔係愛嚟驗倒流，嗰度就係驗，「啊，你嗰啲接駁冇問題嘞，我哋可以畀水你」？

答：其實當時嚟講，我哋成個業界同水務署係開咗好多會，咁我哋係--啲水辦係點樣去畀法，就係話我哋接街喉嗰條水嚟講，係必須係喺擺入伙紙之前去擺，因為嚟講就係話你買水又好，你點樣用咩嘢方法擺啲水返嚟，總之一定要洗乾淨條喉，係防止唔好去污染到個管網。咁但係如果你話係一個屋邨好大，有好多室，即係單位，咁你要洗晒裏面嘅喉，如果你有正式嘅水，去買水嚟洗，係好不切實際。其實大家都知道，將一啲好乾淨嘅水入喺個水管，耐咗嚟講佢就會變咗唔乾淨，你咁係擺唔到水辦。所以我哋業界亦都同水務局有個協辦就係話我哋係保證喺即係駁街水嘅時間，我哋駁街水嗰陣時候必須要乾淨，然後，室內嗰啲擺龍頭嗰啲，就可以喺水務局供水之後先擺，就喺 1005

發出之後攞。咁就唔存在你所講嗰種，就係話防污染，嗰陣時就真係去睇水質，咁亦都即係話攞後面嗰個水辦嚟講，就係保證你個水喉分判商係有冇跟足指引去洗喉。

問：但係嗰個唔係一個強制嘅做法嚟？

答：嗰個--喺...

問：出咗 1005，即係駁咗大喉之後，喺個 tap 嗰度去攞，呢個唔係強制嘅做法，係咪？

答：喺條例上面，...

問：唔係任何指引嘅先決條件，係咪呀？

答：喺--點樣講，喺條例同埋規例嚟講，其實嚟講一路都有講，我哋係需要洗喉，咁亦都喺水務署喺 2012 年，亦都有個更加清晰嘅指引，就係話個洗喉要點樣洗法嚟講，佢亦都...

問：佢鼓勵你去抽多啲辦，就因為退伍軍人症嗰個事情出現咗？

答：係嘞，咁嗰個時間佢就好 particular 就話畀你聽你要點洗。咁其實呢個洗喉嚟講，喺我哋有做呢個政府工程嗰個街水，即係嗰個--其實而家--其實我哋而家出事呢個 inside service，咁其實喺政府嘅本網嚟講，我哋叫 water supplier installation 嗰個 mainly 嚟講，佢係有個好清晰嘅指引，你係用乜嘢嘢去洗、要點樣洗、要點樣驗，其實係好清晰。

問：但係我唔係同你去研究仔細究竟個目的實際上係乜嘢，我問你嘅問題就係我知道閣下係知道洗喉，1005 出之前，水務署叫你喺嗰度驗一驗嗰八個參數嘅目的，就係為咗確保水務署自己嗰條喉唔好受污染，呢個你知，我知，我哋而家大家都知。我問你嘅問題就係當時未出事之前，好多業界嘅人士都係話「喂，我信咗水務署佢驗咗嗰八個參數，出嗰張 1005，我唔知佢內裏乾坤。」出得 1005，一般人嘅諗法就係「你官都話批得我，我就當你已經係覺得呢個我啲食水嘅喉管係符合咗水務條例。」呢個可能係錯，而家我哋知道，我問你嘅實質嘅針對性嘅問題，就係你當時知唔知道業內係有一啲人真係咁樣諗？

答：我就係講緊就係我唔知...

B

B

C

問：就唔使怕，我唔係叫你點個名出嚟。

C

D

答：我係唔知，因為你問緊我知唔知佢點樣諗，我成日都講，我唔能夠講一啲我證實唔到嘅嘢，佢心諗緊乜嘢，我點會知？

D

E

問：唔係，我哋業內好多時候，我哋啲律師都係講「喂，好多第二啲人原來係諗啲咁傻嘅嘢，我哋會知個啲。」

E

F

F

G

主席：唔係，唔係，你做專家，專家其實一個好特別嘅地方，就係可以講你嘅意見，係呀。

G

H

H

I

答：因為其實我可能就係話...

I

J

問：或者你知道業內好多人嘅做法。

J

K

答：我所認識嘅，都係啲學會或者啲商會，比較接受到資訊比較係 update 啲咗人，即係好似你講陳尚仁先生、黃國強先生，一啲商會嘅理事長、主席，或者我哋學會嘅 committee member，或者一啲經常參加學會嘅講座、seminar、site visit 啲咗人我哋會比較熟，而呢咗人就係正正不斷吸收新知識啲咗人，我點可以 assume 佢哋唔知。

K

L

L

M

M

N

問：Okay，明白。

N

O

答：接觸層面嘅問題，我覺得係呢個係。

O

P

問：得，明白，我仲有一段想問你。

P

Q

Q

石先生：但係我諗主席，唔可唔可以食完飯先問啲段？

R

主席：晏晝先。

R

S

石先生：Okay。

S

T

主席：兩點半再繼續我哋。

T

U

石先生：唔該。

U

V

V

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B

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主席：唔該。

C

D

D

下午 1 時 06 分聆訊押後

E

E

下午 2 時 32 分恢復聆訊

F

F

出席人士如前。

G

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水務署的第三證人：簡國樑（水務署專家證人（本地建築及水喉業））宣誓繼續作供

H

I

石先生繼續盤問

I

J

問：簡先生，就有兩個課題想同你探討下嘅，我食飯之前問有一個，咁但係其實我睇番係仲有另外一個。你當年考牌去做 LP 嘅時候，嗰陣時係仲有分一級同二級㗎，持牌水喉匠？

J

K

K

答：係。

L

L

問：咁你一考考一級喇，係咪？

M

M

答：係。

N

N

問：係，咁你當時就要上過堂先至去考㗎，對嗎？

O

O

答：當時就有呢個規定嘅。

P

P

問：冇咩嘢話？

Q

Q

答：冇規定要去上堂嘅。

R

R

問：係，但係你本身係上咗堂先去考，受過訓練？

S

S

答：我第一次考係冇上堂嘅。

T

T

問：係。

U

U

答：咁我係考咗兩次失敗之後，我發覺原來唔上堂嚟講，係蝕底少少嘅，咁跟住我就去上堂嘞。

V

V

B

B

C

問：係。咁當時嗰個制度就好唔同，即係邊一啲嘅機構可以有權去考啲咩嘢嘅試，同而家已經好唔同喇，當時有分一、二級，而家就有咗呢個分別添喇。

C

D

D

答：嘎，嘎。

E

E

問：即係整個制度都唔係好同喇，除咗持牌水喉匠呢個名，就仲係呢個名喇，同意嗎？

F

F

答：同意。

G

G

問：係。咁你當時去上堂嘅時候，教，你頭先同我哋講過，就唔係用一卷卷呢啲無鉛嘅錫線教嘅，教你焊接就係用一條條嘅錫條教嘅，對嗎？

H

H

答：或者咁樣講喇，喺我哋嘅年代考牌嘅，大部分都係從事緊係一個安裝工作嘅人比較多嘅。

I

I

問：係。

J

J

答：咁所以嚟講，我哋就係有呢個 practical 嘅訓練嘅，即係有啲個操作訓練嘅，咁我哋純粹嚟講...

K

K

問：停一停先，冇操作訓練，即係話其實因為已經預咗你係識㗎嘞，係咪？

L

L

答：係嘞。

M

M

問：係。

N

N

答：即係我哋喺七十年代，就亦都當時係冇話咩嘢含鉛，唔含鉛錫線呢樣嘢嘅。

O

O

問：唔。

P

P

答：我係--我第一次考牌，係一九七七年考嘅，所以嚟講，就係根本係冇呢啲嘢嘅。

Q

Q

問：唔。咁嗰陣時考牌都會考你手勢嘅？

R

R

答：冇，乜都冇。

T

T

問：冇。即係嗰陣時考牌唔會考你焊接技巧？

U

U

V

V

B

B

C

答：唔會。

C

D

問：你去上堂，亦都有教你關於焊接嘅技巧，或者基本嘅原則？

D

E

答：其實當時我哋上堂主要就係針對係《水務設施規例》同埋水務條例嘅教授。

E

F

問：唔。

F

G

答：亦都係好扼要咁話畀我聽，當我哋要 submit 一個 plumbing proposal 嘅時間，我哋要包括有啲咩嘢元素，先至能夠達到審批。

G

H

問：唔。

H

I

答：咁因為其實我哋當時考牌係分開兩部分，第一部分嚟講，我哋就去到個試場，佢會畀一個 plumbing proposal 嘅，即係個 criteria 畀我哋，我哋就根據嗰個 criteria 去 design 個 plumbing 嘅 line diagram 出嚟。

I

J

J

K

問：唔，唔。

K

L

答：咁然後我哋 pass 咗呢個 part 1 之後嚟講，我哋就需要去參加個 interview。咁就有水務署嘅幫辦呢，就會係問我哋一啲係水務條例相關嘅知識。

L

M

M

N

問：唔，好。即係話成為持牌水喉匠，你當年親身嘅經驗，就有試過上堂教焊料，亦都係考試亦都有考過你燒焊技能呢樣嘢？

N

O

答：冇。

O

P

問：Okay。但係你本身做持牌水喉匠，或者考持牌水喉匠試之前，你係都學過點樣焊接㗎？

P

Q

答：我哋係地盤師傅教嘅，當時。

Q

R

問：係嘞，即係唔係話因為要考持牌水喉匠而學，而係本身你要學整水喉，就要跟師傅去學喇。嗰陣時跟師傅學焊接，就係用錫條嘅，對嗎？

R

S

S

T

答：可以咁講，我當時所見過嘅所有唔同嘅公司都係用錫條嘅。

T

U

問：都係用錫條嘅。係一條條直㗎喇，咁你知道係咪即係而家我哋成日講嘅 50 力呢？定係...

U

V

V

B

B

C

答：唔係，絕對唔係。

C

D

問：唔係 50 力。

D

E

答：咁我哋當時係佢會一啲五金嘅批發舖頭，咁就好大量咁去買，一擔一擔咁買嘅，咁...

E

F

問：但係直線一條條嘅？

F

G

答：一條大約咁長嘅喇。

G

H

問：Okay。

H

答：就比起而家嗰啲粗好多嘅。

I

問：係。

I

J

答：咁大碌嘅。

J

K

問：哦。

K

L

答：咁我哋返到嚟之後嚟講，我哋就會將呢啲咁嘅錫條，就用火將佢煮熔咗，就裝喺個容器嗰度。咁我哋就用個勺，咁整條角鐵，戙斜喺個地下，咁倒落條角鐵，咁佢一路--一流出嚟，凍咗，就成為而家咁嘅條狀嘞。

L

M

M

N

問：哦，okay，okay。先整熔佢，跟住再凝結番？

N

O

答：係嘞。

O

P

問：凝結嘅形狀，就係由你嗰條鐵嘅形狀控制？

P

Q

答：係嘞，我哋用一條角鐵咁，...

Q

R

問：我明。

R

S

答：...佢變咗呢出嚟就會三角形，一個好薄嘅一條條狀囉。

S

T

問：係，跟住到到焊接嘅時候，又熔番佢？

T

U

答：係嘞。

U

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C

問：好。咁呢個就係你個人嘅經驗喇，你喺供詞第三--你嘅報告第38段，你唔使講，你講到--你唔使睇嘅，我話畀你聽，就係即係你公司嘅水喉嘅一啲學徒，佢哋就話番畀你聽，佢哋嘅培訓機構教佢哋，就係用成卷焊料去做焊接訓練嘅，一卷咁揸住，對嗎？

D

D

E

E

答：係。

F

F

問：你係咁講喇。即係你從你嘅公司嘅學徒聽到，佢哋就係用一卷卷嘅嘢去受培訓？

G

G

答：係。

H

H

問：咁一卷卷嘅嘢，佢都同你講，即係你嘅認知，都係呢啲培訓機構係教佢哋用緊無鉛嘅焊料嘅，係咪？

I

I

答：係。

J

J

問：你所知佢哋嘅培訓機構係邊一啲呢包括？

K

K

答：係嗰個全科技工課程。因為我哋公司喺呢個...

L

L

問：係CIC搞定係VTC搞㗎？

M

M

答：佢嗰個應該係IVE㗎，因為我嗰陣時...

N

N

問：IVE, okay。

O

O

答：...嚟講，就喺2000年之後嚟講，我哋就發現就即係喺市面上，有一啲叫做學徒訓練計劃，咁由我哋公司同佢簽一個係三年嘅合約，咁就頭半年就有啲工資嘅津貼，咁佢嚟我哋呢度學嘢，咁我哋就教佢。咁我哋就會有個工人嚟講，就好regular, 即係話好穩定咁去幫我哋去做嘢囉。

P

P

Q

Q

問：唔。咁就係憑呢一啲即係你與學徒之間嘅傾偈、交流，你就知道呢一樣？

R

R

S

S

答：另外一方面，就話--我都講過，就話我哋係喺睇過catalogue, 係圖文並茂咁樣去指出，當你燒焊嘅時間，你係點樣去正確使用呢啲無鉛嘅焊料。

T

T

U

U

問：停一停先，我明。但係我針對嘅係嗰啲培訓機構，我想知道你哋--你接觸嘅學徒係來自邊一個，或者...

V

V

B

B

C

答：IVE 嘅。

C

D

問：...邊幾個培訓機構？

D

E

答：IVE 嘅。

E

F

問：IVE, okay, 得。咁我而家就順帶就係跳到我最後一個話題，就係關於你嘅報告第 49 段。就講到就係關於你提議出一啲--即係加闊一啲即係唔同嘅課程，都睇下可唔可以即係引致到可以做到 licensed plumber 呢個資歷。

F

G

G

H

答：唔。

H

I

問：因為你 49 段，你就係講到就係要增加一啲可以令人夠資格申請 LP 嘅一啲水務課程。

I

J

答：係。

J

K

問：你提議過咁喇。我哋而家睇番法例，我唔使你睇個法例本身，而家個法例就係基本上就係即係 VTC，即係職業訓練局方面就係即係主要佢係負責即係提供訓練持牌水喉匠嘅課程喇，對嗎？

K

L

L

M

答：對。

M

N

問：主要。

N

O

答：對。

O

P

問：當然有好多唔同嘅途徑喇。即係有好多對同等嘅資歷都可以成為，但係如果你而家喺香港，年青人出身，佢想去做持牌水喉匠，咁第一樣諗，「啊，VTC 喇。」咁，對嗎？

P

Q

答：對。

Q

R

問：IVE 都有對等嘅課程嘅，對嗎？

R

S

答：如果你話對等嚟講，而家政府承認嚟講，係必須係 IVE 嗰個係三年嗰個課程嘅。

S

T

問：唔。

T

U

答：即係如果真正嘅課程係唯一一個嘅啫，而家。

U

V

V

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C

問：你就係喺你嘅報告第 49 段嗰度，就起數上嚟第 5 行，就講到香港高等科技教育學院，THEi，於 2015 年開辦咗一個相等於資歷架構水平五級，level 5 嘅課程。咁你嘅意思係咪呢個 level 5 課程可以將佢納入為亦都係即係承認可以晉升咁樣？

D

D

E

E

答：我哋希望喺呢個課程完成之後嚟講，我哋個業界就會去同水務署去溝通，要求佢去承認嘅，我哋係有咁嘅打算。

F

F

G

G

問：係。咁當然即係承唔承認與否，呢個就係要牽涉可能當局要了解下呢個課程教乜喇。

H

H

答：係，係。

I

I

問：咁同埋可能就需要有一個步驟，就係即係起碼承認呢一個就係 equivalent to 法例基本嗰個要求嘅課程。因為而家基本上就係法例要求你有某種嘅資歷，佢寫咗出嚟，或者 equivalent 嘅課程。

J

J

答：係呀。

K

K

問：咁承唔承認你係 equivalent，可能就需要即係處理 LP 嘅當局，即係水務署，佢要作一個決定嘞，同唔同意？

L

L

答：同意。

M

M

問：一係就改法例，你唔法例都得嘅，就係水務署要承認佢係相等，對嗎？可唔可以咁講？

N

N

答：係，我哋都係要求佢係承認佢相等嘅啫。

O

O

P

P

問：唔，好。最後第 50 段，其實你想帶出就係，首先科技大學嗰件事情就有發生過嘅，以你所有嘅認知，即係你唔--即係你以你嘅所知？

Q

Q

答：其實我都有--事後，我收到呢份文件之後，我有打電話喺裏面從事緊安裝嘅工人，咁我問佢哋，「喂，你哋喺裏面開工嘅時間有冇聽過呢件事呢？」佢哋話冇聽過。

R

R

S

S

問：唔。或者睇睇嗰一段嘅新聞，就係你嘅報告，18996。

T

T

主席：我想問下，又同我哋有咩嘢--冇乜關係嘅。

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石先生：其實冇乜關係嘅，即係佢係我又即係覺得個證人好似係即係要--好似以正視聽咁樣，即係講番就係--但係我只不過我係--我唔係想問佢科大呢件事，我係想問下佢，科大嗰度，當然佢已經叫做撥亂反正，解決咗喇，但係我又想問下佢，呢篇文章，當然有好多第二啲嘢，譬如話佢話靠攏祖國，咁我哋而家就發現原來啲鉛嘅焊料就唔係嚟自祖國。但係中間有一段，我想睇下佢對呢篇文章中間嘅有一啲意見。

問：我想睇下你有咩嘢睇法啫。

答：好呀。

問：中間嗰度，其實我都問過你㗎嘞，就係第4段，「他說香港的制度奇怪，雖然有監管含鉛嘅喉管，卻從來不用呈報焊接用嘅物料成份，最重要嘅係工程驗收時，只驗水質嘅酸性及鹼性毒素，根本不包括重金屬這一項，自然驗收合格，就大家相安無事，...」

呢一個評論，當然即係好多時候嘅評論都可能略帶尖酸呀，或者略帶尖銳喇，你對呢一個評論，你有咩嘢評價？有咩嘢意見呢？你覺得「佢話香港制度奇怪」呢一度，你覺得係咪即係一個公允嘅說法呢，在你嚟講？

答：諗...

問：即係有條文規管，但係就驗收又唔使--即係又唔係驗晒；呈交成分，又唔使呈交，佢覺得奇怪咁，你點睇呢，對呢個評語？

答：咁如果以而家嚟講，就去深思一下，係有少少係覺得奇怪嘅。咁其實就話--我頭先都講，喺一路以嚟，我哋都幾依賴個業界同埋整個嗰個監管團隊，分工合作，由源頭去買料到到送落地盤，一路都有個監管制度喺度嘅，咁冇理由去到最尾仲會出事㗎咁。

問：好，唔該晒。

石先生：我問完嘞，主席。

主席：唔該。有冇人有問題呀？係呀。房署先喇。

B

B

C

何先生：唔該。

C

D

D

何先生盤問

E

E

問：簡生，請唔好覺得我冒犯，但係我都想知道即係你個獨立性。你頭先講過，你係有做過房署嘅工程嘅？

F

F

答：我有承接過房署嘅工程。

G

G

問：有承接過房署工程？

H

H

答：係。

I

I

問：即係你做咗持牌水喉匠之後，你係有...

J

J

答：有承接過。

K

K

問：...沾手過去房署嘅工程--房委嘅工程？

L

L

答：我有正式去承接過房委嘅工程。

M

M

問：係，sorry，點解話有正式呢？

N

N

答：咁諗...

問：即係有接過，係咪？

O

O

答：即係話我公司係有接過嘅，咁但係嚟講，我哋會喺一啲我哋學會嘅 member 裏面，去聽到一啲房屋署嘅工程嘅要求，或者係一啲行家會聽到，但係我正式自己去實際參與就有嘅。

P

P

Q

Q

問：係，多謝。咁就亦都你有冇接過政府，譬如好似建築署批出啲啲工程？

R

R

答：有。

S

S

問：有。咁就亦都唔好覺得我冒犯，我哋而家喺呢一個委員會裏面，牽涉嘅係有四大嘅主承建商--總承建商。

T

T

答：係。

U

U

V

V

B

B

C

問：咁你有冇同呢啲總承建商有任何嘅工程你係接佢哋嘅呢？

C

D

答：或者你講一講呢四個承建商先，我再 review 一下先。有利，我絕對冇嘍。

D

E

問：係。中國建築、有利、保華同埋瑞安。

E

F

答：瑞安，我喺好多年之前，曾經做過佢哋 subsi. 嘅嘢，...（聽不清）嘅嘢。咁但係瑞安，以我記憶，我有直接幫佢做過。

F

G

問：好。

G

H

答：咁而中國建築，冇。Paul Y 同埋有利都有。

H

I

問：多謝你。我想睇--你就係睇第--首先我想你睇番，你頭先主問嘅時候都問過你嗰個第 8 段嗰度。

I

J

答：嘎。

J

K

問：對唔住，唔係主問，委員會嘅大律師。第 8 段嗰度，你就講係房委嘅工程。呢度講公共房屋嘅工程，就用嗰個指定承判商呢，就係譬如好似冷氣、消防、電呀咁；水務，水喉嘅分判商呢就唔係嘅。我想你確認，其實即係除咗房委嘅工程係咁，譬如好似 ASE，建築署嘅工程都會係咁樣嘅安排，係咪呢？

K

L

L

M

M

N

答：喺呢個 2014 年之前都係咁樣安排嘅。

N

O

問：唔。

O

P

答：咁但係喺呢個 2014 年--係嘞，2014 年嘅 1 月，就刊咗憲，就公共工程呢係需要冇呢個指定嘅分包商嘅。

P

Q

問：唔。咁就我想同你即係討論一下嘅就係話，譬如我哋知道房委，譬如佢嗰個--譬如做泵，或者做消防，佢有個指定嘅分判商喇。

Q

R

答：我知。

R

S

問：咁佢係希望呢係好--有個好專業嘅分判商去負責譬如有一啲比較專業嘅工程，就係譬如好似個泵呀，好似個消防呀其他各樣嘢？

S

T

答：係。

T

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問：係咪？

答：呢個係嘅。

問：唔。咁就即係我相信你對於呢個咁樣嘅安排冇異議嘅，係咪？

答：冇異議嘅。

問：係嘞。咁假設如果呢一個咁嘅安排嘅底下，假設吓，閣下貴公司係如果價錢啱，咁房委會畀嗰個水喉工程你做，咁你作為一個 LP 嘅身分，你會唔會覺得「啊，呢個我--作為 LP，我唔係--但係呢個工程呢，我就唔係佢個特定分判商。」所以你會覺得「我個責任呢，就比起我出面 LP 接其他譬如好似有啲私人嘅屋苑嘅工程，我個責任就少啲嘞。」咁，會唔會咁覺得？

答：其實唔會嘅，其實喺如果作為一個 LP 嗰個責任嚟講，咁佢主要針對嚟講就話你所使用嘅物料，同埋安裝係要符合呢個水務條例嘅規定嘅，或者水務條例嘅標準。

問：唔。

答：而喺呢個水泵嘅安裝，或者係一啲係太陽能板嘅安裝嚟講，其實水務條例從來冇提呢啲嘢嘅。

問：係。

答：咁所以呢啲係屬於一啲係比較 specialist 嘅做法囉，呢啲係。

問：所以即係我相信你會同意就係話，你作為一個專業，一個 LP 嘅身分，你係珍惜發咗個牌畀你，你係會即係無論嗰個工程係大細，個複雜程度係乜，總之你係以 LP 嘅身分去做，你都會係以同樣嘅負責任嘅方式嘅，係咪？

答：啱，跟番條例去做。

問：我想再--同你亦都探討下一個問題，頭先委員會嗰個大律師就佢講話有兩個--即係一個--正式嚟講，一個政府部門，就水務署喇；另外，即係房委就係一個法定機構喇，但係亦都有牽涉房署咁樣。咁佢話呢兩個部門，各自都佢哋有一個表可以去 check 嗰啲物料嘅咁樣，你記得頭先有個咁樣嘅問題，係咪？

B

B

C

答：有。

C

D

問：咁就喺水務署嗰度，就係 WWO46 嗰個附件一裏面嗰啲部件，同理即係裏面所包含嘅嘢。

D

E

答：係。

E

F

問：譬如好似房署，你就話你唔係太清楚房署嗰個安排係點樣，咁但係我哋知道房署都自己有個清單嘅係要驗嘅。咁頭先就大律師就問你，你覺唔覺得即係喺呢兩個咁樣嘅清單嘅檢驗裏面，兩方都可能係錯失咗一個機會去即係睇下到底有啲譬如鉛--含鉛--即係話用嗰啲物料係非含鉛嗰個問題，會唔會係有個問題喺度呢咁？咁委員會就話--個大律師就話畀你聽，係咪有錯失咗個機會呢？咁...

F

G

G

H

H

I

答：我都同意嘅，頭先係。

I

J

問：我想聽--你頭先亦都有個講法，就係話就算冇呢一個咁樣嘅物料嘅清單都好喇，如果其實嗰啲當時喺地盤嘅人，係盡佢哋嘅責任去跟番佢哋嘅應該要守嘅程序各樣嘢去做，應該都係可以係確保得到嗰個唔應該用咗一啲含--即係唔應該用咗啲錯嘅物料？

J

K

K

L

答：係真嘅。因為我頭先都舉咗實例出嚟，就話我喺其他嘅工程嚟講，我哋甚至乎連螺絲嚟講，我哋都遞埋 catalogue，遞埋辦去畀人哋審批。

L

M

M

N

問：唔係，咁但係就算冇呢一個咁樣嘅機制，...

N

O

答：係喇，就係做足嗰啲。

O

P

問：...如果嗰啲當時再分判商也好，或者嗰個 licensed plumber 也好，如果佢哋係盡佢哋嘅責任，其實都可以確保到一啲物料係應該要即係準確、唔準，...

P

Q

Q

R

答：啱嘅。

R

S

問：...啱唔啱？咁你亦都講到就係話，咁就算冇呢個--即係所謂委員會大律師話畀你聽錯失個機會，你話就算有一個機制，如果啲物料到地盤嘅時候，其實你睇嗰個物料送貨單，其實如果有問題嘅，你都可以 pick up 得到個嗎？

S

T

T

U

答：係呀。

U

V

V

B

B

C

問：你頭先係有咁講㗎，係咪？

C

D

答：唔㗎。

D

E

問：咁當時呢個物料嘅送貨單，我相信你頭先所講嘅就係，如果係嗰啲水喉分判商，有啲物料進咗地盤，咁如果係佢哋交嗰張物料嘅送貨單去畀邊位呀？畀總承建商喇，係咪？

E

F

答：係。

F

G

問：咁其實總承建商都可能可以 pick up 得到，...

G

H

答：係。

H

I

問：...係咪呀？因為我哋而家講緊係呢一個咁樣嘅建築項目裏面，係不只一個持份者，即係唔係淨係政府部門做持份者，或者半政府部門，好似房署嗰啲做持份者，咁而係其實喺個項目裏面有好多唔同嘅持份者嘅。

I

J

J

K

答：啱呀。

K

L

問：係咪？唔。包括埋總承建商，當然？

L

M

答：係。

M

N

問：唔。頭先亦都問過你就係，你又覺得如果要樣樣嘢都 check，其實都真係唔係好可行。即係每一樣嘢都 check，你都覺得唔係好可行，係咪呢？

N

O

O

P

答：係一個成本嘅問題囉。

P

Q

問：一個成本問題。

Q

R

答：呢個係出於一個成本考慮，就話你每樣嘢去 check，你既然係做咗個 check 嘅工序出嚟，你就必須要有一個完整嘅紀錄話畀人聽我係 check 咗嘅。

R

S

問：唔。

S

T

答：咁就牽涉除咗係去做 inspection 嗰個人嚟講，亦都牽涉去做 report 嘅人，同埋做 filing 嘅人。咁喺個成本效益，係咪即係話每樣佢好瑣碎嘅都要做呢，咁就大家去諗一諗。

T

U

U

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B

C

問：你所謂大家諗一諗，即係其實你有--即係因為點解...

C

D

答：因為你唔係除咗政府會起公營房屋嚟講之外嚟講，其實就係話私營樓亦都佔香港好大概市場。

D

E

問：係。

E

F

答：咁其實大家都知羊毛出在羊身上，而家已經香港不斷話個樓價高嘞咁，咁你再架床疊屋嘅時間，個樓價一路係咁推高個囉喎。

F

G

問：冇錯。我都想同你講一講，即係你譬如話--既然喺法例底下要求嘅，就係譬如好似閣下做持牌水喉匠嘅，當然你係最前線嗰一位要確保所有嘅物料係適合，即係符合法例嘅要求嘅用料喇，咁你係最前線嗰個。咁當然你如果唔係--閣下，好似你係老闆，亦都係做埋個分判商，咁可能係持牌水喉匠亦都有佢係被受僱嘅，咁嗰個分判商本身亦都可能係需要有個制度去睇住呢啲物料係應該用得...

G

H

H

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J

答：每個分判商應該係根據法例同合約去...

J

K

問：覺得符合嘅。

K

L

答：...履行嗰個工程嗰個責任嘅。

L

M

問：係。咁跟住就係即係總承建商喇？

M

N

答：嘅。

N

O

問：係咪呀？唔。咁然後即係再退上去，就係即係 developer 喇，...

O

P

答：係呀。

P

Q

問：...業主喇咁樣，係咪咁嘅意思？

Q

R

問：唔。所以你所講嘅架床疊屋就係話，最前線嗰位，當然係需要去盡職，去肯定嗰啲用嘅用料就係符合嗰個法例嘅要求，或者符合合約嘅要求。咁上一層，就係作一個可能係監管者嘅角色；咁再上啲，就係再遠啲嘅監管者嘅角色，即係監管嗰啲監管...

R

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S

T

答：喎。

T

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問：...啲啲人嘅角色；再遠啲嘅，可能去到業主個層，就係監管啲啲監管嘅監管人嘅角色咁樣，係咪咁樣？咁所以你閣下--我想知道你話--即係譬如話架床疊屋，咁當然你都唔會覺得即係最頂層嘅監管者個個，就乜都要驗嘅，我相信你亦都唔係咁講，係咪？

D

D

E

E

答：我--點解我話架床疊屋呢？就係話而家喺條例上面有執行嘅嘢嚟講，我頭先都講咗，我哋除咗係做咗個 inspection 之後嚟講，我哋需要做好多嘅 documentation 去 support...

F

F

G

G

問：你講「你哋」，即係作持牌水喉匠？

H

H

答：係呀。咁如果你話--譬如如果你規定我哋要用銅喉咁，咁我哋就會做 submission，證明佢係合乎某個標準，然後運落去地盤之後嚟講，我哋要 keep 單呀，去證明我哋係用咗啲咁嘅料。咁其實你每樣嘢有個規定，就自然係有啲相應嘅措施要做。所以就話係咪成個地盤裏面，係每一項細緻嘅雜項，我哋都需要去規管呢咁？我係講呢部分。咁喺一啲主要物料嚟講，其實大家都知有規管嘅，而家係。

I

I

J

J

K

K

問：主要物料，即係畀--啲啲好大件？

L

L

答：譬如--尤其是係 structure，即係話建築物個個同結構有關嘅，基本上係所有嘢都規管㗎。但係頭先我都講到嘞，就係你 even 規管你用嘅鋼筋、水泥、石屎，但係你唔會規管佢用啲條火線㗎嘛，一樣道理。但係呢個火線，都係一個永久喺個石屎裏面係存在㗎嘛。

M

M

N

N

問：唔，唔。

O

O

答：咁係咪連呢條火線，或者啲啲嘢都要去做規管呢？唔係㗎嘛。

P

P

問：或者要搵幾個人去即係唔同咁一次去 check？

Q

Q

答：但係佢落嚟地盤嘅時間，佢到料嘅時間，係有人知道佢係到咗一批火線落嚟㗎嘛。

R

R

問：明白。所以你亦都跟住講過嘅呢，即係都係公道嘅，你就係話，所以就應該要有公眾教育囉咁？

S

S

答：係呀。

T

T

問：係咪咁嘅意思呀？

U

U

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C

答：係呀。

C

D

問：即係就係你覺得如果你話層層疊疊，個個都要話--樣樣嘢都要 check 嘅，其實就唔係幾可行，...

D

E

答：因為其實喺...

E

F

問：...不過你話公眾教育係需要，咁嘅意思？

F

G

答：喺地盤嚟講，就話有好多嘅持份者，有總承建商，有駐工地嘅工程師，有呢個屋宇署嘅工程公司嘅代表，咁佢都會係不定時咁喺唔同嘅樓層去巡視所安裝嘅工程，咁其實你係睇到嗰啲工人佢哋做嘢嘅手法。如果你係熟悉嗰個行業嘅，你有睇過啲 catalogue 嘅，你一眼就會睇到佢係咪跟 catalogue 所講嘅操作去做㗎。

G

H

H

I

問：即係我想知道你，譬如話喺呢件事發生之前，就即係即使你喺做--即係喺呢個行頭裏面相當耐嘅時間，都有好深嘅資歷，即係你都唔係特別去關注嗰個鉛...

I

J

J

K

答：冇特別關注。

K

L

問：...喺嗰個...

L

M

答：冇。

M

N

問：...--即係譬如喺--你就知道唔應該係用有含鉛嘅焊料，但係點樣...

N

O

答：但係究竟點解會咁，我哋係冇深究嘅。

O

P

問：唔，明白嘅。咁即係所以你講嘅公眾教育，就係即係嗰啲應該要關注？即係譬如含鉛係咪對健康有影響，或者對水質有影響嘅，就應該加強嗰個--佢要求嘅管理加強，咁就...

P

Q

Q

R

答：或者咁樣講，因為水質呀，或者含鉛呢個嚟講，就已經係去到唔係講工程嘅角度去睇嘅。但係我哋必須要係講畀所有持份者聽，你所使用嘅工程物料，乜嘢係為之合乎標準。究竟含鉛幾多為標準嚟講，我覺得唔係要細緻到咁樣去教囉。起碼就話，如果我哋係有個制度話畀人聽，而家喺幾時幾月幾日，就禁止用呢個含鉛嘅物料喇，咁...

R

T

問：咁而家其實我哋知㗎，就係根本係唔應該用嘅。

T

U

答：係嘞。咁就話喺以往嚟講，我哋喺事件出咗之後嚟講，其實我曾經喺

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唔少嘅訪問裏面，畀唔少嘅工人去鬧我，話我根本就唔識，喺度亂講呀咁，咁佢話佢哋不嫻都係咁做㗎。咁就正正睇到係一咋唔識嘅人，佢覺得佢哋一路沿用嘅操作方式係咁嘅，佢哋都仲係堅持緊㗎。咁亦都有啲人打電話嚟同我講「我買緊美國--英國焊條呀，冇問題㗎」咁，跟住我就話畀佢聽「如果你係買英國焊條，其實已經係百分之九十九係出咗事㗎嘞」，我話。

問：明白。

答：就啲人唔識咁嘛。

問：好呀，唔該晒。

主席：Ms Lam.

林小姐盤問

問：Mr Kan , I represent China State. I will be asking you a few questions in English.

主席：或者你戴--如果你聽得懂嘅就唔使，如果你...

答：我聽到佢話代表中國建築，佢話有啲嘢要問我。

主席：如果你唔鍾意嘅話...

答：咁如果我聽唔到，我會問㗎。

主席：你可以戴住嗰個耳筒，有即時翻譯。不過隨便你，冇乜所謂嘅。

問：Mr Kan, we know that you are very, very familiar with the form WWO46, and we know, under part 1, that is to be filled in by the licensed plumber. There is an annex that shows details of all the pipes and fittings

intended to be installed; right?

答：啱。

問：I would like to ask, in your experience, as a matter of trade practice, is it common for plumbing materials eventually used on site to be different to those listed in the original annex that was submitted under part 1?

答：基本上嚟講，喺整個行業嚟講，如果係 submit 咗上去，得到咗水務局嘅批准，亦都係畀業主同埋監管每個持份者--監管持份者係批准咗嘅，其實水喉匠就唔會係用一啲唔啱嘅物料嘅理論上。因為如果你用咗，到時個業主唔收貨，個總承包商唔收貨，你都係要拆晒換咗嘅--即係換番佢哋批准嘅嘢嘅，咁我諗有一個分判商係願意承擔呢個風險。

問：So my question is, if for one reason or another, a change of materials was required, whether because of the works or whatever, then what would be the procedure?

答：我亦都舉個實例畀大家聽，咁就喺 2006 年，咁我當時就做呢個康城--而家嗰個康城係當時地鐵嗰個發展物業，佢係分好多期，咁我做嗰條--地底嗰條 main pipe，最大嘅 size 係去到 600 毫米直徑。當時就因為個--工程個工期有差唔多係接近三年半，我哋喺 award 咗個 contract 之後嚟講，我哋就 submit 晒所有嘅物料畀人去批，批完之後，我哋亦都入咗 Form WW046 畀水務署去審核，嗰個批咗出嚟嘞，我哋就開始去同 supplier 就訂料。但係呢個訂料，我哋講緊係兩年之後先送落嚟。到到我哋個地盤真係可以容許我哋去挖條路、去鋪條喉嘅時間，個 supplier 話畀我聽「喂，呢個生產商已經冇做囉啲。」

問：Yes.

答：我就需要係轉用一個物料。喺呢個情況之下嚟講，因為我哋同--審批之後我哋同供應商係簽咗合約。我哋首先就話我哋擺番個合約出嚟話畀人聽，「噏，我係買咗，簽咗合約嘅。」

現時呢個供應商係話畀我聽佢有能力供應呢樣嘢，我就要要求供應商出封信證明佢係畀唔到先，咁我就遞畀總承建商，由總承建商去

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通知各個持份者。出咗呢個咁嘅原因，我哋就要 propose，就用一啲相同 equivalent 嘅物料，只不過係牌子唔同嘅啫，亦都係得到水務局審批嘅，我哋就會呈遞...

C

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問：Just pausing there; when you say has been "approved by the WSD", do you mean it is one of the items that is already on the list of approved materials which you can find on the WSD's website?

E

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答：係。

G

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問：All right, thank you, Sir, please continue.

H

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答：有嘅。咁樣我哋得到咗個業主容許我哋去轉物料嘅時間，我哋就需要喺供應商嗰度攞番相關嘅技術資料，同埋嗰個物件，點樣證明佢 fulfill 嗰個最 update 嘅 BS Standard，我哋就 submit 畀業主同埋總承建商，等佢哋去審批。

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佢哋批准之後嚟講，我哋就會喺落 order 嘅同時，就會 amend 嗰張 46 嘅 annex，就話畀人聽我需要增加一項物料，就去用番喺呢個地盤。其實呢個通常喺水務局個 practice 嚟講，我哋修改物料嚟講，大約最遲都唔超過十日就批番出嚟，以往我經驗。

K

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主席：即係有發生，不過就唔係好通常，你嘅意思？

N

O

答：唔通常，但係有嘅。其實我當時就係話--我頭先點解我用呢個實例去講呢？因為我係轉咗兩次，淨係嗰個閘掣都。即係話我由第一次我 submit 咗 A 牌子，到到佢同我講嗰間廠係停咗生產，我再 submit B 牌子。到到最後我 submit 完 B 牌子，落咗 order 嘅時間，佢就可能係一個比較新嘅 line，佢亦都唔能夠喺個合約期供應到貨畀我，最後我仲用到係要再轉 C 牌子。

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問：So the responsibility for submitting an updated annex would fall on the licensed plumber; is that correct?

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答：係。

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問：As a matter of practice, after you submit the revised annex, what happens next? Would you then expect either a verbal or written approval from the WSD?

答：我哋所講嘅，如果喺市面上會突然間冇咗貨嘅物料，都係啲唔係經常用嘅物料嚟。其實我哋喺個屋宇嚟講，我哋所做嘅喉管都係比較係細嘅 size，咁就好少會係大過 150 毫米。

頭先我所講個實例嚟講，就話佢係去到 400 毫米或者係 600 毫米，咁呢啲比較特別嘅用料唔係--喺香港係冇--一般係冇存貨，必須訂料。所以其實我哋喺審批嘅時間，我哋就會馬上係訂料。只要業主批，我哋就訂。

因為點解我哋會訂呢？因為我哋已經係事前確認咗呢個物料係喺水務局個 list 裏面。既然我哋揀番個 list 裏面批嘅料，水務局係有任何理由去 reject 我用呢樣嘢。

問：In other words, if it is already on the WSD's approved list of materials, you would expect WSD to have no problems with the proposed change; is that correct?

答：唔會，啱。

問：Sorry, my question before was: would you then expect the WSD to formally inform you, whether in writing or orally, that, yes, your proposed change of material is fine?

答：水務署嚟講，喺收到我哋呢啲咁嘅修訂嚟講，係必定會用書面去回覆我哋。因為我哋係到到最後做--最後嘅完工報告嘅時間嚟講，佢就會揸住我哋最 latest update 嗰份 annex 嚟收我哋貨。

問：Thank you very much.

主席：Mr Li。後面嗰個 Mr Li。

李頌然先生：唔該主席。

B

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李頌然先生盤問

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問：簡先生，我代表有利建築，咁就有一個範疇想請教你。剛才今朝早石資深大律師就問你關於你個寶號去買料，去雋景買料嗰方面，想同你問多少少嘢。

D

E

答：嘅。

E

F

問：你哋公司，或者你本人，同雋景接觸咗幾多年？邊年開始咁嘍？

F

G

答：如果我哋同雋景接觸嚟講，我記憶所及嚟講，係接近十年。

G

H

問：唔。即係會係二千零五、零六年接觸嘅？

H

I

答：係。

I

J

問：唔噃。

J

K

答：因為當初我哋就係好多碎料我哋幫和興買，和興有一個姓姜嘅 sales 就跟我哋個戶口，佢褻扈喺和興就跳咗過去雋景，所以佢就即刻走上嚟話咩嘢，「欸，我轉咗公司嘞，喺雋景嘞。」係咁，跟住攞啲報價單上嚟。我哋覺得個價錢亦都一樣，亦都覺得佢服務係 okay，我哋就跟住佢，幫佢訂料。

K

L

問：唔。點解喺雋景買料嗰時，都係呢個姓姜嘅 sales 一路跟進住你呢個戶口？

L

M

答：早期係，褻扈佢又跳咗糟嘅時間，佢就唔係賣雜項，去咗賣其他嘅水掙、水喉配件，咁就變咗係換咗另一個新嘅 sales 去跟我哋。

M

N

問：明白。不論和興--問咗雋景先喇。你同雋景譬如落單買料，你哋公司個講法，落料，就話要買無鉛錫線咁樣，係咪？

N

O

答：我哋通常係會寫畀佢嘅。我哋而家大部分人都係話--我哋正式出 order，就 fax 或者--而家就比較先進咗，以前我哋多數用 fax，而家就多數用 WhatsApp。我哋寫得清清楚楚咁就 WhatsApp 過去話畀佢聽我要啲乜嘢。

O

P

問：唔。早期啲嘅會唔會用電話落單？

P

Q

答：都問中會有。就如果通常電話落單，就係我哋地盤嘅前線管工，有啲好急用嘅嘢，就即係話發覺地盤突然間短缺咗，唔夠，就會打電話叫

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佢嚟補充。但係嚟講，基本上喺購買物料嚟講，主要都係由寫字樓去做。

問：明白。喺你公司向和興又好、雋景都好，買料喇，講焊料，會唔會焊條又會買到，焊--sorry，錫條會買、錫線都會買，視乎用途？

答：我哋--因為我都講，就話我哋會發覺--因為我喺 94 年已經係用咗錫線同埋焊膏，咁我當時用佢，就發現佢非常之正嘅。即係以前嚟講，我哋入行嘅時間，我哋係用松香膏同埋啲錫條，啲錫條嚟講，返嚟又要煮、又要倒，仲要做一大抻預先嘅工作先擺到嚟用。同埋松香膏有個非常唔好，就話佢唔能夠好有效咁令到啲錫係好快咁樣走入去個焊口。但係呢啲焊膏，正話我都講過，一個 sales 冇受過專業訓練，求其行埋嚟佢都可以做到專業到不得了嘅，畀我哋睇嘅，我梗係第一時間叫啲伙記用晒呢啲嘢。

問：你話 94 年用錫線就好用，係咪？

答：係，佢係比啲啲咁嘅錫條係非常--好用好多，畀我感覺，又唔使煮、又唔使盛。

問：綠色呢一卷你用過未，自己？

答：用過。

問：比較上用法，係咪呢隻都同你之前講啲錫線差唔多咁好用？

主席：咪就係呢隻囉。

答：就係呢隻。

問：就係呢隻。即係呢隻你見到好多年嚟嘞，已經，喺市面嘅度？

答：係，係。

問：而呢隻就係--如果係一卷卷，卷裝嘅錫線，嚟嚟去去都係得呢隻？94 年開始。

答：當時嚟講，究竟市面上有幾多隻，我唔敢肯定，但係我基本上，當時

B

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人哋介紹我哋用就係用呢隻。

C

D

問：唔。你同譬如話雋景買料嗰陣時，會唔會--以你得知，自己個人親身經歷，或者你啲同事都會反映番，就係話喺溝通上都知道呢個雋景其實知道你買錫線係愛嚟做乜，買錫條係愛嚟做乜嘅，雋景係知嘅？

D

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答：我哋...

F

G

主席：其實淨係買一樣咋嘛。淨係買一樣咋嘛。今朝...

G

H

H

I

問：哦，你淨係買線？

I

J

J

K

主席：今朝問咗嚟嘞。

K

L

李頌然先生：哦，係。

L

M

主席：係。

M

N

問：但係佢知唔知你用嚟做乜？

N

O

答：佢知。通常我哋咁樣，我哋中咗個地盤之後嚟講，我哋就會做 submission，我哋就會要求嗰個 supplier 係提供樣辦。其實我個身都有啲相嘅，就係話我哋做個 sample board 嚟講，係由個 supplier 去畀我哋。因為我同佢簽合約，呢個地盤係幫佢買料，咁佢其實知道我每樣嘢係用乜嘢。同埋我會將我哋個合約嗰個 specification 係要啲乜嘢，我直情係 WhatsApp 或者係傳真畀佢，電郵畀佢，佢好清楚我呢個地盤所有合約嘅要求。

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S

問：包括如果用喺食水嘅喉嘅焊接上面，佢哋都知道要用綠色呢一卷？

S

T

答：如果係有個合約裏面好 particular 去寫嘅，我哋都會遞畀佢。但係嚟講，就合約喺以往嚟講，就有 particular 去寫無鉛錫線呢樣嘢，就係近呢幾年就多咗，以往係唔多。

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但係譬如，我哋都講過，雋景係賣--一間小五金嘅公司，我哋會將所有嘅合約要求話畀佢聽。譬如我哋銅喉係要用咩嘢嘅喉碼，佢係熱浸鉛水、用電叻螺絲、用銅螺絲、用白鋼碼嘅時間，佢個白鋼係 316 定 304 呢？我哋全個要求我係電郵咗畀供應商，係通知佢我呢個地盤嘅要求。

D

D

E

E

問：唔。好，簡單問你--咁問，如果你話畀佢聽，或者佢知道係駁食水喉，佢就知道一定用呢隻，係咪？

F

F

G

G

答：係。

H

H

問：係，唔該晒。

I

I

李柱銘先生：主席，如果我問咗嘅，已經有人問咗，勞煩你話聲畀我聽，因為我今朝唔喺度。我代表啲苦主嘅，所謂。

J

J

K

K

主席：照計咁呀唔得個喎，理論上。

L

L

李柱銘先生：唔係，你會提我--你應該提--唔係，...

M

M

主席：即係我同你做埋你嗰啲嘢。

N

N

李柱銘先生：唔係，唔係，唔係，我即係想你--我諗你會制止我，唔好嘅時間。

O

O

主席：哦，得。

P

P

李柱銘先生：係。

Q

Q

主席：制止你，我一定得。

R

R

李柱銘先生：我只係要求你做一樣你鍾意做嘅嘢。

S

S

主席：得，得。好，得，得，得。

T

T

李柱銘先生盤問

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U

問：我想先有啲尷尬啲問你先，咁就係你今次就做專家證人。

V

V

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答：係。

C

D

問：咁係水務署邊個人接觸你，請你出嚟做嘅？

D

E

答：水務署係有個工程師去接觸我，通知我，就話水務署想邀請--啊，唔係，第一個電話搵我嘅係助理署長。

E

F

問：唔，咩嘢名？

F

G

答：林正文。

G

H

問：你識得佢好熟--相當熟，係咪？

H

I

答：熟，因為我作為香港一個學會嘅主席嚟講，我都講過，我喺 2010 年--2009 年已經係參加水務局...

I

J

問：好。

J

K

答：...嘅會議，同啲署長、助理署長經常係有開會嘅。

K

L

問：即係佢一開頭就係請你做專家證人，已經話明，係咪？

L

M

答：係，佢口頭話畀我聽，佢哋有個意圖想請我做專家證人，問我會唔會拒絕，我話「如果有需要嘅話，我願意出嚟擔當嘅」。

M

N

問：佢有冇話畀你聽大概係希望你能夠講到咩嘢嘢？

N

O

答：佢最初就都同我講係都要講一啲係業界嘅操作，同埋我哋對持牌水喉匠嗰個工作有啲咩嘢意見，都係呢類咁嘅嘢。

O

P

問：仲有呢？就係咁多？

P

Q

答：水務署嗰個條例--嗰個執行嗰個--譬如我哋報 form 嗰啲程序，我哋去解釋番成個業界嘅運作。即係頭先我哋畀口供所講嘅，就話 46 嘅時間，我哋點樣去填。如果要修改，點樣去做，即係我哋去解釋番畀人聽，其實係咪可以修改，諸如此類咁嘅嘢。

Q

R

R

S

問：你哋--佢有冇--因為你而家嘅口供紙係講咗好多嘢，好多範疇。

S

T

答：係。

T

U

問：佢有冇預先同你講咗希望你關於所有呢啲範疇能夠係畀啲專家意見，

U

V

V

有冇咁講？

答：呢個真真正正畀一個 particular 嘅範疇我個時間，就係喺十二月，律政署就出封信畀我，就話要求我就住六點去畀意見。但係其實喺呢個畀意見之前嚟講，我就同水務局係有一個好緊密嘅接觸。

因為舊年 7 月就係發生呢個鉛水事件，水務署就會召集業界各個唔同嘅持份者，或者有代表性嘅人物去水務署去進行一啲會議，去收集一啲意見。其實喺嗰個時間嚟講，我哋係喺好多範疇都係反映咗好多唔同嘅意見。當時嚟講，可能佢覺得我都接受咗好多訪問，佢有聽、有睇，佢覺得我所講嘅嘢嚟講，可以就係話去代表番一個持牌水喉匠究竟係做緊乜嘢去話畀公眾聽。

問：但係你嗰陣時係發表嘅意見，係咪透過電視、記者訪問嗰啲咁嘅嘢？

答：係。

問：點解你會做呢啲嘅呢？你目的係咩嘢呢，嗰陣時？

答：其實就我係冇目的嘅。當時嚟講，就舊年食水含鉛爆到最犀利就係 7 月初，我哋就喺 7 月 8 號嘅時間，我哋幾個會，同埋退休嘅署長高贊覺，咁就--因為我哋點解會約高贊覺博士呢？其實我哋當時有五會召集人，佢係我哋五會嘅召集人嚟，我哋就會透過高博士，就會召集各個會嘅代表一齊去開會，討論一啲係同水務相關嘅事，包括係教育、一啲係技術嘅推廣。

問：目的係咩嘢？

答：我哋嗰日開過會，就話想大家睇報紙，睇到原來有啲咁嘅鉛水事件爆發咗出嚟，我哋個業界要自己去諗諗點解會爆呢啲咁嘅嘢呢？同埋我哋點樣去面对呢？當我哋受到公眾質詢嘅時間，我哋係要點樣去回應呢？

因為大家都知，持牌水喉匠係--我今朝都講過，係有唔同嘅持份者，有一啲嚟講，就真係好似調查委員會主席話齋，有啲就可以話唔識英文嘅，但係有啲嚟講就係發表技術文章，好似 Joe Ku 嗰啲，佢會將外國嘅沿用一啲比較先進嘅科技，喺嗰--我哋啲學會，或者係商會嘅期刊，就會發表出嚟畀我哋去睇，其實就水喉匠係有唔同 level。就算我哋五個會，亦都有唔同嘅代表，有啲係工會嘅代表、有啲係學會嘅代表、有啲係商會嘅代表。

B

B

C

C

點樣可以統一去發言，去答公眾嘅疑問呢？當時就大家坐喺度，大家喺度傾，佢就話「咦，發現原來我由十五歲開始就進入地盤，由最低層做到我今日坐喺呢個位，原來我可以識晒所有嘅嘢，答晒啲，不如就搵你去答喇咁。」當時就問我推唔推嘅，我話「都有乜所謂，能夠幫到業界，咪做囉」。所以當時就係五會就委任咗我做統一嘅代言人。

D

D

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問：即係係為業界發言，係咪？

G

G

答：當時係。

H

H

問：當時係。業界，即係持牌水喉匠？

I

I

答：包括埋。

J

J

問：仲有呢？

K

K

答：我哋有五個會，或者我簡單...

L

L

問：唔係--係，好，你講，你講。

M

M

答：...講一講我哋有邊五個會。咁就當時係英國特許水務學會-香港分會、香港水喉潔具業商會、香港持牌水務專業學會、香港給排水學會、同埋呢個係香港水務專業協會。

N

N

問：唔。係咪其實係同持牌水喉匠嘅工作相似或者一樣？

O

O

答：唔可以--可以話係相關，唔可以話係相似。

P

P

問：唔會唔相對嘅？

Q

Q

答：我唔係好明你相對嘅意思？

R

R

問：唔係，即係可能利益有衝突嘅，呢五個會？

S

S

答：其實睇下你用咩嘢角度去睇喇。

T

T

問：好簡單，我話畀你聽，因為你都知道，好早期政府已經將個責任就指咗去個水喉匠度，持牌水喉匠，你知道㗎喇？

U

U

答：我知。

V

V

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C

問：咁呢樣嘢係咪令到你哋出嚟要講清楚嘅--其中嘅--或者最大嘅原因？

C

D

答：我覺得唔係，我記得就話我喺第一日，有傳媒訪問我嘅時間，佢問「水務署或持牌水喉匠有責任，你同唔同意？」我當時我話係同意。因為我哋喺法律上，我哋作為一個工地代表，同水務署溝通，而我哋亦都係法例上受予我哋係去建造、安裝呢個水務工程，我哋點能夠推卸我哋法律上嘅責任呢？

D

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問：即係話當政府將個槍頭指住持牌水喉匠嘅時候，你覺得係啱嘅？

G

G

答：我哋唔好講啱唔啱，因為當時...

H

H

問：要負責咩嘛。你覺得水喉匠應該負責咩嘛。

I

I

答：...--當時嚟講就係話水喉匠係必定有責任，我係同意呢個觀點。

J

J

問：必定有責任，等唔等如因此水喉匠如果做得唔好，啲水有鉛，就應該負責？

K

K

答：如果喺--無論係法制上或者合約上嚟講，佢都係有責任。

L

L

問：即係你覺得應該負責嘅？

M

M

答：應該負責。

N

N

問：Okay。咁樣，你以前就做過高鐵嘅工程，係咪？水喉匠嗰--水喉嗰方面，係咪？

O

O

答：係。

P

P

問：而家就西九？

Q

Q

答：係。

R

R

問：呢啲就係好大好大嘅 project 嚟嘅？

S

S

答：又唔算好大，因為你大嚟講，你係用乜嘢去 define 佢係大嘅。

T

T

問：呢兩個都唔係大？

U

U

答：其實嚟講，我做高鐵嚟講，我係喺裏面嚟講，將一條 1 米 48 毫米嘅水管做一個遷移工作，佢就係一般嘅水喉承辦商都係冇做呢類嘅工

V

V

B

B

C

程，佢亦都唔知道相關嘅要求。而嗰類工程嚟講，我哋就除咗要睇呢個香港水務設施條例、規例，我哋亦都要睇水務署裏面有一本叫做 Mainlaying Handbook，嗰個手冊裏面就會話畀大家聽你要...

C

D

D

問：再講過，main 咩嘢？

E

E

答：Mainlaying。

F

F

問：Main，M-A-I-N？

G

G

答：係。

H

H

問：Mainlaying。

I

I

答：Mainlaying Handbook。一個就係話水務總喉嘅敷設嘅手冊，你要知道裏面嘅要求你先識做，大部分水喉承建商都有做呢樣嘢。

J

J

問：Okay。

K

K

答：但係因為我就比較接觸唔同嘅嘢多，我就願意去承擔去做。

L

L

問：係。

M

M

答：至於你話西九，其實西九都唔係話...

N

N

問：咪住先，逐樣先，呢樣嘢你係咪--使唔使投標返嚟嘅？

O

O

答：投標。

P

P

問：投標。有冇--佢有冇邀請你去投標？

Q

Q

問：佢邀請咗幾多個去投標，你知唔知？

R

R

答：佢實際邀請幾多個，佢唔會通知我。但係嚟講，喺香港基本上嘅總承建商嚟講，佢哋都唔會搵一個人求其攞張報價單就去做，呢個係 common practice。

S

S

T

T

問：即係要點樣？即係要好詳細，做好多工夫，準備？

U

U

答：係。

V

V

B

B

C

問：然後就入嗰個 tender，係咪？

C

D

答：係。

D

E

問：Okay。好嘞，西九呢？西九--咪住，你西九...

E

F

答：唔係，我先回應咗你乜嘢叫大先。

F

G

問：好，okay--唔係，好簡單，嗰個 project 幾多錢？

G

H

答：咁喺第三個 project 嚟講，我個 project 嚟講係四百幾萬嘅啫，只不過係少人做過。

H

I

問：高鐵就四百幾萬？

I

J

答：係，咁...

J

K

問：但係你講「四百幾萬嘅啫」，即係你覺得四百幾萬係好細嘅工程，係咪？Okay。

K

L

答：如果以我哋公司嚟講，我哋用 contract sum 去 define 佢大定細，我覺得佢係細。

L

M

問：唔，okay。

M

N

答：就算以西九嚟講，我水喉嚟講，淨係水喉個 contract，我係二千九百萬，喺我嘅睇法都唔係大。因為隨便一個 housing contract 嚟講都係八千萬以上，咁你點能夠話我哋係比較大呢？大係點去 define 呢？就我要大家有唔同嘅定義先囉。

N

O

問：咁你呢，你自己點樣嘅？

P

Q

答：吓？

Q

R

問：即係你覺得...

R

S

答：即係我覺得佢大唔大，我唔覺佢大。

S

T

問：你唔覺得大。噏，...

T

U

答：只不過係工程係比較有複雜性，有代表性。

U

V

V

B

B

C

問：好明顯，你喺呢個行業就係即係頂級嘅。

C

D

答：唔好咁講。

D

E

問：咁都係有好多嘢你都大嘅，嗰啲 main 嗰啲 laying 你都識做，唔係咁多人識做。

E

F

答：或者我有涉獵，我睇得比較書多。

F

G

問：係。一個譬如--譬如嗰啲水喉匠嚟講，普通嘅水喉匠，你都話有啲英文都唔識㗎，係咪？

G

H

答：係有嘅。

H

I

問：嗰啲佢唔會--一定呢啲咁嘅大 project 投唔到，唔敢添喇，一定係喇？

I

J

答：又唔可以咁以偏概全，因為而家喺香...

J

K

問：唔識英文都可以去投到？

K

L

答：喺香港嘅制度嚟講，有部分嘅總承包商嚟講，佢哋就會係自己聘請屋宇裝備工程師，聘用持牌水喉匠，咁就係判畀一啲三--即係比較小型嘅公司去做。因為佢自己有足夠人力去規管。

L

M

M

N

問：但係如果係嗰啲做水喉嘅工作，即係你自己用手用腳去做嗰啲，係有時--係好多時係做日工㗎咋，會唔會？

N

O

答：會。

O

P

問：係。所以有啲就做老闆，有啲係做日工，都係持牌水喉匠，係咪？所以相差好大。

P

Q

答：可以咁講。

Q

R

問：如果做日工嗰啲，每日有幾多錢？

R

S

答：其實我頭先都講咗，喺我個口供裏面講，就話其實真正嘅持牌水喉匠，係從事日工係非常之少，呢個係事實㗎。因為佢既然擺到個持牌水喉匠個資格，佢一般嚟講就得兩類人，一種就係我哋所講係屬於監管人事，Joe Ku，或者我哋學會啲 member。佢哋坐喺個 consultant engineering 嘅 company 裏面，去做一啲 plumbing proposal，

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做一啲監管嘅工作。

而一啲係單頭嘅持牌水喉匠嚟講，佢哋會可能開一啲細嘅水電舖，去承接一啲街坊生意，或者啲邨屋生意，佢哋有機會嚟講，係會由佢去聘請一啲工人去幫佢做。但係真正你話完全真係自己做晒，連人都唔請嘅，就從事係單獨日工嘅，我就真係未聽過，暫時。

問：因為持牌水喉匠係早期啲啲係唔使特別學㗎嘛，係咪？有啲 grandfathering。

答：你咁樣講，我就唔敢講係定唔係。因為我就係 1972 年入行，相對而家嚟講，都有接近係四十幾年。當時我哋入行嘅時間，我哋知道就好多水電舖，或者水喉公司嚟講，佢哋係持牌水喉匠嚟嘅，而當時亦都係有商號存在係持牌水喉匠。

問：唔，我想...

答：究竟你所講話持牌水喉匠係乜都唔使，我唔知你個含意係咩。

問：唔係，好嘞，譬如啲啲--即係有--大規模嘅，就自己開公司；細規模，就開個舖頭仔，係咪咁呀？

答：係，當時係咁。

問：而家呢？

答：其實而家持牌水喉匠？

問：唔。

答：其實而家持牌水喉匠嚟講，都係會--如果佢係有心機去讀書，好多擺到持牌水喉匠之後嚟講，佢哋都係--就算細細地，會做個分包商，或者係去一啲大嘅水喉公司或者一啲大機構去參與一啲管理工作。

就例如係--因為喺好多年以前我已經知道，喺一九--喺上世紀嘅八十年代，譬如你港燈、地鐵、中電，呢類咁嘅大公司，或者即係 HKU，中文大學，佢哋都會請一啲持牌水喉匠去入去佢哋啲個 Facilities Management Department 去做一啲係日常嘅維修管理工作。

所以好多擺牌嘅，佢哋就係--因為佢哋正正唔想終其一生都係落手做。

B

B

C

問：即係佢唔想自己親自落手做？

C

D

答：可以咁講。

D

E

問：就當然喺法例上係咪真係要佢親自落手做，呢啲我唔同你辨論，係咪？

E

F

答：嘎。

F

G

問：因為已經有人問過，okay。一個持--譬如開一間水喉舖仔，係做啲街坊生意啲，一個月大概收入會幾多？

G

H

答：呢個我有深究。

H

I

問：你有深究。你唔知照講得嚟，唔緊要。

I

J

答：係，我有深究。

J

K

問：就大啲啲，你又唔知？

K

L

答：我只能夠知道我自己公司嗰個成本效益，同埋我哋每年可以做幾大嘅 contract。我哋--因為其實做工程嚟講，好似我哋呢類，做一個工程合約嚟講，我哋係有好多先決條件。就係第一，就係話除咗你有個技術可以做到之外，你仲要客觀因素，就話你個 financial 係咪可以 support 你去做一啲咁大嘅工程，係好多考慮㗎嘛。你有錢嘅，你唔能夠即係話 support 到你成個工程裏面嘅 interim payment。因為我哋大家知，我哋做工程係...

L

M

問：當然喇。

M

N

答：...先買料，先做咗，再 apply。你 support 唔到，你根本做唔到。

N

O

問：啱。但係我哋知道香港嘅建築業，就係嗰個 contractor，跟住就落去 sub-contractor，甚至一路落，我哋都唔知去到幾多層，你知㗎喇？

O

P

Q

答：外面行頭我有聽過，但係我自己公司可以咁講，我係--我哋美利華係喺呢個 1995 年成立，到今年係第二十一年，我哋真正係有將啲工程去判畀判頭做，係由幾時開始呢？我哋係由 08 年係第一單，就係判畀個判頭，係淨人工，連螺絲都我買畀佢嘅。

Q

R

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U

問：即係淨人工，okay。

R

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答：而我哋第二單判畀判頭做嘅，就係去到 2010 年嘞，已經。即係我哋係不常將個工程--我一路都係--以前係由自己帶...（聽不清）去做嘅。

問：你就好少畀判頭做，你講過兩次啫，係咪？

答：嘅。

問：但係其他會好多個嘞，啱唔啱呀？

答：每間公司有唔同嘅政策。

主席：呢啲其實你唔使問佢。

問：我就係想知道，判到落去底下啲啲，如果話畀咗個 job 佢做，佢可能係好少錢咋個賺，同唔同意？一路判到落去啲啲。

答：可以咁講，但係嚟講我覺得就話，如果你作為一個判頭，如果你係有足夠嘅學識去 support 你自己去做判頭嘅話，其實你係計清計楚你能唔能夠喺個單工程裏面搵到錢。好似我喺 1986 年嚟講，我當時嚟講，我就自己成立咗呢個係 Hugo Engineering Company，我當時就承接咗華懋廣場嚟做。

問：你係一個成功嘅例子，當然係喇，唔係，都唔會請你上嚟做專家，你唔使客氣嘅呢啲嘢，係咪？咁第二啲啲有得--有咁成功啲啲，唔成功，又要開飯嘞，屋企咁又點呢？我而家就好簡單，啲啲有--唔係成功嘅例子，甚至可能你覺得佢係失敗嘅例子，咁就變咗慳得幾多就幾多。即係佢用啲材料，同唔同意？

答：諗...

主席：唔係，李大律師，我諗就一定要 in context 去問。因為我哋呢件案件，我哋而家聽咗咁耐，當然我接受喺某一啲嘅 project 裏面--我哋而家即係要討論嘅 project 裏面，有一啲係正如你所講，有三沙啲啲咁樣樣去出現。不過，如果你純粹話從一個持牌水喉匠呢一個

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層面出發，我哋呢一件案件裏面，實際上得三個持牌水喉匠，伍克明就同有利--係明合打工嘅；張達欽，就係自己係老闆嚟，係咪？另外林德深，我哋知喇，唔使再講，係咪？所以其實實際上，即係呢三個持牌水喉匠佢哋嘅身分，同你而家 exactly 要問嘅問題，其實就有乜...

李柱銘先生：我可以...

主席：...直接關係。

李柱銘先生：唔係，我即係話一話畀你聽，點解我咁問呢？因為雖然你哋嘅 terms and reference 就好清楚，但係第三個係全香港嘅，廣泛好多。第三個，你個 terms and reference 第三個。

主席：係，係，係，係。

李柱銘先生：係，所以變咗唔係淨係呢三個。

主席：唔係，我明，但係即係我想你--因為點解？你而家問緊持牌水喉匠。

李柱銘先生：係，係。

主席：持牌水喉匠當然有成功嘅例子，...

李柱銘先生：係嘞。

主席：...亦都有唔係好成功嘅例子。

李柱銘先生：係嘞。

主席：因為如果我哋記得何文--係咪何文標呀？何文標先生都講過，何標記裏面都有幾個持牌水喉匠其實係做大工嘢嘍咋嘛，係呀。

李柱銘先生：其實佢可能需要--我可以--可以轉過第二個 topic 嘅。

主席：係，係，唔。

問：Okay。你都話你自己雖然好少，但係你都有兩次係畀啲判頭做，係咪？

答：係。

B

B

C

問：咁就判頭，你就話一粒螺絲都你自己買埋，係咪？你試過咁講。

C

D

答：係。

D

E

問：係。所以如果嗰啲判頭如果係真係落手落腳做，佢哋判頭可能又請啲工人返嚟幫佢做，但係材料好多時就唔係佢買個囉嗰，你一定同意？

E

F

答：絕對唔係佢買嚟喇，工人點會買料啫。

F

G

問：絕對唔係，係。如果判畀佢嗰個老闆係畀嗰啲焊料佢係含鉛嘅，咁又點呢？

G

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主席：再講多一次，畀嗰啲工人係用...

I

J

李柱銘先生：即係個老闆。

J

K

主席：咁咪用含鉛個囉，啲工人，梗係。

K

L

李柱銘先生：係嘞。

L

M

問：係咪呢？係咪呢？

M

N

答：或者我哋咁樣講，...

N

O

問：唔係，可能佢話唔係，佢應該去告畀政府聽。

O

P

答：或者我哋咁樣去睇，頭先我都講咗，實際一個地盤裏面落手落腳去操作，去進行安裝工作嚟講，係作為一個持牌水喉匠係少之又少。佢哋係一個可能係註冊咗嘅水喉工人。我所謂「註冊」嘅意思，就係喺呢個建造業訓練局註冊咗嘅，水喉大工、水喉中工。佢哋可能並未受過有系統嘅有關水務設施條例，或者水務標準要求嗰啲咁嘅訓練。佢哋就會好 assume 就話佢上家嗰個管工畀佢嘅料，一定係經過地盤批晒先畀佢用，如果唔係點解畀佢用。因為用咗--我頭先都講過，如果個地盤我哋用咗一啲唔啱嘅物料，如果將來要拆嚟講，係由個承判商去食晒。

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你點--你諗下一個幾千萬嘅工程，我--因為我哋--我做咗咁多年，我好清楚就係話燒焊物料佔整個工程嗰個份額嚟講，係只係值 0.2

U

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個 per cent。我--係，兩個 per cent，我--0.2。我總之就係一千萬嘅工程，我就大約係會買呢個係兩萬零釐嘅焊料。其實我哋喺地盤嚟講，好多時就話當我哋 award 一個 contract 嘅時間，當我哋 bid 一張標，喺 interview 嘅時間，因為而家啲--政府嘅均真啲，或者 Housing 就唔會話落完標之後約你去--嗌你再減價。其實喺私人承建商嚟講，由 first interview 到到 last interview，可能已經減咗三、四次價，你都唔知減咗幾多個 per cent，你點會為慳啲雞碎咁多走去用啲唔啱規格嘅嘢。

問：就係因為要減到咁多 per cent，可能佢就係要諗計嘞，係咪呢？

主席：唔係，唔係，應該咁樣樣講，應該咁樣樣問，我哋其實知道嘅，有一、兩個呢個水喉嘅分判商，佢哋接咗呢啲房署呢啲咁嘅 job 返嚟，每一個單位，實際上佢哋要連工包料，包料嘅意思即係唔係包啲大嘅料，即係包啲焊料諸如此類，咁就係基本上佢哋就逐個單位計嘅，每個單位幾多錢話？好似 3,000 釐，3,000 釐，即係唔包天面、唔包外牆，淨係包裏面，3,000 釐個，連工包料，包晒所有啲焊料，包晒所有啲小五金，雖然啲水喉，譬如好似啟晴邨個 contract 好大，五千二百幾萬，假設啲呢啲，係咪？但係視乎每一個單位，你去到畀個所謂三沙，就係得 3,000 釐一個單位。

咁 3,000 釐一個單位，我哋聽到有一位先生就話做完之後係得個桔，係咪？你得個桔嘅時候，你個個--當然你同何文標先生講，佢梗係大雞就唔會食細米，係咪先？呢啲咁對佢嚟講，根本都唔係錢嚟嘅，慳啲少少，係咪先？不過你見到--譬如好簡單，我哋見到有一位先生，佢其實而家都係做番水喉工人，因為佢曾經接過呢一個咁嘅屋邨，做完之後原來發覺得個桔。

我諗李大狀嘅意思就即係喺呢啲咁嘅水喉分判商嚟講，對於你嚟講，當然焊料唔會係一個你認為需要慳嘅項目，但係對於啲啲--你都知喇，房署啲項目好話唔好聽，睇下你經濟好抑或唔好嘅時候接嘅啫，係咪？你經濟唔好嘅時候，唔係講緊 at cost 去接番嚟，可能係 at cost 再減 10 個 per cent、20 個 per cent 去接番嚟，即係蝕硬啲喇，睇下你蝕幾多嘅啫。

問：你同唔同意？

B

B

C

C

D

主席：咁就要啲喇嘛，係咪呀？政府工程呀。

D

E

答：或者咁樣樣講，...

E

F

李柱銘先生：唔該主席。

F

G

G

H

答：...其實作為一個負責任嘅分包商嚟講，其實喺我咁多年裏面，我有冇接過蝕本生意呢？我哋都有嘅。

H

I

主席：係囉。

I

J

答：當我哋接咗一個蝕本生意嘅時間，我哋會點樣做呢？我哋一樣係會堅持做好佢為止嘅。我當時我亦都曾經做過三沙判頭，喺1996年--95年嘅時間，我就承接咗喺機場有六個合約，其中包括咗地面運輸中心同埋呢個東涌站，其實我做東涌站嘅時間，我唔係做大判嘅，我係 under by mean 一個機電嘅總分包商，去同佢承判呢個水喉工程。

J

K

K

L

L

M

喺嗰單工程裏面嚟講，所有嘅 main equipment，所有水泵、潛水泵、一啲電掣櫃嗰啲由佢供應畀我嘅，我就負責安裝，同埋我係供應咩嘢呢？水喉嘅物料同埋雜項。當時我係用二百八十幾萬去接番嚟，到到我 final 起貨，我 outcome 出嚟，我蝕咗八十幾萬，係蝕咗，...

M

N

N

O

O

P

P

Q

問：蝕咗百幾萬？

Q

R

答：...on cost，淨係計人工、物料啫，未計寫字樓嘅支援，但係我都係依足嗰個規範去起貨嘅。而因為大家都知喇，就話個工程嗰個銀碼相差咁遠，其實我都好吃力嘅，但係我一路都堅持就話要跟合約，跟水務條例去做，咁經常都會同我哋嗰個業主係有 argue 嘅。

R

S

S

T

當時我哋嘅業主就係地鐵，東涌站，當時佢就話畀我聽「其實所有嘅地喉嚟講，我哋係唔使睇嘅，我哋地鐵唔使睇嘅。」我話「我作為一個持牌水喉匠，除非你有白紙黑字嘅文件話畀我聽你係唔需要畀

T

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人睇嘅，如果唔係，我就必定係申報畀水務署嘅。」我話「如果你𠵼咗我條喉，我就唔同你起貨㗎喇。」當時就搞到好不愉快嘅，當時就經常去畀地鐵去整蠱，如果唔係，我唔會蝕八十幾萬，啱唔啱先？

到到起咗貨之後嚟講，負責地鐵呢個工程師就有一日無揸揸打電話嚟畀我，就千多萬謝我話好彩我當時好堅持，就「好對唔住，以前喺你做嘅時間我咁樣對你。」原來樓底我就知道喺東涌嚟講，就我聽番嚟，我唔知真定假，有個瑞安負責嘅一個 main laying 嘅工程，就有千幾 metre 嘅球墨鋼管喺地底，佢就聽咗地鐵可能某啲人講過佢哋唔使驗嘅，就真係𠵼晒，就做好晒路面，到到最後就水務署就發現佢條喉係冇驗到嘅，要求佢全部係掘番晒出嚟，樓底唔知使咗幾多錢，所以佢就打電話嚟千多萬謝我。

所以我覺得就係話究竟嗰個工程你所接番嚟嘅銀碼夠唔夠做，係咪你唔守法例，咁唔係一個要素，係你自己個人嘅行為守則。

問：我係非常欣賞你，即係呢件事，okay，即係你就係呢個行業嘅表表者係完全有理由，即係蝕本都情願蝕，而且執到正，所以抵你成功嘅，但係頭先主席講嗰啲，嗰啲瘦雞又點呢？大雞就唔食細米啫，啲瘦雞又點呢？

主席：你講咩嘢...

答：但係當時我都係做三沙咋嘞，我頭先打咗個比喻，就話我做三沙嘅時間我都係咁㗎嘞。

主席：呢個係答你唔到，即係其實呢啲 common sense 問題嚟啫。

李柱銘先生：Okay，好。

主席：有經濟壓力，講嚟講去都係，歸根究底，係咪？

李柱銘先生：係。

主席：你睇下你可以承受幾多經濟壓力嘅。

B

B

C

李柱銘先生：係喇。

C

D

D

E

問：或者籠統啲講，所以做呢個行業，就嗰個成個--唔可以話個個都掂啲
啲，啱唔啱呀？

E

F

答：好似我自己咪係一個唔掂嘅水喉佬囉。

F

G

問：收扃掂，今日好掂添。

G

H

答：可以咁講，其實就話做嘢嚟講，你堅唔堅持啫，我喺 2000 年代嚟講，
我喺個行頭嚟講，有個花名嘅，叫做坎坷的水喉佬，因為做親都唔夠
做嘅，又蝕嘅，搵親你就周身冇釵嘅，其實你自己點樣去做人之嘛。

H

I

I

J

問：而家最終你都西裝筆挺，係咪？你成功喇，恭喜你，okay。好喇，我
就問你第二啲。其實呢單咁嘅鉛水係舊年 7 月爆出嚟，你嗰陣時係咪
好驚奇？

J

K

K

答：有少少驚訝。

L

L

問：即係你預先冇諗住會出事嘅，係咪呀？

M

M

答：當時我就以為有個屋邨就出咗事，其實我淨係知一樣嘢就係有個屋邨
爆發咗啫，當時我就會假設大部分人都係知法守法嘅，所以我哋先至
會喺幾個會坐埋，就話「喂，有啲害群之馬出咗事啲，我哋點樣去維
護我哋持牌水喉匠同埋整個業界嘅聲譽，點樣去對外去講嘢呢？」其
實我哋當時點解會坐埋去開會，就係為咗呢件事。

N

N

O

O

P

問：即係為咗大家奉公守法嗰啲水喉匠嘅利益，呢個係好嘅，因為佢哋守
法嚟嘛，所以就等社會人士就唔好以為個個水喉匠--持牌水喉匠都係
咁嘅，係咪？所以就要高姿態出嚟見啲傳媒。

P

Q

Q

答：係。

R

R

S

問：我明白，okay。咁樣，你就話 2000 年就知道唔應該用有鉛嘅焊料嘅，
你今朝講。

S

T

答：係。

T

U

問：即係我唔喺度，有人話番畀我聽，係咁吖嘛？

U

V

V

B

B

C

答：係。

C

D

問：好喇，但係你知唔知道點解焊料唔可以有含鉛呢？

D

E

答：當時我有去深究嘅。

E

F

問：你唔知？

F

G

答：因為我哋係根據嗰個水務署嘅嗰個水務設施嗰個規例嘅要求，同埋嗰個供應商所畀我哋個 catalogue 裏面會有指明就話如果你係 BS EN 1057，你就需要用一啲無鉛嘅焊料、無鉛嘅焊膏，我哋喺 catalogue 睇到嘅係。

G

H

問：喺嗰陣時你睇到呢個 catalogue 嘅時候，你知唔知道市面係有啲含鉛嘅焊料？

H

I

答：其實我入行已經知有，只不過係你揀用乜嘢之嘛，但係因為我喺 94 年開始公司已經轉用咗呢種物料嘅時間，我亦都唔會特別去探討究竟點解有呢個轉變，因為我已經用咗好多年。

I

J

問：你講係入行嘅時候係幾時？

J

K

答：我入行，我最初我喺消防公司學師，我喺 1972 年喺大德（譯音）工程公司，喺 1973 年就喺協成（譯音）防火公司。

K

L

問：即係所謂真係入行係邊一年呢？簡單得㗎喇。

L

M

答：如果你講水喉行？

M

N

問：係。

N

O

答：正式嚟講，係 73 年

O

P

問：73 年，okay，你話 94 年你公司就轉咗，係咪？轉咗啲焊料？

P

Q

答：轉咗用呢隻焊料。

Q

R

問：以前係點嘅呢？

R

S

答：以前我哋都係去買啲錫條返嚟自己煮囉。

S

T

問：即係以前都有含鉛嘅？

T

U

V

V

B

B

C

C

D

主席：含鉛嘅。

D

E

李柱銘先生：以前含鉛嘅。

E

F

主席：係。

F

G

李柱銘先生：後嚟就轉咗唔含鉛喇。

G

H

主席：係喇。

H

I

李柱銘先生：Okay。

I

J

答：其實我唔係因為佢含鉛定唔含鉛去轉嘅，...

J

K

主席：好用。

K

L

黎先生：方便。

L

M

主席：方便。

M

N

N

O

答：...我今朝已經講咗，就係話我發覺呢種咁嘅焊料係非常之好用嘅，一個唔需要有技術或者係好多訓練嘅人，或者李大狀嚟講，一個細路仔，我可以咁講，一個細路仔，十零歲嘅，佢有足夠嘅體能嚟講，我只要教佢半個鐘頭，佢就識用㗎喇。

O

P

P

Q

問：我就耐㗎嘅。

Q

R

答：所以我見佢好用，咪用佢囉。

R

S

問：即係用咗嗰隻唔含鉛嘅，反而好用？

S

T

答：係喇。

T

U

問：但係頭先你講，就話當你同㗎喇...

U

V

V

B

B

C

C

D

石先生：我諗今朝我哋問問題嘅時候，就有去到問佢 94 年前用嗰隻錫曲，
即係內裏含咗啲已經內設焊料嗰隻錫曲裏面啲係含唔含，...

D

E

主席：係咪含鉛。

E

F

石先生：...應該係有探討到呢一個問題，我嘅記憶。

F

G

李柱銘先生：好，唔該。

G

H

主席：好。

H

I

李柱銘先生：多謝石大狀。

I

J

問：即係 94 年嗰陣時，你公司就唔知咩嘢原因就轉咗喇？

J

K

主席：唔係唔知咩嘢原因嘅，知道原因嘅。

K

L

L

M

問：即係知道唔應該用嗰隻含鉛嘅，所以就轉...

M

N

答：唔係，唔係，唔係。

N

O

O

P

石先生：好用。

P

Q

李柱銘先生：好用。

Q

R

主席：都唔係嘅，唔係嘅。制止你，呢方面唔好問喇。

R

S

李柱銘先生：即係好用。

S

T

石先生：係有個 sales 話畀佢聽平啲同埋好用啲。

T

U

主席：制止佢唔好問喇。

U

講者（不能辨別）：Sales sell 佢。

V

V

B

B

C

李柱銘先生：係，sales。

C

D

講者（不能辨別）：Sales sell 佢。

D

E

E

F

問：Okay，好喇，但係你頭先講，你話要公眾教育，頭先晏晝我都聽到你講，你就話--你同嗰啲同行講嘅時候，有啲人仲鬧你嗎，係咪呀？

F

G

答：有。

G

H

問：點解佢鬧你呢？因為佢覺得含鉛啲啲好用，係咪呀？

H

I

答：我唔知點解佢會咁樣講，亦都就係話佢當時--因為我都講，如果你唔係正途出身，係受一個正式嘅訓練嘅話，喺外面嚟講，嗰啲水喉工人嚟講，有啲係喺 CIC 受訓，有啲 IVE 受訓，但係亦都有啲係完全冇受訓嘅嗎，而家嘅水喉工人，就佢嚟入行，就話--一入行就喺間水喉公司跟住個師傅，個師傅點做，佢就照辦煮碗，佢唔知係乜嘢嚟嘅嗎。

I

J

J

K

問：咁即係師傅用咗有鉛嘅，佢就跟住有鉛囉嗎？

K

L

答：佢唔會有人話畀佢聽有鉛、無鉛嘅分別，...

L

M

問：佢唔知咩嘛。

M

N

答：...但係嚟講，佢話好用，其實我覺得大家--最重要係大家有冇去現場睇過實例，究竟如果用有鉛嘅焊料同無鉛嘅焊料有咩嘢分別，唔知大家有冇睇過。我自己由 72 年入行到而家，我所眼見嘅，用呢個無鉛焊料同有鉛焊料嚟講，我覺得有鉛焊料係好煩嘅。

N

O

O

P

問：有鉛...

P

Q

答：因為佢嗰條焊條就好粗嘅，即係你都知我哋喺室內做嗰啲喉嚟講好細，就係 22 mm 或者係 28 mm 嘅，你揸住條咁粗嘅焊條嚟講，就容易滴到一地都係嘅，當佢熔嗰陣時。

Q

R

R

S

S

T

主席：你講邊啲好粗嘅，你講錫條...

T

U

答：即係含鉛呢啲。

U

V

V

B

B

C

C

D

黎先生：早期。

D

E

答：即係好似呢啲咁。

E

F

主席：你講最早期呢啲，抑或呢啲咁...

F

G

答：呢啲都係粗過呢啲不含鉛嘅錫線嘅。

G

H

主席：都唔係好粗啫。

H

I

答：我哋早期啲啲好粗㗎。

I

J

主席：唔係，我知你講好早期要...

J

K

答：係喇，如果你買 50 力，其實係好粗嘅，粗過呢啲嘅，50 力。

K

L

主席：呢啲咪 50 力囉。

L

M

答：唔係，50 力啲啲--呢條係 50 力嚟嘅咩？因為我見到嚟相--因為我自己未買過，我未見過，我嚟相見到佢好似係四方一條嘅，我覺得就話咁粗嘅嚟講，咪噉...

M

N

主席：唔係，呢條就係 50 力嚟㗎喇。

N

O

答：哦，呢條就係 50 力，我未見過，唔好意思。

O

P

主席：唔係。

P

Q

答：因為我公司淨係得呢樣嘢，所以我未見過真正嘅 50 力，我都嚟相見到嘅。

Q

R

R

S

問：我哋而家唔係推銷畀你。所以你而家會明白喇...

S

T

T

U

主席：唔係，所以其實你可能係你--因為你過往個 experience，就認為

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呢啲咁嘅錫條就係粗，...

C

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答：要買番嚟煮嘅。

D

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主席：...係麻煩，實際上呢啲就係我哋知道大量購買，喺啟晴、其他啲屋邨用嚟喇，所以其實唔係你所講想像中咁唔方便嘅。

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問：即係佢哋都改進咗喇。咁所以佢哋啲啲水喉匠，當你叫佢--教佢嘅時候，佢哋鬧你，你而家明喇，因為佢覺得好用咩嘛。

G

H

答：都唔係。

H

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J

主席：有啲係，有啲認為係好用，應該咁講，係咪？

J

K

答：或者--呢個係見仁見智嘅。

K

L

主席：見仁見智喇。

L

M

答：我自己，我由成立公司到而家，我喺期間係請過唔少嘅工人嘅，呢啲工人嚟講，唔係簽合約淨係打我工嘅，佢哋會出去其他嘅地盤去打工，其實出咗今次事件之後嚟講，我經常喺電台畀人鬧，話我喺度亂講一通，如果用啲含鉛，點樣好用法喇咁，其實我就不斷去問我自己公司屬下嘅工人或者跳咗出去嘅工人，我哋問佢「喂，其實你哋實際係咪真係啲啲含鉛啲啲好用啲啲？」個個同我講都唔係嘞。

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喺早兩個禮拜，我就喺呢個過年之前--過年之後，我就喺呢個瑪麗醫院，我做緊個工程嚟講，我就約咗水務署去做一啲 partial inspection，去睇一啲暗喉嘅，因為如果即係 conceal 之後就睇唔到嚟喇。當時我就冇特登去話要求啲伙記停晒工、驚畀人睇到佢點樣做呀咁。

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所以啲水務署幫辦，當時有三個水務幫辦嚟睇我個工程嘅，佢哋一去到見到有人燒焊嘅地方，佢哋就企晒喺度，停晒喺度就睇，就問我點解咁樣燒，呢個手勢又點，點樣去分呀咁。其實佢哋睇到，其實話我--當時我哋企喺度睇個工人去做一間房嘅房喉，當時掛喺天花啲度大約係有六、七個焊口嘞，佢總共都係用咗係十分鐘多啲就燒完。如果我一路留意傳媒所講，啲啲人所講話如果用啲不含鉛嘅，要燒幾

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多分鐘，如果含鉛嘅又幾多分鐘，其實我唔覺得係事實嘅全部。

C

D

D

問：但係你都係即係問番你自己啲伙記？

E

E

答：我有去睇㗎嘛，亦都...

F

F

問：但係肯定係平啲嗎？

G

G

答：平唔平呢個，因為我哋 so far 嚟講...

H

H

I

主席：呢個唔需要問，Mr Lee，呢啲...

I

J

J

問：唔係，你知嘅，係咪呀？

K

K

答：我有去深究，因為我一路嚟講，就話我既然確認咗呢樣嘢係好用，亦都喺之後嚟講，我哋知道水務條例要用嘅，我點會用啲唔啱嘅嘢呢？

L

L

問：你就算係合法啲嘢貴好多，你都照用合法㗎喇？

M

M

答：當然係要喇。

N

N

問：係，okay，okay。

O

O

答：我頭先都講咗，就話我哋去做一個水務工程，甚至乎一粒螺絲我哋都做 submission 嘅，外面有位記者朋友都上過嚟我哋公司，我哋個倉有幾千尺嘅，喺我哋個倉裏面求其地下踢到一粒螺絲，攞起，都有個牌子，有個 BS 打喺度嘅，只不過係你自己做緊乜嘢嘢之嘛。

P

P

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Q

問：好喇，佢哋鬧你，啲人鬧你，因為你就話佢哋唔應該用啲有鉛嘅焊料，佢哋鬧你，你點駁佢呢？

R

R

答：我唔...

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主席：呢啲--對唔住，真係，我要制止，呢啲同佢個 expertise、同佢

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嘅 opinions 完全冇關。

C

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問：但係你頭先就講，你最近喺瑪麗醫院嗰度就有三個人係睇住，嗰三個係邊度嘅？水務署？

E

F

答：水務幫辦嚟嘅，因為當時我報咗一個 part IV 嘅 partial completion，就話有三層樓嘅喉我哋係做喺啲石膏板裏面。

F

G

問：得，okay，okay。呢個事發之前，即係舊年7月之前，你做工程嘅時候，有冇見過咁多人落嚟睇住做？

G

H

H

I

答：以往嚟講，...

I

J

問：有定冇？

J

K

答：...有陣時係一個，有陣時係兩個，亦都試過有三個嘅。

K

L

問：水務...

L

M

主席：水務幫辦嗎？

M

N

答：係呀。

N

O

問：水務幫辦睇住你做？

O

P

P

Q

主席：睇住你做？

Q

R

答：唔係，係嚟驗收，佢唔係嚟睇我哋做，係嚟驗收。

R

S

主席：哦，嚟驗收。

S

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答：因為當時我哋係報咗 part IV 嘅 partial completion，係話畀佢聽我有三層樓就將會係封石膏板，喺封石膏板之前，所有 conceal 嘅 piping，我哋要求佢嚟做視察嘅。

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主席：但係呢啲 interim inspection 啫？

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答：係喇，因為我哋層層樓都有工人做嘢㗎嘛，佢嚟到就好有興趣囉。

D

E

問：所以你真真正正做緊燒焊嘅時候，以前就佢哋冇--你未--佢未試過派人嚟睇住㗎嘛，啱唔啱呀？

E

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答：我首先澄清先，我唔係叫佢嚟睇我啲人燒焊，我係做一個 interim inspection，我係入咗張 form，要求佢嚟做 inspection。

G

H

問：哦，你要求佢嚟做 inspection？

H

I

I

J

主席：冇呀，Mr Lee，長話短說，就係冇嘅。

J

K

李柱銘先生：Okay，得。

K

L

主席：因為 even 根據 Mr 簡自己講，佢都認為水務署係唔需要嚟監管嘅。

L

M

李柱銘先生：Okay，係，okay，得，多謝。

M

N

問：我哋頭先講咗咁多，所以好明顯地，雖然你就堅持就守法，就唔用啲啲含鉛嘅，但係可唔可以話，照你自己嘅理解，你個行業中間有好多人都唔係學你咁樣守法嘅，係用啲有鉛嘅焊料，你知道嘅，啱唔啱？

N

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答：或者換一個說話去講，喺我個認知裏面嚟講，大部分人都係應該奉公守法嘅，所以頭先你係問我當香港發生食水含鉛事件嘅時間我會唔會覺得驚訝，我係覺得驚訝嘅，點解會爆發啲咁嘅嘢出嚟，因為呢啲嘢都唔值錢，點解有人會偷工減料會用啲咁嘅嘢。其實我當時就即刻打電話去問商會、學會啲行家，「喂，點解會有啲咁嘅嘢走出嚟㗎？究竟發生咩嘢事呀？」我係實際驚訝嘅當時。

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主席：因為可能你已經上咗去另一個更高嘅層次囉，你明唔明呀？即係好有錢啲啲同我哋比又已經差好遠㗎喇嘛，你知唔知呀？係咪呀？即係你睇下你幾有錢囉，你做生意都係㗎，你做生意嘅 level 已經唔同

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晒喇嘛。

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答：其實我覺得係一個商業行為嚟講，錢雖然係重要，但係...

D

E

主席：即係理論上就應該你有你嘅做行商嘅操守，專業操守，係咪先？

E

F

答：係喇，啱呀。

F

G

主席：不過個問題就係當你有經濟壓力嘅時候，我哋都見唔少喇喇，喺嗰邊，High Court，係咪？

G

H

答：其實我都有㗎。

H

I

主席：擺啲假單去申請 loan，跟住喺度係咁轉轉轉，都唔係冇見過㗎。

I

J

答：我頭先都講過，就話喺 2000 年嘅時間，我喺行內嚟講，有個花名叫坎坷的水喉佬㗎，嗰陣時我搞到係賣樓、賣舖咁去支撐間公司㗎。

J

K

主席：係囉，exactly。

K

L

M

問：咁你都有樓賣。所以頭先你講，你話大部分嘅人都應該奉公守法，係呀，應該呀，但係問題就未必係好多人都奉公守法，呢一點你同意㗎嘛，係咪？

M

N

答：當時喺我嘅思維裏面嚟講，係大部分人都奉公守法嘅，去到今時今日嚟講，就話我所聽番嚟嚟講，係大部分人佢哋都以為自己奉公守法，因為佢哋用咗英國焊料。

N

P

問：哦，佢以為英國焊料，跟住我哋用 BS，佢諗住冇錯，okay，okay，明白。

P

Q

Q

R

李柱銘先生：主席，對唔住，因為我要慢慢睇番嗰啲 sequence。

R

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問：好喇，我想問你，而家啲鉛水，我哋大家知道有鉛水發生，即係嗰啲水喺水喉裏面經過嘅時候，就變咗有啲鉛就溶咗落啲水度，變咗喺水喉開出嚟，嗰啲市民咪受影響，你而家知道㗎喇？

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答：知。

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D

問：當然係同嗰啲人手工好有影響嘅，係咪呢？即係手工好，同手工唔好，有冇分別嘅呢？

D

E

答：其實呢個最早喺傳媒去講呢樣嘢嗰個係我嚟嘅，正正係，咁...

E

F

問：咁啱喇，有個專家喇係。

F

G

答：當時就傳媒話因為係用咗啲不當嘅焊料，所以就釋出大量嘅鉛，引致到個食水污染，我話其實係兩方面去睇，第一方面就係話佢用咗真係一啲唔合規格嘅物料，而引致到係釋出呢個係比較多嘅鉛，但係如果佢哋手工好，呢啲焊料完全係冇流入去個喉管個內籠嚟講，實際嗰個接觸面嚟講，係不足以係影響個水質嘅，當時我係咁講嘅，喺電台，電台、電視，我都係咁講嘅。

G

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J

問：會唔會因為個手工做得唔好，係會多咗鉛入咗去？

J

K

答：肯定喇。

K

L

問：肯定，okay，即係如果佢請嗰啲工人唔係咁熟手，就好杰啱喇，係咪呀？

L

M

M

N

主席：係吔，啱吔，我都睇過佢有一次電視上高講嗰啲，你都係咁講，係咪？

N

O

答：係。

O

P

主席：你懷疑嗰啲工人係直情有受過訓練吔嘛？

P

Q

答：係呀。

Q

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R

S

問：好喇，我差唔多問完啱喇。而家有啲意見，我簡單啲，有啲意見就話而家呢啲鉛水發生，就應該主要嘅責任就係負責啲工程嘅持牌水喉匠，你同唔同意？

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答：主要承擔責任嘅係持牌水喉匠，我係絕對同意嘅。頭先我都講咗，持牌水喉匠喺法制上面，佢係容許佢作為一個係建造同埋安裝呢個水喉

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個工程，當佢簽咗張 from WWO46 嘅時間，佢中英文都話畀大家聽「我係願意去承擔個責任，係保證呢個工程係用適合嘅物料同埋跟循水務條例去安裝嘅」。

C

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問：Okay，但係頭先你又講過，因為好多人就以為係英國製造嘅，所以正嘢、冇問題，你講過㗎嘛？

E

F

答：係。

F

G

問：呢個即係 50 力，係咪呀？係咪即係 50 力？

G

H

答：可以咁講。

H

I

問：咁樣嘅時候，係咪即係佢哋啲工人都未曾有充分人教佢哋呢？

I

J

答：我頭先都講...

J

K

主席：唔係，對唔住，我唔係好明你講咩嘢。

K

L

L

M

問：即係唔夠教育，唔夠--話畀個行業聽 50 力雖然話英國造嘅咋，我而家睇電視都話有啲話德國牌，又德國嘅，原來唔係德國造嘅，就係啲咁嘅嘢喇嘛。

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主席：全世界都有，其實，祖國都有，唔係話英國 50 力，如果你聽番雋景周先生所講，最初基本上就係內地添用，只不過後來就變咗用英國，咁英國，咁所以叫英國 50 力啫。

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問：咁公唔公平呢？我而家咁講法，因為好多人用呢啲有鉛嘅料，買咗 50 力，可能佢真係以為買英國貨，跟住我哋香港咩嘢都 BS。

R

S

答：所以我喺我個專家證人報告都講，就話如果要一個制度行得好嚟講，我哋首先要從呢個教育著手，畀公眾去知情，知道乜嘢為之啱，咩嘢為之錯，都話喇，而家譬如我喺啲大學去請啲 grad. E 返嚟，好 fresh grad. 嗰啲嘅，我都會第一件事佢嚟到我公司，我會教佢「你只要打三個英文字“WSD”，就可以入到水務署嘅網頁，喺 plumbing engineering 裏面，你就可以搵到所有相關水務嘅要求，你睇熟佢，

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咁再結合你喺地盤見到嘅嘢，你好快就會上手㗎喇。」呢個咪教育嘅問題囉。

問：係喇，咁即係起碼你要教佢哋知道唔好以為係英國嘢就唔含鉛嘅，起碼要教呢個喇？

答：我唔係針對去教育佢英國嘢、大陸嘢、日本嘢，我唔會咁樣教嘅，我主要我就會話畀我所有嘅工人聽「你既然從事喺呢個水務行業裏面，你必須要對水務標準、水務規格，全部都係應該係要有個認知嘅，然後再根據你嘅認知，去睇番嗰個合約嘅要求、個條文裏有冇 contradiction，如果有 contradiction 嘅時間，你就應該去 draw 個業主，話畀佢聽『喂，你要求嘅嘢唔係法例要求嘅嘢㗎喇，你要轉㗎。』」咁。

問：啱呀，但係當佢誤解㗎，以為 50 力係英國貨，係冇問題㗎嘛，好嘢咁㗎，咁咪出事囉。

答：大部分做嘅人嚟講，正如你所講，喺個工地嚟講，大地盤嚟講，一啲大型嘅分包商嚟講，佢哋係供應嘅物料畀個工人，個工人根本唔需要知個物料係 50 力㗎，英國嚟抑或大陸嚟，佢完全唔需要知道嘅，而家譬如喺電台或者喺電視台，我接受訪問，直播嘅時間，打電話入嚟鬧我嗰啲就係一啲係單頭嘅分包商，我或者叫一啲小型嘅分包商，佢哋自己接一啲小型工程，咁就去買嚟用嘅，咁可能就話佢哋就會覺得「我買英國嘢，okay 喇。」咁可能呢啲有啲係跟人哋去學師出嚟嘅，而佢哋嗰個工程嚟講，亦都有一啲相應嘅規範要求佢點做，佢咪沿用師父之前用開、買開嘅材料，咁咪照用囉，幾十年都係咁用咯。

問：但係你自己嚟講，你 73 年就入行，去到 2000 年，你至知道唔應該用有鉛嘅焊料㗎，係咪呀？

答：係呀，因為我喺 catalogue 睇到㗎嘛。

問：你幾時至知道如果用有鉛嘅焊料，可能累到人哋嘅健康有問題，細路仔成長有問題，幾時至知？

答：我係喺鉛水爆發之後嚟講，因為我喺 7 月 8 號喺灣仔就畀傳媒圍住我就做訪問，當時我就一路都係堅持我嘅立場，如果所有嘅嘢係跟正水務條例去做，你 submit 嘅嘢係已經喺水務局個 approval list 裏面嘅，你用佢係絕對唔應該有危險㗎，但係嚟講，我就覺得既然有咁多人問鉛水嘅嘢，我就應該要知道鉛水係啲乜嘢，所以當晚我就即刻

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返到屋企，我就上去呢個 WHO 世衛嗰個網頁，就打“lead in water”，咁就睇晒原來 lead in water 個 background 係啲乜嘢、個標準係點樣去演變、有啲咩嘢渠道可以接觸到鉛喇咁。

C

D

D

E

所以喺之後嘅訪問，我都好清楚話畀佢聽鉛有十一個渠道可以接觸到，所以飲水嚟講，其實你呼吸、你居住嘅環境、汽車多唔多，如果有啲新建嘅樓宇，你新嘅油漆、傢俬都會釋出鉛嚟啲咁。其實我喺當時嚟講，我就比較深入，我唔單只會睇世衛嘅標準，我亦都會睇埋美國嘅標準。

E

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F

G

G

問：即係你...

H

H

答：我係之後先至睇嘅。

I

I

問：你係老行尊都係咁遲至知囉，okay。

J

J

答：或者咁講，因為我哋唔係個職業要去知道每樣化學物質或者每樣金屬對人體嘅危害個細節係點嘅，但係我好堅持一樣嘢，我作為一個持牌水喉匠，我擺到個牌，我淨係知道當我簽名落去張 46 嘅時間，我係必須依法守法同埋跟合約去做工程嘅啫。

K

K

L

L

問：雖然你唔知道佢個傷害力係點樣嘅？

M

M

答：係。

N

N

問：好，多謝你，我有問題。

O

O

P

P

王先生：主席，我係冇其他覆問嘅。

Q

Q

主席：唔該晒你，簡先生，好多謝你今日嚟畀證供。

R

R

答：唔好咁講。

S

S

主席：可以離開喇喇，唔該晒。

T

T

答：好呀，唔該晒，唔該晒。

U

U

主席：或者我哋休息十分鐘，跟住再處理另外下一個證人。

V

V

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下午 4 時 09 分聆訊押後

D

E

下午 4 時 26 分恢復聆訊

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出席人士如前。

F

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王先生：主席，我哋跟住傳召水務署嘅副署長黃仲良先生。

G

H

主席：好。

H

I

I

J

水務署第四證人：黃仲良（水務署副署長）以本地話宣誓作
王先生主問

J

K

問：Mr Wong, you have filed three witness statements for
the purpose of this enquiry...

K

L

L

M

主席：中文定英文呀？

M

N

王先生：中文，中文，中文。

N

O

O

P

問：你就入咗三份嘅證人口供，我而家就會將你嘅證人口供讀出嚟，如果
中間你有啲乜嘢想修改或者想係補充嘅，你响讀完--我一次過讀晒三
份，讀完之後你就話畀我知，好唔好？

P

Q

Q

R

答：（沒有可聽到的回答）

R

S

S

T

COMMISSION OF INQUIRY INTO EXCESS LEAD FOUND IN DRINKING
WATER APPOINTED PURSUANT TO SECTION 2 OF THE COMMISSION
OF INQUIRY

T

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ORDINANCE (CHAPTER 86) ON 13 AUGUST 2015

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WITNESS STATEMENT OF WONG CHUNG LEUNG

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I, WONG Chung Leung, Deputy Director of Water Supplies of 48th Floor, Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong, do say as follows:-

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1. I am the Deputy Director of Water Supplies and have held this position since 8 April 2015. My duties include, amongst other things, deputising the Director of Water Supplies in the management and operations of Water Supplies Department ("**WSD**") and general functions as delegated from time to time by the Director.

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2. I make this Witness Statement pursuant to the request of the Commission of Inquiry into Excess Lead Found in Drinking Water ("**the Commission**"), conveyed in a letter from Messrs. Lo & Lo to the Department of Justice dated 12 October 2015 ("**the 12 October Letter**"). Save where otherwise appears, the facts deposed hereto are within my personal knowledge or are derived from office files and records and sources to which I have access and are true to the best of my knowledge, information and belief. Save as otherwise specified, this Statement adopts the same abbreviations and nomenclature as in the 12 October Letter.

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3. This Witness Statement addresses paragraph il (in so far as paragraphs 51 and 52 of the August Statement are concerned) and paragraph ii of the 12 October Letter:-

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"il. a Statement on Water Supply System in Hong Kong and Monitoring and Control of Water Quality has been submitted to the Commission on 20 August 2015 (the "**August Statement**"). The Director should provide a signed witness statement to cover the matters set out in the August Statement. If he wishes to elaborate, supplement and provide additional information on the areas and topics covered by the August Statement, he should do so in

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the witness statement

ii. Deputy Director of Water Supplies/Chairman of the WSD Task Force

1. the WSD Task Force has announced its preliminary findings on 25 September 2015 ("**TF Preliminary Findings**"). The Deputy Director, being the Chairman of the Task Force, should provide a signed witness statement to adduce the TF Preliminary Findings as evidence, if he wishes to elaborate, supplement and provide additional information on the areas and topics covered by TF Preliminary Findings, he should do so in the witness statement;

2. according to the official Press Release issued by the Task Force on 25 September 2015, the Task Force "aims to issue the final report in October". Please include and adduce the Final Report by means of the witness statement (if already published by the deadline stipulated below [i.e. 26 October 2015])"

4. The Development Bureau has on 15 July 2015 commissioned the WSD Task Force on Investigation of Excessive Lead Content in Drinking Water ("**WSD Task Force**") comprising government officials, and outside academics and experts to, inter alia, ascertain the causes of the recent incidents leading to presence of lead in water drawn by households and recommend measures to prevent recurrence of similar incidents in future. I was appointed as the Chairman of the WSD Task Force and hence, I have direct knowledge to give evidence in relation to the matters set out in paragraphs 51 and 52 of Chapter 5 of the August Statement. I am duly authorized by the Director to cover in this Statement paragraph 11 of the 12 October Letter (in so far as the said paragraphs 51 and 52 are concerned).

5. I have read the said paragraphs 51 and 52 of the August Statement and Annex II thereto and hereby confirm that the contents thereof are true to the best of my knowledge, information and belief.

6. As requested under paragraph ii of the 12 October Letter, there is now produced and shown to me marked as "**Annex I**" a printed copy of TF Preliminary Findings (in powerpoint format) announced on 25 September 2015 [CoI Ref: Bundle CS Item 71].

7. As stated in the TF Preliminary Findings, :-

(a) the Task Force concluded, inter alia, that:-

(i) Leaded solder joints installed in the inside service were the source of excess lead in drinking water in Kai Ching Estate and Kwai Luen Estate Phase 2.

(ii) Copper alloy fittings also leached lead but did not result in 2 excess lead in drinking water.

(b) in order to prevent recurrence of similar incidents in future, the Task Force recommended: -

(i) an enhanced system for site inspection and testing during construction of plumbing works:-

- Qualified persons (e.g. Building Services Engineer/Building Services Inspector) to carry out adequate field inspection on the plumbing works;

- Conduct systematic non-destructive test to soldering joints during construction (e.g. quick lead test or

x-ray forensic spectrometer);

- Arrange random sampling and testing of soldering materials delivered to site;

- Stipulate the testing of four additional heavy metals (lead, chromium, cadmium and nickel) for water samples and testing of solder joints samples in newly completed inside service by Authorized Person and Licensed Plumber.

(ii) the Water Authority to explore the use of pipe materials free from the risk of misuse of leaded joints in the plumbing works, e.g. use of silver brazing or compression joint for copper pipes or use of stainless steel pipes.

(iii) the Housing Authority to consider requiring the adoption of central procurement for soldering materials.

(iv) the Water Authority to consider reviewing relevant legislations.

8. It is anticipated that the Report of the WSD Task Force will be ready by end of October 2015 and upon the issuance thereof, I will submit a copy of the said Report to the Commission pursuant to paragraph ii 2 of the 12 October Letter.

9. The WSD Task Force's work involves highly technical investigation (including isotopic analysis). If details are required, these are best explained by experts in the relevant areas (both being members of the WSD Task Force), namely, Dr. CHAN Hon-fai, Chairman of Advisory Committee on Water Resources and Quality of Water Supplies, in

respect of the investigation (except isotopic analysis), and Mr. CHAN Kin-man, Chief Waterworks Chemist, in respect of the isotopic analysis. WSD is prepared to invite the said experts to provide statements to the 3 Commission if the Commission so requires.

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

問：Mr Wong, I will now move to --我睇你另外一份嘅證人口供。
"2ND WITNESS STATEMENT OF WONG CHUNG LEUNG", I will skip the formal part. Paragraph 3.

3. I am the same person who made the Witness Statement of WONG CHUNG LEUNG dated 26 October 2015 ("**My First Statement**"). I make this 2nd Witness Statement pursuant to the request of the Commission of Inquiry into Excess Lead Found in Drinking Water ("**the Commission**"), conveyed in a letter from Messrs. Lo & Lo to the Department of Justice dated 12 October 2015 ("**the 12 October Letter**").

4. Save where otherwise appears, the facts deposed hereto are within my personal knowledge or are derived from office files and records and sources to which I have access and are true to the best of my knowledge, information and belief. Unless otherwise specified, this 2nd Statement adopts the same abbreviations and nomenclature as in the 12 October Letter.

5. This Witness Statement addresses paragraph ii(2) of the 12 October Letter:-

"ii. Deputy Director of Water Supplies/Chairman of the WSD Task Force

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2. according to the official Press Release issued by the Task Force on 25 September 2015, the Task Force "aims to issue the final report in October". Please include and adduce the Final Report by means of the witness statement ..."

6. A copy of the Preliminary Findings of the WSD Task Force on Investigation of Excessive Lead Content in Drinking Water was exhibited as Annex I to my First Statement dated 26 October 2015. After the announcement of the Preliminary Findings and in the course of preparing the final Report (the "Report"), further testing and verification of information was conducted by the WSD Task Force. Together with the List of pipes and fittings and other materials dismantled for Task Force including photos (at CoI Bundle: CS/72/4192-4224), further testing and verification results have been consolidated and subsumed into the Report of the WSD Task Force. The Report of the WSD Task Force (in English) together with a Chinese Summary thereof were submitted to Secretary for Development on 31 October 2015. I have read the documents at CoI Bundle: A1 /19/650-801 and A1/20/802-808 and confirm that the same are the Report and Chinese Summary respectively.

7. The WSD Task Force dismantled over one hundred of components from three water supply chains in Hong Ching House and Yuet Ching House of Kai Ching Estate and Luen Yat House of Kwai Luen Estate Phase 2, where excess lead in drinking water were found and conducted leaching tests, elemental analyses of various components, mathematical modeling and lead isotopic analysis and made comparison with the actual situation in a control supply chain at Hung Hei House at Hung Fuk Estate in Yuen Long where lead contents in its drinking water samples were well below World Health Organisation Provisional Guideline Value of 10µg/L.

8. Further details of these tests, examination and the

results thereof, have been set out in the Report.

9. Further, as stated in the Report, :-

I. the Task Force concluded, inter alia, that:-

(a) Leaded solder joints were the cause of excess lead in drinking water; and

(b) Copper alloy fittings also leached lead but did not result in excess lead in drinking water.

II. in order to prevent recurrence of similar incidents in future, the Task Force has the following recommendations:-

(a) Prevention of the use of leaded solder material and non-conforming pipe fittings:

(i) To enhance site inspection and testing system for plumbing works

- Qualified persons (e.g. Building Services Engineers or Building Services Inspectors) should be engaged to carry out adequate and regular field inspection.

- Systematic non-destructive tests of solder pipe joints should be conducted during construction (e.g. conducting quick lead test or using portable x-ray fluorescence analyser/spectrometer).

- Random sampling and testing of materials delivered to site should be carried out before they are used in the works for better quality

control of the materials.

(ii) Testing of four additional heavy metals (lead, chromium, cadmium and nickel) should be stipulated for drinking water samples and testing of the lead content in solder pipe joints in newly installed inside service.

(b) Water Authority ("WA") should explore the use of pipe materials free from the risk of misuse of leaded solder joints in plumbing works.

(c) Housing Authority should consider requiring the adoption of central procurement for solder material (and other essential components of the plumbing works as appropriate) by the main contractor.

(d) WA should consider reviewing relevant legislation to effect the above recommendations. The WA should also review the WWO and WWR to see if improvement is necessary to further strengthen its regulatory regime on the construction of inside service.

10. As mentioned in the Report, WSD has separately commissioned outside consultants to conduct studies on local good practices in supervision of plumbing works in building projects and overseas regulations and practices relating to the management and control of inside plumbing services. Copies of the "Study on Good Practice to Ensure Completion of the Plumbing Works involving Copper Pipes and Soldering Pipe Joints in Compliance with the Requirements of Water Authority as well as Contractual Arrangements" ("**Study (i)**") dated 29 October 2015 prepared by AECOM Asia Company Limited and "Benchmarking

Study of Overseas Regulations and Practices on Management and Control of Inside Plumbing Services" ("**Study (ii)**") dated 30 October 2015 prepared by Black & Veatch Hong Kong Limited have been submitted to the Commission on 18 November 2015 (see CoI Bundle: C19.6/ 142/ 14212 - 14397 and CoI Bundle: C19.6/143/ 14398 - 14511 respectively).

11. The two studies involved highly technical information. If details are required, these are best explained by experts in the relevant studies, namely, Mr Roy CHAN, Principal Engineer of AECOM Asia Company Limited in respect of the above Study (i) and Mr Justin SEARLE, Senior Project Manager of Black & Veatch Hong Kong Limited in respect of the above Study (ii). If the Commission so wishes, WSD is prepared to invite Mr Roy CHAN and Mr Justin SEARLE to assist the Commission by answering queries which the Commission and/or its expert(s) may have.

12. I confirm the contents of this 2nd Witness Statement to be true to the best of my knowledge, information and belief.

問：黃先生，跟住我會讀你第三份嘅證人口供，我由第 2 段開始。

2. I am the same person who made the 1st and 2nd Witness Statements of WONG Chung Leung dated 26 October 2015 and 20 November 2015 respectively. I am duly authorised by the Director to make this 3rd statement, to provide responses of WSD to the report of the Hong Kong Institution of Engineers ("**HKIE**") entitled "HKIE Report - Study of Lead in Drinking Water in Public Housing Estate" dated 2 November 2015 ("**the Report**").

3. The Report was prepared by the Task Force of the HKIE ("**HKIE/TF**") and was submitted to the Commission on 9 November 2015 [**U1/3**]. HKIE also sent a copy of the

Report to WSD via a letter dated 9 November 2015.

4. WSD has studied the Report and notes that the HKIE/TF endorsed WSD's effort in significant respects such as that "the water quality on the distribution side has been kept at a world class standard" (para 63 of the Report).

5. At the same time, it is noted that some other parts of the Report might have been based on misunderstandings in respect of WSD's practices and policies. There are also matters noted in the Report on which WSD has taken proactive actions to address.

6. The various matters which require clarification or updates are set out below. For ease of reference, this statement adopts the same sequence and section headings as used in the Report.

III. THE STUDY

PART I Ordinance and Regulations

Form WWO 46 (6/2012a)

New Installation (paras 22-29 of the Report)

7. In this section, the HKIE/TF pointed out the following issues with respect to Form WWO46 (6/2012a):-

(a) For new building project installations, the appointed Authorised Person ("AP") was required to signify his approval or endorsement by signing Parts I and IV (para 22 of the Report);

(b) The Licensed Plumber ("LP") was not obliged to turn over copies of all parts of Form WWO 46 together with relevant drawings to the AP and

the applicant (para 27 of the Report);

(c) From Part IV itself, it appeared the only role of the AP was to ascertain the position of meter installations and nothing else on completion whilst the AP had to endorse the installation details contained in Part I (para 28 of the Report); and

(d) By virtue of Part I, there was no provision that AP would be subsequently, let alone timely, informed of any communications between WSD and LP including those necessitating changes of the installation albeit AP was 2 one of the parties jointly and severally responsible for the technical submission of the project (para 29 of the Report).

8. WSD is of the view that there may be misunderstanding by HKIE/TF which led to the above observations. In fact, the AP should be actively involved in the plumbing works.

9. During the submission process of Form WWO46, the AP is required to sign Part I, certifying that the pipes and fittings intended to be installed (including those listed on the Annex to the Form and those not listed) are as prescribed by the Waterworks Regulations ("WWR"). In addition, after completion of the plumbing works, the AP is required to confirm in Form WWO132 that the pipes and fittings used in the project are in full compliance with waterworks standards and requirements. In doing so, the AP needs to satisfy himself of the facts in support of the relevant certifications. As such, one would reasonably expect the AP to confirm with the LP and other relevant stakeholders (e.g. the main contractor or plumbing sub-contractor) on whether there are further documents or developments relating to the factual basis of the matters which the AP is to certify. One would also reasonably expect the LP and other relevant stakeholders

(all of whom are directly or indirectly engaged by the developer to construct the inside service for the developer's premises) to readily provide the AP with relevant information to enable the AP to make the relevant certifications. In light of the above, it is reasonable to expect that there should be adequate communication between the AP and the LP and other relevant stakeholders including the provision of relevant drawings and changes of the pipes and fittings installed.

10. Similarly, the AP may obtain information from the LP and/or the contractors regarding any subsequent changes to materials used at the plumbing installation (including those listed under Annex of WWO46). It is reasonable to expect that the LP and/or the contractors would provide such information to the AP in order to facilitate the process.

11. In any event, after the discovery of excess lead in drinking water, WSD has issued an updated Form WWO46 in October 2015, prior to the issue of the Report in November 2015, to enhance control measures for pipes and fittings to be installed in plumbing works. The updated form has been uploaded on WSD's webpage on 19 October 2015:

<http://www.wsd.gov.hk/filemanager/en/share/pdf/wwo46e.pdf>

(See also WSD Circular Letter No. 7/2015 in WSD's webpage <http://www.wsd.gov.hk/filemanager/article/en/upload/375/cir0715.pdf>.)

12. Under the current arrangement, all relevant parts of Form WWO46 will be forwarded by the Water Authority ("WA") to the LP, AP and consumer/agent/applicant for new building projects. The LP, AP and consumer/agent/applicant should update and sign Form WWO46 if there is any change of the previously approved pipes and fittings to be used in the installation.

Alteration & Minor Repairs (paras 30 -40 of the Report)

13. In this section, the HKIE/TF presumed that, for each and every intended plumbing work, applications had to be made to WA for consideration as to whether it is of a minor nature that "a person other than a LP" could carry out, and Form WWO46 Part I was the relevant application form (para 33 of the Report). The HKIE/TF remarked that they could not find clear indication of what would constitute as a minor work nature in Form WWO46. (para 31 of the Report)

14. To start with, there is no need to submit an application form (including Form WWO46) to the WA for consideration as to whether the intended work is of a minor nature.

15. Further, there is an explanation as to what constitute alterations or repairs of a minor nature in Section 4.2 of the "Handbook on Plumbing Installation for Buildings" ("**the Handbook**") published by WSD. The Handbook, published since May 2001 is available on WSD's website:

http://www.wsd.gov.hk/en/plumbing_and_engineering/installation_requirements/handbook_on_plumbing_installation/index.html

16. As explained in the Handbook, generally, works of a minor nature are works which can be completed without the involvement of specialised trade skill, which requires specific knowledge and ability acquired through designated training for carrying out the works, and those which do not change the general arrangement of the plumbing installation already approved by the WA, or affect the flow conditions of the plumbing system thus causing possible supply problems. Minor alterations and repairs to inside services without dismantling and reinstallation of the water meter within domestic premises may be exempted as follows:

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- (i) Replacement of defective piping, taps, stopcocks, gate valves, ball valves and work of a similar nature;
- (ii) Repairs to leaking pipes or fittings and minor alterations to pipework; and
- (iii) Extensions within the same premises to supply a single additional tap, fitting or appliance, provided that the fitting or appliance does not require the installation of a storage tank.

17. Apart from the above information available in the Handbook, the consumer/agent may seek advice from WA if required.

Annex to Form WWO 46 (paras 41-51 of the Report)

18. In this section, the HKIE/TF stated that:-

- (a) Only three of those British Standards ("BS") specified for product compliance in Note 7(i) of the Annex to Form WWO46 were still valid and the rest were outdated. (para 42 of the Report)
- (b) There were no dedicated personnel or an engineering section to monitor the plumbing installations even though this should be a part of WSD's responsibility. (para 46 of the Report)

19. In considering whether to replace a relevant BS in Note 7(i) of Annex to Form WWO46 with its updated version, WA has been adopting a practical approach in order to strike a proper balance between strict compliance with the latest BS and industry adaptability. WSD considered it unnecessary to have the BS immediately replaced every time there was a change in the BS. In so doing, WA had

taken into account the potential impact to the construction industry if pipes and fittings can no longer be used just for minor updates to the BS. In the past 20 years, the changes in the BS in respect of material composition of pipes and fittings listed under Note 7(i) of Annex to WWO46 have been minor in nature.

20. In any event, the list of BS specified for product compliance has been removed from the updated Form WWO46 issued in October 2015. Further, Note 8 of the updated Form WWO46 advises that "all pipes and fittings including any materials intended to be used for the construction, installation, alteration or removal of the Approved Plumbing Works covered by this Form shall comply with the relevant BS listed out on WSD's website". The updated list of BS adopted by WSD can be accessed via-

http://www.wsd.gov.hk/filemanager/en/content_1086/standards_for_pipes_and_fittings.pdf

21. In respect of paragraph 18(b) above, the Technical Support Unit (TSU) of the Customer Services Branch is the designated unit in WSD to follow the updating of BS and the adoption of updated BS in Hong Kong for many years prior to the discovery of excess lead in drinking water incident. This unit comprises professional engineers equipped with the necessary expertise for monitoring the BS for plumbing installations.

Licensed Plumber (paras 52 - 55 of the Report)

22. HKIE/TF observed that "[a]s from October 1992, only [licences for] Grade I class [LP] would be issued with Grade II to be faded out" (para 52 of the Report), and remarked that it "had no evidence" to ascertain the reason behind (para 53 of the Report).

23. It is correct that there are two grades of LPs under the WWR - Grade I and Grade II. Grade I licences are essentially for plumbing works of any type including

construction, installation, maintenance, alteration, repair or removal of a fire service or inside service. Grade II licences are much narrower in scope, and only cover maintenance and repair of a fire service or inside service, and installation, maintenance, repair or removal of water appliances. Before October 1992, examinations for qualifying as Grade I or Grade II LPs were administered by WSD. The said examination system was found to be unsatisfactory as the passing rate was low, rendering the supply of LPs small and insufficient. A reform took place, upon which the Vocational Training Council ("VTC") took over the assessment of LPs. Under the reformed system which came into operation since October 1992, VTC also provides training prior to assessment. The training by VTC is of such nature and standard as to qualify persons as Grade I LPs. As such, since October 1992, persons who aspire to be LPs and have completed training by VTC would apply to qualify as Grade I LPs. Grade II LPs are therefore gradually faded out. The fading out of Grade II LPs is a natural consequence of the enhancement in training available for qualifying as LPs, rather than for any of the reasons speculated by HKIE/TF at para 53 of the Report.

24. Further, the HKIE/TF opined that "the arrangement for LP to be solely responsible for all scopes of work is no longer adequate" (para 55 of the Report).

25. Indeed, with the growing complexity and scale of inside services in building developments in Hong Kong, the WA has long recognised that reliance on LPs solely to ensure quality of inside service is inadequate.

26. In view of this and in addition to the LP system, the WA has, as early as 1982, put in place a system that involves APs, who are qualified professionals in the construction process with the overall responsibility of the technical management of the building development, to take up the role of certifying compliance with the WWR and waterworks standards and requirements in respect of

the pipe and fittings used. As a result, since 1987, APs have been required by the WA to certify that the pipes and fittings intended to be installed, including those listed on the Annex to Form WWO46 and those not listed, are as prescribed by WWR. APs are also required to confirm in the Form WWO132 that the pipes and fittings used in the project are in full compliance with waterworks standards and requirements upon completion of the plumbing works, when applying for issuance of "Certificate regarding water supply connection". The certifications by AP act as another layer of assurance on top of the LP scheme to minimise the risk of non-compliant pipes and fittings being used in inside services.

27. In addition, it is not correct that LPs are "solely responsible for all scopes of work", as other stakeholders including developers, APs and other relevant stakeholders (e.g. the main contractor or plumbing sub-contractor) each play an important part in ensuring that the plumbing system is constructed in accordance with statutory requirements.

WSD Supervision on LP (paras 56-61 of the Report)

28. It is noted from para 57 of the Report that the HKIE/TF formed an impression from "the trade" that WSD was not "vigorous" in inspecting plumbing installations or inside service as compared to the attention given to meter locations. HKIE/TF further opined that WSD had no independent building services section to cover, inter alia, the demanding workload of inspecting plumbing installations in new buildings and if indeed the case, this deficiency had to be addressed (para 60 of the Report).

29. WSD does not agree with HKIE/TF's impression that WSD is not "vigorous" in inspecting plumbing installations and its opinion that the lack of an independent building services section within WSD to

inspect plumbing installations in new buildings is a "deficiency". As elaborated below, WA adopts a risk-based approach in conducting inspection of plumbing installations, noting that there is already a multi-layered control mechanism over the construction of inside services involving many stakeholders apart from WA, including APs, main contractors, plumbing subcontractors and LPs. WA has to consider the appropriate and effective use of public resources.

30. Under the existing control mechanism, the LPs are responsible for the plumbing works as required by WWO. In addition, main contractors are responsible for providing continuous supervision of the works whereas the APs would conduct periodic inspection of the works by employing full-time resident personnel on site. Furthermore, LPs and APs are required to certify that the pipes and fittings comply with WWR and waterworks standards and requirements in Forms WWO46 and WWO132.

31. Within the above control mechanism involving multiple stakeholders, WA's role is regulatory and its inspection of plumbing installations is generally guided by a risk-based approach. The Customer Services Division of WSD is responsible for the inspection of the finished plumbing works. Its staff members possess the necessary knowledge, experience and expertise to carry out the inspection, and are overseen and supported by professional engineers. In conducting such inspection, more attention is paid to the communal parts of the inside service which have a greater impact on the proper functioning of the entire plumbing system, and therefore affect a wider section of the occupants, while other items are checked on random basis as they are considered to be of lower risk in terms of proper functioning of the plumbing system as a whole. In respect of water meters, their correctness is checked to avoid future disputes over water charges. Such inspection of the finished plumbing works cannot be taken as substitution of the on-site

supervision and inspections by other stakeholders during the construction process as mentioned above.

32. WA considers that the current inspection of the finished plumbing works is pitched at the right level taking into account the multi-layered control mechanism. To have an independent building service section within WSD on top of the existing control mechanism is not an effective way of administering public resources. Setting up an independent building service section will mean deploying public resources to duplicate the efforts of various stakeholders. This independent building service section of WSD will have to be substantial in size given that WA's regulatory remit is territory wide. The considerable resource implication is hardly justified.

33. It should be noted that the current arrangement is in line with the role of a regulator as identified by the Construction Industry Review Committee Report issued in 2001 that --

'...Given resource constraints, all regulators face the same challenge of how best to target their enforcement action. **We recommend that our regulators should explore with the industry, whenever appropriate, ways for industry participants to assume a greater responsibility over their behaviour through a degree of self-regulation.** The regulator will continue to police the system, but **with greater emphasis on those** particularly at risk and with appropriately raised stakes for those who attempt to abuse the regulator's trust...'

34. It should also be noted that the current arrangement in Hong Kong is on par with, if not more stringent than, systems in overseas counterparts. According to the "Benchmarking Study of Overseas Regulations and Practices on Management and Control of Inside Plumbing Services" [COI Bundle C19.6/143/14452], most countries/cities

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Contamination

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Soldering

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Tin Solder (paras 89-93 of the Report)

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問：咁繼續。Shall I finish the whole thing? "It should also be noted that the current arrangement in Hong Kong" -- sorry, paragraph 35.

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35. The HKIE/TF stated in para 90 of the Report that "lead-free tin solder was not explicitly or implicitly stated as a specification in WSD various materials searched".

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36. It should be clarified that there is clear provision that soldering alloys shall be "lead-free". Section 17 of Schedule 2 to the WWR provides that "Capillary fittings or compression fittings shall comply with BS 864 Part 2 ...". According to para 5.2.2 of BS 864 Part 2, for potable water applications, solder used for making capillary joints shall be one of the lead free grades of soft solder. BS EN 1254 Part 1, being the latest version of BS 864 Part 2, specifies in the Note of Table 6 that "Soldering alloys with lead ...are not permitted in installations for water for human consumption". It is also noted that the construction contracts of both the Housing Authority and the Architectural Services

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Department have specified the lead-free solder requirement in their plumbing specification.

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Water Sampling Testing Protocol; and Water Sampling in Public Housing Estate (Paras 141 - 158 of the Report)

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37. In relation to HKIE/TF's observations and comments on the water sampling testing protocol adopted by WA, please, refer to the 4th Witness Statement of CHAN Kin Man, Chief Waterworks Chemist.

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IV OBSERVATIONS

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Licensed Plumber (paras 296-301 of the Report)

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38. The HKIE/TF stated in para 299 of the Report that WWO and WWR were "so outdated that it would not be realistic and justifiable to rely on a lone LP in charge of large projects as PRH development with thousands of flats".

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39. As explained in paragraph 26 above, the WA has, as early as 1982, put in place a system that involves APs, who take overall responsibility of the technical management of building developments, to certify compliance with WWR and waterworks standards and requirements in respect of pipes and fittings used in the project. Throughout the years, this system works satisfactorily.

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Lapse of Product Certificates (paras 302-313 of the Report)

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40. In this section, the HKIE/TF stated in para 302 of the Report that they did not understand the rationale behind the decision of WSD Circular Letter No. 2/2015 dated 11 August 2015 [COI Bundle C5/61/4068-4069] on the withdrawal, with immediate effect, of approval of products with test certificates issued beyond 5 years.

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41. Under the previous general acceptance scheme for fittings, no validity period was specified in the

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acceptance letter. WA might withdraw the general acceptance at any time if the circumstances so warranted, e.g. if there was a material change to the BS that rendered the fittings unsuitable for use in plumbing system. There are practical implications to the industry, and time and resources are required for the industry to respond where a general acceptance lapses or is revoked (e.g. developers or contractors will need to identify and propose alternative fittings or arrange for the fittings in question to be re-tested). The previous general acceptance scheme was intended to strike a balance between the need for regulation and practicability.

42. After the discovery of excess lead in drinking water, WA is made aware of an increased risk of non-compliant material being used in the plumbing system. The 5-year validity period arrangement in WSD Circular Letter No. 2/2015 is implemented under the current general acceptance scheme to introduce tighter control. Under the said arrangement, when the validity period expires, the suppliers or relevant parties are required to arrange for re-testing of the pipes and fittings and re-apply for general acceptance if the said pipes and fittings are intended to be installed in inside service so as to ensure that the pipes and fittings comply with the latest requirements. As with the previous arrangement, general acceptance may be withdrawn at any time if the circumstances so warrant.

43. WSD duly notes the concerns of the industry over the effects of the new arrangement on project delivery. This reflects the importance of the balance which has to be struck as mentioned at paragraph 41 above, such that the industry will not be over-regulated. Drawing the line at a 5-year validity period is considered to be a proper balance in the present circumstances.

44. The 5-year validity period arrangement was made with reference to the similar approval mechanism of the Water Regulations Advisory Scheme (WRAS) in the United

Kingdom ("UK"). Essentially, where the standards set out by water regulations in UK are met, the WRAS confers a conformance mark confirming the compliance on the relevant fittings with a 5-year validity period.

45. Doing its best to address the industry's concerns, WSD has adopted a flexible approach and implemented measures to address the concerns. In particular, a Task Group including representatives from the industry has been set up recently to steer and monitor the implementation of the new improvement measures promulgated by WSD.

WSD Procedure - Water Sampling Testing (Paras 314 - 324 of the Report)

46. In relation to the HKIE/TF's observations on the water sampling testing undertaken by WA, please refer to the 4th Witness Statement of CHAN Kin Man, Chief Waterworks Chemist.

Causation of lead contamination (paras 342-362 of the Report)

47. In this section, the HKIE/TF commented on the Preliminary Findings of the WSD Task Force on Investigation of Excessive Lead Content in Drinking Water ("**WSD Task Force**") announced on 25 September 2015 essentially in the following three major areas:

(a) Sampling size (paras 349, 351 of the Report).

(b) Testing methods and analyses (paras 345, 353, 355 & 357 of the Report).

(c) Conclusion and recommendations (paras 356, 359, 360, 361 & 362 of the Report).

48. The Report of the WSD Task Force was issued on 31 October 2015, just prior to the issue of the Report on 2 November 2015. It is available on the WSD's website at

http://www.wsd.gov.hk/filemanager/en/content_523/lead_content_drinking_water_report.pdf

The Report of the WSD Task Force contains more details which might not be available at the time HKIE/TF prepared the Report.

49. The WSD Task Force's investigation relied on the analysis of components dismantled from three water supply chains in Kai Ching Estate and Kwai Luen Estate Phase 2 via a series of tests and analyses including leaching tests, elemental analyses of components, isotopic analysis, mathematical modelling and comparison with a control water supply chain with undetectable lead content in its water sample in Hung Fuk Estate. The investigations of the three water supply chains had in common revealed that leaded solder joints were the cause of excess lead in drinking water and, although copper alloy fittings also leached lead, they did not result in excess lead in drinking water. The WSD Task Force considered that such common findings resulting from the investigations of the three water supply chains can be applied to other affected public rental housing, since (i) the design of their inside services and specifications of pipes and fittings are similar to those of Kai Ching Estate and Kwai Luen Estate Phase 2; and (ii) the solders in the joints of their copper pipes were also found to have lead contents ranging from 18% to 61% well above the limit stipulated in the BS of 0.07%.

50. Isotopic analysis was carried out by the WSD Task Force for each of the three water supply chains by using a copper alloy valve, a leaded solder joint and a water sample taken from the respective housing block of the water supply chain. The WSD Task Force deduced (rather than concluded) from the isotopic analysis that the lead in drinking water mainly came from the leaded solder joints, which was further substantiated by mathematical modelling and comparison with the control water supply chain in Hung Fuk Estate. The leaching test results of the various

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components were expressed in μg rather than $\mu\text{g/Litre}$ because they were used in the mathematical modelling for estimation of the relative contributions from the respective components to the lead content in the drinking water in the three water supply chains.

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51. Based on the finding that leaded solder joints were the cause of excess lead in drinking water, the WSD Task Force recommended, inter alia, the use of pipe materials free from the risk of misuse of leaded solder in pipe joints and central procurement of solder material to minimize the risk of use of leaded solder causing excess lead in drinking water. The adoption of these recommendations is to be subject to further study and consideration.

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

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問：黃先生，我頭先讀過三份嘅證人口供，都有你嘅簽名，你可唔可以確認三份證人口供嘅內容係均屬真實？

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答：真實嘅。

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問：你願唔願意將呢個成為你主問證供嘅內容？

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答：願意。

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王先生：主席，我係冇其他嘅補充嘅主問。

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主席：得，好，我哋星期一 11 點鐘，11 點鐘，唔該。

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2016年2月19日

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下午5時17分聆訊押後

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C Friday, 19 February 2016 C

(9.36 am)

D (Transcript of simultaneous interpretation D

E except where otherwise specified) E

F MR LAW: Chairman, the WSD would like to ask Mr Kan F

Kwok Leung, Hugo, to give evidence.

G MR HUGO KAN KWOK LEUNG (affirmed) G

H CHAIRMAN: Please take a seat, Mr Kan. H

Examination-in-chief by MR LAW

I MR LAW: Mr Kan, good morning. I represent the Water I

J Supplies Department. J

K Please open the bundle before you, C21, and then K
L page 18976. For the purpose of this Inquiry, Mr Kan, L
M you have prepared an expert report. In a moment, I am M
going to read out your report, and then ask you to adopt
it as part of your evidence-in-chief.

N Before I do that, please turn to page 18995. This N
O is your CV. Mr Kan, can you find it? O

A. Yes.

P Q. This is your CV setting out your education, your P
Q employment history and your professional qualifications. Q

R I have a simple question about this. On education, you R
S have a Bachelor of Science degree. Can you please tell S
the Commission the background?

T A. In the 1990s, I attended a distance learning course from T
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a US university.

Q. And you became an apprentice in 1972, so you have been working in the construction sector, in the plumbing industry, or have you been doing other jobs?

A. Since 1972, I have been working in this industry, although for some time I also did something about fire service installation, but they are all related to plumbing.

Q. There is also some information about your membership and licences in professional bodies. The first one, chairman of the Institute of Plumbing and Heating Engineering -- Hong Kong branch, 2011 to 2014, this is the Hong Kong branch of the UK professional association. Can you please tell us more about this, Chartered Institution of Plumbing and Heating Engineering?

A. It is one of the oldest plumbing-related professional associations. They mainly do some design and research, and they also have a class of membership called RP. Our WSD and many consultancy firms are using the guidebook of this particular association as reference.

Q. Has it got anything to do with the licensed plumber's system in Hong Kong?

A. The WSD would give a exemption for a member of this association in regard to the three-year plumbing certificate course.

Q. You are a member of the Advisory Board of the Licensed Plumber?

A. After the lead in water incident in July last year, the WSD has had a number of meetings with the trade and relevant industry, and some licensed plumbers were invited to join the advisory board, to have some discussion on how to regulate the work of licensed plumbers.

Q. The next one, advisory board of the CICTA, courses of plumbing and sanitary wares?

A. CICTA is one of the training providers. Together with trade associations and the industry, they have constant and regular communications on whether we should provide something updated in the training course of plumbers.

Q. I am going to read out your expert report now, starting from page 18996. Please listen carefully to see whether you need to clarify anything or supplement.

(Statement read in Chinese)

Mr Kan, you heard me read out your witness statement. There is a signature on page 18994. Is it your signature?

A. Yes.

Q. Are you willing to adopt the contents of this witness statement as your evidence?

A. Yes.

Q. Do you have anything to add?

A. No.

MR LAW: Please stay there.

Cross-examination by MR SHIEH

MR SHIEH: Good morning, Mr Kan. I have some questions to ask you.

Please, let's look at your CV, page 18995. In the middle, there is an employment history. You started as an apprentice, and you have been in different posts. So you started as an apprentice?

A. Yes.

Q. Working from the bottom, can I say that?

A. Yes.

Q. We have heard about a lot of different types of work in plumbing. You are a licensed plumber. Have you occupied any positions as a skilled worker?

A. In 1986, I have already obtained a licence as a plumber. In Morrison Hill -- when Morrison Hill was preparing requirement for certificate, everything was already in place. I already have a trade plumber licence at that time.

Q. We have also heard that in construction sites, there is something called "da lei". What is it?

A. We call them a co-ordinator, something like that.

Q. So what is the description?

A. Site foreman. It's equal to site foreman.

Q. So, for an entire estate, there is a site foreman which co-ordinates everything. For a large site, there are different blocks. For different blocks, there is a person responsible. You have also occupied that position; right?

A. Right.

Q. Then I can ask you specifics of the goings-on in a site. Now you work for Merry China Asia Ltd, and we have heard about the roles of different companies. In the case of public housing, the HA, the Housing Authority, will award a contract to a main contractor, and some works will be delegated to subcontractors and some of the works will be delegated to plumbing subcontractors. Your company, is it a plumbing subcontractor?

A. Yes.

Q. We have heard from other subcontractors. You may think you are not the same as them. But usually, we have heard that the main contractor would, say, award a subcontract to Ho Biu Kee or Golden Day or other companies. So your company's role is similar to that of Golden Day and Ho Biu Kee, and that is you are awarded a subcontract in plumbing by the main contractor?

A. Well, I would say similar. It's similar. But I don't know the scope of their contracts with the main

contractor.

Q. But generally speaking, just generally -- every contract is different, the scope will be different -- mainly, you will be given a contract by the main contractor, they need to do some plumbing works, and you will be given a subcontract to do that?

A. Well, for the trade, the main contractor will generally subcontract the different processes, different works, to different subcontractors. This is called domestic subcontracting. It's a commercial deal between the two.

Apart from acting as a domestic subcontractor, we also act as a specialist for other government departments. Those will be very different in terms of responsibility which may be based on statute. So I don't know whether we are similar with other subcontractors, in that regard.

Q. So you may be appointed direct by government, or you may be given a subcontract by the main contractor. The main contract is between the government and the main contractor?

A. Yes. There are different layers of subcontracting.

Q. Let's have a look at your document. Page 18978. You are referring to generally what would be done for large housing projects. You mention building services engineers would come up with plumbing proposals. You

state that LPs are generally not involved in the preparation work for the plumbing proposal of a large housing project?

As a licensed plumber or a very vastly experienced LP, would this somewhat impede your work?

A. Can you be more specific?

Q. The building services engineer has to take care of many things. They may or may not have attended any course on plumbing; right?

A. I cannot say I agree with you. There are about 3,000 LPs in Hong Kong. Only 700 are actively involved in projects. The other 2,000 are working in consultancy firms. They act as consultants. For my association, for my committee, over half of the committee members were working in consultancy firms.

Q. So, in the early planning and preparation for the plumbing worker, although it's done in the name of an LP, it may be just carried out by one particular staff in the consultancy firm?

A. Well, we call the one responsible for the plumbing works the LP, but in the early preparation of the project, the building services engineer will never be the LP which would carry out the works.

Q. In due course, I will go to the details. In theory, the LP is the most knowledgeable person in the process; do

you agree?

A. I won't say the LP is the most knowledgeable person. We have a few thousand LPs. Some LPs would just work on sites after acquiring the qualification. Some would proceed with further studies, certificates, diplomas and even degrees and would become management staff. So LPs are working at different levels.

Q. Let's not just dwell on whether someone is an LP or holds a licence. Let me see if I can summarise what you have said accurately. The building services engineer or company would do some preparation, but the LP who finally gives his signature to the form may not have a chance to participate in the first stage, so maybe the building services firm also employs LPs who are knowledgeable about this. So they are not asking some layman to do it. So they would make sure that in their team, there is someone who may or may not be an LP but who are knowledgeable?

A. For a building services engineer, whether he is an LP or not, it's not really important. They would calculate the capacity required for a drinking water system. That's the work of the BS engineer. But for the licensed plumber, he has to make sure that the works are carried out according to the Waterworks Ordinance and Regulations.

Q. So it may not be relevant that in the early preparation the knowledge of an LP will be important.

In paragraph 6, you said something about the lack of participation or involvement.

A. That's not something derogative in nature. When will the LP come on stage? After the plumbing proposal has been approved, as I set out in the report, after the WWO form is submitted, and the licensed plumber will be appointed at that stage.

Q. So, if you look at the documents, you will see the name of the licensed plumber set out in WWO46?

A. From my personal experience, more than ten years ago, I participated in the work in a big consultancy contract. I became a member of a team, and I was given to understand that if they won the contract, I would be a subcontractor for them as well. But the licensed plumber would only be appointed at a later stage, not in the preparation stage.

Q. Please now refer to paragraph 8. This is a question about the system. Paragraph 8. For a project, you have the so-called wind, fire, water and electricity, as you call it. Wind or air-conditioning, fire or fire services, and electricity services are subject to more requirements, as a matter of system. For example, the HA has a list of works contractors, or nominated

contractors, for air-conditioning, fire services and electricity services.

Although you didn't say anything about this in your report, maybe this has to do with relatively little importance is attached to the plumbing?

A. That's the reality in the market. And here I am talking about HA projects. HA has some special arrangements.

The licensed plumber or contractors do not have to install the pump station or fire services.

Q. So you just have to handle things mechanical?

A. As a plumbing subcontractor in other projects, we will participate actively in a number of E&M services.

Usually, we will be involved in the pump system, maybe a solar heating system or water treatment equipment. We will be involved in those, in non-HA projects.

But for HA projects, they would take those away and we would just be responsible for connecting the pipes.

CHAIRMAN: You mean for private developers, it's not a usual practice? Usually, you would cover everything?

A. Yes.

MR SHIEH: For private projects, say a private developer wants someone to take care of plumbing, he would seek out a contractor like yours, and you would not just be responsible for connecting the pipes or finding the manpower to connect the pipes; you would be responsible

for all the things you have said?

A. I did mention the West Kowloon project. We had a team of resident staff, including engineers, and every day we will have regular meetings with the main contractor, to ensure compliance with the contract and with the Waterworks Ordinance. We would be involved in planning and modifications up to the stage where the approval is granted by the WSD.

Q. But for HA projects, plumbing works is narrow in scope for the contractor?

A. Yes, that's so far.

Q. What about Hong Kong Housing Society?

A. I have not been involved directly in Housing Society projects. I did participate in HA projects. I have also submitted quotations for some of the projects, so I know HA projects more.

Q. Paragraph 10. For WW046, you have to submit the relevant documents, for the approval of the Water Authority.

Paragraph 11. An LP may operate in different forms. Some are proprietors, some are workers and employees. We have heard from other people that some of them form their own company; some work as employees. Some LPs have got a licence, without doing any actual work. Let's disregard those. And also let's disregard LPs who

are working not as an LP, who do not have to sign documents as an LP. You know there are many LPs but they are now working as employees but they are not doing the job of an LP. They may be an employee of a BSE company. Will they actually sign work as an LP? Different people have different modus operandi, and some people may not actually know how to solder something on. You give them money and then they will just simply sign the form, because you can only sign in the capacity of an LP. Are you aware of such a practice? You don't have to name any names.

A. Well, let me put it this way. At the early stage, I have heard about something like that, but in recent years, very rarely. For those who only sign, they are the rare cases. There are subcontractors, yes, but I pay attention to how this excess lead in water incident unfolds, but sometimes, some people are limited by the terms of contract, and the employer refused to listen to them.

CHAIRMAN: It's not the case that they did not supervise or check anything, but it's just that the scope is very limited. They won't just not show when WSD came to inspect or they wouldn't do anything, but when they need to append a signature or when the WSD is requiring their appearance, then they will be present. It's not the

case that they just close their eyes and sign and only do just that.

MR SHIEH: Well, in general, do you have this impression?

Perhaps I will put it in a more succinct way. They are bound by the terms of contract, so you only supervise items that your employers ask you to do, and then you will just sign your name; it happens, right?

A. I have heard about such instances. As you know, everyone is following the news after the excessive lead in water, but what I can say is that they are bound by a lot of things.

Q. Under the regulations, the LP has great responsibilities?

A. Say, for example, for myself, at the first step -- actually, I participated even from making quotations.

Q. Well, for 046, we are all very familiar with the form, when you append your signature you in effect say that the plumbing works will conform with the numerous requirements, including the material used that has to be compliant with British Standards.

So the responsibility of an LP is very different from other LPs, because LPs have to take the initiative to understand waterworks requirements. But if you say that for some they are the boss, they call the shots, whereas there are others who are employees and they will

just do whatever their employers instruct them to do, in effect that is not performing the duty of an LP?

A. For work projects, we have seen LPs perform their duties. As an LP, the licence itself is the means to make a living. Of course, they will cherish it.

I have been LPs in some projects. When I find some irregularities, non-compliance of the regulations, I would insist on changing it, otherwise I would not sign. They could fire me. I can find another job. But I would insist.

Q. So what you mean is that even when you are an employee, and even if your employer instructed you to do something expedient, just put down your signature, but you attach importance to your professionalism, to your licence, so you would insist on doing everything, and you would quit if you are asked to do something that you should not do?

A. Well, in 1986, when I obtained the licence, I have been employed in different companies. At that time, the employer asked me to do the work of an LP, and at that time I insisted on following the proper steps.

Q. So, for the LP, in the end, if the LP was made or is made to do something that falls short of supervision, the consequence will be a licence revocation or points being deducted from the licence?

A. Whether an individual LP will insist on doing the right

thing is down to the person.

Q. Let me show you page 18982. Paragraph 19.

Here, line 5 onwards, you talk about subcontractors, that the subcontractors will place orders for the pipes and fittings that meet the specifications or those that have been approved in accordance with the approved shop drawings and bills of materials.

In relation to these approved shop drawings and bills of material, in public housing projects, the HA is the responsible department, they award the contract to main contractors, and then the materials will have to be approved; subcontractors will submit fittings and parts to the main contractor, which then in turn is submitted to the Housing Authority for approval; this is what you are referring to; right?

A. No. If you are talking about line 5, these have already been done beforehand. After the approval has been obtained, in relation to the use of materials, I would enter into contracts with suppliers, stating the quantity of materials used, and I would require partial delivery to dovetail the progress of works. So this is about what happens afterwards.

Q. Yes, I understand, but I would like to get some background information from you. In relation to approval and in accordance with approved shop drawings

and bills of materials, so the process has been gone through, the HA gave approval, and we have often seen the approval forms, and then you will just procure materials in accordance with the approved material list.

We know that for a lot of the parts, submissions will have to be made for approval to the HA, say for example, bath tubs, taps. They must be submitted. For some others, it's not a must, but more often than not plumbing subcontractors will submit these items, just for piece of mind.

Solder material is one of such items?

A. Under the law, there is no requirement for submission for approval of solder materials.

Q. What about contract?

A. Well, all materials used have to be approved, that is under the contract. We are a subcontractor; we obtain the contract. After the meeting at the site, we will prepare an approval list of materials. That's to be done by subcontractors. We will set out the list of materials to be submitted for approval. We will submit it to the tier above. This is a schedule only. REs, consultants, architects will look at the list to see if it's an exhaustive list of materials to be used.

Q. So the tier above, you mean the main contractor?

A. Well, yes, the body from the owner. They will approve

our schedule. Some companies may think, as long as there is a list of commonly used materials, that will do, whereas others, they are very strict. It depends on the subcontractor. But whether it's an exhaustive list or not, your supervising team may require you to make it an exhaustive list. Well, according to the contract, it's an exhaustive list, even down to a screw. Say, for example, the XRL contract 823. We submit for approval even every bolt and nut. It's not the case that the contract doesn't require you to do that. If you did not make a submission, if you are not required to make a submission, then no submission would be done.

Q. From the evidence we have heard, a lot of subcontractors have submitted solder material samples to the tier above, which in turn is submitted to the HA. The coil in front of you, in green, is used by your company; yes?

A. Yes.

Q. But from the numerous subcontractors we have seen, they use this material, at least in their submission, and your company uses FRY, this green coil; right?

A. In the past decade or so, yes.

Q. The HA will give you an approval form, say for example this FRY, and in relation to your company, after the submission and approvals have been made, what happens? Is there a mechanism in place to make sure that the

right material is ordered as per this approved list?

A. Well, we act in accordance with the contract. We will prepare a submission schedule for approval, and we will make submissions. After approvals have been made -- well, all the material, all the documents are in English, but we will get our staff to translate them into Chinese to give to foremen.

Q. So there is a communication mechanism. So the approved materials, the information will be disseminated to the frontline, to the shop floor, to the person in charge, whatever post they are, whatever title they are, so that they will know what materials they need?

A. It's not just that. There are many different pipes to be used. Say, for example, in private developments, say in lift lobbies, or on some special occasions, we would need those that are encased in plastic and some without. So we have to specify which ones are just the naked pipes and which ones are encased in plastic, because if we use the wrong one, we will need to rectify it and then there will be double the work. That is actually for the benefit of the operation of the company, to make it clear.

CHAIRMAN: The HA's main contracts, they are all in English. None of it is in Chinese. Is that the case, from your experience?

A. I have not directly engaged in HA contracts, but for contracts in the private sector, all the drawings, all specifications, they are all in English. So, at the end of the submission, we will prepare a Chinese version for foremen, to tell them about what had been approved and what they are to be used on.

CHAIRMAN: With regard to plumbing proposals, vertical plumbing drawings, they are all in English?

A. Yes, recently.

CHAIRMAN: I don't think the HA is an exception. They won't use Chinese. Please elaborate in a moment. I ask this question because some plumbing subcontractors and LPs have told us that they do not know any English, and they are awarded subcontracts all the same by the HA.

A. I don't know the wording used, but for those working for private projects, we are required to employ at least one staff who can read, write and speak fluent English, to communicate with those one tier up.

CHAIRMAN: That's for private projects?

A. I don't know what is the situation with HA contracts.

CHAIRMAN: That's okay. We will find out. I know the subcontracts are in Chinese, but the main contract is in one version, in English only.

MR HO: I think he is talking about the information for site agent.

COMMISSIONER LAI: The site specifications are all in English.

MR SHIEH: So there's a requirement to have someone who can read English on the site?

CHAIRMAN: Very often, the subcontract will stipulate that you have to comply with the provisions in the main contract. If you have no one who can read English, how would you know whether it's in line with the main contract?

MR SHIEH: Or do you have the mentality that someone else would be doing the checking?

A. Well, a consulting engineer may be doing different projects, and sometimes we will work for them repeatedly. We would ask what is required and they would say, "Just do what you did in the last project."

CHAIRMAN: But the General Specifications of the HA are all well established. It's stored in a library. For specific projects, they may add some specialised specs that would only be required for that particular project. If you don't read English, there's no way you can know. Do you know what I am saying?

A. Yes. Well, there's no legal requirement that an LP must understand English, but we know that Hong Kong is an international city, where English is commonly used. The LP system in Hong Kong is that if you have

an education level of form 3, you can be enrolled in a certificate course in plumbing.

CHAIRMAN: I am not saying that some language requirement would be important, but in this case we have an LP who is also a proprietor, who has told us that he doesn't read a word of English. I just wonder whether that could really happen.

MR SHIEH: For example, you have to understand the Waterworks Ordinance and what the British Standards are, and if necessary you have to check the British Standards, and if you get a copy of the BS, it costs you \$1,000, and there's no Chinese version.

A. As a subcontractor, we are not the manufacturer. We will not try and understand in great detail the BS concerned or what the pipes are made of. I will just get a quotation from the supplier, "I need materials of this BS and please give me a price quotation." Then I will ask for proof. There will be a certificate. So sufficient documentation would be given.

Q. So they would give you some document saying that it's in compliance with the relevant BS?

A. Yes.

Q. For soldering material, which suppliers are you dealing with?

A. Prosperity.

Q. So if you want unleaded solder, you use FRY -- your company uses FRY -- you don't know what it's called in the order, but what would you call the soldering material, when you place order with Prosperity?

A. I would call it unleaded solder wire.

Q. Have you seen those in sticks? They are called a 50 per cent lead, or in Cantonese, "ng sap lik".

A. "Lik" in Cantonese means lead, so it's 50 per cent lead. We all know that.

Q. "We all know that" -- what do you mean? Who is "we"?

CHAIRMAN: You mean those involved in plumbing works?

A. My suppliers and I and my company, my people know, but I dare not say that everyone outside my company knows.

MR SHIEH: So you would tell Prosperity that it's unleaded solder wire?

A. Yes.

Q. You insist that the word "unleaded" is there?

A. Well, they will ask you, "What kind of solder, 50 per cent lead or unleaded?" They will ask you.

Q. If you tell Prosperity, "I want solder wire", they will say, "Wait a moment, leaded or unleaded"?

A. But Prosperity will understand that it's unleaded if you ask for solder wire. We have been dealing with Prosperity for years. It's either solder wire or solder sticks.

Q. They supply both?

A. If you want solder wire, they would give you those coming in coils, and our foremen also know -- our site staff are all graduates of courses of instruction where they will be instructed on the requirements of the Waterworks Ordinance. They are graduates of VTC.

Q. When your company places an order with Prosperity, you would say you require unleaded solder wire. But in the case of Prosperity, if you just say "solder wire", they would give you the coils, unleaded solder wire, and then if you want solder sticks, they will give you 50 per cent lead solder sticks. So that's your understanding, in your dealing with Prosperity?

A. They have many salespersons. They have been following up our account, working on our account, for years. So I do not know what other suppliers would be doing. You may be talking about this as a practice of Prosperity, but I am really talking about the practice of the salespersons. There are account executives, they deal with different accounts; they know what our requirements are.

Q. So what you call them would depend the salesperson you are dealing with?

A. Yes. As I said, we would provide submissions. We would tell the salesperson over the phone that, "I have been

given this contract and I now have to submit samples,
and for this particular site I need certain things", and
they would know what materials would be used for my
site. There's no room for mistake.

Q. We have heard -- sorry, we have to tell you the evidence
that we have heard from other sources. You are
an experienced person. Have you heard of
high-temperature soldering stick?

A. No.

Q. If it's a soldering stick, it's a 50 per cent lead
soldering stick. What about high-temperature? We
understand high-temperature to be unleaded. But what
about a mix of the two, high-temperature soldering
stick?

CHAIRMAN: It's not necessarily the same. You have to look
at the context. Unleaded soldering stick is so-called
high-temperature vis-a-vis the leaded soldering stick.
But depending on the lead content, we have
low-temperature and not so high-temperature soldering
material. So that should be the context.

First, so the question is, you haven't heard of
high-temperature soldering stick, so basically there's
no other relevant questions that you can put to him.

A. Well, the soldering materials would be stored in our
warehouse. After the lead in water incident last year,

some media interviewed us and they saw the material stored on the floor of the warehouse.

MR SHIEH: So you would use unleaded soldering wire?

A. That's the contractual requirement. When the media people came to see how we did it, they would see that even for screws and nuts and bolts, the brand name is shown on them.

CHAIRMAN: Has your company ever used leaded soldering material in any project?

A. My company was set up in 1992. We have never used leaded soldering material in Merry China Asia Ltd. But prior to 1995, I had another company, set up in 1986. It's called Hugo Engineering Company.

At that time, we didn't know the difference. We knew about the legal requirement of the use of unleaded soldering material in 2000. A salesperson of a supplier came to my company in 1994. I had known him for many years. He is not a plumbing worker. He showed me a tin of flux, and also he said it would be very easy. You don't have to end-feed the solder. He showed me how to do it. He said it's very easy. You just apply clean solder and the solder will not run out, so it would form a ring very beautifully. So we found that to be cost-saving and manpower saving.

MR SHIEH: You use it in the Forum Hotel in Shenzhen?

A. Yes, because you can work with it very easily, and after 2000 I knew about lead-free solder because I started to employ VTC-trained employees. And now there was a BS EN 1057, the latest standard, and in the catalogue they would state that it's unleaded.

Q. In 1994, you carried out the Forum Hotel project, so you don't need to have the solder embedded in the pipes; you can use solder wire, as suggested by the salesperson. But you know just half of what is happening.

A. I thought it was just to save labour.

Q. But it so happened that it was lead-free, and after 2000 you realised that it so happened that it also meets the requirement of non-leaded.

You mentioned about basic stock. What do you mean by "basic stock"?

A. It is very simple. When it comes to some simple works, every day people will do the same process, and it's not very desirable to just break -- to do it in a different way.

Q. So, for every floor, they will just cut the relevant parts they would need to use?

A. For corridors, they are quite long; we just put them in place. For the individual units, for the HD, that is the practice over the years. There are different types of units with their own code names. We will take

measurements, say 500 units in the same block, they will be the same.

Q. So they will cut out the relevant sections, in the right numbers?

A. In the 1990s, even when GI pipes were used --

Q. GI pipes?

A. Yes, and of course they are all pre-made.

Q. So soldered as well?

A. Yes. It happens.

Q. But that shouldn't happen, right, in the first place?

A. Well, it depends on the contract requirement, whether it should be done or not. Well, as long as there is sufficient supervision, you act in accordance with the mainland, it's okay. As you know, the steel cable for the Tsing Ma Bridge was made in the mainland.

Q. But you require licensed plumbers to do it, so you can't have the basic stocks cut out on the mainland?

A. The law was enacted in the last century. The company will not -- it's a business. The business itself will not do the actual work, and employees will be recruited.

CHAIRMAN: I don't think we need to go into that detail, about the legal definition.

MR SHIEH: So for cutting out work pieces from basic stock, you will do it beforehand and then take them to the individual floors?

Paragraph 23. This is what you meant. The 1994 Forum project -- let me work out the chronology. You talk about different types of soldering. One of them is mechanical.

A. It's compression without soldering.

Q. It's just, well, fixed, screwed on by hand. That is one.

It's soldering ring fittings. If you refer to paragraph 22, we have heard from some companies, calling this soldering fittings.

A. In the 1970s, we heard that not many people could do this specific process. If we have to use soldering ring fittings, we will have to heat up the pipe, which is tin-free. Then we will just smear some tin onto it. It's called white jointing.

At that time, most of them are soldering fittings, because you will -- well, you will have to do a step more, which is more cumbersome.

Q. So, at the beginning, it's just mechanical, and then later soldering fittings. Then, in 1994, you heard from the salesperson in the Forum project that you don't need to purchase additional material; you just buy FRY and then you can solder the pipes together. That's your understanding; is that right?

A. Yes.

Q. Now, at the end of the 1980s and in the 1990s -- please turn to page 18985, paragraph 25. In the last line, you said that the WSD cannot determine solely by sight whether the solder used for connecting pipes contains lead during inspection.

So soldering material is a consumable, filler material. Very often, once it's used, it will blend with the pipe. It's impossible to identify it by the naked eye during inspection by the WSD. And you said at the beginning that the supervision work will be done by the resident site team, and you said that if you depend on inspection, it may be too late.

So the relevant stakeholders, whoever they are, should supervise and monitor.

It's also your understanding that none of the parties specifically checked to see if the materials used are actually lead-free. The approval is one thing, and you know that the HA does not require you to check solder materials. It's form 6210.

Let me ask you directly -- your understanding in the process of work is that no one will actually go to the construction site to see what type of solder materials used?

A. You can't say that.

Q. Then who actually has done it?

A. I don't know what other people do, and I've been in different positions. I've been working on site, supervising sites. Well, not just the solder material. I even check lubricants. Say, for example, some ductile type -- well, there is a washer, to stop water from leaking, it's made by EPDM, and if you use oil-based lubricant, it will make that washer brittle, resulting in a leak, and if there is sufficient monitoring, yes, at the time when the initial examination was done, there would not be any problems, but a few years later, there will be leaking.

Q. Paragraph 25, let me ask you, straight to the point. Requirements of soldering materials, there are contractual requirements in the main contract, and these requirements will go down to the plumbing subcontractor, and very often the main contract will require lead-free solder material; that you know?

A. We don't necessarily know whether that will be stated in the contract. But for all contracts, whether it's public or private or HD project, I know that we're required to comply with the law, and we understand that something is not to be used. According to the subcontract, it may not cover just the plumbing works. And in the entire contracts, all the relevant Ordinances -- fire services, waterworks -- will be set

out. It is very long. It was our focus.

Q. So, in relation to soldering, it's the Waterworks Ordinance?

A. Yes.

Q. For the HA and the WSD, their respective purview is related to solder materials. Say there is a contractual requirement that you comply with the law, so the HA, being the principal employer, will check whether you use compliant material. So, for the HA contracts, it's the duty for the HA to make sure that you comply with the contract. Under the WWO, do you know that there is a requirement, statutory requirement, that you use lead-free solder material, and it's also under the responsibility of the WSD?

We know that the HA and the WSD at no time at all tried to see what solder material was used at the site; you are aware of that?

A. For the WSD, in the works process, they did not inspect solder materials. But whether they need to conduct regular inspections under the system, I think that will be impossible, because very often we talk about cost-effectiveness. The law requires the LP to shoulder certain statutory responsibilities, to make sure everything is done in accordance with the law. So you would not expect the tier above you to do it with you.

Say, for example, you employ A to do something and then you employ B to supervise A and then you employ C to supervise B. That would be duplication. So, in the work, everyone will perform their respective duties.

Q. So the requirement of lead-free solder materials is under the WWO, but your view is that requiring the WSD to send an officer to conduct inspection and test is not practical, because under the system, the LP has a role to play, which is to ensure that everything is compliant?

A. At the beginning, under the contract, under the law, all the approvals have been obtained. We order the right materials. There's nothing to see or check, because these are the items that are distributed. Workers would not be stupid enough to purchase materials of their own.

COMMISSIONER LAI: So, according to you, there is no way to supervise it?

A. No, it's not that. Well, if everything is done right, we will not send someone to check the workers. Say at the peak there are 20 or 30 workers doing the same process. Are you going to ask 20 inspectors of the WSD to check them? Because you have to stand there over their shoulders when they are actually soldering.

CHAIRMAN: But if what you say stands, that means all Hong Kong citizens will have to abide by the law, there

is no need to have any police officers. Then the judge will not have anything to do.

Well, every decision being made by a judge is being monitored by people of different levels, and if we make a mistake, we will be told off.

Let's have a break first.

(11.29 am)

(A short adjournment)

(12.04 pm)

MR SHIEH: Mr Kan, we are on paragraph 25.

At the site, in reality, we know what actually would be done by the WSD and the HA. I will tell you so you can tell us whether you share the observation.

When WWO046 is submitted, there's an annex there, which would set out the parts, the fittings to be used. You know this?

A. Yes.

Q. But soldering material or sundry items, it's one of the items to be listed in the annex. So, when the LP fills out the WWO046, he doesn't really have to pay attention to which kind of soldering material? There's no requirement under WWO046 on whether people should pay attention to the soldering material used; agree?

A. Yes.

Q. During the construction -- I'm not saying that LP -- WSD

C and their staff do not have an inspection system to
check the materials used during the construction?

D A. No, there's no such system, but I know the WSD also send
their staff to inspect construction sites.

E CHAIRMAN: So they will check if the pipes are properly
connected before concreting?

G A. Well, for some hidden pipes, the LP would report to the
WSD. I am not talking about this. They have customer
H service staff of the WSD, when they go to visit the
I site, if they see another site next to it, they would
J sometimes enter for inspection. For example, approval
has not been given for that other site and still some
K people are working, they will check.

L MR SHIEH: But there's no checklist that they would put some
ticks against certain items in the inspection?

M A. When partial completion is reported, you have to
N highlight on the plan and tell the WSD that that part of
the project has been completed, and they will send some
O people to have a look.

P In Hong Kong, there are modifications as work
Q progresses. So you may or may not follow the approved
plans, the building plans. The landowner, the owner and
R the contractors may modify as they work. So we would
S inform the WSD on any modifications and revisions. So
T sending people to inspect your work during the

construction is not very meaningful.

Q. Maybe for some reason you have asked them to give an inspection. So, even if there is such an inspection, they would not check the material used?

A. Yes, they will check the materials used, in accordance with the annex, whether they use the right pipes, and also whether the alignment is the one approved.

Q. But you don't have to set out the soldering material in the annex?

A. Well, as I've said, they won't check what kind of lubricant you use, and so on and so forth.

Q. So that's the WSD's work.

The HA now, turning to the HA -- when the contractor's materials are sent to the site -- I asked you a question about form 6210 -- you said you were not familiar with the form. You are more familiar with the WSD forms, I suppose?

A. I did not participate in any HA projects in recent years.

Q. All right. From your understanding, when materials are sent to the site, the Housing Department would check the delivery?

A. Yes. The Housing Department has a requirement of taking some samples for testing.

Q. I can tell you that they have a checklist. The check is

done for certain documentation. No check is done on soldering material. Do you know that?

A. Yes, after this incident I have heard about that, but not previously.

Q. In paragraph 25, you said during the visual inspection, after work is completed, it's really not visible. We are not talking about the main contractor. We are talking about public authorities and government departments, the WSD and the Housing Authority. So they have to submit a form with the annex to the WSD, and when materials are delivered to the Housing Department side, they will check the materials, but it doesn't cover soldering material. For you, who would do the checking?

A. It's just something you rely on mutual trust. I have not recently been involved in HA projects. For private projects -- you know Hong Kong is a crowded place, and for private projects, they don't have a big ingress for vehicles, and very often it's a restricted zone around the clock, so they will have to enter at a very narrow entrance.

So how could I know that they will deliver the materials we use? We would inform the main contractor of the materials that we would order, and the resident staff of the main contractor or the resident engineer

would do the checking for us, when they are delivered to the site.

Q. Maybe I should rephrase my question. HA and WSD have to work with some soldering material involved, in terms of supervision, and so on. But for checking delivery by the HD, Housing Department, it doesn't cover the soldering material, and the WSD doesn't require you to set out the soldering material in the annex of the form. Both are opportunities that would otherwise be seized to tell you whether the soldering material is leaded or not, but then the opportunity is lost, because they just don't check and you cannot tell whether the soldering material is leaded or not.

Let's set aside those deliberate cases, such as informing you, "I used this material and I intend to use another material." Let's set that aside. Do you agree that those are opportunities to identify leaded soldering material?

A. If the site has been informed of the materials to be delivered to the site, then there's a delivery note.

Q. Yes, but no one is there to check if the materials are in compliance?

A. If it's just the soldering material, if let's say Prosperity is delivering some soldering material to the site, the note would say it's unleaded.

Q. Here, we are talking about the system, not just the public organisations, the Authority. Either you set out what's to be used, or you check the materials delivered, but all the parties concerned missed out on the opportunities available. If I invite you to comment on the opportunities lost, who did worse than the others?

A. WSD requires the LP to do the project properly, and it would do the inspection afterwards. WSD would not be informed whether there's someone working on a particular day, and WSD cannot employ so many people to just do routine inspection to the site.

For private projects, you don't want some inspectors, they are standing to watch what you are doing.

You know about some latent shortcomings, for example, during building a building, you have to pour concrete, there is a minimum size set. So do you require the BD to inspect that there is a gap between the formwork and the concrete?

So in relation to all construction workers, the owner of the project will appoint representatives to supervise the site, and the supervisor will inspect progress of work, whether everything is in compliance with the contract.

So if that person is knowledgeable of a certain

area, they will know.

Q. About the owner representative, it would be Housing?

A. For private projects, it depends on who is appointed.

Q. For Housing, they would see whether you comply with the contract, but for the WSD, you think they have no legal responsibility, but they have to make sure that the law is complied with?

A. It's not that. As I said, for some latent defects, we see that there have been a number of cases in Hong Kong when a chunk of concrete has fallen off from the external wall, because there is spalling, because of some inadequate work procedure. Would you then blame the BD, because they are the supervising department?

There are a lot of construction sites in Hong Kong. It is not practical to require them to carry out inspections for everything.

Q. Well, if it's spalling, then -- well, even if you have done the work properly, you may not be able to spot it.

CHAIRMAN: I agree with what you said, that there are many projects, it's impossible to inspect these sites every single day, but at least there should be some random checks?

A. Well, from the many years of experience I have, I have not seen the BD --

CHAIRMAN: Well, BD may not do it, but that's not the focus

of the Inquiry of this Commission. We will have to --
it is a separate matter.

Counsel is trying to say that the WSD has
supervisory duties. It doesn't really matter how well
the law is written if there is no enforcement. The law
may be perfect, but after, say, a few months, people
find that there is no law enforcement action taken, then
people will not comply with the law. So, when there is
the law, there needs to be a body to enforce the law,
otherwise it will be useless.

If you say you can just park your car on a double
yellow line because police officers will not enforce the
law, do you think anyone will be bothered to find
a car park? So does it mean that police officers will
have to be posted at the end of every street?

So what counsel is trying to ask is along this line.
The Housing Department has their responsibility, because
they are the employer. They will have to inspect and
accept the works. Does it mean the WSD has no
responsibility? There is the law. I agree, yes, it's
impossible for many construction sites to have -- and on
top of that, there are many households undergoing
decoration or renovation. It's impossible to send
an officer to check every single unit, but it doesn't
mean that there shouldn't be any checking at all.

A. We've had some meetings with the WSD, and we discussed about whether to set up a system.

We are licensed plumbers. For minor works, for some E&M projects, then a registered company, a business, will carry out the duty under the system. If there is a system saying that if any irregularity is spotted, you as the supervisor will be held responsible.

CHAIRMAN: Well, this is a different matter, a separate thing. The thing is, even when there is such a system in place as you describe, the WSD will have to make sure that the system is actually implemented.

A. Previously, there was no such system under the WSD, but after the excess lead in water, in July the WSD issued a lot of circulars. They now require spot-checks. There were none but now there are spot-checks, so it's actually done.

MR SHIEH: For an investigation, it may not be just about the incidents. Yes, we know that lead will have to be tested, on top of three other materials. But this time it's WSD; maybe in the future it's some other department. So we have to take a macro look.

HA and the WSD, they have respective tasks. When delivery of material is made, then the soldering material will have to be checked, say for example whether it is actually FRY, and there's an annex

submitted, and if soldering material is included, then people will be aware of that. The fact is, it wasn't. According to the HA, these sundry materials, these filler metals, once it's used, it's consumed, you can't see it anymore. It's occurred to no one that someone would actually do something against the law on such small items. That's why it's not mentioned in any of the documents.

According to the HD, the Housing Department, there is an inadequacy of knowledge, of awareness. So, in relation to some targeted recommendation, you think that there is a perfectly good reason explaining that?

A. Well, there are a lot of people in society saying something that is misleading. It was 8 July when I was first interviewed in relation to the excess lead in water. I was interviewed because I was well known in the trade, and some fellow traders called me and said to me, "For a number of years we've been using the British solder material." Then I said, "What does the box say?" Because I know they are using leaded materials, but in the trade, they think that as long as it is British made, then it's fine.

But in July I was interviewed on television and some people said, "If you use British-made products, you'll be fine", but that is not the case. So a lot of people

have said something that is misleading, that is if you use a British-made product, you will be fine.

Q. People think it's been omitted, the chance was missed.

They all think this was just filler material, nothing big will happen, so I just assume it's compliant, because once it's used, it disappears, and that's more or less what everyone has said.

So what do you say about that? Do you think, well, that's perfectly reasonable because it's a small item, it occurred to no one that something will happen, or is it the case that there is a contractual requirement, and as the chairman said, at least you will have to go through the motions so that people will stay alert? Or is it the case that, no, that's not really the case?

A. I think in relation to these incidents there's certainly neglect, and I'm only talking in relation to what I know. As I said, there was the XRL project 823, for diluting paint, turpentine, and we would invite the owner whether to accept the material. I think it's down to whether the contractor is responsible.

Q. Let's leave the contractors alone, who are maybe ordering the wrong material, I think at the top level.

A. I think what we can all see, I've been in construction sites for many years, for supervisory staff, they are very busy, because they have to inspect and accept a lot

of items. They have to prepare lots of reports. For my construction sites, most of the engineering staff will have to work overtime, uncompensated. As I said, for the West Kowloon, work has not started at all, not even one pipe. But from April to October last year, on average my staff finished work at about 7.30 or even 9 o'clock. They work overtime without pay for two to three hours a day, because there was just too much work.

If someone's responsibility is to supervise and monitor, I think they are simply exhausted.

Q. I understand. I'm not blaming those on the site. They have the list, and if it is not on the list they will not check an additional 10 items?

A. If it's already put in place, then it will not be missed or omitted.

Q. So you think it should be added?

A. Well, if you formulate a piece of legislation for implementation, if you monitor everything -- well, when I was interviewed, very often I was asked one thing. When there is a system in place, what you see is that the site is very busy; you will need to have additional resources.

And I said this at the outset. And these items are inexpensive items, so we never expect someone to try to cut corners in this regard.

It's not that I think it's perfectly reasonable.

I myself do everything in the right way. For some other people, I won't comment. For myself, I have to do what is right by me.

Q. You just comment, but when you are asked, you will say, "Well, what has been omitted?", and if that's really the case, who has neglected their duties, and how come those that are on a higher level have missed that? So please refrain from just talking about what you would do.

A. Say, for example, for bar benders, they use cables, and you know it's very important because it involves the structure of the building. So, for these wires, they will have to be softened by heat so that it would be pliable. But that is not the case for these filler metals. So in practice, can all this be done and maintain cost-effectiveness?

Q. I understand that it may be inexpensive, but if it is substandard, it will affect, say for example, health, or say, for example, if it's not fixed properly the building will collapse?

A. I think public education is insufficient about the excessive lead in water.

Q. Yes, maybe you won't die instantly because of that, you will have to wait for many years. This time, we talk about lead, but next time it may be about some other

heavy metal. So shall we go for cost-effectiveness, or should we value something on the basis of the price?

It's health-related.

A. Before this incident, I had paid little attention to lead in water. After the incident, I searched for the information on the internet, and that's when I found out. As a licensed plumber, what I cared about was to comply with the law and also the requirements in the contract. Every contract will stipulate what to be used. Then it will be approved by the tier above you, as very often they would say you must use the materials in accordance with the instructions of the manufacturer.

As I told you, after the year 2000, I saw in the catalogue of copper pipes that unleaded soldering material had to be used. So, no, there will be no problem if you follow the instruction from the manufacturer. That would be the responsibility of the site team.

Q. So previously you knew about this requirement in law and in the contract, and after the incident you then realised that it's health-related?

A. Well, I knew lead was hazardous to health, but I did not pay much attention to WHO requirements or safety of drinking water require certain things to be done. So we would only follow the Waterworks Ordinance, and we

believed that full compliance would mean everything would be okay.

Q. I would like you to look at AB1. Have you heard of this gentleman called Chan Siu Wing?

A. I know him.

Q. He testified in this Commission some time ago. He is from the Hong Kong Plumbing and Sanitary Ware Trade Association Ltd.

Is your company a member of this association? It's a trade association; the members are companies?

A. Well, both individuals and companies can be members. My company is a member, but it wasn't at that time.

Q. This Mr Chan submitted a number of documents to us. In 1998, the Secretariat of the Trade Association issued this document to its members. It's a circular, a letter to members:

"Connecting copper pipes and fittings for hot and cold water. Please pay attention to the following. Please use lead-free soldering fitting. If you use the end feed capillary fitting, you must use lead-free solder."

Mr Chan could not tell us why they had to issue this letter to members, why it was necessary to remind members. So, towards the end of the 1990s, can you recall whether there was anything special, any special

talking points or incidents, that would prompt the trade to pay attention to these issues?

A. Well, no such recollection. As far back as 1998, I was not a member of this trade association. I did not receive this. If I had received this, I might try to search for relevant information as regards why, but my company -- I was not a member.

Q. And you cannot recall what happened back then in Hong Kong that would have prompted the trade association to issue this letter? Was there anything special to any construction projects?

A. No. Some of our employees who had attended the VTC training courses came into my employment, and I paid attention to the catalogue prepared by the manufacturers. I recall that under BS 1057, lead-free solder has to be used.

Q. Please look at this document. It's a newsletter. It's also from the Hong Kong Plumbing and Sanitary Ware Trade Association Ltd.

This document was distributed in an annual dinner gathering of members, "The development of lead-free copper alloys for use in drinking water applications in the European Union". So, simply put, it's a situation in the EU. Four member states of the EU were planning to promote compliance and safety and the use of

compliant non-lead fittings.

Then we have another one from Joe Ku, a local technical adviser. It's an article on lead-free water supply systems. Also, to cut a long story short, he states here that lead in water can be hazardous, and also the fact that the US has got a law to tackle lead in drinking water, but so far there was nothing in Hong Kong. Then there were some suggestions. That's page 99. You can see the fittings, the photo showing the fittings.

Well, he was not giving a forewarning on the current lead in water incident. He was talking about the US scenario, and the fact that there were laws in the US to tackle lead in drinking water.

Did you attend the gatherings?

A. The first one, yes, not the second one.

Q. During such occasions, they would give you some literature, some documents. Can you recall that you had a chance to read some of these?

A. I attended the first gathering, so I did take that booklet back.

Q. It's a book, it's a publication?

A. Yes, it's a publication. It's about 70 to 80 pages. So I glanced at the topics covered. For example, the standards to comply with. So we will take a glance and

know what standards to follow. Here, they are just talking about some suggestions. But as a licensed plumber, we have to follow the local legislation.

I know who Joe Ku is.

Q. In the second one -- we are talking about the first one, 2014, tab 8.

A. I know who Joe Ku is.

Q. But it was in 2015, the gathering that you did not attend?

A. Many LPs in Hong Kong are knowledgeable. Some are holding high positions, and he is one of them. They are responsible for advance preparation in consultancy firms. They will head waterworks projects divisions in the companies, and they were the people who select the plumbing materials to be used. The consultant's firm would also have access to the outside work environment and not just the Hong Kong local situation, and some would be carrying out different plumbing works in the US, in Europe and the Middle East. They would share the experience gained with local practitioners.

So we joined such trade associations to gain access to information and the practices elsewhere.

Q. So, if there were incidents, you may be prompted to consider whether similar incidents could have happened in Hong Kong?

C A. Yes. C

D CHAIRMAN: Let's return to the 1998 document which Mr Shieh
E has asked you to look at. It's the circular in March
F 1998. You said it was in the year -- or after 2000 that
G you knew about the use of lead-free solder? D

H A. Well, as a matter of requirement, yes. E

I CHAIRMAN: In the Waterworks Regulations, it's still BS 864
J part 2 -- it's set out in the regulations. Do you know
K that in January 1998, by coincidence, 1254/1998 was
L promulgated, replacing 864. So in January 1998, the
M British Standard Institute promulgated that. So you
N doesn't know that at the time? I

O A. No, I didn't pay attention. Actually, it was not
P prohibited. BS 864 was not prohibited. We didn't have
Q to submit information on fittings. J

R CHAIRMAN: You mean soldering material? K

S A. No, fittings. The pipes would have to comply with the
T BS 2871 or other standards. Well, it's not that once
U a new standard is promulgated, all sites would be
V prohibited from using material complying with older
standards. L

CHAIRMAN: Okay. 864 was promulgated in 1983. At first,
leaded fittings, fittings containing lead were allowed;
did you know that? M

A. Well, I joined the trade in the 1970s. For the entire
T

trade, they would buy soldering sticks.

MR SHIEH: Leaded, you mean?

A. We now know, but our masters, our instructors, never said whether it's leaded or not. When I took the licensing examination in the 1980s, we were all using solder sticks.

CHAIRMAN: All right. Understood.

864, part 2, I can tell you, take it from me, that in fact in 1983, when it's promulgated, there was no express requirement, and in fact grade C and D leaded components or fittings could be used. You said the new standards cannot be implemented right away because some people out there are still using standards -- complying with old standards.

We know that in 1987, there was an amendment, that is for drinking water systems, the lead content must be below 0.001 or something like that. But the WSD did not amend the regulations. They only referred to 864-2.

But funnily enough, in the regulation, they said to use the latest one. So which one? So, when I am already doing it, I can continue to use the leaded one or the non-leaded one; do you understand?

Let's first talk about his understanding, because the BS is changing all the time, and my understanding about the reason at that time, in the regulations, it

says "the latest BS". Let's see if my understanding is right, because if it's in the Ordinance, it says BS 1234, then 1234, as we know, will keep changing.

There are many amendments. And if you use BS 1234, then at this time, you will have to use the latest amendment of BS 1234.

However, for the WSD, it's different. BS 1234 no longer exists. It's BS 4567. 867 becomes 1254. Still there is no change. So which one am I supposed to use?

A. As to about which was used, first, we will look at how we see it and what the contract says, and if in the law there is no clear reference as to what is wrong, we will not assume that it is wrong. If it is available in the market, we will purchase what is clearly stated in black and white, say copper pipes. For some main pipes, we will use ductile pipes. I don't know in which year it changed to EN 545. But very often we are still required to use BS 477.

CHAIRMAN: Let's put it this way. I am a plumber. VTC

teaches me to use lead-free, but if I see in the WWO Regulation, it still says 864 part 2, then which am I supposed to use?

MR SHIEH: But if you state it in black and white, I will believe you, I will use this one. I will not check whether it's an up-to-date BS.

CHAIRMAN: There are many types and the WSD did not issue any circular saying, "It's changed, you can't use the first version anymore", because version 2 may say you can't really use it; maybe version 3 will say you can't use it at all. But then you will have to see if the trade can actually catch up with the requirement; otherwise, you don't have to comply with it.

A. But that is the truth.

CHAIRMAN: Then there will be trouble.

A. Our company is also engaged in public works. In 1996, we were already a fire services installation subcontractor. We also have taken up government projects. They are usually very up-to-date. If they say something is updated, then it will have to be adopted.

CHAIRMAN: Yes. The ASD said in 1993 that lead-free is to be used.

A. Yes. We will immediately go to find the BS standard.

Say, for example, the fire station in Tseng Choi Street -- well, there was a requirement to use galvanised GI pipe, and there was a certain requirement to the standard.

However, we could not find the material. It's not available yet.

MR SHIEH: Let's look at lead-free or leaded. Look at the

WVO Ordinance. In the relevant section, there is a British Standard highlighted. We don't know whether it's updated anymore, but you can still see it in the law, and at the same time they say we have to use the latest British Standard.

If I am just a layman, if I see an obsolete BS, I may think I can use it?

A. If you are a big company, then you have an edge.

Q. Why?

A. Because they know how to do research. In the 1990s --

CHAIRMAN: I think he understands.

MR SHIEH: He's someone from a small company.

A. When there is a new standard, some salesperson will come to me to tell me. They will only go to big companies. Well, we are not a big company, but we are known. So whenever there is a new standard, salespersons will call me and tell me about it and ask me to make some purchase.

That's why some LPs know while others don't, because we rely on salespersons to disseminate information.

MR SHIEH: So it depends on who you know, then?

CHAIRMAN: It's the WSD who issues the licence, who oversees the water supply quality in Hong Kong.

MR SHIEH: But do you think this is an acceptable system?

There is one, that is a catch-all, which says you have

to use the most updated version, and then at the same time they say you have to use this BS obsolete standard.

What do you say on that?

A. There is room for improvement. Of course, when something happens, it's about how to improve. Society progresses. Systems are to be improved. And now we see that some LPs can't catch up with the latest information. Perhaps the WSD will have to do a bit more. When there is a new standard, they will issue more circulars to LPs and recognised authorised persons.

CHAIRMAN: No, not circulars, because I don't really believe in things like that. Why don't you just change the laws, stating clearly when it is to take effect, British Standard, say, 1234, effective from which month of which date, which year? That's it.

A. From the legislation that I have seen, it's never said that a for a certain thing, a British Standard is to be used.

CHAIRMAN: Yes, of course, by all means, you use the circular as a supplementary tool. But you can state the effective date. If you think the trade can't catch up, give them a grace period of a year or two. Make it clear, starting from this date, BS 1234 becomes obsolete and you have to use BS 5678. Do you understand?

Apart from the WSD, I think there are BSEs or LPs

who would read the WWO most often?

A. I have never opened the WWO. That is prior to this incident.

For practitioners and stakeholders, it is very important whether they keep abreast of the times. Say, for example, there are some fresh grads joining my company, I will teach them how to use the WSD website, about the WWO, WWR, and also installation standards.

There is transparency in government departments. They have uploaded all the different standards.

MR SHIEH: So is the BS, the British Standard uploaded?

Because it will cost you \$1,000 to purchase the book.

A. Well, I am eager to learn. In the 1980s, I would wonder what a BS is, and I found that I could not find the information in a public library. Where can I find it? In the polytechnic university and HKU library. At that time, my brother was studying in the polytechnic, so I asked him to borrow it and find a way to copy it.

So if you have someone studying in a university, then you are lucky.

So there is very little understanding about the BS amongst the public.

CHAIRMAN: Well, it's more important that the WSD has to make sure that people know.

A. Yes, they do have to tell people what standard is to be

used, but as to whether it is to be written into the law, I have reservation. Because it's very cumbersome to change the law.

CHAIRMAN: No, you are wrong. It's very simple to change the regulation.

MR SHIEH: Yes, if it's a legislative amendment, you may have to go to the LegCo.

CHAIRMAN: But Mr Lai told me that actually it's very easy to change the law.

MR SHIEH: The crux of the problem is that there is a catch-all saying that you have to use the most updated British Standard. However, if there is the latest British Standard issued tomorrow, strictly speaking, you have to use the most up-to-date version. The WSD gives you a grace period. It's because the WSD is aware that the trade needs time to catch up. But strictly speaking, people who don't use the most updated version have broken the law. It's just discretion that they are not caught.

So what do you say about that?

A. I haven't really talked to the WSD about this. If there is a grey area, causing law-abiding citizens to inadvertently break the law, I think there needs to be clearer definition.

Q. So, sampling, I would like to ask you. Paragraph 39,

page 18990.

You said that when it comes to prior to water supply connection, they will have to take water samples in the connecting points, underground, and there were eight parameters, and four added.

We have heard from a lot of people, from plumbing subcontractors, from senior government officials, that in the trade, that is in relation to plumbing, there is this impression. Whether it's right or wrong is a different thing.

The WSD, after examining water samples, would issue a water certificate, 1005. But after this step, is the impression of the trade that the Water Supplies Department has already given you a clean bill of health, that you have complied with the WWR? You are from the trade; do you have this understanding?

Let's leave aside whether this understanding is right or not. The WSD said that it is to check the quality of water sample, but did you know at that time that the issuance of 1005 in effect means the WSD is happy that the entire water supply system conforms with the WWO?

A. At the very early stage, it's my understanding that the WWO is to ensure that there is sufficient quality fresh water supply in Hong Kong.

In a meeting with the WSD, I remember it was as early as 2009, I joined the Smart programme. I have criticised some WSD officers, saying that the WWO was very outdated; some of the provisions are in relation to water rationing, but now we have Dongjiang water, these provisions should be relaxed. I was told there were such provisions in the WWO to ensure continuous supply of quality fresh water in Hong Kong and to prevent contamination of the water supply network. The WSD people were staring at me when I first said that.

So when it comes to test -- well, to flush the system is to prevent backflow of contaminated water.

CHAIRMAN: But when you take water sample, it's one at the water connection point and the other one is to check whether there is a backflow of contaminated water. The other one is at the tap. But that is not to check backflow; it's to check water connection.

A. At that time, we had many meetings with the WSD. And the checking of the connection point would have to be done before the occupation permit. We have to ensure there's no contamination. If it's a big housing estate with many units, you have to flush and clean all the water. You have to buy water, because supply is not yet provided. Well, you have to make sure the water in the pipe is clean.

So we had this understanding with the WSD. That is, at the time when water supply is connected, the inside service is clean, and the samples from the inside service were taken after the issuance of 1005. So, at that point, it's not for the purpose of prevention or contamination but to ensure water quality and also to ensure whether the plumbing contractor has cleansed and flushed the water pipes properly.

Q. After 1005 is issued, then you have to have another test, at the tap? It's not mandatory; it's not a prerequisite or anything.

A. According to the Ordinance and the Regulations, we have to flush and clean, and in 2012 the WSD issued guidelines on how to flush and clean.

Q. It's because of Legionnaires' disease, you were encouraged to do more.

A. And we were given instructions on how to flush the pipes.

So the problem now lies with the inside service. They have clear guidelines on how to clean it and how to do the testing.

Q. I am not looking into the detailed purpose. You know that before issuing 1005, the purpose of testing the water sample for eight parameters is for the purpose of prevention of cross-contamination. We all know, you

know and I know. But before this incident, many people in the trade had the impression that after testing for the eight parameters, they would issue certificate 1005, and that means, to them, they thought the waterworks would be in compliance with the WSD and the law. That's their impression. Right or wrong is another matter.

Did you know that? Did you have that impression?

A. You are asking me what they thought. I cannot say anything that I cannot really prove.

Q. Well, we will know. We will ask them.

CHAIRMAN: An expert is in a special position, in that you can offer your comments. You may talk about the practices or the impression on the part of people in the trade.

A. I have more contact with people who are knowledgeable. For example, Mr Leung, Mr Wong and members of the trade associations and people who attend the seminars, and who have done a lot of site visits. These are the people who are taking on new information all the time.

So I cannot really assume that they didn't know at that time.

MR SHIEH: I have one more paragraph that I would like to refer you to.

CHAIRMAN: Let's leave it to the afternoon.

(1.06 pm)

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

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C (The luncheon adjournment) C

D (2.32 pm)

D MR SHIEH: Mr Kan, I would like to talk to you about two D

E subjects. E

F When you took the licence to be an LP, there was F

G a grade I and grade II. You sat for the grade I exam; G

G right? G

H A. Yes. H

H Q. Did you attend any course of instruction? H

I A. There was no such requirement, no requirement of course I

J attendance. J

J Q. Did you attend any course before taking the examination? J

K A. I didn't. I hadn't, in the first examination. But K

L I failed twice and then I realised it would be better to L

M attend a course first. M

M Q. There were two different grades and now we don't have M

N it, so the system is very difficult, although licensed N

O plumbers are still called licensed plumbers; do you O

O agree? O

P A. Yes. P

Q Q. So, when you attended a course, you were taught to do Q

Q the soldering using solder sticks? Q

R A. During those years, those who took the exam were mainly R

S in the job of jointing pipes. S

T Q. There was no practice, so you were assumed to know it? T

U

U

V

A. In the 1970s, there was no question of lead-free or leaded solder. The first time I took the examination was in 1977. It was not an issue then.

Q. Did you have a practical test?

A. No.

Q. So you were not tested on soldering technique and your instruction programme didn't say anything about that?

A. Well, the instruction was on the Waterworks Ordinance and water installations, and also what to cover in the submission for approval.

There were two parts in the examination. There would be a plumbing proposal setting out the criteria at the examination centre, and we had to design a line diagram in accordance with the criteria. Then, after passing this, there would be an interview. Inspectors of the WSD would ask us questions about the Waterworks Ordinance.

Q. In other words, when you became an LP, there was no course of instruction telling you how to use soldering material, and there was no test on soldering technique. But for you, before you took the examination to become an LP, did you learn to solder?

A. Yes, I learned from people working on the site.

Q. So you had to learn from a master. Did they use sticks?

A. They work for different companies. All of them used

sticks.

Q. So it's a rod-like stick. Is it 50 per cent lead or what?

A. We would buy large quantities of soldering sticks from hardware stores, much bigger than those you see. Then, after buying those, we would melt them and put them in a container. Then we would use an angle bracket to contain the melted solder.

Q. So the shape is determined by the L-shaped bracket?

A. Yes.

Q. The angled bracket would determine the shape?

A. Yes.

Q. In paragraph 38, you said that the workers in your company said the training institute asked them to hold the solder roll in hand in soldering work. So the training institutes, according to your understanding, taught them how to use lead-free solder. What institutions are we talking about; CIC or VTC?

A. It's under IVE. After the year 2000, there were apprenticeship schemes, and we would sign three-year contracts with apprentices. We paid them an allowance and also trained them, so that we could get a regular supply of workers.

On the other hand, we learned from the catalogues with photos and illustrations, on how to use the

lead-free solder.

Q. Let's pause here. I'm talking about training institutions. Where did they come from, those trainees?

A. IVE.

Q. Now I would like to move on to the last subject, last topic. It's paragraph 49 of your report. You have some suggestions for the instruction programmes for the licensing of plumbers. Paragraph 49, you want to propose training courses leading to the award of licensed plumber status. At present, mainly we have VTC; in training the licensed plumbers, mainly it's VTC. Of course, there are other channels. Equivalent qualifications are also recognised. If a young person wants to become a licensed plumber, the first choice is to go to VTC, and also IVE, there are similar programmes?

A. For gaining recognition, for government, you have to attend the three-year course offered by IVE. There's only one such course.

Q. In paragraph 49, the last five lines, you mentioned the Technological and Higher Education Institute of Hong Kong introduced a professional diploma course equivalent to level 5 of the qualification framework, in 2015.

So are you proposing that this qualification be

recognised?

A. After they have completed the course, we intend to ask the WSD to recognise the qualification.

Q. But whether it would be recognised would depend on what contents are covered in the training, and it would take the government to recognise this qualification as one that would be accepted under the law, because there is provision on the recognition of equivalent qualifications, and that is the authority for dealing with LP will have to make a decision on that, and that is WSD. Even without amendment of the law, the WSD can recognise this qualification as equivalent?

A. Yes, that's what we are trying to ask them to do.

Q. Lastly, in paragraph 50, you offer some comments on the HKUST article.

A. After receiving the article, I did call the workers doing the installation in the university and asked them whether they heard about this during their work there, and they said no.

Q. Let's look at the article. It's page 18996.

CHAIRMAN: What's the relevance? It's not really relevant to our hearing.

MR SHIEH: Not really, but it seems like the expert is trying to offer some clarifications.

All right, he has clarified the situation with the

institute, but in this article, there are other points raised. For example, "tilted towards the motherland" is one assertion, and of course we are not using mainland solder.

Please take a look at this article. In the middle part, paragraph 4, it says:

"Hong Kong has a strange system: although we regulate the use of leaded pipes, but there's no need to report the content of soldering material. The most important thing is that in the acceptance tests, they only test for acidity and alkalines or toxins, but not heavy metals."

So it's a rather harsh criticism. What's your response to this?

The writer said the system in Hong Kong was strange. There were regulation, but acceptance test does not cover certain things and no information on certain matters has to be submitted.

A. If you think about it, it's really strange. All along, we have been depending on the trade and the co-operation of the trade, from procurement to delivery to site. So it was strange that we still had an incidence like this.

MR SHIEH: I have no more questions.

CHAIRMAN: Would anyone else like to raise questions? The Housing Department first.

Cross-examination by MR HO

MR HO: Mr Kan, no offence -- can you confirm that you have not undertaken any Housing Department projects?

A. No.

Q. Not since you have become a licensed plumber?

A. No.

Q. Have you done any HA projects?

A. No, I have not formally undertaken any HA projects.

Q. Why do you say "formally"?

A. My company has not undertaken such projects, but I have learned from members of my association that there were such requirements imposed by the Housing Department.

Q. Have you been awarded a project from the government, say for example the ASD?

A. Yes.

Q. Please -- well, I don't mean to offend -- there are four major contractors, main contractors, involved in this Inquiry. Have you been awarded any contracts by these contractors? Perhaps you can name the four contractors.

A. I have got nothing from Yau Lee.

Q. China State, Yau Lee, Paul Y and Shui On?

A. Many years ago, I have got a subcontract from Shui On, but as far as I know, I don't have any direct involvement. China State, no. Paul Y, no.

Q. In your evidence-in-chief, you have been asked about

paragraph 8, by counsel for the Commission. In paragraph 8, you talk about HA projects, public housing estate projects. The nominated subcontractor is in relation to air-conditioning and fire services, but when it comes to plumbing, it's not.

So apart from HA projects, say ASD projects, would that be the same arrangement?

A. Prior to 2014, that was the arrangement. In January 2014, there was a gazettal saying that for public works projects, there should be a nominated contractor.

Q. For HA projects, say fire services or pump systems, there is a nominated contractor. There is a dedicated subcontractor dealing with items, say for example fire service installations and pump stations.

Do you object to this arrangement?

A. No.

Q. After this arrangement, assuming that if your company offers an acceptable price and you are awarded a project by the HA, you as an LP -- would you think that since you are not the nominated contractor, your responsibilities vis-a-vis other private projects is smaller?

A. No, I won't think that. As an LP, the main responsibility is to ensure that the materials to be used comply with the WWO, the WSD's requirements. When

it comes to photovoltaic panels installation, there is no such requirements.

Q. So you would agree that as a professional LP, you do value the licence, regardless of the size and complexity of the project? As long as you are working as an LP, you would have the same sense of responsibility?

A. Right. I act in accordance with the legislation.

Q. Let me explore this point with you. The counsel for the Commission said that officially there is the WSD, a government department, and also the Housing Authority, which is a statutory body. The Housing Department may be involved as well. He said that these two departments have their respective schedules to check the materials.

A. Yes.

Q. It's WWO46, annex 1. In relation to the WSD, you will find the parts thereon. For the HD, you said you don't know very well about the arrangement. But we know that the HD has their own list.

Counsel asked you whether you think that in the vetting of the two lists, both parties might have missed the opportunity to find whether there is any problems of possible use of leaded material. The counsel asked you whether the chance has been missed.

A. I agree.

Q. You said that even without the material list or

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

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C schedule, had the people on the site been responsible C

D and performed their duties properly, they would have D

E made sure that compliant materials were used? E

F A. As I said, for other projects, I would even submit F

G samples of screws. Everything should be done properly. G

H Q. Whether it's a subcontractor or a licensed plumber, if H

I they have performed their duties, they would be able to I

J make sure that compliant materials are used? J

K A. Right. K

L Q. Even if there was no such mechanism to do that, there L

M was a mechanism to check when materials are delivered, M

N the delivery note. In relation to a plumbing N

O subcontractor, when there was a delivery, who would the O

P delivery note be sent to? The main contractor? P

Q A. Yes. Q

R Q. So the main contractor will be able to pick up any R

S irregularities? S

T A. Right. T

U Q. So, in a project like this -- so there is more than one U

V stakeholder. It's not just them, the government V

department. There are many stakeholders in a project?

A. Right.

Q. That includes the main contractor?

A. Yes.

Q. Just now, you were asked, if everything had to be

checked, it's not really feasible; it's not really feasible to check everything. That's in your opinion; right?

A. I think it's a matter of cost. It's a cost consideration. If everything is to be checked, you will have to have proper record to show that that's already been checked. That involves people who are responsible for filing, for preparing reports. So should minute details be covered as well? That may be quite tedious.

Apart from government housing projects, there is a huge share of housing projects in the private sector. Everything comes from the same party. If that is to be done, then costs would be shifted onto -- would be reflected in the prices of properties.

Q. Whether it's a statutory requirement, you, as a licensed plumber, are the one at the forefront, who has to make sure that materials comply with legal requirements.

Well, you are a licensed plumber. You are a subcontractor. You are the owner of a company. But there may be licensed plumbers who are simply employees. Would there be a system?

A. Every subcontractor should act in accordance with the contractual requirements and the law.

Q. So there is the main contractor, and above there is the developer; do you mean that?

A. Yes. Every stakeholder should bear their own responsibility.

Q. So, by duplication, you mean of course the frontline party would have to make sure that materials comply with the law and the contract requirements. It may be supervisor, then the supervisor supervises that, and that would be the main contractor. And above that, that would be the developer. The developer would be the supervisor of the supervisor of the supervisor.

You said a duplication. You would not think that the top-most supervisor should oversee everything?

A. But as I said, apart from inspections, we have to do lots of documentation.

Q. By "we", you mean licensed plumbers?

A. Yes. Say there's a requirement for copper pipes, we have to make submissions showing that it meets certain standards. We have to document our materials. And if there is supervision and monitoring, there would be some measures. So is it the case that every single item would have to be regulated?

Q. "Main material", what do you mean?

A. Material related to the structure. Everything is regulated. Say, for example, cement, steel bars, but not the wire or the earthing, the earthing wire. But it's related to the earthing wire.

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

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C Q. Should that be regulated as well? C

D A. But when the earthing wire is delivered, someone will D
know.

E Q. You said that's why there needs to be public education? E

F A. Right. F

G Q. You said that it will not be feasible to check every G
single thing and every single layer, so public education
is important? H

H A. Well, there are different stakeholders: The main H
I contractor, residents, engineers, representatives of the I
J building services companies. There will be irregular J
inspections on different floors.

K So you actually see the work of workers. If you are K
L familiar with the project and if you have the L
M catalogues, then one look suffices; you will know M
whether the work being done is compliant.

N Q. Prior to the incident, you have been in this trade for N
O a very long time, yet you were not particularly O
concerned about lead in solder material.

P You know that leaded material should not be used in P
Q soldering materials? Q

R A. Right, but I have not actually thought anything to it. R

S Q. Well, whether lead affects water quality and whether it S
affects health, you think there should be enhanced
T public education? T

U

V

A. Well, if you talk about lead in water, you are not talking about engineering anymore. We need to tell stakeholders what materials are compliant materials. But we don't need to teach them the details as to the content of lead allowed. We should tell them that as of a certain date, leaded materials should be banned.

Q. We all know that these materials should not be used?

A. In many interviews given, after the incident, I said so, and I have been criticised by workers that they have been doing this. They insist that what they were doing there is correct. And some people told me that it's okay, it's British-made solder. I said, well, 99 per cent of those materials will be problematic, if you are talking about British-made solder.

MR HO: I have no further questions.

Cross-examination by MS LAM

(Questioning in English)

MS LAM: I represent China State. I will be asking you a few questions in English.

CHAIRMAN: You understand the question? You don't need to have the headset.

You can use the headset for interpretation. It's up to you.

MS LAM: Mr Kan, we know that you are very, very familiar with the form WWO46, and we know, under part 1, that is

to be filled in by the licensed plumber. There is an annex that shows details of all the pipes and fittings intended to be installed; right?

A. Yes.

Q. I would like to ask, in your experience, as a matter of trade practice, is it common for plumbing materials eventually used on site to be different to those listed in the original annex that was submitted under part 1?

A. In the trade, after the submission, after the approval is granted by the WSD, and also the owner, the supervisors have all given the approval, the licensed plumber would not use anything other than those, because if you use other materials, the owners would fail to -- could decide not to accept the completed works, and you have to dismantle everything. I don't think any contractor would like to shoulder this kind of responsibility.

Q. So my question is, if for one reason or another, a change of materials was required, whether because of the works or whatever, then what would be the procedure?

A. I can give you a real example to illustrate. In 2006, I was involved in an MTR property development. There are many phases. I was responsible for the underground main pipe. It's as big as 600 millimetres in diameter. The construction period was three and a half years.

After being awarded the contract, we submitted all the materials for approval. After the approval, we submitted the WWO46 to the WSD, and subsequently got its approval. Then we started to procure materials.

The materials were only delivered two years later, so when it was time for us to really dig up the road for laying of the mains, the supplier told us that the manufacturer was no longer making those, so I needed to change the materials to be used.

There was a contract with the supplier, so we referred to the contract, and we told the supplier to issue a letter, to certify that the materials were no longer available. Then I informed the stakeholders and the main contractor that this had happened. So we would then propose equivalent materials with different brands, which were also approved by WSD.

Q. Just pausing there; when you say has been "approved by the WSD", do you mean it is one of the items that is already on the list of approved materials which you can find on the WSD's website?

A. Yes.

Q. Thank you. Please continue?

A. After getting the agreement of the owner for the change of materials, then we would ask the supplier to provide the spec and also to show that those materials reviewed

the latest BS, and the information was given to the owner for approval. And also it would be given to the WSD and then we would amend the annex to the form, setting out the new materials to be used.

Usually, the WSD would be able to give us approval within ten days.

CHAIRMAN: It happens, but not very often, I suppose?

A. Not very often. I use this example because in that project, I used different valves. There were changes in two exercises, and I was informed that for a particular brand, the manufacturer had stopped. Then I switched to brand B, and by the time I placed an order, because it was a new production line, I was not able to get sufficient number. Then I had to switch to C later.

MS LAM: So the responsibility for submitting an updated annex would fall on the licensed plumber; is that correct?

A. Yes. It's the work of the LP.

Q. As a matter of practice, after you submit the revised annex, what happens next? Would you then expect either a verbal or written approval from the WSD?

A. If something is suddenly out of stock, something that is not commonly used, the pipes we use are of smaller diameters. Very rarely would they be more than 150 mm.

So, in the example, it was 400, 600 mm pipes.

Usually, there's no stock in Hong Kong. We have to place an order for import. So, once the owner gives the approval, we would place an order, and we have to make sure that the material is in the list of the WSD.

Since we use the listed material, it won't be rejected.

Q. In other words, if it is already on the WSD's approved list of materials, you would expect WSD to have no problems with the proposed change; is that correct?

A. Correct.

Q. Sorry, my question before was: would you then expect the WSD to formally inform you, whether in writing or orally, that, yes, your proposed change of material is fine?

A. After the WSD has received our notification, it would certainly reply in writing. For the completion report, the department would refer to the latest updated annex for inspection.

MS LAM: Thank you very much.

CHAIRMAN: Mr Li, at the back.

Cross-examination by MR LI

MR LI: I represent Yau Lee. I want to ask you some questions.

This morning, Mr Shieh asked you about your procurement orders placed with Prosperity. For how many

years have you been dealing with Prosperity? When did you start?

A. From my memory, it's over ten years.

Q. So it's 2005-06 that you started to have business dealings with them?

A. We also purchased sundry items from Wo Hing. There is an account executive of Wo Hing who used to deal with our business, and then later on he went over to work for Prosperity. Since the prices were basically the same, and the service he gave was okay, so we placed orders with him.

Q. So it was this Mr Cheung in Prosperity who handled your orders?

A. Well, later he also changed jobs, and then he sold valves instead of sundry items.

Q. So you placed your orders with Prosperity. You would say you need lead-free solder wire?

A. Usually, it's in writing. We would place an order by fax or -- we used to use fax. Now it's mainly through WhatsApp. We would WhatsApp Prosperity on what we need.

Q. Did you use the telephone to place orders in the early days?

A. Yes, occasionally. Usually, it will be the site foreman who requires something urgent, something suddenly is in short supply, and then he would call the supplier. But

the procurement is mainly done by the main office.

Q. When it comes to procurement of soldering wire, would you buy both sticks and wire for soldering at the same time?

A. We started to use paste and solder sticks in 1994, and we found that to be satisfactory. In the past, we used flux and solder sticks, but we need to melt the solder sticks; a lot of preparation was needed before use, and the flux has disadvantage. The flux will not enable the solder to enter the joint quickly. But for the paste and wire, it was easy, as demonstrated by the salesman.

Q. So, in 1994, you found the solder wire very convenient?

A. Yes. No need to melt the stick.

Q. Is the one before you used in a similar way?

A. Actually, it's this one. (Indicating).

Q. So you have been using this for many years?

A. Yes.

Q. If it's in a coil -- we have only got this solder wire -- are we talking about the same solder wire?

A. I'm not sure how many brands were available, but when the salesperson introduced this product, it was this one.

Q. Did you have any personal experience or your staff have some experience that in communicating with Prosperity, Prosperity would know what you are going to use the

solder wire or soldering stick for?

A. They only buy one product.

CHAIRMAN: The question was asked this morning.

MR LI: Did they know the purpose or the use of the solder wire?

A. Yes. After the contract was awarded, we would do the

submission, and we will ask the supplier to provide

samples. I've got some photos with me. We have

a sample board, and the supplier had to provide the

material. We would enter into a contract with the

supplier. We would also inform the supplier the

specifications. The information would be sent to the

supplier, by fax, WhatsApp or email.

Q. That would include the soldering material for drinking water pipes?

A. If it's specifically written in the contract, then yes,

it would be submitted. In the past, there was no

specific mention of that in the contract. Well, there

are more such occasions in recent years. Not as much as

before that. But we would tell the hardware store, say,

for example, what type of bracket -- what type, say for

example the specifications of the actual material, size

of the screws, the materials of the screws; we will tell

them.

Q. Well, you tell them that it is for fresh water supply,

then they would know?

A. Right.

Cross-examination by MR LEE

MR LEE: If the question has already been asked, please let me know, because I wasn't here this morning.

I represent the victims.

CHAIRMAN: I don't think you can do that because I would be doing your job.

MR LEE: I thought you would just stop me.

CHAIRMAN: Yes, of course I am perfectly able to stop you.

MR LEE: I only ask you to do something you love to do!

First, some awkward questions. You are here as an expert. Who contacted you in the WSD?

A. There is an engineer telling me that the WSD -- no, the first phone call was the assistant director.

Q. What is the name?

A. Lam Ching Man.

Q. You are very familiar with this assistant director?

A. As I said, in 2009, I attended WSD meetings, and usually they were attended by assistant directors or directors.

Q. So the first contact made was to ask you to be an expert?

A. Yes. It was said verbally that they intended to ask me to be an expert, asked me if I would turn them down. I said, if necessary, I would be an expert.

Q. Did they tell you more or less what you would be saying?

A. They told me that I would be talking about the operation of the trade, and comments on the licensed workers.

Q. Is that all?

A. The procedures that we have to do under the Ordinance, say 46, how it's filled in, what we do when it comes to an amendment, to explain whether it can be amended.

Q. You have covered a lot in your statement. Did they tell you beforehand that they would like you to give expert opinion on these areas?

A. The time when the scope was given to me was in December, when I was sent a letter by the D of J, to ask me to make a statement. I was in close liaison with the WSD. With the excess lead in water incident in July last year, the government wanted to group together representatives of different areas, to give advice to the WSD. We have given a lot of comments on many different areas.

Perhaps they thought that I have done a lot of interviews and they have seen them, and they thought I could speak as a representative of LPs.

Q. But you were interviewed by a journalist?

A. Yes.

Q. Why?

A. No specific purpose. It was the beginning of July, when

the incident was full-blown. On 8 July, I arranged a meeting with Ko Chan Gock, Professor. He was a convenor of the five associations. He was the former director of the WSD, and the convenor will call different parties to talk about various areas, say for example public education or publicity.

Q. But what was the purpose?

A. The meeting was to ask the different parties to think about why there would be such an incident, after having read the report, and how we should respond when we are asked questions.

As you know, as I said this morning, there are different stakeholders amongst the LPs. As the chairman said, some would say they don't know English, and some say Joe Ku will publish technical articles, say for example, in writing about the use of the latest technologies overseas for the different institutes and associations to read. There are representatives from labour unions, from chambers of commerce, from institutes.

So we got together to talk about the line to take and how to answer questions. They found that I started to work in this trade, in a construction site at the age of 15, and I am in such a position and I could actually answer everything.

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

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C So the five associations appointed me to be their C
spokesman.

D Q. So were you the spokesman for the trade? D

E A. At that time, yes. E

F Q. "The trade" meaning LPs? F

G A. That's included. G

H Q. What else? H

I A. There are five associations. Let me tell you about the I
five associations. That is the Chartered Institute of H
Plumbing and Heating Engineering, Hong Kong branch; the I
Hong Kong Plumbing and Sanitary Ware Trade Association J
Ltd; Hong Kong Institution of Plumbing and Drainage Ltd; J
K Hong Kong Licensed Plumbing Professionals Association K
L Ltd and Hong Kong Waterworks Professionals Association L
Ltd. L

M Q. Are they the same or similar to the work of licensed M
N plumbers? N

O A. Related but not similar. O

P Q. Corresponding, or on the opposing side? P

Q A. What do you mean? Q

R Q. That means there is conflict of interest in relation to R
the five associations. R

S A. That depends on your angle. S

T Q. Well, at the very beginning, the government has put the T
blame on licensed plumbers; you know that, right? T

U U

V Transcript by DTI Corporation Asia, Limited V

A. I do.

Q. Is that one of the reasons or one of the major reasons why they got you to come out to speak?

A. I don't think so. On the first day when I was interviewed by reporters, I was asked whether I agreed that the WSD and licensed plumbers are responsible, and I agreed, because we represent the site to liaise with the WSD, and we are asked to install plumbing systems. So we can't shirk the responsibility or dodge it.

Q. So, when the government pointed the blame to licensed plumbers, you think it's right?

A. It's not really that. I do agree the viewpoint that an LP has responsibilities to bear.

Q. Does it mean that you have to be responsible for the excess lead in water incident?

A. Well, the licensed plumber has to bear a legal responsibility.

Q. You do think so.

You have done projects in relation to plumbing for XRL and now West Kowloon. They are major projects?

A. Not that big. I think it depends on how you define it. Say, for the XRL project, it's 1.4 metres -- to relocate a 1.4-metre pipe. Normally, people don't know about the requirements and specifications. We have to take into account the WWO and the WWR. There is also the main

C laying handbook of the WSD.

C

Q. This handbook, can you tell me the name again?

D A. Main laying handbook.

D

E Q. M-a-i-n?

E

F A. Yes. It says the waterworks main -- it's a manual for
the laying of this pipe. You will have to know about

F

G the requirements before you know what to do. Not many
H plumbers know about this. Well, I have dabbled in
different areas, so I was willing to take that up.

H

I Q. So did you have to submit a tender, to win it?

I

J A. Yes, yes.

J

Q. So were you invited to submit a tender?

K A. Yes.

K

L Q. How many were invited?

L

M A. They wouldn't tell me. But basically, main contractors
will not just find one person to give a quotation to do
N the job.

M

N

O Q. So you have to do a lot of detailed work, preparation,
and submit the tender?

O

P A. Yes.

P

Q Q. What about West Kowloon?

Q

R A. Sorry, what do you mean by "major"? For the 823, my
project is only 4 million. That's for the XRL project.

R

S Q. You said "only 4 million", so you do think that
T \$4 million is a small sum?

S

T

U

U

- A. Well, we use the contract sum to define the scale.
I think it's small. Even for West Kowloon, for the plumbing contract, it's 29 million, and in my eyes it is not big, because for a Housing project, that would be at least 80 million, so how can you say it's a big one?
How do you define "big"?
- Q. What about you?
- A. I don't think that's a big project. There is a certain degree of complexity, and some representativeness.
- Q. Are you top-notch of this in your trade?
- A. I don't think so.
- Q. Not many people would know what to do.
- A. I might have read a lot of books.
- Q. For general licensed plumbers, you say some of them don't even know English. They wouldn't dare to submit a tender for these big projects. You can't talk about everyone, paint all of them with the same brush.
- A. But some of them don't even know English. Main contractors, some of them will recruit their own BSE, licensed plumbers, and they would contract out the work to some smaller companies.
- Q. What about re-plumbing? That means those that you do personally was just on a day rate. So whether you are a boss or you are an employee, you are still an LP, but there's a big difference. For those who are receiving

a daily rate, how much would they earn?

A. In my statement, it says that a real licensed plumber working on a daily basis, receiving a daily rate, is rare, because if you have got the qualification, there are two groups of people: members of the institute, supervisors. They are recruited by consulting engineering companies, working in supervision.

For those who are sole proprietors, they may have their own plumbing companies, taking up business from the general public or in housing estates. They may employ workers.

For those that are working on their own, with no employees receiving a daily rate, I don't think there are many.

Q. But there is grandfathering. You didn't have to actually train in a course at the very beginning.

A. I wouldn't say that. I learned in 1972, and at the time when I joined the trade I was aware that a lot of plumbing companies, they were licensed plumbers.

I really don't know what you mean.

Q. Well, for large companies, they have their own big company, for smaller scale, they have their own shop.

That was the case. But what about now?

A. Licensed plumbers, nowadays, if they are determined to learn after they've got the qualification as licensed

plumbers, they will, on a small scale, be a subcontractor or work in a large plumbing company or in a large company, to be part of the management.

In the 1980s, Hongkong Electric, MTR and China Light & Power and big organisations such as HKU and CUHK would employ licensed plumbers for day-to-day maintenance work.

So these licensed plumbers didn't want to do the job as workers all the time.

Q. You have already been asked whether the licensed plumbers should do the job themselves. For those running a small shop, doing repair and maintenance for the residents nearby, how much can he earn a month?

A. I have no idea.

Q. What about the big ones?

A. I only know the amount of contract we can handle daily in my company. As contractors, we need to be equipped with a number of competencies. Apart the skill set, we need to have other conditions met, to support the carrying out of the contract. For example, we had to handle the interim payments, we had to buy the materials and then apply for payment or reimbursement later.

Q. You know, in Hong Kong, the construction industry is a system with contractors, subcontractors and sub-subcontractors. One can never tell the number of

layers of subcontracting involved?

A. Well, my company, Merry China, was set up in 1995. We are entering our 21st year. When did we start to subcontract some of our works? Well, we did it the first time in 2008. It was a contract for manpower only. We purchased everything, down to the bolts and nuts.

The second outsourced contract was done in 2010. So it was not common.

Q. So you have said you have just done it twice. You rarely subcontract work to other subcontractors?

CHAIRMAN: You don't have to ask him such questions.

MR LEE: I am talking about the bottom layer of subcontractor. If a job is given to him, he may just get a meagre sum, at the very bottom of the chain.

A. You can say that. If you are a subcontractor with the necessary skills and knowledge, you would be able to make the calculations to see if there's a profit to be made.

I set up my company, Hugo Engineering Company.

I undertook a contract for a big project.

Q. Well, you are successful. Don't be shy. What about those less successful? They have to make a living. They are unsuccessful people. Maybe you can call them failures. They will save whatever they can, in terms of

the use of material; would you agree?

CHAIRMAN: Mr Lee, I think you should ask questions in context.

We have heard so much, throughout the Inquiry, so I accept that in certain projects, projects that we need to discuss, as you have said, have works undertaken by sub-subcontractors. But if you look at the level of the licensed plumber, actually only three licensed plumbers are involved: Ng Hak Ming worked for Ming Hop and Yau Lee. Cheung Tat Yam is a proprietor. Lam Tak Sum, we know him, so no need to repeat.

So these three licensed plumbers -- and your questions are not really relevant here.

MR LEE: But the third item of your terms of reference is about the entire Hong Kong. It's not just about these three licensed plumbers.

CHAIRMAN: You are asking questions about licensed plumbers. Of course there are successful licensed plumbers and not so successful licensed plumbers. Mr Ho Man Piu said, in Ho Bui Kee, there are a number of licensed plumbers who are actually doing the job of skilled workers.

MR LEE: I can change to another topic. I can change the topic.

You said on two occasions you outsourced the work to a subcontractor, and you purchased everything, down to

the screws, bolts and nuts. So, if the subcontractor employs someone to help him and he also works himself, the materials would not be purchased by the subcontractor.

If the subcontractor gives the workers leaded solder, what would happen?

CHAIRMAN: Then the workers would use the leaded solder.

MR LEE: He is saying that the workers should inform the government.

A. Those who are really doing the installation and the work are not the licensed plumbers. They may be registered plumbing workers, I mean registered with the Construction Industry Council. They may be skilled workers in plumbing work or semi-skilled workers. They might not have been trained to learn about the Waterworks Regulations and installations. They would assume that whatever the foreman gives them would be materials approved by the site.

As I have said, the contractor would have to shoulder the responsibility. If something has to be dismantled after completion, the costs of soldering material is just 0.2 per cent of the contract sum. For a contract worth \$10 million, I would spend 20,000 on soldering material. When we are awarded a contract or when we enter a bid, then you have to attend

an interview. The government -- the Housing Department would ask you to reduce your quoted price. But in the private sector, from the first interview to the last interview, you have to reduce the tender price a number of times.

Q. That's precisely because of the reduction in the quoted price. You have to find ways to achieve savings elsewhere.

CHAIRMAN: I think the question should be phrased like this.

We know one or two plumbing subcontractors, after taking on such jobs from the Housing Department, then for each unit, they are supposed to cover everything -- soldering material, and so on. Basically, they are paid on a per-unit basis. Say \$3,000 per unit. You don't cover anything on the ceiling, on the external wall.

Everything inside the flat is covered, including the solder material, sundry metal items. For Kai Ching Estate, the contract is \$52 million. Let's assume that it's 50-something, \$50-odd million, and when it's time to pay the sub-subcontractor, he only gets \$3,000 per flat, per unit, and one man said that earned nothing after completion.

Of course, Mr Ho Man Piu would not care for such meagre amounts. It's nothing to him. It's just a little bit of saving. But we heard from a man who is

now working as a plumbing worker. He carried out a subcontract project, and ended up earning nothing.

To you, maybe the sum is not something that you need to achieve in saving. But you know Housing Department projects would be awarded during different phases of the economic cycle. Sometimes you would not just accept contracts at cost or sometimes below cost, at a loss; and you have no choice.

A. Thank you, Chairman. As a responsible contractor, do we accept a contract that would incur a loss? Yes. But we would still insist on doing the right thing.

I was also a sub-subcontractor once. It was in 1995. I took up six contracts in the airport, including the ground transportation centre and the Tung Chung MTR station. I was not the main contractor for the Tung Chung MTR; I was a subcontractor to an E&M contractor. I took up the plumbing part. All the main equipment, the pumps, the circuit boards, and so on and so forth, and the meters, were supplied to me. I was only responsible for the pipes and sundry items. The contract sum was \$2.8 million, and I ended up losing \$800,000, in terms of material, not counting manpower. It was tough, but I insisted on complying with the contract, and the Waterworks Ordinance.

There were arguments with the owner. The owner was

MTR Corporation. The MTR said that they would not check the underground pipes, or there was no inspection needed for the underground pipes. I said I would then have to inform the WSD.

I was somewhat tricked by the MTR. I lost \$800,000. After work was completed, one day an engineer from the MTRCL thanked me for insisting on making the pipes available for inspection. I have heard -- I don't know whether it's real -- afterwards that the main laying equipment -- the main laying contract undertaken by Shui On -- they covered the pipes. They did cover the pipes. Then WSD found out and the pipes would have to be dug out, costing millions.

So that's why the MTRCL engineer thanked me for that.

So the contract sum is irrelevant, as far as complying with the rules and regulations is concerned.

Q. I must say I appreciate your conscience. You would insist on doing the right thing, even though it's going to make a loss. You are therefore a successful PL.

What about those who are not as successful as you?

CHAIRMAN: It's just common sense. These people would be facing economic pressure. The question is how much economic pressure can one withstand.

MR LEE: To put it in a general term, in this trade, you

can't say everyone is successful; right?

A. I am an unsuccessful example. I think it's whether you insist or not. In the year 2000, I was nicknamed "poor licensed plumbers", because I suffered losses in all the projects and I don't have a penny to my name.

Q. But in the end, you were quite successful. You are successful. I congratulate you.

Let me ask you some other questions. This excess lead in water, it was discovered in July last year.

Were you surprised?

A. I was a bit surprised.

Q. Because you did not think there would be any problems?

A. I thought that there was one estate that was affected, and I assume the majority of people are law-abiding.

That's why the associations sat down to talk about safeguarding the image of licensed plumbers, for just a few people who are unscrupulous, I mean vis-a-vis that incident.

Q. You think that licensed plumbers in general are law-abiding, and you wanted to disseminate the message to the public that not all licensed plumbers are like that. That's why you were interviewed by the press.

In 2000, you said you knew leaded solder material was not to be used. But did you know why?

A. I did not look into that. We work in accordance with

the requirements under the WWR, and the catalogue supplied by the supplier says that it is BS EN 1057, then lead-free material has to be used.

Q. So, when you read the catalogue, did you know there were leaded materials in the market?

A. I knew when I joined the trade. It's just your selection of material. In 1994, material used by the company was changed, and I did not give it any thought, as to why there was a change, because I had used it for many years.

Q. When did you join the trade?

A. I was an apprentice in 1972, in fire services installation, and then I changed to a different company.

Q. So in which year did you actually join the trade?

A. You mean plumbing? Well, 1973.

Q. You said in 1994 there was a change -- change of soldering material?

A. Change to this soldering material.

Q. What about before that?

A. Well, solder sticks were bought.

Q. Prior to that, it was still leaded, and then it was later changed to lead-free?

A. It's not because it was leaded that the material was changed. As I said this morning, I found that this solder material is really good, because it didn't take

much skill or training. Let me say that Mr Lee or perhaps a teenager would be able to learn if I teach him for half an hour.

Q. I think I would need longer!

So you find that this lead-free material is very good to use?

A. Yes.

MR SHIEH: This morning, we did not ask about the solder material, that is at the solder ring, whether it was leaded or not, prior to 1994.

MR LEE: Thank you.

In 1994, for some reason, the material was changed.

CHAIRMAN: It's not "for some reason". The reason is known.

MR LEE: You knew that lead-free material was not to be used?

CHAIRMAN: Don't ask. Don't go there, please.

MR SHIEH: (Chinese spoken).

MR LEE: You talked about public education. When you spoke to your fellow tradesmen, some criticised you?

A. Yes.

Q. Why? They thought leaded material was better?

A. I have no idea why they said that. I said if you were not trained the proper way -- some workers were trained in IVE, CIC, but there are some that are not trained properly. They join the trade, they follow a master in

a plumbing company and they just follow what the master does.

Q. So, if the master uses leaded material, then that would be used?

A. No one would be told the difference between leaded and non-leaded soldering material. The most important thing is whether it's easy to use. I think it's better to actually see it at the site, the difference between leaded and lead-free material. When I joined the trade in 1972, with my own eyes I do see that leaded solder material is not easy to use, because it's a thick stick. We work in a confined space. It's just about 22 millimetres or 28 mm. If you carry out a thick stick, a lot of it will drip onto the floor.

CHAIRMAN: Thick -- you talk about the earlier ones?

A. Thicker than the lead-free wire (indicating).

CHAIRMAN: That's not that thick.

A. In the early days, it's very thick. If you buy 50 per cent lead, it's very thick, thicker than this.

CHAIRMAN: This is 50 per cent lead.

A. Is it? No, it's not. I have never bought it before. I have never seen it. From photographs, it seemed to be like a bar.

CHAIRMAN: No, this is 50 per cent lead.

A. I have only seen it in photographs. I have never

seen it.

MR LEE: (Chinese spoken).

CHAIRMAN: We are not trying to sell it. Your experience is that leaded stick is difficult to use, but as far as we know, they have been purchased in bulk for Kai Ching and some other housing estates. So it's not as difficult to use as you imagine. And they have improved too.

MR LEE: So you now understand why they criticise you, some other licensed plumbers, because they think it's easy to use?

A. Some think it's easy to use. Well, horses for courses. When I started the company, to now, I have employed a lot of workers. They don't just work for me; they work in other sites. After the incident, I have been told off a lot, saying I was talking out of my head. I have been asking my workers, my workers working outside, whether leaded material is easier to use, but all of them said no.

After the Chinese New Year, I arranged with the WSD for a partial inspection of concealed pipes at Queen Mary Hospital project. I did not ask my workers to stop working. There were three Waterworks inspectors. They stopped and watched whenever they saw soldering being done, and they asked a lot of questions.

The impression I got was there were about six or

seven soldering parts hung on the ceiling, and it only took six to seven minutes to complete the process. The press said, for lead-free, it will take so many minutes; leaded, so many minutes. But I don't think that is the case. I watched my workers.

Q. But surely leaded is cheaper?

CHAIRMAN: No need to ask this question.

MR LEE: But you know; right?

A. I did not look into it. Since I have confirmed that this is easier to use and it conforms with the WWO, why would I not use it?

Q. So even when the compliant material is much more expensive, you still use it?

A. Of course. As I said, in plumbing works, I will submit even when it's just one small screw. A reporter has come to my company, and I have a warehouse that is over 1,000 square feet big, and they stumble upon a screw, and you see it's been stamped with a brand.

Q. Then why do you think people would criticise you?

CHAIRMAN: Sorry, I have to stop you because it's nothing to do with his expertise.

MR LEE: With the Queen Mary project, who were they?

A. Waterworks inspectors. I did a partial inspection. There were three floors, and it's something in relation to some work.

Q. Prior to July last year, have you seen so many people watching the work process?

A. Sometimes one, sometimes two, and there has been three.

CHAIRMAN: What about inspectors from the WSD, watching you work?

A. No, just for inspection. It was part for partial completion. I told them that there would be three floors, that the top layer will be laid. So they need to have an inspection. So it's an interim inspection. That is before the plastering is done.

MR LEE: In the past, when you were doing soldering work, they never sent anyone to watch you?

A. Let me clarify. I did not ask them to come to watch soldering. I asked them to come and conduct an interim inspection.

MR LEE: (Chinese spoken)?

CHAIRMAN: Mr Lee, "no" is the answer. According to Mr Kan, there is no need for the WSD to monitor.

MR LEE: Although you insist on complying with the law that it should be lead-free, but to your understanding, a lot of people don't share your view. They use leaded material. Can you say that?

A. Let me put it in a different way. In my understanding, the majority of the people are law-abiding. You asked me, after the lead incident, whether I was surprised or

shocked. I was, because it's an inexpensive item.

I wonder why people would cut corners. So I call my fellow tradesmen in the associations and institutes as to why it would happen, because I was surprised.

CHAIRMAN: Perhaps you are already on a different level.

Because if you are super-rich, compared to us, it's a big difference. So it depends on how much money you have. If you are a businessman, if you have a lot of money, then things are different to you. You are saying that there should be ethics. But when there is financial pressure -- we have seen a lot of cases in the High Court. We have seen cases of how people react to pressure.

A. I was called down to luck in 2000. I had to support my company's operations by selling my flat.

MR LEE: You had a flat to sell to begin with.

You said most people should be law-abiding. Should be. But as a matter of fact, not many people are law-abiding?

A. In my understanding, I thought most people were law-abiding. From what I have heard, most of these people thought they were law-abiding, because they were using British-made solder.

Q. All right. It's British made, it's BS; they thought it would be okay.

I have to check the sequence.

Plumbing subcontractor. Mr Kan, we know that lead is found in drinking water. That is, the water up the pipes and through the pipe, some lead is dissolved, and then when you turn on the tap, the consumer would be affected; you know that?

A. Yes.

Q. It has to do with workmanship; right? Is there a difference, whether the workmanship is good or not?

A. Well, it was raised by the media. It was said that the wrong solder was used, a lot of lead was released, leading to contamination. First of all, they used non-compliant material, so that more lead was leached or dissolved. If the workmanship was good, then the contact surface would not be big enough to cause the problem. I told that to people from the radio and from the papers.

Q. So, if the workmanship was good, not so much lead would be released; correct?

CHAIRMAN: So it's important to hire the people with the right skills? I heard you say on TV that you suspected those workers had never been properly trained.

MR LEE: There's a body of opinion, if I may put it like that, that this excess lead in water should mainly be attributed to the fault of the licensed plumber. Do you

agree?

A. The main responsibility rests with the licensed plumber,
I agree. Under the law, the licensed plumber is
authorised to carry out plumbing works. When he signs
the WWO46, he signifies his willingness to shoulder the
responsibility, to make sure that suitable materials are
used and that the installation would be carried out in
accordance with the WW Regulations.

Q. But as you said, people thought that using British-made
material would be good, or good enough. What about
50 per cent lead solder?

A. So there was no proper instruction given to the workers.

Q. So there's a lack of instruction or education. We know
that although it's British-made, 50 per cent lead solder
wire --

CHAIRMAN: We have heard from the media that there is leaded
solder manufactured in Germany. It's available all over
the world. According to Prosperity, there was leaded
solder from the mainland. Then came the British-made
ones.

MR LEE: So people thought that it's okay, because it's
British-made.

A. So that's why in my expert report I said we should
target public education. We should inform the public
what is the right thing to do. I employed fresh

graduate engineers. I always tell them to type WSD, to access the website of WSD, and then you can find the relevant information on all the requirements, and then they were able to acquire all the necessary skills after working on the site.

Q. So you have to tell them that, "Don't think that it's lead-free if it's British-made"?

A. I am not trying to teach them to distinguish materials made in the UK or the mainland. I would tell them that if you are to work in this trade, you should know the basic requirements of waterworks installations, and also whether there's any contradiction with the contractual clauses, and if so you should draw the attention of the owner, saying that your requirement is not in line with the legal ones.

Q. But there's a misunderstanding, saying that the British-made 50 per cent lead solder wire was okay, then we have a problem?

A. For bigger sites and bigger contractors, the materials will be supplied by the contractor to the workers. The workers don't have to care about whether it is British-made or it's 50 per cent lead or other solder.

When I was interviewed by the radio, some phone-in callers criticised me. They were the contractors working alone. They thought that buying the

British-made ones, materials, would be okay, and some learned the trade from a master, and there was no proper regulation. So they would just buy materials that their masters purchased all over the years.

Q. You entered the trade in 1973, and then in 2000 you knew that lead-free solder should be used. When did you know about the health hazards to the children if lead is found in water?

A. I was surrounded by the people from the media on 8 July in Wan Chai, and I insisted that if everything was done in accordance with the Waterworks Regulations and the materials were on the approved list, there shouldn't be any hazard caused. Since so many people asked questions about lead in water, so on that particular evening I visited the WHO website. I typed "lead in water", and I looked up the information on lead and the sources of lead. Then I told, in subsequent interviews, that there are 11 ways to be exposed to lead. It can be exposure through breathing or petrol, exhaust fumes, and I also referred to the US standards. That's after the incident.

Q. You are such an experienced plumber, and yet you knew about this so late?

A. Well, we didn't know about the details of the hazards of certain metals, but as a licensed plumber, I always knew

C that I had to abide by the law and the contract. C

D Q. Although you have no clear idea about the possible
D hazards?

E A. Yes. E

F MR LEE: Thank you. F

F DR WONG: I don't have any questions. F

G CHAIRMAN: Mr Kan, thank you for coming to give evidence. G

(The witness withdrew)

H CHAIRMAN: Let's have a ten-minute break before we deal with
H the next witness. H

I (4.10 pm) I

(A short adjournment)

J (4.26 pm) J

K CHAIRMAN: Mr Wong. K

L DR WONG: We are next call the deputy director of the WSD,
L Wong Chung Leung. L

M MR WONG CHUNG LEUNG (affirmed) M

N Examination-in-chief by DR WONG N

O DR WONG: (In English) Mr Wong, you have filed three witness
O statements for the purpose of this hearing. O

P CHAIRMAN: English or Chinese? P

Q DR WONG: In Chinese. You have made three statements and
Q I will now read these statements. If you would like to
R add or change anything, I would like you to tell me, but
R I will read all three statements. R

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

B Commission of Inquiry into
Excess Lead Found in Drinking Water Day 58 B

C (1st witness statement read in English) C

D (Via interpreter) Please, I will now move on to the
next witness statement of yours. D

E "(In English) 2nd witness statement of Wong
Chung Leung". E

F (In English) I will skip the formal part. F

G Paragraph 3: G

H (2nd statement read in English) H

I (Via interpreter) Mr Wong, I am going to read out
your 3rd witness statement, starting from paragraph 2: I

J (3rd statement, paragraphs 2 to 34, read in English) J

K "(In English) Contamination". K

L "(In English) Soldering". L

M (In English) Chairman -- shall I finish the whole
thing? M

N CHAIRMAN: (In English) Yes. N

O DR WONG: (In English) Paragraph 35:
(Paragraphs 35 to 52 were read in English) O

P Mr Wong, I have read out three witness statements.
Can you confirm that the contents of the three
statements are true and correct? P

Q A. Correct. Q

R Q. Do you want to adopt the content of these three
statements as part of your evidence? R

S A. I am willing to. S

T

U

V

C DR WONG: I don't have any supplementary questions to ask.

C

CHAIRMAN: We will adjourn until 11.00 on Monday.

D (5.17 pm)

D

E (The hearing adjourned until 11.00 am
on Monday, 22 February 2016)

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