

2016年2月2日

上午9時31分恢復聆訊

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

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

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

何沛謙資深大律師及殷志明大律師，由羅夏信律師事務所延聘，代表香港房屋委員會

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

林國輝大律師，由孖士打律師行延聘，代表瑞安承建有限公司

黃佩琪大律師、李頌然大律師及杜慧燃大律師，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

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

水務署第一證人：林天星（水務署署長）宣誓繼續作供  
許偉強先生繼續盤問

問：林生，早晨。

答：係，早晨。

問：就住尋日我問你有關嗰八個參數嗰度，我仲有幾個問題想問一問你嘅。就我哋知道2002年，就開始咗個優質食水計劃，雖然個名就有轉過，咁就當時就開始即係就講大廈嘅供水，內部供水係可以申請啲嗰個食水優質計劃，即係擺一張 cert 咁樣，就即係證明嗰個食水係

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即係有關嘅咁樣，呢樣嘢你知道嘛？

答：係。不過，嗰個係七個參數。

問：係嘞，冇錯。

答：七個參數。

問：當時就係--係嘞，我正想就係同你講一講，當時就係原先嗰八個參數就有改變，冇咗嗰個應該係個 free residual 個 chloride--咁 chlorine；另外，就係冇咗一個即係異菌嗰個一個 plate count 嘅，咁就加咗個鐵落去添嘅，呢樣你知道嘛？

答：我知道。

問：係嘞。咁你有冇查過當時例如加個鐵落去嘅時候，我見到你啲同事嘅證人口供，就係講話因為當時有鐵鏽水嗰個問題，所以特別就住呢個問題就加咗鐵落去嘅，係咪？

答：或者我講一講，其實我就有參與當時嗰個嘅計劃，不過我事後有問番同事，主要都係化驗師嘅同事，咁佢解釋畀我聽，正如頭先你提到嘅，佢嘅口供裏面亦都詳細解釋嗰個原因。

問：唔。咁即係你聽番嚟嘅都係當時就住因為有鐵鏽水嗰個問題，咁就即係都特別加咗個鐵落去嘅，係咪咁樣樣？

答：我聽到嗰個原因，都係因為主要就係針對嗰個清潔同埋保養內部供水系統出現咗一啲嘅問題，所以就加入呢個驗鐵呢一個嘅參數喺個水樣本嗰度，佢哋覺得係適合嘅。

問：明白。有冇調查過當時加鐵嘅時候，有冇再諗下，或者做下啲即係評估係有關其他金屬呢樣應唔應該都加埋落去呢？

答：我答唔到，因為我有參與去當時嗰個討論嘅。

問：好，咁我問番你有關嘅同事。

答：唔。

問：講一講持牌水喉匠嗰個角色。如果我哋睇番--我哋之前都一路有睇過，就係嗰個法例入面，就講持牌水喉匠嗰個角色，我哋睇一睇 G1，229。G1，229，就係我哋之前都睇過好多次，都係講番就係話持牌

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水喉匠，同埋水務監督授權嘅公職人員可以做啲乜嘢嘅。或者我帶你去睇一睇第 15 條 (1) 嗰度先，林生。

「(1) 除第 (2) 款另有規定外，任何人不得建造、安裝、保養、更改、條理及移動任何消防供水系統或內部供水系統，但持牌水喉匠或水務監督授權的公職人員，則屬例外。

(2) 水務監督認為是性質輕微的消防供水系統或內部供水系統的更改或者修理，或水龍頭更換墊圈工作，可由不屬持牌水喉匠的人或不屬水務監督授權的公職人員進行。」

如果任何人有違規，咁就即係會有懲處嘅。呢個第 15 條，就係似乎就係講番就係話如果--我哋如果講番嗰個內部供水系統或者係消防嘅供水系統，咁都要由呢一個持牌水喉匠或者係水務監督佢授權嘅人士先可以做，呢個你知道嘅？

答：先可以進行嗰方面嘅工作。

問：係嘞，冇錯。我哋另外亦都知道水務署有發過一個 circular 嘅，咁就個 circular 喺 C3, 2242--2422，或者我唔讀出嚟，你可以睇一睇。呢度我哋就咁睇，就似乎個 circular 就係講話其實唔使話由持牌水喉匠佢自己親身去進行嘅，佢亦都可以請啲人，咁就佢自己監督就已經足夠。以你嘅理解，其實實情持牌水喉匠，佢係需要親自去進行呢啲咁嘅例如我哋講緊內部供水系統嘅工作，定係佢可以監督就已經足夠？

答：呢個喺我嗰個嘅證供有提到嘅，就係過往一直就係內部供水系統嘅工程都係有一班嘅工人係協助呢個持牌水喉匠進行。

主席：聽唔到，大聲啲，唔該。

黎先生：我諗你坐前少少先得。

答：根據--哦，好呀，對唔住。喺我個供詞嗰度都提到，就係喺過往一直水務嘅工程都係由一啲嘅工人係親自去做，而持牌水喉匠係主要就係負責呢個監督呢個工程嗰個嘅角色嘅，咁呢一個嘅做法，喺過往一直到而家都係。或者我再補充多一點，事實上，如果要--或者今時今日

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要持牌水喉匠親自落手落腳去做呢啲嘅水務工程，其實就唔可行嘅，亦都喺個法例裏面以外，另外喺 2004 年有一個註冊工人條例，都好清楚講到有一個工種，就係做一啲水務嘅工程，喺我哋法例裏面冇--《水務設施條例》嗰度，就係冇講到話係要個持牌水喉匠親自做嗰個嘅工作嘅，呢個係我嘅理解。

問：係。咁所以即係...

主席：我唔係好明你最耐嗰句，咩嘢意思？

答：因為就我睇到相關香港有一啲嘅法例，如果係要求某一個專業人士係要落手落腳去做嗰個工程，佢會係寫明係一個「親自」，即係 personally 係去做嘅。喺我哋嗰個嘅條例裏面，我哋係冇要求話一定要親自做，咁我哋嘅理解，就係話嗰個工程係由嗰個持牌水喉匠去負責去進行，而事實上，嗰個工程係唔可能由個持牌水喉匠一個人佢自己親自落手落腳去進行，咁所以過往一直都係有工人去協助持牌水喉匠去進行嗰個內部水務工程。

問：如果我理解你嘅意思，即係話你話個法例就有講到親自落手去做，係咪咁嘅意思？

答：唔，唔，唔，呢個係我哋睇到嘅。

問：但係個法例都有容許話即係持牌水喉匠可以搵人做，而唔係自己做個嘢，個法例唔係咁講？

答：或者牽涉到關於演繹個法例，或者我可能提出就可能由個律師喺最耐嘅時候可能就呢一方面嚟到去演繹。

主席：我唔同意。因為你執行呢一個《水務設施條例》，你要理解呢個法例，呢個唔係純粹一個--當然我哋喺法庭，我哋會討論法律嘅問題，但係你作為一個水務署署長，你作為水務監督，你要實施呢個《水務設施條例》，所以你唔可以話由律師講，你自己講。

答：對唔住，或者我講得唔係好清楚。

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主席：係。

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答：我意思即係話我理解呢條條例，就係話嗰個持牌水喉匠佢係唔需要親自落手落腳去做，而睇番個事實，亦都係有可能由個持牌水喉匠佢自己進行嗰個工程。

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主席：唔係，呢個可能係個事實，但係點解咁多年嚟，由 1974 年呢條條例訂立到而家 2016 年都有修改呢？

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答：1992 年，如果我有記錯，喺 74 年嗰陣時，嗰個持牌水喉匠其實係可以係一間公司，佢本身亦都唔係有一個真係受過訓練嘅人去負責嗰個工程嘅。

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主席：係囉，如果咁樣就更加，如果你講嘅係正確嘅話，從呢一個立法嘅歷史去睇，咁更加係唔可以假手於人添？

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答：其實喺個法例嗰個歷史轉變嗰度，我哋都睇到如果係喺之前，事實上，嗰個法例--事實上，嗰個嘅水務工程唔會係由嗰個持牌水喉匠親自做，係需要有一班嘅工人嚟到去協助，呢個係一個事實。咁你話當時改法例嘅時候點解唔改清楚，將嗰個要求譬如話係可以畀工人協助持牌水喉匠去做，呢一點我係答唔到嘅，因為當時我睇到個法例轉變...

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主席：唔係，你而家點樣睇呢條法例？

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答：呢度兩個層面...

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主席：仲有埋呢個 (3) 添，(3) 嘅 (b)，(3) (b)。

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答：如果根據我理解呢條法例，其實就係頭先我講咗，就係持牌水喉匠佢係負責呢一個工程，但係就唔係需要佢自己本人落手落腳去做，如果...

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主席：你係咪認為--你--對唔住，係咪即係你嘅意思，就即係你今日都係會咁樣演繹呢？

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答：我哋今日嗰個睇法都係咁樣嘅。

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主席：你今日都係咁樣嘅？

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答：嘅。

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主席：即係你認為唔需要修改嘅？

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答：哦，咁唔係，我都同意如果能夠將嗰個嘅意思，或者我哋嗰個原意可以喺法例裏面清晰化佢，呢個係一個好嘅做法。

主席：唔係，對唔住，你 1990 年呢個 circular，係咪就係你哋水務署 justify 可以假手於人嘅理據？

答：我個睇法就唔係咁，我哋只係講到就係 90 年因為一件事故發生咗，嗰陣時係提醒業界，就係話佢哋如果自己係一個持牌水喉匠簽咗一啲嘅表格話佢負責嗰個工程，佢唔可以假手於人。

主席：好嘞，咁即係你哋係唔係倚賴 1990 年呢一個咁嘅 circular。咁你唯一倚賴，就係話因為條例嘅第 15 條裏面冇寫個“personal”呢個字，所以就可以，係咪咁嘅意思？

答：我哋都有睇番過往嗰個改例嗰個歷史發展，亦都睇下實況，因為我哋都睇到如果嗰個法例喺最先嘅時候，係容許係有呢個受訓練嘅持牌水喉匠親自去做...

主席：唔係，如果你講嘅係正確嘅話，最初係授權，都係 licensed plumber，不過個 licensed plumber 係一間公司咋嘛，...

答：Licensed plumber 係一間公司，...

主席：...係咪呀？即係你頭先講，因為我唔知，係咪？跟住然之後先至改到呢一度，就係 15(2) 同埋 15(3)，即係如果你睇番歷史嚟講，咁你覺唔覺得就係要 licensed plumber 落手落腳去做嘍嘍？

答：因為 licensed plumber 如果係公司，佢本身都唔可以即係落手落腳去做，佢都係請人做嘅。

主席：以前可以囉，所以咪以前咪可以囉。

答：以前...

主席：佢改到咁樣樣，就係正正係唔可以咩嘍？

答：係，或者我個理解咁喇，即係如果佢係有一個時候刻意將以前容許變做不容許，呢個係一個好大嘅業界嘅轉變。咁如果我哋一般嘅做法，如果我哋有一個大嘅改動，即係話以前係容許持牌水喉匠係搵一啲無牌嘅人嚟到協助工程，而去到一個階段係將嗰個轉變，將佢--或者有一個轉變去帶出嚟嘅話，如果喺我哋一般嘅做法，如果用一個咁大嘅政策上嘅轉變，係需要係好清晰諮詢呢個業界，亦都將呢一樣嘢喺立

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法會裏面，當個法例有任何改動嘅時候去提出，我哋睇番文件，就有呢一個咁嘅情況出現。

即係換句話講，如果係由一個容許冇牌嘅人士去進行內部供水系統，到有一刻係需要一定要有持牌嘅人先可以做，我相信當時一定係一個主要嘅政策嘅轉變，需要有大規模嘅一個業界嘅諮詢，而且亦都會影響好多當時嘅住戶嘅。咁我睇番當喺個法例轉變嘅過程裏面，係冇呢一個咁嘅程序進行過，冇一個諮詢，...

主席：咁呢個 section 15 ...

答：...所以我覺得，係嗰個...

主席：...愛嚟做咩嘢？

答：Section 15，我嘅理解，當你做一啲嘅水務嘅工程，係需要有一個認識呢個水喉工程嘅人係負責呢個工程。譬如話因為有好多--如果你睇番嗰個嘅規格--嗰個規例，其實有一啲嘅工序係需要一個認識水喉工程嘅人去進行。而當我哋訓練一個持牌水喉匠，亦都有一個好重要嘅課程，就係佢好熟悉呢個嘅《水務設施條例》，所以呢個係其中有一樣係需要嗰個嘅受訓嘅人去認識水喉嗰個嘅要--嗰個規格，同埋嗰個嘅施工。

主席：如果你有講又啱嘅話，咁咪正正就係要佢落手落腳去做囉？你既然講到有一個課程咁嚴格。

答：佢需要負責，因為其實--對唔住，主席。因為其實頭先我提出喺 2004 年有一條條例，就係工人註冊條例，嗰個就係講明...

主席：唔係，我哋睇咗工人--署長，即係我唔想大家浪費時間，知唔知？

答：唔。

主席：係咪？你咁樣樣，我哋個--你又會坐喺度好耐，我又會坐喺度好耐。我哋知道 2004 年嗰個所謂工人--既然你講到，不如你話畀我哋聽，嗰個條例同呢一個《水務設施條例》，我哋就完全睇唔到點樣樣可以將兩條條例係接合起嚟，connect 埋一齊，不如你話畀我聽點樣樣 connect 埋一齊？

答：以前就需要或者容許一個持牌水喉匠，佢係請一啲嘅工人去進行水務工程...

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主席：以前容許一間公司係一個持牌嘅水喉匠，如果你講嘅啱嘅話，唔。

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答：嘎，嘎。咁我相信個公司佢就有得親自做，佢會本身就會請一啲嘅工人...

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主席：啱吖。

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答：...就會去進行工程嘅。

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主席：係。

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答：咁我哋睇番資料，其實都係過往亦都係有好多工人係從事進行呢個水務嘅工程。

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主席：啱吖。

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答：咁所以我相信當時嗰個持牌水喉匠個公司係有請一班嘅工人去進行工程。

J

K

主席：呢個係 1974 年改㗎嘛，遠遠越過 2004 年，三十年前，就話「公司你唔可以咁做嘞，要你自己親自做。」嗰陣時完全冇諗過後面嗰班，嗰陣時個目的係咪話「喂，你哋做緊水喉嗰班工人，啊，不如咁嘞，你哋去考水喉匠，持牌水喉匠。」因為嗰陣時有 Grade II、Grade I 㗎嘛。「簡單啲啲，你哋去考 Grade II；深啲啲，你哋去考 Grade I。」係咪咁呀？署長。

K

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答：其實 Grade I、Grade II 嘅分別，Grade I 就做一啲大型啲嘅新啲啲工程；Grade II 只係做維修。如果你牽涉...

O

P

主席：Grade I 就可以做埋 Grade II 嘅嘢，就可以做埋 construction，啱唔啱先？

P

Q

答：係。

Q

R

主席：Grade II 就淨係做係 repair、modifications、alterations 啲啲咁樣嘅嘢，係咪？

R

S

S

T

答：因為如果工人淨係做 Grade II 嘅工作，咁結果...

T

U

主席：唔係，我想問番你，所以 introduce 呢一個 licensed plumber 嘅時候，係咪因為咁樣嘅原因，所以咪有 Grade I、Grade II 囉，就係因為要佢哋落手落腳做咁嘛，後來發覺唔使嘞，個個都讀書囉

U

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嗶，咁咪取消埋 Grade II，我哋唔再發嘞。

C

D

答：或者容許我解釋取消 Grade II 嗰個原因。

D

E

主席：係唔係咁樣樣嘅原因先，你而家...

E

F

答：係。

F

G

主席：...你就話畀我聽，署長，section 15 喺度，你睇番轉頭，就搵唔到有任何喺立法會討論 policy 嘅理由，所以你就覺得 section 15 其實即係雖然係咁樣樣寫，不過沿用嘅制度一樣係可以適用，係咪咁樣樣呀？

G

H

答：或者我去解釋，就係當我睇第 15 嗰個條款嘅時候，我係會睇番就係事實，即係話而家基本上個工程冇可能係由持牌水喉匠...

H

I

主席：唔係，個問題唔係咁樣樣。

I

J

答：嘎，嘎。

J

K

主席：譬如好簡單，譬如話一個 Commission of Inquiry，要由一個 High Court judge 去 chair，冇講“personally”，冇講個嗶，我可唔可以 delegate 畀另外一個人去做？可唔可以話我企喺側邊 supervise？

K

L

M

答：唔係，當然如果我哋淨係睇嗰個文字，呢個係其中一樣。即係我頭先所講，就係睇幾樣嘢，第一樣係睇嗰個...

L

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N

O

主席：唔係，因為你講你嘅 logic 出嚟，咁我咪 test 你嘅 logic 囉，係咪？

N

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P

答：或者我頭先答嘅時候，我理解嗰個問題就係話我點樣去睇 section 15 呢條條例，我睇其實係睇幾樣嘢嘅...

P

Q

R

主席：咁你會唔會錯呢？

R

S

答：其實我有諮詢過法律意見嘅。

S

T

主席：法律意見話你啱，係咪咁呢？

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答：而家個法律意見都係，嘎。

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主席：冇問題？

答：當然頭先主席提到話會唔會嗰個法例會寫得比較清晰啲...

主席：唔好住，唔好講轉住先，冇問題，你認為絕對冇問題，係啱嘅，即係換句話嚟講，係會繼續係咁執行落去㗎嘞？

答：我哋都會打算就係如果喺個法例檢討嘅時候，喺呢一方面我哋會去將嗰個我哋法例--立法嗰個原意係寫得清晰啲嘅。我承認可能當時改法例嘅時候，我睇番嗰個文件係冇處理到呢一度。

黎先生：好，我想問一問，你覺得而家係唔清晰，定係話而家嗰個法例喺個詮釋上面係有問題出現呢？即係一方面你覺得而家有問題，即係你係而家嗰個詮釋嗰個法例，就嗰個係持牌水喉匠唔需要自己親自去做，呢個同而家嗰個法例係完全冇抵觸，現行嗰個做法完全冇問題嘅，即係根據你話啱啱諮詢過法律意見，係完全冇問題嘅？

答：或者我咁解釋，而家去解釋嗰個或者詮釋嗰個法例，係的確要考慮到好多一啲嘅因素，而嗰個考慮啲因素底下，而家嗰個做法係一個可以接受嘅做法。至於你話會唔會將我哋呢一個立法嘅原意，喺個條文裏面係寫得比較清楚，我覺得呢一個嘅做法，係一個我哋而家係進行緊嘅一個工作。

主席：咪即係基本上你嘅意思，即係因為唔夠工人做嘢，所以就咁樣演繹，係咪咁嘅意思？

答：呢個係一個主要嘅因素，其實而家睇到如困做啲工程，其實我哋講緊要大約一萬個工人，而我哋嘅持牌水喉匠比較係即係活躍啲嘅，都係得千幾個嘅，咁所以我相信當時如果有一個嘅意向係改一個法例，由一個持--准許無牌嘅工人做到一定要有牌嘅工人做，佢一定要訓練大量嘅持牌水喉匠先可以進行呢一個嘅政策上嘅轉變。

主席：咁你咪改例囉，由1974年去到2016年，有成三、四十年，咁你個建築行業有起有落，你唔係成日都要咁多水喉工人㗎嘛，你嘅水喉匠亦都可以--譬如好簡單嘅，你可以話「水喉匠，你淨係需要」--你寫到明，「水喉匠其實因為而家嗰個水喉工程已經越嚟越複雜，你就淨係做監工，其他啲 constructions, manually 要做啲嘢

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就可以畀啲 skilled workers 或者 semi-skilled workers 去做。」冇問題㗎，絕對冇問題個啲，係咪？

答：係。

主席：我哋明白個啲。

答：我同意，嘎，嘎。

主席：係咪？咁但係個問題就係如果你監硬將因為一啲嘢，因為有啲即係我頭先講嘅因素，就監硬將佢演繹到係符合法例嘅話，咁就好似似乎唔係好通個？

答：或者就我哋睇呢個法例嘅時候，我哋係其實考慮一籃子嘅因素，亦都有諮詢法律嘅意見，所以就係而家個做法。如果個啲...

主席：你 (3) (b) 其實係違法，啱唔啱？

答：(3) (b) 係違法，就係話如--我哋嘅理解，就係如果有一個人係完全冇請一個持牌水喉匠...

主席：唔係，「僱用或容許不屬持牌水喉匠嘅人」嗎？

答：我哋個理解，嗰個後面個...

主席：其實老老實實嘞，如果係咁樣樣，即係你真係咁樣樣演繹嘅話，我哋刑事法裏面都有個啲，aiding and abetting 都係犯法個啲？

答：唔。

主席：即係唔單只請嗰個人犯法，署長，當然我哋唔會告水務署，因為冇可能，係咪先？Aiding and abetting 啲。

答：唔。我只可以講，我哋睇呢條法例，其實呢條法例喺度好耐，咁一路都係我哋嘅行業亦都係根據呢個做法嚟到做。

主席：因為之前，我哋聽到嘅證據，就係根據呢個 circular 係畀嘅，我唔記得咗邊個講嘞。不過似乎我都研究過呢個 circular，呢個 circular 其實有話畀你哋咁樣，有話容許水務署咁樣樣做個啲？

答：呢個 circular，我頭先講就係有一個事件發生咗，係有一個持牌嘅水喉匠...

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主席：退出啲 project work，係咪先？即係...

答：但係佢自己參與啲個工程，...

主席：係囉，咁梗係唔畀，係咪？

答：...咁所以人哋請佢嘅。

主席：咁我明，因為你原本係入紙 WWO46，I、II 嗰陣時，你簽紙嘅諸如此類，突然之間你走咗路，跟住搵咗個無厘頭嘅人去做，咁水務署署長、水務監督話「喂，以後唔准咁樣做，你一定要將個 project 交番畀一個持牌水喉匠繼續跟進。」我絕對明白。

答：係。

主席：咁但是完全即係呢個就係當時--我相信當時嗰個主體，但係從來都有講過話因為咁樣樣，所以呢 section 15 就容許各位持牌水喉匠就請工人咁樣樣，冇嘍。

答：嗰個 2/90 嗰份通告，其實就呢度寫咗，就係話嗰個持牌水喉匠係可以搵工人幫手，我諗當時出呢一個通告嘅同事，因為個法例已經喺度...

主席：佢如果係咁嘅話，就應該講到明，「我而家引用 section 15 賦予嘅權力或者乜嘢嘢，其實 section 15 可以咁樣做。」冇人咁講過，冇人夠膽講。

答：唔。

主席：如果係可以嘅話，我哋就永遠--我哋除非嗰條條例係有 ambiguities，有含糊不清嘅地方，我哋唔會返轉頭去睇番背後你立法會討論嘅時候嘅意思，呢個就係我哋讀法律嘅人去演繹一條法例，呢條條例好清晰講到明係咁樣樣。所以你話立法會當時點樣討論，討論過啲咩嘢嘢，搵唔到啲咩嘢諮詢文件，對於我哋嚟講，條法例就係咁咯。

答：呢條法例如果係跟個指--頭先提嗰個演繹嘅方法去執行，我恐怕譬如今天如果要執行呢個法例，我覺得做唔到呢一樣嘢。

主席：如果有法官去審案，咁又點呢？唔夠法官審案，個 case load 太長，呢啲係 reality 嚟，係咪？

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答：即係如果個條例係指明一定要持牌水喉匠親自去做，頭先我講，而家要...

主席：我都話--你睇裁判官又好，區域法院條例都好，冇話一定要裁判官親自審訊，或者區域法院法官親自審訊，咁係咪即係表示可以唔使？

答：唔係，我就提出其他啲都係相關一啲嘅法例，佢如果係想嗰個嘅工人或者係嗰個專業嘅人...

主席：如果佢係容許監工嘅話，就正如我之前講，你可以 supervise，你可以 supervision，或者個 project 可以 under 你個 personal control。

答：我覺得佢嗰個意思應該係咁嘅，所以就頭先...

主席：冇寫係完全。

答：係，我同意，即係個法例...

主席：相反係寫到明，你請一個唔會資格嘅人，你係犯法，一個刑法嚟嘅。

答：或者我理解，即係話如果係質問呢條法例，其實係導致基本上啲水務工程係進行唔到嘅。

主席：啱。

答：嘎。

主席：我同意，我絕對同意你個 realities 個問題。既然你--我唔係話你，署長，不過你都--因為你 2013 年已經上任，你之前啲由 1974 年到而家，我相信呢個唔夠水喉工人嘅問題，亦都唔係今日嘅問題，係咪？

黎先生：會唔會係署長，實際上你考慮主席嗰個睇法就係咩嘢，你而家嗰個法例未能充分反映到實際執行嗰個情況，...

答：係，嘎。

黎先生：...因為係講緊係要嗰個人親自去做，同埋一個你理解嘅 supervision 係監督嚟做係兩回事嚟嘅。

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答：係，唔。

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黎先生：事實上，會唔會你而家嚟講，你覺得有呢個法例，現行法例未能實際上反映實況，事實上你可能需要個部門係可以考慮實際上而家呢個條例需唔需要修訂，你而家嗰個諗法會唔會有改變？

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答：係，我哋其實就睇咗呢條條例，覺得係有呢個問題嘅，所以而家我哋係開始咗一啲嘅檢討嘅範圍嗰個嘅工作。

F

G

黎先生：就唔係好似頭先你嗰個咁嘅立場，就係話而家嗰個法例完全冇問題，你係可以繼續而家嗰個詮釋，你對於現時嘅做法係完全係有任何影響，即係嗰個轉變？我覺得個立場係有少少轉變。

G

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答：明白，係，對唔住，可能我講得唔係好清楚。其實我意思即係話，呢個法例係唔可以反映到我哋嗰個嘅意思，係需要有一啲嘅修改，但係因為而家呢個--呢一刻裏面，喺個法例未修改之前，我哋都要睇實際嗰個情況。

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主席：呢啲就係 policy decision，呢啲就係署長做㗎嘛，係咪？

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答：唔。

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主席：繼續，唔該。

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許偉強先生：唔該。

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問：林生，你剛才就話，你都覺得呢個法例係需要修改，我想問一問你，即係你嘅意思係話修改佢，令到佢係容許呢個持牌水喉匠係做呢個監督嘅工作，就唔一定要佢落手落腳去做，係咪咁嘅意思？

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答：我哋而家係考慮緊點樣樣去修改呢個法例。

S

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問：係。

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答：咁我亦都聽到有唔同嘅持分者都有一啲嘅意見，我哋嗰個考慮修改嗰個嘅方向係會走頭先你提嗰個，不過可能會再擴闊啲。譬如亦都有提

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到會唔會除咗持牌水喉匠，亦都會有其他嘅人士需要係喺個法例裏面，係負責某一啲嘅角色，咁我哋都一併會考慮嘅。

問：但係隨住即係就住持牌水喉匠呢個角色嚟講，即係你哋個方向就係都係容許持牌水喉匠，即係話可能佢嘅監督底下交界其他工人做，呢個係你個...

答：或者我唔想喺呢一刻裏面去做一個結論，原因就係話檢討個法例嘅工作，我哋啱啱開始，不過我睇到--我暫時呢一刻裏面，我睇到就係需要係搵工人係做嗰啲嘅水喉嘅工作。咁至於持牌水喉匠喺呢一個嘅內部供水系統扮演啲咩嘢角色，呢個我哋係需要檢視，亦都要睇有冇需要有其他嘅專業人士或者一啲嘅承建商加插喺裏面，呢個我哋要考慮嘅。

問：好。

答：咁但係都係需要有一啲嘅工人係需要落手落腳去做嘅。

問：唔。

主席：我明白你需要工人，我唔係話--我知道興建居屋，對一般市民嚟講係非常之重要，因為好多人係喺度輪緊公屋，等上樓，我知道你係唔夠水喉工人，我知道如果根據 section 15，你係有可能係做到嘅。我覺得喺你檢討法例，因為你檢討法例，老老實實唔知檢討幾多年，喺檢討之前，如果你係想啲 skilled worker 或者啲 semi-skilled worker 做嘢嘅話，你即刻就要加一條條例落去，話准佢哋做嘢，因為佢哋 in any event，就快又專工專責，係咪？

因為如果你改得，即係我好--其實我都幾--我唔係話特登要為難，不過個問題就係呢啲 practical 嘅嘢，如果你檢討完之後，因為你老老實實幾多持分者，又 developers、又 architects、又 building services engineer，跟住又 registered 乜乜 contractors，跟住又 plumber，跟住又 skilled workers，你檢討完呢個法例，可能我諗最快最快都要一、兩年嘅時間，如果仲要過埋立法會都唔知幾耐。咁喺呢個階段，咁你嗰啲屋全部坐晒喺度，人哋嗰啲好慘㗎嘛，嗰啲真係冇地方住，嗰啲等緊嚟上樓嘅，係咪？

答：唔。

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主席：我相信如果你係咁樣嘅情況之下，你係咪應該即刻就要同律政署商討，你可能真係 rush through 一啲 legislation 也好，咩嘢都好，就要過，跟住就可以繼續起樓，我唔知因為立法咁點樣做。不過呢個當然我嘅見解啫，如果你話如果上面律政署嗰啲律師話呢條 section 15 完全冇問題，可以繼續容許你咁樣做嘅，咁 by all means 繼續咁樣做。

答：我會就住主席所提嘅返去做一做嗰個方面嘅研究同理工作。

主席：係囉，嘎。

問：就住一路以嚟，你哋即係對於嗰個法例嗰個執行上，我仲有幾個問題再想問番你嘅。就係如果我哋睇番 2422，剛才嗰個 circular。

答：唔，唔。

問：你剛才話即係都唔能夠假手於人，即係個意思即係話你唔能夠由一個持牌水喉匠就完全唔理，係完全唔做，唔參與呢個工程，咁就只要佢參與，佢都可以去畀其他工人實際去施工呢樣嘢嘅，即係你當時嗰個--啲嗰個執行，執行呢一個法例嗰陣時，你哋係採取呢個態度㗎嘛？

答：而家個做法係咁，即係話係有一班工人落手落腳去做，咁但係持牌水喉匠會係監督住嗰個工程嘅。

問：唔。因為我哋就聽過呢個水喉潔具商會，佢哋個代表都有講過一個問題，就係話你嗰個 circular 都引起一啲即係唔係好清晰嘅地方，例如你最後嗰度，你話“you may employ workers who are not necessarily licensed plumbers to assist you in carrying out the work.” 即係你哋點樣去界定呢個“employ”嗰個意思，係咪即係話一定要係個持牌水喉匠以一個老闆嘅身分請啲工人返嚟咁就得呢？

答：我哋個意思唔係咁樣。

問：唔係咁嘅？

答：“Employ”唔係指佢本身有個僱傭嘅合約。

問：唔。即係你哋嘅意思係點呀？

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答：我諗佢係可以係--我哋用“engage”，即係佢係基本上係有一班嘅工人係參與嗰個工作。

問：係。

答：當時因為 90 年出呢個通告，我有法子知道當時佢喺呢度嗰陣時寫嗰個嘅意思。我覺得就算喺九零年代，嗰啲工人都唔會係由嗰個--唔一定係由個持牌水喉匠同嗰個工人係有一個僱主同埋僱員嗰個關係。

問：得。但係如果我哋睇番 15 條嗰度，因為佢係分咗一啲係叫做「性質輕微啲嘅工作」，佢就話咁啲就「可以由不屬於持牌水喉匠嘅人就去進行。」我見到你哋有啲證人口供有提到何謂所謂嘅「性質輕微嘅消防供水系統或者係內部供水系統」。我哋睇一睇其中你哋有一個同事嘅證供，喺 C21。C21，18773。18773 嘅第 15 段，就講有本 handbook 嘅，嗰個 handbook 入面就話解釋咗何謂“works of a minor nature”，呢度就話喺 2001 年開始已經有呢個 handbook 入面就咁樣寫咗出嚟。我首先想問一問你，呢本 handbook 幾耐出一次？

答：我理解應該係隔一段--我唔知幾長時間，隔一段時間我哋如果有更新嘅時候，我哋會出一個更新版嘅。

問：唔。你如何向業界去發放呢個 handbook？

答：我個理解係應該有一啲嘅通告，通知呢個有關嘅人士。

問：實際咁樣做，你記得...

答：我印象中，好似睇過我哋個網業都應該有嗰個 handbook 嘅。

問：除咗網頁之外，我想問下，就係話即係唔係--未必個個持牌水喉匠都即係用電腦，咁我想問下，即係例如你哋通知業界，例如持牌水喉匠，「喂，我哋 handbook 訂明某啲嘅細則。」點樣去通知佢哋？

答：我哋有個通告係會寄畀嗰啲持牌水喉匠。

問：唔，好。呢度我就唔係好明白，因為呢度你就解咗話“works of a minor nature”，好明顯你係想訂明喺第 15 條嗰度入面所講嘅“works of a minor nature”係啲咩嘢嘢嘅，你睇到嘛？喺第 16 段嗰度有詳細啲解釋嘅。

答：唔噃。

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問：我想問一問，就係你當時 2001 年出呢個 handbook 嘅時候，去界定呢個“works of a minor nature”，咁你個執行上面係點，係咪即係話仍然你都係堅持如果唔係 minor nature 嘅，而家定咗咩嘢係 minor nature，唔係 minor nature 嗰啲就要由持牌水喉匠佢自己去做嘅呢？

答：如果唔係一啲輕微嘅性質嘅水喉工程，頭先我哋亦都講咗，就係話持牌水喉匠佢係搵一啲嘅工人，不過佢要負責做嗰個嘅唔係一啲輕微性質嘅工作。

問：明白。咁係咪即係咁講，如果係性質輕微嗰啲，持牌水喉匠就連直情監督都唔使監督？

答：如果係輕微嗰啲，佢唔需要搵一個持牌水喉匠參與。

問：即係直情監督都唔需要？

答：冇嘍，佢直情唔需要請，譬如--嘎，嘎。

問：直情唔需要，係咪呀？

答：唔需要。

問：唔，即係呢個係你嘅理解。我又想問一問你，我哋睇番最近你哋出嘅 circular, C3, 2199。呢個就係鉛水事件發生咗之後，即係你哋署方就即係都出咗好多個 circulars 嗰陣時，呢個其中一個。咁呢度就咁講嘅，“For the avoidance of doubt, all plumbing works using soldering for connecting copper pipes shall have the permission of the Water Authority and shall be carried out by a licensed plumber in accordance with section 14 and 15 of Waterworks Ordinance.” 咁呢度你出呢一個 circular，你嘅理解又係咪話 soldering 要 licensed plumber 親自落手落腳做呀？

答：嗰個理解都係同頭先講，即係佢唔屬於一啲輕微嘅工作，佢係需要搵一個持牌水喉匠參與嘅。

問：我明。但係你出呢個聲明，你就冇再講到話係佢可以即係 delegate 畀其他人做，定係搵人做，佢呢度係講得好清楚個啲，“shall be carried out by a licensed plumber”，講埋「section 14 同埋 15 of Waterworks Ordinance」個啲。

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答：唔，唔。

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問：咁我就想問下你，即係你出呢個 circular，你嘅理解又係話而家鉛水事件發生咗之後，你特登要出呢一個咁嘅 circular，咁你嘅意思個意義喺邊度，係咪即係想從重新一次要由持牌水喉匠親自去擔任呢個工作呢？

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答：呢個唔係我哋嘅重點。

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問：都唔係？

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答：唔係。

H

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問：唔係你哋嘅重點。

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答：佢個重點係話如果你牽涉到嗰啲水務工程係用一個嘅--需要用呢個錫鐸或者係一啲咁嘅燒焊嗰啲嘅工序，佢係唔可以當做一啲嘅輕微嘅工程，係需要搵一啲持牌水喉匠參與嘅。即係個重點就係喺“all plumbing works using soldering for connecting copper pipes”。

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主席：呢個就係返番去我嗰日講，即係我拆水費單嘅時候所見到嘅情況。

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答：嘅。

N

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主席：但係用 compression joint 就可以嗎？

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答：Compression joint 其實就相對比 soldering joint 嗰個技術嘅層面係低，所以 compression joint 一般嚟講，都係唔需要話真係咁高嘅技術。如果你係一啲嘅裝修工程，佢已經係牽涉到用一啲叫做 compression joint 嘅話，其實基本上，佢用啲好簡單嘅工具做到。但係燒焊就一啲比較複雜嘅嘅工作，我哋係需要搵一個喺呢方面有呢個專業嘅技術，同埋有一個持牌水喉匠去睇住。

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主席：呢個持牌水喉匠監督，你嘅意思即係佢都係可以遙控嘅，係咪咁樣嘅意思？

S

T

答：持牌水喉匠係負責呢個工程，事實上，我理解有一啲持牌水喉匠佢自己都會落手落腳去做嘅。

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主席：唔係，即係你係咪即係准許遙控嘅先？

答：「遙控」嘅意思係即係佢...

主席：即係唔需要親自喺度，譬如我屋企而家真係要駁，咁嚟...

答：我哋嘅一般呢啲...

主席：...嗰個究竟係--如果嚟嗰個啱啱係持牌水喉匠咁就最好，係咪？  
如果嚟嗰個只不過係持牌水喉匠嘅工人，佢間水務公司嘅一個工人，  
咁老細就唔嚟嘅，不過呢個就係佢嘅工人，咁都得，係咪咁嘅意思呢？

答：一般如果係啲安裝工程，我理解通常都係嗰個持牌水喉匠，佢都會--  
因為亦都係好小型嘅工作，佢自己都會親自去進行呢個工程。如果你  
一啲比較大型嘅公司，可能佢就會有一班嘅工人幫佢，但係通常呢啲  
比較小規模嘅啲，我理解多數都會係嗰個持牌水喉匠佢自己都會做工  
作。

主席：我知，我明。不過你都未答我個問題，不如答我問題。

答：我睇就係佢要負責呢個工作，咁如果佢自己完全係譬如喺個家居裏面  
做，佢又冇任何嘅參與，我覺得嗰個工作係會影響到將來佢嗰個工作  
係咪可以跟到我哋嘅規例做，而呢一個嘅後果就係有機會佢係會暫停  
佢嘅牌同埋除牌嘅。

主席：都未答我個問題，即係點樣樣呢？直接啲。

答：如果直接啲，我覺得你所謂你頭先用嗰個就係話遙控吓嘛，咁遙控，  
睇下嗰個遙...

主席：唔好講遙控，總之佢唔在場，咁得唔得？佢就係純粹喺公司，咁得  
唔得呢？

答：我諗譬如話呢個要牽涉到佢訂物料，因為最主要個物料啱唔啱。

主席：你都未答我個問題。

答：嘎。

主席：嘎。



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主席：得。

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問：但係如果我哋睇番呢一個 circular 個中文版本，其實講得好清楚個  
嗶，如果佢--我哋啱啱睇咗英文版本，我呢度手頭上有個中文版本，  
我讀畀你聽，就係「避免產生疑問，所有使用軟焊方法連接銅喉管之  
水管工程，必須根據《水務設施條例》第 14、15 條規定，先取得水  
務監督之書面許可，並由持牌水喉匠施工。」即係呢度你係講施工，  
並由持牌水喉匠施工，咁我個問題就係去番主席剛才個問題，如果只  
係有個持牌水喉匠到咗現場，佢冇落手落腳去施工，就由佢個工人施  
工，係咪違反咗法例，以你嘅睇法？

I

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答：正如我頭先講，呢一個通告，其實個重點就係擺咗喺嗰個“plumbing  
works using soldering for connecting copper pipes”  
嗰度嘅。咁至於後面嗰度，佢係按照番嗰個《水務設施條例》，就係  
呢啲唔係屬於輕微嘅工程，所以就需有一個持牌嘅水喉匠去負責。

K

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問：《水務設施條例》如果我哋而家睇番，都有咁清楚講咗「施工」兩個  
字，都係講話由佢哋進行。但係你呢度係強調好清楚個嗶，同埋你係  
講到明「避免產生疑問」，所以一定有個意義㗎嘛，呢個 circular？

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答：呢個「避免產生疑問」，就係恐怕就有一啲嘅人以為一啲普通裝修嘅  
工程，就算係牽涉到有燒焊，佢都認為呢啲係一啲簡單嘅工序，係唔  
需要任何一個持牌水喉匠參與，...

O

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問：好。

P

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答：...所以呢度係一個澄清嚟嘅。

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問：去番我個問題，就係話如果出咗呢個 circular 之後，而家有個情況  
係持牌水喉匠在現場，但係佢冇落手落腳去施工，佢係搵佢個工人施  
工，係咪違反咗法例呢？

R

R

答：呢個即係頭先個討論，都即講咗喺第 15 條條例嗰個嘅意思。

S

S

問：係咪違反咗法例呢？

T

T

答：係，即係如果係跟我哋而家嗰個做法，其實就我哋只可以接受實際個  
情況，係可以係容許嗰個持牌水喉匠係請一啲工人去做。

U

U

問：即係話就算有呢個 circular 咁樣講咗話要由持牌水喉匠去施工，就

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如果佢冇自己親自施工，搵工人施工，都有觸犯法例嘅，以你嘅講法？

C

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答：呢個 circular 其實本身就有一個真係個法例效力嘅，都要睇番我哋頭先係一個好意義嘅討論，第 15 條條例嗰個解讀嘅。

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主席：我知。所以我就係話，其實即係呢度我又想 -- 點解要得到 permission of the Water Authority 呢？

F

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答：呢個 permission 嗰個係喺第 14 條條例...

H

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主席：Exactly, 14 段 (1), 係咪呀？

I

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答：嗰個就係 14 (1) 嗰度同 15 個分別，14 (1) 係針對就係你開工前，你係得到我哋批准，所以如果呢一啲嘅水務工程佢本身係牽涉到有燒焊嘅工作，佢係需要就入一啲嘅申請。

J

J

主席：係。

K

K

答：譬如入一啲嘅我哋嗰啲 WWO 嘅表格，佢先可以進行嘅。

L

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主席：咁又...

M

M

答：所以呢個...

N

N

主席：即係如果我屋企漏水，就真係好大鑊個囉喎，首先就要入張 form 去水務監督批准，跟住就即係如果又可能係 500 釐可以搞掂嘅嘢，可能變咗唔知幾多錢個囉喎？

O

O

答：如果你一般漏水，頭先我講咗，即係如果你係要牽涉到修補嗰個水喉，係牽涉到要燒焊嘅，因為其實有好多方法係唔需要用一個銅喉，亦都係需要用到燒焊個工序。

Q

Q

主席：我明，係，我明。即係換句話嚟講，就要改用 compression joint 又好，press-fit 又好，push-fit 又好...

R

R

S

S

答：佢有其他好多個選擇嘅。

T

T

主席：係嘞，就總之就唔好用燒焊？

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答：一般我個理解，如果係喺屋企裝修，亦都好少用燒焊嘅工序，因為都

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幾危險嘅。

C

D

主席：得，繼續。

D

E

許偉強先生：好。

E

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I

問：討論下嗰個持牌水喉匠個資格嗰個問題，因為我哋都問過涉事嘅持牌水喉匠，亦都問過 VTC 佢哋嗰邊嘅代表有關呢個議題嘅。根據現在個制度，咁就要申請做持牌水喉匠，就要讀兩個課程，一個有個 craft certificate in plumbing 同埋 pipe fitting 嘅；另外仲有一個短期嘅課程，就係 plumbing services，即係呢樣嘢你知道嘅，係咪呀？

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J

答：係。

J

K

問：咁舊制底下，就我哋聽到嘅證供就係話讀咗個 craft certificate，咁去考水務署嗰個試嘅，你知道嘛？

K

L

答：我知道舊制就需要跟有一啲試考嘅，就係水務署係負責呢一個嘅考試嘅。

L

M

N

問：係。咁你知唔知道就係跟舊制嚟講，如果有啲申請者佢哋可能冇讀過嗰個 craft certificate 嘅，如果係有跟師傅可能學過下，有啲我哋所謂 equivalent 嘅 qualifications 嘅，都可以去考水務署嗰個試嘅，呢樣你知唔知？

M

N

O

答：我知道舊制，你講可能 92 年之前，...

O

P

問：係，冇錯。

P

Q

答：...基本上就係用嗰個試去測試究竟佢係咪可以作為一個持牌水喉匠。

Q

R

問：唔。你知唔知道當時嗰個試，唔需要話考係咪識得做水喉接駁嘅工序㗎？

R

S

答：我答唔到呢個，即係我唔係好掌握到當時 92 年之前嗰啲試嘅內容。

S

T

問：你嚟畀證供之前，冇話考究過呢個問題？

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U

答：冇。

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問：唔。因為我哋當時--我哋都問過其中一個持牌水喉匠，佢都話佢自己都唔識做水喉接駁嘅，不過佢係持牌水喉匠嚟嘅，佢唔識做燒焊嘅。

答：唔。

問：咁你又認唔認知呢個係咪即係業內一個常見嘅情況，有啲做持牌水喉匠，擺咗個牌，自己其實唔識做水喉燒焊接駁工作嘅？

答：我諗咁喇，即係其實就如果個持牌水喉匠對於佢個個工作，其實佢本身掌握唔到，或者唔認識嘅時候，我相信請個個嘅僱主亦都會去睇，唔會淨係按照佢有個牌就會請佢嘅。亦都事實上，如果請咗佢之後--或者咁講，佢擺咗個牌之後，其實一路嘅演變，我相信個個一般嘅持牌水喉匠佢都會去學習番一啲可能喺當時考試未有嘅一啲嘅技術，之後會有嘅。

問：唔。正正你帶出呢個問題，如果我哋講緊 1992 年之前，即係佢哋申請到做持牌水喉匠嘅，佢哋當時考咗你哋水務署嘅試，申請到做持牌水喉匠，咁佢哋當時擺到呢個資格，一路做到而家，一路續牌續到而家，續牌嘅過程佢哋唔需要話有啲乜--你哋水務署唔需要話有啲乜嘢附加嘅條件再考下佢哋，就可以續牌咁呀？

答：呢個--而家個條例係咁。

問：係咪呀？唔。咁所以就即係你哋水務署有冇曾經喺鉛水事件發生之前，就話考慮過會唔會制訂啲政策，等啲持牌水喉匠喺續牌嘅時候，再需要啲乜嘢附加嘅資格咁樣，或者再考下佢哋做啲在職嘅訓練，有冇呢方面嘅討論？

答：如果你喺法例修改上，我就睇唔到。但係我哋同業界有好緊密嘅聯絡嘅，亦都時不時有好多訓練嘅一啲課程或者一啲嘅論壇，去加深或者係更新一啲在職持牌水喉匠佢哋個個嘅知識同埋技術嘅。

問：咁多年入面，除咗呢一次鉛水事件發生咗之後，即係你哋所採取一啲對持牌水喉匠嘅行動，咁多年嚟，你哋有冇試過話對任何持牌水喉匠作出過一啲即係紀律嘅處分，或者係吊銷佢哋嘅牌照，有冇呢啲咁嘅情況？以你所知。

答：過往紀錄都有嘅。

問：都有嘅？

B

B

C

答：唔。

C

D

問：知唔知有幾多？

D

E

答：如果係暫緩嗰個嘅牌照去到六個月嘅，如果我有記錯大約可能係十個左右，我實際個數字我唔係記得好清楚。

E

F

問：好。

F

G

答：如果係取消牌照都有嘅。

G

H

問：唔。喺現行嘅制度底下，即係我哋睇到法例，亦都睇咗你啲 circular，你同唔同意就係即係水務署有個責任去檢視持牌水喉匠嘅工作？

H

I

答：你講嘅檢視指邊方面？

I

J

問：持牌水喉匠佢喺個法例又好，喺你個 circular 又好，係需要即係可能唔同嘅理解，施工又好，或者係監督嗰個水喉嘅工作又好，即係佢哋要做呢方面嘅工作㗎嘛？

J

K

K

L

答：唔。

L

M

問：咁你哋作為水務署，發牌畀佢，續牌畀佢，咁亦都一定會睇住佢哋嘅工作係咪進行得良好㗎？

M

N

答：唔，或者我喺呢度容許我有幾方面去講講關於呢個持牌水喉匠嘅制度。

N

O

問：唔。

O

P

答：持牌水喉匠呢個制度，其實都係參考咗好多其他國家嗰個做法，都係發牌畀一個嘅在職嘅人事--一個專業嘅資格嘅人事。咁我哋要求嗰個資格，其實佢係頭先律師你讀咗--你講咗出嚟有兩個證書，第一個證書其實需要三年嘅時間，當然有部分時間嚟到去讀嘅，另外佢需要冇四年嘅經驗。

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之後，佢先至可以讀第二個課程，嗰個係主要係針對法例，咁完成晒之後，我哋先至考慮係發牌畀佢，咁所以呢個個時間亦都係相當長嘅，如果以一個持牌水喉匠嚟講。一般相對工人，如果你做一個中工，佢需要受訓嘅時間係短好多嘅，咁呢個第一樣。

S

T

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U

咁我哋有參與就係--我哋有啲同事亦都有參與就係職訓局主辦呢啲證課程，同埋一啲嘅會議。

U

V

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第二，就係我哋--我自己監督就係委派咗一個助理署長就係負責發牌嗰個嘅工作。咁亦都有委任咗一個委員會，有業界嘅人士去畀我哋對於呢個發牌制度有啲乜嘢地方我哋係需要更新或者係改善。

咁每一次當我哋去驗收一啲嘅水喉工程嘅時候，我哋同事會落去地盤，有持牌水喉匠一齊去驗收嗰啲嘅工作，我哋有一個嘅表現評核嘅制度，就係話如果嗰個持牌水喉匠佢就住嗰個嘅工作有一啲地方係唔啱我哋規例、標準等等，我哋係會有一個扣分制。咁如果個分數喺每一次裏面係超過十分，我哋會發一啲警告信，如果累積有兩個警告信，我哋係會就係考慮就係暫緩佢嗰個嘅牌照。

咁當然喺成個過程裏面，持牌水喉匠佢要確認佢所安裝嘅水喉嘅裝置係按照呢個《水務設施條例》。

問：我想問下...

答：咁呢個一般嘅做法，我哋都睇過第二啲國家都係沿用係咁樣。

問：我想問下你，林生，就係一個持牌水喉匠，佢喺整個工程進行期間，我哋知道佢要即係呈交嗰啲 form，即係佢要簽名等等。我想問喺工作進行期間，咁佢都要監督個工程進行㗎嘛，根據個法例嚟講，係咪呀？

答：我哋係要求佢係要監督成個工程。

問：係。我想問下你，你哋有冇派同事喺嗰個工程進行期間，同呢個持牌水喉匠有任何溝通？

答：根據而家嗰個嘅法例，我哋係當個工程部分或者全部完工嘅時候，我哋係落去驗收。如果係講喺個工程進行期間去檢視呢啲咁嘅工作，喺而家我哋嘅法例裏面係冇嘅。亦都喺我琴日嗰個補充嗰個嘅供詞嗰度都指出，當我哋去考慮物料監管成個制度嘅時候，其實我哋係參照就係一個建造業檢討委員會，喺 2001 年所頒布嘅一個嘅《建業圖新》嘅一啲準則，同埋喺 2011 年世衛亦都有一個關於喺個建築物裏面嗰個水安全嗰個嘅工作。

換句話講，其實係持牌--呢個持分者各施其職，因為我哋睇到成個嘅水務工程，其實喺個建築工作裏面嘅一部分。喺個--我哋係一個監督，亦都有一個發展商，亦都有呢個承建商，佢亦都係按照個規例，按照佢哋個別嘅合約，係需要採購一啲合規格嘅物料，亦都係喺嗰個現場裏面進行呢個監督。如果有兩、三層嘅呢啲嘅工程嘅監督，我哋

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覺得再加上我哋係要求除咗持牌水喉匠之外，認可人士亦都喺施工前、施工後去確認嗰啲物料係需要係啱我哋嘅規格。我覺得呢個制度本身如果係參照頭先我講嗰兩份文件，亦都參照外國一啲嘅做法，亦都係一致，或者甚至係比佢哋優先。

問：不...

答：仲有一樣嘢我想指出，其實如果係去到工程嘅尾段，我哋先至係發現到一啲嘅喉料嘅規格有問題，其實所需要嘅工夫係非常之多，亦都係好浪費嘅。所以我哋一路都係提醒一啲嘅持分者，佢哋要喺個施工階段，採購物料個階段裏面係做好佢嘅工夫。咁呢一個正正就係我哋有提醒到市民，或者提醒到嗰個持分者，佢哋係需要就係留意喺我哋嗰個嘅規例裏面所要求嘅工作。

我哋亦都會同業界有一啲嘅--頭先我提到一啲嘅講座、一啲嘅溝通，去增強佢哋明白我哋嗰個規例，同埋我哋個要求。

問：暫且唔好將個責任即係帶到去其他持分者先，我想睇一睇你水務署嗰個責任範圍。第一，我想問下你，工程施工期間，持牌水喉匠有冇到現場去監工，你哋知唔知？

答：呢個當然喺嗰個法例要求底下，我哋而家係冇訂明持牌水喉匠係需要係喺嗰個現場有幾多次，又或者佢做啲乜嘢，但係我哋係要求就係佢係會負責呢一個嘅工程，我哋相對呢個法例係負責好多唔同類型嘅水務工程，有少、有中，亦都有大。所以都我哋喺法例裏面係冇去規管就究竟個持牌水喉匠係需要幾多次係出現喺個地盤。

但係我哋亦都有同呢個商會，就係話會唔會係佢哋自己本身都去訂明一啲嘅指引，睇唔同類型、唔同性質、唔同嘅合約安排。因為有啲持牌水喉匠，佢係一啲僱員嘅身分，有啲佢係自己公司個老闆，咁唔同嘅做法亦都有唔同嘅準則。

問：現在覺得有需要起碼知道持牌水喉匠施工期間有冇到過現場，有需要知道？

答：我哋有同呢個商--有關嗰個業界有傾，有探討過呢個問題。

問：你哋覺得有冇需要？

答：我哋覺得如果係喺個法例裏面去訂明呢啲嘅要求，我覺得係需要商榷。但係如果我哋喺法例以外，同呢個有關嘅持分者、商會去討論，

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同埋點樣去喺呢方面加強，我哋而家係進行緊嘅。

主席：點解而家要將呢啲咁樣樣監管嘅責任畀畀咁人哋呢？

答：我哋睇到就係因為施工嘅時間係都幾長下嘅，如果最後由水務署自己去監管成個嘅工程...

主席：唔係叫你監管成個工程，叫你搵啲 inspector 得閒落去睇下究竟嗰個持牌水喉匠係咪真係喺度監管工程咋嘛。

答：嗰個工作量都好大，因為每年都好多...

主席：嗰個工作量...

答：...大大小小嘅工程喺唔同時間出現。

主席：係，我都知。

答：吓？

主席：我明白，咁衛生署都有幾廿個幫辦去巡藥房，睇下啲藥物條例點樣樣執行，藥劑師有冇喺度監管，有咩嘢問題嘅呢？

答：呢個我哋要返去檢討下，即係因為呢個真係一個資源即係...

主席：唔係，你唔可以話，「哦，將呢啲咁嘅--哦，於是我哋將呢個藥劑師有冇監管藥房嘅責任就交界呢一個...」--我唔知喇，「...藥房商會㗎」？

答：建造業基本上就--頭先我講，嗰個喺 201...

主席：你明唔明？你就話，「啊，喺一個建築工程裏面好多持分者嘅，最重要就係最緊要係可能 developers、房委會、main con，佢哋係好緊要嘅，於是佢哋應該監管。」係咪？房署又調番轉頭，佢哋話「喂，我哋係有監管，不過呢啲水務嘅嘢我哋唔識個啲。你房--你水務署又唔話畀我哋聽要驗咩嘢、驗咩嘢，我哋點知驗咩嘢啫，如果你哋都唔知，我哋點知呢？咁咪即係我哋咪喺度氹氹轉？」

答：我哋如果就住法例，其實我哋就訂明咗嗰個規格，...

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主席：唔係，我知，即係又返番去我尋日嗰個老問題，可唔可以行多步嘅呢？

答：我哋可以考慮，不過即係個資源係好大，即係如果你講緊係話水務署派人喺每一個水務工程嘅施工期間去作一啲嘅檢查，呢個工作會係幾緊要，同埋都需要...

主席：你係要--你負責監管 licensed plumber，你可以話「我唔負責監管 licensed plumber」㗎，你負責㗎嘛？

答：唔。

主席：你而家唯一監管佢哋嘅時候，就係去到最後全部完晒工，其實就睇下啲水錶有冇裝錯位，啲 alignment 啱唔啱，其實最重要就係收水費嗰度啫。

答：我承認係有個局限喺度嘅，不過我哋覺得最有效嘅方法應該係喺施工期間，各持分者佢去做好嗰個工夫。

主席：唔係，持分者當然有佢哋嘅責任，係咪先？不過而家個問題，好似就係話「我哋就對唔住嘞，我哋呀冇乜責任，你完成晒之後，我哋就嚟喇。」我唔係話啲 developers、啲 architects、啲 building services、engineers 佢哋唔需要負責㗎，我有咁講過㗎。

答：或者咁講，即係其實每個持分者有唔同嘅角色。

主席：咪係囉。

答：我哋作為監督呢，亦都有監督嗰個責任喺度喺度。

主席：因為而家你就係一樣，就係話畀我哋聽「啊，其實我哋都做唔到啲咩嘢㗎嘞，我哋其實都冇可能做到㗎嘞，你哋做喇。」咁樣樣。

答：或者咁講，其實就係可能嘅，即係話問題就係咪由水務署作為監督，係差遣一啲嘅同事喺水務工--即係進行期間去監督，或者去睇一睇個持牌水喉匠嗰個工作，呢一個我覺得需要都係一個政策上嘅轉變。

主席：因為我哋聽到啲 developers，即係房委會，我哋聽到啲 main contractors，係咪？幾個 main contractors 上嚟嘅，都好大嘅 main contractors 嚟㗎嘞，佢哋都係咁講「喂，我哋真係--水務嗰啲嘢，我哋唔熟個㗎，我哋靠你個咋㗎，水務署，你唔話畀我哋聽，我哋點知啫。」係咪？咁你水務署點樣樣可以話畀下面嗰啲

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developers 或者嗰啲 main contractors，其中一個好重要嘅途徑，就係你哋嗰啲 licensed plumbers，你哋監管㗎嘛，你哋可以話畀佢哋聽，regularly 出 circulars 話畀嗰啲 licensed plumbers 聽㗎嘛，有啲咩嘢最新嘅情況，點樣樣 update，你哋去到地盤要做啲咩嘢，咁㗎嘛。

答：其實我哋有做呢一方面嘅工作，我哋都時不時有一啲嘅通告係畀持牌水喉匠。

主席：係囉。

答：亦都有同有關嘅持牌水喉匠嘅協會有緊密嘅聯絡嘅，亦都同佢哋譬如鉛水事件之後，亦都建議佢哋喺呢一方面自己內部有多啲嘅訓練，同埋一啲嘅係個...

主席：其實許律師唔係問佢哋要做啲咩嘢，係你要做啲咩嘢嘢。

答：我哋其實--頭先我講咗我哋做嘅工作，至於如果建議到話水務監督需唔需要派一隊人去巡查一啲嘅水喉工作，或者睇下持牌水喉匠進行工程嗰個做法，呢個--頭先我講，呢個係一個資源同埋政策嘅轉變，我哋要...

主席：又唔需要一定派人，即係只不過一個提議，你可以要求個持牌水喉匠喺唔同嘅階段話畀你哋聽唔同嘅進度，通知你哋，都得㗎。

答：呢個可以考慮，不過呢個都牽涉到--我要睇睇個法例可唔可以要求咁樣做。

主席：唔係，你個法例基本上就 outdated，你可以由頭到--基本上可以由頭寫過一次都得㗎嘞，其實。

答：唔。我哋喺呢方面會研究。

問：或者...

主席：係咪？

答：係。

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主席：即係 check--對唔住，即係我睇你個法例，花園唔准有水喉，裏面好似有咁寫，你有冇權入去 check 人啲個花園先？

答：其實喺 2016 年嗰個施政綱領都講得好清楚，我哋係會檢討...

主席：你明我意思嘛？

答：...嗰個法例嘅。

主席：係囉，你嗰啲 outdate 到呢，真係--對唔係。係，繼續，係。

答：唔。

問：再講最後一個問題，關於呢個持牌水務匠個監--對持牌水喉匠個監督。你有提過就係話有研究過，如果真係要派你哋職員親自落場，施工期間去監督佢哋的工作，就可能有一個資源嘅問題。

答：資源同埋嗰個權，都係一個問題嚟嘅。

問：係，咁亦都有考慮過往個持牌水喉匠係咪應該係適時向你哋做啲報告等等。我想問下你哋，即係你哋想改善呢個你哋監督持牌水喉匠個制度，你哋有諗過啲咩嘢方案出嚟？有啲咩嘢方案？

答：我哋有啲已經處--已經係出咗一啲嘅通告，仲有冇第二啲嘅方案，我哋而家係研究緊，包括當然頭先主席提到，會唔會喺法例上一啲嘅修改，呢個我哋要整體去考慮。

問：好。另外一個課題，就係你都知道而家持牌水喉匠要簽啲例如 form 46 part I 嗰啲、part IV 嗰啲你都知道。我想帶你睇一睇，就係其中一個 part I 先，B15.1 37621。37621，如果你睇到，呢個就係個 form 46 part I，你睇睇第 2 點嗰度，喺中間嗰度。林生，“PURPOSE OF SUBMISSION”嗰度，睇到嘛？

答：睇到。

問：呢個就係由個 LP 同埋個 AP 都要簽嘅，就係 “We hereby notify that the plumbing works detailed above will be commenced on” 幾時，跟住就 “We CERTIFY that the pipes and fittings installed /intended to be installed, including those as listed on the attached Annex to this Form and those

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not listed, are as prescribed by the Waterworks Regulations."

好嘞，呢度就係佢哋要所作出嘅聲明，就去確認嗰啲咁嘅部件或者係物料，喺嗰個 annex 嗰度嗰啲就需要係符合呢個水務規則嘅，即係呢度咁講。

如果我哋睇一睇個 annex，嗰個佢有個解釋嘅 notes，喺 37627 嗰度，第 7 段，37627，林生。37627 第 7 段，就“All pipes used or intended to be used are required to be reported in the Annex.” 跟住“For fittings, only draw-off taps, stop valves, gate valves, ball valves and combination fittings need to be reported.” 跟住「A directory of pipes and fittings approved by the Water Authority can be found in the website」呢個喇。呢度就似乎係講緊嗰啲部件就淨係得呢幾樣嘢係需要申報嘅啫。

我想問一問就係即係呢一個決定，淨係得呢幾個部件需要申報，喺個 annex 嗰度，係幾時作一個咁嘅決定，你知唔知道？有冇查閱過啲資料？

答：我有問過同事，不過就你話準備喺邊一年裏面去訂呢啲部件，我哋--我暫時諗唔到。不過我知道當時呢--其實呢個好耐嚟嘞，佢當時佢揀呢幾個部件，最主要針對就係呢啲部件係容易會--即係如果做得唔啱規格，係會有呢個漏水等等嘅情況出現。所以我哋就選擇咗呢啲嘅部件嚟到去要求佢係畀一啲嘅--一啲批核嘅一啲嘅資料畀我哋。

問：唔。

主席：容易漏水。繼續吖。

許偉強先生：好。

問：我想問一問，就係即係我哋而家知道，就係例如焊料嗰啲，就你哋當時就有話要求申請者，即係 LP 或者 AP 佢哋喺個附表入面去作出申報，即係焊料係唔需要嘅，係咪？

B

B

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答：喺呢個表嗰度係冇。

C

D

問：係咪，即係佢哋唔需要㗎嘛其實，係咪呀？

D

E

答：嘎。

E

F

問：好咁，但係即係佢哋所作出嘅聲明，就話「喂，所有部件、物料都要係符合水務規則。」你哋嘅意思係咪咁呢，即係話嗰個附表畀你哋睇就唔使包括所有部件、物料嘅？

F

G

答：係。

G

H

問：但係即係佢哋到時真係要落手落腳用嗰啲物料，就除咗呢一個附表之外，所有都要合乎你哋規格嘅，呢個係你哋當時個立場，係咪呀？

H

I

答：係，係。

I

J

問：但係就你哋嚟講，雖然你叫佢哋做咗一個咁嘅聲明，就係話所有部件、物料都要符合規格。但係如果佢哋冇申報嗰啲物料，你哋其實完全唔知佢哋用緊乜㗎嘛，冇申報嘅？

J

K

答：冇申報嗰啲，佢哋係負責係根據個設施條例嗰個規格。

K

L

問：我明。但係你哋水務署嚟講，唔需要佢哋喺個表格度寫到明，你哋署方嚟講，成個工程你哋係唔會知道冇填到落去呢個附表入面嗰啲物料，佢哋用咩嘢，你哋唔知嘅？

M

M

N

答：其實呢個物料表，我哋係針對性嘅，因為我哋負責嗰啲嘅工程有唔同嘅性質，用嘅物料係相當之多，係--我哋冇話會將佢哋所有用嘅物料都必須係擺設喺個附表裏面。當時我理解佢哋做呢一個都係針對性一啲重要嘅物料，...

N

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問：係，我...

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答：...佢哋係會牽涉到譬如影響到個漏水嘅情況。

Q

R

問：我明。返番我個問題，我...

R

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主席：唔係，我唔係好明，對唔住。

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許偉強先生：係。

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主席：我--因為呢啲咁嘅喉啲啲就全部都係啲 piping--啲 pipes 嚟嘅，跟住啲啲就 valves 嚟嘅。咁呢啲 pipes and valves so happen 就係喺你個 regulation 裏面，就講到明要乜嘢嘅規格，就唔係因為漏水嘅問題，係嘛？

E

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答：嗯，畀啲時間我 check check。

G

H

主席：係。

H

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答：我睇過一啲嘅文件，佢哋嗰陣時選擇幾個物料擺喺個附件嗰度，係同呢個漏水係有關嘅。

I

J

主席：因為我完全諗唔到 copper tubes 點解會漏水，真係老老實實。

J

K

答：如果我有記錯，喺 1986 年曾經試過有啲水喉係漏水漏得好犀利，所以就--即係水喉漏水，我諗呢個都係一個當時關注嘅一件事。

K

L

主席：唔係，如果你水喉漏水嘅話，理論上，就應該所有嘅 materials 都要擺晒落去添，因為水喉基本上就好少會漏水，除非係好特別嘅理由，即係除非你啲 joint 係駁得唔好嘅啫，係咪先？因為一條水喉成條咁啤出嚟，點會無端端漏水，我就真係有少少奇怪啫。

L

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因為跟住你啲啲咩嘢“Crosslinked polyethylene pipes and fittings”、“Ductile iron pipes”、“Galvanized steel pipes”，呢啲全部係--後面啲啲咩嘢“Polyethylene pipes”、“Stainless steel pipes”、“Unplasticised polyvinyl chloride pipes”，呢啲全部喺你個 regulation 裏面有。跟住下面啲啲“Ball valves”啲啲、“gate valves”，又係你個 regulation 裏面有，所以咪擺晒喺度，同漏水又好似又有乜直接關係嘞，老老實實。

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答：當時其實即係制訂呢個附件，佢哋係擔心呢啲幾個款嘅裝置係有呢個問題。如果你話詳細當時點解淨係揀呢幾個，恐怕真係要...

S

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主席：我知。

T

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答：...搵--我有啲要了解同事當時嗰個嘅...

U

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主席：好呀。

C

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答：嘅，先可以答到呢個問題。

D

E

主席：咁幾耐改一次？

E

F

答：你講係...

F

G

主席：呢個 list。

G

H

主席：係。

H

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答：我都有關注到嘅，所以我就覺得呢個名單，其實就唔需要寫喺呢一個嘅表格嗰度。因為當我要改嘅時候，就非常之唔方便，又要出過新嘅一啲表格。所以而家我哋喺個網頁裏面，就話畀人知就係我哋有啲咩嘢新嘅加插一啲嘅部件係需要佢報嘅。而事實上，喺--如果我有記錯，喺今年嘅1月，我哋係加插咗有一啲嘅裝置喺裏面，到到今年嘅4月，我哋又會加呢個裝置，我哋個做法係喺個網頁嗰度通知，就唔係...

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主席：好嘞，咁呢個就最近加。對上一次係幾時加？

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答：對上我都答唔到究竟係幾多年前有轉過。

N

N

主席：即係有轉過，太耐？

O

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答：唔一定係，不過我真係唔知道，因為佢有--因為呢個表格好耐嘍嘞，咁究竟你話以前有冇曾經幾時轉過呢個物料，...

P

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主席：唔知？

Q

Q

答：...我而--我今日答唔到，可能要搵啲同事幫手。

R

R

主席：得，繼續。

S

S

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問：答番我剛才個問題，就係話一個申請者，佢如果有喺呢個表格入面，就住一啲唔屬於你第7段所講嘅部件同埋物料列咗出嚟，喺個申請表度，你哋水務署係無從得知嗰啲物料其實用嗰啲係乜嘢？

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答：應該係咁講，我哋係冇需要佢個別喺呢個附件以外嗰啲物料係公布嘅。但係我哋當然亦都有權呢，如果我哋有一啲嘅物料，我哋係需要佢話畀我哋知，我哋係可以咁樣做。

問：有冇做過？

答：但係仍然佢有一個責任，係負責所有佢哋用嗰啲嘅物料係啱《水務設施條例》裏面所講嗰啲嘅規格。

主席：你哋過往有冇 check 嘅呢？

答：過往...

主席：因為我知道你哋其實有好大嘅 powers，係咪？Under regulation 又好，under 個 statute 又好，你哋有好多--又要人哋 submit 啲嘢上嚟畀你哋 check，你哋又可以主動 check 啲嘢。請問你哋過往有冇曾經做過任何呢一啲 enforcement action 呢？

答：呢個可能都要搵同事問一問，過往咁多年有冇曾經做過呢一啲嘅工作。

主席：係囉，即係答唔到。邊個負責，如果要做嘅話？

答：應該係客戶服務科嗰方面嘅。

主席：客戶服務科。得，繼續。

問：另外一個就住呢個 form 46 個問題，就想請你睇一睇 C3，2305。

主席：不如署長你有空嘅時候，話埋畀我哋聽，究竟你哋個 customer service division 又好，究竟有做過幾多次呢啲咁嘅 enforcement action？可以透過你嘅律師話畀我聽，如果你畀完口供嘅話。

問：呢一個就係 2004 年水務署出嘅第一個 circular，就係有一個

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“Change in WWO 46 submission Practice”。前面嗰啲都係講一啲格式嗰啲問題。如果我哋睇一睇第 (g) 嗰一點，“Whenever there is any minor alteration initiated by the LP, LP can mail or fax a copy of previous WWO 46 with his/her signature and date on each entry of such alternation. This needs to be done before staff of the Water Authority conducts inspection.”

首先我想問下你，點解界定嘞，又係嘞，又係啲 minor、major 嘅問題，點樣去界定“minor alteration”呢樣嘢呢？

答：呢個或者我問過同事嘅，我理解基本上譬如你入一個附件，佢裏面有一頁或者兩頁一啲嘅裝置，如果個別譬如有幾個牌子，或者有啲嘅--總之有啲轉變，佢就係界定為一啲比較輕微啲嘅。但係如果佢係譬如佢要加插好多嘅一啲嘅嘢--水喉裝置，或者會係喺嗰個呈交咗嘅物料裏面，有好多都會更改嘅，嗰啲呢我哋會覺得係比較係重要嘅。

我承認嗰個界線就唔係話係好清晰，不過一般嘅做法，就係比較小型啲嘅改動，我哋當時係容許做呢個。但係其實事後我哋都檢討過個做法，亦都覺得所有嘅轉變就要正式係由經呢個持牌水喉匠同埋認可人士去提交。

問：即係你哋當時個意識，就係話如果係轉個牌子，咁呢啲都係...

答：一啲嘅轉變，牌子係其中一個例子。

問：其中一個例子。但係就有話啲咩嘢 guideline 去訂咗咩嘢叫“minor alternation”？

答：我理解有一啲好白紙黑字寫得好清楚嘅。

問：咁“initiated by the LP”，例如嗰樣嘢唔係 LP 自己佢想轉嘅，人哋叫佢去轉嘅，佢又使唔使申報？

答：需要。

問：吓？

答：需要嘅。

問：都需要嘅？

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答：因為對我哋嚟講，就係持牌水喉匠係負責呢個工作嘅，如果佢嚟審批--我哋已經審批咗嘅水喉裝置，佢有任何嘅改動嘅時候，佢係需要話番畀我哋聽。

問：所以呢個“initiated by LP”呢樣嘢，就有咩嘢特別意義嘅？

答：你可以個解讀係咁樣。

問：最後問你一個問題，你知唔知我哋 11 月嘅時候，就係我哋委員會嘅兩位專家係做咗一個初步嘅報告，呢樣嘢你知道嘅？

答：我知，唔。

問：咁都係藉住有關呢個抽水嗰個程序係作出咗一啲嘅意見。或者我哋睇一睇呢份報告，喺呢個 v1 嘅第 6 頁，我相信你都有睇過嘅，基本上都係講番嗰 sampling protocol，即係就住話要找出呢個水管入面有冇鉛呢樣嘢，咁就兩位專家都即係講出咗自己嗰個睇法。

咁佢呢度第一段，就話“The contact”--第二句就話“The contact time with lead-containing components such as soldered joints or fittings is a key factor in determining lead concentration in drinking water. Indeed, a number of authorities suggest fixed stagnation periods before withdrawing samples while others propose first draw samples.” 跟住佢又引用到有一啲即係 International Standards，即係 ISO 嗰個 standard，on sampling techniques，佢入面就咁講嘅，“If the effects of materials on water quality are being investigated, then the initial draw off should be sampled. Samples should also be taken after a specified period of stagnation to provide information on the rate at which materials affect quality or the maximum likely effect.” 跟住佢又引用到喺英國嗰啲抽水辦一啲嘅 standards 同埋 requirements；另外亦都引用到係美國咁就嘅做法嘅，亦都有係提及到日本應該係點樣嘅，大部分都係講出咗--即係話抽第一浸水嗰個重要性。

佢最後就咁講話，“Fully flushed samples on their own may serve the purpose of assessing the general quality of a drink water as supplied, but will not give a representative assessment of the concentration of lead

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or other metals from the internal distribution system to which the consumer is exposed.

Based on the above,...” 兩位專家就作出咗嗰個結論，  
“...data from fully flushed samples are not likely to be representative of the extent of lead exposure.”  
當時兩位專家都係即係提出咗呢一個對於你哋抽水辦嗰個程序係即係有啲意見。

我想問下你，當日出咗呢個報告，你哋水務署係咪都即係即時有開會討論呢個問題？

答：我哋即時有討論呢個問題，同埋出咗一個新聞嘅發布嘅。

問：冇錯，新聞發布我遲啲同你講。就係你哋內部開咗個會，亦都即係睇下點樣去回應番呢一個報告嘅內容，對嘛？

答：係。

問：開會嘅時候，都有問過例如你哋水務署嘅人員，尤其是你哋嘅 chemist，即係對於抽水辦佢哋點樣睇法，係咪呀？

答：係。

問：當時喺嗰日你哋出嗰個 press release 之前，除咗你哋問過你哋水務署入面嘅專家，有冇話再問下外面嗰啲獨立專家，問下佢哋點呀？  
「喂，點睇呢件事呀？」

答：因為你睇到個時序，其實就--我記憶應該係佢--即係當呢個報告發表咗之後嘅差唔多同一日，我哋係當晚已經係出咗呢個嘅新聞發布。

問：冇錯，唔。

答：我哋所提出嗰啲嘅資料，亦都係以前我哋都喺公開場合都有提過嘅，所以我哋冇時間去搵一啲嘅獨立嘅一啲嘅專家。

問：當時你聽咗你哋本身水務署專家嘅講法，即係你哋嘅 chemist 嘅講法，就覺得你哋不撈就住屋邨抽水辦個做法係正確嘅？

答：因為我啲同事同我講，其實就如果係用另外一個嘅方法，譬如話好似專家所提嗰種用隔夜水嘅方法，所抽到嘅水辦，第一，就係如果嗰個水辦去比對喺世衛裏面含鉛量話係 1 公升 10 微克，嗰個咁比較其實

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就唔適合。因為如果你唔係用一個嘅--好似我哋而家建議嗰種嘅沖水大約兩至五分鐘呢個方法，就唔可以對比番用呢個世衛，譬如話鉛嘅係 1 公升 10 微克。即係如果你係用一啲隔夜水嘅水辦，同 10 微克 1 公升嚟對，呢個係唔正確嘅。

問：或者我哋簡單啲嚟到睇呢件事，如果我咁樣問你，以一個常識嚟問你，你睇下你同唔同意？就係如果例如你話要驗水入面可能含有一隻有害物質，鉛咁講，如果你攞沖咗大概五分鐘水喉嘅水攞出嚟做樣辦，同埋你攞隔夜冇用過嘅第一浸嘅水攞出嚟做樣辦，以你嘅認知，好明顯沖咗五分鐘嗰啲樣辦所得出嚟個含鉛量相對嚟講會低啲，呢個常識嚟講會係咁，係咪呀？同意嘛？

答：都合理嘅，有機會喇。

問：係咪呀？

答：應該要睇就係嗰個喉管嘅質素。譬如我哋有啲喉管基本上，無論你係用隔夜或者唔--或者用沖，可能個結果會唔同。但係我諗基本上，你頭先講嗰個可能大體上係啱嘅。

問：大體上，我哋咁樣睇係啱嘅話。咁我想問下，就係話當時你哋去嗰啲屋邨驗水，就係用係沖咗幾分鐘嗰啲咁嘅水辦？

答：我哋其實想強調--容許我講講，我哋當時其實協助就房委會去抽水辦，當時佢同我哋提嗰個抽水辦個目標，如果佢當時個目標係話我哋要知道嗰個水整體嗰個嘅質素係咪可以安全飲用，我哋就會引用嚟我哋睇有關 ISO 嗰個標準。就係話你係用兩分鐘--基本上用兩分鐘嘅，但係如果特別嘅情況，我哋先用五分鐘嚟到去攞嗰個水辦，呢個先至可以係代表全日或者成個禮拜嗰個人飲用嗰個水嘅水質，亦都係可以嚟到作一個同世衛鉛含量 1 公升 10 微克嚟到去比較，所以咁樣做法係啱。

但係如果當時嗰個嘅目的唔係咁樣，我哋想知道究竟嗰個嘅水喉裝置裏面有冇鉛，鉛嘅含量有幾多，即係佢想知道係一個調查性質嗰個目的，咁就好唔同嘞，個做法。

問：好。

答：如果有時間，我會講講外國嗰個--因為頭先你提到專家喺佢個意見嘅第二段裏面有講到外國一啲嘅做法。

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問：好。我想問一問你，當時就住屋邨嘅驗水，...

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主席：房署唔知道點問你個嘢，房署倚賴你嘅專業知識，房署唔會知道話「啊，我要一般 general 嘅 water quality，或者我要 stagnation 嘅 quality。」房署好簡單嘅啫，因為房署作為呢個業主，佢即係如果--譬如好簡單，我諗如果我屋企水喉有問題嘅，我都唔會去話問你究竟有幾多種 test，點樣樣先至 test 到啲咩嘢。咁純粹係問你「喂，我啲居民話--點樣樣可以 ensure 我啲居民啲水係安全？」就咁啲喇，「你同我驗一驗水喇。」咁我--佢唔會話畀你聽，「啊，我而家要 investigate 邊一隻金屬，就用邊一個 test，要 investigate 個 general quality of water，你就要咩嘢 test。」佢唔會咁個嘢。

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答：係，正確。不過，如果...

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主席：咪係囉，你 advise 佢，你話畀佢聽，「啊，如果你要 investigate lead 呢，我哋就建議你應該要用咁樣嘅方法去驗。」其實對你哋 honestly speaking，對水務署嚟講係完全冇問題，你--你個 result 出嚟點樣樣，咪就係咁樣樣，係咪？

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答：唔，唔。

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主席：你話要 fully flush 咪 fully flush，你話唔愛 fully flush--唔係，你話如果我要 investigate 就呢個方法，呢個方法出嚟個結果係衰啲嘅，咪衰啲囉，咁係你房署或者你個承建商個問題，唔關我事嘍。即係個問題就係點解你又用呢一個減輕嘅方法去做嘅呢？

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答：其實如果你睇番 ISO 嗰個文件，佢就講抽水辦有好多唔同嘅方法，譬如話係用隔夜水係一個方法，如果係同沖嘅水喉嘅水，係一個方法。但係用邊個方法，係要睇番你擺水辦嗰個目的係啲乜嘢。

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主席：啱呀。

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答：所以我一定要問番搵我哋擺水辦個人，佢想達到啲咩嘢目的。

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主席：佢唔識啲嘛，你哋先至係 ISO 嘅專家，佢點知點問你啫，啱唔啱呀？

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答：啱，我哋問佢嘅。

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答：我哋問佢，「究竟你想知道就係--係咪想睇下嗰個我哋擺咗嗰個水辦，

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然後驗個鉛嘅含量，跟住比較世衛 1 微--1 公升 10 微克呢一個標準嘅做法？呢個係想睇下嗰啲水，居民係咪可以飲用。」即係我哋問清楚佢個目的係啲乜嘢。

主席：佢嗰陣時--當然你問房署，當時其實都已經--民主黨都已經出晒嚟講喇喇，係咪先？即係含鉛，你哋唔可以話「我唔知喇，房署叫我做乜就做乜。」

答：或者唔係咁講，即係話房署就其實佢知道有唔同嘅方法係達到唔同嘅目的...

主席：即係房署知道 ISO 唔同嘅方法嘅？

答：唔係，頭先你提到，因為都好多一啲嘅議員，同埋有一啲嘅資料都提到，其實都有唔同嘅方法嘅。

主席：係囉。

答：所以就要搞清楚究竟用--即係當我哋選擇用邊個方法嘅時候，其實要睇清楚佢個目的係啲乜嘢。因為如果個目的係話，我而家唔係話睇究竟嗰啲水係咪符合世衛嘅標準，我係想睇啲水係咪可以反映到嗰個屋邨嘅內部供水系統嗰個含鉛嗰個情況，咁呢個係牽涉到調查嗰個問題，就唔係水質係咪可以飲用嘅問題，呢兩個係一個好唔同嘅目的嚟嘅。

主席，頭先你講得啱，即係如果個目的係要去做調查、做研究嘅，我哋就未必係用呢一個嘅沖水呢個。但係如果係純粹想知道水裏面嗰個含鉛量比起世衛講 1 公升 10 微克嚟到比較嘅時候，我哋就會按照 ISO 嗰個講法，就係你個目的係想知道一個叫--佢叫 general assessment，即係話嚟去睇番整體嗰個水質係咪適宜飲用。

主席：General assessment 就係即係冇事嘅時候，你想去做一個 assessment，就睇下佢 ful 唔 fulfil，咁呢個我明。但係我哋而家唔係 general assessment，如果當最初係一個 general assessment，我當你啟晴、葵聯最初嗰時候係呀，跟住 subsequently 事態嘅發展就唔係喇。

答：唔。你講得啱，我哋個做法同外國係有啲唔同嘅，因為房署有其實好多屋邨嘅，我哋就唔可以一早假定每一個屋邨係有事嘅，所以我哋用個方法先係睇一睇嗰啲水係咪安全飲用，所以變咗我哋抽水辦嘅時候，係用呢一個達到呢個目標嘅方法。

但係當時候譬如話有啲屋邨，而家我哋知道有十一條邨，就發現到嗰個含鉛量係超過世衛嗰個標準嘅時候，我哋其實有做第二步嘅工作嘅。呢個就係同外國有啲唔同。第二步嘅工作，我哋就係去睇一睇會唔會喺嗰個水喉裝置，以致個鉛--嗰個焊料嗰度會有一啲嘅唔啱規格嘅物料。所以變咗我哋係喺嗰個屋邨裏面有攞一啲嘅樣本，主要就係喺嗰個燒焊料嗰度。

主席：呢個唔好講，唔好講呢一度--呢一部分住，我哋唔係講緊呢一部分。係唔好--即係返番去之前嗰個部分，即係因為我哋一定要將所有嘅嘢擺 in context 嘅，當時候啲議員已經出晒嚟，就話「啊，你啲水超標啫。」咁你梗係--房署就梗係話「啊，水務署，你可唔可以幫手睇下我哲水安唔安全？」係咪？佢倚賴你㗎嘛。換句話嚟講，係，佢係話畀你聽，「睇下我哲水安唔安全？」不過個--呢個係個 main theme，咁個 main theme 下低有另外一個 subsidiary 嘅 theme，就係「喂，唔該你 investigate 下，究竟睇下我哲水係咪含鉛？」呢個 always 一定係咁樣樣 follow 㗎喇。

答：所以變咗呢--對唔住，我想提一提，其實嗰個 investigation，頭先你提嗰個調查嗰度，我哋係有做嘅。不過我哋做個方法就唔係用抽水辦，我哋直接喺個物料裏面...

主席：唔係，嗰度唔好講住。我而家淨係講抽水辦呢一樣嘢啫，啱唔啱先呀？後面啲後話嚟㗎喇。當你驗--如果你 general assessment 都超標，咁唔使講，就一定係要進一步，係咪？

答：唔。

主席：而家唔係講 general assessment，即係個問題就係譬如好簡單，尋日我哋帶署長你睇過蘇格蘭嗰個咁樣樣嘅超標，你睇下人哋攞 sample 係點樣樣攞嘅，我哋可以返番去，其實可以返番去蘇格蘭嗰個報告。佢有一度講 sampling，我唔記得咗邊一頁。

或者我哋而家 break 一 break 先，又係二十分鐘，咁可以睇一睇，跟住各位都睇一睇二十分鐘，之後再嚟過。

上午 11 時 20 分聆訊押後

上午 11 時 42 分恢復聆訊

出席人士如前。

水務署第一證人：林天星（水務署署長）宣誓繼續作供

許偉強先生：主席。

許偉強先生繼續盤問

問：就住嗰個蘇格蘭取嗰個水嘅樣本個方法，或者可以睇睇 A1 嘅 248 頁。咁講出咗有兩種方法，就睇“Stage 2 testing”，第二段，“Stage 2 testing was confined to kitchen cold water tap samples. This was to allow an assessment of the potential quantity of lead consumed by house occupants as a result of drinking tap water at home. Different sample types were collected to obtain data on the different possible concentrations of lead associated with normal variation in the contact time between water and the internal pipework.

Flushed water samples provided the background lead level associated with water from the mains supply. Overnight samples provided data on the lead levels associated with the maximum normal likely duration of contact between water and internal pipework. Stagnation samples provided a standardised measurement of the change in lead concentration over a fixed time period ... Random samples were taken to provide data on the typical lead concentration likely to be encountered during normal use of a kitchen tap.”

跟住後面就有一度，喺 262 嗰度都有再解釋嗰四種唔同種類嘅水辦即係要需要係得取嘅。然後，如果我哋睇番佢哋有個表，喺 276 頁，都會顯示到唔同嘅，就有 overnight、有 random、有 stagnation 咁樣嘅，個就蘇格蘭第一個報告。

我哋再睇埋第二個報告裏面所講，都有少少資訊嘅，就係我哋睇下 177 頁。177 頁，佢呢度就講緊個“Guidance on Sampling Water

Supply Systems”。

“Introduction - The HPS guidance on water system sampling defines four types of sample that may be used in assessing the probability that there is a source of lead contamination affecting a drinking-water supply. Ideally a full suite of all four samples would be taken for two purposes:

- a. To fully characterise the extent of lead contamination in a supply and help identify whether the source of lead is external to the property, internal or both;
- b. To allow estimation of the average likely exposure of the drinking-water consumers.”

下面亦都講出咗個 sample type 有四種嘅，都係 random sample、flushed sample、stagnation sample 同埋 overnight sample 嘅。咁即係呢個指引都係講話，即係如果要全面檢視，都要用呢四種嘅水辦咁樣，呢個就係蘇格蘭所講嗰個抽水辦嗰個方法。

林生，我想問一問你，就係當時你哋就住呢一個喺公屋嗰度抽水辦去驗，當然最主要個目的就去睇下有邊啲屋邨啲水係可能會受到呢啲鉛嗰個侵入影響到，係咪呀？即係呢個係最主要嗰個...

答：應該係睇屋邨啲嘅水嗰個鉛嘅含量，比起世衛嗰個標準相差幾多。

問：好。你同唔同意我咁樣講法，就你當時就住喺同房署--你哋協助房署去攞啲水辦，其實都有一個係調查嘅目的，即係唔係話就咁一個好 routine 嘅，睇下啲水掂唔掂，即係唔係嘅，當時係有個調查嘅目的㗎嘛？

答：如果用調查，就睇--或者準備啲，如果根據 ISO 調查，係一個 investigation。但係當時我哋係做一個嘅--如果我有記錯，類似一種 compliance。即係因為 ISO 佢分得好清楚，唔同嘅目的，因為佢用嗰個字係叫“investigation”，有個用字叫“compliance”，我哋係 compliance 嗰隻。

問：或者我哋唔好咬文嚼字先。我哋睇下當時大家全個社會咁緊要呢件事，你哋去協助房署抽水辦去驗，都係想知咩嘢事，都係調查緊呢件事，究竟有幾多屋邨係受影響，係咪好明顯係咁樣？

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答：其實嗰陣時佢叫我哋 check 一 check，究竟屋邨嗰啲水係咪可以符合世衛嗰個標準，當每一個發現到係唔符合世衛嗰個標準之後，佢就需要我哋就幫手去做嗰個調查。所以先係做咗 compliance，然後做 investigation。

問：唔。你哋當時去做--去屋邨擺水辦去驗嘅時候，都會知道有機會嗰啲水係含鉛嘅，即係會有機會有呢一個咁嘅情況，係咪呀？

答：或者咁講，我哋其實就唔知道即係每一條邨，究竟邊條邨有咁嘅機會性，然後，事後我哋睇番，我哋做咗咁多嘅樣本，其實真係唔啱個世衛標準嗰個屋邨其實好少，個數量。

問：你哋當時係想知道嗰個影響有幾咁深遠吖嘛，即係幾多條邨係真係受影響嘅，你哋想知道呢件事？

答：我哋想知道有邊條邨嗰個水樣本顯示嗰個鉛嘅水平係超過世衛嗰個標準。

主席：我想問一問，即係你嘅意思係咪話，今次呢個食水含鉛，你哋純粹就係應房署嘅要求嘅啫，即係你哋水務署其實就係如果講得唔係好好聽嘅，就有乜興趣係去 find out 究竟係咩嘢原--乜嘢--點解係呢啲食水裏面含鉛呢？

答：客觀嚟講，就當然我哋好關注呢個食水嘅安全。當房署就要求我哋可唔可以幫手就抽驗啲水辦，去睇下嗰啲食水係咪符合世衛嘅標準，我哋係配合嘅。咁完咗之後，其實水務署就係領導有一個專責小組，連埋一啲專家去調查...

主席：嗰個另外一件事先，嗰個後話。即係我嘅意思，即係當你最初去呢個--人哋叫你即係驗水嘅時候，係咪正如你頭先所用嘅用詞，就係純粹係一個「配合」嘅功能？

答：當然，最先嘅時候，房署佢發現到有一條邨佢有呢個懷疑嗰個含鉛量超標，所以就邀請我哋係去取呢個水辦。但係當時我哋都用呢個標準去睇，即時嗰個水係咪是否安全，所以我哋關注嘅就係嗰個符合世衛標準嗰個準則。

主席：即係你配合佢嘅調查，咁你作為呢個水務監督，你有冇話「啊，我哋要主動調查點解--如果係超標嘅話，點解個原因？」

B

B

C

答：如果發現到係超標，我哋就有進行呢方面嘅調查。

C

D

主席：好。咁你 investigate 嘅時候，你有冇用 investigate 嘅 sampling method 去做？

D

E

答：調查就有幾個做法嘅，攞水辦做呢個調查係外國有啲嘅做法。但係香港其實因為公屋嘅情況，佢啲啲水管基本上就係暴露出嚟，最直接嘅方法就係睇一睇啲個鉛嘅含量有冇超過個規格，即係呢個比較直接啲，同埋快。

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主席：唔係，我明，我明。我嘅意思即係你除咗鋸咗啲啲嘢落嚟睇諸如此類之外，當你攞水辦去做--我講係攞水辦去做 investigation，你有冇？

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答：我哋就覺得...

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主席：唔需要？

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K

答：...唔係好需要，因為已經可以將啲啲物料直接可以攞到出嚟驗，同埋我哋跟住啲個專責小姐，其實啲個都係將成個供水鏈拆落嚟，逐度嚟做研究。

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主席：你啲個 task force，其實實際上做嘅屋邨唔係咁多個咋喎？

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答：佢最先嘅時候...

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O

主席：你只不過係話「啊，我哋做完呢兩個屋邨，我哋推算其他嘅都係咁樣樣嘞」，咁個咋喎。

O

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答：我相信當時啲個專家佢有啲根據...

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Q

主席：唔係，我唔係話佢錯，我唔係話佢錯，你明我意思嘛？

Q

R

答：唔，唔，唔。

R

S

主席：即係因為你畀--即係我聽你個 impression，就聽你嘅證供個 impression 就一樣，今次就純粹係配合，所以人哋話畀我聽要做乜，我就做乜。你話畀我聽，問下我啲水有冇 compliance，我咪同你用啲個 test 囉，係咪？跟住後面啲啲，對唔住嘞，我--跟住到後來 investigation，你就話「哦，我哋唔使另外一個 ISO 嘅 test 去做 investigation, sampling method, 我哋純粹係鋸，純粹係睇。」但係我就話畀你聽，話你睇嘅都有 limitation，因為你做

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咗兩個屋邨個咋喎，基本上。

答：其實如果係鋸梗係每條屋邨都做嘅，唔係淨係做嗰十一--唔係淨係做嗰兩條嘅。但係就嗰個專責小組，佢係基本上攞嗰兩條屋邨嘅水鏈，就全部嚟到拆出嚟研究嘅。

主席：咁咪係囉，我唔係好明喎，即係攞水辦有幾複雜，即係老老實實，點解簡單啲唔做，就係去做複雜啲嘅，要去即係我哋叫做 *invasive* 嘅呢啲咁嘅 *intervention* 呢？抽水辦照計，你如果--即係我諗你都知道我哋後來，我哋自己個委員會都有專家去攞水辦，我諗你都知道。

答：唔，唔。

主席：知唔知呀？署長。

答：我知道。

主席：係囉，我哋同房署溝通，朝頭早六點幾可以去攞水辦，冇問題個喎。

答：或者我咁講，即係我哋其實做調查，最主要就要有一個比較實質嘅證據，顯示喺個內部供水系統係用一啲唔合規格嘅材料。如果我用一個隔夜水嗰個水辦所得嘅資料，嗰個證據我覺得冇直接，因為你只係知道個水辦--隔夜水個水辦係啲含鉛量超過好--世衛一個好犀利嘅數，咁又代表啲乜嘢，係咪可以直接就話到佢用一啲嘅物料係唔合規格呢？但係如果我係直接將嗰啲物料係拎去化驗，直接睇到佢個鉛嘅含量係超過...

主席：唔係，我唔係話一個 *conclusive test*，啱唔啱呀？你就算--譬如好簡單，就算用你個方法，一啲都唔 *conclusive*，你見到嗰度有含鉛，你點知佢 *leached* 咗幾多出嚟啫？

答：唔係，我哋做調查，主要就想睇一睇佢用嘅物料係咪...

主席：啱唔啱呀？

答：...啱個規格。

主席：最重要就係居民嘅水裏面有幾多鉛，你鋸咗出嚟，你見到有鉛，唔等如嗰啲鉛一定係會 *leached* 落去啲水度個喎，因為有 *coating*。

答：係，...

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主席：唔係，即係所以我即係我想話畀你聽，署長，即係我哋 test 緊你個啲 logic，係咪？咁就好似又唔係好 logical 啲，即係...

答：或者...

主席：...你話「我做一個就得嚟喇，因為呢個就可以 conclusively。」話畀我哋聽。咁我就話畀你聽，即係如果你用你個諗法嘅話，話我哋個個唔 conclusive，即係 test 水個個，咁你個個都唔係好 conclusive。好喇，咁如果兩個都唔 conclusive 嘅時候，點解你要用你個個？

答：或者我可能講得唔係好清楚。其實我哋先第一步，就要睇一睇某一條嘅屋邨，佢個個食水個個嘅含鉛量有冇超過世衛個個標準，如果係冇超過世衛個個標準，我哋認為個啲食水係安全飲用。如果係用呢個角度去睇嘅話，我哋就係跟呢個 ISO，係用一個兩分鐘 flushing 個個方法。就做完呢個工作，如果係個個屋邨係冇超過標準，我哋就完成咗。但係當我哋發現到有一條屋邨，佢個個嘅含鉛量係超過個標準，喺食水安全個個角度，我哋有工作係做，包括我哋係安排一啲嘅乾淨嘅食水等等。但係同一個時間，我哋要問自己一個問題，會唔會有機會係個個嘅內部供水系統用一啲嘅物料唔合規格，因為如果我要去執行個個法例，一定要知道就係佢用個啲物料係咪唔啱規格。

主席：我完全明白你。不過我嘅理解，係咪當你要調查係咪超標一樣嘢嘅時候，咁你係咪應該擺最差嘅情況去睇？

答：如果你去調查就係想睇一睇個個喉管裏面有幾多鉛釋放出嚟，你就用即係一個隔夜個個係一個方法。咁但係因為個啲水喉管其實係曝露出嚟嘅，因為如果啲水喉管係藏咗喺入面，我就覺得好難用我哋而家個方法，係直情係將個個嘅物料--個個喉料個個接駁位鋸咗出嚟嘅，呢個係有個難度。所以外國個做法有啲唔同，容許我解釋一下外國，外國佢先--因為外國個啲樓係比較--一般嚟講係比較低啲，佢獨立嘅，同埋個個水管嘅長度比起香港係短好多，佢係直接就係由...

主席：我明，我明全世界每一度地方都有唔同嘅情況，有高樓大廈，係咪？又亦都有正如你所講嘅平房。世衛嘅標準就好簡單，因為世衛 cater 唔到全世界咁多嘅情況，係咪？咁佢就話「喺，總之咁嘅情況，你就要咁驗，咁嘅情況就要咁驗」，係咪？佢唔會話「世衛鬼知你香港個啲公屋個啲水喉係外露嘅咩」，係咪？唔會嚟嘛。咁你唔可以話「啊，因為呢個香港嘅公屋嘅水喉係外露，所以呢一個世衛嘅 investigative 嘅 test 就唔適用。」

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答：或者我哋覺得如果我哋要真...

主席：不如咁嘞，我唔同你再糾纏落去，因為遲啲等啲專家去解釋。

答：好。

問：或者我問一問你，就住有關我哋嗰兩個專家嗰個 joint report，佢哋得出嚟嘅結論，就係話「如果你用 fully flushed samples，就未必就係話就住呢個含鉛量係好有代表性嘅。」你睇完呢個報告之後，會唔會產生一個咁樣嘅關注呢？

答：我或者攤番個報告。

問：好呀，最後一段。

答：其實畀二個段，呢度個寫法就係--或者我讀出嚟，“Fully flushed samples on their own may serve the purpose of assessing the general quality of a drinking water as supplied...”

其實呢個就係我哋最主要想做到，就係去評估我哋所供應嗰啲水嗰個水質大約嗰個嘅質素，而呢一個嘅取水嘅方法就可以同世衛嗰個鉛含量嘅標準嚟到比較。如果你係用一個隔夜水嗰個嘅水辦所量度到個鉛嘅含量，你就唔可以直接就話因為佢超過 10 微克 1 公升，就會話嗰啲水係有啲咩嘅問題。即係我諗佢最主要就係我哋要好快就要用一個方法去知道，呢度嘅講法就係“serve the purpose of assessing the general quality of a drinking water”，呢個就係我哋想做。

問：即係呢個就...

答：所以我哋覺得我哋同專家嗰個意見，其實就有一個好大嘅衝突，因為基本上用一個嘅 flushed sample。其實我哋香港嘅環境係做唔到 fully flushed，因為外國嘅 fully flushed 係真係 flush 到去到接駁點嗰個位。咁香港基本上我哋就算係兩分鐘、五分鐘，都係基本上喺個內部喉管裏面。

問：不如咁睇，...

B

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C

主席：對唔住，再講多一次最後一句，再講多次。

C

D

答：我哋而家係 flush，譬如兩分鐘至五分鐘，基本上如果喺屋邨嚟講，我哋都係攞緊喺內部喉管嘅水，去唔到個接駁位。因為同外國唔同，因為外國...

D

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主席：「去唔到個接駁位」係咩嘢意思？

F

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答：因為外國佢 fully flushed，其實佢係 flush 到一個地步，當你 flush 完之後，你攞啲水辦係攞緊就係嗰個水公司所供應水啲水。

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主席：再講多一次，對唔住。

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答：外國就我嘅理解，就係佢哋個 fully flushed sample 就係佢基本上就係沖啲水，因為佢啲喉管比較短，所以佢沖嘅時間唔需要話真係咁長。

J

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主席：唔會真係要好耐，繼續。

L

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答：咁然後當佢沖完之後攞啲水，就會攞到就係喺嗰個嘅水公司供應嘅水嗰度。其實頭先我哋讀 Scotland 嗰度，...

M

M

主席：唔係，得，繼續講香港嘅情況。

N

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答：香港因為我哋係大體時間都係兩分鐘，如果兩分鐘，你根本攞啲嘅水，好多時都會直情係喺呢個--因為嗰啲屋邨有個走廊，走...

O

O

主席：即係仲係大廈嘅水，係咪咁嘅意思？

P

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答：係嘞，大廈嘅水。

Q

Q

主席：唔係，你有冇做過 test？

R

R

答：做...

S

S

主席：你點--唔係，你點知兩分鐘就一定得？

T

T

答：我哋大約計過數，即係兩分鐘...

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主席：吓，唔係，咁你有冇做過先得，兩分鐘？

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答：兩分鐘，你計一計嗰個流量，係大約知道嗰啲水應該係去到邊條水管。

主席：視乎你喺邊度擺啲咋喎，其實？

答：我哋基本上都喺住戶屋入面擺。

主席：唔係，我知，因為你而家啲公屋四十層樓，你如果喺上高擺，嗰度近啲個廳嘅，咁...

答：大部分。

主席：係咪？

答：我都係講大部分都係。

主席：咁你如果喺地下擺嘅又唔同？

答：因為嗰個上水喉、下水喉都好長。

主席：係呀，啱唔啱呀？你上水喉就有機會，下水喉未必個喎。

答：不過整體嚟講，我哋擺嗰啲水辦都係喺個大廈裏面。

主席：喺咩嘢話？

答：喺個屋入面擺嘅水，即係屋裏面嗰個內部供水系統嘅水，就唔會去到屋界，水務署供應嘅水。

主席：係呀，咁你 test 人啲，你梗係 test 嗰度，你 test connection point 冇用。我完全--署長，我完全冇問題，你哋嗰啲水係乾淨，去到個 connection point，對於我嚟講絕對冇問題。你啲同事好勤力幫房署做好多 sampling，做咗好多 test，我都有問題，我其實係覺得佢哋做得好好添咁樣，不過我哋而家就係研究個 sampling method。

答：或者我嘅理解，即係如果外國佢擺 fully flushed sample，其實佢純粹主要就係想 check 下水公司所供應嘅水乾唔乾淨。因為水公司好多時係用鉛喉，所以變咗佢哋關注就係究竟而家喺水裏面擺到出嚟嘅水樣本，佢嗰個鉛如果係超標，我先擺一個就係隔夜水，如果隔夜水係冇事嘅時候，我哋就證明到無論係水公司供應嘅水，內部供應嘅水都冇事，咁佢就完。但係如果隔夜水證明咗係冇事，佢哋要跟住一般嘅情況係要擺一個叫 fully flushed sample，原因佢想知道

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就係究竟嗰啲水有事，係嗰間水公司供應嘅水有事，定還是係內部系統供應嘅水有事。如果佢攞 fully flushed sample，佢哋係去到就屋界，即係話佢攞緊嘅水就係水公司供應嘅水，如果嗰個都係出事嘅話，咁就有可能基本上水公司供應嘅水，佢有機會用嗰啲喉料，因為外國其實好多時係鉛喉料，係出咗事，所以佢哋個做法同香港嗰個情況係好唔同。

一，我哋基本上就好耐以前已經有用鉛喉，...

主席：嗰啲唔好講，嗰啲我哋知道嗰啲唔好講，繼續。

問：不如我哋睇一睇，你同事陳健民先生，佢就其中一份口供，C19.1。

主席：不過如果我話畀你聽，其實大約兩分鐘，差唔多--唔使五分鐘，兩分鐘都已經差唔多 flush 走晒差唔多所有嗰啲，如果含鉛嘅話，你會唔會覺得奇怪？

答：其實我哋嗰十一條邨都係用呢個方法，都...

主席：兩分鐘就已經基本上--即係話畀你聽唔得 representative，因為你兩分鐘已經沖走晒所有嘅嘢。

答：兩分鐘就--其實兩分鐘...

主席：即係唔需要--即係如果你話 fully flushed 五分鐘，即係出嚟，我話畀你知其實係好乾淨已經，即係你覺唔覺得奇怪？即係如果我話畀你聽--會唔會 surprise，唔係奇怪，有少少驚訝呢？即係其實唔使咁耐，兩分鐘就已經嗰個 concentration 已經大幅減少。

答：係，但係其實十一條邨，我哋用兩分鐘、五分鐘，嗰個水辦都係有問題，即係都唔係一定係完全係清走晒。同埋我諗個重點就係我哋係用一個 flushing 嘅 sample，係跟世衛嗰個--根據 ISO 世衛所建議嗰個做法，就係要睇嗰個平常日常飲用水整體嗰個嘅水裏面嘅質素。

主席：明白。

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問：好。我哋睇一睇...

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答：即係我--嘎。

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問：...你 C19.1, 9951 頁, 呢個你哋 chief chemist 嘅證人供詞。第 4 段 (a) 嗰度, 我哋先睇下第 4 段, "Since the discovery of lead in drinking water, WSD has taken samples of Plumbing Materials and water samples for testing in two separate contexts", 首先睇下第一個, "(a) To assist the Housing Department to take water samples and samples of Plumbing Materials for examination by the Government Laboratory in order to identify which public rental housing estates/developments are affected; ..."

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我首先我--即係大家喺度討論緊話 ISO 又點點, 呢樣又點點。我問一問你好簡單嘅問題, 當時喺屋邨擺啲水辦去驗, fully flushed 嘅 sample, 淨係驗鉛, 淨係驗鉛呢樣嘢啫, 同意嘛?

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答：係。

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問：同意嘛?

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答：係。

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問：唔係講緊話你剛才講嘅 general quality of water, 唔係話水一般嘅情況, 淨係去有驗有幾多鉛當時, 同意嘛?

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答：其實我哋想睇就係基本上嗰個鉛嘅成份, 就比起世衛嗰個標準係嗰個相差係幾多。嗰個亦都係一個即係水質, 即係 water quality 嘅一個評估。

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問：但係不能話你當時嗰個做法, 擺水辦係你剛才講話「啊, 驗一個 general quality 呀, 平時睇一睇, 啊, 一般嚟講個水質大致上係點」, 唔係咁呀, 而係特別就住鉛嚟到驗, 同意嘛?

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答：係, 係。

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問：好嘞, 即係話係就住鉛, 當時做一個 investigation, 好明顯係咁樣。

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答：都唔係 investigation, 即係頭先我解釋, ...

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問：都唔係，呢個係你嘅講法，...

答：...都唔係 investigation。

問：...okay，得。咁我哋再睇一睇。

答：不過呢度其實提咗，就係“assist Housing Department to take water sample and samples of Plumbing Materials”，後面個嘅 Plumbing Material 就係 investigation。

問：我知，呢個我哋唔係--我哋而家講緊抽水辦。

答：Okay。

問：即係我知道你一路你個個想法，就係講話點樣鋸開啲喉畀人睇到有啲咩嘢...

主席：你唔好好似你個 leader 咁勞氣，Mr Khaw，係。

問：如果我哋再睇番呢一個 V1，V1 第 6 頁，佢最後係咁講，“data from fully flushed samples are not likely to be representative of the extent of lead exposure.” 呢個就係我哋嗰兩位專家所作嘅一個結論，喺當時開會都討論咗，你哋內部。咁你都知道我哋呢兩位專家都係即係世界都幾著名嘅專家嚟，你都有認識到，林生，係咪呀？

答：嘎。

問：你當時就聽到你哋自己內部，可能 chemist 話畀你聽，又有話有時間去喺出面搵一個獨立嘅專家。即係你當時你哋討論嘅時候，可唔可以咁講，就係你哋水務署都唔能夠話我哋呢兩個專家嗰個結論一定係錯，可以咁講？

答：係咪--其實我哋出嗰個嘅新聞發布，就係大家係有衝突嘅。

問：係。

答：我亦都講得好清楚。

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問：係。大家冇衝突，咁但係如果呢度我哋嘅專家就話「喂，淨係驗 fully flushed sample 唔係好夠個啲，未必有代表性啲。」當時會唔會有咁嘅關注，就係之前驗咗 fully flushed 嘅 sample，一啲可能過咗關嘅一啲屋邨有機會可能都會超標個啲，有冇諗呢樣嘢？

答：或者呢度第 6 頁最尾嗰段，佢個讀法就係--意思就係話“data from fully flushed samples are not likely to be representative of the extent of lead exposure.” 佢係講緊就係--佢都係講緊個 investigation，其實即係話如果你係要用呢個 fully flushed sample 去做嗰個調查，佢覺得其實就唔係代表性，你一定要用一啲嘅隔夜水，你先至可以準確或者較準確評估喺個喉料裏面有幾多鉛係滲出嚟。

問：不如答番我個問題，我個問題就係話當時睇到呢份報告，你哋內部去討論，有冇一個關注就係話「哎呀，如果 fully flushed sample 唔係完全有代表性嘅話，之前一啲驗咗冇事嘅屋邨有機會超標個啲」，就住呢個問題有冇考慮過當時？

答：或者咁講，當時我哋都係問「究竟我哋抽水辦嗰個目的係啲乜嘢」，如果個目的仍然都係話想搵一個代表性嘅水辦，去睇到嗰個水嘅水質，咁我哋嗰個方法仍然都係一個可以同世衛嗰個 10 公升--10 微克 1 公升嚟到比較。如果相對用另外一種嘅方法，譬如用隔夜水嗰個方法，其實你抽到嗰個水辦嗰個鉛含量，你唔可以用一個嘅世衛嗰個標準嚟到比較，因為世衛標準就係話你要搵一個代表性嘅水樣本。

問：有冇去諗下--即係你都係冇答到我問題，不過我用另外一個問題問你。當時你哋睇完呢份報告，見到兩位世界著名專家嘅意見，亦都聽咗你哋水務署內部專家嘅意見，有冇人去諗下話「不如都驗多啲，驗多少少唔係 fully flushed 㗎喇」，有冇咁嘅討論？

答：我哋冇咁嘅做法，因為討論呢一樣嘢，其實你要建基於一個基礎。如果我哋個立論係話要去睇嗰個水質係咪根據呢個世衛嘅標準，我哋去搵一個所謂隔夜水嗰個水樣本嚟到去化驗，其實我哋要去做一啲嘅解釋，即係點解你要去做呢樣嘢。因為基本上我哋已經睇到當個水樣本顯示係有超標嘅情況，我哋係需要做一啲嘅調查。而我哋個調查所講嘅方法，頭先我都提過。

問：即係你嘅意思係話因為要去解釋，所以就唔做？

答：唔係因為要解釋而唔做，而係有冇個實際上嗰個嘅基礎。

問：有冇--其實基礎好明顯，兩個世界著名專家講到咁清楚話「喂，fully flushed 未必夠代表性。」你亦都講咗話你哋唔係話唔同意佢哋嘅意見，咁點解唔做多一步，點解當時作為一個負責任嘅政府部門，唔做多一步去釋除公眾嘅疑慮，驗下啲唔係 fully flushed 嘅呢？

答：或者我頭先可能又講得唔係好清楚，因為其實佢呢度話唔係代表性，係唔代表性你去研究嗰個內部裝置系統裏面嗰個鉛嗰個嘅釋出嘅情況，但係我哋採取個方法就係將嗰啲嘅喉料係拆出嚟，直情係用一啲化學去驗有幾多鉛，咁呢個我哋覺得就比較直接啲。因為如果你用攞呢個隔夜水嗰個嘅方法做，你只係做到一啲嘅數據出嚟，但係嗰啲數據你點樣去嚟到去比照世衛嗰個標準，其實呢個係一個問題。或者咁，我哋其實就之後我哋搵到一啲嘅專家都傾過呢個課題，佢哋都睇過我哋嘅安排同埋個做法。咁我哋其實琴日都有提到，我哋希望主席可以批准我哋呈交呢個專家嗰個嘅意見。

問：你睇下你哋嗰個新聞發布，C20.1，15544。呢度就係你哋當日就住嗰個 preliminary report 作出嘅聲明，水務署發出嘅聲明，第2段，“WSD has noted the experts of the Commission of Inquiry”，跟住就“The experts pointed out that fully flushed samples might serve the purpose of assessing the general quality of drinking water as supplied.”

即係呢度就抽咗其中一段，就話 fully flushed sample 就可以 serve 呢個 purpose 嘅，亦都有提到話專家其實有講到 fully flushed sample 就可能唔夠代表性呢樣嘢，係完全喺你個 press release 就有提到。

跟住我哋再睇，“Objective of taking drinking water samples is check whether the quality of water consumed by the general public is in compliance with the guideline values and provisional guideline values”等等，“Thus, the WSD established the sampling procedure with reference to ISO as recommended in WHO’s to flush the pipework for two to five minutes before taking water samples to ensure that water samples are representative and the water quality data can be compared with the respective guideline values”等等，“As such, drinking water that is tested with such method and in compliance with WHO’s requirement is safe for drinking. There is no conflict between the concerned

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water sampling method and the opinion of the Commission's experts."

但係你成份 press release 係完全冇 address 過我哋兩位專家嘅 concern 㗎，就係話你哋所擺嘅 fully flushed sample 係唔係真係對於個含鉛量係有代表性呢樣嘢，完全冇提個㗎？

答：因為--對唔住，容許我再講講，其實我哋關注就係嗰個 water quality，專家嗰度最耐嗰個佢係講緊 lead exposure 嘅 extent，其實係兩件事係有唔同嘅地方。我哋而家其中--因為專家亦都係講得好清楚，如果你係用 fully flushed sample，其實呢個係可以 serve the purpose of assessing the general quality of drinking water，即係佢呢個其實同意。而我哋--可能專家唔知道我哋嗰個目的係啲乜嘢，如果我哋個目的係愛嚟去睇一睇嗰個 lead exposure 嘅 extent，咁就佢會睇到我哋而家用一個即係沖水嗰個方法嚟到去擺水辦就係唔啱，呢個我同意。咁但係我哋因為有機會同個專家有個溝通，就係話畀佢聽我哋其實擺水辦嘅目的係去想知道嗰個水質。咁所以變咗佢呢個專家意見，其實佢係有提到就係如果你擺一個 flushed sample，係可以知道究竟嗰個水質係點樣。

黎先生：可唔可以咁講，係即係水務署完全對嗰個 extent 同 lead exposure 完全冇興趣？

答：唔係冇興趣，我哋用第二個方法去搵。

黎先生：但係你個第二個方法同出嚟個 result 同唔同，你鋸嗰啲出嚟嚟到睇？

答：因為鋸，你去--我哋鋸就...

黎先生：嗰個 extent 有個數據，可以睇到出嚟 extent 係成條邨嘅數據？

答：或者我解釋...

黎先生：你呢個 water sampling，你而家驗嗰陣時，你可以驗到成個 building 嗰啲水出嚟嘅數據嚟個㗎，係咪呀？

答：嘅。

黎先生：即係話呢個--某一個係嗰個水喉出嚟...

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答：都我諗佢都係抽樣。

黎先生：... 嗰個嗰度個數據，但係如果你係鋸嗰陣時，就睇下你邊個位去鋸，係咪呀？

答：因為我哋嗰陣時個目的就想睇一睇究竟嗰個內部供水系統有冇用到啲唔啱規格嘅物料，呢個就係我哋《水務設施條例》比較係要執法嘅一個根據。咁所以當我哋抽咗一啲嘅...

主席：唔係，你執法有你執法嘅道理，但係事有先後緩急，居民嘅安全、食水嘅安全係咪...

答：我同意呢個係最重要。

主席：咁咪係囉。

答：所以變咗我哋係...

主席：你鋸啲嘢出嚟，你可以見到啲乜嘢？即係客觀嚟講，你同唔同意，客觀，最穩陣就係擺水嘅 sample 去 investigate 究竟嗰個 lead 有幾多 leached 到出嚟？

答：嗯...

主席：客觀呀，你鋸開嗰樣嘢，你見到嘞，係呀，有一叭鉛嘅度，咁可以話畀你聽咩嘢嘢？

答：唔係，我諗最主要就係要睇一睇佢啱唔啱嗰個嘅...

主席：唔係，唔好--你個 priority 當時係居民嘅食水安全，你鋸咗出嚟，係，你係見到，咁可以 objectively 話到畀你聽乜嘢嘢？冇。

答：唔係，我同意，所以我哋最先做係擺水辦，就唔係鋸。

主席：我明呀，署長，你明唔明啫？你明唔明我哋講緊乜嘢嘅啫？

問：即係對於居民嚟講，居民唔會擺條喉喺身體入面，唔會食條喉，佢係飲用水。

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答：其實居民最想你話到畀佢聽水裏面嗰個含鉛量比較世衛有冇超標，我覺得佢最想知道。

主席：啱呀，所以佢想你個 investigation into 個 lead 呀。

答：所以變咗你要抽嗰個水辦，你要根據呢個嘅目標嚟去擺。因為即係如果你睇番嗰個世衛同埋睇 ISO，佢都好清楚。

主席：唔係，我同你聽日叫水務署嚟我屋企 check 下我啲水有冇問題，咁我完全同意你嘅講法，係咪？啱唔啱呀？而家唔係，而家有人開記者招待會，「喂，有問題呀，出事嘞，亂咁用呀。」變咗係嗰個 purpose，係咪呀？

答：出咗事之後，我哋同意嘅，就係要做一啲跟進嘅工作。

主席：即係頭先--係咪，黎先生所講，你有啲 objective 嘅 data 話畀你聽「喂，超標啫， investigation 啫。」用水嘅 sample 去做 investigation 係咪好過你鋸開佢，你都唔知道係咪超標？

答：唔係，當我哋係睇到嗰個水辦係超標，我哋先至會鋸，如果唔超標，我又唔會走去即係做呢個...

主席：就係咁先至係個問題，個問題就係唔應該咁樣樣，係咪咁呢？

答：或者我都講咗好多我意見，我只可以話到時即係我啲同事可能再解釋得清楚啲。

主席：行多一步又有啲乜嘢問題？我知你啲同事點樣樣做，我哋都知，完全知，係咪？即係有陣時你作為一個機構嘅最高領導人，咁你嗰啲下面啲下屬可能唔係同你同一個步伐，你想行前少少，你可以㗎嘛。

答：即係行前嘅意思係將所有屋邨...

主席：唔係，你可以話畀你個同事聽「喂，咁啫，人哋出咗囉啫，行多一步喇，做埋，等佢哋心熄，死咗條心，唔使拗。」

答：或者我同事可能會詳細解釋，因為如果你用一個--譬如用呢個方法嚟到去抽水辦，其實我哋出現咗兩個問題，第一個問題當然真係個時間係會長好多，啲居民亦都會好心急想知道究竟嗰個水係咪安全，而我哋用呢個方法抽到嘅水辦亦都唔可以比較，我根本話唔到畀佢聽究竟

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啲水係咪安唔安全，因為你個比較嘅準則就係 10 公升 1 微克--10 微克 1 公升。

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主席：點解唔可以話畀人哋聽啲水安唔安全啫？

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問：如果一個屋邨...

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主席：得嘞，得，得，唔緊要，繼續。

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問：即係你覺得如果一個屋邨 fully flushed sample 驗咗，冇事，第一浸水又驗埋，冇事，咁公眾咪可以釋疑囉，嗰個屋邨係冇事囉，呢個就係我哋所講嘅行多一步。

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答：但係如果你攞第二浸，你意思係抽一個隔夜水嚟到驗？

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主席：係呀。

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問：係呀。

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答：如果你攞隔夜水驗嗰個數出嚟，你攞--即係有個困難，你攞咩嘢做比較？

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Q

問：攞唔到比較...

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答：你攞番 10 公升...

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主席：咩嘢做比較，你咪世衛標準。

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答：咁但係世衛標準係你係唔應該用呢個方法嚟到攞水。

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主席：吓，咁人哋蘇格蘭嗰啲做嚟做乜嘢？

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答：佢做研究，佢就調查唔同，佢真係要去逐樣...

主席：哦，得，得，得，你哋唔係做調查嘅，得，唔，得。

問：我想問下你--我想問下，你本人當時喺呢個會議入面，睇到兩個專家嘅呢個初步報告，你本人有冇提議過話「喂，行多一步，攞埋啲第一浸嘅水嚟驗。」你本人有冇咁樣建議？

答：我唔係好記得當時，因為都幾--即係幾急吓，不過我哋有搵--需要就係搵一啲嘅專家再睇番，究竟我哋所攞水辦個方法有冇問題。

問：有冇同事提出過一個咁嘅建議話「喂，不如我哋去驗埋啲第一浸嘅水。」有冇同事提出過一啲咁樣嘅建議？

答：你講緊係嗰一日？

問：唔。

答：嗯...

主席：因為同事唔係一定啱，你下屬唔係一定啱。

答：其實我哋嗰陣時個專注點，就係專家嗰個報告出嚟，我哋係咪--畀我哋睇到，因為佢係專家，即係會唔會我哋用個取水辦個方法係有一個好大概問題，我哋需要去更改，我哋個專注點喺呢度。

問：冇錯，呢個就正正就係呢個專注點。你哋嘅水辦有冇問題，我就想知道就係你哋當時討論，有冇同事好心地提及下話「喂，不如我哋驗埋專家所講 stagnation water 或者係 first draw。」有冇同事提出一啲咁嘅建議？

答：我真係冇印象當時我哋個討論嘅焦點喺呢度，我哋主要都係睇番我哋個取水樣本嗰個方法同埋專家所講，究竟有冇一個衝突嘅地方。

問：我想問下，你提及過你哋水務署都搵咗專家就去嚟睇呢一個水辦個個抽水辦方法嗰個問題，都做咗一啲研究，係咪呀？你哋幾時搵過專

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家，我想知道？

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答：我諗我記得就應該係喺呢件--當我哋收到呢個報告之後，但係邊個日子我真係唔係好記得，我哋之後有搵專家研究。

D

E

問：可唔可以講一講話搵咗邊個專家？

E

F

答：我諗我哋要確認下嗰個專家，基本上就係有冇係--因為我唔知主席同唔同意我哋入呢個...

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主席：唔係，而家唔好理同唔同意，而家淨係問你個名啫。

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答：我哋有搵到 Professor Ho。

I

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主席：Professor 乜嘢 Ho？

J

K

答：Ho，何建宗。

K

L

主席：係邊間 institution？

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答：佢而家應該係公開大學。

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N

主席：公開大學，唔。

N

O

問：淨係搵得一位啫，係咪呀？

O

P

答：即係如果唔計主席批唔批准，我哋有搵過另外一個就係有個 Dr Leung。

P

Q

問：可唔可以畀個全名？

Q

R

答：佢應該叫做梁家聲。

R

S

問：咁而家你哋打算--即係話你哋想提出專家報告，係搵邊一位專家去做？

S

T

答：我哋當然希望即係如果主席同意，我哋可以兩份嘅專家報告都有。兩份專家報告都係同水有關，咁有一個比較焦點啲，係抽水嘅方法。

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問：報告做好咗未？

答：都係差唔多完成，即係喺差唔多一個接近完成嘅階段，起碼一個步初嘅報告。

問：即係你哋喺嗰個我哋兩位專家報告出咗初步報告之後冇幾耐，你哋就即係著手搵佢哋，係咪呀？

答：一段時間。

問：最後我想畀你睇一睇，就係一啲撮要，就係講緊一啲驗咗 fully flushed water 嘅屋邨，而係即係 borderline，咁我哋可以--又或者我畀你睇幾個例子，喺 A3, 2391。呢個就係我哋睇到，就係喺 2005 年之後落成嘅公共屋邨，咁呢個 table 3 就係一啲即係驗咗，但係就即係冇超標，當時用 fully flushed sample 驗咗，冇超標。但係如果你睇下最後嗰個 column 黃色嗰啲，就係我哋所講 borderline，即係都接近嗰個世衛嗰個標準，都有唔少屋邨我哋睇到係咁嘅情況。所以我想問下你哋當時討論嘅時候，即係有冇著眼喺一點，就係話有啲屋邨當時驗咗出嚟，可能 borderline 嘅 fully flushed water，但係如果用 stagnation water 或者用 first draw，係有機會超標佢哋呢啲，有冇諗過呢個問題？

答：我理解佢哋係每一次完咗呢個抽水樣本，嗰啲結果係有一個委員會或者有一個嘅會議去討論，我本人就有參與嗰個嘅會議，不過就我知道佢哋用嗰個嘅準則，都會係睇就係有冇超過嗰個世衛嗰個標準。

問：當日 11 月 13 號，我哋兩位專家證人出咗初步報告之後，你哋開會，著手希望做一個回應嘅時候，有冇去諗呢個問題，有啲屋邨可能係 borderline，如果用 fully flushed sample 唔夠代表性嘅話，佢哋有機會係受影響個啲，有冇諗過呢一點，你本人？

答：我記憶中好似都有討論過，即係會唔會其實呢啲咁嘅我哋出現--出事嗰個結果會唔會受嗰個嘅水辦就係抽樣個方法影響。咁但係我哋嘅討論都係圍繞住究竟我哋嗰個抽辦嗰個方法係咪正確，即係呢個係做嗰個基礎，而出嚟嗰個結果亦都要睇一睇究竟係咪符合世衛標準。其實我想提番，譬如喺第二啲國家，佢哋--譬如美國，佢用嗰個抽水辦之後個結果，佢哋比較嗰個 1 公升 15 微克，亦都當為一個 action level 叫做，即係話係有一百個水辦，有超過--如果我有記錯，好似係超過十個，係超過呢個 15 微克 1 公升嘅時候，佢哋先至會再採取一個調查嘅行動。

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所以香港嗰個情況，我哋其實每一條邨，我哋用一個系統去抽咗嗰啲水辦，每一個水辦我哋都會睇一睇，究竟用我哋抽水辦嗰個方法啱唔啱，同埋個結果會唔會有啲顯示我哋係有需要做一啲嘅跟進工作。

許偉強先生：我有其他問題。

主席：邊位想問先，Mr Ho 或者 Mr Lee？

李柱銘先生：好似兩位都想問先，不過我讓 Mr Ho 先。

何先生盤問

問：署長，我係代表房委會。就我想首先跟進下呢個委員會主席今朝都問過你一啲關於水務署同埋水務監督喺個法例底下嗰個權力。我想同你睇一睇嗰個法例嗰個安排係點樣先，好唔好呀？請唔好介意，我唔係去考你熟唔熟嗰個水務條例，或者如果大家喺嗰個演繹上面有爭議，我相信我哋可以留待到到最後。但係我想提出嘅就係因為你講到水務監督同埋水務署喺個法例底下個角色，咁我想同你係跟進一下。咁首先就係我喺嗰個水務條例，我想請你睇下 C2, 1145，不過你可能有其他地方都會搵到個水務條例。我睇就...

答：你可唔可以讀一讀嗰個--你係用緊設施條例定設施規例？

問：我係用緊《水務設施條例》，Ordinance。

答：你講下邊一條條款。

問：好。我想首先請你睇下喺法例底下，水務署同埋水務監督對於嗰個 inside service，嗰個內部供水系統嗰個權力係去到邊度先。我想請你睇第 8 條、第 9 條同埋第 10 條。見到嘛？

答：係。

問：第 8 條嗰度就賦予咗水務監督有個權，就係話如果嗰個內部供水--8(1)(a)嗰度，我特別睇到 8(1)(a)，如果個內部供水嘅設施係唔得到水務監督嘅批准，係水務監督係可以唔接駁嗰個食水。

答：係。

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問：第 9 條就係話如果係水務監督係需要話係喺個內部供水系統裏面，係要作出一啲調查或者係一啲測試或者係調節咁樣，咁係有權係去 suspend 嗰個供水，直情可以係唔供水，暫時，見到嘛？

答：唔，係。

問：第 10 條就講到話嗰個水務監督係可以對於呢個內部供水係直情係可以截斷呢個內部供水--就截斷嗰個供水。尤其是喺 10 同埋 (c) 嗰度，我想你特別關注下呢一點，就係話有咩嘢情況，如果就係話嗰個內部供水係唔符合嗰個條例嘅規定，你係直情可以截斷嗰個供水添。

答：係。

問：咁所以就咁簡單睇呢幾條嘅條款，你同唔同意即係水務監督對於嗰個內部供水嗰個系統係有一個好闊嘅權力，係呢條法例所授予？

答：佢有一個--即係你講一個比較闊嘅，因為有好多項嘅情況底下，佢亦都可以有啲嘅執法嘅行動。

問：係嘞。我想趁我哋睇緊第 10 條，包括埋當然譬如好似 (g) 嗰項，就係話如果有 waste、misuse 或者 pollution of 個 supply，咁呢個都係可以截斷供水嘅情況嘅，咁就係呢個確保咗嗰個水源嗰個質量嘅安全，咁我相信，係咪呀？

答：唔，唔。

問：我想你睇埋嗰個 regulation，呢個係規例，呢個我睇到喺 C2, 1156 係有嘅，不過你可能喺其他地方都有睇到。Regulation 嗰度，我特別想你睇一睇第 6, Regulation 6。首先呢個嗰個設計就係咁，如果有人係想建造或者係安裝呢個內部嘅供水設施，一定要事先係得到水務監督嘅批准，見到嘛？

答：唔，唔。

問：Regulation 6，第 1 條。

答：唔。

問：見唔見到？

答：係，係。

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問：唔㗎。第3條，我想你特別睇第3條，呢度個英文就係咁寫，“No pipe or fitting forming part of a...”，唔好理 fire service，“forming part of inside service shall be used or covered up until it has been inspected and approved by the Water Authority.” 見到嘛？

答：見到。

問：換句話嚟講，即係話如果係做咗一啲工程係牽涉到到嗰個 pipe fitting，冇人可以將佢 covered up 或者係冇人可以用做完咗之後嗰個工程，直至到得到水務監督嘅認可、批准、檢驗為止，你同意嘛？

答：唔。

問：呢度係咁寫。

答：嘅。

問：係咪呀？咁所以喺法例嗰個安排底下，你同唔同意我講，就係話喺呢一類咁樣嘅建造或者係安裝呢啲內部供水設施嗰個情況下，呢個法例嗰個設計，就係畀水務監督係有個最後嘅把關嗰個權力，你同意嘛？

答：係，我哋係最後要去檢視嗰個內部供水系統，然後就要批准，然後先至可以供水。

問：係嘞。咁可以嗰個把關就擺咗喺嗰個水務監督嗰度。對於嗰個建設、建造或者係安裝呢啲內部供水設施，你見到呢條條例嘛？

答：呢個條例就頭先都講咗，即係個檢查同埋批准係水務署嗰個--水務監督嗰個嘅職責。

問：好。不單止係咁，仲有嗰個安排就係--返番去嗰個主法例裏面，主法例就係我哋頭先許律師代表委員會都同你研究過14、15條。你見到第14條同埋第15條，同時間去睇，嗰個安排個設計係咁樣，就係話首先就係完全唔批准任何人做建築或者係安裝呢啲內部供水設施先，14條，冇人可以做呢啲嘢，除非得到水--佢除非係一個持牌水喉匠，而係由水務監督去批准。你見到嗰個安排係咁，所有人都唔可以做呢一啲內部工程，基本上。

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答：係。

C

D

問：係咪呀？

D

E

答：你講係第 14 條？

E

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問：第 14 同埋第 15 條同時睇，一齊去讀，係有呢一個咁樣嘅 effect。

F

G

答：係。

G

H

問：而呢個持牌水喉匠呢一個咁樣嘅機制，基本上最終發牌、監管、監督，呢一個咁樣嘅機制對於或者係准唔准佢繼續用呢個持有個持牌水喉匠嗰個咁嘅資格，全部都係喺水務署、水務監督嗰個權力底下。

H

I

答：嗰個--係。

I

J

問：係咪呀？

J

K

答：嘅。

K

L

問：所以我想同你睇埋，返番去嗰個規例，個 regulation 嗰度，我想你睇第 20 同埋 21。對唔住，先睇 19。19 就係喺呢一個叫做第 3 部分，就係喉管同埋裝置呢一個部分，見到嘛？

L

M

答：係。

M

N

問：Part 3, "Pipes and Fittings", 係咪呀？

N

O

答：唔噃。

O

P

問：呢一度就係話--成個 part 3 就係第 19、20、21，19、20、21 呢幾條，就係講咗話如果係呢啲 pipes and fittings 就係要用根據呢個英國嘅標準咁樣，見到嘛？

P

Q

答：係。

Q

R

R

S

問：當然如果我哋睇成個計劃，成個設計嗰個架構，就係話呢啲當然首先係針對話要去建造或者係去安裝呢啲喉管嘅人，首先就一定要知道呢啲所用嘅物料嗰個規管嘅格式，包括埋呢個 British Standards，對嘛？

S

T

T

U

答：唔，唔，唔，係。

U

V

V

B

B

C

問：係咪呀？

C

D

答：嘅。

D

E

問：唔。所以基本上呢個 19、20、21，係針對嗰啲持牌水喉匠，因為只有佢哋先可以係去安裝或者係去建造呢啲咁嘅內部供水系統，對嘛？主要上。

E

F

答：我想有個附註，即係呢個法例就--因為頭先都提到，喺條例裏面，14、15 裏面有一啲叫做--有啲嘅裝置係屬於呢個輕微性質，咁嗰啲就唔需要持牌水喉匠做，咁就唔代表佢哋用嗰啲物料係唔需要跟第 3 部分裏面所要求。

F

G

G

H

H

I

問：明白，係。

I

J

答：咁所以頭先你話針對持牌水喉匠，係啱，不過都會包到其他一啲嘅人，如果佢做一啲輕微工程。

J

K

問：嗰個我唔參與嗰個 discussion，應唔應該畀其他啲人做嗰樣嘢。

K

L

答：Okay，得，好。

L

M

問：我相信頭先許律師已經好詳細同你討論過。

M

N

答：明白。

N

O

問：但係基本上整個設計係咁樣，係好似我頭先咁樣嘅講法、睇法，對唔對？

O

P

答：唔，唔，唔。

P

Q

問：如果係對，請出聲，因為有錄音。

Q

R

答：係，同意。

R

S

問：係，唔該。仲有就係我想睇埋你作為呢個水務監督有個責任，就喺呢個主條例嗰個第 4 條嗰度，呢度就寫明係個水務監督嘅職責，喺個 (f) 嗰度就係要執行嗰個條例嘅條文，你見到嘛？

S

T

答：見到。

T

U

問：呢個就寫到明，係嗰個責任係歸嗰個水務監督所有。

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答：係。

問：我想講就係--想同你提出就係譬如呢一啲咁樣嘅責任嘅分配，或者我再同你提埋一個就係講埋嗰個 consumer，喺個條例嘅第 7 款。呢度第 7 款就咁講，就係話嗰個水務監督係可以認可，成為一個 consumer，即係某一啲人成為一個用戶，咁先個條件就係個用戶係要喺嗰度佔用嗰個地方，咁肯畀個承諾就係會交水費，就亦都係呢個 7(1)(c)(ii) 就係話佢承諾係會接受嗰個責任，係保管同埋去保養嗰個內部供水系統，你見到嘛？

答：係，見到。

問：呢個就唔係--睇落第 7 款嗰個寫法，就唔係直接話嗰個 consumer 有啲咩嘢責任，但係佢就話個水務監督，如果個 consumer，個用戶係肯承擔一啲責任，佢可以批准佢做 consumer，嗰個意思係咁樣。

答：係。

問：所以我想返番去你嗰個口供嘅第 12 段嗰度，你嗰個描述，水務監督嗰個責任喺個條例底下，你就引用嗰個第 3 條，第 12 段喺 10283 頁。你嗰個講法就係水務監督就喺個條例底下就有呢啲責任，但係就 consumer 嗰個責任就係第 7 條咁樣，你見到嘛？

答：係，見到。

問：但係喺個法例嘅寫法裏面，我唔係同你想咬文嚼字或者想話你呢個講法正確與否。喺個法例嗰個安排底下，唔可以直接話個法例就要求呢一啲 consumer，呢個用戶就直接喺第 7 條，就係有呢啲咁樣嘅所謂責全，唔係咁樣。佢係話「水務監督可以接受你作為一個用戶，如果你肯應承畀水費或者你亦都係保管同埋保養你嘅內部供水系統。」見到嘛？

答：係，係。

問：呢個所謂「用戶」，喺個條例底下，當然用戶唔需要分大同細，即係其實個條例對於用戶嚟講就一視同仁，你幾大嘅用戶同幾細嘅用戶，嗰個責任或者係佢可以喺條例裏面得到嘅保障都係一樣，係咪呀？

答：係，係。

問：唔理呢個用戶係一個單棟樓嘅一伙人嘅用戶，抑或係房署作為--房委

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會作為呢一個公屋嘅業主咁嘅情況，基本上個責任同佢得到嘅保障係完完全全係一樣，對嘛？

答：係。

問：唔噃。我想再睇下個用戶嗰個，喺呢個條例底下嗰個要求佢哋做啲乜嘢，就可唔可以返番去嗰個規例嘅第 7 款，睇唔睇到，即係可唔可以？規例，第 7 款。第 7 款嗰度就係話用戶就有個責任係要保持嗰個內部供水系統要清潔，見到嘛？

答：見到。

問：嗰個用戶因為佢係--有可能係大用戶，有可能細用戶，佢嘅責任係基本上係一啲好似維修上面嘅責任，即係譬如要嗰啲喉管要清潔，可能個水箱係要定期搵人去清洗下，唔好積晒嗰啲生鏽嘢喺度，咁樣去確保嗰個清潔嘅性質，對嘛？

答：唔，唔，係。

問：呢個整體就係用戶嗰個責任，就係呢個第 7 條嗰個責任就係咁多，係咪？

答：呢度第 7 條係講出用戶有呢個責任。

問：係嘞。

答：但係咪就喺第一，喺成個法例同埋規例裏面，講用戶得呢個責任，呢個我諗要睇一睇先得。

問：你睇下，因為你好熟，應該呢兩個規例同埋嗰個條例底下。因為我見到你個口供同埋你嘅同事嘅口供，都係引述咗呢個第 7 條。

答：呢個會係比較重要，譬如舉個例，如果有一個水務工程佢哋想進行，佢要--譬如佢有個責任，要請一個持牌水喉匠做，佢未必一定唔係一個所謂輕微性質嘅工程嘅話，咁呢一個都係嗰個--有機會係成為用戶嗰個人要負責，即係...

問：我諗所以大用戶、細用戶...

答：...佢冇用嗰個字，佢冇用嗰個字，不過好多時嗰個 consumer 佢喺某個階段裏面，佢要係負責做呢一樣嘢。

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問：當然，第 14 條我哋咪睇到所有人都唔做得，除咗持牌水喉匠，第 14 條頭先法--對唔住，法官同你講咗，就係話嗰度有一個講到明，你唔可以自己去做，係咪呀？你嗰個會係刑事。咁所以我哋唔單只係用戶，我哋個個人，你係咪用戶，就算我係冇屋住，我都唔可以突然間搵個唔係持牌水喉匠嘅人去做呢一啲建設或者係改裝嗰個內部供水，全部人都係要受制於呢一條法例。

答：其實我想講就係我哋條例裏面，有唔少嘅條款有提到“any person”。

問：係嘞。

答：咁“any person”呢度都有包括用戶，咁所以如果你問我成個《水務設施條例》、《水務設施規例》，用戶係咪就係得頭先你講 7 嗰個責任，我就話可能有保留，就係可能第二啲地方佢用“any person”，嗰個“any person”就包埋 consumer 當然。

問：明白。

答：咁就可能佢仲有第二啲。

問：好。咁唔緊要，我哋如果有需要，我哋到最後陳詞嘅時候，可以再研究。我見到差唔多一點鐘，我就咁總括咗呢一個條例底下，我對於個條例嗰個理解先，好唔好呀？咁你可以同意我、唔同意我。

答：係。

問：我睇到個條例嗰個設計，就基本上第一，嗰個條例係將嗰個最後把關嗰個責任係擺咗喺水務監督嗰度，同意嘛？

答：你講係如果係批准嗰個建造嘅水喉？

問：係嘞，內部供水設施。

答：因為如果之後嗰個把關就應該係去咗啲住戶，譬如佢要負責保養、維修嗰個。

問：我講係對於內部供水設施嘅最後把關係擺喺個...

答：喺建造階段，係。

問：唔單只係建造階段。

B

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C

答：如果係保養階段就唔應該係水務監督最後把關，因為頭先都講咗，譬如保--令到嗰啲水管係清潔，嗰個責任...

C

D

問：清潔，係，清潔。

D

E

答：清潔嗰個把關，我覺得應該係喺個住戶嗰度。

E

F

問：唔，清潔，okay。

F

G

答：所以清潔、保養階段，我覺得唔應該係水務監督係負責把關。

G

H

問：但係我哋頭先亦都你同意我嗰個條款嘅第 6 段嗰度，我哋冇人可以，有人可以 covered up 個嗰，除咗你先行已經檢視咗？

H

I

答：對唔住，嗰個係...

I

J

問：係？

J

K

答：...我嘅理解，嗰個係建造階段，即係如果係保養、清潔階段，就係即係頭先講咗規例...

K

L

問：第 7，...

L

M

答：...第 7 嗰度。

M

N

問：...你就話要清潔嗰個責任就擺喺個...

N

O

答：住戶。

O

P

問：住戶，明白，明白你個講法。喺呢個建造方面，尤其是呢啲內部供水系統，主要嗰個建造嘅責任同埋批准同埋監管個過程，都係水務監督同埋呢一個持牌水喉匠嘅責任？

P

Q

答：建造階段，當然就係個責任就係我哋如果係--即係都唔講輕微嗰啲工程、一般嘅工程，都係嗰個持牌水喉匠係負責。咁但係喺我哋嗰個申請嗰個嘅批准同埋批核嘅過程裏面，我哋係要求有一個認可人士，佢都確認就係嗰個水喉裝置係按照《水務設施條例》嗰啲表格。

Q

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T

問：我一陣間同你講你嗰啲 forms，好唔好？我而家講番個條例底下嗰個結構同埋佢嗰個設計。

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U

答：唔，唔。

U

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問：我嘅講法係對嘅，啱唔啱？

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答：你整體講法，就係話如果個建造係主要係持牌水喉匠，咁當然就其他譬如話--頭先我提“any person”，嗰個都有關係，...

D

E

問：即係...

E

F

答：...即係會包括有其他嘅持分者。

F

G

問：其他嘅持分者係唔可以做呢樣嘢，除咗水喉匠？

G

H

答：佢有影響，譬如話佢有冇請一個持牌水喉匠。

H

I

問：明白。

I

J

答：佢有冇有一啲合規格嘅料，咁嗰啲我諗佢亦都需要遵守，但係佢會係靠個持牌水喉匠去負責呢一樣嘢。所以你整體嚟講，如果你話純粹建造淨係持牌水喉匠，我就覺得仲可以講闊啲。

J

K

問：我一陣間同你睇下其他持分者嗰個角色嘅問題，好唔好？

K

L

答：唔，唔。

L

M

問：我一陣間會同你 go through 嗰樣嘢，你唔使驚。

M

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N

O

何先生：我想或者呢個係一個我會去嗰啲 WHO 啲 Guidelines。

O

P

主席：咁我哋晏晝兩點半繼續。

P

Q

何先生：好，唔該。

Q

R

下午 1 時正聆訊押後

R

S

下午 2 時 31 分恢復聆訊

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出席人士如前。

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般先生：主席，我 leader 應該入緊嚟。

C

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水務署第一證人：林天星（水務署署長）宣誓繼續作供  
何先生繼續盤問

E

F

問：我想你睇一睇啲世衛嘅指引，C2 文件夾 1244，我想請你睇嘅就係 2011 年嘅呢一個版本，就首先我想你睇 1255 頁，1255 頁嗰度就係呢一個 introduction 嗰個部分，1.1 嗰度就係 “General considerations and principles”，見唔見到嘛？

F

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G

H

答：係，見到。

H

I

問：我想你去 1256 頁，我想你去睇嗰段就係 “The Guidelines are intended”，睇唔睇到？

I

J

答：睇到。

J

K

問：或者我讀一讀出嚟，“The Guidelines are intended to support the development and implementation of risk management strategies that will ensure the safety of drinking-water supplies through the control of hazardous constituents of water. These strategies may include national or regional standards developed from the scientific basis provided in the Guidelines.”，你見到嗰句嘛？

K

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答：見到。

O

P

問：呢度我有兩點想問下你嘅，第一，呢度提出嚟嘅就係要--呢一啲指引係幫一啲 national or regional standards 去做一個 risk management strategy，你見到嘛？

P

Q

Q

R

答：見到。

R

S

問：你嘅理解，而家睇上嚟，呢啲 national or regional standards 係咪應該有個中央統籌嘅？

S

T

答：如果你講水質嚟講，就水務署就曾經就喺 94、95 之前就有討論過，究竟我哋係咪應該採取一啲乜嘢嘅標準，當時我嘅印象佢哋係 94、95 年就話係承諾係跟世衛嘅標準，所以呢度可以套用就係一個

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regional 嘅 standard。

問：Regional，點解用 regional？

答：Regional 即係香港，Hong Kong，Hong Kong as a region。

問：即係全港性嘅？即係 regional 唔係區域性，係全港性個意思，係咪咁？

答：全港性，我哋當時就係話我哋負責供水嘅水質標準。

問：唔係，我明，供水個水質標準，但係呢度係講話去 develop 同埋 implement 一啲 risk management strategy，嗰啲 strategy 係應該要係包括 national or regional standards，我想問嘅係即係呢個睇法似乎就係要由一個中央嘅，即係可以全港性應用到嘅一個咁樣嘅 standard？

答：我只可以咁答，因為我未睇過呢份文件嘅，如果你抽呢段，我個理解就係話如果某一啲嘅地方佢想制訂一啲嘅策略，你需要就定一個標準，我理解，94、95 年之前，水務署係想定一個水質標準，佢只可以就指定一啲嘅範疇，譬如話佢係負責供水個範疇。

問：我諗你可能誤會，唔清楚嗰個問題嘅精義，個精義係要制訂呢啲 strategy 或者呢啲咁嘅 standard 係應該中央統籌，就唔係個別單位或者係區持份者或者係區域性咁樣去統籌，係咪咁嘅意思？

答：我睇個字面就係，不過我唔敢肯定係咪唔可以個別一啲嘅單位定一啲更高嘅標準。

問：你再睇落啲，或者我讀埋落去，“The Guidelines describe reasonable minimum requirements of safe practice to protect the health of consumers and derive numerical ‘guideline values’ for constituents of water or indicators of water quality. When defining mandatory limits, it is preferable to consider the Guidelines in the context”，又嚟喇，“local or national environmental, social, economic and cultural conditions. The Guidelines should also be part of an overall health protection strategy that includes sanitation and other strategies, such as managing food contamination. This strategy would also be normally

incorporated into a legislative and regulatory framework that adapts the Guidelines to address local requirements and circumstances.”

呢度有幾點提出嚟，第一，就係我頭先亦都再強調就係嗰個 national environment，你要睇下呢啲 guidelines 係唔係嗰個個--我哋係講全港性或者係如果係人哋係國家嘅，就全國性，咁樣嘅社會、經濟各樣同埋文化背景適用。第二，就係講係話要有一個 overall 嘅健康嘅 strategy，health protection strategy。第三點，就係話睇下呢一啲咁樣嘅 strategy 係咪應該要透過立法或者係其他嘅監管嘅制度係去實行嘅，呢三點，你見到嘛？

答：我見到呢三點。

問：如果我哋係針對呢三點嚟睇，亦都係返番去嗰個問題，係應該係一個中央嘅，喺個政府層面嘅一個監管，對唔對，或者落實？

答：可以咁講嘅，如果你係講緊一個國家，譬如佢想定一個嘅水質嘅標準，嗰個國家我知道就都可能分開唔同嘅地區，因為其實當你定一個標準，你考慮好多因素，然後就既定嗰個嘅標準作為嗰個區域或者嗰個國家嘅一個嘅指標。

問：我想你再睇遠啲，其實同樣嘅一個論點嘅，去到呢一版嘅尾嗰段，“The nature and form of drinking-water standards may vary among countries and regions. There is no single approach that is universally applicable. It is essential in the development and implementation of standards that the current or planned legislation relating to water, health and local government is taken into account and that the capacity of regulators in the country is assessed. Approaches that may work in one country or region will not necessarily transfer to other countries or regions. It is essential that each country review its needs and capacities in developing a regulatory framework.”

同樣地，呢一段亦都係講到話每一個國家或者係政府要多方面嘅，水、衛生或者係地方政府係要有一個咁樣嘅全面嘅 framework。

答：同意，呢度咁寫。

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問：有需要就係睇埋嗰個法例嘅標準嘅咁樣。

答：唔，唔。

問：都係一個政府層面去落實嘅，對嘛？

答：唔，唔。

問：右手邊同樣啲點，我唔再同你重複。1.1.1，喺右手邊嗰度，1.1.1，你見到嗰處佢講第二段，“A holistic approach to the risk assessment and risk management of a drinking-water supply increases confidence in the safety of the drinking water.”，呢處係提出咗要有一個全面嘅風險評估同埋風險管理係會增加到對食水安全嗰個信心嘅，係咪呀？

答：係，我睇到，係。

問：好呀，我哋見到就世衛都有一個文件係講，就係針對呢個風險評估，點樣去做呢個風險評估，同埋個風險評估嗰個優先次序嗰個文件嘅，我請你睇你哋部門陳健民先生嘅第三個證人口供，佢有一個附件，喺 C19.1 10550，10550，你見到呢個叫做“Chemical safety of drinking-water: Assessing priorities for risk management”，你見到嘛？

答：見到。

問：我想你揭去 10567，首先呢個係講 chemical safety 先嘅，成份嘅文件都係講 chemical safety 嘅，你見到嘛？

答：係，見到。

問：10567，你睇到嗰個標題 1/1 嗰度，“The need for guidance on assessing priorities for risk management”，佢教你點樣作一個優先嘅風險管理嘅，見到嘛？

答：見到。

問：我想你去中間，由“Theoretically”嗰度開始去到孺豎，或者我好快咁讀，好唔好呀？

“Theoretically, it is possible to assess at a national or local level the health risks from chemicals

in drinking-water for every chemical for which a guideline has been set. The WHO has published procedures for assessing chemical health risks. These assessments may be used to manage chemical risks to water safety by the development of control and monitoring programmes, and of national standards for drinking-water quality. However, to make such assessments and develop management strategies for every chemical would be impractical and would require considerable resources, posing problems for many countries. A more effective approach where resources are limited is to identify and focus on those priority chemicals for which significant human exposure is expected to occur, recognising that priorities may vary from country to country, and within countries.

In many countries, the development of appropriate risk management strategies is hampered by a lack of information on the presence and concentration of chemicals in drinking-water. Water authorities attempting to identify priority chemicals despite having limited information would benefit from guidance on simple and rapid assessment methods. These could be applied at a national or local level to provide a shortlist of priority chemicals, which could then be more rigorously assessed for health risks. The present publication seeks to meet the need for such guidance."

有幾樣嘢我想同你提出嘅，第一，就係要有個健康嘅評估，呢個又係--我頭先所講，係喺個國家層面或者係一個整體個地區嘅層面，見到嘛？

答：唔，唔。

問：第二，就係呢度講到明呢啲應該係嗰個 water authority 係應該要去做嘅，你見到嘛？

答：（沒有可聽到的回答）

問：你見到嘛？Water authority 係應該做呢一件事嘅，同意？

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答：你講喺第三段嘅第...

問：即係我頭先讀嘅最後嗰段嘅第三行。

答：哦，okay，得，“Water authority”，係。

問：“Water authorities attempting to identify priority chemicals despite having limited information would benefit from guidance”

答：Okay，係。

問：如果係擺喺我哋香港呢一個咁樣嘅環境，就即係水務署，係咪呀？

答：係。

問：好喇，後面之後嗰段係同樣地講出，即係亦都係話都係應該喺嗰個 national level 嗰度要有一啲咁樣嘅 strategy、點樣去管理嗰個風險咁樣，你見到嘛？

答：係。

問：1/2 都係咁樣。

答：唔，唔，唔。

問：1/3 去最後嗰段，“It is important to note”嗰段，亦都係講話要係“national or local authorities to develop risk management strategies for each and every chemical for which guideline values have been set, but rather to identify and select those chemicals that may be of greatest priority for risk management purposes in the particular setting.”，見到嘛？

答：唔，係。

問：同樣嘅觀點？

答：唔，唔。

問：佢呢度都帶出咗一個觀點，就係話當然世衛可能講咗好多唔同嘅 chemicals，都可能會有個風險，但係唔係--即係佢都明白唔係話

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每一隻咁嘅 chemical 都可能有同樣嘅風險嘅，所以就要有一個程序，就係要有個叫做 risk assessment，要 prioritise 邊一啲係比較高風險，就要處理咗先，個意思係咪咁樣？

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答：我理解係。

E

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問：當然，你始終嚟講，最緊要第一樣嘢就係要做一個風險評估先，如果唔係，點知邊隻 chemical 個風險係高定低啫？你一定係要做咗個風險評估嘅程序先㗎，對嘛？

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答：係。

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問：做呢個風險評估嗰個程序，當然喺呢一啲嘅指引底下，應該係個 water authority，應該係個 health authority，呢兩個係最主要嘅政府部門去做呢個風險評估，對嘛？

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答：唔，唔。

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問：對唔對？

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答：係。

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問：我相信 to be fair to 水務署，呢一個所謂即係嘅評估嘅指引，喺 2/4/4，佢有講對於鉛嗰個風險嘅，2/4/4 喺 10581，即係呢個我覺得係應該要對水務署都公平，所以呢個嗰段 2/4/4，喺 10581 頁嗰度，佢就話--中間嗰度，“Generally, lead is not a high priority for routine be monitoring programmes because of the variability from building to building, but possible risks posed by lead in drinking-water should be assessed in localities where lead has been extensively used in plumbing materials, particularly if the water supplied is corrosive or is likely to dissolve lead.”，見到？

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答：我見到。

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問：又係喇，首先係即係到底佢係一個--喺某啲國家係一個高風險或者低風險，就當然係要睇番嗰個國家嗰個情況係點，譬如佢有冇用鉛喉各樣嘢，但係亦都係首先要做咗個風險評估先嘅，對唔對？

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答：係。

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問：3/1，去 10585，第二、第三段，我唔再讀出嚟，亦都係講緊水務署，呢啲 guidance，即係呢份 paper 嗰啲 guidance 係去幫助“water supply utilities, in collaboration with public health authorities to identify chemicals”，又係嗰兩個主要嘅政府機構或者係部門去處理呢個評估嘅，對嘛？

答：係。

問：3/2 第二段嗰度講到“national programmes to control drinking-water quality depend ideally on the existence of adequate legislation, standards and codes. The precise nature of the legislation in each country will depend on national, constitutional and other considerations. Generally, the legislation should outline the responsibility and authority of a number of agencies, describe the relationship between them and establish basic policy principles.”，見到嘛？

答：唔，唔。

問：呢個係講到話做評估之後，要有一個 national programme，需要有可能係法例嘅配合，有一啲可能係業界守則嘅配合，但係整體上係可能你有個 programme 之後，就會有唔同嘅 agencies 去配合你，係咪咁嘅意思？

答：係。

問：所以要有人哋去配合你，有唔同嘅 agencies 去配合你，首先要呢個水務嘅 supplier 同埋嗰個衛生署係去制訂咗指引先，對唔對？

答：如果行呢一個嘅制度，就係。

問：唔係，呢個就係嗰個 WHO 嘅指引嗰個設計，或者佢哋畀你嗰個建議就係應該要咁樣做法，對唔對？

答：係，因為其實呢個 w...

問：對唔對？

答：對。不過我想講一講，佢可能--因為我第一次睇呢份文件，因為我記得嚟 2004 年，即係上一個版，佢開始引用一個叫 Water Safety

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Plan，即係水安全計劃，你頭先講啲啲其實係走向嗰個目標嘅，即係話如果你要制訂一個水安全計劃，你需要嘅就定標準，定一啲嘅風險評估嘅工作，定一啲嘅控制個風險嘅策略，所以頭先你講啲啲都係向呢個方向做。

問：明嘅，我一陣間會同你睇你啲啲 Water Safety Plans，好唔好呀？

答：Okay，好。

問：我而家講番個世衛嗰個設計同埋嗰個建議嘅安排應該點做啫，好唔好？

答：係。

問：我唔再逐行逐句讀，我想你一跳就跳到去 chapter 8，第 8 個 chapter，喺 10639。

答：得，見到。

問：喺一個咁樣前提個框架底下，當然佢亦都有講到話唔同嘅人應該係做啲乜嘢嘅，呢度譬如 8/1 嗰度開始，中間嗰度，8/1，“The WHO Guidelines”，“cover a significant number of potential substances from water treatment or distribution”，“It is important that water supply agencies properly manage any chemicals that they use. In many cases, the best method of control is through management practices, such as optimisation of the treatment process, and regulation of materials and chemicals that come into contact with drinking-water, rather than through monitoring and chemical analysis.”，見到嘛？

答：見到。

問：嗰個始終嚟講，你話喺 treatment 嗰度要做好佢，regulation of materials 要做好佢，或者係 chemicals 嗰個方面要做好佢，都係喺嗰個框架底下，先係要做咗--中央要做咗個--即係好似水同埋衛生個部門要做咗個風險評估，然後再設計點樣去將嗰個大家整件事嘅分工，即係唔同嘅持份者嘅分工。

答：係。

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問：我想你睇到 8/4 嗰個 “Distribution systems”，8/4 個 “Distribution systems”，首先就係講第三行，“Monitoring for corrosion products is not appropriate; instead, it is necessary to manage the problem of corrosion and the accumulation of corrosion products in distribution.”，然後跟住右手邊有講 lead、copper、zinc 嗰啲咁樣。

我想你去 10642 中間嗰段，“Monitoring of metals in water”，你見到嘛？

答：見到。

問：嗰度數落去嘅第五行。

答：睇到，係。

問：你見唔見到 “Consideration of lead in drinking-water should be part of an overall lead-reduction strategy, because lead exposure from other sources may be more significant. There are a number of possible approaches to reducing lead levels in drinking-water, ranging from targeted replacement of lead pipes to central control of corrosion to reduce the possibility that lead will dissolve in water.”，見到嘛？

答：見到。

問：呢個所講嘅 overall lead-reduction strategy，我知道--我哋都有參考其他啲文件，譬如好似喺加拿大佢有 Health Canada，佢有一個整體性嘅 lead-reduction programme 嘅，你為唔為意呢啲咁樣嘅情況？

答：我有特別即係睇嗰個文件，我知道 Health Canada 係關心呢個水質嘅。

問：所以亦都唔係淨係針對話水裏面有冇鉛，而係鉛喺我哋日常生活裏面係咪有個--即係會唔會係構成一個風險呢咁。

答：唔，唔。

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問：又係喇，即係你作出一個整體評估，當然你會包埋你個飲用水，係咪？

答：唔，唔。

問：如果要做呢個風險評估，亦都係--即係我相信水務署一定係一個主要嘅部門去做呢啲風險評估，係咪？

答：唔，唔。

問：對嘛？

答：係。

問：我想你返番去頭先我哋睇嗰個世衛嘅指引嗰度，1.2，喺 C2 1259，你見到 1.2 嗰度係講“Roles and responsibilities in drinking-water safety management”，見到嘛？

答：見到。

問：首先喺嗰個 section 嘅上面第一段，佢有咁講嘅，第四行，“As many aspects of drinking-water quality management are often outside the direct responsibility of the water supplier, it is essential that a collaborative multi-agency approach be adopted to ensure that agencies with responsibility for specific areas within the water cycle are involved in the management of water quality.”。

然後跟住落去，就“Major stakeholders that could affect or be affected by decisions or activities of the drinking-water supplier should be encouraged to co-ordinate their planning and management activities where appropriate. These could include”，“health and resource management agencies, consumers, industry and plumbers. Appropriate mechanisms and documentation should be established for the stakeholder commitment and involvement.”，你見到嘛？

答：見到。

問：即係首先嚟講，梗係要有人帶頭，係咪？

B

B

C

答：係。

C

D

問：你牽涉咁多嘅持份者，啲持份者話要鼓勵啲啲持份者去 co-ordinate in the planning。

D

E

答：係。

E

F

問：你梗要有人帶頭，係咪？

F

G

答：係。

G

H

問：帶頭就一定係喺呢個咁樣嘅框架底下就係水務署同埋或者係衛生署，對嘛？

H

I

答：係。

I

J

問：你帶頭去話畀啲持份者聽佢哋各人應該要擔當一個咩嘢角色，對嘛？

J

K

答：係。

K

L

問：如果有需要作出法例修改或者係業界守則，都會係水務署或者衛生署去做呢件事，對嘛？

L

M

答：係，我哋會係承擔呢一方面嗰個嘅研究工作。

M

N

問：唔單只做研究，而係執行，如果有需要，喺法例嘅修改或者係業務嘅守則指引嗰方面？

N

O

答：係，呢個牽涉到政策，我會同政策局一齊嚟到去做嘅。

O

P

問：牽涉政策，當然喇，我想指嘅就係亦都係水務署，基本上係水務署同埋衛生署。

P

Q

答：係，以部門嚟講，係。

Q

R

問：當然如果你牽涉到到建築嗰方面嘅，你可能會搵埋機電工程署、建築署或者係有大用家，即係好似房委呢啲咁嘅部門？

R

S

答：即係我其實我哋而家開始檢討緊呢一方面...

S

T

問：唔係，請你答我個問題。

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U

答：係。

U

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問：即係嗰個架構，嗰個步驟應該係咁樣？

答：亦都會包埋出面業界，甚至因為可能牽涉到一般嘅住戶。

問：我想你特別睇第 6.9 段，同一個文件，喺 1307 頁，6.9 段，我中間 skip 咗好多嘢嘅，其實成個文件有好多唔同嘅--即係我哋而家睇呢個文件，有好多唔同嘅討論咁樣，6.9 段就比較聚焦講 buildings，我想睇--我又係，對唔住，我可能要讀一讀呢段，因為呢段比較緊要嘅。

“Drinking-water systems in buildings can be a significant source of contamination, and poor management of these systems has contributed to outbreaks of disease and illness. One of the challenges in ensuring water safety is that responsibility for many actions essential to the control of drinking-water quality in buildings is often outside the mandate of the drinking-water supplier. Roles and responsibilities of different stakeholders relating to the safe management of drinking-water systems within buildings can be influenced by a number of factors, including ownership of assets and rights of access.”, Water Safety Plans “established for management of public water supplies are not typically extended to buildings, although the water supplier”, 呢度, “although the water supplier”, Water Safety Plans “may include a number of initiatives to ensure that backflow prevention is in place or to provide information to consumers on protecting their own water quality. In many cases, owners, managers or maintenance personnel are responsible for managing building water supplies, but awareness and application of drinking-water guidelines are often limited, and so educational supporting programmes may be required.”

呢度有兩點我想同你提出下，睇下你同唔同意，第一，呢度講係個 water supplier 佢要制訂一啲 Water Safety Plans，見到？

答：係。

問：即係一陣間我會同你睇下水務署嗰啲 Water Safety Plans，就呢

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個其中一個，點解要制訂呢啲 Water Safety Plans 呢？係要畀呢個資訊畀啲用戶，等佢哋知道點樣去保障佢哋啲食水嘅質素，“to provide information to consumers on protecting their own water quality”，見到嘛？

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答：呢度寫就 Water Safety Plans “established for management of public water supplies are not typically extended to buildings, although the water supplier WSP may include a number of initiatives”，即係我睇到就如果係呢度嘅解讀就係分開 water supplier 就去到個 building 之前，building 後嘅度，water supplier 可以係有一啲嘅措施等等去防止有屋裏面啲水係會倒流到個水源，亦都有其他嘅資訊畀啲嘅住戶去幫助就係保障啲水嘅質素嘅。

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問：冇錯，喺個 connection point 之前啲個 Water Safety Plans，只有你哋可以有監管操控同埋制定，啲個有爭議嘅，係咪？

J

J

答：係。

K

K

問：但係 connection point 以外嘅，你哋個責任就係如果你需要有其他持份者都參與呢一個咁樣嘅確保個水質啲個問題，你哋一定要係畀足夠嘅資訊畀啲用戶同持份者去做呢件事嘅。

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L

M

M

答：係。

N

N

問：都係你哋牽頭嘅，係咪呀？

O

O

答：係。

P

P

問：仲有就係話點解要你哋牽頭呢？因為啲持份者，呢度最後啲句，我頭先啱啱讀啲句，啲個 awareness，佢哋可能啲個資訊方面或者佢個警覺性係唔足夠嘅，only “limited”，見到嘛？

Q

Q

答：係，我見到。

R

R

問：我想你睇落一段，“General drinking-water safety”啲段，好唔好呀？

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“General drinking-water safety is ensured by good management practices, including sound design, routine maintenance protocols, regular cleaning, temperature

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management and flow management”，“These practices should be incorporated in” Water Safety Plans， “developed by building owners or managers.”，The Water Safety Plans “for buildings should address cold and hot drinking-water networks and consider water-based devices and point-of-use equipment.”

呢度開始，佢講“Regulatory or other appropriate authority may provide guidance on the development and application of” Water Safety Plans “for drinking-water systems in buildings.”，最後睇個句，見到嘛？

答：我見到。

問：亦都係即係當然佢開始嗰度就係講話呢啲，譬如你想嗰啲大廈嘅擁有人佢哋自己做番佢哋自己嘅 Water Safety Plans，但係始終嚟講，要係由一個中央嘅監管機構，regulatory，或者係適合嘅機構，appropriate authorities，去畀指示點樣等呢啲大廈或者其他持份者去制訂佢哋嘅 Water Safety Plans，呢個監管機構嘅角色喺我哋呢一個咁嘅框架底下，又係講水務署？

答：係，水務署係扮演呢個方面嘅角色嘅。

問：右手邊，我唔再詳讀，但係你見到中間個段，“The principal hazard that may threaten drinking-water systems of buildings is ingress of contamination from external water supplies or through faults in the distribution system”，“Unapproved and inappropriate fittings and materials can lead to the release of chemical substances from tanks, piping, jointing and plumbing materials. The release may vary with the age of the material and the contact period; for example, first-draw water contains higher concentrations of lead or copper.”。

呢個講 principal hazards，即係首先嚟講，我哋又係要講番到底呢一段裏面所講係唔係一個風險，係唔係一個 hazard，就一定要有一個 hazard identification process，對唔對？要首先去評核某一樣嘢係唔係一個風險先，係唔係呀？

答：係。

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問：因為我一陣間同你睇你嗰啲 Water Safety Plans 嘅時候，你都會有一個好大部分係講 hazards and hazards identification 嘅，你清楚 and 知道嘅？

答：我盡量，因為我有乜參與嗰個 Water Safety Plan 嗰啲細節嘅，我只係知道大框嘅啫。

問：唔緊要，我一陣間會帶你去睇一睇嗰個 hazard identification。

答：我盡量喇。

問：想請你睇 1308 頁，1308 頁中間有一段就係講 monitoring 嘅，  
“Monitoring should focus on ensuring that control measures are working effectively.”

下一段就係講，要有個“Independent surveillance is a desirable element in ensuring continued water safety within buildings and should be undertaken by the relevant health agency or other independent authority. To ensure the safety of drinking-water within buildings, supportive activities of national regulatory agencies include”，第一，“specific attention to application of codes of good practice (e.g. at commissioning and in contracting construction and rehabilitation)”，見到嘛？

答：睇到。

問：首先，如果我哋頭先講緊架構嗰個框架，就即係你都同意我講就係水務署係有一個牽頭嘅角色喇？

答：唔，唔。

問：呢度仲有講，就係有 independent surveillance，即係會不時有獨立嘅監察，到底睇下呢一個咁樣嘅架構係唔係一個有效嘅執行，見到嘛？

答：係，我見到。

問：我哋香港就似乎有呢一個做法，係咪？

答：Yes and no，我理解--個化驗師話畀我知佢哋都有喺屋界以外，內

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部供水系統裏面做一啲嘅 surveillance 嘅，我懷疑佢個 surveillance 比較針對係某一啲嘅 risk，可能係 microbial，即係微生物嗰個風險大啲，所以佢有做一啲嘅 surveillance 嘅。

問：對唔住，可能我有表達清楚，佢呢度嗰個重點係講 independent surveillance，即係喺供水者以外做一個 surveillance，去睇番個供水者係唔係達到呢啲咁嘅標準，我哋就有嘅？

答：我哋都有一啲嘅報告畀衛生署睇嘅，我唔知衛生署算唔算係一個 independent。

問：好，好。你見到喺呢個 1308 頁右手邊最上嗰度就有一個 Annex 1，佢就係話有一份 supporting document，叫做“Water safety in buildings”嘅，你見到嘛？

答：唔，唔。

問：吓？

答：係。

問：嗰一份文件，嗰份 supporting document 就係喺呢個 A2 文件夾，我哋有兩個唔同嘅版本，不過我想用嗰個 2012 嗰個版本，因為都可以帶出個問題比較清晰啲。2010 嗰個版本就係 1230，A2 1230，呢個就係嗰個“Water safety in buildings”嗰個 supporting document，見到嘛？

答：見到。

問：都好長，我唔想逐樣同你 go through，我想你睇落去，就係 section 2，就有個叫做“Roles and responsibilities”嘅，你喺嗰個 content page 都睇到，1231 嗰度...

答：係，我見到。

問：...個“Section 2”嗰度，有“Stakeholders”咁樣，見到嘛？

答：見到。

問：我想你揭去 1256，佢講咗唔同嘅 stakeholders，然後佢有呢一個就係講 regulators 嘅，2.1.7，“Regulators”，佢係咁講嘅，“There are a number of activities and requirements that

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can be subject to regulation. These include compliance with building and plumbing codes, occupational health and safety requirements and codes applying to operation of devices such as water cooled air-conditioning plants, swimming pools, spa pools. Implementation of these regulations may be administered by different agencies. It is important that there is a shared understanding of the function of each set of regulations to ensure consistency of purpose is maintained.

In developed countries the 'regulator' may not be an institutional body but can be a public officer from an agency or authority (e.g. government agency, local health authorities). The regulator will have the responsibility for dealing with specific technical issues"咁樣一路講落去。

呢個講，亦都係同樣地，即係如果我哋要講到話 regulator，喺我哋香港嘅環境底下，呢度所講嗰個 regulator 又係返番去水務署或者係衛生署，對嘛？

答：唔，唔。

問：同意？

答：係。

問：“Surveillance”，下面嗰度，“In most countries the primary agency involved in public health surveillance of water systems is the ministry of health and its regional or departmental offices. In some countries surveillance can be undertaken by an environmental health section within an environment protection agency.”，喺美國就係嗰個 EPA，係咪呀？

答：唔。

問：如果我哋喺香港嘅架構，可能就係衛生署，所以你頭先所講，如果係要有其他嘅--除咗個供水者以外嘅監察，就應該係衛生署，係咪呀？

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答：唔。

C

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問：揭過去另外個邊個頁，一路到底都係同樣地講同樣嘅 point，我唔再讀畀你聽。當然喺呢份文件，我唔會即係話睇唔到可能係 developer，喺 1250，developer、architect、engineer，1251，engineer、plumber 都有唔同嘅角色，但係嗰個角色都會喺我哋頭先所講嗰個整體架構底下而扮演嘅唔同嘅角色，我咁樣講法啱唔啱？

G

G

答：係，呢度寫咗其他持份者所扮演嘅角色。

H

H

問：唔係，即係我講嗰個就係喺嗰個框架底下嘅角色，即係由水務署同衛生署領導底下嘅持份者嘅角色，對嘛？

I

I

答：係。

J

J

問：唔該。我想睇下你啲 Water Safety Plans，我哋見到有三年，一個就係 2006 年嘅版本、一個 2011 年嘅版本同一個 2015 年嘅版本嘅，2006 年嗰個就係 C20.1 15549，2011 年嗰個係 C20.2 16531，2015 年嗰個係 C20.3 17585，我想你睇番 2006 年嗰個先，好唔好？

K

K

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L

答：（沒有可聽到的回答）

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問：第一，我想知道呢一啲 Water Safety Plans 係水務署根據世衛啲啲指引而制訂嘅，對唔對？

O

O

答：我理解係。

P

P

問：但係呢啲 Water Safety Plans 係你哋內部使用嘅，係咪呀？

Q

Q

答：係。

R

R

問：譬如公眾係睇唔到你啲 Water Safety Plans 嘅？

S

S

答：睇唔到，我哋內部嘅文件。

T

T

問：內部文件嚟嘅，有冇特別理由係唔公開畀公眾去參考嘅呢？

U

U

答：其實呢個主要係我哋--其實呢個主要就係--即係我唔係好知道過往，不過我理解係咁，呢啲係內部嘅目標文件，就係畀唔同嘅科或者係部嘅同事去跟隨嘅，所以就基本上係一個咁樣嘅文件，...

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問：即係話唔同...

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答：...所以冇乜需要--因為如果畀公眾人睇，可能佢都--因為基本上嗰啲工作係由我哋自己執行嘅。

D

E

問：明，你講唔同科、唔同部門都係講緊水務署...

E

F

答：水務署。

F

G

問：...嘅唔同部門，係咪？

G

H

答：係。

H

I

問：呢個譬如我哋睇 2006 年呢個版本，20.1 15549 開始，我想你首先就去第 4 段，15557。

I

J

答：得。

J

K

問：呢度 4.1 就有個叫做“Health-based targets”，“essential component of drinking water safety framework.”，開宗明義，呢個第 4 段係講同衛生，我估應該係講埋同食水嘅安全嘅有關嘅討論，呢度，對嘛？

K

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L

M

答：係。

M

N

問：就 4.3 嗰度有“Health based targets”嘅第二個 bullet point，你見到嘛？

N

O

答：係。

O

P

問：係講 chemicals 嘅，有講 microbes，有講 chemicals 嘅，兩樣都有。

P

Q

答：係。

Q

R

問：4.4 就提到呢個衛生署佢嘅參與嘅，見到嘛？

R

S

答：係。

S

T

問：4.5，4.5 就講話呢一啲咁樣嘅 health-based 嘅 target 就“*It was agreed between WSD and DH*”係 Department of Health，對唔對？

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答：係。

C

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問：“guidelines values of chemical parameters specified in the WHO Guidelines for Drinking water”，“are to be taken as the water quality targets to ensure the chemical quality of treated water.”，見到喇？

D

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E

F

答：係。

F

G

問：呢度講 treated water，跟住第5段就講 Water Safety Plan。

G

H

答：係。

H

I

問：5.1.1，“It is guided by the health-based targets set out by the” Department of Health “overseen by drinking water quality and public health surveillance. The development and implementation of” Water Safety Plan “will control and minimise the risks of contamination”，呢個係話要做呢啲 Water Safety Plan 係希望可以減低嗰個污染嘅可能性？

I

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L

答：係。

L

M

問：5.1.2 就係講個 multi-barrier approach，見到嘛？

M

N

答：見到。

N

O

問：呢度係咁講嘅，“Based on a multi-barrier approach, the” Water Safety Plans “provides an integrated system of procedures and processes that collectively prevent or reduce the contamination of drinking water from source to tap in order to reduce risk to public health.”，見到嘛？

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答：係，見到。

R

S

問：即係話你啲 Water Safety Plans 同埋有啲叫做 multi-barrier approach，唔同嘅關卡，唔同嘅防線喇可以咁講，係想確保嗰個食水由源頭至到水喉都咁安全，見到嘛？

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答：係，我哋呢個希望做到，係。

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問：唔係希望做到，呢個係 Water Safety Plan 制定個目標，個目的係要做到呢樣嘢。

C

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答：係，即係呢個係我哋嘅目標。

D

E

問：5.2，Water Safety Plan 嘅目標，primary objective，第(i)，“prevention of contamination of source waters”，第(ii)就係“reduction or removal of contamination through treatment processes to meet water quality targets”，“(iii) prevention of contamination during storage, distribution and handling of drinking water.”。第三就係要儲、輸送，同埋如果係有使用，嗰個污染嘅機會係要防範，見到嘛？

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答：係，見到。

I

J

問：所以其實水務署--呢啲就係你哋個工作目標，係咪？

J

K

答：係。

K

L

問：即係要有制訂晒呢啲 Water Safety Plans 去確保由源頭至到個水龍頭出嚟嘅水都係安全？

L

M

答：呢個係我哋個目標，不過就一陣間你可能會睇落去，我哋制訂嗰陣時，正如頭先讀一個文章，就係如果係去到--以水公司嚟講，去到嗰個邊界，我哋所採取嘅--個制訂嗰個 Water Safety Plan，就同人咗界裏面，嗰度就係會係--我哋會有一啲嘅措施，會有一啲嘅協助，同埋我哋會有一啲嘅指引就畀呢個住戶等等。

M

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N

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問：我明嘅，我明你哋當然喺個 connection points 之前嘅，因為你哋自己係擁有晒所有嗰啲設施嘅擁有權，所以嗰處你哋處理得--比較容易啲去處理。

P

Q

Q

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答：係，係，係。

R

S

問：Connection point 以外嗰啲就因為可能係各個大廈嘅情況都唔同，咁樣就變咗係要有唔同嘅處理方式喇？

S

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答：係，同埋個程度上，係。

T

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問：但係個目標都係要喺龍頭嗰度食水安全吓嘛？

U

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答：係。

C

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問：我想同你睇多一啲，就係你哋要有一個風險評估嘅，5.5，“Hazard Identification”，見到嘛？

D

E

答：係，我見到。

E

F

問：5.5.1、5.5.2，呢個就係講 biological、chemical、physical、radiological 都可能有機會 potentially cause harm，5.5.1。

F

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答：係。

G

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問：5.5.2 就係“Hazards/hazardous events may occur or be introduced throughout the drinking water supply system from catchment to customer.”，即係話有風險、hazards 或者係有一啲嘢令到個風險產生，hazardous events，都有可能由源頭去到個水龍頭，個用戶嗰度？

H

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J

答：呢個你睇落去，其實 5.5 佢只係包到去 distribution system 嘅，都唔係一定係去到個水龍頭嘅。

J

K

L

問：五點幾？

L

M

答：因為你而家睇成個 5.5 咁嘛？

M

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問：係。

N

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答：如果你睇落去下面嘅時候，正如我頭先想講嘅，就係我哋制訂呢個 WSP，如果係跟足世衛嗰個指引真係去做，譬如話你頭先講 hazard identification，可能遲啲會有做一啲 risk assessment 等等，我哋可以控制嘅就係去到個邊界嗰度，所以你讀落去嘅時候，一路咁掃落去，你見到佢係針對就去到 distribution system 嗰度。

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問：Distribution system 都有講 customer 㗎嘞，我譬如睇 5.5.3。

Q

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答：係，我知，但係我哋個意思可能我哋講緊係 supply to customer，即係話我哋係由 source treat 咗之後，由我哋 supply to 個 customer，即係話去到--因為個 distribution system，我哋一般嘅講法係指我哋自己水務設施嗰個系統嘅，就唔包內部供水系統。

R

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問：你點可以--如果你嗰個 hazard identification 係淨係去到個 connection points，你點可以確保個食水去水龍頭嘅安全呢？

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答：所以我哋分開兩度做法，頭先我講咗，即係話如果你去到嗰個邊界嗰度，我哋係跟呢個指引 WSP 做，真係做一個 WSP 出嚟，去到邊界以外，即係入去水龍頭，頭先我提到咪話如果你跟之前讀嗰個文件係做一啲嘅 initiatives，嗰個就唔係一個 WSP 嚟嘅，initiatives，即係話我哋會有一啲嘅 -- 可能後面都會睇到，我哋會有一啲 regulation、programmes、incentives 等等嘅嘢。

問：係嗰個方式唔同啫，即係你嗰個--你話有啲 initiatives，有啲 programmes，呢個係方式啫，但係嗰個目標都係希望喺個水龍頭嗰個出嚟嘅食水係安全。

答：我或者就我自己嘅理解，因為我有真係詳細去研究呢個規定，不過我知道就係你頭先講目標，你講方式，但係亦都有嗰個嘅嚴謹嗰個程度，我哋唔係真係做一個 Water Safety Plan 去到屋界以外，去到水龍頭，嗰個有一個 Water Safety Plan，一個完整嘅 Water Safety Plan，我想指出個分別。

問：我想都指出一個分別，就係如果你係講風險評估，要講到話去水龍頭出嚟嘅食水都安全嗰個風險評估，就唔應該淨係去到嗰個 connection point，你個風險評估都要評估落去到到最後出嚟嗰個食水係咪安全㗎嘛，你根據呢度所講？

答：或者咁講，呢個都係我嘅理解，Water Safety Plan，如果你係做一個 Water Safety Plan 係包到去水龍頭嗰度，就應該係每一個環節，譬如話 water source、treatment plant、reservoirs、distribution system、inside service 都要做一個，我理解嗰個過程係好嚴謹嘅，佢又要做一個 hazard identification、risk assessment，每一樣都要做，但係一過咗邊界嗰度，我知道就佢哋係有做到呢個，但係又唔代表佢完全...

問：唔係，唔係講佢哋有做到，係你哋做到，係咪？

答：我哋個同事，sorry，我指係我哋化驗科--水質科學部嗰啲同事。

問：即係你哋同事係有做到？

答：我哋同事係有做到屋界過咗，然後去到水龍頭嗰處，跟足呢個我哋講好嚴謹個程序去制訂水安全計劃，但係又唔代表佢完全係有一啲嘅評估嘅，一陣間你會睇落去嘅時候，我哋都會知道喺嗰個內部供水系統裏面亦都係有風險，所以我哋都有一啲嘅措施，包括有啲喺法定，一啲係法定以外嘅。

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問：不如我哋就睇下過咗 connection point 嗰幾段，好唔好呀？

答：好。

問：我想你去睇到“Customer Services”，15568，5.9，5.9.1 同 5.9.2，“Significant adverse health effects may be associated with the poor design, incorrect installation, alteration, inadequate maintenance and servicing of plumbing systems in buildings. The piped distribution of drinking water within a building must be controlled to prevent microbial and chemical contamination of drinking water. The Customer Services Branch of the WSD plays a key role in ensuring the safety of drinking water at customers’ taps. The detailed roles and responsibilities of CSB are set out in annex 4.”，我一陣間同你睇 annex 4。

然後你嗰個 Customer Services Branch “shall enforce appropriate policies, procedures and practices and relevant Waterworks Ordinance and Waterworks Regulations to prevent degradation of drinking water quality within buildings beyond the connection points.”

呢個講到好清楚你個 water --嗰個 Customer Services Branch 嗰個作用，佢個 remit 就係要確保 ensure safety of safety of drinking water at customer’s taps，同埋佢哋係要防止個 degradation of drinking water quality beyond connection points，佢哋嘅作用咪要睇 connection point 以後，去確保嗰個食水安全，你呢個 Customer Services Branch，係咪咁？

答：係，我想講就係呢個係我哋水務署自己內部嘅文件，所以我哋係希望我哋能夠做到呢一樣嘢，如果你頭先嗰個講法，其實就你睇我哋講咗，我哋所扮演嘅角色同埋職責係乜嘢，就喺個 annex 4，annex 4 就好清楚講到我哋做嗰啲嘅運作。

問：我會去睇 annex 4，但係我想提出嘅一點，你同唔同意呢？就係呢度你哋作一個 Water Safety Plan，講到咁由供水至到 customer taps，每一個流程唔單只係 stop 咗嗰 connection point，而係 connection point 以後嘅，呢個 Customer Services Branch

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都係會去睇實嘅？

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答：睇實，呢個係啱嘅，我哋係有啲嘢要睇實，但係係咪等同喺個水務設施裏面嗰個嚴謹程度，嗰個控制程度係有個分野喺度嘅。

D

E

問：係咪因為透過風險評估，覺得唔需要咁嚴謹，所以就有個咁呢，抑或點解嗰個--好似你--我 get 到你就係好似覺得係應該係嗰個嚴謹程度係有唔同？

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答：我諗呢個主要就係--如果你講緊內部供水系統，其實就係好多唔同嘅樓宇，唔同種類，唔同年齡。

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問：嗰個複雜性啫，...

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答：複雜性，但係亦都牽涉到有唔同...

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J

問：...但係嗰個目標係應該一致。

J

K

答：有少少唔同嘅，因為牽涉到有唔同嘅住戶，如果我哋要制訂一個水安全計劃，而付諸實行，其實你係要嗰啲嘅住戶去實踐你所訂嘅一啲嘅...

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問：冇錯，冇錯，所以要你帶頭去話畀啲住戶聽或者嗰啲管業嘅人聽要點樣去處理嗰個 maintenance 各樣嘢嗰個問題。

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答：咁就要睇番你現時嗰個《水務設施條例》有冇賦予呢個咁嘅權，譬如舉個例...

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問：你覺得冇咩？

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答：譬如舉個例...

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問：你哋可以有最後嘅決定權，供唔供水畀佢，你可以切水㗎嘞。

Q

R

答：譬如舉個例，我哋好想就大廈每一個住戶都能夠定期去洗水缸，檢驗呢個嘅內部供水系統，呢個嘅要求係咪可以喺我哋而家嘅《水務設施條例》底下順利進行，呢個係一個問號㗎嘞。

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問：當然可以喇，你有權暫停供水，「我嚟 inspect 下，你唔 comply 呢，切水。」當然你有權喇，你做唔做之嘛，個問題係，你行唔行使呢個權力之嘛。

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答：我唔知係咪呢個權會即係喺逐家逐戶咁樣實施，即係你個問題就係話「我而家就叫你哋全部都係要定期洗水缸，定期就要做嗰個內部嗰個系統嗰個嘅檢驗，我就會嚟巡你，如果你有嘅時候，我就截水。」呢個我諗要--我哋採取個方式係咁嘅，我哋...

問：即係我...

答：其實我哋諗過呢一個做法，呢個做法第一，就係牽涉到即係頭先你話我哋有權喇...

問：你唔想太擾民，我係明嘅，即係唔係輕易就會行使一啲咁嘅權力。

答：同埋嗰個資源都好大。

問：因為我記得好似唔知申訴專員公署好耐之前都話有啲漏水漏咗幾十年嘅水，你哋都即係硬係唔係幾行動嘅咁樣，我係記得呢啲咁樣嘅嘢嘅，所以你行唔行使個權力係你哋決定，但係個權力當然喺你哋嗰度。

答：我記得係水諮會有討論過嘅，覺得如果係一個叫做強制性做呢一啲嘅措施，強制性要所有嘅住戶都要定期洗嗰個水缸同埋聘一啲專業人士去驗呢個嘅水管，第一會有一個資源嘅問題，第二亦都係一個幾大嘅轉變，係需要真係睇一睇業界嗰個或者係住戶嗰個反應，因為你牽涉到個唔只係我哋自己嘅資源，佢都要有大量嘅人去做呢一樣嘢，我哋當時喺水諮會嗰個嘅討論，我印象中記得就係選擇就係先係一個鼓勵性嘅，所以我就推出就大廈優質食水計劃，希望就係如果你係跟到呢個計劃裏面所做嘅嘢，我哋就畀一個嘅證書畀你，吸引啲人自動去做呢一樣嘢。

我同意如果去到一個地步，我哋係可能都係要立法嚟到去強制，即係等如以前係強制驗樓、強制驗窗都係循序漸進，先係一個嘅鼓勵嘅措施，去到一個階段，我哋可能會有一個強制性，我哋而家講緊鼓勵節約用水都係用緊呢個咁嘅做法嘅。

問：好，請唔好誤會，我係好同意你哋嗰啲 initiative 去鼓勵人哋節約嗰個問題，不過我哋今日處理嘅就係講緊安全，食水安全。

答：明白，明白。

問：你想我同你 go through 個 annex 4，我而家想請你睇個第 15582 頁，呢個就係講好清晰咁講嗰個 Customer Services Branch 佢嗰個權責個問題，係咪呀？我見到就係第 1.1 開宗明義就講話“to

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ensure”，第三行，“to ensure the quality and the safety of drinking water supply to customers beyond the connection points.”，所以開宗明義，呢個 Customer Services Branch 嘅職責就係喺 connection point 以後嗰處去確保個食水安全，我會逐點同你 go through。

答：不過我想提出...

問：我個開宗明義就係咁樣講。

答：呢度或者咁講，就第一句其實意思佢就話我哋係希望就係嗰個客戶服務科係負責去進行一啲措施或者做一啲嘢，即係佢個責任就係做嗰啲措施，履行嗰啲嘅責任，個目的就係希望達到就係能夠個水質就算係過咗我哋嗰個接駁點都係安全嘅，呢個係我哋希望...

問：唔係希望嘅，因為你嗰個 1.1，你寫呢個文件係比較希望係更加殷切好多嘅，即係 ensure。

答：係，但係我意思係“is responsible for undertaking”一啲嘢 to ensure，即係希望呢啲 measures 同埋 practices 去 ensure。

問：好，(a)...

答：或者呢個係個演繹問題，即係我哋...

問：係，冇錯。

答：...呢個個策略性嘅文件，我哋其實想係咁意思嘅，或者我理解當時 2006 年制訂嗰陣時嗰個意思係咁。

問：2006 年。

答：呢個 2006 年嘅。

問：個版本，係，冇錯。我唔係--我係覺得睇呢個文件，文字上就擺嘅標準係好高嘅，係咪因為實行上有啲問題，所以個標準又可能達唔到咁樣呢？

答：呢個 2006 年，我有參與當時嘅制訂。

問：明白。

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答：我睇返嚟 2015 年睇番，我覺得定嘅目標嚟現今，未必即刻做到。

問：所以 2015 年就改咗？

答：所以 2015 年我同同事講，我話「我哋要務實啲，你真係做到，你就做喇」。

問：係，務實啲，我一陣問同你睇下 2015 年我哋改咗啲乜嘢，不過唔緊要，我睇緊個 2006 年先，好唔好？

答：好。

問：呢度就 1.1(a) 嗰度，就“prescribing the nature, size and quality of pipes and fittings of the inside service and the manner of construction or installation of an inside service, by means of Hong Kong Waterworks Standard Requirements and Circular Letters”，呢個講法就係都係喺個大嘅框架，就係希望去到--你話「希望」，去確保喺個 connection points 以後嘅食水安全，就要係用呢個 Waterworks 嘅 Standard Requirements 或者係一啲出一啲通函去規管嗰個 manner of construction or installation of an inside service，係會有呢啲咁嘅指引或者係...

答：通告，我哋出咗啲通告畀...

問：...通告...

答：通告，係。

問：...畀持份者。

答：持牌水喉匠，係。

問：畀持份者去知道，去確保呢個 beyond connection point 嗰個食水安全，係咪呀？

答：係。

問：(d)，“inspecting the inside service upon completion of construction, installation or alteration” WWR 嘅 regulation 6，我頭先睇咗個 regulation 6，呢個就係講話喺個建築項目完成嘅時候，就要去驗嗰個內部供水設施，驗水喇，即係

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簡單啲講，係咪？

答：呢度唔係指驗水，呢度係指--如果你睇 regulation 6，佢係講檢驗。

問：檢驗？

答：係，檢驗就我哋基本上會睇一睇譬如--我會唔會簡單介紹下？

問：Regulation 6 我哋頭先睇咗喇。

答：即係問我檢驗啲乜嘢？

問：即係你唔可以 cover up，你要去 inspect，要去 test 啲啲咁樣？

答：其實主要就係 inspection，因為如果你睇 regulation 6，如果有記錯，應該 inspection and approval 嘅，佢係針對就係譬如我哋最主要睇係之前就住呢個嘅內部供水系統，佢入咗一個嘅圖則嘅，我哋會睇究竟佢有冇按照呢個圖則去做，呢個係我哋最主要其中一樣嘢我哋會睇嘅。

問：即係我明嗰個最主要你係跟唔跟圖，但係呢度所講 inspecting inside service 係包埋可能啲 pipes and fittings 啲嘛？

答：我哋係根據嗰個 regulation 6 裏面去檢驗，當然你話包 pipes and fitting 係有嘅，但係係用乜嘢嘅方式去檢驗同埋個程度。

問：你哋就係用嗰個八個參數嘅方式去檢驗，係咪？

答：如果你講今天，即係睇個時間...

問：今天就十二個參數。

答：係，睇下佢嘅時間，唔同時間有唔同嘅標準，如果而家，我哋係用十二個參數，如果你講緊係 2012 年...

問：06，而家我哋講呢份文件，06。

答：06 嗰陣時其實基本上冇嘅。

問：冇？

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答：係，冇任何嘅參數。

問：2012 就係八個參數。

答：2012 年嗰八個參數基本上就係一個指引，就要求佢哋--或者畀個指引佢，當佢清潔同埋消毒個內部供水系統去到咩嘢地步，就驗嗰八個參數。我哋喺 2012 年之前，我哋有驗嗰個嘅水辦都係八個參數，就基本上就喺嗰個接駁點嗰度嘅。

問：呢個 (f) 段，你呢一個 Customer Services Branch 係要負責去教育嗰啲用戶同埋等佢哋知道點樣去做維修咁樣。

答：得，唔。

問：教育用戶當然係個 initiative 係要由你哋去畀資料，畀指示，畀呢啲用戶，對嘛？

答：係，基本上我哋有幾方面，頭先你提嗰啲係文件性嘅，另外我哋有一啲嘅講座，我哋有一啲嘅展覽，亦都有一啲嘅定期嘅會同一啲嘅住戶開，亦都有同業界有定期嘅溝通。第 (ii) 項，(f) (ii) 嗰度就係嗰個大廈優質食水計劃嘅。

問：好，我想請你睇下你哋喺個 website 對於呢啲 Water Safety Plan 嗰個描述，我知道呢個 plan 就唔係擺上網嘅，不過你哋都有個描述嗰個 Water Safety Plan 係啲咩嘢。嗰個唔喺文件夾，因為我哋喺個 website，你哋部門嗰個 page 嗰度 download 落嚟睇。我想你特別睇呢個第 2 同埋第 3 點，係講解你哋嗰個 Water Safety Plan，見到嘛？

答：見到。

問：第 2 點嗰度就係講話--最後尾嗰句，“The plan identifies potential hazards and prevents risks of contamination of drinking water from source to consumers’ taps and comprises key components including: system assessment, control measures, operational monitoring, verification, management plans, documentation and surveillance.”，見到嘛？

答：見到。

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問：去到呢一個 2016 年，你哋呢度都仲係講緊去到“source to consumers’ taps”㗎喎？

答：係，我諗佢呢度即係正如頭先讀嗰個 annex 4，佢都係 WSP 其中一個有關係嘅文件，呢度好籠統嚟到講，就係由--如果你講呢個 plan，我哋基本上喺個水源去到水龍頭，但係佢呢度就--我諗佢呢度係好籠統講晒裏面嘅嘢，其實就唔係每一個階段都有足呢啲咁嘅工夫嘅。

問：Okay，呢度同一句就係講話你做呢啲 plan 係要 identify 嗰啲 potential hazards 嘅，見到嘛？

答：係。

問：實際上係唔係有做呢啲 risk assessment 同埋有 identify potential hazards 呢一個咁樣嘅做法嘅呢？

答：我諗細節我唔可以講到，不過我知道就係基本上如果你係講緊由個源頭去到我哋嗰個系統，嗰個工夫係做足嘅。

問：Connection point？

答：係喇，但係再過啲嘅時候有冇做到咁足、咁嚴謹，我印象中應該係冇，頭先你讀嗰個附件 4，基本上我哋係進行嗰類嘢，你話嗰啲嘅工作或者係嗰啲嘅措施係咪都可以幫助減少內部供水系統被污染，我相信應該係有幫助嘅。

問：第 3 點就係話喺 2005 年 2 月，“working group”就“various operational units in the Department was set up to develop” Water Safety Plan “for WSD. They assessed systematically possible risks of contamination within the water supply system, and identified control measures to minimise the risks. Based on WHO recommendations, the Department of Health and WSD have agreed on the adoption of a set of guideline values for chemical and bacteriological parameters as the health-based targets for the drinking water supply in” Hong Kong，你見到咁樣？

答：係。

問：你嗰個 group of professionals 基本上都係水務嘅同埋衛生署

B

B

C

嘅，一個咁樣嘅 working group，係咪？

C

D

答：我諗主要係我哋同事嚟嘅。

D

E

問：主要你哋同事？

E

F

答：主要我哋同事，係。

F

G

問：呢度冇特別提到其他持份者嘅，即係我想知道呢啲 professionals 就唔係其他啲持份者㗎喇？

G

H

答：應該唔係，應該呢度係 from “various operational units in the Department”。

H

I

問：Okay，明白。你頭先都講過呢個 2015 年嘅時候，你覺得呢個 Water Safety Plans 係比較進取㗎一啲，所以就有少少修改㗎，係咪呢？

I

J

答：因為 2015 年當我收到呢一個嘅--其實 safety plan，我哋分開三個階層嘅，呢個係 tier 1，嗰個 general plan，有 tier 2，就係主要基本上係啲--如果我有記錯，應該係啲我哋分區，譬如香港、九龍、新界東、新界西咁樣分區，或者係一啲部門，譬如 Water Science Division，咁就第二...

J

K

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M

問：即係啲啲係比較細區㗎喇，...

M

N

答：係，有啲就係濾水廠啲啲。

N

O

問：...我而家睇嘅就係整體嘅。

O

P

答：第一個 general 嗰個，我睇到嘅時候，我都有同同事跟進，我就都有問過啲啲問題，我話「咦？其實啲啲嘅措施，你係咪可以真係擔保可以去到水龍頭嗰個嘅水質係保障到呢？」我覺得有個問題，可能未必做得到。

P

Q

Q

R

問：有個疑問，做唔到？

R

S

答：我覺得現階段，我諗你有困難，所以我就覺得應該實際啲，就係你睇下可唔可以做得啲啲嘢，我諗 ensure，我覺得你一定要確保、肯定，但係我自己覺得就係我哋而家嗰個嘅--無論係個法例嘅框架，我哋個資源等等，我唔覺得我哋用啲啲附件 4 啲啲就可以保證到水龍頭嗰個水質。

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問：但係如果咁講得白啲，最有可能做到或者最需要去做就係水務署，因為如果你哋都做唔到，就係冇其他人做到㗎喇？

答：或者應該咁講，你其實睇一啲世衛嗰份文件，佢都有講到如果要確保屋裏面、大廈裏面嗰啲嘅水質，其實單靠嗰個供水公司或者監督係做唔到嘅。

問：明白嘅。

答：你一定要係有其他持份者配合。

問：明白嘅，呢個我哋明白嘅，但係作為牽頭、統籌、帶領者嘅角色，水務署係責無旁貸嘅，對嘛？

答：係，所以我哋其實頭先討論咗呢個環節，我哋係用一個係--首先係自願性嘅計劃，就係大廈優質食水計劃，其實推出去，鼓勵多啲嘅管理處、住戶，可以參與呢個計劃，用呢個方法嚟到去做，咁去到一個階段，我哋發覺可能需要強制，就好似頭先我講驗樓、驗窗，你都要有一個階段去做嘅。如果係真係要確保係做到嗰個水龍頭嗰個水質係到某一個標準，我覺得就真係要有一啲嘅法例同埋資源去配合，呢一方面我哋其實喺今次嗰個檢討嗰度，我哋都會考慮嘅。

問：我想你睇睇喺 2015 呢個修改版本改咗啲乜嘢，我哋做咗一個表，就係比對你嗰個 2006 年個 Water Safety Plan、2011 年個 Water Safety Plan 同 2015 年三個唔同版本嘅修改程度嘅，左手邊嗰行就係 2006 年嘅版本，中間嗰行 2011 年版本，右手邊嗰行就係 2015 年嘅版本，highlight 嘅地方就係一個修改嘅重點，見到嘛？

答：係，見到。

問：有好多其他嘅修改我哋已經冇擠出嚟，譬如因為你有其他嘅地方，好似話引用 WHO 邊一個 version，邊一個時間嘅版本，你呢三份唔同嘅 Water Safety Plans 係有定期去 update 話用邊一個 version 嘅 WHO 嘅，嗰啲我哋冇列出嚟。

我想你睇 2.2，呢個就係我頭先帶你睇嗰個 2006 年嗰個 2.2，呢度係講到--你見到 highlight 嗰度係 water taps 嘅，“A WSP systematically assesses risks throughout a drinking water supply system from the source through treatment to customers’ taps and identify the control measures”，見到嘛？

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答：係，我見到。

問：2011年都係講 customers' taps，但係去到2015年就轉咗係 to customers，就唔講去到水龍頭，見到嘛？

答：唔。

問：呢個就係你所謂即係要比較實事求是啲，即係要比較實際啲，係咪呀？

答：或者我想講清楚，其實我哋講嗰個 water supply system 係去到 distribution 去到屋界，我哋畀 customers，因為頭先都有個討論，你呢度話 to customers' taps 啲嘛，應該包埋內部供水系統，但係就我睇到個 WSP 而家基本上你都有做足晒嗰個 hazard assessment、risk assessment、control measures、...（聽不清），都有啲啲，點可以叫做--我覺得即係唔可以叫得咁樣有個 WSP。

問：冇做足晒呢啲，所以去到水龍頭嗰度就 ensure 唔到，係咪呀？

答：同埋佢唔齊，即係佢冇做足晒嗰啲工夫，就話有一個 WSP，我覺得好似未係足夠。

問：譬如 5.1.2，本來就係去 tap 嘅，而家個新版本就係去 distribution，即係同一道理，係咪呀？

答：係。

問：即係我唔逐個講，譬如 5.2 objective 嗰度一樣，即係同樣嘅，即係總之係你本人作為署長，就覺得因為既然如果要確保去到龍頭係食水安全，要有好多步驟，要嚴謹，要 hazard identification，因為既然冇做呢一啲咁樣嘅 hazard identification，所以就唔好咁樣寫上去，係咪？

答：我覺得我哋未去到一個地步可以做到呢一樣嘢，所以現階段，我覺得就應該睇我哋實際嘅情況做到，將來如果我哋真係可以--譬如頭先我講，強制到一啲嘅抽呢個嘅水辦，強制驗呢個嘅水箱同埋呢個--洗水箱同埋驗嗰個供水系統，呢個我哋可能個目標又近啲，呢個都係一個嘅進程嚟嘅，我哋都相信我哋係希望能夠可以就係做得更加好。

問：我相信你譬如由八個參數去到十二個參數，都係一步向住呢個方向行嘅，係咪？

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答：可以咁講。

問：可以咁講？

答：係。

問：只不過係而家係因為事發咗，然後先由八去到十二，加埋呢個重金屬嘅 sampling，以前就因為未有嗰個--可能嗰個 risk assessment 做得唔足夠抑或點，所以就以前就未有呢個重金屬嘅參數，係咪咁樣？

答：係，因為其實跟世衛嗰個嘅準則，基本上如果你用水辦嘅方式去測試嗰啲--或者係應該監管嗰啲風險，應該主要係針對微生物嘅，其實如果講緊呢啲金屬嗰啲，除非真係而家好似發生咗事，我哋就用呢個水辦嘅方法，如果唔係，一般我哋都係用--睇下可唔可以做呢個定一個規格，物料嘅監控，都係用呢一套嘅方法，所以我哋加咗嗰四個重金屬，就希望喺呢度會再進一步去優化而家嗰個嘅系統，所以我都向呢個目標做嘅。

問：明白，我哋都見到你向緊呢個目標做嘅，個問題就係事發前嗰個風險評估係咪足夠呢？

答：事發前嘅--事發前就即係講緊以往，之前都有個討論，我嘅理解就應該有一個好具體數量化嘅風險評估，都係一啲客觀嘅指數，客觀嘅因素去定，我哋睇唔到好似第二啲國家，香港特別有個鉛嗰個風險，所以我哋就有特別...

問：聽到你講嘅。

答：...我哋冇特別將呢一樣嘢擺喺個水辦測試嗰度。

問：持份者係好睇你做頭嘅，呢個你都同意嘅？

答：我可唔可以更正一下呢？持份者應該係睇個法例做頭，個法例其實就係一個清楚啲要求啲乜嘢嘅，我哋唔認為...

問：法例就--即係我哋頭先再睇過晒啲法例，即係喺個物料使用方面，個水喉匠，因為只有佢可以係進行嗰個工程，所以喺個法例上佢有個最大嘅責任嘅？

答：係，佢有個好重要嘅角色。

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問：佢嘅監管就落咗喺水務署、水務監督嗰度？

答：我哋監管嗰個制度，但係正如我喺嗰個補充供詞都講，其實頭先睇一啲嘅文件，都好清楚顯示如果你講緊建築物裏面嗰個內部供水系統嘅嘢，都係需要唔同嘅持份者有一個角色。我相信如果係靠水務署去保證所有呢啲嘅物料等等係跟從個法例，呢個就唔係我哋過往一路嘅依歸，我哋睇番世衛...

問：我哋睇法例就係咁樣嘅依歸，即係法例底下要求嘅物料要符合 BS，係第一，係嗰個持牌水喉匠，只有佢先可以做嗰個水喉，第二，就係佢嘅監管就係水務署，呢個係法例嘅框架。

答：係，不過係咪等同水務署要去到地盤去睇嗰啲每一個嘅工程，嗰個就要靠持份者。

問：呢個就係即係貴署嗰個執行方面嘅優先次序，你擺邊啲作為比較重要，呢個係貴署...

答：我哋其實都有參考第二啲地方嘅做法嘅。

問：明白。我想你睇一睇你嘅口供嘅第 34 --我哋而家係去另外一個 subject，你個口供嘅 34 段，34 段其實係--呢個係 10289 嗰度開始，可唔可以？10289，你第 28 段個上面，你係講緊 quality 嘅，見到嘛？

答：見到。

問：係講個食水質素嘅。

答：係。

問：跟住 28 段底下就係嗰個係 up to 嗰個 connection point。

答：係。

問：33 段開始就係講內部系統，inside services，33 段開始，係咪呀？

答：32 開始。

問：對唔住，32 開始。33 開始就係講嗰個建造嗰個內部系統。

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答：係。

問：34段，你就咁講，你話“*As far as the role of the WA*”，*Water Authority*，“*is concerned, it essentially carries out a regulatory role*”，你呢度就係講話喺個 *construction*，個建造內部系統，你哋係作為一個監管者嘅角色嘅，*regulatory role*？

答：係。

問：你有五點講咗你個監管角色係點樣做法。

答：係。

問：呢段個大意就係咁樣。

答：係。

問：第一，就係 *licensing plumbers*，第二，就係喺個法例底下要求嗰啲 *pipes and fittings* 就要符合個 *British Standard*，第三係咩嘢呢？“*confirmation by the Authorised Persons that pipes and fittings used and installed are in compliance with the waterworks standards and requirements*”，呢個係咩嘢？四就“*inspection and approval of the inside service*”，呢個就我哋知，即係你會係完工嘅時候去 *inspect*，呢個係 *regulation 6* 嗰度，我哋頭先睇過。五就係“*water samples tested to be in compliance with specified standards.*”，呢個 *testing samples*。

我想知，睇番你個三，三呢個係乜呢？“*confirmation by the Authorised Persons that pipes and fittings used and installed are in compliance with the waterworks standards and requirements*”，呢個係咩嘢？

答：呢個係喺個批驗嗰個內部供水系統嘅過程裏面，如果係一啲新樓宇嘅工程項目，我哋係有要求到就係認可人士，佢係喺個過程裏面去確認佢哋用嗰啲嘅水喉同埋裝置係跟我哋個要求。

問：我哋睇到嘅，譬如我哋都睇過有 *WWO46*，有 *WWO132* 呢啲咁，你所指嘅係咪就係呢啲咁樣嘅 *forms*？

B

B

C

答：係。

C

D

問：好，我哋睇一睇呢一個 WWO46，好唔好？

D

E

答：好。

E

F

問：喺 15.1，我想你首先睇一睇 37621，唔該。37621，你所指話有 AP 嘅參與喇咁就，我哋知道你譬如 AP 就會係喺個 part I 同埋 part IV 嗰度會有簽名嘅。

F

G

答：係。

G

H

問：Part I，我哋知道就喺個流程裏面，入呢張 form 就係未開工，就係通知你話 commencement of work，即係我哋--嗰個 LP 係將會開工咁樣？

H

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答：係。

J

K

問：所以佢裏面--譬如就算你個第 2 點嗰度，part I 個第 2 點嗰度中間，個 purpose of submission，佢都係話嗰啲 pipes and fittings installed 或者係 intended to be installed，見到嘛？

K

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L

答：見到。

M

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N

問：即係話呢個就唔係喺你嗰個確--即係點講？佢係話畀你聽「我會用 annex 1 裏面所指嗰啲物料去進行我個水喉工程。」係咪？

N

O

答：係。

O

P

問：就唔係一定係話 annex 1 裏面嗰啲已經用咗，唔係一定咁樣？

P

Q

答：係。

Q

R

問：因為未開工㗎嘛，呢個應該，啱唔啱？

R

S

答：唔。

S

T

問：跟住你批咗個 annex 1，我哋頭先睇到嘅，喺譬如好似啟晴邨，有廿五項，annex 1 嗰度，我哋睇咗好多次，呢個唔包個小五金嗰個 solder 物料嘅，唔包呢樣嘢嘅。

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答：你講緊附件...

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問：Annex 1 呢個 part I，要遞埋一張--喺譬如 37626，要列晒將會用嗰啲物料係乜咩嘛？

答：哦，嗰個附件，我哋主要係針對嗰幾個我哋叫 terminal fitting，即係包括有啲水龍頭同埋有一啲嘅--嗰啲嘅閘掣嘅，就有包...

問：就唔包譬如好似 soldering 嗰啲咁？

答：冇特別包呢個 soldering。

問：係，冇特別包嘅，亦都--無論點都好，呢啲係我即係話畀你聽呢一啲物料就係準備會用㗎喇咁樣？

答：如果你講緊頭先 WWO46 II 嘅第一個，係咪呀？II 嘅第一個...

問：WW...

答：WWO46。

問：WWO46 嘅 part I 嘅第 2 點，即係喺 37621 嗰版中間嗰度，係咪？

答：第 2 段嘅第一個，係咪呀？

問：第 2 段咪佢而家 notify...

答：第一個“I certify that”嗰度，係咪呀？

問：佢通知...

答：係，啱。

問：...呢個水喉匠，同埋 authorised person 簽咗名，就話通知貴署就嗰個水喉工程就將會幾時開工同埋佢哋會用啲咩嘢料，咁就喺個 annex 1 度列咗出嚟嗰啲將會用嘅用料咁樣。

答：除咗 annex 1，亦都包括 annex 1 以外嗰啲，佢呢度都有寫嘅。

問：咩嘢意思呀？

答：或者我讀一讀呢度，“We CERTIFY that the pipes and fittings installed/intended to be installed, including those as listed on the attached annex to this form and those

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not listed”。

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D

問：咁就即係將會用呢啲咁嘅料咁樣，係咪呀？

D

E

答：係，係，即係包括 annex 1 同埋 annex 1 以外啲啲。

E

F

問：Okay，跟住 part II 就要個 registered consumer 簽，就 registered consumer 當然就係要搵個 licensed plumber 去做呢件事？

F

G

答：唔。

G

H

問：Registered consumer 嗰個責任就係去搵個 licensed plumber 去做呢件事，係咪？

H

I

答：係。

I

J

問：係咪呀？

J

K

答：我諗佢呢個係 endorsement 嚟嘅，佢 more than just engagement，佢呢個係 endorse 就係話嗰個 licensed plumber 同個 AP 喺 part I 所填啲啲嘅資料嘅，佢係同意嘅，呢度係寫“I endorse the information submitted by my Licensed Plumber and the Authorized Person in part I.”。

K

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問：不過唔緊要，registered consumer 就都可能係大戶或者細戶嘅，你細戶啲啲，基本上佢要填呢一份嘢，都係經...

N

O

答：通常發展商嚟嘅，因為要開--大部分如果係起新樓都係發展商。

O

P

問：好，part IV 呢，authorised person 要簽嗰個部分就係佢睇個水錶個位置啱唔啱，係咪？

P

Q

答：係。

Q

R

問：就有再重複係嗰個到底個物料嘅處理或者點樣㗎喇，part IV 就唔係關呢啲事...

R

S

答：嗰個就去到 WW0132，一陣間可能會睇。

S

T

問：一陣間我哋去睇 132。

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答：WWO132 講嘅呢個。

C

D

問：就唔係喺呢個即係要簽水紙前呢一個 form 所管轄嘅範圍，啱唔啱？

D

E

答：如果你講嗰個水紙係指緊我哋有一張證書，係供水畀嗰個大廈，其實 132 係喺呢個供水之前。

E

F

問：我唔係講緊 132，我講緊 46。

F

G

答：哦，你講 46，46 就係頭先你讀嗰度，喺 part I。

G

H

問：46 就 part IV，由個 licensed plumber file 番去畀 Water Authority，跟住 Water Authority 檢驗之後就出個 part V，係咪咁呀？

H

I

答：係。

I

J

問：好，你想睇個 form 132，係咪？

J

K

答：係。

K

L

問：我請你去睇 37797，37796、37797，見到嘛？

L

M

答：37630，WWO132，你呢個 377...

M

N

問：我係呢個--唔緊要，可能同一個 form 啫。

N

O

答：會唔會嗰個係另外一個版嚟，我唔係好肯定。

O

P

問：37796、37797。

P

Q

答：Okay，嗰個簽咗嘅？

Q

R

問：嗰個簽咗嘅。

R

S

答：簽咗嘅，okay。

S

T

問：係咪呀？

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答：係。

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問：你想睇邊版？

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答：唔係，我講嗰個係空嘅，一樣嘅啫。

問：Okay，好呀。呢個就係你話嘅一個 form，就係個 AP 要簽嘅咁樣，係咪呀？

答：係，係。

問：你睇下呢張 form，呢張 form 個開宗明義，呢個叫做“APPLICATION FOR CERTIFICATE REGARDING WATER SUPPLY AVAILABILITY/CONNECTION”，見到嘛？

答：見到。

問：呢個係就有一個條例，“BUILDING (STANDARDS OF SANITARY FITMENTS, PLUMBING, DRAINAGE WORKS & LATRINES) REGULATIONS”而填嘅，見到嘛？

答：係。

問：我相信你所指話 AP 要簽嗰張就係下面嗰度“I confirm that the plumbing fittings and pipes used in the captioned project are in full compliance with Waterworks standards and requirements.”，見到嘛？

答：見到。

問：呢個就唔係特別指明係嗰個 WWO 或者 WWR 或者 British Standard 嘅？

答：呢個 Waterworks standards and requirements 其實都係嗰個 WWO、WWR 下面所要求嗰個標準嚟嘅，因為嗰個法例裏面...

問：呢個係你對於呢張 form 嘅理解？

答：或者我哋個原意係咁。

問：你嘅用意係咁樣？

答：我哋嘅原意--係，用意係咁。

問：好，但係呢張 form 佢講明就係講 buildings --其實基本上呢個唔係一張 cap 102 底下嘅 form，呢張係 cap 123 底下嘅 form，係

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一個唔同嘅用途嘅 form 嚟，你同意嘛？

答：呢一張表格就係畀水務監督嘅，即係 to Water Authority，我唔係好熟嗰個 Building Ordinance，不過我記得個 Building Ordinance 裏面，可能呢個 regulation 係有提到就係供水，即係問水務監督攞水同埋真係批水，係有一個連帶性關係嘅，我相信當時佢提呢一個係想話就係喺個《建築物條例》底下裏面有一個咁嘅要求。

問：我睇個《建築物條例》底下，關於呢個 Standards of Sanitary Fitments, Plumbing, Draining Works and Latrines，係好多係講廁所，講洗水盆或者係廚房嘅去水嘅 drainage 嘅，我唔係想考你對呢個條例有幾熟，不過如果有需要嘅，我可以作陳詞或者我可以帶你去睇個條例本身，不過嗰個用意係講廁所，唔同嘅廁所，有 urinals、有 latrines，有好多，同埋係講廚房、浴室嗰類咁嘅 drainage，唔係講食水嘅，同意嘛？如果你唔同意，你就話唔同意，我哋可以稍後再睇嗰個。

答：因為有另外一張表格係 WWO1004，我唔知道有冇，因為嗰度都有同樣係引用呢一個條例，但係嗰度都寫得好清楚就係供應食水嘅，所以我...

問：唔係，噏，...

答：WWO1004。

問：1005，我哋睇下，我唔知你係咪想指 WWO1005，我哋喺 37801、37802 可以睇到，你係咪講緊呢一個 certificate？

答：我手上有一張就 -- 我睇一睇先。呢個係 water supply connection，喺，我嗰個係 water supply availability，即係有冇水，另外有一張係咪可以畀到水，個意思一樣嘅。

問：意思一樣嘅啫，係咪？

答：係，意思都係一樣，佢都係有引用番呢個《建築物條例》嘅。

問：你所指嘅就係可能係第 1 點“POTABLE WATER SUPPLY”，第 2 點就係“FLUSHING WATER SUPPLY”，見到嘛？

答：係。

問：你見到呢一個係個開宗明義，係“CERTIFICATE REGARDING WATER

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SUPPLY CONNECTION Building (admin.) Regulation 25A”。

C

D

答：係。

D

E

問：呢個係喺個《建築物條例》底下嘅 regulation 25A 嘅，你見到嘛？

E

F

答：係，我見到。

F

G

問：無論係第 1 或者第 2 都好，嗰度係講到明係“regulation 10A of Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations”，你見到嘛？

G

H

答：係，我見到。

H

I

問：嗰啲同樣，你針對嘅係第 1 點也好，第 2 點也好，呢啲如果係根據呢一張咁樣嘅 certificate，呢一個 certificate 本身只係針對 latrines 或者係嗰啲 sanitary fitments，你同意嘛？

I

J

J

K

答：呢度講食水供應，我頭先我承認，我就有詳細去睇嗰啲條例，不過呢度提個食水供應都有提到 plumbing，plumbing 就係指嗰個水管，如果你講 drainage 同埋 latrines 就另外一樣嘢嚟嘅。我係以前有...

K

L

L

M

問：例如...

M

N

答：...大約睇過下嗰個《建築物條例》，我印象中佢係有講到就係你如果係要供食水畀座大廈，你係需要...

N

O

問：需要交一張咁樣嘅 certificate 畀 Building Authority，係咪？

O

P

答：係，但係係咪引用呢個條款，我唔係好記得。

P

Q

問：但係嗰個要求就係你要嗰啲 latrines、bathroom 嗰處係有 connection to water，呢個就係 Building Authority 嘅要求，所以你要冇呢張咁嘅 certificate，你如果唔知，唔緊要，我相信你嘅律師去到最後可能佢陳詞會補足嘅。

Q

S

答：Okay，好，好。

S

T

問：但係我嘅演繹，喺法例底下嘅演繹呢個第 1 點、第 2 點講到 regulation 10A subparagraph (2) 或者 regulation 10A subparagraph (1) of the Building (Standards of

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Sanitary Fitments ...) Regulations 係講嗰啲廁所、廚房同埋浴室 shower。

答：你講番廚房係...

問：衛生...

答：因為或者咁講，我對嗰個法例裏面嗰啲字眼我有去參詳，但係我睇到當時我哋制訂呢個用意，就係話如果你係滿足到我哋規例嘅時候，我哋就會畀一個嘅食水供應到畀你個住戶，而呢一個一路咁做法，其實我相信發展商或者係其他嘅持份者都好清楚我哋嘅用意，亦都佢都係咁簽，...

問：我想你...

答：...即係可能真係跟法律嘅意思，你係啱嘅，但係...

問：跟法律就我啱，...

答：我話...

問：...但係你嘅用意就係想個 AP 簽一張嘢嘅時候就係...

答：唔係，唔係，我意思即係話如果跟法例，係你...

問：...簽得闊啲，係咪咁嘅意思？

答：唔係，唔係，唔係咁嘅意思，我嘅意思即係話如果我頭先聽你頭先講，就話我哋引用嗰啲條例唔係講食水嘅水喉，我即係...

問：唔係講食水嘅。

答：係喇，如果呢個係啱嘅時候，我就話我哋當時嗰個用意其實係講食水水喉嘅。

問：你冇可能講食水嘅，署長。

答：但係佢係寫住...

問：你睇下第 1 點，你睇下第 1 點，第 1 點你嗰度 "I hereby certify" 即係 Water Authority，閣下嘅前身喇可能，"I hereby certify that a permanent connection of a supply of"，你係畀

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人揀㗎嘛，即係或者你自己嗰個出呢張 certificate 嗰個人揀嘅，你係可以係 filtered 或者 unfiltered water，如果你講食水，點可能係 unfiltered water 啫？你食水只有一種嘅啫，係咪呀？

答：都唔係嘅。

主席：我唔知有咩嘢分別㗎。

何先生：請署長可唔可以 enlighten 我㗎。

主席：我對於--我唔知㗎，我唔知 filtered 同 unfiltered。

答：其實香港大部分嘅食水都係 filtered 嘅，但係好耐之前，因為香港嗰個一路一路發展，其實有啲水我哋係冇真係好似而家嗰個...

主席：即係 treated 啫，係咪呀，你嘅意思？

答：係喇，係喇。

問：哦，treated？

答：Treated，係。

問：Okay，唔緊要。

答：佢嗰個 unfiltered，即係佢其實都有啲少少嘅 treatment 嘅，不過就係我哋而家嗰種。所以呢度，我覺得佢講緊食水供應，你頭先講話呢度其實講緊係去洗水間或者係去呢個沖嗰個...

問：Latrines。

答：係，latrines 都係指緊...

問：Waste fitments...

答：都係洗手間，廁所嗰啲，即係而唔係食水，我有少少奇怪，因為我哋基本上香港大部分都係用鹹水沖廁嘅，就好少用食水沖廁，所以我覺

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得佢呢度引用應該都係講緊畀食水喉嘅。

C

D

問：好。

D

E

主席：畀食水沖廁？

E

F

答：好少--我諗唔會，佢意思唔係咁。

F

G

主席：唔係，我嘅理解...

G

H

答：因為下面有沖廁用水。

H

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J

主席：我嘅理解 WWO 就係講緊食 -- 即係嚟嘅水，呢個咁樣樣嘅 regulations 就講緊去啲啲水。

J

K

何先生：去嘅水，係。

K

L

主席：因為我睇過呢兩個 regulations，佢基本上就係唔想 overlap 啲嘢，嚟啲啲就你哋負責。

L

M

何先生：46 就係嚟啲啲。

M

N

O

主席：係喇，走啲啲就呢度負責，至於點解會有一張咁樣樣嘅 certificate 要 Water Authority 去簽呢，我唔知點解。

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P

Q

答：或者呢個留待律師去睇，不過我記得見過《建築物條例》，佢係有一度地方，未必係呢條條例，係有提到就係水務監督係有一份嘅文件，就係畀呢個嘅建築物--根據《建築物條例》畀個建築監督，嚟到去證明我哋係有食水供應畀呢座大廈等等，佢先出入伙紙嘅。

Q

R

S

問：明白，嗰個建築物監督，Building Authority 係需要有一張咁樣嘅嘢嘅，...

S

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答：呢樣嘢--呢一張...

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U

問：...呢個就係 25A，你睇下個頭頂嗰度 25A 嘅要求。

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答：係。

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主席：因為冇呢張嘢就有入伙紙，係咪呀？

E

E

何先生：唔會簽到入伙紙嘅。

F

F

主席：係囉，啱吖，呢張嘢愛嚟簽入伙紙嘅之嘛。

G

G

何先生：冇錯。

H

H

I

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問：呢張嘢係要承建商首先畀一張滿意紙，然後就畀 AP，AP 又要再簽，簽完就遞去畀 Building Authority，就話喺 Building Ordinance 底下嘅要求嘅嘢做晒。

J

J

答：係咪係咪都有一個食水系統嘅？

K

K

問：係有個食水系統。

L

L

答：有食水系統嘅。

M

M

問：25A 就係講呢樣嘢，25A of the regulation building...

N

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O

主席：咪住先，我想返番去正題先，因為我哋講緊係咪講--你係其實係咪講緊 roles and responsibilities of 嗰啲 water...

P

P

何先生：冇錯。

Q

Q

主席：...--嗰個 Customer Services Branch 嗰啲，因為已經完全係...

R

R

何先生：我過咗嗰度，我而家就係講緊佢第 34 段，佢話「你 AP，我個監管制度裏面底下」...

S

S

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T

主席：得，得，得，我明。

U

U

何先生：...其中一環，你個 AP 係做咗好多嘢嘅要。」我哋而家講緊嗰樣。

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主席：我明。

C

D

何先生：我想話畀你聽 AP 簽 46，我哋頭先講咗，AP 簽 132 係去擺呢一張紙嘅係講緊去水嗰個問題。

D

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E

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主席：係，係去水。唔係，我想返番去個主題，你嘅意思係咪即係話「AP 簽咗呢啲，所以就唔關我哋事。」係咪咁嘅意思？

F

G

答：唔係，唔係咁意思。

G

H

主席：哦，佢唔係咁嘅意思㗎，即係因為 ultimately 都係你哋出嚟㗎，嗰啲 certificate？

H

I

答：係，係。

I

J

主席：即係雖然人哋簽晒話「我 certify」乜乜乜物物物，最後把關都係你哋㗎㗎？

J

K

答：我哋最後出，亦都會睇就係...

K

L

主席：Exactly，係咪？

L

M

答：...認可人士有冇呢個嘅簽署，我哋自己都有一啲步驟去睇。

M

N

N

O

主席：Mr Ho，你係想 drive 呢一個 point，就想話畀我哋聽「雖然係 AP 要簽好多嘢，不過最後都係你哋把關㗎㗎」？

O

P

何先生：係，同理 AP 簽嘢係--根據個法例而簽嘅嘢，就係講緊呢一個部分就係講去水。

P

Q

Q

R

主席：我知，即係 AP 簽完，你都可以唔批㗎。

R

S

S

T

問：係，同理你呢個同--我個演繹喇吓，呢一個法例底下嘅要求唔係講緊食水要求嘅。

T

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主席：係，啱。

C

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答：係咪我理解呢？即係你覺得當個 AP 去簽咗呢張嘢，其實佢唔係講緊我哋啲啲食水水喉？

E

F

問：因為你個第三...

F

G

G

H

主席：呢一忽，呢一忽，你純粹講呢一忽。

H

I

何先生：我純粹講呢一忽。

I

J

問：132，同埋你跟住人哋入咗張 132，你就簽呢張嘢出嚟畀個 AP，去等個 AP 有得遞畀個 Building Authority，呢一個步驟，我講緊呢個步驟。

J

K

K

L

答：但係 46 就有呢個問題喇。

L

M

問：46 就唔係，46 就係另外處理第二個步驟。

M

N

N

O

主席：另外一樣嘢嚟嘅。

O

P

何先生：係，另外一樣嘢。

P

Q

答：Okay。

Q

R

問：所以如果我嘅講法係啱，46 AP 簽 part I、part IV，AP 唔係--即係你個第 34 段啲處，你話喺你個監管底下幾個步驟啲嘢，包括 LP，包括好多嘢，第三個步驟就係話「AP 簽咗嘢，所以我好有信心嘅。」我想話畀你聽 46，AP 簽咗個 part I 同 part IV 增強到個信心，對於嗰個用料，尤其是呢個譬如嗰個 solder 嗰個問題，呢個簽 132，AP 簽呢個係講緊去水，亦都唔可以同你講個...

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主席：唔係，你再講多次，AP 簽咗 part I 同埋 part...

何先生：IV。

主席：就點樣樣話？

何先生：你唔可以因為 AP 簽咗，你就話「我喺個監管個用料個制度裏面，確保食水安全個用料制度裏面，我好有信心喇。」咁。

黎先生：即係你意思講 Water Authority 仍然有個最終責任喺度咁解，係咪呀？

何先生：冇錯。

主席：呢個都--我諗你都唔會話唔係嘅，係咪？

答：不過我唔知有冇理解大律師嘅意思，即係話直情基本上認可人士所...

主席：唔係，佢而家話雖然佢哋有簽咗名，但係你始終-- Water Authority 始終都要作為呢個最後嘅把關者...

問：你唔應該倚賴話「AP 簽咗，我就好開心喇。」咁。

主席：就一定得㗎喇。

問：即係我就唔...

主席：唔使 check 喇。

問：即係你個把關就去咗個 AP 嗰度喇。

主席：I、IV，係咪 I、IV 你講？

何先生：Part I、part IV。

B

B

C

答：可能我理解錯咗，我以為你講係 AP 其實簽嗰個名根本都唔係呢樣嘢。

C

D

問：唔？

D

E

答：即係我以為你講緊 AP 所簽嗰個 WWO132 基本上都唔係講緊啲食水水喉。

E

F

問：132 係呢一張...

F

G

答：即係啲去水喉。

G

H

主席：佢係咁講㗎，佢係咁講，不過嗰個唔重要，即係最重要就係而家去番呢個 part I、part IV，即係你唔可以話「因為 AP 簽咗名，所以我就信心大增」。

H

I

I

J

答：我聽到。

J

K

K

L

何先生：多謝你，多謝主席。

L

M

M

N

主席：你點回答？

N

O

答：我覺得嗰個係一個確信嚟嘅，即係佢確認咗啲嘢嘅。

O

P

主席：確信呀？一個...

P

Q

答：即係佢確認咗話佢將會安或者安咗啲啲水喉，無論喺個附件裏面或者...

Q

R

主席：點解要確信呢？你只係一個 factor 你可以考慮啫，係咪呀？

R

S

答：Factor --唔係，我意思係佢確信咗，即係佢話--佢用嗰個字眼，我唔記得佢...

S

T

主席：佢唔係問佢，問你，即係佢係咁填，佢就話--即係個 architect 就話「我哋 fulfil 咗喇。」你就...

T

U

答：嗰個會係一個因素。

U

V

V

B

B

C

主席：係喇，只不過係一個因素啫。

C

D

答：我同意係一個因素。

D

E

主席：究竟畀幾多 weight 就另外一回事。

E

F

答：畀幾多比重係一件事。

F

G

主席：係喇，啱。

G

H

答：Okay。

H

I

問：因為我見到你嗰個第 34 段嘅五個因素，你提嗰個 AP，所以我提問你呢一堆問題咁解啫。

I

J

答：明白。

J

K

K

L

主席：其中一個因素，仲有冇其他嘅因素？係喇，plumber 又簽咗個大名喺度，AP 又簽咗個大名喺度，呢兩個因素存在咗，你仲有冇其他嘅因素，你先至會最終簽嗰個 part V？

L

M

M

N

答：我哋啲同事有落去睇嘅。

N

O

主席：就係睇嗰啲 alignment、嗰啲水錶位嗰啲？

O

P

答：佢都會睇下公用部分，同埋會抽查一啲住所裏面嗰啲嘅裝置嘅，但我哋承認嗰個限制性。

P

Q

主席：乜嘢限制性？

Q

R

答：即係話我哋唔可以每一個嘅裝置都可以檢驗。

R

S

主席：當然喇，梗係喇。

S

T

答：同埋都係肉眼睇啫，因為有啲嘢都睇唔到。不過我想講，就我唔知適唔適合，即係其實睇番其他國家，好多時都係用一個持牌水喉匠，佢哋係用一種叫做自我檢查，即係 self certification，有啲國家基本上都唔會派人出去睇嗰個水喉裝置，就批咗㗎喇。

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主席：要睇下嗰個國家幾大嘅，好多原因嘅，啱唔啱呀？譬如你美國、加拿大，由一度去一度，都唔知要揸幾多個鐘頭車嘅，咁梗係喇，你香港咁細，係咪呀？睇下你有幾多人嘅啫其實。

答：唔。

主席：即係但係就住用料嚟講，就住用料、嗰啲 fittings、pipes and fittings 嗰啲，其實你哋基本上係從來都唔會 check 佢嗰啲 chemical composition 嗰啲咁嘅 properties，我叫做，係唔會嘅，啱唔啱？

答：如果係喺個 WWO46 附件嗰啲嘅喉料，我哋係有要求有一啲嘅證書，如果佢哋我哋指明嗰啲化驗所裏面去驗，即係有驗嗰個嘅...

主席：我知，即係文件就得㗎喇？因為你 annex 裏面嗰啲，你列咗出嚟，但係你最後你簽譬如 part IV 嗰陣時候，你又話要包埋喺個 annex 以外嗰啲嘢㗎嘛，係咪？咁嗰啲嘢完全冇 certificate㗎喇，嗰啲你哋就唔 check㗎喇？

答：我哋基本上就有，淨係嗰個附件裏面嗰啲嘅喉件，我哋比較著重，我哋就有要求嘅。我哋亦都將呢一個附件，正如我之前都提過，我哋係喺個網頁就將佢嗰個名單增加嘅。

主席：我知，我明，呢啲不過都係書面上嘅要求嚟嘅，實際上你哋係唔會鋸一段擺去 check 嘅？

答：我相信真係有懷疑，先會做，因為如果你講緊係落去巡查嘅時候，鋸一橛個裝置嚟到去做一個化學嘅測試，嗰個會...

主席：即係唔會喇？

答：我相信以往好少，我唔敢話一定有。

主席：即係唔會。

答：係。

主席：我諗都唔會㗎喇。

問：最後睇埋 part V，好唔好呀？

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答：Part...

問：呢個 form 46 嘅 part V，

答：哦，part V，okay，得。

問：喺 15.1 嘅 37625。

主席：我想問一問，你哋水質科學部，實際上，譬如我而家懷疑嗰啲銅管有問題或者嗰啲焊料有問題，我擺咗啲物料落嚟，其實你哋個水質科學部或者你哋成個水務署有冇能力去做呢啲測試，抑或要交畀政府化驗所做？

答：我哋自己就有呢方面嗰個嘅設備嘅，都係要靠--我諗可能要靠出面私人嗰啲化驗所。

主席：或者政府化驗所囉。

答：政府化驗所，要睇一睇佢會唔會幫我哋處理呢個。

主席：政府化驗所都唔幫？

答：都要睇下佢個資源係咪可以應付到，我理解我哋...

主席：唔係，我嘅意思即係譬如我聽日有一個地盤，假設署長聽日你要雷厲風行執行呢一個水務條例，我而家落去，我就抽樣去 check，check 你哋啲 copper pipes 究竟係咪啱嘅，check 你個閘掣係咪啱嘅，你擺咗都唔得㗎嗎，因為你哋自己本身水務署有冇能力去化驗㗎嗎？

答：我哋會睇私人嗰啲嘅化驗所。

主席：我知，即係你哋有冇能力，係咪？

答：係。

主席：更加有 incentive 擺番嚟驗喇？

答：應該話就係我哋基本上嗰個--即係唔會話係有一個嘅資源設備係喺呢方面做。

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主席：係喇，明白。

問：睇埋個 part v，好唔好呀？

答：好。

問：37625。

答：係。

問：Part v，我哋見到就係水務監督係畀番個持牌水喉匠嘅？

答：係。

問：呢度係咁寫嘅，“Plumbing detailed in Part IV are last inspected on”幾時，咁即係已經係做咗個測檢之後先出個 part v？

答：係。

問：呢度就咁寫嘅，“Pursuant to the Waterworks Ordinance and Regulations, no irregularities were found and the plumbing detailed in Part IV is approved.”，即係檢測咗之後，冇發現有唔符合水務條例或者係個規例嘅，所以先出到呢個 part v？

答：我哋發現唔到，即係喺嗰個巡查裏面，我哋睇唔到有啲咩嘢問題。

問：最後你--即係如果就咁睇呢張 part v 嘅字面，就係你哋已經確保咗個水務條例底下同埋個規例底下嘅要求係符合咗？

答：我諗呢個都係頭先...

問：驗咗，符合咗，然後先出。

答：...我提有個限制，基本上我哋落去巡一個咁嘅時候，我哋基本上都係抽查同埋憑肉眼嘅，我哋有可能話睇到晒每一個裝置裏面嗰個物料係跟足呢個我哋嗰個嘅《水務設施條例》嘅。

B

B

C

主席：我想問下你，你哋抽查係咪就係抽查嗰個水喉匠 penalty point 上高嗰度所列出嚟嗰啲 items？

C

D

答：嗰個會係其中一個主要嘅...

D

E

主席：唔係，除咗嗰度之外，仲有啲咩嘢你哋抽查嘅項目呢？因為嗰啲你要扣分，係咪？嗰啲就查，嗰啲我哋都見過，其實基本上好多都係啲 physically 做得啱定唔啱、啲 alignment 平唔平、啲水錶點裝諸如此類嗰啲嘢嚟嘅啫，即係除咗嗰啲之外，你哋仲有啲咩嘢會 check？

E

F

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G

答：我都係講大約喇，因為細節嘅嘢我都係唔係好清楚，大約嚟講，就係主要我哋睇三部分，一個就係佢成個嘅供水系統係咪跟佢之前入嗰個嘅圖則。

G

H

H

I

主席：呢個就係大...

I

J

答：係，大...

J

K

主席：呢啲就係好高層次嘅嘢嚟喇，即係啲 pipes 點走、啲 pumps 點走呢啲咁樣樣嘅嘢。

K

L

答：第二，我哋同事，我理解會抽查譬如可能有一啲嘅裝置，如果我哋係可以--譬如我哋知道佢係用邊一隻辦或者牌子，我哋有得對嘅時候，我哋都會有一啲目測去睇一睇究竟係咪啱，譬如有一啲嘅喉管...

L

M

M

N

主席：呢個即係 annex 裏面所列低嘅嘢？

N

O

答：一部分喇，係，即係我哋可能會做到嘅話，即係一啲嘅水喉同埋裝置。

O

P

主席：即係嗰啲 pipes and vales、...

P

Q

答：係，fitting, terminal fitting, 係喇。

Q

R

主席：...fittings 諸如此類，仲有呢？第三個咩嘢層次？

R

S

答：第三個我哋比較留意，就係嗰個水錶有冇駁錯錶，因為試過有啲...

S

T

主席：係，駁錶，係，最重...

T

U

答：...譬如公屋嗰啲，或者喺私人樓好多，水錶好近嘅，...

U

V

主席：得。

V

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答：...我哋試過有啲係駁錯咗另外一個單位，收水費真係收錯咗，嗰啲我哋都好緊張。另外我哋都會睇下，因為水務工程包括有一啲係食水，有啲係非食水，亦都試過過往有啲係撈亂咗，即係佢駁埋咗一齊，就會有一個嘅污染，我哋都會睇嘅。

D

D

E

E

主席：係，唔該。

F

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G

何先生：多謝主席，冇進一步。

H

H

主席：唔該。Mr Lee。

I

I

### 李柱銘先生盤問

J

J

問：就問頭先嗰度，你嗰個 part V，而家喺唔喺度？

K

K

答：係，睇到。

L

L

問：你就話首先係已經有個 inspection，係咪？

M

M

答：係。

N

N

問：然後就話搵唔到有咩嘢錯，有咩嘢 irregularities，所以你就批准咁樣，係咪？

O

O

答：係。

P

P

問：頭先你又話試下睇下有冇駁錯水錶，你會唔會啲人去試下啲水有冇問題呢？好容易咋嘞，空嚟嗰個層樓，係咪？

Q

Q

答：唔。

R

R

問：會唔會試下啲水呢？

S

S

答：你講番試水係直情泵水入去入面？

T

T

問：啲水喉未駁嘅咩？

U

U

答：我哋主要基本上我哋有啲建築水喉度，即係我哋會有啲水會供入去，但係你想試係試佢乜嘢？

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問：試下啲水喉啲水有冇...

答：我哋比較少，我哋通常如果係講呢啲內部供水系統，我哋檢驗就係頭先我講啲三樣嘢，如果係充滿水，即係貫咗水入去睇，我理解係比較少做。

問：比較少做定係完全冇做？

答：我知道就應該有嘅，不過我唔敢肯定，我知道應該正常下唔會咁樣供水畀佢嘅。

問：但係可以做？

答：技術上我諗係可行嘅，不過睇下個需要性啫，我哋基本上就會睇就係頭先我講啲幾樣嘢，基本上我哋可以睇到嚟喇，即係如果你話要入滿晒水去睇另外一樣嘢，我知道好少。

問：因為今日好多人都問咗呢度，抽水辦啲度，當然如果已經啲人入咗去啲公屋度住，你入去擺水辦當然就令到人哋唔係咁鍾意，但係空嘅時候，你哋擺水辦就任你點擺嘅啫？

答：擺水辦另外一樣嘢，我初頭誤會咗，以為你係充滿晒水去試某一啲嘅嘢，如果你係擺水辦，我哋基本上就係要求--呢個都係睇講緊邊個年份，如果係講緊就譬如而家我哋去檢驗樓嘅時候，就會要求就係指定喺邊啲嘅位置抽樣就擺水辦，並且會喺啲個軟焊啲度會睇一睇啲個嘅焊物啲個有冇含鉛，而家就會做呢兩樣嘢。

問：即係出事之後，而家檢討過之後，就而家做？

答：係。

問：以前就有做？

答：以前有做呢兩樣嘢。

問：你而家擺水辦係咪--點樣抽嘅呢？都係咪開咗佢兩分鐘或者五分鐘，甚至十分鐘、十五分鐘，然後至...

答：冇，冇，我哋都係兩分鐘嘅，除非一啲特別嘅情況，如果係新啲單位，可能我哋會去到五分鐘唔出奇，因為如果根據指引，如果係一啲新單位或者好耐冇住過嘅單位，我哋係用五分鐘嘅時間。

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問：但係如果用開嘅，唔係新樓，頭一次入去住...

答：一般就兩分鐘。

問：你係覺得兩分鐘同五分鐘冇分別嘅，係咪？

答：兩分鐘同五分鐘嘅分別，都有一個分別嘅，兩分鐘同五分鐘。

問：大唔大呢？即係講含鉛嗰方面嚟講先，我哋而家成個調查都係鉛。

答：我未必好專家咁答到你，因為我計到，就係兩分鐘，其實你計個流速，你可以睇到啲水係去到邊一個位，你要計一計就係嗰個流速同埋嗰個嘅時間，然後你睇一睇你擺水嗰個單位佢駁嗰條水管有幾長，咁可以計到你喺邊個位，嗰個分別就喺嗰度。

問：好，呢度我再遲一陣再問。我而家想問你關於有一啲會，叫做跨部門嘅會議，你聽過未？

答：你講緊係邊一種？

問：係由...

答：我哋都有幾多係啲跨部門嘅。

問：呢個就係政務司司長林鄭月娥係召開嘅，就係關於鉛水問題嘅跨部門會議。

答：係。

問：照我理解，就有三個局同埋三個署嘅，係咪？

答：唔，唔。

問：就運輸同埋房屋局，跟住底下就房屋署，即係呢度兩個，係咪？

答：唔。

問：你哋嗰度就有個發展局就同埋水務署，啱唔啱？

答：唔，唔，唔。

問：然後仲有，就係食物及衛生局就同埋衛生署，係咪？

B

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答：唔。

C

D

問：即係有三個有關嘅局同埋三個有關嘅署，就同埋政務司司長開會？

D

E

答：唔。

E

F

問：即係起碼都七個人，係咪？

F

G

答：唔。

G

H

問：係咪你自己去㗎，水務署嗰度？

H

I

答：我有出席呢啲會嘅。

I

J

問：你係咪盡力都出席呢啲會，定係...

J

K

答：如果我係喺度嘅，我會去嘅。

K

L

問：因為你署長，應該係署長去㗎嘛，因為政務司司長自己主持㗎啫？

L

M

答：係。

M

N

問：係咪真係每一次會都係佢主持？

N

O

答：因為佢開咗好多次，大部分，係咪每一次？我印象中好似有...

O

P

問：譬如佢唔喺香港，咁...

P

Q

答：係，可能佢唔喺香港，有一次半次唔喺度，應該基本上佢喺度，都係佢開嘅。

Q

R

問：好喇，你哋個局，發展局係咪都係局長去？

R

S

答：局長有去過，但係係咪次次去呢，亦都睇下佢個時間。

S

T

問：即係多數喇起碼都？

T

U

答：係，如果佢喺度，佢會去，如果唔係，佢都有個副局長嘅。

U

V

問：就運輸及房屋個局長都係去㗎，多數都去㗎？

V

答：如果佢喺度嘅時候，佢都會去嘅。

B

B

C

問：即係跟住個房屋署個署長又係喺度就去喇喇？

C

D

答：係。

D

E

問：食物及衛生局局長都係咁，係咪？如果喺度就去？

E

F

答：如果喺度喇，係。

F

G

問：衛生署署長又係喇？

G

H

問：好喇，我想你睇一睇份文件，就係--我呢度就--我或者遲一步，因為我覺得應該畀份文件你睇嘅。就呢啲咁嘅跨部門嘅會議就去到 2015 年，即係舊年 10 月 8 號就已經開咗十七個喇喇，我聽日會畀份文件你睇，我唔會點你，okay。

H

I

答：唔，唔。

I

J

問：即係到到而家，就起碼都唔止十七個，係咪？即係舊年 10 月 8 號已經開咗十七個。

J

K

答：唔。

K

L

問：大概係幾耐開一次？

L

M

答：我印象中，之前係好密嘅，但係跟住就比較疏啲，...

M

N

問：呢度開始咗聆訊咗之後就疏啲，係咪？

N

O

答：應該係--我唔係好記得喺邊個時候開始疏啲，佢初頭係好密嘅。

O

P

問：我明。

P

Q

答：但係去到 10 月或者 11 月係好疏，我唔係好記得。

Q

R

問：譬如而家呢個開始聆訊，好多時都報紙賣嘅，差唔多日日都有賣，呢啲嘢會唔會傾嘅呢？即係聆訊嘅過程，傾咩嘢、關注咩嘢，你哋呢啲跨部門嘅會議會唔會提出嚟討論？

R

S

答：我印象中，佢好少提到聆訊嘅事嘅。

S

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問：好少？

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答：可能係冇添，我唔係好記得，應該係聆訊開始咗之後，喺個會議裏面係--我只可以講話冇就住呢個聆訊裏面主題式咁去傾。

問：但係如果有大件事，咁就會傾，係咪？因為你而家呢個跨部門都係關於鉛水嘅問題，而家鉛水有呢個委員會喺度調查緊喇。

答：其實主要我哋比較關心，喺初期嘅時候就係點樣去儘快抽到個水辦，同埋點樣嚟到去幫助啲受影響啲嘅居民，包括就係食水嘅供應，包括可能係房委會佢會派一啲樽裝水、濾水器，同埋之後亦都有--除咗房屋署之外，有呢個學校、幼稚園等等，佢比較多係處理呢方面嘅，即係了解下啲個情況，有啲咩嘢我哋可以幫助去減低啲個嘅對呢個市民嘅影響。

問：頭先你講過就係儘快抽水辦，咩嘢意思？

答：即係安排人手啲方面可唔可以就係--譬如話因為你抽水辦，你需要好多人係去啲個樓宇啲度去擺水辦，亦都擺番嚟嘅水辦能夠儘快辦搵一啲嘅--我哋水務署自己有化驗所，咁政府化驗所，有冇需要搵私人啲啲化驗所等等，即係喺資源分配啲度可唔可以就做得比較緊湊一啲，呢個需要就係配合嘅。譬如以水務署嚟講，因為啲個量係好大，我哋都需要就係徵用一啲可能退咗休嘅同事會唔會返嚟幫手，即係好多工夫呢方面資源分配要做嘅。

問：其實抽水辦呢方面，你自己個署夠唔夠人做？使唔使搵第二啲...

答：我哋需要加人手。

問：唔？

答：我哋需要搵幫手嘅。

問：搵幫手，係咪政府其他部門定係點呀？再請啲...

答：我唔係好記得政--主要係我哋，但係有冇第二個部門，應該主要係我哋嘅，因為政府化驗所主要幫我哋測試啲水辦，擺水辦我哋係搵外--即係我哋請一啲出面嘅一啲嘅人幫我哋手。

問：關於呢一個跨部門嘅會議，你頭先都講，好多時都有嘅，因為政府有啲--好多事就幾個部門都可能掂到嘅，如果出咗大事，你有統籌，好多時一個部門就賴第二個部門，係咪咁嘅現象？你嘅經驗。

答：我諗唔係，我諗係協調嘅，即係大家配合同埋協調。

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問：我哋立法會就有咁嘅經驗，我唔知你有冇呢個經驗。

答：我哋通常政府部門，大家都係互相協調嘅。

問：協調？

答：係，即係睇下有啲咩嘢地方，譬如話我哋覺得資源上，我哋自己水務署驗啲水辦有困難，我哋就搵政府化驗所幫手，所以有啲會議佢哋都有出席嘅。

問：譬如好似呢單咁先，呢單鉛水超標，好明顯司長就好緊張，政務司司長，究竟錯喺邊度呢？早期嘅時候都唔知喺邊度錯，啱唔啱？

答：佢係好關注呢件事。

問：係喇，咁咪好緊張知道究竟邊個部門負責㗎，係咪？

答：當然，我哋最重要個嘅責任就係睇清楚個食水係咪安全，同埋如果係發現到有問題嘅時候，我哋有冇一啲嘅適當嘅資源嘅配合，呢個係我哋個重點。

問：個部門--負責個部門就係你嘅部門，係咪呀？

答：我哋嘅部門係負責...

問：食水咁嘛？

答：...供水同埋監管，呢個會有一個角色喺度嘅。

問：唔係一個角色，你負責嘅，你個部門負責嘅，係咪呀？食水㗎。

答：你講負責係負責供水同埋監管個工作。

問：唔係淨係供水，係要供啲係好安全嘅畀人飲嘅水。

答：係。

問：因為我唔想再攞啲文件嚟睇，已經好多，係咪？

答：唔。

問：咁所以呢個係你嘅責任，呢個係你個部門嘅責任，所以...

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答：當時發生咗鉛水事件之後，都有三個委員會嘅，第一個委員會要去確定就係嗰個食水含鉛超標個成因，當時嚟水務署嗰度就領導一個專家小組就去研究，一定要知道發生事個原因係啲乜嘢。第二，亦都房委會自己都有個檢討委員會，睇一睇會唔會喺嗰個系統上有啲咩嘢地方需要改善。第三，而家有呢個獨立調查委員會，亦都係去跟進呢件事，我相信係當個委員會最後研究有個結果嘅時候，就會比較清楚嗰個嘅問題所在喺邊一度，我喺個發言嘅補充嗰度都提到如果委員會係有任何嘅建議，水務署係會認真同埋細心去研究同埋跟進嘅。

問：梗係喇，呢個你嘅責任嚟㗎嘛。

答：唔，唔，唔。

問：你講你哋嗰個專家會議，我想問下你哋個署裏面，水務署裏面關於含鉛嘅問題，食水含鉛嘅問題，你哋有冇啲人可以叫做專家？

答：專家就主要喺化學方面，我哋有個總化驗師，佢喺呢方面係...

問：即係陳健民先生？

答：陳健民先生，係，係。

問：佢就係最有專長㗎喇，你個署裏面，係咪？

答：因為我哋個水務署嗰個化學嗰方面就係呢個總化驗師，所以佢係最有經驗同埋佢係最熟悉呢一方面。

問：仲有冇其他？

答：其實其他嗰啲係一啲協助性嘅，譬如...

問：即係協助佢嘅？

答：係，協助佢，亦都係譬如話我哋都有一個--如果開一個專家會議，我哋最主要就係搵外面呢一方面嘅專家，包括係物料，包括係化學等等，喺個專家小組裏面亦都有搵有關相關嘅部門，包括有房署，有其他嘅政府部門都一齊參與嘅。

問：開呢啲咁嘅跨部門嘅會議，有冇紀錄㗎？

答：專家小組有會議紀錄嘅。

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問：我唔係，我話跨部門嗰啲，即係司長主持嗰啲。

答：司長嗰啲，可能佢有一啲好簡--我記得好似有啲簡單嘅紀錄嘅。

問：嗰啲紀錄應該係大家都睇到，每人一份嘅，係咪？

答：應該係有嘅。

問：所以你哋都應該有一份㗎喇？

答：我見過嗰啲咁嘅紀錄。

問：唔係淨係見過咁簡單，你可以帶走㗎嘛？

答：哦，我可以帶走，應該有一份嘅。

問：因為有啲嘢跟進，你要睇住嚟跟進㗎喇嘛？

答：好多時喺個會議講咗嘅，我哋都即時自己記低，就跟進工作，都唔會等嗰個任何嘅紀錄。

問：因為你係繼續參加呢個會議，你都想跟進，其他人可能做咩嘢，你都要知道㗎嘛？

答：基本上如果出席嗰個會議，除咗我之外，我都有啲同事一齊參與嘅。

問：哦，唔係淨係你一個嘅，你個署？

答：唔係淨係我一個嘅。

問：幾多個人？

答：因為開好多唔同嘅會議，有啲會議就三個，有啲會議就四個咁，譬如個總化驗師，如果佢得，佢都會參與嘅。

問：即係唔會少過三個嘅，你哋個署嚟講？

答：我印象中，基本上都有三個，譬如我會去，我副署長會去，總化驗師會去等等。

問：Okay, okay。好喇，開呢啲--你頭先講到呢個跨部門嘅會議，係邊個決定要有呢啲嘅跨部門會議，係咪政務司司長本人吖，定係你有份提出吖，定係點呢？

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答：其實如果係第一個會議，我印象中係政務司司長佢開一個咁嘅會，就邀請我哋去出席嘅。

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李柱銘先生：主席，我想攞一個文件嚟，就呢個時候係咪一個適當嘅時間？

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主席：適當。我哋聽朝早九點--不如你準備好，聽朝早九點半就派晒畀我哋，跟住我哋就開庭。

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李柱銘先生：好，好，好，好。

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主席：唔該。

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下午4時59分聆訊押後

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C Tuesday, 2 February 2016 C

(9.31 am)

D (Transcript of simultaneous interpretation D

E except where otherwise specified) E

F MR ENOCH LAM TIN SING (on former affirmation) F

F Cross-examination by MR KHAW (continued) F

G MR KHAW: Good morning. Yesterday, I asked you about the G  
H eight parameters. I would like to follow up on that. H

I I understand you started a Quality Water Scheme. At I  
J that time, you applied the scheme and a certificate was J  
obtained. Are you aware of that?

K A. Yes. There were eight parameters at that time. K

L Q. The original eight parameters have changed. The L  
residual chlorine was taken out. The heterotrophic L  
M plate count was taken away and iron was added; are you M  
aware of that?

N A. Yes. N

O Q. When iron was introduced -- I read the witness O  
P statements of your colleagues and at that time there was P  
the issue of rust in the water and as such the parameter P  
Q of iron was added. Q

R A. I wasn't involved at the time, but according to my R  
S colleagues, mainly the chemists, they explained the S  
reason clearly in their witness statements.

T Q. So, in response to the problem of rust in water, you T  
U  
U  
V

added the parameter of iron; right?

A. So in response to issues with hygiene and maintenance of the water supply system, we found it appropriate to introduce testing of iron.

Q. Did you consider testing other metals rather than iron?

A. I cannot answer this question because I wasn't involved in the discussion at that time.

Q. All right, so I will ask your colleagues.

I would like to talk about the role of the licensed plumber. Let's look at bundle G1, on the role of licensed plumber. G1/229. We have seen it quite a few times. This describes the scope of power of the licensed plumber and the authorised persons.

In subsection (1) it says:

"Subject to subsection (2), no fire service or inside service shall be constructed, installed, maintained, altered, repaired or removed by a person other than a licensed plumber or a public officer authorised by the Water Authority.

(2) Alterations or repairs to a fire service or inside service which are, in the opinion of the Water Authority, of a minor nature, or the rewashing of a tap, may be carried out by a person other than a licensed plumber or a public officer authorised by the Water Authority."

And any person who contravenes may be found guilty.

So, for cap 25, when we talk about the fire service or inside service, they must be done by the licensed plumber or licensed officer?

A. Yes.

Q. Are you aware of that?

A. Yes.

Q. We know that the Water Supplies Department distributed a circular, which can be found in C3, page 2242.

I won't read it out. Please take a look for yourself.

Apparently, according to this circular, the work doesn't have to be done by the licensed plumber. The plumber can commission other people; it's enough for the LP to monitor their work.

So, as you know, does the licensed plumber have to carry out the plumbing works himself, or is it enough if he only does the monitoring?

A. This has been mentioned in my witness statement. In the past, for inside service installation --

COMMISSIONER LAI: Can you speak up, please? I cannot hear you.

A. Excuse me. (Adjusting microphone).

In my witness statement, I mentioned that in the past, the workers would carry out the plumbing works,

and the licensed plumber would perform supervision.

Now, this is the normal practice.

I would like to add one point. If we require the licensed plumber to personally carry out the plumbing works, it's not really practical. In 2004, according to an ordinance, a specific type of trade worker would carry out the plumbing works, and according to the Waterworks Regulations, the licensed plumber is not required to personally carry out the work. That's my understanding.

CHAIRMAN: I don't understand your last part.

A. In Hong Kong, some regulations or Ordinances require professionals to personally carry out the work, but in our Ordinance we do not require the licensed plumber to personally carry out the work. So, as far as we understand, the works is taken up by the licensed plumber, but the licensed plumber himself alone cannot complete all the works.

So the normal practice is the LP would be assisted by a team of workers for the inside service.

MR KHAW: If I understand you correctly, you said that the Ordinance doesn't require the LP to personally carry out the work?

A. Yes, that's our understanding.

Q. At the same time, the law doesn't allow the licensed

plumber to commission other people to do it?

A. In terms of interpreting the law, perhaps the counsel  
can try to explain that later on.

CHAIRMAN: I don't agree. You are enforcing the Waterworks  
Ordinance, so you have to understand the Ordinance.  
Of course, in a court setting, we can discuss the law,  
but as director of Water Supplies and as the Water  
Authority, you have to enforce the Waterworks Ordinance;  
you cannot delegate that to counsel. You have to  
explain it yourself.

A. Excuse me, perhaps I didn't make myself very clear. As  
I understand, the licensed plumber doesn't have to  
personally carry out the works, and realistically  
speaking, it is not possible.

CHAIRMAN: Well, that might be a fact. So, since the  
Ordinance was enacted in 1974, why hasn't it been  
amended?

A. In 1974, the licensed plumber could be a company, and it  
didn't have to be a trained professional.

CHAIRMAN: So, if what you said is right, when we look at  
the history of the law, you cannot delegate the work to  
anyone else?

A. If we look at the history of the Ordinance, the licensed  
plumber would not personally carry out the plumbing  
works and he would be assisted by a team of workers.

That's a fact. When the Ordinance was amended at the time, I cannot explain why the workers weren't allowed to assist the LP.

CHAIRMAN: So what's your view on the Ordinance right now?

Now we have subsection (3) (b).

A. From my understanding of the Ordinance, the LP is in charge of the plumbing works, but he doesn't need to personally carry out the works.

CHAIRMAN: Do you mean that this is your interpretation today?

A. Yes, that's our understanding today.

CHAIRMAN: So you feel that there's no need for amendments?

A. I agree that if we can clarify the intent under the Ordinance, that's ideal.

CHAIRMAN: In this 1990 circular letter, is it proof that the WSD justified the delegation of the work?

A. No, that's not my view. At that time, there was an incident, and the circular served to remind the trade that if an LP signed a form, the work cannot be delegated.

CHAIRMAN: So, in other words, you are not relying on the 1990 circular letter. So what you are saying is that, under section 15, the word "personal" or "personally" did not show up and that's your ground?

A. We looked at the history of the Ordinance and we looked

at the actual situation as well. If at the beginning  
the Ordinance allowed a trained licensed plumber --

CHAIRMAN: Well, the authorised person was a licensed  
plumber, but the only difference is that the LP was  
a company. Then, later on, it was amended, in 15(2) and  
15(3). So, if you refer to the history, would you think  
that we want the licensed plumber to do it personally?

A. Well, if the licensed plumber was a company, they  
couldn't do it; they'd have to employ. In the past,  
they could do so. That's why they did so in the past.

CHAIRMAN: And it has been amended; it's because they  
couldn't have those arrangements.

A. Well, my understanding is that if we tolerated it in the  
past and if it is not allowed anymore, that would be  
a big change in the industry. So our practice would be,  
if there were a large change in the past, we would allow  
licensed plumbers to employ people without a licence to  
do the work, and in the change -- there was a change,  
then our practice would be, for such a large policy  
change, we would need a consultation with the industry,  
and when there's any change in the law we have to go  
through the Legislative Council.

But the scenario didn't occur, according to the  
documents. So, if we allowed a person without a licence  
to do inside work, then we needed a person with

a licence, I think at that time there must have been a policy change, and we would have needed industry consultation, and it would also impact a lot of tenants.

So, during the course of change in the law, there wasn't that process; there wasn't a consultation.

CHAIRMAN: Then what is section 15 for?

A. Well, my understanding is that when you do water supply works, you need a person who was familiar with the licensing regime, because if you look at the regulations, some works require a person with plumbing knowledge, and when we train a licensed plumber, an important topic is the Waterworks Ordinance. So this is one component. The trained person needs knowledge of specifications and works.

CHAIRMAN: Well, if what you say is correct, then that means that we require the person to do it hands-on. Well, if you say that the course is so strict --

A. Excuse me, Chairman. I said that in 2004 there was a piece of legislation. There was a Construction Workers Registration Ordinance.

CHAIRMAN: Yes. We had -- Director, I don't want to waste time; do you understand? You will spend a lot of time here. I will spend a lot of time here.

We know that in 2004, the CWRO -- well, since you mention it, why don't you tell us -- what is the

difference between that Ordinance and this Ordinance,  
the Waterworks Ordinance? We don't see how the two  
Ordinances can mesh, can connect. Why don't you tell me  
how it connects?

A. In the past, we tolerated or needed a licensed plumber  
to employ workers to do waterworks.

CHAIRMAN: So in the past you allowed a company to be  
a licensed plumber, if what you say is correct?

A. I believe that the company, they cannot do the work  
hands-on themselves; they have to employ workers to do  
the work. So, looking at the information, in the past,  
a lot of workers did waterworks projects. So the  
licensed plumber, the company had employed workers to do  
the works.

CHAIRMAN: So that was amended in 1974. That was 30 years  
before 2004; they said that the company can't do it, you  
have to do it personally. So, at that time, the purpose  
was that the workers doing waterworks, why don't you  
take an exam or take an LP -- there was a grade II,  
grade I test -- so the simple works, you can take  
grade II, and for in-depth works, you can take the  
grade I test. Was that the case, Director?

A. Well, the difference between grade I and grade II,  
grade I does large new projects and grade II is just  
maintenance work.

CHAIRMAN: Grade I can also do grade II work. They can also do construction; is that correct? Grade II only does repair, modifications, alterations; is that right?

A. Well, workers do grade II work --

CHAIRMAN: I am asking you. Why we introduced the licensed plumber regime, was it because of those reasons -- that's why we had grade I and grade II tests, because they had to do the hands-on work? And then you discovered that it wasn't necessary. People were pursuing higher education, so they even scrapped the grade II licence.

A. Well, allow me to explain why grade II was scrapped.

CHAIRMAN: Was it that reason? You are now telling me, Director, that section 15 stands here and in retrospect you say we cannot find any policy discussions in LegCo, so you feel that section 15, even though it's written such, but the practice was still applicable, the industry practice was still applicable?

A. Well, I would explain that when I read section 15, I would refer to the facts. That is, the works cannot be done by the LP.

CHAIRMAN: No, that's not the situation. Let's say a Commission of Inquiry has to be chaired by a High Court judge. It doesn't say "personally". It is not stipulated. Can I delegate it to another person?

Can I say that I stand next to the person to supervise?

A. If I look at the wording, as I have said, you have to refer to a few things.

CHAIRMAN: You are presenting your logic and I am testing that logic.

A. Well, perhaps in my response I understood the question as how should I read section 15, so I have to read several issues.

CHAIRMAN: Will you be wrong?

A. I had consulted legal opinion.

CHAIRMAN: And did legal counsel say you are correct?

A. That is what the legal opinion stated, no problem.

Chairman, you asked whether --

CHAIRMAN: No, let's not deal with that. Let's say you are correct. So, in other words, we will continue the standing practice.

A. Well, we are thinking that if the law is reviewed, we will try to clarify our legislative intention. I admit that in the amendment, we have not dealt with this.

COMMISSIONER LAI: So do you think it's unclear now, or do you think there is a problem with the interpretation of the law? So on the one hand you feel that there's no problem, so your interpretation is that the LP doesn't have to do the work personally, so that does not contravene the existing law. So you said you had

consulted legal opinion and they said there's no problem.

A. Well, let me explain it this way. The interpreting of the law, we have to consider a lot of factors. When you consider those factors, the practice now is acceptable. Whether we can clarify the legislative intention, I think that is something --

CHAIRMAN: Well, that means you don't have enough workers to do the work now, so that's how you interpret the law; is that what you mean?

A. That's one important factor. We see that for works and projects, we need 10,000 workers, and our LPs, the active ones only add to 1,000-plus. So, if there's an intention to amend the law, where we allow a person without a licence and if we amend that to then having a licence, then a lot of training is involved and we need to change policy.

CHAIRMAN: Well, 1974, it's 2016 now, it's been some 30-40 years. The construction industry has seen boom and bust. You don't have a stable number of plumbers. Well, let's say we have more and more complex waterworks, construction, manual labour, you can delegate that to skilled workers or semi-skilled workers; no problem. We understand.

A. I agree.

CHAIRMAN: But the issue is, if because of certain reasons, because of the factors I mentioned, then you distorted to comply with the law, that doesn't seem to work.

A. Well, perhaps when we read this section we consider a basket of factors. We have consulted legal opinion, and that is the current practice.

CHAIRMAN: In (3) (b), that's a contravention of the law, (3) (b); am I right?

A. Our understanding is if a person --

CHAIRMAN: "... employs or permits a person other than a licensed plumber ..."

A. Our understanding --

CHAIRMAN: Well, if that is the case, if that's how you interpret the law, then a criminal offence -- aiding and abetting is also a breach of the law. So not only the employer is breaking the law. Of course, we are not going to sue Waterworks. But they are aiding and abetting.

A. All I can say is that when we read this law, this piece of legislation has been around for a long time, and the industry has been following this practice.

CHAIRMAN: Previous evidence that we heard was that this circular allowed that arrangement. I forget who said that. I have also studied this circular. But it doesn't allow Waterworks to do that.

A. The circular -- as I said, an incident occurred, and an LP withdrew from the project works. He did not participate. So we reminded him.

CHAIRMAN: When they submitted WWO046, they signed the form then they withdrew, they absconded, and then some other Tom, Dick and Harry filled in the role. The Waterworks Department said, "You have to have an LP follow up the works." I understand that. I think that was the theme at the time.

But it wasn't the case that section 15 allowed an LP to employ workers.

A. You are correct. This 2/90 circular says the licensed plumber can employ workers. I think the colleague who issued this circular -- the law was already in place.

CHAIRMAN: Then they should state clearly, quoting section 15 and the authority bestowed by that -- but nobody said so. Nobody had the guts to say so.

If that were feasible, unless the legislation has ambiguities, we won't review retrospectively what the legislative intention was. That's how we interpret the law.

This section states very clearly that's what the case is, and if you say you cannot find any documents regarding the Legislative Council policy debate -- but from our perspective, that's what the law says.

A. If we were to enact the law according to our interpretation now, if you were to enforce this law today, I don't think we would be able to do the work.

CHAIRMAN: If there aren't judges to rule cases, or the case is we don't have enough judges, or the case load is too long -- that's a reality.

A. Well, the legislation requires an LP to do the work personally, as I said just now.

CHAIRMAN: If you read the Magistrates Ordinance or the District Court Ordinance, it doesn't say that the presiding judge has to attend in person. But that doesn't mean we can do away with a judge. In other relevant Ordinances, if the worker or professional -- if he only needs to carry out supervision -- and as I said, the project might be under your personal control or supervision.

A. I think that is what they meant. It is not written at all.

CHAIRMAN: On the contrary, they made it very clear. It made it very clear that if a less than qualified person is employed, it's against the law.

A. As I understand, if the Ordinance is executed, the works cannot proceed.

CHAIRMAN: I understand the realities. I have nothing personal against you. You joined in 2013. I think this

is not a new issue, the shortfall of plumbing works.

COMMISSIONER LAI: Would you accept that the existing

Ordinance does not reflect the execution, and if someone

has to do the work personally, it's different from just

carrying out supervision? Do you agree that the current

legislation does not reflect the reality? Would your

department consider revising the Ordinance?

A. We looked at the Ordinance and we realised the problem.

So we have started review works on the Ordinance.

COMMISSIONER LAI: You said the existing legislation is

completely all right. I think your stance has changed

somewhat.

A. Excuse me if I didn't make myself clear. What I meant

is that the legislation does not reflect our intent, and

some amendments are needed. But before we have these

amendments, we have to tackle the realities.

CHAIRMAN: Now, this is a policy decision which the director

should take up.

All right, please go on.

MR KHAW: Just now, you said you feel that the legislation

has to be amended. So you mean that you want to amend

the Ordinance such that the LP can supervise other

workers?

A. We are considering how to amend the law, and we have

heard views from different stakeholders, and we would

consider the approach you suggested. We might even expand upon that scope. Apart from the LP, we would consider if other persons would have roles to play.

Q. On the role of the LP, you would allow the LP to delegate the work to other workers under his supervision; right?

A. At this juncture, I don't want to come to a conclusion yet. The review has just started. But until now, we see that the LP needs to employ workers to do the work.

As for the role of the LP in the installation of water supply system, this is something we have to review. We have to see if we have to involve contractors or experts. But we do need workers to carry out the work.

CHAIRMAN: I understand that you need workers. I realise that public rental housing is very important for the public, and I know that you don't have enough plumbing workers, and I know that according to section 15, it's impossible for you to complete the work.

Reviewing the Ordinance might take a long time, and before you have a conclusion, if you want the skilled workers and semi-skilled workers to carry out the work, you have to introduce a provision to allow them to do just that.

I am not trying to make things difficult. We have

a lot of stakeholders: developers, architects, building services engineers, registered contractors, plumbers, skilled workers. After the review is completed -- well, I think the review takes at least one or two years. If we have to go through LegCo, it will take even longer. So, in the meantime, what to do with developments? Some people are suffering. Some people have nowhere to live.

So, in this case, should you start discussions with the DoJ immediately and try to rush some legislations through, so that they can be passed, so the developments can continue? I don't know about the legislative process but that's just my view.

If the counsel at DoJ say that section 15 is perfectly all right and you can continue -- if that's the case, by all means please stick with it.

A. We will consider the matter according to what the chairman said.

MR KHAW: (Chinese spoken).

INTERPRETER: Apologies, the speaker is not coming through.

MR KHAW: (Chinese spoken).

You said you cannot rely on others, so you cannot just delegate it to the licensed plumber, or even if the licensed plumber is involved, he can delegate the work to other workers.

So that's your stance, as you carry out the

Ordinance?

A. A group of workers would do the work and the LP would supervise.

Q. We heard from reps from the Sanitary Ware Association, and there are some ambiguities. At the end, you said you may employ workers who are not necessarily licensed plumbers in assisting you to carry out the work.

How do you define "employ"? Is it that the LP can employ workers as the owner?

A. "Employ" doesn't refer to an employment contract.

Q. So what do you mean?

A. We use the word "engage". Basically, a group of workers would do the work, and the circular was issued in 1990.

I do not know what it meant at that time, but I believe that in the 1990s, the workers might not be involved in a relationship with the employers as employers and employees.

Q. (Chinese spoken) ... and the work can be carried out by someone other than the licensed plumber, and according to the witness statement, fire service or inside service of a minor nature was mentioned.

Let's look at C21, page 18773.

In paragraph 15, the handbook was mentioned, and "(In English) [works] of a minor nature" was defined. It has been stated in the handbook since 2001. So how

often was the handbook published or updated?

A. I don't know the frequency, but every time we have updates, we would publish a new version.

Q. How do you distribute this handbook to the trade?

A. As I understand, circulars or notices would be issued to inform the relevant people.

Q. So how was it actually carried out?

A. The handbook should be published on the website.

Q. Not every licensed plumber would use the computer. So if you want to inform the trade or licensed plumbers, how would you notify the LPs?

A. We would mail them a notice.

Q. You explained what you meant by "[works] of a minor nature", so you want to clarify what you meant by "(In English) [works] of a minor nature" in section 15.

Now you can look at paragraph 16 for an elaboration.

When the handbook was published in 2001, when you defined "[works] of a minor nature", how did you execute it? For works not of a minor nature, the LP has to carry them out personally?

A. For works not of a minor nature, as we said, the LP would employ workers, for works not of a minor nature.

Q. All right. So, for works of a minor nature, the LP doesn't even need to supervise the workers?

A. For minor works, the LP doesn't have to be involved.

An LP is not even required for those works.

Q. Now let's look at a recent circular, in C3, page 2199.

Your department issued many circulars after the lead in water incident, and this was one of them. It says:

"(In English) For the avoidance of doubt, all plumbing works using soldering for connecting copper pipes shall have the permission of the Water Authority and shall be carried out by a licensed plumber in accordance with section 14 and 15 of Waterworks Ordinance ..."

So, when you issued this circular, so soldering, did that need to be done hands-on by the LP?

A. Well, this is not minor works. They need to employ an LP to participate.

Q. But in this circular it doesn't say that they can delegate it to other people. It says very clearly

"(In English) shall be carried out by a licensed plumber", and it even refers to sections 14 and 15 of the Waterworks Ordinance.

So, when you issued this circular, your understanding was that after the excessive lead in water incident, you deliberately issued this circular. So what's the meaning? What's the intention? Do you want to repeat that the LP has to do the work personally?

A. That's not our focus. The focus is that if the

waterworks involves -- if it needs soldering, it is not a minor work. They need to have the participation of the LPs. The focus is all plumbing works using soldering for connecting copper pipes.

CHAIRMAN: So that goes back to what I said, when I received my water bill. But when you use compression joints --

A. Well, compression joints, the technical complexity is less than soldering, so compression joints, we don't need skilled technicians. For renovation, if they use compression joints, they can do it with simple tools.

But soldering requires complex work and we need people with professional skills and an LP to watch over them.

CHAIRMAN: Well, the supervision by LP, you are saying that they can do it remotely?

A. The LP is responsible for the works. From my understanding, some LPs do the work hands-on as well.

CHAIRMAN: So you are saying you allow LPs to remote supervise the work, meaning they don't do it in person?

Let's say I need soldering at home, if the person who comes to do the work is an LP, that's ideal, but if the person who does the work is just a worker in a plumbing company, the boss won't come, but that's his worker -- are you saying you are allowing that?

A. If we are talking about renovation works, the LP -- it's

a small job. They would do that work themselves. For large companies, they might have workers assisting them.

But for small works, my understanding is that the LP will do the work themselves.

CHAIRMAN: I know. But you haven't answered my question.

Why don't you answer my question?

A. Well, they have to be responsible for the work, and if it's a home renovation, there's no participation.

I think it would affect whether that can comply with our specifications, and the consequence is that their licence might be suspended.

CHAIRMAN: You still haven't answered my the question.

Answer directly.

A. Just now, you said -- you used the term "remote supervise".

CHAIRMAN: So they are not present. They are at the company, the LP is at the company.

A. Well, that involves procuring --

CHAIRMAN: You still haven't answered my question.

COMMISSIONER LAI: The chairman said that if the chairman's home needs soldering, connecting copper pipes, the LP doesn't appear but he just sends a worker, is that enough?

A. Well, if they haven't been present from beginning to end, then I wonder.

CHAIRMAN: Then do you allow for that practice or not?

"Yes" or "no"?

A. If they totally don't appear, we don't accept that, so  
no.

CHAIRMAN: So they have to attend at least -- they have to  
be on the scene?

A. That's my view.

MR KHAW: Let's go back --

CHAIRMAN: Wait a second. You are the waterworks authority,  
so you are the one in charge in Hong Kong, not me; you  
are in charge, so are you allowing? As a waterworks  
authority who enforces the Waterworks Ordinance.

A. The LP, their role is to bear responsibility for the  
construction works. Whether they are present on the  
site to supervise workers, I don't think that's  
necessary.

MR KHAW: But if we look at the circular, the Chinese  
version, it's very clear. I have the Chinese version.  
Let me read it out to you:

"For the avoidance of doubt, all plumbing works  
using soldering for connecting copper pipes shall have  
the permission of the Water Authority and shall be  
carried out by a licensed plumber in accordance with  
section 14 and 15 of Waterworks Ordinance ..."

So here they are referring to work, and it has to be

carried out by the licensed plumber.

So, coming back to the chairman's question, if the LP is only on the site but he doesn't do the work personally, and his workers do the work, is that a breach of the law, in your view?

A. As I said just now, the circular's focus is on plumbing works using soldering for connecting copper pipes. The rest of the sentence is just referring to the Waterworks Ordinance. These are minor works. These are works -- they have to be supervised by a licensed plumber.

Q. Well, even in the Waterworks Ordinance, they do not talk about conducting the works. Here, it states very clearly, "to avoid doubt", so there is some purpose for having this circular.

A. Well, regarding "for the avoidance of doubt", some people might thinking renovation work, even if it involves soldering, they might think it is a minor work and it did not involve LP participation. This is just clarification.

Q. Coming back to my question. After this circular, we now have an LP on the scene, on the site, but he doesn't do the work himself. He has a worker do the work. Is that a breach of the law?

A. In our discussion just now, we looked at section 15.

Q. Well, is that a breach of the law?

A. According to our current practice, we can only accept that we can tolerate the LP employing workers.

Q. So even with the circular that says the work has to be done by the licensed plumber, if they don't do the work, they can employ workers; there's no breach?

A. Well, the circular is not legally binding. We had a meaningful discussion just now.

CHAIRMAN: That's why we need permission from the Water Authority.

A. The permission comes from section 14(1).

CHAIRMAN: Exactly, 14(1).

A. 14(1) and 15 -- well, 14(1) refers to receiving permission before the works begin. So if these waterworks involve soldering, they need to put forward applications, the WWO form.

CHAIRMAN: So, if there's a water leak at home, I need to submit a form, I need permission from the Waterworks Authority.

So something that could be fixed for \$500, we don't know how much it's going to end up costing.

A. If you have to repair the pipe and it involves soldering -- well, we have other methods. We don't need copper pipes and solder.

CHAIRMAN: So, in other words, we need to use a compression joint or press-fit?

A. There are other choices.

CHAIRMAN: So you shouldn't use soldering?

A. My understanding is that renovation at home, they don't use soldering, because soldering is quite dangerous.

CHAIRMAN: Okay. Please continue.

MR KHAW: Let's talk about qualifications of the LP. We have asked the VTC and the LPs that were involved in this case. According to the current regime, if you apply for an LP licence, you have to take two courses: the craft certificate in plumbing, and also a short course in plumbing.

A. Yes.

Q. Are you aware of that?

Under the old regime, we heard evidence saying that after taking the craft certificate, they take the waterworks test; are you aware?

A. I am aware that under the old regime there were some tests. The Waterworks Department was responsible for the test.

Q. Do you know that under the old regime, some applicants, they might have not taken the craft certificate course. If they apprenticed, they might have some equivalent qualifications and they could still take the test?

A. Under the old regime, that was before 1992, they applied a test to see whether they were qualified.

Q. Well, the test at the time didn't test pipe connecting.

A. I cannot answer that. I'm not familiar with the test content before 1992.

Q. Did you look into this before giving evidence?

A. No.

Q. We have asked one licensed plumber. He said that he didn't know how to connect pipes, but he is an LP. He doesn't know how to do soldering. Are you aware that this is -- do you know if this is common, where LPs have a licence but they don't know how to do soldering?

A. Well, I think if the LP -- if they are not familiar with the work, then the employer wouldn't just employ them on the basis of them having this licence, or after receiving the licence, the LP should be learning on the job to learn skills that are not tested in the test.

Q. Well, prior to 1992, they had applied for LP licence, they took the waterworks test. So, at the time, they received the qualifications and worked all the way up to now, they've renewed their licence, and in renewing the licence, the Waterworks Department doesn't have any extra conditions?

A. That's the case for the existing legislation.

Q. So the Waterworks Department, prior to the excess lead in water, have you ever considered -- should there be some policy for LPs when they renew their licence,

whether there would be extra conditions imposed on them,  
or have you ever considered on-the-job training?

A. We don't see that in the amendment of the laws, but we  
have close contact with the industry and we have  
training courses or seminars to update the practising  
LPs' knowledge.

Q. Well, over the years, after the lead in water incident  
this time -- well, over the years, have you ever  
disciplined any LPs or revoked their licences?

A. Yes.

Q. How many cases were there?

A. There were cases in which the licences were suspended by  
six months. There were around ten cases, and in some  
cases licences were revoked.

Q. Under the existing system -- well, we looked at the  
Ordinance and the circulars -- do you agree that the WSD  
is obliged to check the work of the LP?

A. What do you mean by monitoring?

Q. According to the Ordinance and the circulars, the LP has  
to carry out or supervise the plumbing works. As the  
body to issue and renew the licence, the WSD would check  
their work; right?

A. I would like to talk a little bit more about the system  
of LPs.

We took reference from many other countries on the

C licensing of professionals. You mentioned two  
D certificates. The first certificate required three  
E years of study and four years of working experience  
F before the plumber can take the second course, which is  
G mainly on legislation, and after everything is completed  
H we would consider granting them a licence. So this is  
I quite a long period for an LP. For an intermediate  
J skilled worker, the training period is much shorter.

K Our colleagues were involved in meetings with the  
L VTC on such courses. I commissioned an assistant  
M director to take up licensing work, and we set up  
N a committee, participated by trade representatives, to  
O see if there's anything we can amend or improve on the  
P licensing scheme.

Q Every time we inspect completed plumbing works, our  
R colleagues would check the sites or visit the sites in  
S the company of LPs. We have a performance assessment  
T system. If the LPs' work is substandard or  
U non-compliant, we have a points docking system, and if  
V ten or more points are docked we would issue a warning  
letter, and if multiple warning letters are issued, we  
would consider suspending their licences.

Throughout the process, the LP has to make sure that  
the plumbing works installed are compliant, and that's  
something we learned from other countries as well.

Q. Over the course of the plumbing works, the LP has to submit forms and sign on them. So, during the works, the LP has to supervise the works, right, according to the Ordinance?

A. Yes, they have to supervise the entire course of the works.

Q. Over the course of the works, would any of your colleagues communicate with the LPs?

A. According to the existing law, we would inspect and sign off the completed works, and over the course of the plumbing works we would not inspect the progress, according to the existing legislation. As I mentioned in my witness statement, as we drew up the entire supervision mechanism, we would take reference from standards drawn up by the Construction Industry Council, as well as guidelines issued by the WHO.

So, in other words, stakeholders have different obligations. We are in charge of supervision, and we also have developers and contractors, and they would follow the relevant contracts in the procurement of compliant materials, and they would perform on-site monitoring. Since we have two or three layers of supervision, as well as the licensed plumbers, there are people in place to confirm whether the materials are compliant. As I said, we looked at the experience of

other countries, and near the completion stage of the works, if we detect issues with materials, then we have to spend a lot of time and effort. So we would remind the stakeholders that they have to do their work properly, during the procurement stage.

We have reminded the public and relevant stakeholders to pay attention to the requirements of the Ordinance. And we would communicate with the trade and host seminars or forums.

Q. Let's not talk about other stakeholders first. I would like to look at the scope of responsibility of the WSD during the construction phase. Do you know whether the licensed plumber visited the site?

A. As per the existing Ordinance, the licensed plumber is not required to visit the site a specific number of times, but we would request them to take up the work. The Ordinance covers different types of plumbing works, of different scales, and under the Ordinance we do not require the licensed plumber to show up at the site for a specific number of times.

But we have discussed with the chambers or trade associations on the possibility of drawing up guidelines. Some LPs are employees. Some are owners of companies. So there are different scenarios and different guidelines are required.

Q. Do you know if the licensed plumber visited the site?

Do you feel there's a need to do that?

A. If these requirements are to be laid out in the Ordinance, that's something worth thinking about. But we are currently negotiating with the relevant stakeholders.

CHAIRMAN: Why are you delegating the responsibility of supervision to somebody else?

A. The construction period is quite long. If the WSD has to monitor the entire project --

CHAIRMAN: I'm not asking you to supervise the entire work, but you should send inspectors from time to time to see if the licensed plumber is monitoring the works.

A. The workload is very heavy. There are a lot of projects of different scales.

CHAIRMAN: I understand. The Health Department has a lot of inspectors. They have dozens of inspectors to check on the pharmacists. So what's the issue there?

A. We would review that.

CHAIRMAN: You cannot say, you know, the Health Department cannot delegate the responsibility to the trade association. Do you know what I mean?

You said there are a lot of stakeholders in a project, and the Housing Authority, the main contractors and developers are the most important, and

as such they should carry out the supervision.

Meanwhile, the Housing Authority says they carried out monitoring but they are not familiar with plumbing operations and they are not told by the WSD what to test. So we are going around in circles.

A. According to the Ordinance, we established the standards or specifications.

CHAIRMAN: Yes, I know. Now we are coming back to the question we asked yesterday. Can we go one step further?

A. We can consider that but it requires substantial resources. If the WSD sends inspectors for every plumbing project, it's substantial work.

CHAIRMAN: You are responsible for supervising licensed plumbers; right? You can say you are not, if you weren't, but now you are responsible. Now the only supervision takes place after the works or the construction is completed, you would check the alignments and meters. I think the most important part is to collect the water fees.

A. I think the most important part is for stakeholders to do their job properly.

CHAIRMAN: Of course, stakeholders are obliged as well, but now you are saying that you are freeing yourself of any responsibility. I'm not saying that the building

services engineers, architects and developers don't have to be held responsible.

A. I never said that. Let me put it this way: stakeholders have different responsibilities, and as the Water Authority we have a responsibility as well.

CHAIRMAN: You are saying there's nothing you can do and it's impossible for you to do anything?

A. Let me put it this way. It's possible that -- the WSD, as the Water Authority, would they assign some staff to carry out the monitoring on the licensed plumbers?

I think this is a policy issue.

CHAIRMAN: We heard from developers, the Housing Authority, we heard from the main contractors, we heard from very big main contractors, and they all said they are not familiar with plumbing regulations; they rely on the WSD. If they are not told, they wouldn't know what to do. So how would the WSD inform the developers and main contractors? I think one important channel is through your licensed plumbers. They are under your supervision. You can tell your licensed plumbers regularly. You can issue circulars. You can inform them of the latest updates. You can tell them what to do at the sites. That's the way to go.

A. We have done the work. As such, we issue circulars to LPs and we maintain close communication with LP

associations, and after the lead in water incident, we recommended them to step up internal training.

CHAIRMAN: What Mr Khaw asked is not what you have to do but what you are doing.

A. I talked about our -- on whether the Water Authority has to send inspectors to check on plumbing works and the licensed plumbers. As I said, this is a resource and policy issue.

CHAIRMAN: You might not necessarily send inspectors. You can require licensed plumbers to inform you of progress from time to time. That's possible as well.

A. But of course we have to examine the legislation.

CHAIRMAN: Well, your legislation is outdated. You can re-draft it, actually.

A. We will look at that.

CHAIRMAN: I'm sorry, when I read your legislation, gardens, you don't allow for hoses, I think it says so. Are you authorised to go and check people's gardens?

A. In the 2016 Policy Address --

CHAIRMAN: Do you understand what I am saying?

A. -- we will review the legislation.

CHAIRMAN: The legislation is outdated.

Please continue.

MR KHAW: Regarding the supervision of the LPs, you said you had -- if you were to send staff to the site during

construction, to supervise their work, that would be a resources question.

A. A resources question and also a question of authority.

Q. Have you also considered whether the LP should report regularly? You want to improve the regulation of the licensing regime. What plans have you come up with?

A. We have issued some circulars. We are also looking at other plans. As chairman mentioned, we need to consider amending the legislation.

Q. Are you aware that LPs -- I would like to refer you to part I, B15.1, page 37621. That's form 46.

If you look at the middle, point 2, "Purpose of submission", the LP and AP have to sign:

"(In English) We hereby notify that the plumbing works detailed above will be commenced on [a certain date]. We certify that the pipes and fittings installed/intended to be installed, including those as listed on the attached annex to this form and those not listed, are as prescribed by the Waterworks Regulations."

So that's the declaration they need to provide, to confirm that the fittings and material comply with the Waterworks Regulations.

If we look at the annex, there is an explanatory note. It's page 37627, paragraph 7:

"(Partially in English) All pipes used/intended to be used are required to be reported in the annex. For fittings, only draw-off taps, stop valves, gate valves, ball valves and combination fittings need to be reported. A directory of pipes and fittings approved by the Water Authority can be found in the website ..."

So it seems to talk about components, the components that need to be reported.

So this decision, where only these components need to be reported, when was that decision made? Did you look up that information?

A. I had asked colleagues, but exactly which year, I don't have that information. This has been around for quite a while. At the time, those components were chosen because these components, if they weren't up to specifications, it would leak in other -- it would cause all sorts of other problems. So we identified these components and required approval and information.

CHAIRMAN: Leaking? Please continue.

MR KHAW: I would like to ask -- we know solder material, you didn't require the LP or AP to make a declaration. Soldering material was not required?

A. Yes, not in this table.

Q. Okay. Their declaration is "all pipes and fittings have to comply with the regulations". So are you saying that

the annex doesn't include all fittings and components?

But when they do their job, aside from this table, all

the other components comply with your requirements?

A. Yes.

Q. Even though you asked them to make a declaration that

all components and fittings comply with the

specifications, but if they didn't declare material then

you wouldn't know what they were using, if they didn't?

A. Then, according to -- they would have to comply with

buildings regulations and specifications.

Q. But you don't require them to declare that and you

wouldn't know what material they used, if it wasn't

declared in this form?

A. Well, this material, it's specific. The projects we are

responsible for, we have different projects and they use

a lot of materials. We won't include all materials used

in the form. It was specific. These were important

components. If improper materials are used, it would

lead to leaking.

CHAIRMAN: I don't understand. We have pipes here and then

valves. These pipes and valves, it so happens that we

have specifications in the regulations. It's not

because of leaking.

A. Allow me some time to check.

Well, they identified some components. It's related

to leaking.

CHAIRMAN: I don't see copper tubes. Why would that leak?

A. If I remember correctly, in 1986, there was leaking in some copper tubes, in some tubes. Leaking tubes was a matter of concern.

CHAIRMAN: Well, if you are saying tubes leak, then all tubes should be included. Why do we just focus on copper tubes? Unless the joints weren't soldered properly. But the whole tube, it's manufactured, and then you have polyethylene pipes and galvanised steel pipes, polyethylene pipes, polyvinyl chloride pipes -- all these are included in your regulations. Then we have ball valves -- it's in the regulations. It doesn't seem to have any direct relationship with leaking water.

A. At the time when this annex was compiled, they were worried that these components had some problems. Why were these listed? I will have to seek an understanding from my colleagues.

CHAIRMAN: How frequently was this updated, this list?

A. Let me talk about today's practice. I have looked into this. When I make amendments, it's very inconvenient. I have to issue new forms. So we do this over the internet. We notify people of new components that need approval. As a matter of fact, in January this year, we have added some installations, and by April also we will

have some additions. We will do it over the internet.

CHAIRMAN: So that was a recent edition. What was the  
previous edition?

A. I don't know. I'm not aware. This table has been  
around very long. When it has been amended, I don't  
know. I can't answer that. I might need colleagues'  
assistance.

CHAIRMAN: Okay. Please continue.

MR KHAW: Going back to my previous question, an applicant,  
if they don't have components listed in paragraph 7, in  
their application, Waterworks would have no way of  
knowing what material has been used.

A. Material outside of this annex doesn't need to be  
reported, but if we need them to report certain  
materials, we will do so. They also have  
a responsibility that all the components they use have  
to comply with our regulations.

CHAIRMAN: Did you check that in the past? I know that you  
have very far-reaching powers under the statute or  
regulations. You require people to submit things for  
checking. You can also do checking on your own  
initiative. In the past, have you taken any enforcement  
action?

A. I have to ask my colleagues whether they had done this  
type of work.

C CHAIRMAN: So, if somebody did that, who would be  
responsible? C

D A. I think it would be customer services department. D

E CHAIRMAN: Okay. Please continue. E

F MR KHAW: Regarding form 46, I would like to direct you to  
C3/2305. F

G CHAIRMAN: Well, Director, if you have time, could you tell  
us, your customer services division, how many law  
H enforcement actions have been taken? You can tell us  
I through your lawyers after you have given evidence. I

J MR KHAW: This is a 2004 circular. It refers to "(Partially  
in English) Change in WWO46 submission practice". J

K In the beginning, it talks about format. K

L If we look at paragraph (g): L

M "(Partially in English) Whenever there is any minor  
alteration initiated by the LP, LP can mail or fax  
N a copy of previous WWO46 with his/her signature and date  
O on each entry of such alteration(s). This needs to be  
done before staff of the Water Authority conducts  
P inspection." P

Q I would like to ask you, how do you differentiate  
major or minor alterations? Q

R A. I asked my colleagues about that as well. In the annex,  
S there would be a list of fittings or parts. Whenever  
T there are changes to the brands or anything like that, T

if a lot of plumbing parts are mentioned -- well, those type of amendments are more important to us. I admit that it's not very clear-cut, and we allowed minor alterations, and we reviewed the practice afterwards and we felt that all amendments should be submitted through the licensed plumber and authorised person.

Q. So, at that time, whenever the brands were altered --

A. Well, brands were only an example.

Q. Were there any guidelines --

A. As I know, there weren't any guidelines in black and white.

Q. It says "(In English) initiated by the LP".

If the change was not intended by the LP, if the LP was instructed to do the amendment, then did he need to make a submission?

A. Yes. From our point of view, the LP is in charge of the work. If any changes needed to be made on the approved list of fittings, then an amendment must be submitted.

Q. So, in other words, the clause "(In English) initiated by the LP" doesn't mean much?

A. Yes.

Q. Now, I have one final question for you. In November, two experts for our Commission came up with a draft report; are you aware of that?

A. Yes.

C Q. They offered comments on the procedures for testing  
water samples. C

D Now let's look at this report. Bundle V1, page 6. D

E I believe you have seen this before. It's basically E  
F about the sampling protocol, to identify whether lead is F  
G present in the pipes. Two expert witnesses have offered G  
H their views. In the first paragraph, in the second H  
line: H

I "(In English) The contact time with lead-containing I  
J components such as soldered joints or fittings is a key J  
K factor in determining lead concentrations in drinking K  
L water. Indeed, a number of authorities suggest fixed L  
others propose first draw samples." L

M The expert also quoted international standards, in M  
N other words the ISO standards on sampling techniques, N  
and it says: N

O "(In English) If the effects of materials on water O  
P quality are being investigated, then the initial P  
Q draw-off should be sampled. Samples may also be taken Q  
R after a specified period of stagnation to provide R  
information on the rate at which materials affect R  
quality or the maximum likely effect." R

S He further quoted UK standards for drinking water S  
T quality and the relevant requirements, and the expert T  
U U  
V V

C also quoted the US practice. The expert also mentioned  
Japan. C

D Most of these pointed out the importance of the  
first draw. D

E Then it says: E

F "(In English) Fully flushed samples on their own may  
G serve the purpose of assessing the general quality of  
H a drinking water as supplied, but will not give  
I a representative assessment of the concentration of lead  
J or other metals from the internal distribution system to  
which the consumer is exposed. J

K Based on the above ..."

L The experts came to this conclusion. L

M "... data from fully flushed samples are not likely  
N to be representative of the extent of lead exposure." M

O So, at that time, both experts offered their views  
on the sampling of water. O

P After the report was published, did the WSD convene  
an internal meeting immediately? P

Q A. Yes, we discussed the issue immediately, and we issued  
a press announcement as well. Q

R Q. Yes. We will come to that in a moment. R

S So you had a meeting among yourselves and you sought  
to respond to this report. So, in a meeting, you asked  
T your colleagues, especially the chemists, on their views  
T

on water sampling; right?

A. Yes.

Q. On that day -- well, before the press release was issued, apart from consulting your own experts in the WSD, did you consult any external advisers or experts on their views?

A. If I remember correctly, after the report was announced, on the same day, on the same evening, we issued a press release. The data we offered had already been mentioned before publicly, so we did not have time to consult any independent experts.

Q. At that time, you consulted your internal experts and chemists. You came to the conclusion that the water sampling method you have used is correct?

A. According to our colleagues, if another method was adopted -- for instance, if overnight water samples were tested -- first of all, compared with the WHO requirement of 10 micrograms per litre, the comparison would not be valid. If we do not take the first flush after two or five minutes, we cannot compare it with the WHO standard of 10 micrograms per litre.

If we test overnight water samples, we cannot make comparisons with the WHO standard.

Q. Now, from a common-sense perspective, if you are to test a water sample for a harmful substance such as lead, if

you take a sample two to five minutes after flushing and compare that with testing an overnight water sample, as far as you know, the lead contents of the sample taken five minutes after flushing would be lower; is that valid, from a common-sense perspective?

A. Possibly, yes. It depends on the quality of the pipes.

For some pipes, whether you take first-flush or overnight sample, the levels might be comparable. But in general, the answer is yes.

Q. When you took water samples at the housing estates, you would use flush samples after a few minutes?

A. Let me elaborate on that. At that time, we helped the Housing Authority take water samples, and they told us the purpose of taking water samples. If we knew that the purpose was to ascertain the overall quality of drinking water, then we would take reference from the ISO standards, and we would use two minutes as the standard, as we took the water samples.

Now, that would be a better representation of the overall drinking water quality, and that way it would be comparable to the WHO standard of 10 micrograms per litre.

But if the purpose was to detect the presence or level of lead in the pipe, then the methods adopted would be very different.

You mentioned the same paragraph of the witness statement and they quoted overseas cases, so I will try to talk about that, if time allows.

MR KHAW: (Chinese spoken).

CHAIRMAN: Well, the Housing Department rely on your expertise. They wouldn't know whether to look for overall water quality or stagnation quality.

The Housing Department is the owner. Well, if there are problems with the water pipes at home, I wouldn't ask you for the types of test; I would simply tell you that the residents want to ensure drinking water safety, and they wouldn't tell you that they want to investigate the presence or level of a specific metal or they want to investigate the general quality of water. They wouldn't do that; correct?

A. Yes, right.

CHAIRMAN: So you have to tell them or advise them that if you want to detect lead, then this is what you should do.

Honestly speaking, this is perfectly fine for the WSD. So, you know, that's how -- if you want fully flushed samples, then that's the way it is. If the results don't look good, then that's the problem of the Housing Department or the developer. Why are you using the approach you use?

A. When you look at the ISO document, a lot of water sampling methods were mentioned. Overnight samples were mentioned, first-flush samples were mentioned as well. But the methodology depends on the desired purpose. So we have to ask the department who wants to do the test what their purpose is.

CHAIRMAN: They wouldn't know, because you are the expert who is familiar with ISO standards.

A. We would ask them if they want to detect the level of lead and compare that with the WHO standard of 10 micrograms per litre. This is to see whether the drinking water is fit for consumption.

CHAIRMAN: Right, so you put this question to the Housing Department, and the Democratic Party at that time had been talking about it and they said there was lead. You cannot say you didn't know and you merely followed what the Housing Department requested.

A. The HD knew that different methods were available to achieve different purposes.

CHAIRMAN: So they knew about the ISO methodology?

A. You said a number of LegCo members knew about the methodologies. As we chose the method, we had to know the objective. If the purpose was not to see whether the water quality aligns with WHO standards, if the purpose was to show the level of lead in pipes in the

housing estate, this is to do with the investigation.

This is not about determining whether the drinking water quality is fit. If the purpose is to investigate the matter, we might not use the first-flush approach. On the other hand, if we are to determine the lead content compared with the 10 micrograms per litre WHO standard, then we would follow the ISO approach and we would conduct a general assessment, to see if the drinking water quality is fit for consumption.

CHAIRMAN: General assessment is when there are no particular incidents and they just want to take a look. But this is not a general assessment. Initially, you could assume it was a general assessment, in Kai Ching and Kwai Luen. But subsequently, as things developed, it wasn't a general assessment.

A. You are correct. Our approach is different from overseas. The HA has a lot of estates. We cannot assume that each estate has run into problems. We have to see if the water is fit for consumption. So, when we take samples, we adopt this approach.

We now know that 11 estates are where the lead content is higher than WHO standards, so we need to take the next step.

The next step, we have to see whether it's the water faucet, the installation or solder material, whether

they have non-compliant components. So we took some samples from the estates. We looked at --

CHAIRMAN: We won't go into that part yet. We are not dealing with that.

Going back to the previous part, we have to have everything in context. The legislators had said there's excessive lead in water. The HA said, "Waterworks, can you help us take a look, see whether the water is safe? They rely on you."

In other words, they said, "Yes, check if our water is safe". That's the main theme, and under the main theme we have another subsidiary theme, "Please investigate whether there's lead in water".

A. I would like to mention that the investigation that you mentioned, we had done that, but we didn't take water samples.

CHAIRMAN: We are not going to talk about that. We are just dealing with water sampling. If you have -- if it exceeds standards in the general assessment, then of course you need to take further steps. We are not talking about the general assessment.

Very simply, yesterday, Mr Lai looked into the situation in Scotland. How did they take samples? We can go back to the Scotland report. They have a part on sampling.

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 50 B

C Let's take a break first, and we can resume in C

D 20 minutes. D

E (11.20 am) E

F (A short adjournment) F

G (11.43 am) G

H MR KHAW: Chairman. H

I On the matter of taking water samples in the I

J Scotland case, let's look at bundle A, page 248. Two J

K methods were cited. K

L In the second paragraph, it says: L

M "(Partially in English) Stage 2 testing was confined M

N to kitchen cold water tap samples. This was to allow N

O an assessment of the potential quantity of lead consumed O

P by house occupants as a result of drinking tap water at P

Q home. Different sample types were collected to obtain Q

R data on the different possible concentrations of lead R

S associated with normal variation in the contact time S

T between water and the internal pipework. T

U Flushed water samples provided the background lead U

V level associated with water from the mains supply. V

Overnight samples provided data on the lead levels

associated with the maximum normal likely duration of

contact between water and internal pipework. Stagnation

samples provided a standardised measurement of the

change in lead concentration over a fixed time

period ... Random samples were taken to provide data on the typical lead concentration likely to be encountered during normal use of a kitchen tap."

Then, on page 262, there's further elaboration on the four types of water samples, and there's a table on page 276. The table shows the differences for overnight, random and stagnation samples.

That's the first report from Scotland.

For the second report, there's some information there on page 177. The paper is about "(In English) Guidance on sampling water supply systems".

"(Partially in English) The HPS guidance on water system sampling defines four types of sample that may be used in assessing the probability that there is a source of lead contamination affecting a drinking water supply. Ideally a full suite of all four samples would be taken for two purposes:

a. To fully characterise the extent of lead contamination in a supply and help identify whether the source of lead is external to the property, internal or both;

b. To allow estimation of the average likely exposure of the drinking water consumers."

It also deals with four sample types. We have random, stagnation, flushed and overnight. It says if

you want a comprehensive test, you need the four samples.

So that is the Scottish methodology.

So, Mr Lam, in taking samples from PRH, the purpose was to see which estates' water might have been contaminated by lead.

A. Well, it was to see the PRH lead in water level, how much had that exceeded WHO standards.

Q. Do you agree that when you assisted the Housing Department to get water samples, there was an investigatory purpose; it wasn't just a routine assessment? There was an investigation purpose?

A. Well, to be accurate, according to the ISO, you have to conduct an investigation. We had a compliance assessment. ISO, they have different purposes. They have a compliance and investigation test. We did a compliance test.

Q. Let's not argue over wording. At the time when society was so concerned, you assisted the HD in taking water samples. You wanted to investigate. You wanted to know how many estates were affected?

A. Well, at the time when they asked us to check whether we could comply with the WHO standards, when we discovered that they didn't comply, they asked us to assist in investigation. We did the compliance test first and

then investigation.

Q. So, when you took samples from the estates, you were aware that there was a possibility that the water would contain lead; is that correct?

A. Well, put it this way, we didn't know each estate and which estate might have been affected. After testing the different samples, there were only a few estates that exceeded the WHO standards.

Q. So you wanted to know how profound the impact was, how many estates were affected?

A. We wanted to know which estate's water sample indicated that lead levels exceeded WHO standards.

CHAIRMAN: I would like to ask -- are you saying that the excessive lead in water, you are just responding to HD requests that the Water Supplies Department -- if we are being politically incorrect, you are not interested in finding out why there's excessive lead in the water?

A. Objectively speaking, of course we are concerned about water safety. When the HD asked us to assist to take water samples, to see whether we complied with WHO standards, we complied. Afterwards, the WSD -- we led a task force.

CHAIRMAN: That's a separate issue. I'm saying that initially, when people asked you to take water samples -- so was it, as you put it, you were just

co-ordinating with the HD?

A. Well, initially, the HD found one estate where they suspected there was excessive lead and they asked us to take water samples. We applied that standard. So we wanted to see whether we complied with the WHO.

CHAIRMAN: So you co-ordinated their investigation. As the Water Authority, did you take initiative to investigate, if there was excessive lead, then what was the reason for excessive lead?

A. If we found excessive lead, we would conduct investigation.

CHAIRMAN: When you investigate, did you use investigation sampling methods?

A. Well, the investigation, there are some different methodologies. We can take water sample. We have overseas methodology. But in Hong Kong, the PRH pipes are exposed, so the most direct method is to see whether lead had exceeded the standards.

CHAIRMAN: Yes, I understand. I'm saying that aside from sawing off the components, when you take water samples for investigation, did you --

A. It was not necessary because we could take the material and components for inspection directly, and the task force, they dismantled the water supply system.

CHAIRMAN: Well, your task force -- in fact you didn't

inspect any estates. You had only looked at these two estates and you estimated that the rest were the same. That's all you did.

A. I think the expert --

CHAIRMAN: I'm not saying he is wrong; do you understand?

The impression I get from your evidence is that you are just co-ordinating, so people tell you what to do, then you just do as told. You asked me if there was compliance, so I applied that test. Then what occurs subsequently, and during investigation, you say, "We don't need the ISO sampling method for testing", you just saw off the components for inspection. But I'm telling you there are limitations. You only look at two estates, essentially.

A. We did that for each estate, not just the two estates. But the task force took water samples from the two estates.

CHAIRMAN: So I don't understand -- how complex is water sampling? Why don't you do the simple test? Why do you do invasive intervention? Water sampling -- well, I think you know that subsequently, our Commission also has had experts take water samples. I think you are aware; do you know?

A. Yes.

CHAIRMAN: So we communicated with the Housing Department.

C We could get water samples at 6.00 in the morning. C

There's no problem.

D A. Let me put it this way. When we do investigation, we D  
E need concrete evidence indicating that the water supply E  
F system is using inappropriate material. If we use F  
G overnight water sample, I don't think it's direct. You G  
H only know that the overnight sample exceeds the WHO H  
standards. What does that tell you? Does that tell you H  
I that the components were inappropriate?

I But if I take the component and -- I

J CHAIRMAN: I'm not saying it's a conclusive test. Even J  
K using your methodology, that's not conclusive. You see K  
L lead in that component; how do you know how much lead L  
was leached?

A. When we do the investigation, we wanted to see --

M CHAIRMAN: Am I correct that what's important is how much M  
N lead is in the residents' water? When you saw the N  
O component, you see lead, it doesn't mean that the lead O  
leaches into the water, because there is a coating.

P So I want to tell you, Director -- we are testing P  
Q your logic. It doesn't sound very logical. You are Q  
R saying that one test is enough, it can tell you R  
S conclusively, but we are saying that applying your S  
T thinking, and you are saying our water samples are T  
U conclusive -- well, your method is not conclusive U

either. So if neither are conclusive, why should we choose yours?

A. Perhaps I didn't make myself clear. The first step, we have to look at one particular estate. We have to look at the lead; did it exceed WHO's standards? If it did not, then we feel that water is safe for consumption.

If you use that perspective, then we use the ISO two-minute flushing method. So, after that, if the estate does not exceed standards, then we have concluded our work.

But when we identify an estate where the lead level exceeds standards, then from the water safety perspective we have work to do. We will have to provide clean water, and so on. At the same time, we need to ask ourselves a question. Would it be possible that the internal water supply system had non-standard components? Because when we enforce the law, we need to know --

CHAIRMAN: Yes, I fully understand. But when you investigate whether it has exceeded standards, shouldn't you look at the worst-case scenario?

A. Well, when you investigate, you want to see how much lead was leached in pipes. Then, using the stagnation method, that's one way to do it. The pipes are exposed. If they were inlaid, then it would be hard to use our

current method, where the joint can be sawn off for removal. So we are different from overseas.

Allow me to explain the overseas method. Overseas, they have independent houses and pipe lengths are much shorter than Hong Kong.

CHAIRMAN: I understand. I understand each place, each country, is different, and we have high-rises, we have houses. But the WHO standard is very simple, because they cannot cater to all the different scenarios around the world, so they say, "Under these circumstances you have to do that test, and under another circumstances you have to apply another test." So the WHO has no idea of knowing that PRH housing pipes are exposed. You can't say that because Hong Kong PRH are exposed, so the WHO investigative test does not apply.

Well, I won't argue on this because we will let the experts handle that.

MR KHAW: Regarding our two experts' joint report, their conclusion is if for fully flushed samples, it is not representative.

So, after reading this report, would it give rise to certain concern?

The final paragraph.

A. In the second-to-last paragraph -- perhaps I will read it out:

"(In English) Fully flushed samples on their own may serve the purpose of assessing the general quality of a drinking water as supplied ..."

This is our objective, which is to assess the quality of the drinking water we supply. The sampling method would facilitate comparison with WHO standards. If overnight samples are taken, the lead content cannot be directly compared to the standard of 10 micrograms per litre. We need a quick method, and here it says "serve the purpose of assessing the general quality of a drinking water"; that's our objective.

So our view doesn't conflict with that from the experts. We cannot take fully flushed samples. The environment in Hong Kong doesn't allow that. But in other countries, we can test the connections to the connection points. So, in Hong Kong, we have to use another method.

CHAIRMAN: Can you repeat the last part, please?

A. For samples taken after two to five minutes, in housing estates, we can only take samples from the internal pipes. We cannot take samples from the connection points. But in other countries, for fully flushed samples, the samples taken come from the connection point, at the source. In other countries, as I understand, the fully flushed samples, since the pipes

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C are quite short, the flush times are not very long, and C

D the samples taken are virtually the water samples at D

E source. E

F CHAIRMAN: So please go on with the situation in Hong Kong. F

G A. In Hong Kong, the average flush time is about two G

H minutes. There are corridors in the housing estate and H

I the samples taken would be samples of water from the I

J building. J

K CHAIRMAN: Have you done any tests? How did you arrive at K

L two minutes? Did you do any tests? L

M A. If you calculate the flow, you would know where the M

N water would end up after two minutes. N

O CHAIRMAN: It depends on the point of sampling. O

P If you take samples higher up the building -- P

Q A. Mainly we take it from -- Q

R CHAIRMAN: If you take it nearer the ground, it would be R

S different. S

T A. The upstream and downstream pipes are both very long. T

U CHAIRMAN: So it's possible for the upstream pipes but not U

V the downstream ones? V

A. Generally speaking, samples are taken inside the unit or

apartment. We would not take samples at the lot

boundaries.

CHAIRMAN: Of course that's where you test. It's useless to

test the connection points.

T

U

V

Director, I am confident that the water at the connection points are clean, and your colleagues did a lot of sampling and tests for the Housing Department and I actually feel they have done a very good job.

Now we are only looking at the sampling method.

A. In overseas countries, they take fully flushed samples in order to test the quality of the water supply by the water suppliers, because copper pipes are often used. So their focus is on the level of lead in the water samples, and after that, overnight samples would be taken. If overnight samples are satisfactory, then that's all for the tests.

If overnight samples are substandard, then they would take fully flushed samples. This way, they can find out if the water supplied is problematic or the water from the internal system is problematic.

If they take water samples at the lot boundaries, that means there's a problem with the source or the supplier.

Copper pipes are often used in other countries so their approach is very different from that of Hong Kong. First of all, we stopped using copper pipes for a long time.

CHAIRMAN: You don't need to repeat what we already know.

MR KHAW: Your colleague, Mr Chan Kin Man, in one of his

statements -- C19.1.

CHAIRMAN: If I tell you that after two minutes, almost all traces of lead would be flushed away, would you be surprised to hear that?

A. Of the 11 housing estates, we adopted the same method.

CHAIRMAN: I am just telling you that two minutes is not representative, because after two minutes everything would be flushed away already. If you say fully flushed requires five minutes, then I can tell you that it's very clean already, so to speak. Would you feel surprised? Would you be surprised if I tell you that the concentration of lead would be substantially reduced after two minutes?

A. Of the 11 housing estates, the water samples were problematic, whether we adopt the two-minute or the five-minute standard.

The key is that the flushed samples are in line with WHO practice. We will look at the overall quality of drinking water for daily use.

MR KHAW: In C19.1, page 9951. This is the witness statement of your chief chemist. In paragraph 4(a):

"(In English) Since the discovery of lead in drinking water, WSD has taken samples of plumbing materials and water samples for testing in two separate contexts:

(a) To assist the Housing Department to take water samples and samples of plumbing materials for examination by the Government Laboratory ... in order to identify which public rental housing estates/developments are affected ..."

Now we discuss ISO and other things. I just have a very simple question for you. When samples were taken at the housing estates, when fully flushed samples were taken, the purpose was only to detect lead; right?

A. Yes.

Q. The purpose was not to test the general quality of drinking water. You merely wanted to detect the level of lead; correct?

A. Actually, we wanted to look at the level of lead compared with the WHO standard. We wanted to see the difference. It was a criterion for water quality.

Q. But you said the purpose was to detect or determine overall water quality. It wasn't the case. It was specifically to test the level of lead; do you agree?

A. Yes.

Q. So, in other words, it was an investigation on the level of lead?

A. It wasn't an investigation. It says, "(In English) To assist the Housing Department to take water samples and samples of plumbing materials". The plumbing materials

are for investigation.

Q. Yes, I know. We are referring to the water test.

(Chinese spoken).

CHAIRMAN: Mr Khaw, please be concise.

MR KHAW: When we look at V1, page 6, at the end, it says:

"(In English) ... data from fully flushed samples are not likely to be representative of the extent of lead exposure."

That's the conclusion from our two experts.

As you know, our two experts are world-renowned experts; are you aware of that, Mr Lam?

A. Yes.

Q. At the time, your chemist told you that there wasn't enough time to consult independent experts at that time. So do you agree that at that time, the WSD could not say that the conclusions from our two experts were wrong?

A. There was no conflict at all.

Q. If our experts said testing fully flushed samples alone might not be representative of the extent, now, for housing estates that pass the test, according to the fully flushed samples, they might still fall short of the standards?

A. At the end of page 6, "(In English) data from fully flushed samples are not likely to be representative of the extent of lead exposure", what it meant is it's

still about the investigation and it means that if fully flushed samples are used, it's not representative enough.

Overnight samples must be taken to more accurately assess the lead seepage in the pipes.

Q. Can you address my question? The question was, as you discussed this internal report, was there any awareness that if fully flushed samples were not completely representative, for housing estates deemed to be compliant, there might still be issues? Did you have any such discussions?

A. We looked at the purpose of taking water samples. If the purpose was to represent the general water quality, then our approach could be comparable to the WHO standard of 10 micrograms per litre. If another approach, the overnight sample approach, the lead level could not be compared to the WHO standard, because, according to the WHO, a representative sample must be used.

Q. You did not answer my question. Perhaps I will put another question to you.

After you read this report from the two world-renowned experts, and you also consulted your internal experts, did anyone raise the solution or possibility of taking more samples? Did you have such

discussions?

A. No, we did not do that. All discussions must be grounded. If our purpose is to compare the water quality with the WHO standards, if overnight samples are taken, we have to justify it. When excess lead was detected in the water samples, we had to investigate.

Q. So do you mean that justification is required, so you did not do it?

A. No. It must be well grounded.

Q. Two world-renowned experts said that fully flushed samples are not fully representative, and you said that you did not disagree with their views. So why didn't you take it one step further, as a responsible government department? Why didn't you take the extra step to alleviate public concern?

A. Perhaps I didn't make myself clear. When it says it's not representative, it refers to lead leaching in the internal component. The method we adopted, we sawed off the component and we did chemical testing to see what the lead levels were. We think that is more direct, because if you take overnight samples, you generate data, but how do you compare that to the WHO standard? That is a problem.

Subsequently, we discussed this with some experts. They looked at our arrangement and methodology. And

yesterday we mentioned that we hope the chairman will allow us to submit the expert report.

Q. Let's look at your press release. C20.1/15544. This is the press release regarding the preliminary report.

Paragraph 2:

"(In English) The WSD has noted that the experts of the Commission of Inquiry ... The experts pointed out that fully flushed samples might serve the purpose of assessing the general quality of drinking water as supplied."

So fully flushed samples can suffice. It doesn't say that the experts had said that the flushed samples might not be representative. In your press release, it is not mentioned at all.

Then:

"(Partially in English) The objective of taking drinking water samples ... check whether the quality of water consumed by the general public is in compliance with the guideline values and provisional values ... [and so on] ... Thus, the WSD established the sampling procedure with reference to the [ISO] ... as recommended in the 'WHO's ...' to flush the pipework for two to five minutes before taking water samples to ensure that the water samples are representative and the water quality data can be compared with the respective guideline

values ... As such, drinking water that is tested with such method and in compliance with the WHO's requirement is safe for drinking. There is no conflict between the concerned water sampling method and the opinion of the Commission's experts."

So your whole press release does not address our two experts' concerns. That is, when you take the fully flushed sample, is it really representative of lead levels; you don't mention that at all.

A. Allow me to elaborate. We are concerned about water quality. The last sentence is referring to lead exposure extent. There are some differences there. The expert also said clearly that if you use a fully flushed sample, it serves the purpose of assessing the general quality of drinking water. The expert might not know of our objectives. If we want to look at the extent of lead exposure, then they will see that using a flushed sample is not appropriate. I agree. But we had no opportunity to communicate with the expert and tell him the purpose of water sample is to understand the quality of water.

So the expert has said that if you take a flushed sample, you can determine what the water quality is.

COMMISSIONER LAI: So can we say the WSD is not interested in the extent of lead exposure?

A. Well, we examined it from a different perspective. We now have data for the whole estate.

COMMISSIONER LAI: So, when you take a water sample, you can take the data from the whole building. It's from the pipe, but if you saw off a component, it's from one particular location.

A. We wanted to see the internal water supply system, had they used non-standard components. That is where we have to enforce the law.

CHAIRMAN: So you have your law enforcement rationale, but there is a priority here: water safety, tenant safety, is most important. So when you saw off some components, objectively speaking, do you agree that the safest thing was to see how much lead was leached in the water sample, objectively?

So when you saw off a component and see some lead there, what does that tell you?

A. We have to see --

CHAIRMAN: The priority at that time was tenant water safety, yes, when you saw off the component, you can identify lead. But what does that tell you objectively?

A. The first thing we did was take water sample.

CHAIRMAN: I understand, Director. Do you follow what we are saying?

MR KHAW: For the tenants, they are not consuming the pipe,

they are just drinking -- they are consuming water.

A. The tenants will say, "We just want to know whether the lead content in the water had exceeded WHO standards."

CHAIRMAN: That's right. They want to investigate the lead.

A. So, when you take the water sample, you have to take it according to these objectives. If you look at the WHO and the ISO --

CHAIRMAN: Well, tomorrow we can come to my home and check my water quality, then I will agree with you. But now we have a press conference. There's a problem. So then it becomes that purpose.

A. So, after the incident was exposed --

CHAIRMAN: Just now, Mr Lai said you have objective data telling you that you have exceeded the standards. Doing water sample testing, isn't that better than just sawing off a component, when you don't even know whether lead levels had been exceeded?

A. We saw that lead level was in excess. That's why we had to take components.

CHAIRMAN: That's the problem. You shouldn't be doing that.

Is that the case?

A. I have already expressed my view. All I can say -- perhaps my colleagues can make it clearer.

CHAIRMAN: What's the problem with taking one extra step then?

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C We know how your colleagues did their work. As the C

D highest official in the institute, your colleagues might D

E not be in sync with you. E

F A. Are you referring to all estates? F

G Q. No. You could have told your colleagues, "Take an extra G

H step. Let's quell the dispute once and for all." H

I A. My colleague can explain. If you use this methodology I

J to take water sample, there are two problems. The J

K first, it will take a lot more time. The residents K

L wanted to know whether the water was safe, and using L

M this methodology we cannot compare whether the water is M

N safe or not, because we have a WHO standard of N

O 10 micrograms per litre. O

P CHAIRMAN: Why can't you tell people whether the water is P

Q safe? Q

R Okay, okay, continue. R

S MR KHAW: If you feel -- after taking a fully flushed S

T sample, you have taken the first draw, if there was no T

U problem then the public could feel safe that the estate U

V was safe? V

A. But if you take the second draw, if you take the

overnight stagnation sample, then the difficulty is what

do you compare with.

CHAIRMAN: With the WHO standard.

A. But the WHO says you shouldn't use that method.

CHAIRMAN: Then why did Scotland take that approach?

A. They were investigating --

CHAIRMAN: Okay, okay. You were not doing an investigation.

MR KHAW: I would like to ask you, in that meeting, when you had the preliminary expert report, did you personally suggest, "We should take an extra step and take a first-draw sample"?

A. I don't recall. It was quite urgent at the time. But we had commissioned some experts to review our sampling method.

Q. Did any colleague suggest, "Let's test the first draw sample"? Did any colleague mention that?

A. Are you referring to that day?

CHAIRMAN: They might not be correct. Your subordinates might not be correct.

A. Our focus was on the expert report, and because they were experts, we wanted to know whether there was a problem with our water sampling method.

MR KHAW: That's exactly the concern. Was there any problem with your water sampling? Did any colleague suggest, "Let's check stagnation water or first draw" -- did anybody suggest that?

A. I don't recall that being our discussion focus. We had looked at sampling methodology, and whether there was any conflict with the expert opinion.

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C Q. You mentioned that WSD had commissioned experts to look C  
D at the water sampling methodology. When did you D  
E commission this expert? E

F A. I remember that -- after we received this report but F  
G I can't remember the exact date, we then commissioned G  
H an expert. H

I Q. Could you tell us which expert you commissioned? I  
J A. I think we need to confirm that -- I'm not sure -- J  
K CHAIRMAN: We are just asking for a name. K

L A. We had commissioned a Prof Ho, Ho Kin Chung. L  
M CHAIRMAN: From which institute? M

N A. I think at Open U. N  
O MR KHAW: Only one expert? O

P A. We have also commissioned Dr Leung. P  
Q Q. Could you give us the full name? Q  
R A. Leung Ka Sing. R

S Q. So which expert did you commission? S  
T A. With the chairman's permission, we would like to submit T  
U both the expert reports. They are related to water. U  
V One is about water sampling method. V

Q. So is the data complete? Q  
R A. It's almost done. It's near -- we have a preliminary R  
S report. S  
T Q. So, after issuing the preliminary report -- T  
U A. After a short while. U  
V

Q. I would like to show you some summaries. After checking fully flushed water from estates, we have some borderline cases.

Let me show you some examples. A3, page 2391.

Public rental estates completed after 2005 are listed in table 3. These were tested based on fully flushed samples and they were found to be compliant. When you look at the final column in yellow, these were borderline cases. The results were close to the WHO standards. We had a number of housing estates.

So, at that time, during the discussions, did you specifically look at the borderline cases for the housing estates, based on the fully flushed samples? But if first-draw samples were taken, the levels might be excessive?

A. Whenever tests were completed, there would be discussions. I wasn't personally involved in those meetings. But I know that the criteria would be compared against the WHO standards.

Q. On 13 November, after our two expert witnesses published their preliminary report, did you consider this issue as you prepared your response? Did you consider that some housing estates were borderline cases? If fully flushed samples were not fully representative, they might be affected; did you consider this point personally?

A. I remember that discussions took place. We considered whether the results we obtained might be affected by the sampling methodology. Our discussions were based on the appropriateness of our methodology and whether the results are compliant with WHO standards.

I would like to point out that in some countries, for example the US, they would consider 15 micrograms per litre as an action level, and out of 100 samples, if 10 of them exceed the standard, they would launch an investigation. In Hong Kong, we obtained water samples from each housing estate and we would look at the appropriateness of our methodology, and we would check the results to see if any follow-up work is warranted.

MR KHAW: I have no further questions.

CHAIRMAN: Who wants to go first? Mr Ho or Mr Lee?

MR LEE: We both have questions.

Cross-examination by MR HO

MR HO: Director, I represent the Housing Authority.

This morning, the chairman of the Commission asked you about the authority of the Water Supplies Department. As the Water Authority, I would like to look at some legal arrangements with you.

I am not trying to test your knowledge on the Waterworks Ordinance. If we have difference in opinion

in terms of the interpretation, we can take that up  
later.

You mentioned the roles of the Water Authority and  
Water Supplies Department. I would like to follow up on  
that. First of all, I would like you to look at  
C2/1142, on the Waterworks Ordinance.

A. Are you referring to the WWO or WWR?

Q. I am referring to the Waterworks Ordinance.

A. Can you point me to the relevant clause?

Q. Under the law, the WSD and Water Authority, what's the  
scope of their power in terms of inside service?

I would like you to look at sections 8 to 10. Do you  
see that?

A. Yes.

Q. In section 8, the Water Authority -- I looked at  
8(1)(a). If the inside services are not approved by the  
Water Authority, the Water Authority may refuse the  
connection application. Under section 9(1)(a), if the  
Water Authority needs to conduct any investigation tests  
or alterations on the inside service, it may suspend the  
water supply temporarily; do you see that?

A. Yes.

Q. And in section 10 it says the Water Authority may even  
disconnect an inside service.

I would like you to look specifically at

paragraph (c). If the inside service does not comply with provisions of this Ordinance, the Water Authority may disconnect the inside service.

Based on these provisions, do you agree that the Water Authority has wide powers on the inside service?

A. As you said, it has a wide authority, and different enforcement actions are possible under different scenarios.

Q. Now, under section 10, when we look at item (g), in case of waste, misuse or pollution of the supply, the Water Authority can again disconnect the inside service. This is to ensure the integrity of the water source.

A. Yes.

Q. Please look at the Waterworks Regulations as well. This is in C2, page 1156.

Please look at regulation 6:

"A person who constructs or installs [an] ... inside service shall [first obtain approval from the Water Authority]."

Do you see that part? Regulation 6, subsection (1).

Do you see that?

A. Yes.

Q. Now I would like you to look at subregulation (3). The English version says:

"(In English) No pipe or fitting forming part

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B	Commission of Inquiry into Excess Lead Found in Drinking Water	B
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C	of ..."	C
	Let's ignore fire service.	
D	"(In English) ... [an] inside service shall be used	D
E	or covered up until it has been inspected and approved	E
F	by the Water Authority."	F
	Do you see that?	
G	A. Yes.	G
H	Q. In other words, if pipe fittings are involved in the	H
I	works, no one can use or utilise the works until	I
J	approval is obtained by the Water Authority upon	J
	inspection; do you agree?	
K	A. That's what it says here.	K
L	Q. So, in terms of the legal arrangements, do you agree	L
M	that in the construction and installation of an inside	M
N	service, the law empowers the Water Authority to have	N
O	the final say; do you agree?	O
P	A. Yes. At the end, we have to inspect the inside service	P
Q	and grant an approval before water connection is	Q
R	allowed. So the Water Authority is a gatekeeper.	R
S	Q. This is on the construction or installation of an inside	S
T	service. Do you see this part?	T
U	A. As mentioned, the WSD or the Water Authority has to make	U
V	an inspection and supervision.	V
	Q. Now, back to the main regulation. Mr Khaw from the COI	
	looked into sections 14 and 15 with you. In sections 14	

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C and 15, when you look at both sections, this is what it C

D says: no one shall construct or install an inside D

E service, except if that person is a licensed plumber, E

F and that he's permitted by the Water Authority. That's F

G the provision. No person shall carry out inside G

H service, basically. H

I A. Yes. You are referring to section 14; right? I

J Q. When you look at sections 14 and 15 together, that's the J

K effect? K

L A. Yes. L

M Q. This mechanism of licensed plumbers, this mechanism of M

N supervision and licensing, the onus is on the WSD or N

O Water Authority? O

P A. Yes. P

Q Q. Now let's come back to the regulations. Please look at Q

R regulations 20 and 21. Excuse me, please look at R

S regulation 19 first. S

T This is part 3, "Pipes and fittings". T

U A. Yes. U

V Q. Part 3, "(In English) Pipes and fittings". V

A. Mm-hmm.

Q. 19, 20 and 21 say these pipes and fittings have to

comply with the British Standards?

A. Yes.

Q. So if we look at the whole design, to build or install

these pipes and fittings, the person has to understand the specifications, including British Standards, of the components?

A. Yes.

Q. So 19, 20 and 21, they are specific to the LP, because LPs are the only people who can build and install these internal water supply systems?

A. Well, I would like to add that, as we mentioned just now, in sections 14 and 15, some installations are minor, and those do not need to be installed by the LP. But it doesn't mean that the material doesn't have to comply with part 3. So just now you said it applies to an LP. That's correct, but it can also include other people, if it's minor work.

Q. I won't take part in that discussion. I will save that for other people. I think Mr Khaw has already handled that.

But that's the whole design, right, as I had described it; yes? If it is, please answer "yes".

A. That's right.

Q. I would also like to -- in the principal legislation, section 4, it says in (f) that the Water Authority has to administer the provisions of this Ordinance. It's the duties of the Water Authority.

A. Yes.

Q. So I would like to point out to you, these delegations of duties -- in section 7 of the legislation, it refers to "consumer". In section 7, the Authority may approve a person being a consumer and the conditions being he occupies the premises and is responsible for paying water utility bill.

In 7(1)(c)(ii), he will be responsible for repair and maintenance of the water supply system.

So it doesn't state the duties directly, but it says that if the consumer is willing to undertake certain responsibilities, the Water Authority may approve that consumer.

A. Yes.

Q. I would like to go back to paragraph 12 of your witness statement. You have quoted section 3. In paragraph 12, you quoted section 3 of the WWO. You say that the Authority has certain responsibilities, and the consumer has responsibilities under section 7.

So I'm not trying to -- you cannot say that the consumers have these responsibilities in section 7. That's not the case. It says that the Water Authority can accept a person as a user if they are willing to pay the water bill and they repair and maintain the water supply system. Do you see that?

A. Yes. Yes.

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

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C Q. This user, consumer, we don't differentiate between big C  
D or small consumer, so it applies to all, regardless of D  
E how big or small the consumer is? E

F A. Yes. F

G Q. So it could be one unit, in one independent house, or G  
H the Housing Authority could be the owner of a public H  
I rental housing unit. They have the same privileges? I

J A. Yes. J

K Q. So, under this Ordinance, what are they required to do? K

L We can return back to section 7 of the regulations. L

M In regulation 7, there's a responsibility to keep inside M  
N service clean; do you see that? N

O A. Yes. O

P Q. The consumer, they could be a big or small consumer, P  
Q they have some maintenance responsibilities. They have Q  
R to clean the water tank regularly. We cannot have rust R  
S accumulating, and so on. They have to ensure the inside S  
T service is kept clean. T

U A. Yes. U

V Q. So these are the consumer's responsibilities and that's V  
it? V

A. Well, regulation 7 says the consumer has that  
responsibility.

Q. Yes.

A. But is that the only responsibility under the

C legislation? I will have to go through the whole  
legislation.

D Q. Well, you should be familiar with these ordinances and  
E regulations, because I have seen in your statement and  
F your colleagues' evidence, you have quoted section 7.

F A. This is important. For example, if a waterworks needs  
G to be undertaken, they have to employ an LP. So, if  
H it's not minor work, they would need to employ an LP,  
I and the person who is the consumer will have to bear  
responsibility. The consumer, at some stage, will be  
responsible for this work.

J Q. We saw that in section 14. Nobody can do it except the  
K LP. It says that you cannot undertake the work  
L yourself; it's a criminal offence. So not just the  
M consumer; even if I don't have my own housing, we cannot  
N have a person who is not an LP do this building or  
installation work of the water supply system?

O A. Well, what I want to say is that under the legislation,  
P we have different clauses that refer to any person. It  
Q includes consumers as well. So, if you ask me, under  
R the Waterworks Ordinance, do we have only this section  
S that spells out the responsibility of consumers, I have  
T some reservations, because in other parts of the law  
U they make reference to "any person". That could be  
V a consumer.

Q. That's okay. If necessary, we can deal with that in submissions.

It's almost 1 o'clock. Allow me to summarise, and you can agree or disagree. I see that the design of the regulation -- first of all, the responsibility of enforcing the law is the responsibility of the Waterworks Authority. The inside supply --

A. Well, the ultimate responsibility would lie with the tenant.

Q. I'm talking about the inside water supply, during the construction phase.

A. Yes.

Q. Not just during construction.

A. Well, if it's during repair and maintenance, it is not the Water Authority. We refer to keeping the inside service clean. That should rest with the consumer.

Q. Okay.

A. So the Waterworks Authority will not be responsible for keeping the inside service clean when the consumer moves in.

Q. Well, in clause 6, nobody can cover up, unless the Waterworks Authority has inspected and approved.

A. That is during the construction phase. If it's repair and maintenance stage, regulation 7 --

Q. Cleaning it, that rests with the tenant.

A. That rests with the tenant.

Q. Okay. I understand your version.

So, in construction, for the internal supply system, the building supervision approval, that is the responsibility of the LP and Waterworks Authority?

A. During the construction phase, the responsibility -- for general works, the LP is responsible.

In applying for approval and during the approval process, we require an authorised person to confirm that the waterworks installations are in compliance with the Waterworks Ordinance.

Q. I'm not talking about the forms. I'm talking about the legislation, the design of the legislation. Is my description correct?

A. Well, your overall description is that the LP is responsible for installation, and just now I referred to "any person". That's also related. There are also other stakeholders.

Q. But the other stakeholders cannot do this work?

A. They have an impact. For example, they need to employ an LP. Whether there's appropriate material, they have to comply with that. But they would rely on the LP to do that.

So, overall speaking, if you say it's only the LP during the construction phase --

Q. Well, I will examine the role of other stakeholders later on. I will go through that with you later on.

(Chinese spoken).

CHAIRMAN: Let's continue at 2.30 then.

(1.00 pm)

(The luncheon adjournment)

(2.32 pm)

MR HO: I would like you to look at some WHO Guidelines.

Bundle C, page 1244.

I would like you to look at this 2011 edition.

First, please look at page 1255. On page 1255, this is the introduction. Part 1.1, "(In English) General considerations and principles"; do you see that?

A. Yes.

Q. I would like you to look at page 1256. Please look at the part with the words, "(In English) The Guidelines are intended"; do you see that?

All right, maybe I will read it:

"(In English) The Guidelines are intended to support the development and implementation of risk management strategies that will ensure the safety of drinking water supplies through the control of hazardous constituents of water. These strategies may include national or regional standards developed from the scientific basis provided in the Guidelines."

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Do you see this line?

A. Yes.

Q. Here, I have a question. It says these guidelines are to complement regional or national standards. Do you see this?

A. Yes.

Q. So, from your point of view, should there be any central co-ordination for these national or regional standards?

A. In terms of water quality, the WSD discussed the issue before 1994-1995, on what standards we should adopt. As I remember, in 1994-1995, a pledge was made to follow the WHO standards. So, in other words, regional standards were adopted.

Q. So Hong Kong as a region? So it was a territory-wide adoption; right?

A. At that time, we referred to the standards for supplying drinking water.

Q. Here it says, "development and implementation of its [risk] management strategies" -- those strategies should include national or regional standards. So my question is, apparently this refers to standards that can be adopted territory-wide?

A. I haven't seen this document before. So, from this paragraph, from my understanding, if a strategy is to be established, standards must be determined first. Before

1994 to 1995 the WSD wanted to establish drinking water standards, and certain areas were specified. For instance, the supply of water.

Q. This is not the crux of the problem. In order to draw up these strategies or standards, there must be central co-ordination. They should not be co-ordinated on a regional or individual basis.

A. Yes, that's what I understand from the words. But I cannot say for sure whether higher standards should be set.

Q. All right. Further down the page, I will try to read it:

"(In English) The Guidelines describe reasonable minimum requirements of safe practice to protect the health of consumers and derive numerical 'guideline values' for constituents of water or indicators of water quality. When defining mandatory limits, it is preferable to consider the Guidelines in the context of local or national environmental, social, economic and cultural conditions. The Guidelines should also be part of an overall health protection strategy that includes sanitation and other strategies, such as managing food contamination. This strategy would also be normally incorporated into a legislative and regulatory framework that adapts the Guidelines to address local requirements

and circumstances."

So a few points were mentioned. First, the national environment -- you have to see whether the guidelines apply to the whole of Hong Kong or the whole of the country. You have to look at the social, economic and cultural conditions, and so on. Second, there must be an overall health protection strategy. Third, we have to see whether this strategy should be incorporated into a legislative or regulatory framework.

So these are the three main points; do you see that?

A. Yes.

Q. On these three points, now we are back to the same question: the supervision should be conducted on a government level?

A. Yes, you can put it this way. If you refer to a country, if a country wants to establish drinking water standards, then she might do it region by region. When standards are established, different factors have to be considered, so standards can be set up on a regional or national level.

Q. Now, by extension, I would like you to look at the last paragraph:

"(In English) The nature and form of drinking water standards may vary among countries and regions. There is no single approach that is universally applicable.

It is essential in the development and implementation of standards that the current or planned legislation relating to water, health and local government is taken into account and that the capacity of regulators in the country is assessed. Approaches that may work in one country or region will not necessarily transfer to other countries or regions. It is essential that each country review its needs and capacities in developing a regulatory framework."

Again, according to this paragraph, each country or administration has to adopt a holistic framework?

A. Yes, I agree. That's what it says.

Q. If necessary, legal standards should be looked at.

These are implemented on a government level.

To the right, it's the same argument so I won't repeat that.

Now, part 1.1.1, to the right of the page. Let's look at the second paragraph:

"(In English) A holistic approach to the risk assessment and risk management of a drinking water supply increases confidence in the safety of the drinking water."

Here, it says a holistic approach to the risk assessment and risk management system is needed to enhance confidence in the quality of drinking water.

A. Correct. Let me just read this.

Q. We see that the WHO also published a paper on risk assessment and how to carry out the assessment as well as the priorities.

Please look at the 3rd witness statement of your colleague, Chan Kin Man. Annex C19.1, page 10550. On page 10550, this is the risk management -- "Chemical safety of drinking water: Assessing priorities for risk management".

Please look at page 10567. This is on chemical safety. This whole document is on chemical safety. Do you see that?

A. Yes.

Q. On page 10567, for the heading, 1.1, "(In English) The need for guidance on assessing priorities for risk management" -- so guidance is given on assessing priorities for risk management; do you see that?

A. Yes.

Q. In the middle of the page, starting from the word "Theoretically" to the end -- I will try to read it out quickly:

"(In English) Theoretically, it is possible to assess at a national or local level the health risks from chemicals in drinking water for every chemical for which a guideline has been set. The WHO has published

C procedures for assessing chemical health risks. These C  
D assessments may be used to manage chemical risks to D  
E water safety by the development of control and E  
F monitoring programmes, and of national standards for F  
G drinking water quality. However, to make such G  
H assessments and develop management strategies for every H  
I chemical would be impractical and would require I  
J considerable resources, posing problems for many J  
K countries. A more effective approach where resources K  
L are limited is to identify and focus on those priority L  
M chemicals for which significant human exposure is M  
N expected to occur, recognising that priorities may vary N  
O from country to country, and within countries. O

L In many countries, the development of appropriate L  
M risk management strategies is hampered by a lack of M  
N information on the presence and concentration of N  
O chemicals in drinking water. Water authorities O  
P attempting to identify priority chemicals despite having P  
Q limited information would benefit from guidance on Q  
R simple and rapid assessment methods. These could be R  
S applied at a national or local level to provide S  
T a shortlist of priority chemicals, which could then be T  
U more rigorously assessed for health risks. The present U  
V publication seeks to meet the need for such guidance." V

T There are a few issues I would like to point out. T

U U

First, we need a health assessment. I mentioned that that needs to be at the national or regional level. Do you see that?

Second, it says this should be done by the Water Authority. Do you see that?

Do you see that? Water authorities should undertake these tasks.

A. You are referring to the last paragraph?

Q. The third sentence, "(In English) Water authorities attempting to identify priority chemicals despite having limited information ..."

So, if we apply that in Hong Kong, that would be the Water Supplies Department; yes?

A. Yes.

Q. The following paragraph says that at the national level, there should be strategies to manage risks, and so on. Do you see that, in 1.2?

In 1.3, in the last paragraph, it says:

"(In English) ... national or local authorities to develop risk management strategies for each and every chemical for which guideline values have been set, but rather to identify and select those chemicals that may be of greatest priority for risk management purposes in the particular setting."

Do you see that?

A. Yes.

Q. So they emphasise the message that the WHO might have listed a lot of chemicals with different risks, but they understand not each chemical would have the same risk. So there should be a procedure, some risk assessment, to prioritise the higher risks and deal with those first.

Is that what they are intending?

A. Yes.

Q. Of course, the first thing is we need to do risk assessment, otherwise how can we identify which chemical has higher risk? You have to do a risk assessment first. Is that correct?

A. Yes.

Q. Now, the risk assessment procedure. Under these guidelines, it should be performed by the Water Authority, the Health Authority. These would be the most important government departments to undertake these tasks; is that correct?

A. Yes.

Q. I believe, to be fair to the WSD, these risk assessment guidelines, in 2.4.4, they do mention lead risk. We see that in paragraphs -- I think we need to be fair to the WSD. So, in paragraph 2.4.4 on page 10581, it says:

"(In English) Generally, lead is not a high priority for routine be monitoring programmes because of the

variability from building to building, but possible risks posed by lead in drinking water should be assessed in localities where lead has been extensively used in plumbing materials, particularly if the water supplied is corrosive or is likely to dissolve lead."

Do you see that?

A. Yes.

Q. In some countries, whether it is a high or low risk, it depends on the situation of the country where they have lead pipes, and so on. But we need to do a risk assessment first.

A. Yes.

Q. In 3.1, on page 10585, paragraphs 2 and 3, they also talk about the water authorities. The guidance described in the paper, "to assist water supply utilities, in collaboration with public health authorities".

So these are the two major government departments to deal with assessment?

A. Yes.

Q. Paragraph 3.2, in the second paragraph. That refers to:

"(In English) ... national programmes to control drinking water quality depend ideally on the existence of adequate legislation, standards and codes. The precise nature of the legislation in each country will

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C	depend on national, constitutional and other	C
D	considerations. Generally, the legislation should	D
E	outline the responsibility and authority of a number of	E
F	agencies, describe the relationship between them and	F
G	establish basic policy principles."	G
H	So, after doing the assessment, there should be	H
I	a national programme that would need legislation,	I
J	industry guidelines. But overall speaking, after you	J
K	have a programme, different agencies would have to	K
L	collaborate with their efforts?	L
M	A. Yes, that's correct.	M
N	Q. So we need different agencies to collaborate with you.	N
O	First of all, the water supplier and the Health	O
P	Department need to set guidelines; is that correct?	P
Q	A. If we were to adopt this regime, yes.	Q
R	Q. That is the WHO Guidelines, their design or their	R
S	recommendation. Is that correct?	S
T	A. Well ...	T
U	Q. Is that correct?	U
V	A. Yes, but I would like to say that it's the first time	V
	I have read this document. I remember that in 2004,	
	they had a Water Safety Plan. So all this is moving	
	towards that goal. So, if you want a Water Safety Plan,	
	you need standards, risk assessment. You need to	
	establish risk control strategies and so on. So all	

this is moving towards that goal.

Q. It includes Water Safety Plans, talking about the design of the WHO plan. I see -- I'm not going to read line by line, sentence by sentence. I would like to jump to chapter 8, in page 10639.

A. Yes.

Q. Given the background, it talks about -- they also outline the responsibilities of different people. For example, in 8.1, starting from the middle:

"(In English) The WHO Guidelines ... cover a significant number of potential substances from water treatment or distribution ... It is important that water supply agencies properly manage any chemicals that they use. In many cases, the best method of control is through management practices, such as optimisation of the treatment process, and regulation of materials and chemicals that come into contact with drinking water, rather than through monitoring and chemical analysis."

Do you see that?

A. Yes.

Q. So we need to do a good job in treatment, regulation of materials or chemicals. All this is under the framework, and we need these to be handled by the water supply and health authorities, and then we can have a further division of labour amongst the stakeholders.

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

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C A. Yes. C

D Q. I would like to refer you to 8.4, "Distribution systems". The distribution systems, first of all: D

E "(In English) Monitoring for corrosion products is E

F not appropriate; instead, it is necessary to manage the F

G problem of corrosion and the accumulation of corrosion G

H products in distribution." H

I It mentions lead, copper, zinc. I

J In the middle of page 10642, "(In English) J

K Monitoring of metals in water ...". K

L Do you see it? L

M A. Yes. M

N Q. Moving down to the fifth line. N

O A. Yes. O

P Q. Do you see: P

Q "(In English) Consideration of lead in drinking Q

R water should be part of an overall lead-reduction R

S strategy, because lead exposure from other sources may S

T be more significant. There are a number of possible T

U approaches to reducing lead levels in drinking water, U

V ranging from targeted replacement of lead pipes to V

central control of corrosion to reduce the possibility

that lead will dissolve in water."

Do you see that?

A. Yes.

Q. The overall lead-reduction strategy -- I am aware we have made reference to other documents. In Canada, they have Health Canada, a comprehensive lead-reduction programme.

A. I am aware that Health Canada is concerned about water quality.

Q. So it is not just whether there's lead in water. It's lead, whether it is a risk factor in our lives in general. So, after conducting a comprehensive assessment, you would of course include drinking water, so I think the WSD would be an important department to handle this type of work?

A. Yes.

Q. I would like to refer you back to the WHO Guidelines. C2/1259. You see, "(In English) Roles and responsibilities in drinking-water safety management"?

A. Yes.

Q. First of all, in the first paragraph, it says:  
"(In English) As many aspects of drinking water quality management are often outside the direct responsibility of the water supplier, it is essential that a collaborative multi-agency approach be adopted to ensure that agencies with responsibility for specific areas within the water cycle are involved in the management of water quality."

The next paragraph:

"Major stakeholders that could affect or be affected by decisions or activities of the drinking water supplier should be encouraged to co-ordinate their planning and management activities where appropriate. These could include ... health and resource management agencies, consumers, industry and plumbers. Appropriate mechanisms and documentation should be established for the stakeholder commitment and involvement."

Do you see that?

A. Yes.

Q. So, first of all, someone must take the lead. A lot of stakeholders are involved. And they must be encouraged to co-ordinate in the planning.

A. Right.

Q. So someone must take the lead?

A. Yes.

Q. So, under this framework, the WSD or Department of Health must take the lead?

A. Right.

Q. So you should take the lead and tell the stakeholders what their roles are; right?

A. Yes.

Q. If legal amendments or code of practice need to be issued, the WSD or Department of Health would take up

the responsibility; right?

A. Yes. We would commit to the research work.

Q. It's not just research. You have to execute it if we

need to issue the guidelines or make legal amendments.

A. This is a policy issue, so we will work with the policy  
bureaus.

Q. Of course this is a policy issue. Basically, that's the  
job of the WSD and the Department of Health.

A. Yes, in terms of department, yes.

Q. If Building Services would be involved, for example, the  
ArchSD or the Housing Authority --

A. (Chinese spoken).

Q. Can you answer my question first? What do the  
procedures look like?

A. The trade would be involved as well, and consumers would  
also be involved.

Q. I would like you to look at paragraph 6.9 in the same  
document, on page 1307. In paragraph 6.9 -- I will skip  
a large part. In this document, there are a lot of  
discussions.

Paragraph 6.9 focuses on buildings. I have to read  
this out because this paragraph is important:

"(In English) Drinking water systems in buildings  
can be a significant source of contamination, and poor  
management of these systems has contributed to outbreaks

of disease and illness. One of the challenges in ensuring water safety is that responsibility for many actions essential to the control of drinking water quality in buildings is often outside the mandate of the drinking water supplier. Roles and responsibilities of different stakeholders relating to the safe management of drinking water systems within buildings can be influenced by a number of factors, including ownership of assets and rights of access. [Water Safety Plans] established for management of public water supplies are not typically extended to buildings, although the water supplier [Water Safety Plan] may include a number of initiatives to ensure that backflow prevention is in place or to provide information to consumers on protecting their own water quality. In many cases, owners, managers or maintenance personnel are responsible for managing building water supplies, but awareness and application of drinking water guidelines are often limited, and so educational supporting programmes may be required."

I would like to discuss two points with you. First, the water supplier has to establish a plan; do you see that?

A. Yes.

Q. I will look at the WSD's Water Safety Plans with you in

a moment. The reason for setting up these Water Safety Plans is to relay this information to the users, so they know how to safeguard the quality of drinking water, to provide information to consumers on protecting their own water quality. Do you see this part?

A. Here, it says "[Water Safety Plans] established for management of public water supplies are not typically extended to buildings, although the water supplier WSP may include a number of initiatives".

So, according to this paragraph, at the building level, the water suppliers can have initiatives in place to prevent backflow of water to the source of water, and other information will be provided to users, to safeguard the quality of drinking water.

Q. Exactly. Before water reaches the connection points, the Water Safety Plans, only you can establish and supervise the plan. There's no dispute?

A. Right.

Q. But outside of the connection points, if you want other stakeholders to take part in the water quality exercise, you must provide enough information to users and stakeholders; right? So you would still take the lead; right?

A. Yes.

Q. The reason for you to take the lead -- let's look at the

last part. The awareness or level of alert might not be adequate. Can you see the word "limited"?

A. Yes.

Q. Further down the page, "General drinking water safety":

"(In English) General drinking water safety is ensured by good management practices, including sound design, routine maintenance protocols, regular cleaning, temperature management and flow management ... These practices should be incorporated in [Water Safety Plans] developed by building owners or managers. [Water Safety Plans] for buildings should address cold and hot drinking water networks and consider water-based devices and point of use equipment. Regulatory or other appropriate authority may provide guidance on the development and application of [Water Safety Plans] for drinking water systems in buildings."

Do you see this last paragraph?

A. Yes.

Q. At the beginning, it says the building owners would derive their own Water Safety Plans, but there must be a central regulator, or any appropriate authorities. They will offer instructions on how these buildings and stakeholders can regulate their Water Supplies. So, in our context, the WSD will play this role; right?

A. Yes, the WSD would take up this task.

Q. To the right of the page, I won't read it out again.

The second paragraph:

"(In English) The principal hazard that may threaten drinking water systems of buildings is ingress of contamination from external water supplies or through faults in the distribution system (including storage tanks). Unapproved and inappropriate fittings and materials can lead to the release of chemical substances from tanks, piping, jointing and plumbing materials. The release may vary with the age of the material and the contact period; for example, first-draw water contains higher concentrations of lead or copper."

These are the principal hazards.

Again, we have to see whether the things mentioned in this paragraph are hazards and whether a hazard identification process is required.

First, we have to determine whether something is a risk.

A. Yes.

Q. In a moment, we will look at the Water Safety Plans with you. A big chunk of that would be on hazards and hazard identification. Are you aware of that?

A. I will do my best. I wasn't personally involved in the small print in the Water Safety Plans.

Q. We will look at the hazards with you later. I will do

my best.

Please look at page 1308. In the middle of the page, there's a paragraph on monitoring:

"(In English) Monitoring should focus on ensuring that control measures are working effectively."

The next paragraph mentions, "Independent surveillance". It says:

"(In English) Independent surveillance is a desirable element in ensuring continued water safety within buildings and should be undertaken by the relevant health agency or other independent authority.

To ensure the safety of drinking water within buildings, supportive activities of national regulatory agencies include:

-- specific attention to application of codes of good practice (eg at commissioning and in contracting construction and rehabilitation)".

Do you see that?

A. Yes.

Q. We talked about the framework. You would agree with me that the WSD has a leading role to play, and here, independent surveillance is mentioned. In other words, regular and independent surveillance would take place from time to time, to see if the framework is effective. Do you see that?

A. Yes.

Q. In Hong Kong, we don't seem to follow this practice;  
right?

A. Well, it's a yes and a no. The chemists told me that  
outside of the lot boundaries and within the inside  
service system, they conduct surveillance, and I believe  
that their surveillance focuses on microbial risks. But  
they do conduct surveillance.

Q. Let me make myself clear. The focus here is on  
independent surveillance. So, outside of the  
surveillances conducted outside of the water supplier,  
to see if the water supplier achieves those standards,  
and we don't have this procedure.

A. We provided some reports to the Department of Health.  
I don't know if that can be considered independent.

Q. On page 1308, to the right, near the right-hand corner,  
there's this annex 1, which is a supporting document  
called "Water safety in buildings"; do you see that?

A. Yes.

Q. This supporting document is in bundle A2. We have two  
versions. I would like to look at the 2010 version,  
because that better illustrates the issue, on page 1230  
in bundle A2.

This is the supporting document for water safety in  
buildings; do you see that?

C A. Yes. C

D Q. It's rather long, and I do not wish to go through it D  
E with you. I would like to direct you instead to E  
F section 2. It's about roles and responsibilities, on F  
G page 1231, section 2; do you see that? G

H A. Yes. H

I Q. I would like to direct you to page 1256. I

H It describes different stakeholders, and here it H  
I talks about, in 2.1.7, "Regulators". It says: I

I "(In English) There are a number of activities and I  
J requirements that can be subject to regulation. These J  
K include compliance with building and plumbing codes, K  
L occupational health and safety requirements and codes L  
M applying to operation of devices such as water cooled M  
N air-conditioning plants, swimming pools, spa pools. N  
O Implementation of these regulations may be administered O  
P by different agencies. It is important that there is P  
Q a shared understanding of the function of each set of Q  
R regulations to ensure consistency of purpose is R  
S maintained. S  
T

Q In developed countries the 'regulator' may not be Q  
R an institutional body but can be a public officer from R  
S an agency or authority (eg government agency, local S  
T health authorities). The regulator will have the T  
U responsibility for dealing with specific technical U  
V

issues covered by regulations."

Similarly, if we talk about regulators, in Hong Kong the regulator would be the WSD; is that correct?

A. Yes.

Q. Next, "Surveillance":

"(In English) In most countries the primary agency involved in public health surveillance of water systems is the Ministry of Health and its regional or departmental offices. In some countries surveillance can be undertaken by an environmental health section within an environment protection agency."

In the US, it's the EPA?

A. Yes.

Q. In Hong Kong, it might be the Health Department. So, aside from the water supplier, we have the Health Department looking into these matters.

On the following page, it deals with the same point. We see on page 1250, the developers, architects, engineers, plumbers, they have their roles. But their roles are under the framework we talked about; is that correct?

A. Yes. Yes. We have the roles of other stakeholders.

Q. I'm saying, under the framework, the rules under the framework, that is under the leadership of WSD and the Health Department and the role of other stakeholders.

I would like to look at your Water Safety Plans. We see there are three years: 2006, 2011 and 2015. The 2006 version is C20.1, page 15549; the 2011 version is C20.2, page 16531; the 2015 version is C20.3, page 17585.

Let's look at the 2006 version first. First of all, I would like to know, these Water Safety Plans, these are drafted according to WHO Guidelines; is that correct?

A. In my understanding, yes.

Q. Well, these Water Safety Plans are for internal use?

A. Yes.

Q. The public won't be able to read this.

A. It's an internal document.

Q. Is there any reason for not disclosing it?

A. I don't know about the past, but my understanding is that these are internal documents, for different divisions or department colleagues, their compliance.

So, basically, the work is undertaken by us.

Q. But we are talking about different divisions or departments and it's still within the WSD?

A. Yes.

Q. For example, the 2006 version, on page 15549. First of all, I would like to direct you to the fourth paragraph. Page 15557. In paragraph 4.1, we have:

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**C** "(In English) Health-based targets are an essential component of the drinking water safety framework." **C**

**D** This paragraph, I think it talks about public health and drinking water safety. **D**

**E** **E**

**F** A. Yes. **F**

**G** Q. In 4.3, we have "(In English) Health based targets". Do you see the second bullet point? **G**

**H** A. Yes. **H**

**I** Q. It talks about chemicals and microbes. **I**

**J** A. Yes. **J**

**K** Q. 4.4 talks about the Department of Health; do you see that? **K**

**L** A. Yes. **L**

**M** Q. 4.5 talks about health-based targets: **M**

"(In English) It was agreed between WSD and DH ..."

**N** That's the Department of Health; right? **N**

**O** A. Yes. **O**

**P** Q. "(In English) ... that the guidelines values of chemical parameters specified in the WHO Guidelines for Drinking-water Quality ... are to be taken as the water quality targets to ensure the chemical quality of treated water." **P**

**Q** **Q**

**R** Do you see that? **R**

**S** A. Yes. **S**

**T** Q. Here it talks about treated water. Then in paragraph 5 **T**

**U** **U**

**V** **V**

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C it talks about the Water Safety Plan. In 5.1.1: C

D "(In English) It is guided by the health-based D

E targets set out by the [Department of Health] and E

F overseen by drinking water quality and public health F

G surveillance. The development and implementation of the G

H WSP will control and minimise the risks of H

I contamination ...". I

H So it says to undertake a Water Safety Plan is to H

I minimise risks of contamination. I

I A. Yes. I

J Q. 5.1.2 is about the multi-barrier approach. Do you see J

K that? K

K A. Yes. K

L Q. It says: L

M "(In English) Based on a multi-barrier approach, the M

N [Water Safety Plan] provides an integrated system of N

O procedures and processes that collectively prevent or O

P reduce the contamination of drinking water from source P

Q to tap in order to reduce risk to public health." Q

R Do you see that? R

Q A. Yes. Q

R Q. So the Water Safety Plans and the multi-barrier R

S approach -- so these different lines of defence -- they S

T are there to ensure that the drinking water from source T

U to tap are safe? U

V

A. Yes, that's what we hope to achieve.

Q. That is the purpose of the Water Safety Plan.

A. Yes, that is our goal.

Q. 5.2, Water Safety Plan primary objectives:

"(In English) (i) The prevention of contamination of source waters;

(ii) The reduction or removal of contamination through treatment processes to meet water quality targets; and

(iii) The prevention of contamination during storage, distribution and handling of drinking water."

So you have to store, distribute and use -- you have prevent the contamination during storage, distribution and handling of drinking water.

A. Yes.

Q. So these are your goals. So you need the Water Safety Plan to ensure from source to tap, the water is safe.

A. That's our goal, but when you read along you will see that -- as the article you read just now, for the water supplier, the Water Safety Plan, we will have some measures, some assistance, some guidelines for the tenants.

Q. I understand. So before the connection point, you have ownership of all the facilities, so it's easier for you to handle. But outside the connection points, each

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C	building would be different, so there would be different ways to handle it.	C
D	A. Yes --	D
E	Q. But the goal is to have safe water at the source.	E
	A. Yes.	
F	Q. I would like to look a little bit more. You have a risk	F
G	assessment in 5.5. Do you see that?	G
	A. Yes.	
H	Q. 5.5.1, "(In English) Hazard identification". It refers	H
I	to biological, chemical, physical or radiological agents	I
J	have the potential to cause harm.	J
	A. Yes.	
K	Q. 5.5.2:	K
L	"(In English) Hazards/hazardous events may occur or	L
M	be introduced throughout the drinking water supply	M
N	system from catchment to customer."	N
O	So something might create risk, such as a hazardous	O
P	event. It would affect the system from catchment to	P
Q	customer.	Q
R	A. When you read the relevant parts, 5.5 talks about the	R
S	distribution system, not just the source. Are you	S
T	referring to the whole of 5.5?	T
	Q. Yes.	
U	A. If you read along, as I said just now, when we draft the	U
V	WSP, if we comply with the WHO Guidelines, as you said,	V

we have to deal with hazard identification, we have to do risk assessment and so on. We can control it all the way to the intersection, and it will have to cover the distribution system.

Q. Well, it's also related to the customer?

A. We are talking about supply to customer. From source, after it's treated and you supply to the customer. So the distribution system, it's WSD's facilities; it doesn't include the internal supply system.

Q. If your hazard identification goes to the connection point, how do you ensure that water is safe all the way to the taps?

A. That's why we have two parts. At the intersection point, we have to comply with the WSP. But outside the connection point, for example, the faucets, if you read the document or if you read the initiatives, that's not a WSP. You can see that there are some regulations, programmes, incentives and so on.

Q. Now, the approach might be different. There are initiatives, and the objective is the same, and that is to ensure that the drinking water -- the water coming out of the tap is safe for consumption.

A. I have not looked into that in detail, but you talked about objectives and approach, and our Water Safety Plan does not cover the areas outside of the lot boundaries.

It's not a comprehensive plan. I just want to point out the difference.

Q. When you talk about risk assessment, to ensure that water coming out of the tap should be safe, we should not just cover the connection points?

A. The risk assessment has to ensure that the eventual drinking water is safe for consumption. If a Water Safety Plan covers the taps, then we have to cover the water source reservoir, distribution service, inside service, et cetera. You need different plans for each part and you have to identify hazards and you have to do everything. But after the lot boundaries, I understand that they have no plans.

Q. What do you mean by "them"?

A. I am referring to our water quality division. Our colleagues would not derive safety plans from the part from the tap to the lot boundaries, but that doesn't mean they did not conduct any assessments. There are certain hazards in our inside service, so we do have measures in place, both inside and outside of the legal requirements.

Q. Let's look at the several paragraphs beyond the connection points. I would like you to look at page 15568, 5.9, on customer services. 5.9.1 says:

"(In English) Significant adverse health effects may

be associated with the poor design, incorrect installation, alteration, inadequate maintenance and servicing of plumbing systems in buildings. The piped distribution of drinking water within a building must be controlled to prevent microbial and chemical contamination of drinking water. The Customer Services Branch of the WSD plays a key role in ensuring the safety of drinking water at customers' taps. The detailed roles and responsibilities of CSB are set out in annex 4."

We will get to that in a moment.

"(In English) The CSB shall enforce appropriate policies, procedures and practices and relevant Waterworks Ordinance and Waterworks Regulations to prevent degradation of drinking water quality within buildings beyond the connection points."

Now this has made things very cheer. The customer services branch -- the remit of the CSB is to ensure the safety of drinking water at the customer's taps, and they have to avoid degradation of drinking water quality beyond the connection points.

Now, their job is to look at things beyond the connection points, to ensure drinking water safety. So that's the mission of the CSB; is that correct?

A. This is an internal document of the WSD and this is our

goal. Our responsibilities are set out in annex 4.

Q. Yes. We will get to that. But do you agree that the Water Safety Plan covers source to tap? You don't just stop at the connection points. The Customer Services Branch would take care of matters beyond the connection points.

A. Yes, they would take care of that. But the level of control is different from that of the plumbing works.

Q. So is it that you don't feel the need to have stringent control as a result of the risk assessment?

A. Apparently, the levels of risk are different. In an inside service -- well, there are many types for different buildings of different ages. There are different levels of complexity, different households are involved. If we are to establish a Water Safety Plan and execute it, we need the households to implement those plans.

Q. Yes, that is correct. So you must take the lead in telling the households or owners how they can carry out maintenance?

A. Now we have to look at the Waterworks Ordinance to see whether it empowers such responsibilities.

Q. You have the final say on whether the water connection is granted?

A. We hope that every household or tenant in the building

would clean their water tanks regularly and inspect their inside service.

Now, can this be carried out under the existing Waterworks Ordinance? This is a big question mark.

Q. Of course, you have the right to suspend the water supply for an inspection; in the case of non-compliance you can disconnect the connection altogether. The question is whether you are going to exercise this power?

A. I'm not sure if the power would be executed on a household basis. Now, they are required to clean their water tanks regularly and they have to inspect their inside service, and I would make inspections, and if you don't comply, I would disconnect the supply.

Actually, we considered this approach --

Q. I understand that you want to disturb the households.

A. It takes a lot of resources as well.

Q. A long time ago, the Office of the Ombudsman referred to households with water seepages, and you didn't do much about them. I remember these cases. So, whether or not you exercised your power, it's your decision, but of course the power lies with you?

A. And there had been discussions. If we required all households to clean the water tanks regularly and hire professionals to inspect their pipes -- well, this is

a resource issue and this is a substantial change. We have to look at the reaction from households and the trade. It's not just our resources. A lot of people are required to carry out these checks. At the water resource council, we wanted to do something positive or encouraging. We launched a scheme and if they followed the scheme, we would issue a certificate. We want to provide an incentive for people to do the work.

I acknowledge that at some point we might need to legislate. It's the same for mandatory building or window inspection schemes. At the first stage, we might have incentives, but eventually we would make it mandatory.

Our current scheme to encourage conservation of water, it's the same.

Q. Don't misunderstand me. I agree with your initiatives to encourage conservation of water. But today we are dealing with drinking water safety.

A. Yes, I understand.

Q. Let's go through annex 4 together, page 15582. This is about the decision-making of the Customer Services Branch. In 1.1, it says, in the third line:

"(In English) ... to ensure the quality and the safety of drinking water supply to customers beyond the connection points."

So it's clear that the job of the CSB is to ensure quality of drinking water beyond the connection points.

Now, I will go through each point one by one with you. This is the mission of --

A. The first line, the meaning is our hope is the Customer Services Branch would undertake measures and practices, and the goal is to ensure the safety of drinking water beyond the connection points.

Q. It is not simply an aspiration. The tone should be more serious than simply an aspiration.

A. Right. But I'm referring to the line "(In English) is responsible for undertaking measures and practices to ensure", and so on and so forth. Now, this is an issue of interpretation. This is our intent. When it was established in 2006, that was the intent. This is the 2006 version.

Q. Now, according to the text, the standards are very high. Is it the case that the standards could not be reached due to technical issues?

A. I wasn't involved in the drafting in 2006, and retrospectively I felt that the standards could not be met, so in 2015 I told my colleagues to be more pragmatic, "So you should do what you can."

Q. We'll look at the 2015 version later, but let's look at the 2006 version first.

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C In 1.1(a) it says: C

D "(In English) prescribing the nature, size and D

E quality of pipes and fittings of the inside service and E

F the manner of construction or installation of an inside F

G service, by means of Hong Kong Waterworks Standard G

H Requirements and Circular Letters ...". H

I So, under this umbrella framework, you want to I

J ensure the safety of drinking water beyond the J

K connection points. K

L The Hong Kong Waterworks Standard Requirements and L

M Circular Letters would be used to prescribe the nature, M

N size and quality of pipes and fittings. So there would N

O be guidelines or circulars for the stakeholders, so they O

P would be informed and be able to safeguard drinking P

Q water safety beyond the connection points. Q

R A. Yes. R

S Q. Let's look at paragraph (d): S

T "(In English) inspecting the inside service upon T

U completion of construction, installation or alteration U

V [regulation 6 of WWR].". V

We looked at that just now.

So, when the construction is completed, the inside service must be inspected. In other words, the water must be inspected.

A. This is not about water test. When you look at

regulation 6 of WWR -- maybe I will look at  
regulation 6.

Q. We looked at that already. You have to do inspections  
and tests.

A. It's mainly about the inspection. Regulation 6 is about  
inspections and approvals. And plans are submitted on  
the inside service and we would check whether the work  
is completed according to the plans. So that's the  
focus of our work.

Q. Yes, I understand. It's whether they have complied with  
the schematics. But here we have "inspecting the inside  
service" includes pipes and fittings.

A. Well, according to regulation 6, pipes and fittings is  
included. But how do we inspect that and the extent of  
the inspection.

Q. So you rely on the eight parameters?

A. If you are referring to -- well, at different stages  
there were different standards. Currently, we use  
12 parameters. If you are referring to 2012 or 2006,  
there were no parameters.

In 2012, there were eight parameters. Those were  
guidelines. They were given guidelines, and when they  
clean and disinfect the supply system, there were eight  
parameters. Prior to 2012, we also had eight parameters  
for the water samples at the connection point.

Q. Then paragraph (f). The Customer Services Branch has to educate the customers. They have to be taught how to do maintenance. So you have to provide them with information and instructions?

A. You referred to documents. We also have seminars. We have exhibitions. We also have regular meetings with the tenants. We also have communication with the industry, and in (f) (ii), it's the Fresh Water Plumbing Quality Maintenance Recognition Scheme.

Q. I would like to direct you to the website regarding the Water Safety Plans. I know the plans aren't on the website, but you have some explanation of them.

The website page has been downloaded. (Handed).

I would like to direct you to paragraphs 2 and 3. It's about the Water Safety Plan. Do you see it?

A. Yes.

Q. The last sentence:

"(In English) The plan identifies potential hazards and prevents risks of contamination of drinking water from source to consumers' taps and comprises key components including: system assessment, control measures, operational monitoring, verification, management plans, documentation and surveillance."

Do you see that?

By 2016, you are still talking about source to

consumer taps?

A. As you read out from annex 4, it's a document related to the WSP. Generally speaking, if you are talking about the plan from source to tap -- but I think here they are just talking in general, rather than stage by stage.

Q. Well, then the same sentence says that you need to identify potential hazards. Do you see that?

A. Yes.

Q. Then in fact, have you done that risk assessment? Have you identified potential hazards?

A. Well, I can't speak about the details, but basically, if you are talking about the source to our system, there has been thorough work. Annex 4 you read just now, the work or measures, can it help reduce contamination?

I think it does provide assistance.

Q. The third point:

"(Partially in English) In February 2005, a working group consisting of senior professionals from various operational units in the Department was set up to develop a [Water Safety Plan] for WSD. They assessed systematically possible risks of contamination within the water supply system, and identified control measures to minimise the risks. Based on WHO recommendations, the Department of Health and WSD have agreed on the adoption of a set of guideline values for chemical and

bacteriological parameters as the health-based targets for the drinking water supply in [Hong Kong]."

Do you see that?

A. Yes.

Q. Your group of professionals, basically, they are from Health Department and Water Services; is that correct?

A. Well, mostly our colleagues.

Q. It doesn't talk about other stakeholders. I'd like to know, these professionals, do they include other stakeholders?

A. From various operational units in the department.

Q. You mentioned that in 2015, you felt that the Water Safety Plan was a bit aggressive, so there were some amendments?

A. In 2015, when I received -- there are three levels of safety plan. This is the tier 1, the general plan. There is tier 2. We have the different districts -- Hong Kong, Kowloon and the New Territories.

Q. So those are the smaller districts. So we see that --

A. My colleagues have followed up and I asked questions. The measures, can you really ensure that the quality to tap can be ensured? So I think it was difficult. We should be more practical, and see if we could do the work outlined. We need to ensure. But I felt that in our -- whether it is the legislative framework or

resources and so on, I feel that annex 4 can ensure the water quality at tap.

Q. To put it bluntly, the most probable and most likely -- if WSD can't do it, then nobody can do it; right?

A. Well, if you looked at the WHO document, if you want to ensure the water quality in the unit, if you just rely on the supplier, you cannot do that. There are other stakeholders.

Q. We understand. But as the co-ordinating -- the leader role, the WSD cannot shirk its responsibilities.

A. Well, we had discussed this, and first of all this is a voluntary plan. We encourage management companies and residents to participate. At a certain stage we have found that we've needed a mandatory participation, for example building inspection, window inspection had to be done in phases. If you want to ensure that the water quality at tap reaches a certain standard, I feel that we need some resources, and in our review we will consider this.

Q. In the 2015 amended version, what has been changed? We have provided a table comparing 2006, 2011 and 2015. We have looked at the amendments in the three versions.

(Handed) .

In the left column, it's 2006; in the middle column, it's 2011; and on the right-hand column, it's 2015. The

highlighted area is the amendment; do you see that?

A. Yes, I see it.

Q. There are other amendments that we haven't included.

For example, you might have quoted a certain version of the WHO. So these three different Water Safety Plans have been updated regularly. I'd like to direct you to 2.2.

This is the 2006 2.2. Do you see the highlighted part, "Customers' taps"?

"(In English) A WSP systematically assesses risks throughout a drinking water supply system from the source through treatment to customers' taps and identify the control measures ..."

Do you see that?

A. Yes, I see it.

Q. In 2011, it still talks about customers' taps, but by 2015, it's changed to "customers"; it doesn't talk about taps. Do you see that?

A. Yes.

Q. This is your practical approach; is that correct?

A. I would like to clarify. The water supply system -- it goes from the system to the taps, it should include the internal supply. But if you look at the WSP, they haven't done hazard assessment, risk assessment, control measures. So you cannot -- it's not comprehensive, it's

not complete. I feel it's not sufficient.

Q. In 5.1.2, the new version is "distribution", for the same reasoning. I won't go through them one by one.

5.2, "Objectives", there's a similar -- well, as the Authority, you feel that if we want to ensure water quality to the tap, there are a lot of steps including hazard identification, and since that hazard identification has not been done, so it should not be written as such?

A. We haven't reached the stage where we can do that, so at the current stage we should refer to the realities. If we can have mandatory water sampling, if we can mandatory water tank inspection and cleaning of the water tank, then it would be closer to our objective.

So it's a work in progress, and we also believe -- we believe we can do even better.

Q. So from eight parameters to 12 parameters, it's moving towards that goal; right?

A. Yes, you can put it that way.

Q. After the incident, the number of parameters increased from eight to 12, and that includes heavy metals. In the past, since the risk assessment was inadequate, and as such heavy metals were not included in the parameters?

A. According to the WHO Guidelines, if water samples are

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C	used to assess risk levels, microbial levels were a focus.	C
D	After the incident, we looked at the water samples,	D
E	but in general we would set requirements on the	E
F	materials, and by introducing the four heavy metals we	F
G	hoped to optimise the existing system, and we are working towards that direction.	G
H	Q. Yes, we can see that. The problem is, before the incident, was the risk assessment adequate?	H
I	A. Before the incident or in the past, we have had	I
J	discussions before. As I know, there were no	J
K	quantitative risk assessments. Some criteria were set	K
L	and we did not identify the risks of lead in Hong Kong, so we did not include that in our parameters for water tests.	L
M	Q. The stakeholders rely on you; do you agree on that?	M
N	A. Well, I think the stakeholders should rely on the law, on Ordinances. The law specifies the requirements.	N
O	Q. We looked at some laws and regulations. In terms of the	O
P	use of material, only the plumber can carry out the	P
Q	works, and so, legally speaking, he has the biggest responsibility?	Q
R	A. Yes, he has a significant role.	R
S	Q. And the work of supervising the plumber is with the Water Authority?	S
T		T
U		U
V	- 132 -	V

A. We would monitor the mechanism or system. But as I said in my supplementary statement, we looked at some documents and it's clear that the inside service of buildings require roles from different stakeholders. If you just rely on the WSD to ensure that all materials are compliant with the law, that was not our usual practice.

Q. So that's the legal basis. Under the law, materials must be compliant with the British Standards, and only the licensed plumber can carry out the plumbing works, and the supervision of the LP lies with the WSD. That's the legal framework.

A. But does it mean that the WSD has to visit the sites at every project?

Q. That's about execution. That's about the priorities afforded by the department.

A. We actually took reference from other countries as well.

Q. I would like you to look at paragraph 34 of your witness statement. Let's look at page 10289, paragraph 28. You talked about quality; do you see that part?

A. Yes.

Q. You talked about drinking water quality.

A. Yes.

Q. At the bottom of paragraph 28, it is up to the connection point.

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C A. Yes. C

D Q. Starting from paragraph 33, you talked about inside D  
service.

E A. Starting from paragraph 32, actually. E

F Q. Yes, excuse me. Starting from paragraph 33, you talked F  
about the construction of inside service, and in

G paragraph 34, you said: G

H "(In English) As far as the role of the WA is H  
concerned, it essentially carries out a regulatory

I role ..." I

J In the construction of inside service, you would J  
play a regulatory role?

K A. Right. K

L Q. You mentioned five points on how you would carry out the L  
regulatory role.

M Now, first, licensing of plumbers; second, M  
N "requiring that pipes and fittings are of the British N  
Standard"; third, "confirmation by the authorised

O persons that pipes and fittings used and installed are O  
P in compliance with the waterworks standards"; and P  
Q fourth, "inspection and approval of the inside service". Q  
We know that already.

R After completion, you will make inspections. This R  
S was covered in regulation 6, which we looked at. S

T And number 5, "water samples tested to be in T  
U  
U  
V

compliance with specified standards." This is about the testing of samples.

I would like to look at the third point:

"(In English) confirmation by the authorised persons that pipes and fittings used and installed are in compliance with the waterworks standards ..."

What is this about?

A. In the course of approving new projects, for new building projects we require the authorised persons to confirm that pipes and fittings used and installed are in compliance with our standards.

Q. We looked at WWO46 and WWO132. Are you referring to these forms?

A. Yes.

Q. All right. Let's look at WWO46.

A. All right.

Q. In bundle B15.1. Please first look at page 37621.

A. Yes.

Q. You said the AP is involved. We know that the AP would sign under part I and part IV.

A. Yes.

Q. For part I, the form is submitted to inform you on the commencement of work, and that the LP would commence work soon.

In the second part of part I, "(In English) Purpose

C of submission", it says:

C

D "(In English) ... pipes and fittings  
installed/intended to be installed ..."

D

E Do you see that part?

E

F A. Yes.

F

G Q. So they notified you that they would commence the work  
and certain pipes and fittings would be used in the  
plumbing works; right?

G

H A. Yes.

H

I Q. It isn't necessarily the parts used in annex 1, because  
the works have not started. Right?

I

J A. Yes.

J

K Q. After approving annex 1 in Kai Ching Estate, there were  
L 25 items in annex 1. We have looked at that many times.  
Small fittings and solder were not included.

K

L

M A. Are you referring to annex 1?

M

N Q. For part I -- well, let's look at page 37626. The pipes  
and fittings installed or intended to be installed must  
O be included.

N

O

P A. The annex is mainly about the terminal fittings,  
including taps and valves, and these were not included.

P

Q Q. Soldering wasn't covered.

Q

R A. Soldering wasn't covered as well.

R

S Q. I am telling you that I would use these materials.

S

T A. For WWO46 part II --

T

U

U

V

V

- Q. WWO46 part I, the second point, on page 37621, in the middle of the page. Right?
- A. The first part of the second paragraph? "I certify that", right?
- Q. There would be a notification, the authorised person signed and he informed your department that plumbing works will begin on the date, and the materials that would be used. These are listed in annex 1.
- A. Apart from annex 1, the items outside of annex 1 would be included as well. Well, perhaps I will read out this one:
- "(In English) We certify that the pipes and fittings installed/intended to be installed, including those as listed on the attached annex to this form and those not listed ..."
- So, in other words, these include those in annex 1 and outside of it.
- Q. All right.
- Part II, the registered consumer has to sign. The registered consumer has to hire a licensed plumber for this task, and the duty of a registered consumer is to find a licensed plumber; right?
- A. Yes.
- Q. Is that right?
- A. I think this is just an endorsement. It's not just

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C engagement. This is to endorse the licensed plumber and C  
D the AP on the information filled in in part I, and this D  
E endorses those signatures. E

F It says here: F  
G "(In English) I endorse the information submitted by G  
H my licensed plumber and the authorised person in H  
I part I." I  
J Q. A registered consumer might belong to a big household or J  
K a small household. K  
L A. Usually, it's the developer. For most new developments, L  
M it refers to the developer. M  
N Q. What about part IV? Authorised -- the part has to be N  
O signed by the authorised person. He has to check the O  
P location of the water meter. P  
Q A. Yes. Q  
R Q. And the materials are no longer mentioned. R  
S A. That's in WW0132. S  
T Q. Now, this is not covered by this form; right? T  
U A. We have a certificate on water connection -- U  
V Q. I'm not talking about WW0132, I'm talking about this V  
form, 46. V  
A. The one you read earlier, part I. V  
Q. Part IV is filed by the licensed plumber, and it would R  
be returned to the Water Authority, and upon inspection S  
part V would be issued; is that the case? S  
T  
U  
V

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C A. Yes. C

D Q. Okay. You would like to look at form 132. Please refer D  
to pages 37796 and 37797.

E A. That is the signed one. E

F Q. Yes. Which one do you want to look at? F

G A. I'm referring to the blank form. It's the same. G

H Q. This is the form the AP needs to sign? H

I A. Yes. I

J Q. The form says, "(In English) Application for certificate J  
regarding water supply availability/connection".

K A. Yes. K

L Q. There is a reference to the "(In English) Building L  
(Standards of Sanitary Fitments, Plumbing, Drainage  
Works and Latrines) Regulations".

M Do you see that? M

N A. Yes. N

O Q. So I think when you say the AP needs to sign, it's the O  
part that says:

P "(In English) I confirm that the plumbing fittings P  
and pipes used in the captioned project are in full  
compliance with Waterworks standards and requirements."

Q A. This Waterworks standards and requirements, it is under Q  
the WWO and WWR.

R Q. Is that your understanding of this form? R

S A. That's our intention. That's our intention. S

T

U

V

Q. But this form says -- basically, it's not a form under cap 102. This is a form under cap 123. It has a different purpose. Do you agree?

A. This form is for the Waterworks Authority. I'm not familiar with the Buildings Ordinance, but I remember that in the Buildings Ordinance, the regulation refers to application for water supply from the Water Authority. I think at the time they wanted to, under the Buildings Ordinance, have this.

Q. Well, when I read the Buildings Ordinance, "(In English) Standards of Sanitary Fitments, Plumbing, Draining Works and Latrines" -- a lot of them are about the toilets, wash basins or kitchen, the drainage. I'm not testing you, but if necessary we can visit the Ordinance.

The purpose has to deal with washrooms, different washrooms. There are urinals, latrines and kitchens, shower facilities and so on. It's not about fresh water supply. Do you agree? If you disagree, you can say so.

A. We have a form WWO1004. It says very clearly it's supply of fresh water. WWO1004 and 1005.

Q. I'm not sure whether you are referring to WWO1005. Are you referring to this one, this certificate?

A. Let me take a look. This is water supply connection. The one I was reading was water supply availability. It's the same meaning. They quote the Building

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 50 B

C Ordinance. C

D Q. So you are referring to flushing water supply and D  
potable water supply; is that correct?

E A. Yes. E

F Q. You see it says, "(In English) Certificate Regarding F  
Water Supply Connection, Building (Administration)

G Regulations 25A". G

H A. Yes. H

I Q. This is regulation 25A under the Buildings Ordinance. I  
Do you see that?

J A. Yes, I see it. J

K Q. So, whether it is 1 or 2, it says "(In English) K  
Regulation 10A of the Building (Standards of Sanitary

L Fitments, Plumbing, Drainage Works and Latrines) L  
Regulations"; do you see that?

M A. Yes, I see it. M

N Q. So, whether you are referring to point 1 or 2, then N  
according to this certificate, the certificate only

O deals with latrines or sanitary fitments; do you agree? O

P A. I admit I didn't read it thoroughly, but here it refers P  
to plumbing in pipes. If you are talking about latrines

Q and drainage, that's something else. Q

R I had read the Building Ordinance before. If you R  
supply water to building, you need to submit the

S certificate to the Building Authority. But I cannot S  
T T  
U U  
V V

recall this regulation.

Q. It requires that in the bathrooms and latrines, you have connections to a water supply. That is the Building Authority requirement. That's why we need this certificate.

If you don't know, it doesn't matter. I think your lawyer can deal with that in his submission.

But my interpretation, my interpretation under the legislation, points 1 and 2, when they deal with regulation 10A, subparagraph (2) or subparagraph (1) of the "(In English) Building (Standards of Sanitary Fitments ...) Regulations", it deals with toilets, kitchens and showers.

A. Kitchens, you mean --

Q. (Chinese spoken).

A. Well, I haven't looked at the wording of the legislation, but our intention at the time was that if you can fulfil our requirements, then we will supply fresh water to the tenant. I think developers or other stakeholders, they understand and they sign away.

Q. But your intention --

A. Well, if according to legislation --

Q. (Chinese spoken).

A. No, I mean -- what you said just now is that the regulations we quoted were not about fresh water supply.

But if that is correct, then I say, at that time, our intention was to provide fresh water supply.

Q. You cannot be talking about fresh water supply, if you look at point 1. Point 1:

"(In English) I hereby certify ..."

The Water Authority certifies.

"(In English) ... that a permanent connection of a supply of ..."

You give people a choice. It can be filtered or unfiltered water. If it's fresh water, how can it be unfiltered water? There is only one type of fresh water supply, potable water.

CHAIRMAN: I don't know what the difference is.

MR HO: Perhaps the Authority can --

CHAIRMAN: It says "filtered or unfiltered".

A. Well, the majority of potable water in Hong Kong is filtered, but a long time ago, as Hong Kong developed --

CHAIRMAN: Do you mean treated?

A. Yes. It's untreated water. Unfiltered -- there is some treatment, but not comprehensive. So when you talk about fresh water supply, it's to washrooms or --

MR HO: Latrines, waste fitments --

A. It's washrooms. And the majority of Hong Kong, we use seawater for flushing, not fresh water. I think this is fresh water. I don't think that's what they mean.

CHAIRMAN: Well, my understanding, WWO is about water entering the unit. This regulation is about water that is drained away. I have looked at these two regulations, and they don't want any overlap. So incoming -- 46 is incoming. This is outgoing. Why do they have this certificate? Why it has to be signed by the Water Authority? I don't know why.

A. The lawyers can deal with that. I remember that in the Building Ordinance, it might not be this clause, the Water Authority has a document for buildings, and the Building Authority has to prove that we have fresh water supply for the building.

MR HO: So the Building Authority, he needs to have this document, and that is 25A. Look at the title, "25A".

CHAIRMAN: If you don't have this, you cannot get an occupation permit. It's for signing off the occupation permit.

MR HO: Right. The contractor has to submit, the AP has to sign, and it's submitted to the Building Authority, and under the Building Ordinance, all the works, the requirements have been fulfilled.

A. There is a fresh water supply.

Q. That's 25A. 25A of the --

CHAIRMAN: Wait a second. I just wanted to get back to the main theme. Are you talking about roles and

responsibilities of the Customer Services Branch?

MR HO: We are talking about paragraph 34. Under the  
monitoring system, the AP has to do a lot.

CHAIRMAN: I understand.

MR HO: I want to tell you, when the AP signs 132, they  
collect this document, it's for drainage.

CHAIRMAN: I would like to return to the theme. Are you  
staying that the AP has signed this, so it's not your  
responsibility?

A. No.

CHAIRMAN: Because ultimately, these certificates are issued  
by you, even though other people have signed and  
certified this and that, but you are still the  
goalkeeper.

A. Well, we will have to see whether it has been signed.  
We also have some steps.

CHAIRMAN: Mr Ho, you want to drive that point and tell us  
that even though the AP signs a lot of stuff, but you  
are still ultimately the goalkeeper.

MR HO: According to the legislation, the AP needs to sign.  
This part is about drainage.

CHAIRMAN: The AP has signed, and you can still reject their  
application?

MR HO: My interpretation of the law is that it is not about  
fresh water supply.

A. The legal requirement is not about drinking water. When the AP signs on it --

CHAIRMAN: Well, that's not about the fresh water pipes.

MR HO: Please focus on this part, in form 132. When the form 132 is submitted, you would grant this form to the AP. Now I am referring to this specific step.

A. Form 46, we don't have this issue.

Q. Form 46 is something else altogether.

CHAIRMAN: Something else altogether.

MR HO: If I'm correct, the AP would sign on parts I and IV of form 46, and in paragraph 34 you mentioned a number of steps, and those include the LP, and in the third step the AP signed on it, so you are confident.

So the fact that the AP signed on parts I and IV of form 46 enhanced your confidence on the solder?

CHAIRMAN: Can you repeat that? The AP signed on parts I and IV?

MR HO: Yes. You cannot say you are confident in the supply of safe drinking water because the AP signed on the form.

COMMISSIONER LAI: So, in other words, you are trying to say that the Water Authority has the ultimate responsibility?

CHAIRMAN: You wouldn't say no; right?

A. Maybe I misunderstood --

CHAIRMAN: What the counsel is saying is that even though the AP signed on it, the Water Authority is still the ultimate gatekeeper. You cannot just rely on the signature of the authorised person, and that you don't have to check it.

MR HO: So, in other words, the AP is playing the gatekeeper.

CHAIRMAN: Parts I and IV; right?

A. Perhaps I misunderstood. I thought you mean that the form 132 signed by the AP is about something else.

CHAIRMAN: Well, that is what he said, but that's not important. The key is to come back to parts I and IV of this form. You cannot just assume that you are confident because the AP signed on it.

A. Yes, I have heard that.

CHAIRMAN: So what's your response?

A. I think it's a confirmation for the pipes installed or to be installed.

CHAIRMAN: Well, it's a factor. Why would you say it's a confirmation or a certainty? The architects said they fulfilled the requirements.

A. That would be a factor.

CHAIRMAN: That's only a factor.

A. Right.

CHAIRMAN: And how much weight you assign to is another

issue?

A. Right.

MR HO: In paragraph 34, you mentioned five factors. I ask you these questions because you mentioned the APs.

CHAIRMAN: Are there any other factors? The AP and plumber signed on it. So these are two of the factors. What else? Are there any other factors to consider before you sign part V?

A. Our colleagues would pay visits.

CHAIRMAN: They would look at the alignments, location of water meters and so on.

A. They would look at the common or public part and they would make sample checks of the fittings. But we acknowledge the limitations.

CHAIRMAN: What are the limitations?

A. We cannot check every single fitting. We can only make visual checks because some things cannot be seen with naked eyes.

In other countries, they often adopt self-certification for licensed plumbers. In some countries, they wouldn't send someone to inspect the fittings.

CHAIRMAN: You have to look at the scale of the country. For the US and Canada, it takes hours to go somewhere, but Hong Kong is very small. I think it also depends on

C population.

C

D In terms of materials used, and the pipes and  
E fittings used, basically you never checked their  
F chemical compositions, or you won't check their  
G properties; right?

D

E

F

F A. For materials, under the annex of WWO46, we request  
G certain certificates.

G

H CHAIRMAN: So, in other words, they just have to provide  
I documents. The materials in annex 1 -- well, you listed  
J the materials out -- but when you eventually sign on  
K part IV, you said those outside of the annex must be  
L included, and for those materials, there are no  
M certificates at all. You won't check them; right?

H

I

J

K

L A. We focus on pipes and fittings in the annex, and as  
M I said before, we will update the list on the website.

L

M

N CHAIRMAN: Yes, I understand, but these are documentation  
O requirements. You won't check the actual samples?

N

O A. We will only do it in case of suspicions, when we make  
P inspections.

O

P CHAIRMAN: In other words, you won't do it; right?

P

Q A. We seldom did it before.

Q

R CHAIRMAN: I don't think you would do it.

R MR HO: Now let's look at part V of form 46. This is in  
S bundle B15.1, page 37625.

R

S

T CHAIRMAN: You said you have a Water Quality Sciences

T

U

U

V

V

Division. If I suspect that the water quality or solder is problematic, if I carry the materials with me, would the division or the WSD be able to conduct such tests, or you have to pass them on to other government departments?

A. We don't have the equipment. We might have to rely on private labs or the Government Laboratory. We have to see if the Government Laboratory would help; we have to see if they have the resources to help us.

CHAIRMAN: What I mean is that -- well, if the director has to enforce the Waterworks Ordinance tomorrow, then I am making random checks of the copper pipes and the valves for compliance. Even if you obtain the parts, it's useless, because the WSD cannot test them?

A. We would resort to private labs.

CHAIRMAN: In other words, you cannot conduct such tests, and there's even less incentive to test those parts?

A. Let me put it this way: we won't have the equipment and resources.

MR HO: Now let's look at part V, on page 37625.

A. All right.

Q. This is the part returned to the licensed plumber by the Water Authority. It says:

"(In English) Plumbing detailed in part IV are last inspected on ..." whatever date.

So part V was granted after the check.

"(In English) Pursuant to the Waterworks Ordinance and Regulations, no irregularities were found and the plumbing detailed in part IV is approved."

So, after the inspection, no irregularities were found with respect to WWO or WWR, and as such, part IV was issued?

A. We could not identify any problems.

Q. So, if we just look at part V alone, you confirmed that requirements under the Waterworks Ordinance and Regulations are followed.

A. As I said, there are constraints. When we make inspections, we can only do random checks and visual checks. We cannot possibly see all the materials and check every single part to see if they comply with the WWO.

CHAIRMAN: When you make checks, would you only inspect the items listed by the licensed plumber? Apart from those items, what else would you inspect? For those items, you would deduct points in the case of non-compliance.

Now, we have seen those items. A lot of them are to do with physical properties, alignment, installation of water meters, and so on. Apart from those items, what else do you check?

A. I can only give the big picture. Now we look at the

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C three main parts, on the entire water supply system,  
C whether it complies with the plans submitted.

D CHAIRMAN: So these are very high-level things. This is to  
D do with the alignment of pipes and plumbing.

E A. Second, we would do random checks on some fittings. If  
E we know samples or brands being used, we would do visual

F checks to see if they are correct. F

G CHAIRMAN: So are you referring to those listed in the  
G annex?

H A. Yes, part of them. We would check some fittings and  
H pipes.

I CHAIRMAN: So those pipes and valves?  
I

J A. Terminal fittings and so on. J

K CHAIRMAN: What else? What about the third area?  
K

L A. We would check water meters, to see if there are any  
L wrong connections. Sometimes, the water meters are very

M close to each other. Sometimes, meters are connected to  
M another flat and there would be issues with the service

N fees. And some waterworks and non-waterworks parts  
N

O might be mixed up and there might be contamination. We  
O

P will look at these things as well. P

Q MR HO: Thank you very much. Q

R CHAIRMAN: Thank you. Mr Lee. R

S Cross-examination by MR LEE S

T MR LEE: Please look at part 5 that you were looking at. T

U

V

A	<i>Annex: Realtime English Transcription based on floor / Simultaneous Interpretation</i>	A
B	Commission of Inquiry into Excess Lead Found in Drinking Water	B
	Day 50	
C	You said there are inspections, and you said you could	C
D	not find any irregularities, and as such you granted	D
E	an approval. You said you would test the water meter	E
F	connections. Would you send someone to test the water?	F
G	Would you test the water?	G
H	A. Are you referring to pumping water into the unit?	H
I	Q. The water connections are ready; right?	I
J	A. We would supply some water.	J
K	Q. What kind of test are you referring to? You would test	K
L	the water in the tap?	L
M	A. For internal service, we would check the three items	M
N	I mentioned. We seldom fill up the pipes.	N
O	Q. Does "seldom" mean never?	O
P	A. As I know, we do not do it, but I cannot say for sure.	P
Q	Q. But can you do it?	Q
R	A. Technically, it's possible, but we would look at the	R
S	need. We would look at the items I mentioned. If you	S
T	are to fill up the pipes and look at something else,	T
U	it's another issue.	U
V	Q. A lot of people ask about the taking of water samples.	V
	After people move in, the public rental units, if you	
	take samples after people move in, they might not like	
	it, but before that, you can do it?	
	A. Yes. Perhaps I misunderstood what you meant. It	
	depends on the year of completion of the projects.	

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 50 B

C Nowadays, when we make inspections, we would specify the C  
D testing point and we would check the solder to see if it D  
E contains lead. This is something we would do now. E

F Q. So, after the incident, after review, that is your F  
G procedure, but you didn't do that in the past? G

H A. No, we didn't do these two procedures. H

I Q. So, when you take water sample, how do you do that? Do I  
J you turn it on for two minutes, five minutes, ten J  
K minutes? K

L A. Two minutes, unless there are special circumstances. L  
M For new units, we might let it run for five minutes, M  
N because according to the guidelines, new units or vacant N  
O units, we have to let it run for five minutes. O

P Q. But if it's been occupied, then you would let it run for P  
Q two minutes. What's the difference between two and five Q  
R minutes? R

S A. There is a difference. S

T Q. Is there a big difference, regarding lead content? This T  
U Inquiry is about lead content. U

V A. I am not an expert but I can calculate -- if you V  
calculate the flow rate, you can calculate where the  
water has been. If you calculate the flow and time, and  
you also look at where the water was taken from, how  
long the pipe length is, and that's the difference.

Q. I will follow up later. I would like to ask -- there

C are some meetings, intra-departmental meetings. Have  
you heard of those?

D A. Which? We have a lot of intra-departmental. D

E Q. This is the Chief Secretary. This is Carrie Lam. She  
convened the meeting. E

F A. Yes. F

G Q. My understanding is that three bureaus and three  
H departments attended: Transport and Housing Bureau and  
H the Housing Department; there's two there. Over on your  
I side, there's a Development Bureau and Water Supplies,  
I and FEHB, Food and Environmental Hygiene Bureau.

J A. Yes. J

K Q. So three Bureaus and three relevant departments, and the  
L Chief Secretary convened the meeting. So there are at  
L least seven people.

M Did you attend? Did you represent Water Services? M

N A. Yes, I did attend those meetings. N

O Q. Did you try to participate in all of them? O

O A. Well, if I am in Hong Kong, I would attend.

P Q. It was convened by the Chief Secretary, so all the  
Q directors -- would she chair all the meetings?

R A. There were many meetings. The majority, I recall -- she  
R might not be in Hong Kong, but when she is in Hong Kong,  
S she would convene the meeting.

T Q. So your Bureau, the Development Bureau, did the

secretary attend?

A. It would also depend on the schedule. If he is in Hong Kong, he would attend; otherwise, the under secretary would attend.

Q. Well, the Transport and Housing secretary, he would attend?

A. If he is in Hong Kong, he would attend.

Q. The Housing director would also attend?

A. If he is in Hong Kong.

Q. The FEHD, it would be the same?

A. If they are in Hong Kong.

Q. And the Hygiene Department, Health Department, would also attend?

A. Right.

Q. The document I would like to direct you to -- I think I should refer you to a document. These intra-departmental meetings ran until 8 October and there were some 17 of them. Up until now, there have been more than 17 meetings; right? Up until 8 October last year, there were 17 meetings. How often do these meetings convene?

A. Well, I recall they were quite frequent initially, and then it dropped off.

Q. It dropped off after the Commission of Inquiry?

A. I cannot recall. It was quite frequent initially.

Perhaps by October-November it started to drop off.

Q. For example, we started the Commission -- it's in the news almost every day. Do you talk about the Commission of Inquiry matters, the process, the focus, at these intra-departmental meetings?

A. We didn't talk about the Commission. After the Inquiry started, we didn't have talk about the Inquiry itself.

Q. But if there were significant issues, you would talk about that, now we have this Commission of Inquiry?

A. Well, initially we were concerned about how to take water samples and how to help the affected residents, including Water Supplies, Housing Authority; they would deliver bottled water, water filter systems.

And aside from the Housing Department, schools, kindergartens -- we have to follow up on these issues, to see how we could help reduce the impact to residents.

Q. Just now you mentioned that you would take water samples as soon as possible. What do you mean?

A. We would have to arrange for staff. You need a lot of personnel to go through the estates and collect water samples. Then water samples that are collected, you have to submit it to the Government Laboratory or even private laboratories. So we had to deploy our resources effectively, and that needed co-ordination.

For Water Supplies, we might have to deploy retired

C staff to help out. C

D Q. Well, regarding water samples, did your department have  
enough manpower? D

E A. We needed extra help. E

F Q. From other government departments or ...? F

G A. I cannot recall. I think it was mostly from our  
department. The government chemist helped us test the  
sample. The samples we had to outsource; we had to get  
people to do it for us. H

I Q. Regarding the intra-departmental meetings, would you say  
these are frequent? Different Bureaus would be  
affected. So for major incidents, if there's no  
co-ordination, one Bureau would blame the other Bureau? K

L A. No, we don't blame each other. We co-ordinate. We  
usually co-ordinate efforts. If the WSD has difficulty  
with resources and can't test the samples, we will have  
to have government chemists help out. N

O Q. On this excessive lead in the water, the Chief Secretary  
is very concerned. We don't know where the source of  
the problem was, and she was worried initially. P

Q A. Our main responsibility is to see whether the water is  
safe and, if we identify the problem, do we have the  
appropriate resources. R

S Q. So your department would be the responsible department? S

T A. Our department is responsible for supplying water and  
U

monitoring the supply.

Q. So fresh water supply responsibility?

A. We are responsible for supplying and monitoring the water.

Q. You are supposed to supply potable, fresh water. So that's your responsibility, your department's responsibility.

A. So, when the excessive lead incident occurred, there were three committees. They had to ensure the reason for excessive lead, so the WSD had an expert group to look into this. We had to identify the cause.

Second, the Housing Authority also had a committee, to look into the system and see what needed to be remedied.

Third, we now have a Commission of Inquiry to follow up on this incident, and I believe, when the Commission has a conclusion, can identify the root cause. In my supplement, I said that if the Commission has any recommendations, the WSD will look into it very seriously.

So, yes, that is a responsibility.

Q. So, when you said you had an expert meeting, within WSD, when there's excess of lead in water, do you have your own experts?

A. We have a chief chemist.

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B	Commission of Inquiry into Excess Lead Found in Drinking Water	B
	Day 50	
C	Q. Mr Chan Kin Man?	C
D	A. Yes, Mr Chan Kin Man.	D
E	Q. That's his specialty.	E
F	A. The WSD, we have a chief chemist. He is the most experienced; he is the most familiar.	F
G	Q. Do you have any other experts?	G
H	A. The other staff are ancillary; they assist Mr Chan. If we convene an expert meeting, we recruit external experts, including material and chemical experts. In the expert group, we also invite relevant departments; the Housing Department, and other government departments participate as well.	H
I	Q. So these intra-departmental meetings, are there minutes?	I
J	A. There are minutes of meetings.	J
K	Q. No, I'm referring to the Chief Secretary meeting.	K
L	A. I remember there were some simple records.	L
M	Q. So it's circulated to everybody?	M
N	A. Yes.	N
O	Q. So you should have a copy?	O
P	A. I've seen these records.	P
Q	Q. You have not only seen them; you could take them away?	Q
R	A. Yes, I have a copy.	R
S	Q. Because you need to follow up.	S
T	A. Usually, I remember the meeting content and I will follow up immediately.	T
U		U
V		V

Q. Because you continue to participate in these meetings,  
you need to be aware of your counterpart's work?

A. So, aside from my personal attendance, I have other  
colleagues.

Q. So not just yourself. How many other people  
participated?

A. Some meetings, we will have three, some four. If the  
chief chemist is available, he will attend as well.

Q. So your department will have not less than three?

A. I remember three. The deputy of the Authority and the  
chief chemist will attend.

Q. So these intra-departmental meetings, who decided to  
convene that? Was it the Chief Secretary or did you  
suggest that?

A. The first meeting, I remember the Chief Secretary  
convened that and invited us to attend.

MR LEE: Chairman, I would like to examine a document. Is  
this an appropriate moment?

CHAIRMAN: Why don't you prepare yourself and we will start  
at 9.30 tomorrow.

(5.00 pm)

(The hearing adjourned until 9.30 am the following day)

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