2016年2月26日

上午10時04分恢復聆訊

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

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

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

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，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

李先生：主席，早晨。

主席：係。

水務署第六證人：林正文（水務署助理署長（客戶服務））宣誓繼續作供李先生繼續盤問

問：林生，琴日就係我係請你睇睇嗰個 Waterworks Ordinance 嗰度嘅。

答：係。

問：咁你有冇答案吖，而家？

答：我琴晚都返去問過啲同事，特別係檢控組嘅同事，咁佢過往嘅日子就都冇因為佢哋唔跟 BS standard 就去 prosecute 嗰啲有關嘅人士嘅。但係我哋一般嚟講，我哋嘅做法就係點呢，就係話如果見到--去地盤，我哋出去，我哋做 final inspection 嗰陣時候，發現咗佢嗰啲喉料或者譬如部件，係同佢報嗰啲，報嗰個 annex，即係我哋個 WWO 46 嘅 annex 嗰啲唔同，或者嗰啲規格係唔同嘅時候，我哋就會用一個扣分制，即係我哋十以--一路講開，嗰個叫做 WWO 1008，就扣佢分，就話要佢當為一個 defects，要佢要 rectify。咁樣我哋扣咗佢分，都係一個懲罰，一個方式嚟嘅。咁呢啲我哋都經常有做呢一樣嘢嘅。

問：即係呢啲就以前，事發之前都有做㗎嘞，扣分？

答：一路都做開嘅。

問：Okay，okay。

答：一路做開嘅。

問：你哋係咪即係--起碼你哋嗰方面就覺得呢個扣分呢個制度係合乎法定嘅規則嘅？

答：呢個都係一個...

問：呢個 regulation 冇講嘅，冇講明。

答：呢個就冇講到咁清楚，...

問：係，明白。

答：...喺呢方面。不過呢個係一個我哋 licensing authority 佢嗰個做法嚟嘅。

問：所以就--你聽到個法律意見，就即係唔可以因為佢哋唔跟 BS 嗰啲條件，而係提出刑事控訴嘅，係咪咁？

答：咁就唔係話咁樣講。即係如果真係嚴格上嚟講，我自己即係翻過一啲--咁嘅一啲--睇番嗰個條文，嚴格上其實如果真係佢有啲嘢唔跟佢一啲 standard，或者唔跟佢做，可以係根據 section 14(3)嗰度係...

問：好，我哋睇睇 section 14(3)。

答：嗄，可以--都可以...

問：14(3)，你講嗰個 ordinance 定係講緊...

答：係呀，ordinance 嘅，Waterworks Ordinance，即係如果佢跟--佢真係如果有啲做得唔好，唔啱，其實可以--嚴格上係可以根據 section 14(3)嗰度可以做一個 prosecution。

問：係嘞。但係點解--其實佢有犯過㗎，以前一定有犯過呢度㗎？

答：我哋以...

問：因為呢個好廣泛個喎，係咪？

答：嗄，就呢個就比較廣泛嘅，但係我哋一般嚟講，譬如有啲新嘅樓宇落成，佢有啲--我哋睇番 inspection，佢一般嚟講，都應該一個行政手段，用佢得--呢個所謂嘅扣分--罰分制度去處理呢一方面嗰啲 irregularity，我哋可以咁講。

問：即係話明明係可以罰，可以告，你哋嗰陣時即係到--起碼到而家為止，都唔預備告，只係用扣分算數嘞？

答：嗄，我哋一--而家個做法會係咁樣樣，處理一啲我哋所謂嘅呢啲 irregularity，唷 inspection 發現到嘅。

問：好嘞，我想首先問一問你，你而家呢個係--而家呢個部門係--中文係點叫呀？唔好意思。Customer service branch？

答：係，冇錯。

問：係咩嘢科呀？

答：客戶服務科。

問：客戶服務科。所以你等如--其實其中有一個職責，就好似警民關係科，你就係水民關係科咁上下，係咪可以咁講？即係同啲...

答：都係服務市民啫。

問：係嘞，係嘞。即係所以呢，因為咁呢，你變咗呢你就--關於你嘅--你個部門嘅職責範圍，你好多都好熟嘅，所以你個證人供詞係咁長，每一範都有講過嘅？

答：都主要都係客戶服務科嘅工作。

問：因為你服務客戶，所以好多你自己個部門要做嘅嘢，你要理解㗎，應該要，係咪？

答：我儘可能我去理解。

問：關於呢次，因為鉛水出現，照我嘅理解，就間中你部門都會派人去同啲居民傾，開晚會，有時有啲議員都喺埋度，咁樣大家傾，係咪？

答：同意，同意。

問：咁你有冇去過？

答：我冇。

問：但係你好--你知道你嘅...

答：我哋啲同事要去，好多啲居民大會佢哋都有去。

問：你會指示佢哋要去嘅，係咪？

答：其實就我哋有--主力就會係我哋有啲 operation 嘅同事。因為去啲居民大會，首先就我哋會--如果嗰個係已經定性咗係一個受影響嘅屋邨，咁我哋會即時會派人落去做一啲臨時嘅措施，譬如我哋派一啲水車，譬如即刻去安--臨時即刻去安一啲街喉，去畀嗰啲受影響嗰啲居民使用。咁呢啲工作，就會係我哋嗰個運作科嘅同事去，咁佢亦都會落去同居民講解埋呢啲工作。

問：係，即係你--起碼喺你嘅立場，你管佢哋㗎，你覺得佢哋應該要去嘅，係咪呢啲？

答：我覺得應該--我哋儘可能去配合喇，即係我哋儘可能。

問：因為太多就唔得喇，如果--譬如大家撞，咁可能就...

答：係，係，我哋儘--我哋--以我記得，我好多同事都有去嘅。即係 upon request，我哋都會去。

問：咁譬如有啲係當時係未曾定為係受影響嘅屋邨，即係仍然當佢係不受影響嘅屋邨。

答：係。

問：如果佢哋開呢啲咁嘅會，你哋會唔會去呢？

答：咁要睇下佢哋嗰啲議題係乜嘢嘢喇，我就唔係太過清楚。因為如果佢冇受影響，根本上我哋就未必會--我哋就唔會派啲水車，會同佢安啲街喉呀咁。

問：係呀，但係可能佢想問，「點解我哋呢個唔係呢？隔籬都係。」咁譬如話？

答：如果我哋答得到，我哋盡量去答喇，但係我諗我哋未必一定個個都會去。

問：未必一定，好，okay。

答：未必一定個個去嘞，呢啲。受影響嗰啲我哋一定會去。

問：咁就琴日石大律師問你嘅時候，你--我相信--我唔想再攞番嗰啲問題問你，不過可以係總結嚟講，如果有關嗰啲 components，嗰啲物--嗰啲件呀，有冇違背係 BS，英國嘅標準，唔能夠直接喺個水嘅含鉛嗰個程度度攞到嚟，唔係直接相比嘅，啱唔啱？譬如而家水係 9 個 micrograms per litre，咁你唔可以一定肯定因為咁呢，就冇一個 component 係唔符合 BS 喎，你唔可以咁講個喎？

答：諗...

主席：我唔係好明你個問題，再...

李先生：或者...

答：我有少少唔係好追得到。

主席：嗄，你應該話係 9.9，冇一個 component，係唔可以話符合...

李先生：或者我調一調問題，容易啲。

主席：係。

問：譬如而家驗咗啲水係 11 個 micrograms per litre，你亦唔可以肯定，所以呢有啲 component，一定係唔合乎 BS，可唔可以肯定呢？

答：如果佢超過 10，就呢個即係從世衞嘅角度嚟睇，呢個應該都即係...

問：你當佢一定有嘞。

答：...個食水安全。即係變咗有問題嘞，即係有食水安全，咁我哋就會--跟住會做一啲跟進工夫，去做...

問：好嘞，但係我聽...

答：...--去做調查喇，咁樣樣。

問：但係我琴日聽你講就係，但係如果去到 9，你都唔查個喎？

答：係呀，因為我哋覺得呢個係佢都係合乎呢個世衞個標準，都係應該食水係安全嘅，即係因為我哋咁樣。

問：係。但係我哋要明白，我相信你都同意，如果講一個--講 components 呢，又有水喉，又有駁位，好多嘢㗎嘛。

答：嗄。

問：咁有一啲部位，可能係令到啲水含鉛嘅機會係好細好細嘅，有冇嗰啲咁嘅？有啲就會高好多嘅。

答：所以要睇下嗰個系統，一般嚟講，一個系統有好多配件，有喉件，...

問：你--得，得，係嘞，有喉件，...

答：...又有啲 pipe joint。

問：...有水喉添，係咪？

答：係，有水喉，有配件，有 pipe joint。

問：咁你同唔同意喺咁多配件或者喉件之中，有啲係令到啲水含鉛嘅機會係大過其他嘅？唔會相等㗎？

答：係呀，係呀，即係睇個數量喇，呢啲當然。

問：邊啲係含鉛嘅機會--即係令到啲水含鉛嘅機會大啲呢？

答：其實樣樣都有機會嘅，即係如果...

問：係，同樣機會？

答：即係如果樣樣都合規格，就應該安全嘅。

問：唔。

答：但係如果你話可能有啲--某啲嘢唔合規格，就呢個真係要去調查先知邊啲唔合規格。

主席：唔係，我諗李大律師你嘅意見就即係--因為我哋睇番 Professor Lee 嗰個 report，咁佢--首先我同意你講嘅說法先，不過就係譬如嗰啲 gate valves 嗰啲，大嗰啲 valves，其實嗰啲喺一個 system 裏面，即係我哋而家講緊由個 meter room 去到個...

李先生：係，水喉--水龍頭。

主席：係嘞，其實 involve 呢啲大嘅所謂部件嘅數目係好少。咁你睇番 Professor Lee 個報告，其實佢話最主要就係嗰啲 Ts and bends 吖嘛，嗰啲 Ts and bends 其實即係你--係嘞，你當佢係部件又得，你當佢只不過係一個 connection--一個 connectors 又得。咁其實係嗰啲部件--都唔係嗰啲部件出問題，係因為嗰啲部件要做 soldering，所以先至係嗰啲部件嘅 soldering 嗰度呢係出問題。你明我意思嗎？

李先生：明白，明白。

主席：所以其實即係如果你講到--你睇番 task force 嗰啲 reports，佢有影晒嗰啲部件出嚟，其實大嗰啲部件，其實相對嚟講個數目係好少，亦都未必一定係 contribute 到去嗰個最終嗰個 concentration。

李先生：明白，明白。

主席：所以其實--即係我就係咁樣樣講。如果你話「啊，我要 immediately

去減低呢一個含鉛嘅 concentration」，其實某程度上--因為點解呢？你一拆，你基本上係要拆嗰啲 Ts and bends，你一拆嗰啲嘅時候，基本上就連個大嘅部件都拆埋。當然你可以安番舊嗰個部件上去，冇問題，不過實際上嘅工夫就唔差得幾遠。

李先生：明白。明白。

答：同意嘅。同意。

問：因為你哋係好早期已經係覺得係嗰個水含鉛嘅主要元兇，就係嗰啲焊料含鉛，啱唔啱？

答：係。

問：一早已經睇到㗎嘞。

答：係。

問：所以你就當然有幾個方法可以試下係唔係嘅，水係一個方法，啱唔啱，驗水，驗水辦？

答：係，係。

問：另外你話琴日有啲紙驗佢嘅，都係方法。

答：係，係。

問：有啲用 X-ray F.一個方法。

答：唔，唔，唔。

問：仲有冇？

答：我諗呢啲比較吸--比較普--一個通常會用嘅一啲方法。

問：Okay。你就嗰個 X-ray 嗰個 fluorescence 嗰個呢，你就得一部機咋，係咪？

答：我哋都有嘅。

問：有幾多部？

答：我哋有--都有好幾部，買咗好幾部。

問：貴成點，大概？

答：都唔平，聽講唔平，都...

問：貴成--你唔知㗎？你唔知？

答：我實際個--因為唔係我負責親手買。

主席：好似話兩萬幾蚊。

答：個--係，都好貴。

主席：好似上一次我哋去嗰陣時，...

答：好貴。

主席：...好似話兩萬幾蚊。

問：係咁上下喇。

答：幾萬蚊，幾萬蚊一部。

問：幾萬蚊，okay，okay，okay。你有幾部。貼紙嗰啲就好平㗎，係咪？

答：貼紙就相對會平啲。

問：唔係，梗係平喇，平成點先得㗎？知唔知？

答：貼紙就我諗都即係十幾蚊一塊有㗎嘞，我諗都應該係。

問：Okay，好嘞，所以而家如果睇水嘅含鉛量，就當然係一個好嘅指標，你同唔同意？

答：係吖，係一個好嘅指標，當然。

問：當然我知道你哋一定要畫條線㗎，喺某一度要畫條線㗎。

答：係，係。

問：你就畫條線就 10 或者以上，你就覺得係違咗個 BS 嘞？

答：係。

問：石大律師就話如果 9，都好近，好近喇，都分分鐘可能有嘢，有嗰啲鉛--含鉛嗰啲焊料喺度喇。

答：係，係。

問：因為都係--個手工都有問題㗎嘛。如果手工做得好同唔好呢，都可能令到好多--多啲鉛，或者少啲鉛㗎，啱唔啱？

答：係，同意。

問：係。所以如果去到超過 10 嗰啲，或者 10 以上，就可能手工都唔好嘞？

答：唔。

問：咁又用咗含鉛嘅焊料嘞？

答：唔，唔。

問：即係你估到估到㗎喇，啱唔啱，...

答：係。

問：...用普通常識？好嘞，如果係 9，手工冇咁曳，不過含鉛嘅焊料嘅機會都好大個喎，係咪？

答：唔。

問：同唔同意？

答：係。

問：即係當然唔係你決定喺邊度畫條線㗎。

答：係，係。

問：所以喺鉛水，其實係一個好嘅指標嚟？

答：唔。

問：亦呢主席都問你，因為你嗰啲水--個來源嗰啲水喺街喉出面嗰啲，係正嘢嚟嘅，大家都接受嘅。

答：唔。

問：係冇含鉛嘅，差唔多。

答：係。

問：係咪？含都係 detect 唔到嘅，啱唔啱？

答：唔，唔，唔。

問：咁若果你入到嚟裏面嘞，去到個水箱上面，你驗過都冇事嘅，都係正嘅。落嚟，咁去到個水龍頭嗰度，嘩，如果有 2，或者 3，咁你都知道梗係裏面有啲問題，係咪咁大問題，另外一回事。

答：唔，唔，唔。

問：即係都有含鉛㗎喇，不過未超標，咁你哋就唔處理，係咁嘅情況，啱唔啱，講緊？

答：係，係。

問：所以一見到 2、3、4，其實都話知道有問題㗎嘞，不過唔足夠令你哋採取行動，係咁解嘅啫？

答：即係未必一定係 2、3、4 嘅，即係...

問：5、6、7、8 都係㗎。

答：即係我哋基本上都係跟番世衞個標準。

問：係。所謂世衞標準，即係唔到 10，你哋就唔覺得佢會係違背 BS，係咁解啫？

答：即係食水安全個角度睇。

問：係嘞。好嘞，既然係咁，若果你有啲水辦喺度，有啲人已經同你驗埋嘞，即係譬如，每一座公屋，每一座都有人去抽咗水辦，咁呢個水辦

你即係變咗可以每一座公屋，你都有啲 guideline 畀你個囉喎，有啲 indicator 畀你個囉喎，係咪？

答：係。

問：係嘞。咁你望落去，如果係 2、3，咁就唔理，9，你就有啲擔心，不過都唔郁，因為你有條界畫咗喺度，啱唔啱？

答：唔，係。

問：但係如果係 10，你就一定處理嘞？

答：係，係。

問：同埋你亦將嗰個成個屋邨，都當為係受影響嘅屋邨，啱唔啱？

答：其實呢個係房委會佢哋有規定。

問：房委會佢哋嘅，你知道㗎嘛？

答：係，我知，我知。

問：咁所以呢個後果你係知嘅，幾時至會一座公屋，或者一座--成個邨，係由非--未--不受影響變為受影響，你知道就係嗰條線嘞，10？

答：係。

問：因為係佢哋決定嘅？

答：唔，唔。

問：房署決定，但係你知嘅？

答：唔。

問：咁係咪攞水辦就變咗好重要個囉喎？攞乜嘢水辦變咗好重要個囉喎？

答：同意。

問：你--係嘞。

答：同意。

問：因為譬如你話係隔夜水嗰啲，大家知道係煲咗㗎喇，點都--有啲係完全冇事嘅。

答：係。

問：如果佢屋裏面所有啲水喉駁咗--冚嘢吟全部合乎 BS，同埋又可能唔用嗰啲 soldering 添，用嗰啲 mechanical 嗰個駁嘅方法，係咪？

答：係。

問：即係由你個街一路入到去，去到水龍頭都完全冇事。

答：唔。

問：因為個 Professor Lee 係驗到好多係 000，0.000 個 per cent，即係冇事㗎，由頭到尾都冇事㗎。

答：唔。

問：好嘞，咁嘅情況下，如果你係攞隔夜水同唔隔夜水，冇分別。即係如果呢啲 000 嗰啲呀。

答：唔，唔，唔。

問：因為根本都冇嘅，你幾時去驗都冇㗎，啱唔啱？

答：唔。

問：但係如果有啲唔係 000 嘞，有啲根本真係用咗鉛，喺個焊料度嘅，咁我哋唔知佢幾多，有多，有少，喺個水龍頭出嚟嗰啲水。但係如果係隔夜水，就 10 嘅--譬如用隔夜水係 10，但係沖咗兩分鐘，肯定冇 10，你知喇。

答：唔。

問：甚至可能係 2 都得個喎，可能仲低啲都得個喎。

答：係。

問：就照你個經驗，係咪？

答：係，係。

問：所以抽咩嘢水辦去驗，變咗係好重要，你同唔同意？

答：係，我同意你嘅講法。

問：係嘞。咁如果呢--譬如而家呢啲水積聚喺我個廚房嗰度嘅，咁當然佢一路咁樣嚟喇，呢度就個 meter room，呢啲係凍結嘅。而家你知道喇，meter room 仲犀利㗎嘛。

答：唔，唔。

問：咁你呢度都可能有啲㗎嘞。

答：唔，唔。

問：譬如積住喺度，咁我而家就開水喉，開個廚房水喉，如果我一開，就攞嚟煲水，煲水嘅，跟住飲㗎嘞。

答：唔。

問：咁一路可能呢啲都有，就算呢啲唔係出呢，呢啲都有--有含鉛㗎喇嘛，係咪？

答：唔，唔，唔。

問：即係當佢呢度係有用咗含鉛嘅焊料，okay？

答：唔，唔。

問：Okay。咁我呢啲如果你唔--一開水喉，如果你話驗--我唔驗呢度，唔驗呢度，我開咗佢兩分鐘先，咁呢啲冚嚇吟出晒嚟個囉喎？

答：唔。

問：然後你至驗我呢個廚房嘅水龍頭，咁就分分鐘肯定唔超標喇，如果隔夜水都係 10，開完兩分鐘，一定冇 10㗎喇。

答：唔，唔。

問：咁你就唔跟進嘞？

答：唔。

問：係咪？所以有冇違背咗 BS，你冇法子查個喎，你唔查㗎嘞，一定唔查

㗎，啱唔啱？

答：係。

問：咁就算唔係 10，就算係 15，一樣嘅啫，因為沖咗之後，都唔會有喺度㗎喇，係咪？同意吖嘛？

答：係。

問：好嘞，調番轉，如果沖完兩分鐘，都有 10 嘅，就好嚴重個囉喎，係咪？

答：唔，係。

問：咁如果唔--譬如沖完兩分鐘，都有 10，如果你連兩分鐘都唔沖，咁呢個用戶，譬如我一開呢個水喉，咁可能 20、30 都可能個喎，用嗰啲嚟係食，或者係飲水個喎，係咪？

答：唔。

問：你明白吖嘛？

答：我明你意思。

問：所以有兩個角度我哋要睇嘅，一個角度就係另--係一個有冇違背 BS 嘅指標，等你可以跟進有冇違背--有冇唔跟 BS 啲喉嗰啲嘢，係咪？另外一個就對個居民嘅健康問題亦有影響，同唔同意？

答：嗄。

問：兩樣其實都重要㗎，係咪？

答：係。

問：好嘞，咁呢件案，你一路都有跟得好貼㗎？

答：唔。

問：而家你知道有啲係 main contractor 喺度？

答：唔。

問：Sub-contractor 都喺度，licensed plumber 又喺度，咁你諗下，

如果係由佢哋嚟揀水辦，點樣驗嘅？由佢哋揀嘅，佢哋係咪全部都揀沖咗兩分鐘嗰隻喇，係咪？因為冇晒證據喇嘛。

主席：如果...

李先生：如果佢哋揀水辦。

主席：如果佢哋揀。

答：如果佢揀，我唔可以代表佢哋講喇。

問：不過如果你係佢哋...

答：即係我哋自己有內部嗰個原則，我哋有指引，同埋自己點樣去做。

主席：佢哋有佢哋嘅 protocol 要佢哋...

答：我哋有自己嘅 protocol，至於 contractor 係點樣攞...

主席：...點做㗎嘛。

問：但係我想--嗰啲唔問你都得㗎，你都知道㗎。即係如果係有關人士，梗係想嗰隻沖咗佢至驗喇，因為對佢哋冇證據吖嘛，係咪？

答：係，係喇。

問：但係喺居民嗰度，因為你接觸居民都接觸得多吖嘛。

答：係。

問：你從居民個健康個角度，你係咪覺得應該驗隔夜水呢？因為分分鐘佢哋會飲㗎嘛，同唔同意？

答:即係我哋頭先都講我哋有我哋自己嗰個 sampling 個 protocol，...

問：我明白，我完全明白。

答：...我哋自己嗰個做法。

問：但係你因為同啲居民又要接觸㗎嘛？

答：係。

問：你都關注佢哋㗎嘛？

答：所以如果真係居民有呢個擔心，我諗嗰本小冊子我哋都...

問：好，明白。

答：...--跨部門嘅小冊子出咗呢就話，如果真係擔心，就盡量 flush 喇，即係李行偉教授都有講呢樣嘢。

問：係，係。

答：即係話你 flush 咗半分鐘或者一分鐘，都好難將你所有嘅--即係真係有機會出現嘅重金屬嘅風險減低㗎嘞。

問：明白。

答：呢個...

問：你呢度呢，教人地一分至兩分添。

答：係，即係...

問：但係點解你一分至兩分，又唔係直情兩分呢？

答：我諗個個屋企嗰個水喉嘅長度，或者嗰個...

問：係，佢哋唔知吖嘛。

答：...--嗰個 static 個時間又唔同，咁呢個我諗...

問：佢哋呢--呢個本子冇話㗎嘛，「喂，你睇下你條水喉，係離開嗰個--嗰條--上面落嚟嗰條水喉近呢，就一分鐘夠嘞；遠嗰啲，就兩分鐘。」你冇咁講嘅，但係佢哋搵唔到㗎嘛？

答：即係一般啫，即係一般喇。譬如李行偉教授，佢就--佢比較多啲數據，

佢提到就話可能半分鐘至一分鐘。咁呢個佢有--因為佢做咗好詳細嗰個分析，所以佢有個咁嘅說話。

問：唔係，呢個都唔緊要，不過其實係清晰好啲嘅，係咪？

答：係，同意，同意。

問：當然兩分鐘，就一定穩定過一分鐘。

答：越長當然係越好喇，呢個當然呢個係...

問：但係亦可能佢唔需要咁多嘅，咁咪變咗啲咗啲水囉。

答：可能未必需要。所以我哋都建議，如果你呢啲水能夠--每朝如果真係咁樣做嘅時候，沖一沖，就搵啲地方--搵啲盤或者一啲筒裝一裝佢，愛嚟用其他用途，咁呢個都係一個...

問：啱。

答：...比較環保嘅做法。

問：啱。但係你要明白，喺一個居民嘅角度，住公屋嗰啲居民嘅角度。

答：係。

問：佢哋梗係睇到呢件事發生喇，電視又有，報紙、新聞都日日有，係咪？

答：係，同意。

問：咁佢哋梗係關心，「喂，我究竟呢座樓宇有冇中招㗎？」

答：唔。

問：一定會關心㗎。

答：係，同意。

問：因為你接觸佢哋多吖嘛，係咪？

答：唔，係呀。

問：咁你如果你話畀佢聽「喂，你呢個唔使驚喎，唔受影響個喎。」咁佢梗係問你「點解呀？」咁你要答個喎，「因為驗過水嘞」，係咪？

答：係。

問：早期就你抽樣，即係唔係驗好多，收屘就越嚟越多嘞，係咪？

答：係。

問：而家你可唔可以話每一個樓宇--每一個公屋嘅樓宇都驗過呢？

答:如果跟番房署嗰個同--我哋同房署一齊合作攞水辦,應該係就做晒嘅。

問：應該做晒嘞？

答：做晒㗎嘞。

問：但係要相當耐時間至做晒吖嘛？

答：哦，都做咗好幾個月，因為去到--7月去到--做到12月。

問：係嘞。

答：都好幾個月做咗。

問：但係所有嘅水辦，所有嘅水辦，都係因為根據你個部門個意見，全部都沖咗水兩分鐘，或者五分鐘後至攞嘅水辦？

答：係，我哋嗰個protocol係咁樣樣。

問：係。咁樣，如果你同呢啲居民講，公屋嘅居民，你話「你呢個冇影響㗎。」「點解冇呀？「抽水辦冇樣吖嘛。」「咁呢個抽水辦係隔夜水吖，定係沖咗兩分鐘㗎？」「哦，沖咗兩分鐘嘅。」咁佢點安心呢？

答:即係正如我頭先講，即係話可能--即係呢個--而家呢個抽水辦呢個咁嘅議題，我諗之前我哋啲同事都--幾位同事都--大家都討論咗好耐，咁呢個我諗都--大家即係好清晰大家個立場。咁...

問：係，我知，但係你答我呢條題目喇。如果居民...

答：所以我都會...

問：你同唔同意我睇法？

答：...--依番嗰本書仔講，即係如果居民有呢個擔心，我哋建議佢去沖一沖先，咁先至去飲用，咁呢個就會好有幫助佢，減輕佢呢方面嘅擔

憂。

問：但係你...

答：呢個係一個比較實際嘅一個方法。

問：但係另外一個實際嘅方法，就係再做一次水辦，做隔夜水嘅，咁起碼你要同佢講，譬如話「委員會有個咁嘅建議，或者點樣，我哋而家再做一次嘞。」因為主席成日都叫行多一步，咁我哋都行多一步嘞，都冇，所以你就安心。不過如果真係仲唔安心呢，你咪開開個水喉先囉。」可以咁講㗎嘛。

答：係。

問：同唔同意？

答：咁呢個真係我諗要再詳細考慮一下，因為我哋而家暫時我哋個部門嘅立場，都講過就我哋...

問：我明白。林生，點解我問你呢，你部門已經好多人嚟過㗎喇。

答：係。

問：佢唔答我啲題目㗎，你呢係好--我睇你呢，你直情係答㗎，你係肯答嘅人，所以我...

答：我嘗試喇，我盡我能力。

問：同埋我趁你--因為你經驗多，你就知道晒，同嗰啲市民關係又好，係咪？

答：我經驗唔係咁多嘅啫。

問：我唔想害你。

答：唔係，但係我儘可能我答喇，但係....

問：所以我唔係讚你哋。

答：唔係，唔係，唔係，我冇咁嘅意思，多謝你先，李大狀。

問：我冇讚你吓。

答：冇，冇，冇，即係我哋盡量去服務客戶。但係如果真係--你都知道呢，要--我哋 7 月做到 12 月，差唔多做咗五個月。

問：係。

答：攞咗--如果我冇記錯，攞咗--房署攞咗七千幾個辦，我哋日以繼夜，日以繼夜。

問：但係全部都係沖左兩分鐘？

答：即係我只係講，即係嗰個就算係咁樣樣，我哋都用咗咁多嘅時間。

問：係，係。

答：咁人手--即係我好多同事都講，就星期六、星期日都冇放過假。

問：明白，完全明白。

答：有啲做到四、五點，咁大家都可能唔知道嘅。咁我哋要去達到呢個目標，...

問：我一定知道。

答：...其實最大個原則就係希望啲市民嗰個食水安全係得到保障。

問：當然，當然。

答：呢個我哋好希望做到呢樣嘢。咁因為...

問：我完全冇話你哋啲員工，尤其前線嗰啲，係偷懶或者唔勤力，你淨係做呢一個研--呢一個咁嘅審訊，我而家都瞓得好少覺。我諗個個大律師都瞓好少覺，大家都有好多嘢做，你明唔明？

答：我同意，所以我好欣賞大家嘅努力。

問：但係呢--但係問題點呢，有一點我一定要批評你個部門，唔係你，你個部門，就係嗰條界。你唔到 10，就唔理，跟住又啡水喉嗰度，攞命，你可以--而家係批評呢度咋嘛。

答：我...

主席：呢個我哋唔好再...

李先生：係嘞。

答：即係呢個我哋都討論咗好耐喇。

主席：...花時間。係呀，唔好再花時間。

問：即係你--但係你同意我頭先嘅講法，係咪？啲居民係...

答：我完全理解你個即係個睇法。

主席：係。

答：我就--我都希望你理解我哋嗰個立場。

問：好，得，我唔返去呢度嘞。但係當嗰啲水辦，係全部都啡咗兩分鐘嘅水辦，對你執法嘅難度係加咗喎。你而家睇唔到㗎，沖晒去咯。

答：係。

問：啱唔啱？同意吖嘛？

答：唔，唔。

問：係咪？

答：唔，唔。

問：即係唔好講啲居民嘞，講番你哋呢，你個立場，執法個立場，你都--即係話嗰啲證據都沖咗去呀。

答：唔。

問：即係等於有時警察入去--衝入去嗰啲屋度，嗰啲人藏毒，佢沖落去--就喺廁所度沖咗去咋嘛，想。

答：唔。

問：係咪？沖咗去咋嘛，啲證據冇咗吖嘛。

答：唔。

問：係咪呀？

答：係。

問：Okay。仲有一度你哋困難嘅就係，如果--因為而家房署做咗咁多水辦，每一座公屋都做咗嘞，啱唔啱？

答：係。

問：如果嗰啲水辦係兩樣都做嘅，隔夜水做一個水辦，跟住沖咗五分鐘，甚至一個鐘頭後再返去做一個水辦，你有兩個水辦呢，就你哋而家查就好容易調查嘞，每間屋都有，每間屋都有，啱唔啱？

答：係。

問：而家冇咗嘞，同意吖嘛？

主席：冇咗？

李先生：即係冇咗呢啲...

答：即係冇咗啲...

李先生：...機會，呢個機會冇咗。因為...

主席：哦，唔係嘅，可以再做過。

李先生：唔係，佢可以再做過。

主席：係喇。

李先生：係嘞。

問：你覺得應唔應該再做過？

答：其實我頭先講咗一半嘅，即係我哋頭先講 7 月至到 12 月，我哋即係日以繼夜，夜以繼日去做呢啲工夫，做咗--同房署攞咗，我如果冇記錯係七千幾個水辦，嗰個工作量，人手係多到即係我哋都未試過--未處理過，啲人要--除咗要通宵達旦做，仲要捉--即係搵番啲退休嘅同事返嚟去做。

問：係。

答：咁係做咗今次嘅 exercise。跟住你話「哦，可唔可以再做多次呢？」即係你做另外一次呢，嗰個工作量，或者嗰個規模，一定唔會比以前嗰個少，所以呢個都要衡量番個資源嗰樣嘢。咁...

問：當然，如果--但係你可唔可以用貼紙呀，或者攞 X-ray fluorescence？

答：即係都要--我諗要考慮番，即係話實際上要--因為房署屋邨係數目係相當大。

問：林生，你話考慮呢，我接受，你話㗎嘛。

答：唔係，我即係話如果我要--我真係要做呢樣嘢，我要考慮呢啲咁嘅因素，即係頭先我哋講嗰啲嘢。

問：但係你覺得係...

答：即係譬如我講番喇，譬如話李行偉教授，佢都用咗一段時間做一啲--複查一啲咁嘅--我哋嘅工--抽水辦嗰啲工夫，咁普遍上佢個意思都係話 largely 都係同我哋所做嘅差唔多嘅，嗰個結論。

主席：我覺得你哋唔好成日攞嗰一句去放大嚟講，因為 unaffected 嘅 estate，李教授係做咗六個嘅啫。

答：嗄，即係...

主席：所以就唔好話「啊，李教授做咗嗰六個，於是就應用晒我全香港所有其他嘅屋邨。」

答：係。

主席：咁就似乎 read 太多入去李教授個 report 嗰度。即係佢話 by--佢其實 largely confirm，咁佢--我成日都講，人哋客氣啫，係。

李先生：啲教授好客氣㗎。

主席：人哋寫出嚟客氣啫，嗄。

問：你明白吖嘛？

答：我明白你意思。

問：同埋佢哋好少時間做呀，兩個教授，好少時間。

答：佢都用咗--佢都做咗唔少嘅單數。

問：你哋急吖嘛，佢人手又唔夠你哋多吖嘛。

答：佢--係，我作出--我同意嘅，不過佢都有間大學去做佢嘅 pro. cert.。

問：係，係。好嘞，...

石先生：我諗比較重要嘅一點，其實即係主席都講過，教授都講過，terms of reference 唔係叫佢真係走去 check and verify 邊啲係 affected，邊啲係 unaffected。

主席：係呀，係呀，唔係。

石先生：其實佢即係 by the way 就 largely confirm，但係佢主要就係搵出個含鉛嘅來源。

主席：係，佢唔係做呢樣嘢㗎。

問：佢就 confirm 你哋，就即係話嗰個源頭，啲水含鉛嘅源頭，就係出自嗰啲 solder 含鉛，其實最主要就係呢度有個分別，係咪？

答：係。

主席：係呀。

問：但係佢哋--你都知道佢哋個教授嘅意見，就係要攞隔夜水嚟做水辦㗎嘛，好清楚㗎嘛。

答：係，佢亦都係一個特別嘅 sampling 嘅 protocol，...

問：係囉。

答：...嗰個比較--即係上、中、下五段時間攞水。

主席：係呀。

答：佢呢個比較特別啲，我諗我哋都要...

主席：即係其實你...

答：...去睇下佢個--嗰個...

主席：唔係，你諗深一層，其實都有--你哋個 leaflet on one hand 叫人哋沖水一至兩分鐘就話安全；另外一方面，test 究竟水裏面有冇鉛，就又要人哋沖水兩至五分鐘，咁你睇唔睇到個 contradiction 喺度？

答：唔。

主席：你一方面查水裏面有冇鉛，就要人哋 flush 兩至五分鐘，但係你個 leaflet 出嚟，就話「啊，嗱，確保你屋企冇鉛呢，你就沖一至

兩分鐘喇。」

答：唔。

主席：係咪？

答：我...

主席：你 on one hand 講定一樣嘢，on the other hand 又講另外一樣嘢，跟住兩樣嘢加埋都唔 match 嘅。

問：你睇唔睇到？

答：呢啲係一啲 general 嘅一啲 advice。

主席：唔係...

答：即係我同意嘅。即係李教授佢自己嗰個 pro...

主席：你自己都打交嘅，根本上嘅講法。

答：即係其實重點就係話「如果即係喺 stagnant water 嘅時候，你最好沖一沖喇。」嗰個意思係咁樣樣，但係你係咪計到半分鐘、一分鐘，或者兩分鐘，咁呢個係有...

主席：我哋唔係計時間長短嘅問題，即係好粗略咁樣樣就咁睇落去，都已經覺得有矛盾喇。

問：係咪？

答：同意。

問：因為主席同我哋大家都係用 common sense 嘅角度嚟睇㗎咋嘛。

答：唔。

問：係囉，我哋又唔--我就完全唔係專家，因為。主席就半個專家，我就完全唔係。

答：係，同意。

問：好。所以我而家就話，你睇下同唔同意，就因為個抽水辦嘅問題，到到而家為止，究竟香港政府面對呢個公屋先喇，嘅食水含鉛超標呢個問題，到而家都唔係好清楚？即係唔知道大成點嘅，淨係係咪十一--係咪淨係十一個屋邨呢？定係仲有其他呢？唔係好清楚，你同唔同意？

答：都唔可以咁講嘅，即係佢哋都應該定咗性嘅，即係。

問：嗄，定咗性，定咗性就係嘞。

答：呢個我諗房委會佢哋都有咗一個嘅意見响呢度嘅，咁...

問：但係定咗性，好--完全可以出錯㗎嘛，係咪？

答：咁我哋都有個--即係一個科學嘅基礎，...

問：如果你個...

答：...去做呢個咁嘅決定。

問：唔係，我呢度我唔同意，你唔係科學基礎喎。如果跟兩個專家咁樣講，攞埋隔夜水，就係科學基礎嘞，兩邊都有。

答：唔。

問：係咪？

答：係。

問：你知唔知道其實個 task force--你知道有個 task force 嘅存在㗎？

答：你講水務署定係...

主席：水務署個 task force。

問：水務署。

答：房署個 task force，係。

問：咁你哋個副署長係做主席㗎？

答：哦，嗰個水務署嗰個係。

問：係咪？你知唔知道佢早期開會嘅時候已經決定咗係抽水辦，兩樣都要個喎，隔夜水又要喎。佢唔係隔夜水，佢即係停咗好耐嗰啲水，同埋呢係沖咗水喉，然後用，兩樣嘅水辦都要個喎，你知唔知？

答：佢詳細情...

主席：你講 task force 嘅 investigation，係咪？

李先生：嗄，佢哋...

主席：就唔係水務署驗 affected 嗰個？

李先生：唔係，task force 係叫佢哋驗，就兩樣都要。

主席：係。

問：你知㗎嘛？

答：其實我就冇參與個 task force 嘅工作，不過...

問：得，但係你知唔知？

答：...我知道佢有，佢唔...

問：係嘞。

答：...--佢要佢 investigation，佢有個唔同嗰個方法去睇下嗰啲部件、喉管嗰個釋放含鉛嗰個量係幾多，...

問：因為佢哋...

答：...所以有啲 stagnation 嘅 sample 攞咗。

問：係嘞，係嘞，呢度。所以佢哋呢度...

答：咁呢個同我哋一般抽水辦嗰個陳健民先生嗰個驗嗰啲食水係咪安全飲用嗰個 5667 part 5 嗰個係有少少唔同。

問：係嘞。因為 task force 嗰度，佢裏面都有專家㗎嘛。

答：係，佢係...

問：即係佢喺早期已經話，攞水辦就兩樣都要嘅，你同意吖嘛？

答：佢做個 investigation 係咁樣做。

問：係喇，係喇，okay。

答：個目標係--個目的係有少少唔同。

問：係，係。個目的點有少少唔同呢，我同意嘅。因為佢哋呢一方面，因為我都睇到兩個可能性，兩個好嘅理由。

答：係。

問：一個就係等點樣教市民短期點樣處理呢個問題。

答：唔。

問：係咪？即係你開水喉，尤其是你食水嗰方面，一定要開你就話一至兩分鐘，然後至好用啲水，喺廚房嘅水喉；或者第二度水喉，你用嚟飲水，都要㗎嘞，同唔同意？

答：係。

問：咁呢個一個好嘅理由需要調查啲水辦，啱唔啱？

答：唔。

問：所以兩個都要。另外一個，就想知道究竟呢個--今次出咗事嘞，究竟係影響到幾多屋邨，佢要知㗎嘛。

答：唔。

問：係咪？

主席：Task force 就唔使知嘅。

李先生：嗄，嗄。

問：但係政府--最終政府都要知㗎，啱唔啱？

答：要搵個原因出嚟，主要。佢目的主要搵個原因出嚟，嗰個原因喺邊度咁樣。

問：係。好嘞，因為你哋水務署，就算嗰陣時唔查，你遲早譬如上頭一定會有嘢問你嘅，「喂，究竟香港點㗎？」

答：唔。

問：係都係問你嘅部門嘅啫？

答：唔。

問：係咪？有啲住私樓嗰啲都緊張㗎嘛。

答：唔。

問：啱唔啱？咁政府--一個政府要處理晒所有香港嘅樓宇㗎嘛，咁就梗係你哋㗎喇，係咪？

答：係。

問：Okay。你就話同埋房署大家一齊合作，啱唔啱？攞水辦。

答：係，我哋--因為房署即係搵咗我哋去幫手去攞水辦。

問：即係一開頭已經搵㗎嘞？

答：係，一開頭已經搵。

問：咁一開頭呢，即係可能連 task force 都未開會之前已經搵㗎嘞，會唔會？

答：實際我就唔係好記得。

問：即係求其一--一開始要攞水辦，就攞埋你哋？

答：係嘞，應該如果我冇記錯，啟晴邨應該係 7 月初...

問：初。

答：...--應該 7 月 3 號已經第一次攞水辦。

問：係嘞。

答：跟住就話要攞--因為全面攞多啲，好似係第--好似 7 月 8 號第一-- 7 月 7 定 8 號，我唔記得。

問：係咁上下㗎嘞，係嘞。

答：我已經幫佢開始正式大規模咁攞。

問：咁係咪房署嗰面搵你哋先？

答：應該係。

問：你--係咪搵你？有冇份呀？

答：其實當時我唔係做--即係當時我唔係做緊呢個位。

問：唔係呢個位，你嗰陣時係...

答：不過我 8 月先返番嚟做番呢個位，但係我問啲同事呢，係房署搵我哋幫手，我哋都係配合佢哋一齊去做。

問：哦，你--8 月至搵番你，即係舊年 8 月至搵番你，咁...

答：因為我調離咗呢個位四個月嘅。

問：哦。

答：係， 4 月至 7 月嘅時間我唔係做呢個位，我 8 月返番嚟做呢個位。

問：哦，出咗事，就搵番你轉頭。

答：唔係咁嘅意思，唔係咁嘅意思，即係人事有時都調動嘅。唔係咁嘅意思，唔係咁嘅意思。

問：唔係，肯--唔係，即係呢個係對你嘅經驗，就其實係梗係佢哋認為...

答：唔係，我哋即係盡我能力去做啫。

問：Okay，當然，當然。

答：我樂意去做嘅。

問：係。所以呢--但係你知道係房署搵你哋去？

答：係，係。

問：咁你知唔知道係咪--譬如佢查邊個樓呢？我想知道有冇--即係你聽番啲同事講，有冇係撞到困難？譬如嗰啲居民係唔想你入去阻手阻腳定係點吖？

答：我聽到有嘅，因為有啲就入唔到去。可能已經--嗰啲人即係佢可能返咗大陸工作，咁佢畀咗--你即係...

問：唔喺度添。

答：唔响度，咁你拍門，都入唔到去。咁有啲又可能唔想我哋去搞佢咁。

問：咁但係...

答：我哋都盡量遷就番啲客戶，咁咪搵番隔籬。

問：當然有啲人就唔想你去，有啲人呢--另外有啲人就好合作，啱唔啱？

答：當然係，當然。

問：係喇，係喇，因為你做咗幾多個...

答：其實大部分嘅居民都合作嘅。

問：大部分居民。因為關於佢自己㗎嘛，個福祉吖嘛。

答：同埋有房署去帶我哋去呢，咁就會好好多。

問：係。佢有時搵埋佢自己嗰啲大廈委員會嗰啲陪佢去，係咪？

答：通常就係房署，因為房署帶我哋去。

問：係嘞。房署嗰度，佢啲居民--同嗰啲居民關係又好好嘅？

答：好嘅。

問：係嘞，佢哋...

答：好嘅。

問：明白。咁所以就--但係譬如我揀邊一座樓，係邊個揀嘅呢？定係...

答：邊座樓呀？

問：係。

主席：啟晴邨咪座座都有做個喎。

問：係嘞，咁...

答：其實座座都攞喫嘞，以我所知就。

主席：係嘞。

答：佢即係定咗--即係佢用 2005 年之後嗰啲就做一批，2005 年之前又--後來再做一批，咁佢都係定咗一批批咁，一個 batch，一個 batch 咁。

問：但係--係嘞，但係有啲呢，就做一個 block 先，會唔會？

答：我以我所知佢就盡量做晒，即係個個 block 都做，以我知道。

問：唔。咁但係嗰啲 unaffected 嗰啲呢？

答：佢都係咁做。即係我哋...

問：個個 block 做咗嘞？

答：...攞水辦之前，我哋都唔知邊隻係 affected，邊啲係 unaffected。

問：嗄，咁所以...

答：攞咗水辦，就先知道邊個係...

問：所以個個 block 都要做？

答：個個 block 都應該做。

問：咁但係就揀邊啲，就邊個揀嘅呢？譬如揀邊層樓，邊個揀嘅呢？

答：我嘗試咁樣計--係咁樣睇，就我啟晴邨嗰個第一--即係啟晴邨係第一條邨，我問番同事，啟晴邨嗰度攞水辦嗰個方式就係由房署定，嗰個我哋叫 schedule，sampling schedule，就分幾--佢哋都好有 systematic，佢哋就定咗就應該六座，咁佢就每個唔同嘅 zone 咁咪--諗住每個唔同嘅 zone 就--每個 zone 呢就落--因為可能佢譬如六個--六層就一個 zone，咁佢就攞一個辦。

問：即係佢哋房署嗰面？

答：佢哋有個叫做 sampling schedule，因為呢個係第一條邨，咁去攞嘅，咁就個個--原先係諗住攞一路咁個個六座都咁樣 random 咁樣去抽，有啲唔同嘅 zone 去攞個辦咁樣樣。

問：係 random？

答：佢其實都唔算係 random 嘅，佢就係分 zone...

問：佢有冇話高層搵一個？中層--中間...

答：佢即係其實每個 zone--一個 zone 都係佢一隻一隻--一層層咁樣去攞。

問：上、中、下，咁係咪？

答：佢唔只上、中、下，佢一浸浸，佢哋叫 supply zone。幾--即係我諗幾層就一個 zone，幾層一個 zone，咁樣每個 zone 都要攞個辦，

咁樣去做嘅。咁呢個係咪叫 random 呢？不如呢個--我諗住用一個 systematic 嗰個字就好啲嘞，就响每個 systematic 嘅方法去攞，咁去攞嘅。呢個就係佢第一條邨咁做。

問：Okay，okay。

答：但係之後嗰啲，就我哋同房署傾，咁房署就交咗畀我哋，佢就將所有呢啲圖則--所有啲水喉嘅圖則就交咗畀我哋水務署。咁我哋就嗰個做法就係話，响每一條 down-feed 嗰度呢，每一個 zone 呢，都係攞一個辦嘅。

問：唔。

答：即係每一條 down-feed，每一個 zone 都係攞一個辦，咁就之後就我哋跟番呢個模式去攞㗎嘞。

問：Okay，okay。

答：即係都係一個 systematic，即係其實基本上之前同之後都係唔係好大分別嘅，嗰個方法，即係盡量係每座都攞。

問：係。

答：係，每座都攞。

問：係，okay。你哋--或者有一個問題問咗你先，然後就我就唔會再繼續問呢度。喺執法嗰度，係你個部門負責㗎？

答：係。

問：係咪？咁頭先我講到係有一個問題，我應該嗰陣時問嘅，但係又係--你個目的就係睇下佢哋有冇違背 BS，你哋覺得如果佢係 10 或者以上，就肯定有嘞？

答：唔。

問：好嘞，如果係喺呢個角度，係咪應該要用隔夜水個水辦呢？因為最多吖嘛。

答：唔。

問：Maximum，maximum 嘅鉛量喺啲水度吖嘛，啱唔啱？

答：係。

問：應該係隔夜水㗎嘛？

答：我哋都講喇，即係我哋部門有我自己嗰個參...

問：唔係，我知，但係喺執法個角度，係咪應該咁做？

答：咁我都一定要 take in account 我哋啲同事，佢哋--即係水質科學部佢哋嗰個--攞水辦嗰個模式去做事。

問：但係我知道陳健民佢個睇法就成日話，「啊，你抽水辦吖嘛，咁我要畀一個 average，咁我哋香港啲水係咪合乎世衞嘅標準？即係 10。」即係咁樣，佢成日都係咬住呢度。

答：係，係。

問：但係你唔係，你係執法吖嘛。

答：但係我執法，呢個都好難分得咁開嘅，即係我哋都好靠...

問：唔係，頭先我講咗喇，你唔用--佢...

答：...用呢個方法。

問：我頭先講咗，你沖咗去吖嘛，沖咗你啲證據去吖嘛。

答：係，我同意，即係我明你意思。

問：所以喺執法嘅角度--你喺執法嘅角度，應該係隔夜水，啱唔啱？

答：誒...

問：你頭先同意咗㗎嘞，不過我未咁問你咋。

答：但係我哋--始終我都希望你明白我哋嗰個做嘢方法。

問：我明白。

答：即係我哋都有個自己嘅工作嘅方式，我哋要都跟番嗰個...

問：咁你有冇同佢拗呢？你有冇同陳健民拗呢，「喂」，你話「你沖咗我啲證據去喎？」

答：我個--我哋個--我哋都有傾嘅，不過就係我哋都要尊重番...

問：有傾？

答：...水質科學部佢哋嗰個...

問：即係有傾？

答：...即係攞水辦嘅方式。即係呢個...

問：唔係，我--即係有傾...

答：...其實...

問：...開呢個意見？

答：其實大家都--佢哋上到嚟講，之前嘅同事都係講番呢一套嘅理論，咁...

問：係呀。但係你有講吖嘛，你話喺個執法個角度，應該要隔夜水喎，有冇咁講？

答：呢個我諗我都係--我諗整體上水務署我諗我哋都要跟番嗰個--成條 line 係要--嗰個 stand 係我哋係用一個沖--一個 flush sample 去做。

問：Okay。

答：所以我哋就唔會特別再...

主席：係一個 flush。兩件事，不過我哋唔好嘥時間喺呢度嘞。

答：唔好嘥時間就係。

問：好嘞，咁你呢個你話你哋傾...

主席：因為完全都唔同。

問：你話你哋傾喇，係咩嘢人傾嘅呢？

答：唔係，我哋亦都係講番嗰啲 sampling protocol。

問：你話「我哋呀，我哋。」

答：即係水務署我哋成日都大家討論，即係...

問：我想知道個層次啫。

答：層次，我諗經常咩嘢層次我哋都傾呢啲嘢㗎嘞，即係冇乜所...

問：但係作出呢個決定，10，我哋要處理嘅，咁你呢個決定；另外一個決定，就係所有水辦都唔要隔夜水嘅，一定沖兩分鐘至五分鐘，呢個決定係幾時嘅？

答：一路我哋個--即係呢個係我哋個 guideline，我哋自己內部嘅一啲...

問：即係好早已經決定㗎嘞？

答：一早--一路都係我哋--陳健民先生都講話我哋跟番 ISO5667 嗰個 part 5 嗰啲。

問：即係事發之前都係咁㗎嘞？

答：呢個係我哋個 I--佢行 ISO 嗰個方式都係咁樣做。

問：唔係，係咪事發之前都係咁？

答：即係一般，係嘞，事發之前都係咁做，之後嘅嘢係咁做。

問：問題咁嘞，事發之前就冇鉛水呢個問題出現吖嘛，咁你驗嘅質素，我完全明。你咪試下嗰啲水喉裏面，試下你啲--出面嗰啲水好唔好，嗰陣時連嗰個退伍軍人嗰個問題都未出現，早期，係咪？

答：係。

主席：唔。

問：咁你收屘呢就一件一件咁出嘞，兩件大事喇。

答：唔。

問：啱唔啱？

答：係。

問：所以你嗰陣時冇理由仲係話「啊，我用番以前嗰啲」㗎嘛。

答：唔。

問：你明唔明白？

答：我明你意思。

問：係囉。所以呢個決定話，我--你個部門一定唔會抽隔夜水㗎嘞，雖然好多意見都要你哋咁做，咁你哋仍然唔去做。咁呢個咁嘅決定，呢個決定呀，即係點都唔做㗎嘞，呢個決定係一定係鉛水出現至有㗎嘛，因為鉛水都未出現，冇呢個問題㗎嘛。

答：係。

問：同埋我頭先話畀你聽，你哋嗰個 task force 一早就話兩樣都要添。

答：佢嗰個性質係有啲唔同嘅，我哋...

問：Okay，我就算性質唔同，但係嗰陣時個決定係兩樣都要驗吖嘛。咁而家淨係要一樣嘞，唔要第二樣嘞，呢個決定呀...

答：呢個其實驗一樣，淨--如果 flushed sample，呢個我諗其實我哋都討論咗好耐，呢個問題。陳健民先生又好，我哋正、副署長...

主席：唔係，係咪陳健民決定嘅？即係佢想問啫，係。

答：係。

主席：陳健民...

問：佢一個人決定？係嘞。

主席：陳健民講咗佢個建議出嚟，咁有個人決定㗎，去到邊一個層面決定啫。

答：係嘞，呢個我諗部門係要做個決定喇。

主席：係副署長吖，你吖，署長吖？

答：我一定唔係專家喇，即係。陳健民亦唔係我哋嗰個 branch 嘅同事，咁所以...

問：咁即係唔係你嘅決定喇，咁去到咩層次呢？

答：我諗係我哋成個部門嘅決定喇。

問：即係成個部門...

答：嘅決定。呢個係我哋嘅...

主席：即係署長喇，係咪？係，得。

問：署長喇？

答：呢個我哋內部嗰個 stand 係咁樣。

問：咁咪即係署長？

答：我哋部門嘅決定。其實一路都係我哋咁做法。

問：你哋個部門有冇開過啲高層會--你哋部門裏面有冇開過啲會，然後決定？嗱，呢個好公道個喎，...

答：呢個...

問：...可能--呢啲嘢有時就一個人，最高嗰個人，「我負責，我決定」，可以；但係可能佢問晒你哋，大家傾過晒，然後作出一個決定；係邊樣呢？

答：我冇參與即係每一個會。

問：哦，你冇參與。

答：即係不過但係呢個一直都係我哋水務署嗰個--嗰個原則，就係話...

問：唔可以一直㗎。

答：...攞一個 flushed sample，就係一個平均嘅數值，一個--睇下佢，即係一個終身飲用水嗰個平均嘅數值係咪安全呢咁樣樣，係，應該一個咁嘅原則。

問：我唔想再同你拗你嘞。你話平均數冇用㗎。如果我係咁傻，或者我係咁嘅生活習慣，我就係攞隔夜水，就攞嚟--係囉。

主席：我哋唔好拗嘞。呢個議題已經...

答：拗咗好耐嘞，其實呢個。

主席：...探討咗好多次㗎嘞。

答：好多次㗎嘞，真係。

主席：係呀。冇意思㗎。

問：唔係，所以我知道呢個決定之嘛，點樣之嘛，係開過會，然後...

答：你可以當係我--整個部門一直以嚟都係一個咁嘅做法。

問：唔可以一直以嚟，我唔可以接受。

主席：佢話佢唔知呀，佢。

答：嗄。

問：咁即係你冇參與呢個決定。

答：我哋一路都傾。即係如果我有份開嘅會，我哋都知道大家都係 hold 住一個咁嘅 line，咁一直以嚟我哋都係持守住一個咁嘅態度或者一個咁嘅方式，咁...

問：咁你知道...

答：我睇唔到有咩嘢改變。

問：當然可能你一樣唔知。如果--我即係當--如果你話你嘅部門，咁你哋個署長負責，咁仲有冇高啲嘅呢，你知唔知呢？你唔知，你而家知唔知呢？

答：我真係唔知。署長係最大㗎嘞，我哋部門。

問：咁但係你所有呢啲，攞水辦呢啲嘢，房署都有份同你哋參與個喎，係咪？

答：係--我哋去攞喇，我哋協助佢攞水辦喇。咁房署帶我哋去嘅啫，主要都係，做一啲協調嘅工夫。就水辦就房署好少攞。

問：Okay。咁你哋作出咗呢個決定嘞，抽水辦淨係要兩分至五分鐘開--沖完水先至要嘅，呢個水辦；呢個決定，有冇聽過唔同嘅意見？你有冇聽過唔同嘅意見？

答：我就冇份去同房署開呢個會，我好少。我哋基本我記得我就冇去開過。

問：就算冇開會，有冇聽過有啲唔同嘅意見？

答：當然啲委員會有好多意見。

主席：你自己本身呀，...

問：你自己本身。

主席：...有定冇？你答咗佢喇，係。

答：咁有，最簡單，啲委員會都有好多專家有佢唔同嘅意見，我有聽過。

主席：唔係，開會之--你哋決定呀。

問：唔係我哋呢個委員會呀。

主席：唔係我哋呢個委員會呀。你聽清楚個問題先得㗎。

答：Okay。即係...

主席：係。

答：都有啲坊間都有啲人有唔同嘅意見嘅。

問：你有聽到嘅？

答：有啲坊間嘅意見。

問：Okay。好嘞，...

黎先生：喺坊間定係開會嗰陣時聽到？

答：唔係，我睇報紙，...

黎先生：哦，睇報紙，okay。

答：...有啲市民，佢哋有啲意見咁。咁我哋都有睇，睇到報紙有賣咁樣。

問：若果報紙都有賣，你即時醒覺㗎喇，喂，對你調查都好有用個喎，係咪？

答：咁我都會即係--即係都係好即係尊重番我哋自己水質科學部嘅同事嘅意見。

主席：李大律師，你較早之前話我有權力可以攔截你，仲有效吖嘛？

李先生：你...

主席：咁我攔截個囉喎。呢個議題唔好再問嘞，唔該。

黎先生：因為講咗好耐嘞，真係。

主席：係。

李先生：不過我當呢個係黃牌啫。

石先生：措夠咗五次攞個囉喎，停賽。

李先生：我唔想做長毛，抬出去。Okay，呢個停嘞，呢度，okay。

主席：係。

問：跟住你知道委員會搵咗兩個專家，係畀咗好強烈嘅意見，叫做preliminary opinion，你知吖嘛，個 report，知吖嘛？

答：知道。

問：佢話一定要抽隔夜水驗，你知道喇？

答：係。

問：你哋仲唔抽喎。

主席：係，又...

李先生：呢個另外一個。

主席：又返番去呢個議題。

李先生：唔係，唔係，呢個另外一個時段，主席。

主席：係，呢個抽水辦點抽，唔准再講，係。紅牌，呢個議題。

黎先生：抽咗好多水嘞。

主席：呢個議題紅牌。

答：對唔住，對唔住。

黎先生：抽咗好多水嘞。

問：好嘞，我而家肯定係另外一個問題嘞。當一個屋邨如果定咗係受影響嘅屋邨，咁同一個唔受影響嘅屋邨--當然有啲嘢我哋知道㗎嘞，如果係受影響呢，你哋嗰陣時當時即刻落去見啲居民喇，...

答：係呀。

問：...教佢哋開水喉喇？

答：同意。

問：啡咗水至好用嚟飲食喇。跟住畀啲水佢添喇，一樽樽水攞嚟畀佢喇。

答：唔，唔。

問：有啲就駁啲特別嘅水喉，駁落去，等佢哋排隊落嚟載水喇。

答：係。

問：仲有啲咩嘢措施呀？

答：如果一出--即係一公布咗係受影響嘅屋邨，咁...

問：同埋啲細路仔嗰啲係驗血嗰啲嘢喇。

答：係，佢哋驗血喇，即係醫務衞署佢哋會幫手。咁我哋做水務署嘅，我哋即刻會安排水車，就即刻安啲臨時街喉去到每一座大廈嘅樓下，咁呢個就係我哋做嘅。但係我哋都知道房署都做咗好多工夫嘅，譬如佢哋派一啲樽裝水。佢哋做一啲譬如話响天--一啲响天台水缸安一啲水管落嚟，响每一層，畀啲居民用。以至後期，佢哋又安一啲濾水器。咁嗰啲工作，咁佢哋都做咗好多嘅。咁我哋大家都配合一齊去做，好...

問：我而家詢問你一個題目。即係喺人手，各方面，會係麻煩幾多嘅呢？一間就係--即係我用呢個字，喺居民嘅角度，當然你唔想佢，你好似--唔係麻煩，你話「我都要做㗎」咁。

答：我覺得唔係咩嘢麻煩嘅。我覺得呢個係工作嚟嘅。

問：即係額外嘅工作，我就話額外嘅工作。

答：當然，所以多咗人手，因為要去做呢啲咁嘅工夫，去派水車，要去安街喉。

問：錢都多咗喇，一定？

答：錢當然多咗喇，但係呢個我覺得唔重要嘅。我覺得即刻能夠提供一個服務去解決個問題，呢個先係我哋最重要嘅工作。

問：係。同埋就最近出咗個 budget，嗰個錢都撥多咗款畀你哋，因為呢個問題，你知㗎嘛，係？

答：一部分喇，一部分原因。

問：係撥多咗㗎嘛？

答：我了解好似係有撥多咗些少，呢個我哋。

問：就係因為呢個鉛水嘅問題。

答：應該係有部分原因嘅。

問：係嘞。咁樣如果係多啲邨--呢個唔使，呢個 submission 得嘞，okay。

李先生：可唔可以畀啲時間我，主席？

問：而家呢本本子，我唔需要叫你睇嗰版嘞，我就咁簡單啲問你。係你話加咗四個 parameters 落去吖嘛？

答：係，同意。

問：咁就係鉛--不如讀英文嘞，係，lead、cadmium、nickel、chromium，係咪？

答：係。

問：你哋有驗到 nickel 嘅，係咪？係超標嘅，有冇驗過？

答：可以驗嘅，可以驗嘅。

問：有冇驗過 nickel 超標嘅現象，你記唔記得有冇？

答：我唔--我冇--我唔記得有。

李先生：我搵個 task force 嘅 meeting 嘅 minutes，主席，我需要...

問：係，第六個，係 C19.6，tab 137，page 14125。係先睇 14125，係嘞，第 2.5 段，2.5 段。

答：Okay。

問：呢個係第六次開會嘅。

答：Okay。

問：得，好。佢話"Members noted that leaching test results showed there was high leaching of nickel from kitchen taps and washing machine taps was ..." --唔緊要，唔好理嘞，"... but these findings should not be compared with the WHO provisional guideline value."

一陣我會返轉頭問你嘅。

"The cross-section of these taps showed that nickel had seeped into their internal water surface during electroplating, thus not complying with British Standard (BS) requirement that no metallic coating for surface in contact with water."

你睇到呢度吖嘛？

答：係，見到。

問：你明唔明佢講咩嘢？

答：我知佢講乜。

問：就即係話，點解佢話唔應該同世衛嘅 provisional guideline value 嚟相比呢？

答：...（聽不清）

問：或者我再畀多啲嘢你睇下先，好唔好？

答：好呀。

問：對你公平啲，睇多啲先。哦，頭先呢個 minutes，而家睇個 report 本身，task force report。

李先生：後來佢做咗個 final report 嘅，主席。

問：睇 A1，19。Internal page 39，係 3.3.1，"Other findings" 嗰度，你睇喇嘛？

答：睇到。

問：係 internal page 39。

答：唔。

問：我等嗰個出嚟先。Internal page 39。

答：係，internal，係睇到，睇到。

主席：等一等，等一等。

問：我哋要等等呢度，唔該。仲未出到，39，internal page 39。

主席：Page 幾呀？

講者（不能辨別）：690。

主席：690。

李先生：對唔住，我哋冇嗰個 690。唔係呢個喎。啊，係嘞，係嘞。

講者（不能辨別）：係，啱，呢個。

問：係嘞，啱嘞，睇，係嘞，係嘞，"Other findings"得嘞。

"Leaching of chromium, cadmium and nickel." Right?

答：係。

問："3.3.1 The leaching test results for chromium, cadmium and nickel from the various components of pipes and fittings in the three water supply chains in KCE and KLE2 are shown in annexes 2.3(a)-(c). Based on the leaching test results, amounts of chromium and cadmium leached from various components were low. However, there was significant leaching of nickel in some taps

in KCE, eg the highest leached amount of nickel after standing in 24 hours was 102 [micrograms] or 1,569 [micrograms per litre] in one washing machine tap. Elemental analysis on the cross section of these taps showed that nickel had seeped into the wetted surfaces of the taps during electroplating. Nevertheless, as the taps hold very small amounts of water (less than 150 mL) under stagnant condition, the leached nickel should be flushed away within one to two seconds after turning on the taps."

呢度就睇到呢度嘞。

跟住就去嗰個 annex 嘞，咁係 internal page 就係 A35。

答：A35。

講者（不能辨別）：745。

問：係睇 A34 先。A34。

答：呢個。

問：係嘞。A34 個頭嗰度你睇到"Leaching test results of the components dismantled from the water supply chain in Hong Ching House of Kai Ching Estate"。

咁你揭跟住嗰版。

答：唔。

問：咁你搵到上面，上面數落嚟，H21 一路落，去到 H25 嗰度，睇唔睇？左手面，item。

答：H25，25。

問：H25。

答：係。

問：睇到喇嘛？

答：唔。

問：咁你睇到係"20 mm diameter stopcock (copper alloy) before meter"。咁你一路咁樣拉過嚟右手面，睇到 108.1，呢個係 before cleansing deposits 嘅。去到最 top 嗰度，睇到喇嘛？

答：唔。

問：係咪？你睇到呢個 leach amount of concentration，nickel 嚟嘅，108.1，啱唔啱？

答：唔。

問：咁你再數，一路跟住落嚟大概係六、七個嘅，就睇到 H33 嘞，呢個係"Tap at kitchen (mixer) (copper alloy)"。咁你一路拖過去，拖到去 nickel 嗰度，就 112 嘞。

答：唔。

問：係咪？

答：唔。

問：咁再隔三個，就去到 H36 嘞。

答：係。

問：就"Tap for washing machine (copper alloy)"。咁你一路又打橫去嘞，去到 nickel 嗰度，係 1,569，好犀利嘅。

答：唔。

問：咁跟住落嚟嗰個就 77.7，都係過個喎。

答：唔。

問：因為應該 70㗎之嘛，係咪，nickel？

答：係。

問：跟世衛。咁再落一個，90.8，又係過個喎。

答：唔。

問：咁就再揭一版添，internal page A36，就屘三嗰個，由屘屘數番上嚟第三個，H37，一路拖過去，nickel，78.1。

答：唔。

問：都係過嘅，啱唔啱？

答：係。

問：因為世衛個水準就係 70 嘅啫。

答：唔。

問：Okay。咁呢啲出現咗嘞，而家係有證據個囉喎。

答：唔。

問：呢啲 report 唔係我哋做㗎嘛，係你哋個 task force 做㗎嘛。

答：唔。

問：咁你哋會唔會採取行動嘅呢？

答：我諗佢呢個呢，呢個--我有參與呢個 task force 個工作。

問：明白。

答：咁我睇番呢啲數據，應該就係佢有一個 test，就話將呢啲部件即係浸住水，浸過一段長時間，就睇下佢嗰個有關嘅重金屬嘅釋出量係點樣樣。即係佢咁樣去做一個咁嘅分析嘅。咁佢就唔係話真係整體攞個水辦嗰個--整體嗰個

主席：唔係，睇個水辦嘅 qualities。

答：嗄，就唔係個水辦嘅 qualities。

主席：如果你要--其實我諗佢就唔係一個恰當嘅人，應該問呢個--我哋仲有陳漢輝博士，

李先生：最收尾嗰個。

主席：...水諮會嗰個，咁你可以問佢。

李先生：Okay。

主席：不過我而家都可以基本上解釋，因為大家--兩樣嘢係完全唔同嘅。

答：係，唔同嘅。

主席：即係一個係--其實佢呢度做係...

李先生：係水。

主席：...驗緊呢個部件點樣樣 leach。世衛就係世衛嘅水裏面嗰個標準。所以大家基本上兩樣嘢嚟。

答：唔同嘅嘢嚟嘅，我覺得唔可以監硬比較喇，呢度。

李先生：明白，明白。

主席：係嘞，兩樣唔同嘅嘢嚟。

問：咁但係譬如要唔要 penalty point 嗰啲呢？

答：就呢個我哋...

主席：不過你從呢一度你會睇--你同唔同意李大律師所講，即係如果你哋

水務署要做，你有咗呢啲咁嘅 reference point，你其實係可以係去...

問：去調查。

主席：...再進一步做，睇下究竟連嗰啲水龍頭有冇違規都可以查到嘅。

答：即係可以將佢拆咗出嚟，再...（聽不清） test，咁睇下佢有冇嗰啲重金屬超標。呢個都可以...

主席：係咪 British Standards 囉。

李先生：係嘞。

答：嗄，即係呢個...

李先生：即係我同意主席嘅...（聽不清）

答：其實有一個部--其實解釋咗 nickel 嗰度，已經睇到少少㗎嘞，佢個 minutes。我哋睇番 minutes 都有講，其實個 nickel，佢嗰個因為一浸嗰啲 coating 嚟嘅，electroplating 嘅嘢，咁佢唔應該走咗入裏面。咁但係佢呢個，可能佢個生產過程就將佢浸咗落去，...

主席：咁都係關你哋事㗎嘛，係咪？

答：我同意。即係點解會超標，我估就係可能唔係同個 body 就冇--其實冇乜關係，但係可能同個 electroplating 嗰度出咗事，嗰度。

問：所以你都同意呢一個，佢話明唔合符 BS㗎嘛，佢哋嘅 finding 都好

清楚，頭先 2.5 嗰啲，係咪？

答：唔。

問：講明㗎嘛，佢話"thus not complying with British Standard (BS) requirement ..."㗎嘛。

答：係。

問："... that no metallic coating for surface in contact with water"㗎嘛，係咪。

答：唔，唔。

問：即係我同意主席好清楚話畀我聽，你而家未有夠證據去 take action，但係你可以跟進。

答：唔。

問：係咪？就睇下係咪囉，同意吖嘛？

答：係，同意。

問：但係你哋會唔會即係都--因為你而家多咗四個 parameters 喇，咁就去到 lead 嗰度，你真係做咗好多嘢嘞。

答：係呀，lead 做咗好多。其實都唔係淨係 lead㗎嘞，即係一落就已經四個。

問：你梗係要一齊做㗎。

答：四個一齊要做。

問：係嘞，係嘞。咁所以 nickel 都而家有發現嘞。

答：會做埋嘅，而家係做。

問：係嘞。其他嗰兩個仲係好少啫。

答：其他 cadmium、chromium 都做埋嘅，水辦。

問：咁呢啲問題就係--因為你係知道--好多證人都喺度講過，就嗰個水安全計劃，你聽過喇，係咪？

答：係，聽過。

問：咁即係呢啲都有一個水安全計劃，包括埋個囉喎，係咪？

答：水安全計劃，其實而家我哋--新樓入伙，我哋已經要加咗四個水辦，即係--即係唔係，四個 parameter，响個水辦度。呢個第一個點，我哋要做。另外就我哋恒常嗰個監測嗰度都加--即係我哋monitoring嘅...（聽不清），我哋嗰啲水質科學部啲同事，佢哋都出去攞辦，加強番呢一方面，即係頭先我哋講嘅重金屬，包括頭先嗰四類嘅重金屬，我哋都會响我哋個監測裏面加個數量嘅。呢啲都係我哋會做。

問：嗰個水安全計劃呢度，如果係實行嘅時候，你哋個部門要預多好多嘢個喎，啱唔啱？

答：如果--而家我已經做緊好多工夫㗎嘞。即係我哋自己嘅水安全計劃都做緊好多工夫。

問：我想睇下你個睇法啫。你想點嘅呢，你自己想去到咩嘢地步呢，係咪每一座公屋裏面都應該有一個咁嘅計劃吖，...

答：即係自己嘅屋邨裏面或者樓宇...

問：一個屋邨一個吖，定係每座都應該有一個？因為你好多人㗎嘛，一座都。

答：係呀。

問：係咪？一座幾多戶呀？八百戶嗖個喎。

答：係喇，如果你--公屋有八百戶嘅；一千至到八百戶。

問：係喇。咁你自己，你自己嘅構思，到而家為止，你係希望係咪做到每一個公屋，一座公屋都有一個咁嘅水安全計劃吖，定係一個邨一個吖，定係點呢？

答：呢個要真係要即係...

問：當然喇。

答：我哋暫時就有一個--真係話一間公屋或者一個大廈有個水安全計劃嘅，即係一個叫寫住一個正式寫低一本叫做水安計劃，我哋就冇嘅，

暫時都冇呢樣嘢。

問：但係你話已經開始喇嘛。

答：即係其實我哋琴--我琴日都講喇，我哋即係雖然冇呢個水安全計劃，但係我哋實質上都有好多工夫已經做緊，一拃嘅措施都已經一路做緊，即係如果盡--如果--雖然冇一個真係正式嘅水安全計劃，但係都--如果盡可能，如果大家跟番我哋嘅--嗰個指引去做嘢，就應該都--係應該安全嘅。

問：千祈唔好話「應該安全」。因為呢啲水安全計劃，你要預佢唔安全，咁嘅態度至有效㗎，你明唔明呀？

答：嗄。

問：即係預咗佢。你唔話「我可以信佢吖，我可以信佢」，咁就死㗎嘞。今次就係其實一個因素就係咁嘞。信呢個，信嗰個，終須就原來啲人，「啊，原來咁嘅，唔係跟足我哋嘅意願做嘢嘅。」咁咪出事囉。所以呢個水安全計劃，如果你唔熟，我就希望你讀熟佢。因為教授已經講咗㗎嘞，有個 professor Fawell。

答：Fawell。

問：嗄。佢話最重就係所有嘅持份者一齊坐低先至唔好--唔好寫住。你千祈唔好寫嘢住。如果你寫咗之後，話「我寫好嘞」，擺喺度，有人睇嘅。佢話一定要個個人參與。所以你個部門就一定要有人係一定要參與嘅。所以我希望你喺呢度睇。我唔再嘅時候再問落去。

答：Okay。

問：但係我希望你喺呢一方面要做多啲工夫，因為係你嘅範疇嚟嘅，好唔好？

答：我哋會研究呢方面嘅。因為，李大狀，你講得好啱嘅，因為如果要做到真係要做大廈裏面嘅水安全計劃，就真係要好多持份者。

問：係呀，好費時，好嘅時候㗎，係呀，好多...

答：因為唔係淨係我哋可以控制得到，完全控制得到嘅，要...

問：同不停咁做落去㗎。

答：因為如果我哋自己嘅系統就容易搞嘢，因為我哋自己有人長期喺度做緊啲工夫。咁但係如果你話要真係要去到屋邨裏面都要做呢，或者一間大廈裏面都要做呢，咁呢個真係要大家合作，大家要--各持份者都要幫手嘢。

問：喺公屋嚟講，你哋同房署開始坐低傾，已經係一個好嘅起點，但係你一定要包埋啲居民嘅。你明我嘅意思嘛？

答：呢個係我哋仲未有一個咁嘅好實質嘅...

問：但係要快啲做嘢，你明我意思嘛？

答：呢個我哋會睇下嗰個做法應該點樣樣。我哋呢個我哋會考慮下睇下點樣做，如果真係要向呢個方向發展。

問：我而家希望你積極啲，okay？因為呢個範疇喺你...

答：其實我哋一路都好積極嘅，其實我哋。

問：Okay，okay。多謝你。

答：多謝你，係。

問：我而就係問一問你哋有個 circular，關於嗰啲 point count 嘅 penalty，係 WSD circular 8 of 2015。喺個 page 係邊度㗎？喺 witness statement 嗰度嘅，你自己個 witness statement，page 13502，13502。係嘢。係嘢，而家去到 13504。13504，呢度睇住有個表嗰度。

答：係。

問："Point Penalty System"嗰度。

答：唔。

問：上面嗰度，"Piping"嗰度，"Previous Items"，你睇吖嘛？

答：係。

問：跟住就係"New Items"，係咪？

答：唔。

問：咁就"Piping"嗰度，"substandard"，以前就扣--即係畀五分佢嘅。唔係扣分，其實加五分，罰分嚟嘅，係咪？

答：係，罰分。

問：咁跟住"fittings and pipes not as reported on schedule"就三嘅，而家就一視同仁嘞，六分，啱唔啱？

答：係。

問：咁跟住，跟住嗰個"Piping"，又大家都有轉嘅，兩分。

答：係。

問：Right？跟住落去嗰個"Piping"，以前係冇嘅，而家新㗎嘞，如果有"lead solder for jointing fresh water pipes and fittings"就十分，好犀利嘅。

答：係。

問：因為一十分就已經 warning letter㗎嘞，係咪？

答：係呀。

問：係咪吖？

答：嗄。

問：咁所以淨一樣嘢已經即時有 warning letter㗎嘞。

答：佢要超過十分。

問：超過十分？

答：嗄。

問：Okay。

答：呢個已經去到臨界點。

問：係嘞。

主席：我覺得太輕喎。你話十分太重呀？你有件咁嘅事之後仲用，...

李先生：好大件事。

主席：...仲唔應該停牌？

答：呢個其實有少少分野嘅。因為呢個你淨係一個 joint 捉到都已經有事㗎嘞。

主席：咁你理論上係唔應該有㗎嘛。

答：呢個應該有--理論上係應該有嘅。

問：哦，你話一個 joint 就十分，okay。

答：嗄，一個 joint...

問：咁你分分鐘第二個 joint 都有㗎喇，如果咁。

答：未必嘅。可能真係 by mistake 做咗一個 joint。你一萬個 joint 有一個，你都中招㗎嘞，即係。

問：咁如果第二個 joint 都有，咁咪執兩張黃牌，一齊出局囉喎，係咪？

答：如果一般嚟講，我哋畀一個嘅啫，畀一--即係好少罰兩次嘅。

主席：我唔係好明，點解要逐個 joint 計呢？

答：唔係，即係總之有呢個 defects，我哋就已經咗呢度。個 defects 就係一個或者兩個都係屬於呢一樣嘢。

問：咁佢又啱喎，即係你後面踩人一次，已經一次，第二次就--咁但係如果佢成個 project，咁你又點計呢？

答：呢個成個 project 就係...

問：你話逐個 joint 計㗎？

主席：佢係咁講呀，逐個 joint。

問：係喇，逐個 joint 計。因為一個 project 好多個 joints㗎嘛。

答：如果一個 project，真係好多個 joint 嘅時候，我諗就未必係跟番呢個 point penalty system。

問：咁你要搞清楚先得㗎。

答：即係呢個要--我同意你嘅講法，即係如果真係一個 project --呢個其實係針對一啲就可能係 by mistake，你做錯咗，我哋會捉住你，即係嗰個...

問：哦，如果 by mistake。如果唔係 by mistake，咪仲嚴重？

答：但係如果你整體都係咁呢就真係啟晴邨嗰類㗎嘞。

問：係嘞。如果佢唔係 by mistake，即係全部都係嘅，咁點搞呀？

答：你就--我諗係...

問：停牌㗎嘞，係咪？

答：停牌㗎嘞，停牌。

問：Okay。咁你跟住"Others"呢度，以前就冇嘅，而家呢度得意嘅，佢第一個"absence of the licensed plumber from the final inspection of new building project after submission of WWO 46 Part IV"就五分嘅。呢度即係咩嘢意思呢？即係去到 final inspection 嘅時候，你就諗住應該嗰個 licensed plumber 親自出現，係咪？

答：係。

問:咁但係如果佢唔親自出現,咁就可以搵個助手,一個 representation 出現嘅，不過就要畀五分佢咁呀？

答：因為我哋一定要响呢個 final --即係呢個所謂嘅 new building project，我哋一定要指定要佢出現嘅。佢唔可以即係假手於人。即係有咩嘢事，我哋一定要捉住佢咁解啫。佢哋唔可以唔知，又唔可以唔理。

問：咁點解你又要--你而家即係--你而家睇落去就話「可以搵代表，不過就畀五分，你計過條數先喇」，咁喇，係咪？

答：如果你真係唔出席嘅，我都冇辦法強迫你出席㗎，有啲時候，係咪？咁嘅情況，對唔住嘞，我哋都要...

主席：咁佢唔出席，咁你哋會點做呀，除咗扣分之外？

答：即係你講佢唔出席？

主席：係呀。

答：唔出席，我哋咪照--呢個扣五分喇，咁睇下其他...

主席：咁你哋繼續畀水佢呀？

答：睇下其他嘢--唔係，佢--好似頭先李大狀會出喇，佢會搵個--譬如有個代表，咁我哋都唔--都要扣佢分嘅，對唔住㗎嘞。

問：唔係，呢個有...

主席：唔係。我知呀。即係你哋而家係容許個 licensed plumber，「我冇所謂喇，你鍾意扣你咪扣囉，你扣我五分你咪扣囉，我大把分」咁樣樣。

答：其實就唔係主席講咁即係咁...（聽不清）

主席：唔係，我個意思即係其實，喂，你要個 licensed plumber 簽呢一個 Part IV，係咪？要 certify 所有嘅嘢係啱嘅。咁你驗嗰陣時佢唔嚟，咁理論上你應該唔畀水喎。

答：諗，...

問：係，主席講得啱，你話一唔畀水佢呢，佢就扑都扑到嚟。

主席：你唔畀水佢，佢幾時都嚟喇，啱唔啱？

答：我哋個經驗就佢--即係呢個咁嘅行嘅呢個分數，就一定出現嘅。因為好危險嘅，因為你五分呢，就你唔係淨係呢個 item 嘅，因為你未--你乜都唔睇已經畀人扣咗五分呢，...

主席：我知，不過我而家探討，即係 as a matter of 即係 practice，你其實根本，第一，即係我哋講個 licensed plumber 就應該落手落腳做，不過我撥開呢一樣嘢，擺埋一邊先。咁你個 licensed plumber，你署長話要 supervision，可以嘅。咁你到最後，最大嗰個 supervision，去 final inspection，咪成個體系睇個囉喎。呢個 licensed plumber 都可以唔到場嘅，咁你搵邊個負責呀？

答：其實我哋就好少佢唔到場嘅。即係呢個只係一個我哋畀一個罰分喺度，就講清楚--即係以前我哋真係呢個有一個罰分嘅，咁所以...

主席：你呢度唔使喇，你呢度講清楚得㗎嘞，你話畀佢聽，「你唔嚟，我唔畀水。」

答：呢個可能將來我哋 review 嗰陣時我哋會考慮嘅。

主席：直情要喇，你--嘩，你--你哋--根據我聽你哋嗰啲證供，搵個 licensed plumber 嚟就係負責㗎咋嘛，你個副署長話 responsible㗎之嘛，其實；連在場都唔使嘅。

答：其實我哋個--我哋睇番嗰個表格，佢裏面有好多 items 嘅，咁即係你如果淨係呢度，你唔出席呢，已經五分呢，好容易就超過十分㗎嘞，跟住嗰啲，一執就係十分。

主席：唔係，我知，我明。不過我問...

答：即係呢個係好危險嘅，如果你唔出席。所以而家我哋嘅經驗就好少唔出席嘅，真係冇乜，即係不過我哋搞清楚就係話，啊，你...

問：唔係，仲有一個好啲。主席係好...

答：我明㗎。我好多謝主席嗰個建議，呢個係一個好好嘅建議嚟嘅。

問：好簡單㗎咋，主席係腳踏實地㗎。

答：同意。

問：你唔開水畀佢，佢抽唔到水㗎嘛。

答：同意，呢個一定係喇，呢個當然。

問：咪就咁簡單囉。

主席：咪係囉，最簡單。

問：就咁簡單吖嘛，係咪？

答：呢個係一個建議嘅，我哋可以同業界再探討呢一樣嘢，去傾。

問：其實喺佢哋早--你揭番前一版，嗰封信有講嘅，13503，13503，就嗰封信，第二版。

答：唔。

問：中間嗰段。

答：係。

問：細細段。先上面嗰段先，大嗰段，去到第六行。第二段第六行，"At the final inspection, the LP shall upon request provide for the [Water Authority's] inspection relevant supporting documents for the pipes and fittings as listed in the annex of the submitted WWO 46 as well as solder materials if and when used."

所以呢啲係重要嘅，你要攞出嚟畀佢哋睇㗎嘛。

答：係吖。

問：係咪？

跟住嘞，跟住嗰段細嘞，"During inspection, ..."，即係呢個 final 喇，"... the [Water Authority] may use checklists to record findings. The LP or his authorised representative attending the inspection shall sign the checklist and he may make a copy of the checklist for retention if he so wishes."

所以係一個好重要嘅，去到尾嘞，臨收錢嘞，佢應該緊張過你㗎。佢唔嚟就得人驚嘞。

答：係呀。所以好少唔--真係好少、好少唔出--好少唔出現。

問：係囉。咁所以你明白主席嗰個 common sense approach。

答：係，同意嘅，同意嘅。

問：係嘞。

主席：Common sense approach。除咗 common sense，冇乜嘢㗎嘞。

李先生：唔係，錢吖嘛。

問：係嘞，你哋就--我諗你一定知嘅，因為陳健民畀證供嘅時候，佢就提出一點嘅，佢就話佢哋做過啲所謂民調咁上下嘅嘢，就即係證明到唔係咁多人，咁多用戶，係一起身嗰啲水，就一開頭嗰個隔夜水就攞嚟做飲食嘅。你知道呢件事吖嘛？

答：我知道。

問：就佢係--佢畀緊證供，攞出嚟嘅。而呢個調查，佢個調查係未完嘅。

答：係，我知道。

問：係好似唔知攞咗五百個嘅嘅啫。

答：五百幾，好似五百一十幾個。

問：係嘞，係嘞。咁我就想問你嘞，點解--平時我--民調，香港好多民調嘅，成日都有嘅，未試過未做完就攞出街個喎，真係絕對無僅有個喎。

答：詼，因為我哋都有--大家都有--以我記得呢，因為之前都有討論過，究竟啲人嘅生活習慣係點樣樣。即係究竟係一起身究竟去煲水飲吖，定一起身去刷牙、洗臉、沖涼吖，嗰啲咁嘅香港人嘅--即係香港人嗰個生活模式係點樣樣。咁清楚我哋都希望了解下喇，即係嗰個情況囉。咁就變咗睇下嗰個，係咪真係有啲人講話係頭啖水會影響好多人呀，咁呢個我諗都要睇一睇，我哋都要了解下人哋嗰啲生活嗰個模式嘅。咁啱啱我哋就部門做緊呢一個咁嘅 survey 喇，咁所以就擺咗一條咁嘅問題落去問，咁所以得到咁嘅結果。咁即係都係畀大家分享下喇咁，得個知之，都係--係講得好啱嘅，都未做完嘅。我哋仲有幾百個要做埋先可以完成，因為我哋個目標去到一千個。

問：就係嘞，你目一千個吖嘛，你做到五百幾個就已經攞咗出嚟嘞。咁但係到而家一千個，我都唔知係最後係點，我又唔知喎。

答：應該仲未做完嘅。我估佢應該係繼續做緊嘅，即係嗰個調查。

問：做咗咁耐嘅？

答：詳情我真係唔係好了解，不過就前嗰排我仲問緊，佢做緊五百幾個，去到五百幾個。因為你逐戶去問，係要一啲時間。佢唔係淨係問呢條題目嘅，因為仲有好多題目要問落去嘅，成個 batch 嘅題目去問。

問：係好多題目，我睇到。

主席：唔係，係咪你個 branch...

答：唔係我個 branch 嘅。

主席：係邊個一個 branch 嘅 initiation？

答：係 development branch。

主席：Development branch，即係呢個 Water Science？

答：唔係 Water Science。我哋嘅 development branch 嘅同事做。

主席：唔係 Water --即係佢嗰個係 development branch 吖嘛？

答：Water Science 都係 development branch 嘅。

主席：係。

問：係咪陳健民嗰面做㗎？

答：我唔係好--即係其實整個 survey 係一個叫 total water management 嘅一個 review 嚟嘅，咁係想了解下香港人嗰個用嘅模式，咁就响呢度，好多條題目之中，其中有 set 咗一條咁嘅題目，係，咁呢度啫。咁因為佢好多題目要問嘅，咁所以佢完成晒一千個戶數，係都要一啲時間嘅。

問：咁佢而家就話係只係百分之 6.5，百分之 6.5 嘅用戶就係用頭啖--即係隔夜水喇，嚟煮嘢食或者飲嘅。

答：唔。

問：咁就呢個 C21，tab 183。我好知嘅啫，呢度。有冇呀，睇到嘞？

答：有。

問：呢封信係今年 2 月 12 號嘅。你睇嗰個文件，我畀你睇少少夠㗎嘞。19059，有解釋佢點樣做嘅。喺跟住嗰頁，19060，喺"B"嗰度，中間嗰度，"Survey Methodology"，"We target to conduct a 30-[minute] face-to-face interview with 1 000 randomly selected households in Hong Kong."

係唔係淨公屋嚟個喎。

答：唔係，兩樣都有嘅。

問：係囉。你唔知個喎？你知唔知邊啲住公屋，邊啲人係私人咁呢？你哋冇分㗎？

答：佢哋個 survey，佢哋自己做嗰啲知嘅，負責做 survey 嗰啲知嘅。

問：但係譬如佢--你哋個結果，暫時個結果，即係第 14 段，喺 19062 頁，...

答：係。

問：...14段，佢就由舊年12月1號開始做，咁就已經做咗五百一十一個，即係多過一半喇。

答：係。

問：咁跟住你睇"(c)"嗰度。"(a)"，就百分之 93 就唔係攞嚟飲嘅，non-potable use，咁就 uses 洗臉、刷牙咁樣，all right？咁就 24 個 per cent 就開咗水喉先嘅，多數都係大概四十秒。咁然後"(c)"嘞，百分之 6.5 就用"first draw water for cooking or drinking purposes in the morning"，咁呢度之中嘅百分之 9.1 就話沖咗水喉六十三秒，然後至攞嚟煮嘢食或者攞嚟飲嘅。咁呢度其實你睇落去就好似少，但係其實好多人個喎，喺香港嚟講。

答：係呀，即係佢如果佢睇就係 6.5 個 per cent。

問：係嘞。你會去第二度㗎嘞，第二個問題，就會多好多文件嘅，不過...。

主席：仲有幾耐問呀，你？

李先生：我希望食晏嘅時候問完。

主席：食晏之前問完？

李先生：我希望係。我會盡量，盡力而為。

主席：盡量。因為有好多嘢都已經問過晒，盡量簡單。

李先生：同埋當個球員有張黃牌之後有啲唔同。

主席：紅牌都出咗囉喎。我哋休息二十分鐘先。

上午 11 時 32 分聆訊押後

上午 11 時 54 分恢復聆訊
出席人士如前。

李先生：主席。

<u>水務署第六證人：林正文（水務署助理署長（客戶服務））宣誓繼續作供</u>

<u>李先生繼續盤問</u>

問：林生，我有啲關於嗰個投訴嗰方面，好唔好？我問你幾個問題嘅啫，呢一點。

通常你哋收到投訴，譬如係好多就係話「點解冇水㗎？」咁喇，係咪？

答：係。

問：其實應該問咗大廈管理處先嘅，但係好多人就直接打嚟去水務署嘅，啱唔啱？

答：係，對。

問：咁你哋亦即時處理嘅？

答：即時處理。

問：係，咁有冇紀錄㗎？

答：我哋有個電話熱線嘅，就廿四小時運作，每個星期七天都係咁樣做㗎嘞。咁我哋有晒紀錄嘅，全部有晒...

問：一定有紀錄？

答：有晒紀錄，全部。

問：即係話全個特區，逢係有投訴，任何即係冇水好，第二啲投訴，一定有紀錄嘅？

答：有紀錄，响我哋電話中心有紀錄。

問：Okay。咁就關於呢次水含鉛嘅問題，由事發嗰陣時，即係舊年 7 月，推番上去五年裏面，你哋有冇收過任何嘅投訴，任何方面嘅話，話香

港啲或者佢屋企或者嗰區嘅水有含鉛嘅問題，有冇收過呢一類嘅投訴？

答：即係未出現呢件事，食水含鉛之前，我哋係冇收過呢啲，即係話有市民投訴會食水有含鉛呢一樣嘢嘅。其他嘅水質嘅投訴就有。

問：你咁肯定，即係你吵過啲紀錄㗎喇，係咪？

答：我問過啲同事，係佢哋話冇收過呢啲咁嘅投訴。

問：你係問過佢，所以咁肯定答我，係咪？

答：嗄，可以咁樣答你。

問：但係我就有一個要求，我想你返去自己 check 清楚，就然後就畀一個書面答覆，寫入嚟呢個委員會，得唔得？即係你睇完之後嘞，冇或者有。

李先生：主席，可唔可以准我咁樣做？因為我冇理由叫佢返嚟㗎。

主席：好。

答：Okay。

主席：你睇下喇。

答：好吖。

問：就係咁嘅啫。

主席：如果冇就冇。有、冇得㗎嘞。

答：Okay，okay。

問：係嘞，就係咁簡單嘅啫。如果有，係幾時。

答：即係事發前之前？

問：係嘞，係嘞。如果有，咁你咪畀我幾時、幾時有過咩嘢投訴，同埋點樣處理都講埋畀我聽，好唔好？

答：好，okay，okay。

問：如果冇就好簡單你話冇。

答：Okay，okay。

問：唔該。咁我哋關於有兩個問題，有兩個邨，我想問你嘅，就係到而家為止都係即係冇影響嘅，冇影響嘅屋邨，一個葵涌邨，一個怡明邨。

答：係。

問：Okay。咁我畀啲文件你睇先。就首先，你同意嘅，係咪呀，即係喺呢啲公屋度，被影響或唔被影響嘅屋邨，你哋都要做水辦㗎？

答：係。

問：咁所有嘅水辦都係你哋同房署一齊去攞嘅，係咪？定係淨係你哋去攞？

答：應該房署帶我哋去攞。我哋負責攞嘅。

問：你哋負責攞，但係就一定有房署嘅人？

答：一般佢都會帶埋我哋去。

問：係嘞，係嘞。咁就你攞完之後，就係咪有啲就自己去驗，自己去化驗，啱唔啱？

答：唔。

問：你哋自己嘅部門？

答：係，我哋自己化驗師去驗。

問：但係有啲就畀政府嘅部門？

答：政府化驗所去驗。

問：係嘞。咁喺你哋嚟講，有冇分別㗎？會唔會話政府驗嗰啲，政府化驗所嗰啲，你哋就唔理嘅；你哋嗰啲至係重要嘅？

答：唔會，唔會。

問：唔會嘅。一視同仁嘅？

答：大家一視同仁。

問：一視同仁？

答：一視同仁。

問：即係唔會話佢驗咗有，你唔睬佢，就睇你自己；如果你自己話冇，咁就當冇咁；你唔會咁㗎嘛？

答：唔會，唔會。

問：Okay。即係起碼你睇唔到咁嘅理由，驗咁做？

答：我睇到有理由有分別。

問：但係而家我畀啲文件你睇下，係C19.7，tab 160，係，個頁數就係15523。呢度你睇番15517先，15517。

答：15517。

問：係嘞。咁你睇到咩嗰？呢個就係"Table of Water Samples Taken in the PRH Developments"。

答：唔。

問：應該係你哋嘅文件嚟嘅。我睇第一版，即係15517。係水務署嘅文件嚟嘅，你哋出嘅，summary table，all right？

你睇15517。首先，左手面嘅，你睇到"PRH Developments"，睇到喇嘛？

答：係。

問：第一個就係十一個affected嘅developments，啱唔啱？

答：唔。

問：咁你拖過嚟右手面，第一個就係"Total No. of samples taken by WSD for lead and result issued"，咁呢個就係(A)就等於(B)+(C)+(D)+(E)。

答：係。

問：好嘞。咁呢個就係(A)嚟㗎嘞。

答：唔。

問：咁如果你十一個，你就 number of samples taken 就係九百三十七個水辦。咁再過嚟，你睇到上面嗰度就係"No. of samples tested by WSD for Lead and result issued"；睇到喇嘛？

答：係。

問：咁就有兩面嘅，"No. of sample[s] exceeding the WHO PGV for lead"，即係超過 10 嘞。"(B)"呢度就即係超過 10 嘞，啱唔啱？

答：係，係。

問：咁就驗到有十一個 development 之中有六十七個水辦係超標嘅。

答：唔。

問：咁同時去"(C)"嗰面，就係"No. of sample[s] with lead within WHO's PGV"。呢個就唔超標嘅。

答：係。

問：呢個"(C)"嘞，咁就有四百四十五個；睇到喇嘛？

答：唔。

問：再過嚟嘞，呢個就係 tested by 你哋嘅。

答：唔。

問：再去右手過，就呢啲就係 tested by Government Laboratory

嘞，"GL" for Government Laboratory，"for lead and result issued"；睇到喇嘛？

答：睇到。

問：咁你睇到，首先就"No. of sample[s] exceeding"，咁就有廿四，咁跟住就"No. of sample[s] within"就有四零一。

答：唔。

問：睇到喇嘛？

答：係。

問：你就咁樣做嘅。

答：唔。

問：跟住落嚟嘞，落嚟一行嘞，"Unaffected"嘞，okay？

答：唔。

問：咁呢啲就係 after 2005 嘅。咁你去右邊，我快啲嘞，做咗三千七百八十個。

答：唔。

問：咁"No. of sample exceeding"就係零嘅，okay？即係你哋做嘅係零。

答：係。

問：再過啲，Government Laboratory 做，又係零嘅。

答：係。

問：因為一有一個就變咗 affected㗎喇嘛。

答：係呀。

問：咁而家呢啲係 unaffected 嘅，所以應該係零嘅，係咪？

答：係。

問：好嘞，再落一行嘞，呢次就係 unaffected 嘅 developments "completed before 2005"，咁一路去嘞，你哋做嘅又係零，Government Laboratory 又係零，啱唔啱？

答：係。

問：好嘞，跟住我就想你揭幾版嘞，揭到去 15523 嘞。而家呢啲係--因為我睇番我--因為等你明白。你去番先，去番 15520 先。

答：係。

問：15520，"Table No. 2"，喺上面，"Unaffected"嘅；睇到喇嘛？

答：係。

問："completed in or after 2005"嘅。即係你哋先驗呢一批㗎嘛？

答：係。

問：好嘞，咁你一路揭落嚟，一、二、三、四、五，一路咁樣揭嘞，揭幾版嘞，咁然後就去到 15523 嘞，咁所以呢啲全部都係 unaffected 嘅，okay？

答：唔。

問：咁你去到 15523，咁你睇到左手面就有個 number 嘅，你去到"56"；睇唔睇到？

答：56，即係...

問：就係葵涌嘞。

答：係。

問：Okay？咁就"samples taken by"你哋嘞，"for lead and result issued"，呢個"(A)"嘞，就總共係八十一，但係你哋驗即係零嘅。首先"No. of sample[s] exceeding the WHO PGV for lead"，你哋驗出嚟就係零嘅。

答：係。

問：All right？Exceeding 係零，"within"就有四；睇到喇嘛？

答：唔。

問：跟住過嚟嘞，好嘞，Government Laboratory 嗰面驗，又係寫零嘅，"within"就有七十七。

答：係。

問：咁你呢度可唔可以畀隻手指隔住佢先？

答：唔。

問：因為我一陣有另外一啲文件你睇嘞。呢度因為--呢個委員會嘅律師就做咗個 summary 嘅，咁呢個就喺 A3，A3/45/2441。呢度喺--好厚嘅，呢沓文件好厚嘅。

答：唔。

問：我睇到上面嗰度，睇個 heading，"Summary table of water tests and results tested by [Government Laboratory]"；睇到喇嘛？

答：係。

問：而家係"Unaffected Estates"嘅"completed between 1954"同"1979"，咁就一路去嘞。咁去到 2487 嗰度。

答：2487。

問：頭先嗰度，你夾住喎，隻手指要，喺嗰度。咁而家 2487。

答：Okay。

問：咁你睇到右手面，最右手面嗰啲就有啲顏色嘅，超過 10 嗰啲就係棗紅色，好深紅色嘅。

答：唔。

問：差唔多咖啡色。有啲黃色嘅就即係唔超標，不過都相當可觀呀，okay？5、8、7 嗰啲；睇到喇嘛？

答：係。

問：嗰啲深紅色嗰啲，全部都係政府驗個喎。

答：唔。

問：先嚟一個"12"喇。咁"12"，你走番過嚟左面，一路過嚟，你就睇到係個 number 就係 "2739"，個地址就係"Room 405"，跟住就係"Kitchen Tap"，啱唔啱？

答：係。

問：好嘞，咁呢度落嚟嘞，又第二個同色嘅--呢個係全部都係葵涌嘅。

答：唔。

問：跟住落嚟係去到嗰個係"65"呀，呢個好高嘅，咁你一路拂過去，你睇到係"Meter Position"。

答：唔。

問：跟住再落一個，"150"，好犀利，呢個 150，咁就冇講係咩嘢嚟嘅，不過都係葵涌嘅，okay？跟再落嚟，"110"，你過番去左面，又係 meter 嘅 position；睇到喇嘛？

答：唔。

問：跟住"51"，又係拂過嚟，kitchen 嘅，"Kitchen Tap"；睇到喇嘛？

答：係。

問：跟住再落嚟，"72"，又係拂過嚟嘞，又係 meter，咁就一、二、三、四、五、六個囉喎。

答：唔。

問：咁即係話喺葵涌，雖然話係 unaffected，但係你哋抽咗水辦，呢啲就畀政府驗嘅，咁就驗到六個係超標，甚至有啲係好嚴重超標，同唔同意？

答：唔。

問：但係你攞番嚟，頭先嗰度嘞，但係點解佢零個喎？呢度有問題嘞，係

咪？

答：係。

問：咁呢度唔應該零喎？即係呢度，起碼你去番呢一版，去番政府驗嘅，即係右手面數番轉頭第二個行，嗰個"0"應該轉做"6"個囉喎？

答：係。

問：係喇嘛？

答：係。

問：咁如果轉咗六，咁就應該係 affected 個囉喎，即係根據房署嘅安排，係咪？

答：係。

問：Okay。咁另外一度，就係怡明邨嘞。咁呢度，我想你去番嗰個--呢個係 15520，即係頭先嗰度，15520，係，Table No. 2。

答：唔。

問：咁你數落嚟第"6"嘞，左手面數落嚟第六個，怡明邨，啱唔啱？？

答：係呀。

問：又係咁嘞，"(A)"就等如(B)+(C)+(D)+(E)就"102"。咁跟住過嚟，你哋驗嘅就係"0"，okay？

答：唔。

問：但係"within"又"0"喎，即係你哋冇驗過個喎。

答：係呀。

問：Right？咁就再過去，就又係"0"，呢個"No. of sample exceeding"，嗰個 10 嗰個又係"0"嘅，咁但係呢個係政府驗嘅，政府化驗所嗰面驗，就"102"就合乎標準，...

答：唔。

問：...但係"0"係超出標準。

答：係。

問：我想話畀你聽其實呢個應該一至啱嘅。嗱，我畀你睇。又番頭先嗰沓嘢嗰度，即係好多、好多，又有顏色嗰度。係嘞，即係 A3 嗰度，tab 45 嗰度。

答：唔。

問：呢次個 page reference 就去到 2499。

答：唔。

問：2499。咁你又喺右手面睇落嚟，又有顏色嗰度，黃色再落去到--係嘞，又睇到嗰個，係咪棗紅咁嘅色？又拂番過嚟，喺個 kitchen 嚟嘅，係 vacant 嘅。

答：唔。

問：Okay？呢個 Yee Ming Estate；睇到喇嘛？

答：唔。

問：我就故意唔講個地址出嚟，okay？因為唔需要嘅。

答：唔。

問：咁所以你去番頭先嗰度，話"0"嗰度，係應該一個囉喎？

答：唔。

問：同唔同意？

答：係。

問：係嘞，即係政府驗嗰度，喺右手面數過嚟第二個 column，嗰個"0"應該係"1"。咁如果係根據房署嘅，呢個應該又係 affected 個囉喎？一個都有㗎嘛。

答：唔。

問：同意吖嘛？

答：嗄。

問：唔該。另外一度，我想問你嘅，都係呢啲文件嚟嘅，去 15524。

答：唔。

問：係即係 C19.7 嗰度，係嘞，15524，去到最低嗰度。最低，最低。再上。去到最低，一個 footnote 嚟嘅。

答：唔。

問：係嘞。慢慢睇，個 footnote，佢話"Apart from these 3780 samples, ..."，即係上你睇到"3780"喇。

答：係。

問："... the test results of 102 samples were not issued by [Housing Department] or discarded for various reasons, of which 73 were test by WSD, 29 tested by [Government Laboratory]." 睇到喇嘛？

答：係。

問:呢度一係就冇出-- Housing 就冇出,有一百零二個;一係就 Housing 就有出，話佢係個 result 係點嘅；一係就 discarded 嘞，即係取消咗，唔知咩嘢理由嘞，咁呢啲取消咗。即係呢一零二係可以話被失踪嘅，一零二被失踪嘅水辦，係你哋就驗咗三十三個嘅，政府嗰面驗咗廿九個嘅。咁你知唔知係咩嘢原因呢？

答：咁講喇，我就其實我就冇參與呢啲...

問：明白。

答：...數據嗰啲分析同埋討論嘅，我就唔知道。不講我聽到就--因為陳健民先生都可能有解釋過嘅，即係有啲 sample 可能係有啲特別嘅原因，有啲 discard 咗，佢要返番去，再去番嗰個搵--即係可能係啲特別嘅 sample，佢覺得係有啲問題，佢返去 revisit 番，再攞番，再做番 resampling，去睇嗰個情況係咪真係咁樣樣呢；係咪因為頭嗰個受咗啲環境嘅因素，或者佢有啲改裝過，或者咩嘢盛；咁呢個詳細情形，我就真係唔清楚嘅。不過佢一定有足夠嘅理由點解佢哋冇接納到嗰個，佢第一個 sample 嗰個結果。

問：當然如果喺嗰個健康嗰方面，一個用水嘅用戶，如果佢攞啲水嚟飲嘅或者攞嚟煮嘢食嘅，佢唔理你咩嘢因素嘅，佢都入咗個肚㗎嘛。

答：係，係。

問：當然有啲因素話係如果佢哋係好肯定係外來嘅因素。咁你要明白，外來因素都要入到個水喉度至得㗎。啲水辦喺個水喉嗰度出嚟啲水㗎嘛。

答：可以咁講嘅。不過你有--好容易會跌咗落去嘅，譬如你附近嘅嘢，有啲嘢都會跌咗落嚟水辦嘅時候，都會有機會。

問：如果攞水辦，當然唔係一個杯咁樣喇。咁我攞啲水辦，我梗係好小心㗎嘛。

答：係。

問：係咪？你哋應該攞樽去㗎嘛，即刻閂蓋㗎嘛。

答：攞樽。係呀。

問：咁你手又唔可掂到㗎嘛。

答：唔，唔，唔，唔。

問：你做晒呢啲咁嘅措施嘞，咁呢啲應該好乾淨㗎嘛。

答：唔。

問：咁你就算嗰度個環境係好污糟嘅。係，你唔可以排除佢丁咁多跌咗落去，因為你就算好快，都可能有嘅。

答：係。

問：但係個機會好細個喎。

答：我都唔可排除有呢個可能性。

問：係，但係你排唔排除個機會好細吖？即係用 common sense 喇。因為佢哋...

答：可能係細，但係如果講緊七千幾個 water sample，就即係有出現呢啲咁嘅情況都唔出奇嘅，有可能。

問：仲有喎，你攞水辦嗰啲係冚嚇吟受過訓練㗎，點都少少都有㗎？

答：係。

問：你點樣教佢點樣做㗎。

答：係，係。

問：咁如果去到嗰度，係污糟污邋遢到離晒譜嘅，咁你咪唔好喺嗰度抽囉。

答：呢個就--即係個別個案，我真係唔敢講。即係...（聽不清）

問：譬如啲垃圾去到個水喉嗰度嘅，咁你冇理由喺嗰度抽㗎？

答：但係有啲時候佢已經定咗係入咗去嗰個方--嗰個單位，就有啲時候啲同事可能都唔想即係去...（聽不清）

問：咁就...

答：即係我唔敢講，因為每個案我都...

問：即係我用 common sense 喇。

答：係呀，common sense。

問：如果咁離譜嘅情況下，起碼寫低咗先喇，「喂，呢個，嗱」--或者影幅相，而家用咗影相啫，係咪？

答：係，係。

問：係咪？咁所以你攞咗水辦，就好明顯佢起碼佢都覺得啲水辦係唔會因為啲外來因素而令到佢影響嘅，因為個個人都要識，起碼呢啲普通常識嚟㗎嘛嘛，啱唔啱？

答：係。

問：咁而家係--當然我亦有啲證人嘅口供，包括 Professor Fawell，佢話有時係成粒嘢，...

答：係呀。

問：...未必睇到嘅。

答：跌咗出嚟，突然間。

問：跌出嚟。咁但係跌出嚟，都入肚㗎，若果我飲就？

答：係，呢個都會。

問：普通常識喇？

答：嗄。

問：係嘞。咁所以 Professor Fawell 就話呢啲唔應該扰咗佢嘅。你可再做幾次，但係你唔應該扰咗佢。

答：係喇，即係我講就話佢呢啲 case，佢一定有再返去做。

問：但係再返去，都唔應該 discard 呀。

答：諗，...

問：你若果唔方便 comment，因為你唔係專家，冇問題；但係我而家話畀你聽。

答：呢個係我有啲困難嘅，答你。

問：所以你係唔知道呢啲咩嘢理由嘅？

答：我淨係好 general 我知道佢哋係有啲可能環境因素，有啲--有理由去處理，一定有足夠理由先至要再 resampling。

問：起碼佢哋有佢哋認為足夠嘅理由？

答：嗄，嗄，我相信係呢樣嘢。

問：但係你就唔知佢點解嘞？

答：詳細情形，每個 case，我就冇參與。

問：咁即係就算有其他咁嘅同樣嘅 footnote，你都答唔到㗎嘞？

答：我係，對唔住，係。

問：好嘞，咁關於嗰個 enforcement，頭先我畀你睇喇，葵涌就有六個喇。

答：嗄。

問：咁就仲有嗰個係--怡明有一個喇。

答：唔。

問：咁喺執法嗰度，你預唔預備採取行動呢？

答：即係頭先我都講，如果佢哋返去再做 re-sample，就發覺係冇問題嘅，咁我哋都係當嗰條邨係冇問題，都係講緊...

問：唔係，六個你都當冇問題？

答：係，我會--即係而家佢哋都公布咗係咁樣樣，即係嗰個 system 係咁樣樣。

問：我覺得有問題喎。我覺得有問題喎，係咪？你做咗有--係有咁多個喇嘛，六個添。

答：但係...

問：一個都已經係當 affected。

答：但係佢始--始終佢有返去再做番--再有佢嘅分析，所以佢有咁嘅決定，就話呢個...

問：而家唔係話 discard 咗嗰啲，而家係有嘢喺度睇到，discard 咗，我哋睇唔到吖。

答：係。

問：但係唔 discard 嗰啲都有，咁仲有咩嘢理由取消咗佢？但係所有取消嗰啲，正正就係唔係你哋做，嗰啲水辦就係 Government Laboratory。但係呢個唔係應該--呢個完全唔應該係一個因素嚟㗎嘛。

答：冇關係，邊個做。

問：邊個做，都唔緊要㗎嘛。

答：邊個做，冇關係。

問：係囉，係囉，係囉。

答：即係因為呢個係可能同個取辦嗰個程序，或者嗰個環境嘅因素嘅影響，呢個同 Government Lab 冇關係。

問：係囉。

主席：唔係，我明，不過葵涌邨，其實我諗你哋都要睇下。因為葵涌邨雖然你話唔超標嘅水辦係 0，但係其實有好多係已經含鉛。不過佢唔超你嗰個標咋嘛，唔超 10 咋嘛。

答：係。

主席：其實你睇到--即係你見到譬如呢個 71、72 呢，Phase 4、Phase 5，156 個，係好多㗎嘛，其實係好多有問題嘅。So happens，我唔知葵涌邨係幾時落成，可能佢落成咗已經有一段時間，所以沖都沖減好多走，不過都仲係有好多問題。

即係其實基本上裏面有好多--可能有好多部件係用咗含鉛嘅部件，即係 solder 去做。所以--因為你知道你哋個 baseline，你哋個 baseline 含鉛基本上係 0。

答：係。

主席：即係雖然佢係冇--即係 water quality，from the water quality point of view 可能係冇事，但係 from 個 BS 嘅 point of view 係可能有事。

答：唔。

問：仲有一點，我想問一問你，就係怡明嗰度，去番嗰版 15520 嗰度，唔該。15520 嗰度，怡明邨--呢度就總共--怡明邨總共有一百零二個，係咪？A 嗰度。

答：係。

問：全部都係政府驗嘅，你哋一個都冇驗過，點解會咁嘅？

答：即係唔係，即係大家分工。因為當時都知道係好大量嘅水辦。

主席：怡明邨好似得一蘲嘅啫，如果我冇記錯，好似係。

問：你記唔記得？怡明邨係咪一蘲？

答：我唔記得，因為要睇番嗰個紀錄先得，因為--嗰個至於 Government Lab 同埋我哋分工，就大家都係--大家即係因為嗰個 facility。

問：Okay。即係冇乜特別嘅？冇乜特別嘅？

答：冇，冇特別原因，即係大家 share 咗嗰個責任。

問：Okay，係。但係你呢一個...

石先生：怡明邨有幾個 blocks？

李先生：因為怡明...

主席：有兩個，幾蘲。

李先生：哦，有幾蘲。

石先生：A3 tab 43 嘅 223 嗰一段。

主席：唔緊要，...

李先生：幾多蘲。

主席：...總之我哋知道有...

石先生：佢都有就係 Ying Yan House, Yee Yuet House, Yee Ching House。如果要數，都應該有一、二、三、四，四蘲應該係。

主席：四蘲。

李先生：四蘲。

主席：因為我哋做一--我哋自己做咗一蘲啫，好似係。

石先生：你係指 Prof Lee？

主席：係，係，係。

石先生：Prof Lee 拎過嚟嘅？

主席：係。

問：我都係再問你，譬如我哋睇--頭先睇到怡明，就有一度喇。

答：唔。

問：葵涌又有六個，六個單位係超標，咁你就話--你就諗住可能--佢哋而家係冇咁寫，你諗佢哋有個好嘅理由？

答：係，一定有個好理由。

問：但係你哋又冇驗喎？

答：佢哋有返去再驗，驗水辦，即係佢呢個--呢個佢哋一定有做呢樣嘢。

問：哦，即係再驗？你諗佢返去再驗？

答：唔係，佢水辦一定有再返去再 re-sampling，再 check 嗰個水辦。

問：其實你做呢啲水辦，既然係 random 嘅所謂，係咪？目的就係去到去搵，你就冇時候做晒㗎嘞，應該做晒嘅，你冇時候做晒，咁你就逐個逐個搵，同埋每個水辦都沖咗兩分鐘起碼至驗嘅，啱唔啱？

答：係，係。

問：咁嘅情況下驗到有，就好 significant，好重要。你仲畀佢返去再驗多幾次，驗到佢有變到冇，咁有咩嘢意思？如果係咁樣講，你咪將佢全部 affected 嗰啲都要返去驗？又驗，咁可能真係驗到冇個喎，因為你驗好少。嗰度 800 個，你唔能夠返轉頭再驗。

答：都唔少嘅。即係譬如睇番個數量，都唔少，每一個屋邨都。

問：係吖。

主席：唔係，佢都答你唔到點解佢哋 discard，佢都唔知。

李先生：而家呢個唔係 discard，呢個喺度個喎。

主席：我知，即係驗到有嗰啲，點解唔當係，係囉。

答：即係我諗...

問：邊個可以話畀我哋聽點解？

答：我諗當時佢哋係有討論，譬如攞水辦。

問：係邊啲人可能？

答：我諗水質科學部嘅同事係有去睇過，同埋再出去即係呢個...

問：即係 development 嗰面負責嘅？

答：吓？

問：Development 嗰面負責？

答：應該係。

問：係咪？

答：唔。因為我諗大家去睇嘅，佢哋嗰啲--有份去攞水辦負責，睇住呢啲數據嗰啲同事。

問：但係有冇用嗰啲文件令到你知道佢有咩嘢理由？

答：佢一定有理由話點解取水。

問：但係你就唔知？

答：詳細情況我真係唔知，不過 general，頭先個 picture 話環境因素，或者有啲改動咗，咁我哋有--即係都知道佢哋有咁講過。

問：環境因素，你可唔可以講多少少畀我聽？

主席：我哋聽過，Mr Lee。

李先生：Okay。

主席：又話嗰啲抽氣扇大塵，又話啱啱裝緊修嗰啲咁樣嘅嘢。

答：我就係聽過呢啲咁嘅信息，佢都係咁同我哋講。

主席：係，諸如此類。

問：Okay。好，呢本本子你--呢本本子嘅出版，你有冇參與？

答：我就冇參與去做，不過我有睇過。

問：有睇過。

答：我有去睇過佢個 drafting 嘅，所謂。

問：我可以話畀你聽，我唔想同你一路睇落去。

答：好。

問：但係我可以話畀你聽，就算主席都有意見，有啲地方係唔妥。

答：同意。明白，了解。

問：All right？我反而希望--因為我唔想有任何誤導嘅成分就唔好喇，係咪？

答：同意，同意。

問：我希望你返去就處理...

答：我都聽到主席嘅意見，喺呢方面。

問：咁得嘞，你辦事，主席有信心，okay？

答：唔係我辦事，大家做事啫，盡力去做。

問：係，咁即係你--即係我希望你積極處理。

答：我知道主席嘅意見。

問：明白。你積極處理，okay？

答：Okay。

問：Okay。而家就我好快完㗎嘞，就 Prof Fawell 佢就畀個意見我哋。佢其中一點，佢就話香港應該有一個叫做 independent 嘅 regulator，你知係咩嘢喇。

答：我知，我知，我知。

問：呢一點你會唔會唔同意，定係同意？

答：香港而家我哋就帶兩頂帽，當然外國好多時又分咗兩個唔同嘅 bodies。呢個我哋都真係要考慮下，因為呢個如果要做嘅，要--即係好大嘅手術，當然要...

主席：聽唔到你講咩嘢。

答：即係呢個會--即係如果我哋真係好似 Prof Fawell 講咁樣做，要有一個 independent 嘅 regulator，好似英國嗰啲 WI 咁樣樣。呢個係一個好新嘅一個新嘅模式，呢個一定要需要--可能要需要立法，呢個我諗要--我哋都會--會睇下點樣樣。

問：不過你明白個邏輯，係咪？

答：我絕對理解，我絕對理解。

問：唔係--即係唔係自己查自己吖嘛？

答：同意。即係呢個--我哋知道有呢個咁嘅建議。

問：Okay。最後一點，我希望你答到我，希望你盡力而為。

答：好。

問：好嘞，而家呢個--你嘅口供就即係對我嚟講，就問完，最後呢一樣。咁你睇到咁耐，當然每一個人若果係有負責嘅人，佢都會覺得即係你哋個部門，係有啲地方肯定係做得不足，你同意嘛？

答：我同意我哋每一個持份者都可以做得更好。

問：係。

答：一定有進步嘅空間。

問：好嘞，而家我想你話一話畀我聽，你希唔希望法律嗰方面有修改，而等到你哋做事容易啲？你想唔想見到呢個情況？

答：我哋其實都睇緊啲即係我哋個--而家水務設施修例，我哋都睇緊有啲咩嘢地方需要修改，而...

問：你覺得--唔係，老實講，你而--覺得而家個法例真係好麻煩，有啲大律師同我講，佢話人哋普通講啲有啲灰色地帶。

答：係。

問：灰色地帶，即係有啲黑、有啲係白、有啲係灰色地帶，佢話睇落去，你哋成單嘢好似全部都灰色嘅。即係好難執法，我明白，你明嘛？你同唔同意？

答：我同意，我同意。

問：係。咁所以...

答：所以我哋都會睇緊我哋啲法例點樣去修訂。

問：即係希望法律能夠修改？

答：我哋都會做緊呢一樣嘢，做緊呢一樣嘢。

問：Okay。好嘞，仲有權力嗰方面呢？即係如果真係將來你執法嘅，如果有 independent regulator，可能仲要睇下執法又要點樣，將來要睇。但係如果係又要畀番你去執法，你覺得呢方面，你覺得有咩嘢意見呢？

答：呢個我諗--頭先我都講，要好似外國模式有兩個唔同嘅 bodies 去做嘅時候，同而家香港嘅模式係有好唔同。呢個我相信係一個比較大嘅

手術，同埋法例上面都需要配合，我哋都會考慮下呢一--都會考慮呢個方向。但係我諗暫時我哋唔能夠應承到可以做啲乜嘢嘢，但係我哋一定會去檢討呢一樣嘢。即係當然係分開兩個唔同嘅 party，係一個--一個--其中一個可行性嘅一個--一個可行嘅方法。

問：而家你知道，我哋成日講 AP，你哋成日講 AP...

答：係。

問：...要--要--持份者，即係要預飛。

答：唔，唔，唔。

問：你知道房署嗰啲屋係唔受法例管制，你知唔知？Building Ordinance。

答：你--佢嚟講，佢係--呢一樣嘢就...

問：你知唔知先？

答：我--佢--係，佢哋唔受，但係佢水務嗰方面，佢要跟番我哋嗰個要求去做。

問：係。但係即係譬如如果真係做錯咗，咁即係--如果普通人，譬如我自己間屋，我自己要負責，係咪？咁個 AP，佢又要負責。

答：唔。

問：但係如果房署，就有呢個問題，你...

答：但係我諗房署一定會好努力去做佢自己嘅本份。

問：係，應該，okay，係咪？

答：係。

問：你--譬如將來繼續落去，咁 AP 點樣呢？你係執法個喎，如果係繼續執法落去。

答：即係當然佢哋會睇番...

主席：係咪改咗嘞，而家已經？

李先生：我希望冇改。

主席：我個理解係咪改咗已經？早--我哋咪好似見過一張 circular，就話你以前 exempt 嘅，而家 no longer exempt？嗰個係咩嘢？Underground...

答：Underground pipes。

主席：Underground pipes，記唔記得？

答：Underground pipes 同 Seals pipes。

李先生：Underground pipes.

答：即係我哋都當番佢係私人嗰個發展商咁去做。

問：但係用張--用張咁嘅信得唔得㗎？

主席：吓？

李先生：法律嘅效力得唔得㗎？

主席：佢哋不嬲用慣 circular，係囉。

問：好，我冇問題，唔該你。

答：好，多謝你。

陳先生：Mr Chairman, the next witness is Mr Chan Hing。

主席：你冇問題問佢？

陳先生：No.

主席：好，唔該。

黃小姐：唔好意思，主席，我有少少問題，係。

陳先生：Sorry。

黃小姐：唔好意思，主席。

主席：唔得個喎，冇咁--你又唔舉手。

黃小姐：我--唔好意思，主席，因為我琴日到，就佢已經 start 咗 evidence，所以唔好意思，主席。

主席：你問幾耐？

黃小姐：好短。

主席：好短，問喇。

黃小姐：大概幾條問題。

<u>黃佩琪小姐盤問</u>

問：唔好意思，林先生。我就想問一問你，你 WWO Form，我哋其實都睇咗幾次，嗰個 form 係幾時開始用？

答：你講 WWO 邊張 form 請問？

問：嗰個 WWO Form 係--如果你睇一睇係 B15.1。

主席：係咪--係咪 46 你講？

黃小姐：係 B--WWO46。

主席：其實我想問一問，你哋嗰啲 WWO，跟住嗰啲冧巴有冇 logic？

答：我哋部門都人睇住啲秣巴。因為我哋部門都有好多唔同嘅 function。

主席：係，我知。

答：佢哋就會按住--即係睇下按住一個 series 咁樣派，一路你有啲--每個部門有...

主席：呢個可能係一個好 minor 好 minor 嘅 point。不過 from 一個 consumer，from 我哋嚟講係完全唔 make sense。WWO46，跟住又 132、1005、1008，完全冇乜撐嘅，係。

答：即係呢個都用咗好耐。

主席：得，繼續問。

問：唔好意思，係 B15.1，37627 頁。

答：B15.1。

問：我問題係，請問呢張 form 由幾時開始沿用？

答：我就唔真係--霎時間答你唔到，不過都用咗相當長嘅時間。

問：會唔會係由有 licensed plumber 開始用，定係再早啲？

答：應該係，因為八幾年嗰陣時佢就唔係叫做 WWO46，叫 Form G--其實 From Ga 嗰啲咁嘅。

主席：Ga。

答：佢嗰陣時 82 年已經開始有呢張，即係佢前身已經有。但係你話呢張 form 去到幾時呢個--呢個 format，我就真係答你唔到。

問：係，咁呢個 form...

答：但係佢嗰個精神就已經响 82 嗰陣時候已經開始擺入去。

問：82年開始？

答：已經有响度。

問：呢個form你哋部門有冇份參與去即係放啲乜嘢料入去呢個list度，有冇份參與你哋部門？

答：如果你講咁長歷史，你講十幾、廿年前我就--即係我就冇開--佢一開頭我冇參與。

問：中間呢？

答：中間就如果佢on and off改嗰啲就--我唔知你指係佢點樣設計定係...

問：或者我清楚少少，第37627頁，入面有個...

答：3762？

問：627。

答：37627，37627，okay。

問：入面有一拃list，如果我哋碌落去少少睇。

答：係，係。

問：嗰度有一拃，7(ii)嗰度，睇到嗰度有一拃--7(i)嗰度有拃British Standard嗰啲嘢。

答：係。

問：你哋部門有冇份參與制訂呢個list？

答：呢啲都係我哋自己寫。

問：都係你？

答：係我哋部門做，成張form都係我哋部門做。

問：成張form都係你部門？

答：都係我哋部門做。

問：呢張 form 我想請問，2015 年 7 月，即係有鉛水之前 update 咗幾多次？

答：2015 年之前，如果你睇番，就應該就係 2012 年嘅 6 月。

問：係。

答：嗰陣時應該就佢有啲--可能佢就係最後個版本 2012 年 6 月嗰陣時出嘅應該。舊--最對上一個版本。

問：對上版本 2012 年。

答：如果新嗰個就可能 2015 年，最新嗰個版本。

問：其實你記唔記得，喺你任內 update 咗幾多次呢個 form？

答：我真係唔係好記得，對唔住。霎時間答唔到你呢一題。

問：多唔多，印象？

答：應該就唔會話太多，我睇佢就唔應該太多。

問：係。放呢啲料入落去，其實係咪都--我見你份口供就其實都 based on 一個 risk-based 嘅 approach。

答：唔，係。

問：個風險係點樣評估去放呢啲料落去。

主席：我諗我哋已經 cover 過。

黃小姐：唔好意思。

主席：係。

問：或者我--我其實想問一個問題，就係點解你哋覺得 solder 或者焊料呢樣嘢係唔需要放落呢個 list 度？

答：Solder 同焊料，其實呢啲題目都有講過，我哋都講咗...

主席：講過。

答：...即係 pipes 要全部落晒，其餘即係有五款，即係個 terminal fittings 我哋都擺咗落去。我哋都講番，即係之前都有提到，即係話呢五個 -- 五種嘅部件佢嘅 -- 即係當中都有提到咩嘢 functionalities，即係嗰個功能，我哋會--即係要留意到呢一樣嘢。所以我哋就擺咗呢五個--五個 terminal fittings 响度。咁樣樣，要報上嚟嘅，連埋啲 pipes 咁樣樣。

問：唔。係咪係你哋部門覺得緊要，簡單啲，緊要嗰啲先至放入去呢個 list 度？

答：其實都--我哋都講過，都唔係話即係淨係呢五個，呢張表格都講咗，即係 list or not list 你都要 make sure 佢都係要符合呢個嘅要求，水務署嘅要求。

問：係。

答：不過呢幾個，呢五類嘢加埋嗰啲喉管，已經係差唔多成個系統嘅絕大部分。

問：明白。好，我就即係因為有啲嘢想即係了解下，就係因為其實你哋本身都有--你都知有個叫 Advisory Committee on Quality of Water，即係優質管理水，有個 ACQWS 嘅會議。

答：知道。

問：裏面其實喺四--2000 年大概 4 月就成立，中間其實有幾次會議開過。

答：係。

問：其中一樣嘢，我諗我唔會帶番你去有關文件，除非你想睇。其中有一張就係 ACQWS 嘅 paper 第 7 嗰點，其實都提及到外國有好多經驗就話--即係唔係香港。其實 outside 香港，好多地方都發現有焊料釋出鉛呢個問題。然後就帶落去今朝同你--或者琴日同你睇過有個 minutes 係 2004 年 10 月 22 號，For 主席 reference，係 W1 page 480。

嗰度就係話 IVE 屯門，即係分校嗰度都提及到話焊料個問題。其實呢樣嘢都唔係一個低風險嘅項目，點解你哋覺得--即係冇諗過放埋落去呢個 list 度？

答：ACQ 我相信你講當時開會有個第 7 號文件嗰個問題。

問：係，係。

答：其實當時我諗可能呢度都講過，之前我哋有啲同事講過。

問：唔，係。

答：嗰個問題就係當時因為我哋有--有一個咁嘅 assignment 就話要希望打開水龍頭已經飲到水，有個咁嘅 assignment 我哋要做。當然我哋要考慮--要做到呢樣嘢，嗰個內部供水系統係真係要--即係保養維修做得好好。所以當時有關嘅同事就主要睇呢一方面，睇下內部供水系統嗰個保養維修有啲咩嘢問題咁樣樣。

而响嗰個年代最大嘅問題就係食水--即係有好多水黃嘅問題，因為呢個係一個嗰啲 unlined GI pipes 好 popular。所以佢個 focus 就响嗰度。當然佢亦响佢嗰個 review 或者有個 study 嗰度，佢有睇下啲外國嘅情況。佢可能睇到有一啲歐美國家佢哋有--佢哋個內部供水系統嘅保養維修成日出現一啲咩嘢問題，佢哋睇到有啲--因為佢歷史嘅原故，佢哋嗰個國家好早期已經准許一啲鉛--用鉛嘅喉，或者准許用啲有鉛嘅焊料嚟做一啲咁嘅嘢，佢有提到呢一方面嘅嘢。

但係呢啲係佢嘅歷史發展，當時嗰個問題。當時嘅同事冇--個重點唔係擺喺呢度，佢覺得香港--因為香港已經禁止咗鉛喉好耐，所以亦冇一個咁嘅--即係你可以講佢冇特別個 focus 擺咗嗰度，反為佢擺咗响啲水黃，discolor water 嗰面嗰啲工作上面。

所以佢最後就有啲咁嘅建議，即係話後來最後推出就係「優質食水計劃」，點樣去教啲市民去保養維修佢內部供水系統、點樣清潔、點樣洗水缸、點樣去檢查。呢啲都係嗰個 paper 之後引發出嚟嘅一啲--一啲嘅跟進嘅工夫。

問：其實 2002 年，即係由 GI pipes 轉到去呢啲即係銅喉，其實都需要接駁料。

答：係。

問：會唔會當陣時你啲同事都應該即係睇番轉頭呢，而家今日，其實都應該考慮呢個焊料會唔會含鉛，呢個問題其實都唔係一個細嘅議題呢？

答：因為當時嚟講，如果你講 02 年，...

問：係，啱啱轉料嗰陣時。

答：譬如話焊料嗰個--焊料唔可以含鉛，呢一樣嘢已經 87 年，嗰陣時嗰個法例。去到嗰陣時已經嗰個--已經一段唔短嘅時間，已經講緊十幾年。嗰個行業--行頭都應該知道呢一樣嘢。我哋知道有好多私人或者政府嘅 contract 都係有寫呢個咁嘅 specifications 响度。所以我哋覺得唔係一個咩嘢--一個好新嘅一樣嘢，我哋覺得。

問：其實你--你本人都其實知道水喉匠其實啲知識水平，或者嗰啲水喉工人嗰啲知識水平就唔係好高。會唔會你哋覺得即係雖然話 87 年個例都已經一路喺度。

答：唔，唔，唔。

問：但係你都要畀佢哋知道，即係 from time to time 都等佢哋知道唔可以含鉛，嗰個後果同埋個重要性喺邊，你同唔同意呢個講法？

答：係。咁所以我哋都--如果問番啲水喉匠，如果就算上嚟呢啲咁多位水喉匠，就算出事嘅，停咗牌嘅水喉匠，佢哋都係好--佢哋都講得好清楚，佢哋知道呢一樣嘢。即係嗰個行頭應該都好清楚呢一樣。

問：明白，但係行頭知，佢哋唔係落手落腳做。因為好多時都係啲工人做，但係如果啲工人唔識，或者係嗰啲--即係做慣嗰啲人唔知道個意識，個--個意識唔強。其實你嗰個水喉匠知，即係淨係水喉匠知，其實唔夠。你其實係要啲工人都要知，等佢哋知道嗰個後果個嚴重性。

答：我知道 CIC 佢哋自己本身，佢哋嗰啲訓練嗰啲課程，佢哋嗰啲教嗰啲 plumber，佢哋都係有教呢一樣嘢，佢哋冇話唔教。所以呢個我覺得唔係淨係持牌水喉匠，應該嗰啲--普通嗰啲--嗰啲 plumbing workers，佢哋都--如果有受過呢啲訓練都應該知。

問：但係呢個就--佢哋即係可能...

主席：呢啲問題我哋探討過晒，...

答：答過。

主席：...探討過晒，唔好再重複。

黃小姐：好。主席，我諗都係就住呢個問題我有問題，唔該。

主席：好，唔該。

黃小姐：唔該。

答：唔該。

黃小姐：唔該。

主席：可以離開，唔該晒。

答：好，唔該晒。

陳先生：主席，with your permission, Mr Chan Hing will now take the stand.

主席：好。好短嘅啫佢個 statement。

陳先生：There are two statements. Both are quite short. Certainly before lunch I can read the first one.

主席：Okay，可以走得。

答：好，唔該晒。

主席：讀住一個先。

水務署第七證人：陳慶（水務署（於2013年1月3日至2015年10月1日出任工程師／客戶服務（技術支援））以本地話宣誓作供
陳樂信先生主問

問：Mr Chan, I believe you know how this works. I will read two witness statements of yours to start with, and then you can confirm or clarify those statements as appropriate.

COMMISSION OF INQUIRY INTO EXCESS LEAD FOUND IN DRINKING WATER APPOINTED PURSUANT TO SECTION 2 OF THE COMMISSION OF INQUIRY ORDINANCE (CHAPTER 86) ON 13 AUGUST 2015

WITNESS STATEMENT OF CHAN HING

I, CHAN Hing, Assistant Secretary (Lantau) 2, Development Bureau, of 17/F, Central Government Offices, 2 Tim Mei Avenue, Tamar, Hong Kong do say as follows:-

1. From 3 January 2013 to 1 October 2015, I was deployed to work as an Engineer/Customer Services (Technical Services) of Water Supplies Department **("WSD").** I have recently been seconded to the Development Bureau to work on policy matters.

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

same abbreviations and nomenclature as in the 12 October Letter.

3. This Witness Statement addresses paragraphs i.4, i.10 and i.11 of the 12 October Letter:-

> "i.4. explain and identify the regulations, provisions and measurements pertaining to (a) the construction of the Affected Estates to ensure drinking water will be lead-free and safe and (b) prohibiting the use of pipes, fittings and soldering and other plumbing materials ("**Plumbing Materials**") from which lead may leach into drinking water;
>
> i.10. describe and explain the work of the Licensing Authority which handles applications for the issuance and renewal of plumbers' licences;
>
> i.11. describe and explain the qualifications, requirements and criteria for granting a plumbers' licence;"

4. During my tenure as an Engineer of the Customer Services Branch of WSD from 3 January 2013 to 1 October 2015, my duties included, amongst others, processing general approvals of pipes and fittings to be installed in a fire service or inside service, liaising with relevant stakeholders regarding the standards and testing requirements of pipes and fittings and overseeing the regulatory regime for licensed plumbers. I therefore have direct knowledge in relation to the questions at paragraphs i4, i.10 and i.11 of the 12 October Letter, and am duly authorized by the Director of Water Supplies to make this statement to cover the matters raised in the said paragraphs for the purpose of giving evidence and assisting the Commission.

i4(a) Regulations, Provisions and Measures pertaining to

the Construction of the Affected Estates to ensure drinking water will be lead free and safe

5. Under the present statutory framework, neither the Waterworks Ordinance ("**WWO**") nor Waterworks Regulations ("**WWR**") specify any standards or requirements of the quality of drinking water. Nevertheless, for drinking water quality WSD has pledged full compliance with the World Health Organization ("**WHO**")'s "Guidelines for Drinking-water Quality" up to the connection points, i.e. the points between government mains and the inside service. Beyond the connection points, water quality is dependent on the proper construction, installation, etc. of the inside service, as well as regular maintenance and cleaning of the inside service, by consumers and agents. In accordance with section 7 of the WWO, consumers are required to undertake to accept responsibility for the custody and maintenance of an inside service. Further, Regulation ("**Reg**") 7 of the WWR requires consumers to be responsible for keeping an inside service clean.

6. The Water Authority ("**WA**") plays a regulatory role on the construction of the inside service in accordance with the requirements and standards set out in the WWO and WWR. For details of the regulations, provisions and measures in place in respect of the construction of the inside service applicable to the Affected Estates, please refer to the witness statement of Mr. LAM Ching Man.

i4(b) Regulations, Provisions and Measures Prohibiting the use of Plumbing Materials from which lead may leach into drinking water

7. Neither the WWO nor the WWR explicitly prohibit the use of "Plumbing Materials from which lead may leach into drinking water". According to WHO's 2011 Guidelines for Drinking-water Quality, the provisional guideline values of lead in water is 10 µg/litre. As a matter of statutory requirement, the benchmark of permissible

Plumbing Materials was not whether they will leach lead into drinking water at all, but whether they are of the British Standards (**"BS"**) as required under Reg 20 of WWR. Under BS 1254 (and its previous version BS 864), soldering material used for a drinking water system shall be lead-free; but for certain categories of pipes and fittings the BS does recognize a permissible percentage of lead composition.

8. For the following major types of Plumbing Materials, the applicable BS relevantly provide as follows:

(a) Copper pipes: Item 16 in Part I of Schedule 2 of the WWR requires, inter alia, that copper pipes to be jointed with capillary fittings or compression fittings shall comply with BS 2871 Part 1. BS EN 1057, being the latest version (i.e. 2006+A1 :2010 version) of BS 2871 Part I , which specifies that the materials of copper pipes shall be of copper grade CW024A of which the composition of "Copper + Silver" shall not be less than 99.9%. BS EN 1057 does not specify an exclusion of the presence of lead. There are now produced and shown to me marked as "**Annex 1**" a copy of BS 2871 Part I and as "**Annex 2**" a copy of BS EN 1057.

(b) Copper alloy gate valves: Item 8 in Part 2 of Schedule 2 of the WWR requires, inter alia, that copper alloy gate valves shall comply with BS 5154. BS EN 12288 is the latest version (i.e. 2010 version) of BS 5154 for copper alloy gate valves. There are now produced and shown to me marked as "**Annex 3**" a copy of BS 5154 and as "**Annex 4**" a copy of BS EN 12288. Annex A to BS EN 12288 specifies the materials for construction of copper alloy gate valves. All the copper alloys listed in Annex A to BS EN 12288 are permitted to contain lead up to a specified

percentage. For example, the lead content of CC491K grade copper alloy is between 4% and 6% by mass (see Table 23b of BS EN 1982). There is now produced and shown to me marked as "**Annex 5**" a copy of BS EN 1982.

(c) Capillary fittings for copper pipes: Item 17 in Part I of Schedule 2 of the WWR requires, inter alia, that capillary fittings of copper pipes shall comply with BS 864 Parts 2. BS EN 1254 Part 1 is the latest version (i.e. 1998 version) of BS 864 Part 2. There are now produced and shown to me marked as "**Annex 6**" a copy of BS 864 Parts 2 and as "**Annex 7**" a copy of BS EN 1254 Part 1. Table 1 of BS EN 1254 Part 1 specifies the grade of copper alloys for making the capillary fittings. All the copper alloys listed in Table 1 of BS EN 1254 Part 1 are permitted to contain lead up to a specified percentage. For example, the lead content of CC750S grade copper alloy is between 1% and 3% by mass (see Table 3 of Annex 5).

(d) Soldering materials: Item 17 in Part 1 of Schedule 2 of the WWR requires, inter alia, that capillary fittings and compression fittings shall comply with BS 864 Parts 2 (see Annex 6).Table 17 of BS 864 Part 2 specifies that the lead content of lead-free grade solder in making capillary joint shall be less than 0.1% by mass.BS EN 1254 Part I (see Annex 7), being the latest version of BS 864 Part 2, requires that soldering materials with lead are not permitted in installations for water for human consumption. The chemical composition of lead-free soldering materials is specified in Table 3 in BS EN ISO 9453. The lead content in lead-free grade solder shall be less than 0.07% by mass. There is now produced and shown to me marked as "**Annex**

8" a copy of BS EN ISO 9453.

i.10. Work of the Licensing Authority

9. In accordance with Reg 32A(l) of the WWR, the WA has designated Assistant Director/Customer Services, head of the Customer Services Branch, of WSD as the Licensing Authority to issue, renew, suspend and cancel plumber's licences. Under Reg 32A(3) of the WWR, WA also appointed an advisory board to assist the LA, who shall consult the board in exercising his functions under Part 5 "Licensing of Plumbers" of the WWR.

10. The current advisory board, appointed by the WA in August 2015 with a term of two years, has a total of 14 members from the fields of professionals (4 members including the chairman), training institution (1 member), plumbing trade (4 members), main contractor (1 member), property management (1 member) and government departments (3 members).

11. Under Reg 34 of the WWR, the Licensing Authority shall issue a plumber 's licence to an applicant who has the required qualifications (re. Regs 33, 34(2) and 34(38) of the WWR) and has paid the required fees (re. Regs 34(1) and 34(3C) of the WWR) provided that the applicant's qualifications have been obtained less than 5 years before the date of his application.

12. In accordance with Reg 36 of the WWR, a plumber 's licence shall be valid up till and including 31 December in the year in which it is issued and may be renewed annually for a further period of 12 months from the date of expiry.

13. In practice, applications for issuance and renewal of plumber's licences are processed by the Customer Enquiry Centres of the Customer Services Branch at either WSD Headquarters in Wan Chai or the WSD Mong Kok Office. They will check and verify the qualifications

stated in the application and in case of doubt will seek advice from the Technical Support Unit of the Centres to determine whether the qualifications are acceptable.

14. Under Reg 34 of the WWR, on receipt of an application complying with the above-mentioned requirements of qualifications and the prescribed fee, the Licensing Authority shall issue a plumber's licence to the applicant provided that the applicant's qualifications have been obtained less than 5 years before the date of his application. A person who applies for a plumber' s licence relying on any qualification that he obtained 5 or more years before the date of his application or a plumber who fails to renew his licence within 5 years of its expiry date will be required to demonstrate that he has adequate knowledge of plumbing works and provisions of the WWO. Applications for issuance or renewal of licence under this category will be referred to the Licensing Authority for consideration. The applicant may be required to pass an examination and pay the prescribed examination fee. For renewal of plumber 's licence, Customer Enquiry Centres will check, apart from the expiry date, the status of the licence and will not renew a licence which is under suspension or cancelled under Reg 37 of the WWR.

i.11. Qualifications, Requirements and Criteria for granting a Plumber's Licence

15. In accordance with Reg 33(1) of the WWR, any person who holds the following qualifications may apply for a plumber 's licence:-

(a) a Craft Certificate in Plumbing and Pipefitting issued by the Vocational Training Council (**"VTC"**) after 1987 or an equivalent qualification; and

(b) a Certificate in Plumbing Services (Hong Kong) issued by VTC or an equivalent qualification.

16. The "Craft Certificate m Plumbing and Pipefitting" course is a three-year part-time (day/evening) course, which aims to provide working adults and in-service apprentices with comprehensive craft knowledge and practical training in plumbing works.

17. On the other hand, the "Certificate in Plumbing Services (Hong Kong)" course has 39 lecture hours and aims to provide practitioners of the plumbing trade with necessary skills and knowledge, including knowledge of the provisions of the WWO, so that a graduate of the course is eligible for applying for a plumber 's licence under the WWO. A person has to possess at least four years of practical working experience in the plumbing trade (certified by employers) before he may be enrolled for the "Certificate in Plumbing Services (Hong Kong)" course.

18. Examples of equivalent qualification for Craft Certificate in Plumbing and Pipefitting in the opinion of WA are:-

(a) Plumbing Craft Certificate issued by the City and Guilds of London, the issue date of which is within 5 years before the date of application;

(b) A fellowship/membership of The Chartered Institute of Plumbing and Heating Engineering - Hong Kong Branch (formerly as The Institute of Plumbing of the United Kingdom), the issue date of which is within 5 years before the date of application or a valid fellowship/membership card of The Chartered Institute of Plumbing and Heating Engineering of the United Kingdom at the date of application;

(c) Certificate in "Refresher Course on Plumbing and Pipefitting" issued by the Vocational Training Council, the issue date of which is within 5 years before the date of application.

19. Details of other application procedures and criteria have been set out in paragraphs 11 to 14 above.

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

Dated this 6th day of November 2015.

陳先生：Mr Chairman, would this be a good time?

主席：我哋晏晝先至再繼續第二份，好唔好呀？好，我哋兩點半再繼續，唔該。

下午 12 時 57 分聆訊押後

下午 2 時 32 分恢復聆訊

出席人士如前。

水務署第七證人：陳慶（水務署（於 2013 年 1 月 3 日至 2015 年 10 月 1 日出任工程師／客戶服務（技術支援））宣誓繼續作供
陳先生繼續主問

陳先生：Mr Chairman, the 2nd witness statement of Mr Chan Hing:

3. I am the same person who made the Witness Statement of CHAN HING dated 11 November 2015 ("**My First Statement**"). I am duly authorised by the Director of Water Supplies to make this 2nd Statement, to provide further information to the Commission of Inquiry into Excess Lead Found in Drinking Water (the "**Commission**") on (1) the evolution of pipe materials for use in fresh water inside service in Hong Kong and related matters, and (2) WSD's approval of water supply pipes and fittings.

4. Save where otherwise appears, the facts deposed hereto are within my personal knowledge or are derived from office files and records and sources to which I have access and are true to the best of my knowledge, information and belief.

(1) <u>Evolution of pipe materials for use in fresh water inside service in Hong Kong</u>

1.1 Types of pipe materials allowed for use in fresh water inside service

5. While the Waterworks Ordinance ("**WWO**") and the Waterworks Regulations ("**WWR**") do not specify any standard or requirement of the quality of drinking water, Part 1 of Schedule 2 of the WWR sets out in detail the types of pipe materials that are allowed for use in fresh water inside service. Under the current WWR, pursuant to paragraph 1(3) of Part 1 of the said Schedule 2, pipes on a fresh water inside service shall be made of cast iron (鑄鐵), unplasticized polyvinyl chloride (uPVC or PVC-U)(低塑性聚氯乙烯), polybutylene (PB)(聚丁烯), steel(鋼), copper(銅), polyethylene (PE)(聚乙烯), crosslinked polyethylene (PEX or XLPE) (高密度交聯狀聚乙烯) or chlorinated polyvinyl chloride (PVC-C) (氯化聚氯乙烯).

6. Over the past 40 years, various changes have been made to the pipe materials allowed under Part 1 of Schedule 2 of the WWR. Details of such changes are tabulated below:

陳先生：Mr Chairman, I don't propose to read the table.

Paragraph 7:

7. As shown in the above table, ...

陳先生：that's between paragraphs 6 and 7 of the written statement.

...the Water Authority (the "**WA**") from time to time reviews and considers the need to add or exclude different pipe materials allowed for use in fresh water inside service in Hong Kong. Under WWR 1974, five types of pipe materials, i.e. cast iron (including ductile iron), asbestos cement, wrought iron, steel (including unlined G.I. pipes) and copper, were allowed for use in fresh water inside service. However, asbestos cement is brittle and causes frequent pipe burst and wrought iron often results in water discolouration. As a result, both of them were banned by the 1992 Amendments. The banning of these two pipe materials, which were mainly used for underground water pipes, did not cause any significant impact to the industry because, at that time, ductile iron pipe and unlined G.I. pipes had already been commonly used as underground water pipes.

8. On the other hand, in view of water quality complaints, the WA conducted studies in 1987, 1989 and 1992 on the then commonly used pipe material, i.e. unlined G.I. pipes, which were subject to deterioration in terms of rusting and hence had a relatively short service life, and to explore alternative pipe materials for replacement of unlined G.I. pipes. Part (1.2) below briefly explains the studies and consultation carried out by the WA before the banning of the unlined G.I. pipes.

9. The 1994 Amendments removed unlined G.I. pipes from the said Schedule 2 while lined G.I. pipes and three more types of thermoplastic pipe materials, i.e. Polyethylene ("**PE**"), Crosslinked polyethylene ("**PEX**") and Chlorinated polyvinyl chloride ("**PVC-C**"), were included. Detailed reasons for banning of unlined G.I.

pipes by the 1994 Amendments are set out in Part (1.3) below.

10. Unlike the banning of asbestos cement and wrought iron by the 1992 Amendments, the impact of banning of unlined G.I. pipes by the 1994 Amendments was much more extensive as unlined G.I. pipes had been commonly used in Hong Kong for many years, both as underground water pipes and inside services within the building. Their commonality was due to their comparatively low material cost, robustness, good resistance to impact, ease of installation and ready availability in the local market. Although copper piping had long been an approved pipe material for inside service, copper pipes were comparatively more expensive than unlined G.I. pipes and might induce theft problem because of the high scrap value of copper. As a result, copper pipes were mainly used in hot water supply system or in some luxury houses and the jointing method commonly adopted by plumbers for copper pipes at that time was compression fittings because this method could facilitate ease of construction and required less skill as compared to soldering of capillary fittings with a solder ring (commonly known as integral solder ring capillary fittings).

1.2 Study and consultation carried out by the WA before the banning of the use of unlined G.I. pipes in fresh water inside service

11. Before the 1994 Amendments, the WA conducted three internal studies in 1987, 1989 and 1992 respectively on the abandonment of unlined G.I. pipes and assessments of alternative pipe materials. There are now produced and shown to me marked as "**Annex 1**", "**Annex 2**" and "**Annex 3**" copies of the said three internal studies conducted by the WA in 1987, 1989 and 1992 respectively.

12. The 1987 study (see **Annex 1**) focused on the review

of the use of unlined G.I. pipes and further explored the feasibility of use of uPVC pipes as an alternative for inside service pipes in exposed condition. According to the 1987 study, uPVC pipes are rigid, suitable for cold water services, light weight and have good corrosion resistance. However, they are not suitable for use in vulnerable conditions, e.g. prolonged exposure in direct sunlight and roads with heavy traffic. Copper pipes were also mentioned briefly in the said study but were considered to be expensive (2-3 times more expensive than unlined G.I. pipes) and might induce theft problem because of the high scrap value of copper. Further exploration of other pipe materials for small diameter mains was considered necessary.

13. In the 1989 study (see **Annex 2**), a more detailed study was conducted on other alternative pipe materials, including an assessment of the pros and cons of different pipe materials, installation methods, cost comparison and liaison with overseas water companies and suppliers (particularly in relation to the experience of using lined G.I. pipes in Singapore and Japan). According to the 1989 study, alternative pipe materials, such as lined G.I., MDPE, uPVC and PB, had already been used in inside service in some overseas countries but were not as popular as unlined G.I. pipes in Hong Kong, due to their higher costs. In short, the 1989 study concluded that (i) lined G.I. pipes appeared to be a more favourable choice over other types of thermoplastic material for submains in both exposed and buried conditions; and (ii) lined G.I. pipes, copper pipes and thermoplastic pipes are suitable for use in inside service as alternatives to unlined G.I. pipes. As regards copper pipes, the 1989 study concluded that "The main limitation of copper is its cost when compared with other materials. Its high scrap value means that pilfering can be a problem especially when it is laid above ground. With the advantage of no rusty discolouration, use of copper pipes in inside service is becoming more popular in high class development projects."

14. After the 1989 study, a number of new pipe materials were progressively allowed to be used in fresh water inside service in Hong Kong. The 1992 Amendments introduced two types of thermoplastic pipe materials, i.e. unplasticized polyvinyl chloride (uPVC) and polybutylene (PB). uPVC pipes are suitable for cold water services while PB pipes are suitable for both hot and cold water services.

15. The 1992 study (see **Annex 3**), which is supplementary to the 1989 study, mainly focused on the results of a trial exercise on the use of lined G.I. pipes. Lined G.I. pipes are actually galvanized steel pipes with the provision of an internal protection lining to resist corrosion and encrustation. It can be used in vulnerable conditions such as exposure to direct sunlight, traffic loads and disruption of frequent utility activities. The 1992 study concluded by stating that "*The use of lined G.I pipe is technically feasible under local conditions and the laying cost has no significant difference from that of conventional unlined G.I pipe .....Lined G.I pipe is one of the suitable substitute material for conventional unlined G.I. pipe. High cost of this type of pipe material will last until it is widely used in the market. Although cost factor is an important element to be considered in choosing pipe material, high initial cost in using better and more durable material will be off-set by lower maintenance cost in future ...*"

16. Copper piping was not the focus of the above studies because it had been a well-known suitable pipe material since 1980s as long as it complied with BS, and it was not widely used due to its higher cost and popularity of unlined G.I. pipes

17. Furthermore, based on the 1989 and 1992 studies, the WA issued two booklets in December 1994, (which were subject to revisions in June 2000 which are immaterial for present purposes), namely:-

(i) "General Information on the Use of Different Types of Pipe Materials as Inside Service in Buildings" ("**General Information**") [COI Bundle CS/54/page 4031-4046] providing consumers with some general information on the corrosion resistant type of pipe materials approved by the WA under the WWR (as amended by the Waterworks (Amendment) Regulation 1994); and

(ii) "Installation Notes of Different Types of Corrosion Resistant Pipe Materials as Inside Service in Buildings" ("**Installation Notes**") [COI Bundle CS/55/page 4047-4060] providing plumbers/installers with some practical information and the practices to be followed in the application and installation of various corrosion resistant pipe materials introduced by 1992 and 1994 Amendments. As it had been well known that copper pipes are suitable piping material and the trade had been familiar with their jointing method, the Installation Notes did not contain a section on jointing of copper pipes. For the same reason, copper pipes were also not covered in details in the General Information.

1.3 Banning of the use of unlined G.I. pipes in fresh water inside service in Hong Kong

18. Unlined G.I. pipes are prone to deterioration after being in service for a number of years due to loss of the galvanised protection layer. Such deterioration permits corrosion of the internal surface. The fine iron particles remaining in suspension in the water cause discolouration. The problem is more acute when the water has been standing in the pipes for some time. In most cases, the discolouration can be removed after the water

has run for a while. Corrosion of the pipe at the joints can also lead to leaks. In extreme cases, complete replacement of the pipes is necessary.

19. Slight discolouration of the drinking water does not pose any health hazard to human beings although it can be aesthetically unpleasant. In 1990s, people became more conscious of drinking water quality and the number of complaints on discolouration of drinking water increased, indicating that people no longer tolerated discoloured water.

20. Before the enactment of the 1994 Amendments, the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Council of the Institution of Plumbing, the Licensed Plumbers Association, the Hong Kong Construction Association, the Hong Kong Construction Industry Employees General Union, the Hong Kong & Kowloon Plumbing & Ironwork Workers Union and the Hong Kong Plumbing & Sanitary Ware Trade Association had been consulted on the banning of unlined G.I. pipes and the introduction of new pipe materials for fresh water inside services. They all supported the proposal.

21. Further, as the banning of unlined G.I. pipes for use in fresh water inside service helped resolve the problem of discolouration of water, it was also welcomed by the general public.

22. As a result, the 1994 Amendments came into operation in December 1995 and formally banned the use of unlined G.I. pipes for fresh water inside services in all new buildings and, in existing buildings, upon renewal of their fresh water plumbing systems except for minor repairs.

(2) WSD's approval of water supply pipes and fittings

23. The WWR stipulates the requirements and standards of the pipes and fittings installed or intended to be installed in the inside service. Under Reg 20 of the WWR, every pipe or fitting shall be of the British Standard, which means the latest revised edition of a specification issued by the British Standards Institution. There are more than 140 relevant British Standards covering such pipes and fittings.

24. Modern building projects often involve a huge number of different types, brands and models of pipes and fittings. For example, in so far as the five types of terminal fittings referred to in paragraph 27 below are concerned, up to July 2015, there are totally about 13,000 approved terminal fittings.

25. Form WWO 46 is a standard application form for all kinds of plumbing works of varying complexity ranging from small scale re-plumbing work for single units, simple developments (for example, village houses), to complex multi-storied building projects. Further, different projects/plumbing works also involve different fittings. It is impracticable for all pipes and fittings to be listed out either in the Annex to Form WWO 46 or Schedule 2 of WWR. Moreover, from the perspective of effective administration, it is also impractical for WSD, as a regulator, to test and approve each and every pipe and fitting for the industry. It is important for main contractors, plumbing sub-contractors and licensed plumbers ("**LPs**") to ensure effective material control and that all pipes and fittings installed are as prescribed by the WWR, i.e. every pipe or fitting shall be of the British Standard. As such, Form WWO 46 requires both the Authorized Person ("**AP**") and the LP to provide the certification referred to in paragraphs 34 and 35 below.

26. In the following parts, I will explain the evolution of WSD's approach in approving water supply pipes and fittings, from testing and stamping by WSD to the prevailing certification system by APs and LPs.

2.1 Testing and stamping of water supply fittings (before 1982)

27. Under WWR 1974, Second Schedule, Part II, "*no draw-off tap or valve shall be installed or used unless it has been tested and stamped in accordance with regulation 21 or otherwise approved by the Water Authority*". Before 1982, it had been the practice that water supply fittings were required to pass a visual and pressure test carried out by WA before they were accepted for installation. This requirement of WSD carrying out a visual and pressure test before the fitting was accepted for installation was stated in WSD Circular Letter dated 2 July 1982 issued to all AP and LP [COI Bundle C3/37/C.1/ page 2453 to 2457]. The testing and stamping activities covered five types of terminal fittings as water would run to waste in case of defects. In particular:

(i) Draw-off taps and combination fittings are installed at the end of a plumbing system. Leaking taps or combination fittings can be a direct nuisance.

(ii) Stop valves are commonly installed in the upstream of a water meter of size below 50 mm. These can stop the water flow in pipes and also prevent water from back flowing. A defective stop valve will hinder replacement or disconnection of water meters and will cause water leaks at the meter position when a meter is not in place.

(iii) Gate valves are usually installed near non-terminal fittings such as tee and bend, as well as in the upstream of a water meter of size 50 mm or above. These can stop the water flow in pipes. A defective gate valve will hinder replacement or disconnection of water meters

and also replacement of pipes and fittings in the downstream. It will cause water leaks at meter position when a meter is not in place.

(iv) Ball valves are installed inside sump tank and roof tank for regulating the water level. A defective ball valve will lead to overflowing of water tanks.

The above five types of terminal fittings used/intended to be used were also required to be reported on the Annex to the then Form Ga (predecessor of Form WWO 46). At that time, pipes were not required to be tested and stamped as water pipes are simply metal tubes without any movement parts, so the quality such as end details, roundness and strength, are relatively easy to assess.

28. Testing and stamping were carried out at two Waterworks Depots in Hong Kong and Kowloon respectively, with a standard procedure for the submission of applications for testing. On receipt of the items for testing, a visual examination would be conducted to check the general compliance with relevant British Standards. After the visual examination, the items would be hydraulically tested to a pressure of 2000kPa (20 bar) using fresh water. The test result would be considered satisfactory if there was no leakage apparent for a certain duration. The said duration ranged from 5 seconds to 15 minutes, depending on the type and size of the item being tested. Items which satisfactorily passed the test would be stamped for identification purpose before leaving the workshop; for those which failed, items would be marked with red paint.

29. Until 23 September 1981, fittings bearing the BS Kitemark were exempted from testing but were required to be stamped for purpose of identification. There is now produced and shown to me a copy of WSD's relevant announcement dated 23 September 1981 marked as "**Annex 4**".

2.2 Abolition of the testing and stamping arrangement and introduction of certification requirements (1982-1986)

30. With the growing sophistication and enlargement of the scale of inside services across Hong Kong in the 1980s, there was a large increase in the number of terminal fittings to be tested and stamped and that caused considerable delays and inconvenience. In 1981, WA increased the capacity of the two testing and stamping depots to cope with the demand. Even though the capacity had been increased, WA's limited staff resources and testing facilities were unable to handle the growing demand. Processing time was generally in the range of 2 to 3 weeks, which delayed the progress of projects. Furthermore, storage problems and administrative inconvenience arising from the need to submit five types of terminal fittings for testing and stamping were encountered. The WA therefore announced via WSD Circular Letter dated 2 July 1982 [COI Bundle C3/37/C.1/page 2453 to 2457] the abolition of the testing and stamping practice. A new system was put in place to require APs and LPs to confirm compliance with the WWO and WWR in respect of construction of inside services. APs and LPs were required to certify that the plumbing fittings (including terminal fittings listed on the Annex to the then Form Ga (predecessor of Form WWO 46) as well as all other fittings) intended to be installed were in compliance with the prescribed standards.

31. With effect from 1 September 1982, only 4 categories of fittings were permitted to be used, i.e. (a) fittings bearing BS Kitemark, (b) fittings accepted and certified by the National Water Council of UK (now Water Regulations Advisory Scheme), (c) fittings accepted by WA in writing (now WA's general acceptance letter) and (d) fittings bearing WA stamping. From 1 September 1984, the WA stopped accepting applications for testing and stamping fittings for the purpose of approving their use

and thus category (d) above was obsoleted. Suppliers and agents of water supply fittings needed to obtain approval from the WA to have their fittings included under category (b) or (c). This could be achieved by producing certifications from the National Water Council of UK or independent testing agencies approved by the WA. For category (c), the testing agency had to satisfy itself that the fittings were generally in conformity with the relevant BS in qualitative and quantitative terms.

2.3 Further revision of Form Ga (Form WWO 46) to include pipe material (1986-2015)

32. In 1986, the Pokfulam Gardens incident involved complaints of private water pipe leakage involving substantial bursting of fresh water pipes affecting over 1,000 units in a private residential development which had been completed in or about 1980. Applying WSD's risk-based approach, the then Form Ga was revised via WSD Circular Letter 3/86 [COI Bundle C3/37/Cl.1/ page 2431 to 2436] to cover pipes after the incident. In other words, pipes which were intended to be used for inside service were required to be reported in the Annex of the Form with effect from 1 January 1987.

33. Since then, all pipes and the five types of terminal fittings used/intended to be used are required to be reported.

34. Other fittings which have lower risk of causing major nuisance and wastage in case of defects are not required to be reported specifically. It is to be noted that, regardless of reporting requirements, the AP and LP are required to certify that all fittings are as prescribed by the WWR.

35. As a result, APs, who in their established professional role are responsible for the overall

construction work of the building project, have since 1987 been required by the WA to certify that pipes and fittings installed/intended to be installed, including those as listed on the Annex to Form WWO 46 (which has consolidated Form G, Form Ga and Form H between 1989 and 2000) and those not listed, are as prescribed by the WWR prior to the commencement of plumbing works. They are also required to confirm that the pipes and fittings used comply with waterworks standards and requirements upon completion of the plumbing works for issuance of "Certificate regarding water supply connection".

2.4 Further revision of Form WWO 46 to include pipe material (after October 2015)

36. On 19 October 2015, via WSD Circular Letter No. 7/2015 [COI Bundle C19.5/130/page 13803 to 13806], Form WWO 46 was reviewed and the following key amendments were made:-

(a) For fittings intended to be used for the plumbing works covered by Form WWO 46, those fittings listed in the WSD's website needed to be included in the Annex;

(b) Any change to the previously approved pipes and fittings listed in the Annex to Form WWO 46 is to be approved by the WA before installation;

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

Dated this 27th day of January 2016

_____

CHAN Hing

問：Mr Chan, you have heard the printed evidence that I have read out. Do you wish to confirm for the purposes of this Commission that this is the evidence that you want to give up to this point?

答：同意。

問：If you wait there, there will be other questions.

石先生盤問

問：陳先生，你好。就其實好多你嘅證人供詞涵蓋嘅課題喺好多在你之前作供嘅你嘅水務署嘅同事都已經講過，其實我就唔打算重複同樣嘅問題，不過就有幾點就我想帶番出嚟，想等你確認下。同埋因為你嘅證人供詞嗰個寫嗰啲內容嘅先後嘅排序就同另外一啲嘅同事嗰個寫法有些少安排上唔係好同，我想確保就係大家都講緊同一樣嘢嘅啫，所以我唔會太耐。

首先我想同你確認番嘅，就係你睇一睇你嘅第二份證人供詞，18804頁，呢個就係頭先我哋早上有另外一位大律師就問過你嘅另外一位同事林正文先生，就係你哋水務署係而家嗰份 form 有個 annex 嗰份 form，叫做 WWO46？

答：係。

問：有個 annex，呢個 WWO46，就係其實呢個格式就係輾轉由唔同嘅格式就演變出嚟嘅，因為應該我睇番你嘅證人供詞，就遠在七十年代嘅時候就叫做 form Ga 嘅，定係 form G 咁樣，係咪呀？

答：WWO46 包括其中一張係 form Ga，前身。

問：前身？

答：係。

問：Okay，但係嗰陣時就唔係叫 WWO46 嘅？

答：冇錯，冇錯。

問:你睇番你18804嗰度,就你就咁寫嘅,你就話WWO46就consolidate咗"form G、form Ga and form H between 89 and 2000"咁樣,即係話係咪嘅意思就係話喺1989年之前就G、Ga同埋H就係三張分別存在嘅一啲格式嚟嘅,係咪呀?

答:係。

問:咁就...

答:我諗G同Ga就應該有啲關係嘅,喺個名上面講出咗係,form G同Ga,係,一張相連嘅...

問:睇個樣都知,可能A -- Ga就可能G嘅其中一個part咁樣?

答:冇錯,係,可以講係。

問:因為我哋知道而家嘅WWO46就其實就有part I、II、III、IV、V嘅,羅馬數目字,咁會唔會係G、Ga同埋H其實就係等於而家就可能係part I就可能係當時嘅一個form Ga咁樣,會唔會係咁樣?定係點演變嘅,你知唔知道係?詳細我哋唔使睇,不過有人咁問開,我就代佢問埋。

答:呢個我又唔可以好太確定,因為form G、Ga呢啲時間比較耐,都係十幾年前嘅表格,我就唔太可以確...

問:總之就係一拃以前用開嘅,用唔同名存在嘅表格,就喺89至到2000年裏面...

答:整合咗。

問:...就將佢哋重新安排過、整合過,就變成咗一張叫做新嘅名嘅form,就叫form 046?

答:係。

問:就分I、II、III、IV、V部分咁喇。咁可能你之所--點解你會嗰度用呢個89至到00咁樣嘅?

答:相信佢整合嘅時間,其實佢可能都有個唔同嘅階段,可能係G、Ga...

問:佢可能先先將兩種form合埋咗,跟住再加多一張落去咁,係咪呀,意思係?

答：係，係。

問：Okay，得，好。我就想問一問你，就係有關 WWO46 嗰個 annex，採取啲乜嘢嘅尺度嚟到決定要求持牌水喉匠將啲乜嘢類型嘅部件寫落去，呢度就係喺你嘅第二份證人供詞有講嘅，就我想你睇一睇就係第 25 段開始，25 段開始，你就講起 WWO46，26 段，你就開始講話你會解釋呢個水務署對於呢個 testing、stamping，呢個唔同嘅部件嗰個演化嗰個程序嘅演化，跟住你就睇番就 27 段，27 段，你就係講到就係最早期就係直情就係水務署自己會驗啲部件嘅，驗到啱就有個 stamping。

答：冇錯。

問：呢個最早期，我哋見到有個叫做 form Ga 咁。我哋都之前同你嘅同事就問過，其實嗰陣時嗰個種種唔同嘅部件，draw-off taps 又好，stop valves 又好，你之所以將佢哋歸納一齊要零零舍舍喺一個 annex 嗰度寫埋出嚟，或者要特別驗，就係因為驚住同一個流弊或者同一個問題，就係漏水？

答：唔。

問：滴水或者滲水或者漏水，引致到會有嘥水嘅情況出現？

答：唔。

問：歷史遺留落嚟嘅原因就係咁樣，係咪呀？

答：不如我呢度-- form Ga 嘅出現，我諗係喺 circular letter date 2 -- 1982 年 7 月 2 號，就喺 paragraph 29 嗰個 circular letter 嗰度帶出嚟嘅應該，嗰度先至開始有 form Ga 嘅，我嘅理解。

問：Paragraph 29，你話？

答：27，sorry。

問：27，係。

答：Paragraph 27 裏面有講到嗰個 circular letter，裏面帶出咗 form Ga 呢樣嘢，之前其實係每一件配件都送去我哋嘅 workshop 嗰度就做 testing、stamping 嘅，...

問：得，得。

答：...肥咗，就唔可以用，...

問：得。

答：...通過就可以用。

問：得，但係要求人哋將一啲部件，選擇性嘅部件，唔係全部，...

答：係。

問：...攞嚟驗都係因為水務署當時嘅 thinking 嘅想法，就係呢一拃部件都有同樣嘅一個風險，就係會漏水、滴水，就 run to waste 啲水就會？

答：呢度可以再補充多少少，我諗呢啲配件大部分都係一啲龍頭嘅閘掣，都係一啲有 functionality、有啲 operation 嘅作用嘅一啲配件，佢嘅特別嘅地方就係好多時佢喺末端或者佢係間斷一段段嘅供水系統。佢哋呢啲配件大部分由好多唔同嘅部件組成嘅，個構造相對嚟講，較為會--當時嚟講，可能係複雜啲，如果造得唔好嘅話，佢哋--引致佢哋如果係失效、失靈嘅話，水係會長流嘅，如果一連串嘅呢啲閘掣都失效嘅話，第一，會浪費食水，第二，亦都會引致水浸呢啲咁嘅問題，會譬如有財物嘅損失嘅問題，有好多 consequence 會出現嘅，所以因此我哋覺得呢啲係一啲當時即係重要嘅，重要嘅配件。

問：呢啲都係喺用者個末端發生嘅事情，因為呢個都係喺個--即係叫做講得白，喺層樓嗰度發生嘅事情，...

答：係，都係內部供水系統。

問：...過咗 connection point㗎喇？

答：內部供水系統。

問：所以其實叫做係理論上，其實係 inside service 嘅嘢嚟嘅？

答：係。

問：但係水務署都覺得雖然遲早，即係 safekeeping 或者 custody 或者 cleaning 或者 maintenance 個 inside service，雖然都係住戶或者個用家嘅責任，但係喺建造嘅時候，水務署都覺得佢都有個角度係要扮演嘅，對確保 inside service 裏面用嘅種種部件？

答：同意，有個規管嘅角色嘅，根據個規例上嘅要求上有個規管嘅角色。

問：係，因為 WWR 都講到明唔同嘅部件，雖然喺 inside service 入面，遲早都係要由佢管，但係因為喺建造嘅時候，你水務署對呢一啲 inside service 裏面嘅部件都係有 WWR 裏面對用物料或者物質或者種種 quality 嘅要求，就因為咁樣，所以就水務署就早期嘅時候就要求攞呢啲部件嚟到做 stamping，然之後就可能發展到就係唔使逐件 stamp，你就可能信任一啲 lab 或者你信任呢個 Kitemark，或者你就信任呢個英國嗰個 WRAS，佢哋種種演化，我哋睇過你嘅供詞裏面講到...

答：我補充多少少，就係早期，你見到 82 年之前，我哋係每一件部件都送去我哋個 workshop 嗰度測試，其實作為一個要用一個公營嚟運作呢一種嘅情況有佢吃力嘅地方，因為當業界突然間興旺嘅時候，冇辦法可以每一件都應付得到，...

問：明白。

答：...有高潮，有低潮，有佢嘅難度。所以後嚟就會引進咗，就係由供應商送去一個 approved lab，做咗相關嘅測試，我哋就批出一個 Ga 嚟叫做入閘，佢就提供喺呢個表格裏面會用嘅。但係我相信呢個唔可以代替本身佢嗰個 QC，即係個供應商本身佢內在一個 QC 嘅系統，呢個係一個...

問：唔係，我明，我焦點唔係話係咪話就係咁樣就表示 okay 晒吖，定係可以取代，我個焦點唔係呢樣嘢，我哋大家都知道你哋後來演化到有四個方法去滿足...

答：都講多少少呢個要求背後其實都有個原因，呢個應該都係一個規例上嘅要求嚟，根據我嘅理解，喺 regulation 嘅 schedule 2 嘅 part 2 嘅 clause 11 嗰度，佢關於 taps and valves，佢都有要求到所有用喺 draw-off taps and valves 都需要--呢個我嗰個 statement 我都有提過，都需要經過 WA 嘅 approve，即係呢五種 valve。

問：係，得。總之就係個大題目，就係水務署經過咗一個思想嘅過程，就覺得呢五種嘅部件--部件就成千上萬嘅，即係講得誇張啲，水務署就覺得話「我冇理由樣樣都要同你驗或者樣樣都要你寫嚟嘅，樣樣都要驗做唔到。」對嘛？

答：（沒有可聽到的回答）

問：樣樣都要你寫，寫到成沓紙咁厚，寫唔到，一係就可以完全唔使你declare，因為根本有個basic default嘅要求，就係所有部件都要符合BS嘅？

答：一定係。

問：所以如果純粹你靠人哋自律，水務署其實理論上，我知道實際唔係咁做，理論上就可以話「我已經叫你用BS㗎喇，你唔符合嘅話，就後果自負。」不過水務署冇採取呢個態度，對嘛？

答：對一啲重要部件，我頭先咁講，就係做多一步，就係...

問：係喇，做多一步。

答：...--就係，係喇。

問：係喇，就唔係話等到話如果第二時出咗事，唔符合BS，出咗事，你就走去「嘩，你唔符合。」因為可能會遲喇已經，係咪呀？

答：唔。

問：漏咗水，發生咗一啲對住戶唔方便或者影響佢生活嘅事情，對嘛？

答：（沒有可聽到的回答）

問：呢一種考慮就係令到水務署覺得呢五種部件係有足夠嘅重要性係特別處理，一係就要提供畀你做stamping，一係就要經過certification、攞lab test呢個咁嘅步驟，對嘛？

答：呢個當時嘅考慮，應該係。

問：係，當時嘅考慮。我嘅問題就係漏水導致不便係一個evil，係一個唔好嘅嘢，係水務署identify咗嘅，我知道可能當時你唔係決策者，但係紀錄中或者你哋而家有冇一個取態，就係當時點解冇同時考慮另外一種嘅hazard或者risk，對用戶嘅風險就係健康嘅風險呢？點解冇--亦都go through過一個咁樣嘅所謂mental process，就係話...

答：根據規定，用喺供水系統嗰個嘅喉管同埋配件都要符合英國嗰個標準嘅要求，我哋認知，都係如果根據呢個英國標準嗰個--使用英國標準嘅喉管同埋配件同埋安裝嘅方法，個供水系統得出嚟嘅話，嗰個嘅水質都應該會符合到嗰個標準，從呢個情況。

加上嗰個規管嘅制度，規管嘅制度即係話我哋已經定咗喉管、配件嘅標準，加上我哋有個對合資格嘅人士有個發牌嘅制度，對於佢哋違規，我哋會有個取消，而水務工程需要由呢啲合資格嘅人士，即係持牌水喉匠，進行。

以及我哋喺--其實 WWO46 個表格，我都唔記得講佢本身嘅功能，其實通知 WA 佢哋進行一個水務工程，喺呢個時候我哋要佢哋--其實我係提醒佢哋，喺表格上面提醒佢哋水務工程需要-- AP 同 LP 需要證明，證明，另外一個就係提醒佢哋佢哋用嘅喉管、配件需要符合英國標準，呢個情況底下。

我哋委擬咗一個每一個建造工程裏面負責監督嘅重要嘅角色，AP 喇，我相信喺樓宇建造裏面，亦都有我哋自己發牌監管嘅 LP 嘅合資格人士，佢哋去確認，亦都提醒佢哋需要留意住規例要求喉管配件嘅英國標準，去符合呢個標準進行。

加上其實喺建造業--本港嘅建造業有一個良好嘅監管制度，我哋知道除咗發展商以外嘅團隊，亦都有種叫總承建商嘅團隊，都有水務工程，可能分判商上嘅 LP 等等唔同嘅團隊，喺個工地上面，喺個工程上面咁樣監管，各盡本份，各司其職。

除此以外，我哋喺完工嘅時候，我哋都會去視察嗰個地方，亦都有個罰分嘅制度，對於違規嘅 LP，我哋會作出適當嘅扣分，或者其他嘅情況，可能根據法例，可能做出紀律嘅處分咁樣，喺整套呢個咁樣嘅情況底下，我哋就喺法例嗰度好清楚，有個鉛嗰個焊料嗰個無鉛嗰個要求係好清晰喺度列出咗，我諗喺呢一點上面，就冇擺落去 46 表格裏面。

問：你剛才講嘅全番說話其實就可以 exactly dup 番落去嗰五種喉管嗰個喉頭嗰度㗎喎，其實，用番你講嘅嘢，就係如果我搵番成段 transcript，你開頭就話「如果符合咗 BS，就應該係唔會有鉛，就唔會影響健康，我又倚靠業界、LP，又扣分」，又盛，我如果攞走咗「漏水」，substitute「無鉛」--如果我攞走「無鉛」，substitute「漏水」，其實都得㗎喎，如果符合咗 BS，就唔會漏水，...

答：嗰個--即係嗰個...

問：...「所以我就信任業界」如何、如何，你都可以用番同樣嘅邏輯，但係事實就係水務署冇用呢個邏輯，佢覺得漏水呢個 risk，呢五種配件係 something special，有啲特別嘅，令到你唔方便，漏水、水浸，特別到你要事先要睇一睇嘅，係咪呀？你冇採取到話「我信賴

業界」什麼、什麼一連串五分鐘嘅獨白嗰個理念，你覺得呢啲嘢係特別到要你抽出嚟講。

答：呢個都係個規例上面要求，即係有佢呢一個嘅...

問：你而家就係講話要--點解要呢五樣嘢呢？就係因為冇呀，規例零零舍舍要求，所以就要--你係講 schedule 2，係咪呀？

答：係。

問：得，我哋睇一睇 schedule 2，Waterworks Ordinance，係咪呀？

答：Regulations。

問：Regulations，得。G1 嘅 141 頁，schedule 2，schedule 2 就 160，你係講緊邊條話？

答：Part 2，clause 11。

問：Part 2，"Taps and Valves"，clause 11，"No draw-off tap or valve shall be installed or used unless it has been tested in accordance with regulation 21 or otherwise approved by the Water Authority."，okay，但係個答案都係--個問題始終存在，就係話「Okay，你話我依法，因為呢度 rule 11 要咁做。」但係你寫 rule 11，都係經過我頭先一個 thought process，就係覺得"No draw-off tap or valve shall be installed" unless tested "or otherwise approved"，即係特別到係要有零零舍舍係要 approve 嘅，係咪呀？

答：（沒有可聽到的回答）

問：呢句可以唔寫㗎，因為你有 BS 打底，BS 嗰個 provision，一個打底，by default 嘅 provision，你驗唔驗，佢都要符合，對唔對？對嘛？

答：規例寫咗，都要做嘅。

問：都要做嘅，但係呢個就係 on top 嘅，「我覺得我要 make sure，我知你用咩嘢牌子。」係咪呀？因為 something special，特別嘅，因為可能會有啲後果。

答：規例寫咗，都要--係喇，都要跟呢個...

問：唔好講「都要跟」，寫咗，梗係要跟喇，但係任何嘢寫咗，要跟，都有個理由，係咪？

答：唔。

問：我聽你講個理由，就係因為如果呢一啲出咗事，一連串嘅嘢出事，就會有小則滴水，大則水浸，呢個係足夠嚴重嘅，對住戶嘅影響，令到水務署覺得「我要寫落去」，對嘛？

答：對。

問：對，點解食水含鉛違反BS，令到鉛或者重金屬入咗去，影響健康呢一個風險唔考慮到，亦都係 build in 喺你哋嘅規矩程序裏面有同樣 equivalent 等同嘅要求，就係焊料呢啲物料要係事先批核呢？

答：食水含鉛就我哋而家就知，事後我哋就清楚喇呢個，事前嚟講，我哋不如講話個 material control 嗰個位，唔一定係鉛，其實仲可能會有其他嘅風險要講先，如果你...

問：係，各種嘅。

答：事後我哋就當然知道個風險，事前方面就我哋用咗頭先我講嗰套機制，套規管嘅機制，我哋信賴嗰個系統底下，我哋認為嗰個風險，當時都係認為係唔高，因此冇--我哋認為用咗符合英國標準嘅配件、喉管，只要按規例施工，個系統嘅水質就應該會符合標準。

因此你頭先講嗰個鉛嗰個，我會做啲乜嘢呢？由於都唔認為有太大嘅風險，因為如果有，就做咗喇事前，坦白講。事後我哋而家就當然的而且確係做咗好多加強嘅措施，喺容後好多個唔同嘅通函裏面通知業界，第一個通函就係叫佢哋要交無鉛證明書，就正正係對呢點。

問：得，明白。

主席：嗰啲唔使講，嗰啲唔使講，係呀，唔好...

問：總之就係 for good、bad reasons 都好，即係無論如何都好，就總之嗰陣時真係冇諗過，亦都冇察覺到原來有呢個咁嘅風險，漏水呢個可能你覺得話總之嗰陣時係察覺咗，會釋出啲鉛入去影響健康，總

之呢一個而家知有可能，但係當時真係冇諗過？

答：就焊料嚟講，就焊料，...

問：就焊料嚟講。

答：...唔覺得，因為我哋知道其實有啲合約上面都有好清晰嘅條例列明需要用無鉛焊料。

問：得。我又想問一問你，我哋聽到黃仲良副署長佢講過，就係到到最後，出咗 part IV WWO46 要求水務署去最後檢測，就要出張 part V，水務署要上去驗嘅時候，其中就係話究竟佢點驗呢，即係天大地大咁樣，咁多單位，驗乜嘢呢？咁要有個取捨，要有個 prioritisation，有啲咩嘢係真係可以驗到，有啲咩嘢係驗唔到嘅，黃副署長，我嘅記憶，佢就話有啲眼見到嘅，你 WWO46 嗰張 form 個 annex 嗰度就有啲寫咗喺度，咁寫咗喺度，眼見到嘅，同埋有牌子認到嘅，唔使好複雜嘅檢測，牌子望一望個頭，A 牌對番 A 牌，咁就得喇。

會唔會其實寫落去 WWO46 裏面，其中一個隱含咗嘅考慮，就係眼見到、容易 check 到嘅嘢先至寫落去，會唔會有咁樣嘅隱含嘅考慮呢？焊料燒咗就冇㗎喇，你去到驗，你都驗唔到，所以就都費事要寫落去 O46，因為 O46 其中一個角色就係令到啲人對最後驗嗰個部件去到驗嘅時候，方便佢攞住嚟到執藥咁樣剔嘅，會唔會有呢個可能呢？

答：我反而會係有個諗法係咁，其實啲規例上面就清晰寫咗 864-2，要求要使用無鉛嘅焊料，AP 同 LP 喺入紙申請開工嘅時候，佢哋都被提醒過，亦都自己聲明過佢哋會跟住採用嘅符合規例嘅喉管、配件，除咗--唔單只係喺 annex 上面嘅嗰個，其實...

問："You shall not use"...

答：...就係個規例要求，都應該用無鉛焊料。其實我哋都倚賴嘅係一個系統，就係 AP 其實作為一個建造項目嘅，其實都係一個比較重要嘅位置，一個領導嘅位置，一個管理位置嘅人。其實我知道喺工程上面，佢哋係會有 material submission 嘅，會有 material submission 交，其實我覺得係每一個工程，由佢哋工程嗰個嘅管理團隊...

主席：不如你答石大狀嘅問題喇，好唔好呀？

答：好。即係大--你...

問：我頭先就係問緊你一個 specific 嘅問題，就係乜嘢嘅物料需要要求喺 WWO46 裏面寫出嚟，你嘅答案就係話會影響漏水嘅，水喉頭，呢啲就要，你就話其中一個取決就係可能就因為條例嘅要求你有個 approval，我係問你就係會唔會另外有一個原因或者理由，就係呢一啲嘅部件係眼見到，inspect 嘅時候方便，斷牌子就認到嘅，所以你 WWO46 其中一個水務署想佢扮演嘅角色就係方便啲 inspector 到到最後可以驗一啲肉眼睇到嘅嘢？

答：我又會咁講，我又反而--我唔--我...

問：會唔會係咁呢？當然呢個你 design --未必係當然你 design。

答：我哋推番轉頭，而家事過喇又，我哋又其中一個加強嘅措施嘅裏面，我哋 46 號加咗好多嘅項目，係需要慢慢地報，呢個係因為我哋嘅 awareness 有咗喺度，即係個風險，我哋已經知道有，我哋加番落去，所以要答番你頭先個問題，點解當時冇擺呢？其實我哋係唔--因為唔為意有人會違規使用咗含鉛嘅焊料...

主席：唔係，呢個唔係佢個問題，你聽清楚佢個問題先得㗎。

問：當時有唔為意，但係其實當時會唔會有一個即係亦都係慣性或者一個心態，就話呢份嘢其實就係諗住當時畀啲 inspector 或者去驗水喉嗰個幫辦，佢真係攞住份嘢，就好似執藥咁樣剔，望一望，咁所以個焦點其實就係要寫一啲肉眼見到，有牌子易驗嘅，就整落去呢個 WWO46 嗰度，呢個會唔會係一個--就算唔係明明寫出嚟，但係其實潛意識裏面係有呢個考慮，會唔會呢？方便，即係行政上嘅方便。

答：就我 statement 所講，呢個 annex 嘅演變係 82 年嗰陣時送去 sampling test，冇咗呢個，就先頭就會有嗰各類型嘅末端 fitting，喺遲啲嘅時候有一個個案，我哋發現咗佢喉管出漏水嘅情況非常之嚴重，因此我哋就加咗喉管落去，其實我想帶出，就係我頭先第一次答嗰個答法，呢個係一個 incident-driven，我哋當風險認咗，...

問：得。

答：...帶咗我哋加落去，...

問：得，得。

答：...就今次之後，我哋已經後面又再加好多，呢個係...

問：得，得，明白，即係你講出，就係話你覺得或者你嘅認知就 incident-driven 嘅，有漏過水，你覺得漏水呢個風險要 guard against，所以就要做呢一啲嘅步驟，要寫落去，要驗，亦都係驗，即係特別 specific 係要驗呢幾樣嘢，當然有第二啲嘢驗，alignment，就要驗埋呢幾樣嘢，就係學你話齋，就係叫做 incident-driven，係咪呀？

答：（沒有可聽到的回答）

問：得。我想問一問你，亦都係好簡短咁問，因為你其他嘅同事都答過，就係你頭先講到 EN 862-2...

主席：864。

問：864-2，呢個就係 schedule 2 裏面寫咗嘅一個要求，特別 specify 嘅一個 British Standard。

答：係。

問：但係你知道就係呢一個 British Standard 適用於嗰啲 fitting 嘅，其實就已經係 supersede 咗㗎喇，你知道嘅，係咪呀？

答：係，係。

問：而家個 1254 你知道㗎喇？

答：係。

問：詳細我唔會同你去 go through，翻箱倒籠，因為其實你嘅證人供詞都已經列舉晒出嚟，就係最重要嘅、最焦點嘅就係 864 裏面對所謂

lead-free class 嗰個 lead-free 嘅含鉛量就冇可能做到 0 嘅，佢就容許 0.1 per cent，864，特別寫出嚟嗰個。

答：係。

問：但係最 up-to-date 嗰個 British Standard 就變咗 0.07 per cent，呢個你 trace 過嗰個來源㗎喇。

答：係。

問：我都問過你嘅同事，我想等你即係都有個機會去評論一下，就係而家嗰個 WWR 嘅寫法，雖然你話 rule 20 就話到所有嘢都要符合 British Standard，呢個打底嘅要求，但係你 rule 19 --唔使睇，你都好熟嘅應該，rule 19 就話就要 subject to schedule 2 咁諸如此類，咁 schedule 2 就係要遵守嘅嘢，schedule 2 裏面就係頭先講，要遵守 864 嗰個 schedule，嗰度又零零舍舍特別寫，就係要符合 864。

一個用家，我哋唔好理佢係咪要識法律，佢就咁一個用家就咁出去望，你要我符合標準，英國標準 rule 20，你 rule 19 叫我睇 schedule 2，schedule 2 特別零零舍舍寫咗關於呢啲部件嘅英國標準，寫咗 864 畀我喎。你唔好同我拗話「你識做嘅，你應該自己走去睇下 up-to-date 先。」但係一個正常常人，佢會唔會就話「你叫我睇 864，我咪跟 864 囉，我符合咗 864，我畀你引咗我去睇 864，我就睇咗 864。864 話原來 0.1 per cent 係 okay 嘅，我用咗，我冇走去睇到 up-to-date 嘅 British Standard，咁就發覺原來就冇符合到，因為其實原來我就 caught by rule 20。」

呢一種咁樣嘅 approach，我當然我明白你可能會講，就話「你自己唔睇 rule 20 之嘛。」但係呢一種咁嘅寫法，你 rule 20 寫一樣嘢，但係你另外 rule 19 你又唔去長期地 keep up-to-date，寫咗一啲過期嘅嘢落去，會潛在地係對嗰個閱讀嘅人係產生一啲嘅混亂嘅，你同唔同意呢？

答：我不如咁樣講，就我個 statement，第二份 statement 嘅頭半部講出咗 1992 年同埋 94 年我哋兩次嘅修例，對於一啲嘅喉管嘅物料，prohibition，即係禁止使用，都引進咗一啲新嘅物料，呢啲係喺個條例上面一啲--我哋覺得重大啲嘅改變，我哋都適時咁樣做咗呢一啲嘅跟進嘅工作。

問：就係你個第二份供詞有個表咁樣，幾時、幾時嗰個？

答：係呀，係呀，係呀。好喇，呢度就解釋咗其實我哋唔係真係純粹就放任嗰個 BS 嘅。

主席：咩嘢話？

石先生：放任。

答：純粹即係唔 update 個 BS，唔係我哋有--我哋係有更新到個 BS 嘅。好喇，頭先就 864、1254，0.1 個 per cent 或者 0.07 個 per cent 嗰度，我嗰個判斷，我就會話，其實 0.1 個 per cent 或者 0.07 個 per cent 都唔--我哋今次鉛水，我哋之前我哋 Task Force 嘅報告或者可能其他嘅專家嘅報告都提出，嗰個用含鉛嘅焊料，嗰啲叫 leaded solder，leaded solder 唔係 0.1 個 per cent 同 0.07 個 per cent 嘅差別，係 50 個 per cent，嗰啲係 leaded solder，嗰個係另外一隻，完全係另外一個 type 嘅。

喺 864-2 同埋 1254 嗰個要求嘅裏面，佢哋其實都係統稱嘅 lead-free solder，就住時代唔同，不過有微量嘅調整，整體上，佢哋嗰個嘅 functionality 嗰個 impact 係相當之細，呢個。

問：我明，我明。

答：即係由於微調嘅關係，始終修例始終都係有一定嘅時間。

問：步驟要經過。

答：係，步驟，咁所以我哋--即係呢一個係--我諗呢個係唔--可能會--即係可能需要一啲適當嘅時候，先至可能--微調嘅話，就唔會係每一次都--因為如果咁，就花時間，就住 BS...

主席：實際上，你由 1987 年咁...

問：十幾年，你 98 年 1254，1254 進入 98...

主席：唔係，唔係十幾年，講...

答：嗰個微量嗰個...

主席：咩嘢微量啫？

答：不過其實最重要係--即係就算我哋呢一綑，即係譬如 lead-free solder 咁講，我哋頭先咪話 0.1 同 0.07 嘅。

問：係，係。

答：以我理解，FRY，其實 0.02 都唔到。

問：唔係，我明你想講嘅嘢就係話今次食水含鉛，佢哋用咗嗰隻 50 力就 50 per cent lead，就無論你 apply 乜嘢，佢都過㗎喇，所以就算你用 1254 或者用所謂 864，都過，所以呢個咁樣嘅 discrepancy，就冇一個所謂 causation，唔係因為「哎哋，我用咗個 0.1 嘅就搞到咁樣。」我明你嘅意思。

答：係，譬如 lined GI 咁樣，即係 GI 同 GI ban 之間...

主席：我哋明呀，我哋明。

問：我明，但係我係問你，就係我哋唔好講以往，就算今次食水含鉛事件之所以有咁多超咗標，過咗 10 microgram per litre，我當佢真係唔係因為用咗一啲符合 864，但係就唔符合 1254，夾咗喺中間嗰度，唔係因為呢個。

答：唔係。

問：唔係，實際唔係嘅，okay，因為係超得好緊要嘅，okay。我哋 future-looking，okay，我哋 future-looking，你覺唔覺得某

啲嘢你就零零舍舍喺個 schedule 2 度寫咗個 British Standard 出嚟，但係就又...

答：如果你咁樣，不如 jump to --我講多少少，就係我之前嗰幾位，即係各位--譬如頭先...

問：同事。

答：...林正文助理署長（客戶服務）佢都解釋咗，我諗法例嗰度，我哋都適時都會做一個檢討，我諗嗰個交番嗰個情況，如果你問我個人意見，我純粹個人意見，我覺得法例係咪應該擺每一條嘅 BS 落去呢？呢個可以係有些微商...

問：法例每條寫 BS 落去就即係叫做係...

答：因為之後嗰個更新，因為 BS 其實好多微調嘅更新，我哋需要喺後面一路咁樣嚟修改法例，就相當費時，呢個。

問：我明，你就咁叫人哋...

答：其實有其他嘅方法，好似而家咁，而家我哋最近喺個 circular letter，我哋都放出咗一個即係個 BS 嘅 list 喺度。

主席：冇問題㗎，其實，因為我話畀你聽，其實我--你頭先喺度講，我就再詳細睇下，其實你嗰個所謂最新 latest 嘅係講緊個 latest revised 嘅 edition，你嗰個 definition 就，其實個中文就仲明顯添，因為我睇你嘅...

石先生：主席，你係講 British Standard 個 definition？

主席：係呀，講番 British Standard，因為我睇番你個 regulations，under 你個 BS 嗰個 definition，"BS means the latest revised edition"...

石先生：..."edition of a specification issued by the BS"。

主席：Exactly。跟住你睇中文，就係「BS 指由英國標準協會發出的最新修訂版的規格說明」，你基本上你改一個 BS，如果你由 1、2、3、4 去到 5，變咗做 BS 5、6、7、8，根本你就要寫過。

問：所以如果你要真係逐條 BS 真係寫晒白紙黑字喺個法例嗰度，咁就真係盞搵嘢嚟自己做，因為真係 BS 改，可能隨時都會有 revision，同唔同意呀？如果你寫晒白紙黑字出嚟嘅話，同唔同意？

答：因為法例經已要求喉管及配件需要符合英國標準，亦都提醒咗每一個喉料，譬如銅喉或者其他，的而且確我覺得法例上需唔需要，因為坦白講，我哋知道 BS 關於喉管同配件，係我哋而家個清單，即係放咗上網，最新嘅清單都過百條，而家法例上面亦都冇。

On one hand，可以話呢個唔 comprehensive，法例嚟講，the other hand，就今次鉛水事件，其實 864 都係好清楚咁擺咗喺度，其實應該業界都普遍知道其實喉管、配件亦都需要符合呢個英國標準，...

問：唔係...

答：...而英國標準仲咁清晰擺咗喺條例度。

主席：唔係，呢個我哋同意，我哋絕對同意。

問：係，我哋知道。其實我哋係想同你探討一個概念上嘅嘢啫，就係你--純粹係個人，你可以有個意見可以發表，我哋可以聽下，就係你可以完全就咁，好似而家用 rule 20，就話「最 up-to-date 嘅 BS，我乜都唔寫，我網頁都唔擺，你自己啲。」Okay，BS，你可以上去啲㗎，畀錢之嘛，買，係咪？或者你知道最 up-to-date 嘅 BS，每一樣部件係咩嘢，你可以淨係寫呢樣嘢，可以嘅，係咪？

答：呢個講緊條文嗰個修訂嗰個，我真係--會唔會我唔係一個太好嘅 position 去 comment？我唔認為...

問：唔係，唔係，...

主席：唔係。

問：...呢個唔使 involve 法律嘅，我同你探討，可能我問多兩句就咩嘢，因為我唔係要你識法律嘅知識，我只不過係問你，純粹你以一個所謂水務署嘅一個 staff...

答：如果務實啲嘅角度嚟講，其實已經--頭先我前設已經講咗嗰個前提裏面，我哋其實可以喺其他 code of practice 嘅地方擺出呢一啲比較 detail 嘅 BS 嘅 specification 喺度，而將來修改嗰個 practice，可能嗰個唔需要去到修改法例嗰個，因為係法例可能 refer 一本 code of practice 諸如此類嘅方法，我只係舉一個例嘅咋，都係未嘗係不可係一個做法嚟嘅。

問：Okay，好，得。我想你睇一睇你嘅第一份證人供詞-- sorry，唔係，第二份，第二份先啱。你哋而家嘅網站就裏面有條 link，就係列舉出--因為你以前嘅 WWO46 個做法，就係喺張 form 上面寫到明你要除咗 pipe 之外，邊啲嘅配件就要寫落去，以前嘅做法就係喺張 form 上面寫嘅，而家喺張 form 上面就話「Pipe 之外，麻煩你睇我哋網站寫嗰啲你就要寫。」呢個其實即係都叫做係方便你哋改，因為改網站點都容易過改 form 嘅，係咪呢？即係務實嘅做法，所以你而家嘅做法，就係你哋張 form 嗰度就唔會印晒出嚟話「你要寫以下五種」，係咪呀？係咪？可唔可以咁樣去理解？

答：不如咁講喇又，WWO46 係一張通用表格，佢係通知我哋佢有個工程嘅進行，因為個工程有時都會維持年半至兩年時間，佢個表格分 I、II、III、IV、V part 咁樣用，如果我中途改張 form，咁咪會有出現究竟我返嚟嘅時候，你係咪用番舊 form 咁樣呢？特別係喺 BS 嗰度，即係經過今次個問題之後，我哋...

問：我明，我明，我...

答：所以呢個係務實嘅做法，同意。

問：係，務實嘅做法，即係話「總之你睇 website 喇。」咁樣。但係我之前我就問過林正文先生，佢就話而家個 website，即係個 website 就話畀你聽應該填咩嘢呢，佢話 website 都冇要你填 solder 嘅，因為而家個焊料佢甚至乎就係要你開工之前，就將一啲焊料嘅證書呈交，所以就唔係靠 WWO46 個 annex 呢個方法嚟到監管，你可唔可以--你係知道係咁樣做？

答：呢度我諗話番兩頭，第一，就係個 circular letter 已經要求咗業

界如果用焊料，就需要提交無鉛證明，咁點解唔係就咁就 attend 落去 46，第一就係因為當時第一張出--當時風險一發現到，我哋即刻就做一啲措施，所以當時就係呢個情況。第二個最主要嘅原因就係 46 其實係一張通用嘅表格，頭先咁講，唔係所有工程都會有焊料，你唔需要特別 single out 焊料，只不過今次嘅事件就係因為焊料含鉛，所以作為一個整體嚟講嘅話，我哋就唔需要特別 single out，喺 46 嗰度。

問：得。

答：因為唔係所有嘅系統一定有用焊料，所以就唔係响個 46 表格有呢個項目，...

問：得。

答：...但係佢其實係要提交喺-- exactly 喺另外一個。

問：好，明白，唔該。我冇其他嘅問題，唔該。

何先生：我亦都 put 加個 safe marker，我就唔打算問問題。

主席：好呀，好呀。有冇人？Mr Tam。

譚先生：我幾條嘅啫。

<u>譚先生盤問</u>

問：陳先生，我識譚嘅，我代表三位嘅啟晴邨同埋葵聯邨嘅居民嘅。你 2013 年嘅時候咪係呢個技術支援組嘅，技術支援組係咪最主要--其中一個最主要嘅工作就係檢討呢個《水務設施條例》同埋《水務設施規例》，係咪呀？檢討同埋修改。

答：係，係。

問：你自己有冇份做呢方面嘅工作？

答：我有參與到係關於呢啲可能係水喉匠牌照嘅檢討嗰邊嘅工作。

問：即係有參與部分嘅工作？

答：係。

問：其實有幾多位嘅同事係參與呢方面嘅工作嘅呢？

答：即係係我喇...

問：檢討同埋修改嗰個條例同埋規例。

答：其實有討論-- between，討論咁當然梗係有喇，林正文助理署長嗰度開始，我哋嗰組，有我當時嘅 senior，一個高級工程師，同埋我自己咁樣。

問：即係三位？

答：係。

問：三位，當然係林助理署長就係主要嘅負責人，係咪呀？

答：係。

問：當然，修改法例咁大件事，我哋都要再 escalate 上去畀 senior management，即係部門嘅 senior management 嗰度。

答：即係署長？

問：係。

答：但係實際嘅運作係點㗎？或者我問得仔細啲，例如你哋會唔會有任何一位嘅同事係會去了解下外國有啲咩嘢嘅關於水務條例嘅修例咁樣㗎？

問：我諗其實修例都係有一啲嘅情形底下嘅，不如我講我當時，當時我哋嘅牌照而家每年要續，我哋當時有業界要求，就變成三年咁樣，我哋就會圍繞住呢個議題，就的而且確都會參考其他法例，有關呢一方面嘅要求，即係本地嘅法例咁樣，咁嘅情況。

答：但係就冇參考外國嘅經驗嘅？

問：都有就呢一個方面參考，即係睇下--望下--可能望下其他地區嘅做法係點做。

答：例如--我當然知道頭先已經好多關於 BS 嘅 discussion，但係即係亦都會睇住個 BS 有啲咩嘢嘅改變嘅，係咪呀？

問：冇，當時冇做呢一方面。

答：冇，冇做...

主席：唔係，你哋其實成個 technical support 就基本上得一個 engineer 做嘢嘅啫，係咪呀？

答：冇，冇，我講得實際啲，個 technical support unit，喺事件前，即係 7 月前，7 月前就主要係有一位高級工程師同埋三位工程師，負責包括埋嗰個自願性呢個優質食水計劃咁等等呢一方面嘅工作咁樣。

問：所以關於檢討同修改呢個法例同埋規例就淨係三位，係咪呀？因為你頭先就講係...

答：係，當時有做過...

問：係斷嗰個有事件發生，先至會檢討嗰個修改法例同規例㗎嘛，即係冇話有一個特定按一個季咁樣就會去作一個檢討、修訂，而係有事件出現，先至作一個檢討、修訂，係咪呀？

答：冇話--我睇到個法例都--其實喺收費方面，佢定期有做更改，有 regular，即係我哋後面有個費用嘅 schedule，我知道，除此之外，其他嘅條文，我諗都係有需要，真係要係成熟，經過成熟討論係先至可以諮詢，先至可以 put forward 呢個...

問：唔係，要有成熟討論，當然喇，呢個我明白，但係點樣引致有一個咁嘅討論，你哋會定時有一個檢討吖，定係會係有事件出現之後或者有業界講咗一啲關注，或者其他水務署嘅部門有一啲關注之後先至會做一個檢討？

答：當時我就係因為有一個事件，就有業界提出嘅呢一個，我哋就考慮呢一個咁樣嘅情況。

問：好，明白，我冇其他問題。

主席：唔該。冇嘢問？

羅先生：冇覆問，主席。

主席：唔該。唔該，陳先生，走得㗎喇。跟住下一位係邊個？

羅先生：係，主席，下一位證人係水務署嘅高級工程師張業駒先生。

主席：有冇人需要休息十分鐘？有冇？冇？冇，繼續。

羅先生：主席，喺證人未入嚟之前，或者我想先提一提，我亦都會如常咁將張先生嘅證人供詞讀出嚟，但係佢嘅證人供詞裏面有好大嘅篇幅係交代唔同個屋邨嗰啲 water inspector 嘅名稱嘅，我睇一睇會唔會主席會同意，其實喺呢個階段未必需要將嗰啲名逐個逐個讀出嚟。

主席：唔需要。

羅先生：係，唔該。

<u>水務署第八證人：張業駒（水務署（客戶服務科高級工程師））以本地話宣誓作供</u>

<u>陳先生主問</u>

問:張先生,而家喺你面前應該有文件夾 C19.5 嘅,可以請你揭去第 13772 頁，其實同一時間嗰個證人供詞亦都會喺嗰個電腦嘅螢火幕上面出現。好似其他嘅證人咁，我就會先將你呢一份嘅證人供詞讀出，你可以留心聽，睇下有冇啲嘢要澄清，最後會請你確認一下會唔會願意採納呢個證人供詞作為你主問嘅證據。

主席：第 2 段開始得㗎喇。

羅先生：係，唔該主席。我會由 13774 頁開始。

5. The supply of safe drinking water from the inside

service is dependent on effective collaboration amongst various stakeholders, each of which has a distinct role to play. Apart from WA, the relevant stakeholders include developers, Authorised Persons ("**AP**"), building contractors, plumbing subcontractors and licensed plumbers ("**LP**"). The role of WA in relation to inspection and approval of the inside service is to be understood in this context where there has been a long standing quality control and site supervision system during the construction process undertaken by the various stakeholders. Together with AP and LP's certification that the use and installation of pipes and fittings in the inside service are compliant, the system provides a reasonable and manageable safeguard against the use of non-compliant materials such as leaded solder. For details of the role and work of the stakeholders, please refer to Part (1) of the Witness Statement of LEUNG Wing Lim, Assistant Director/New Works.

6. Taking into account the quality control and site supervision system already in place, the focus of WA's inspection is on prevention of misuse and wastage of water and pollution of the government water supply. In practice, the inspections carried out by WA emphasize on checking the plumbing system, including the sizes, configuration and alignment/position of pipes, fittings and meters, against the approved plumbing drawings as well as the materials as listed in the Annex to Form WWO 46 submitted previously by the AP and LP. Focus of the inspection is also made on checking the communal part of the plumbing system whereas the inside service of some flats is selected for checking on a random basis. As such, WSD did not specifically test lead content of Plumbing Materials during inspection. In fact, the inspection by WSD has its inherent limitation in that many parts of the plumbing works are not accessible or visible at the completion stage to enable WA's staff to carry out close examinations. This again highlights the importance of other stakeholders such as developers and contractors, particularly at the critical stage of construction.

i.6(b) Use of Plumbing Materials which deviated from the list of Plumbing Materials submitted to WSD ("Deviated Plumbing Materials")

7. The BS requirements of the copper alloy fittings of the Affected Estates were mentioned in paragraph 4(b) above. Save and except that solder materials shall be of lead-free category (i.e. less than 0.07 % lead by mass), it is permissible to have lead present in copper pipes as long as it is under 0.1% of composition and, in the case of copper alloy fittings (e.g. copper alloy gate valve), if this is within the range of 4% to 6% by mass. For details of the requirements for the Plumbing Materials, please refer to the Witness Statement of CHAN Hing, Assistant Secretary (Lantau).

8. According to the Task Force's Report submitted to the Secretary for Development, some brands of pipes and fittings installed in two of the Affected Estates, namely Kai Ching Estate and Kwai Luen Estate (Phase 2), are different from those submitted to the WA in the corresponding Annexes to Forms WWO 46. **Annex 1** to this Statement is a list of "Deviated Materials" found in Kai Ching Estate and Kwai Luen Estate (Phase 2). All of the Deviated Plumbing Materials on the list has been previously accepted by WA in accordance with the general acceptance system for pipes and fittings at the material times. This means that the relevant items have been either certified by a British Standard Institution called Kitemark, the Water Regulations Advisory Scheme, or supported by test reports, submitted by the suppliers for application for the WA's general acceptance of the relevant pipes and fittings, showing compliance with the relevant BS issued by accredited laboratories . In any event, the Deviated Plumbing Materials are not the cause of excess lead in water in the present case according to the Task Force's findings.

9. Owing to the complexity of the plumbing installations, which include potable water, flushing water and fire service water supply systems in large housing estates such as the Affected Estates, it is impractical for WA to individually check each and every item of the water supply systems during the inspection for compliance with BS, especially given the earlier mentioned inherent limitations of the post-completion inspection process, when the relevant construction works of inside service have already been finished.

10. Rather, the WA assessed risk of non-compliance (and hence the scale/intensity of inspection) upon considering (i) the implementation of quality control and supervision system by relevant stakeholders; and (ii) the confirmation or certification of the AP and LP in Forms WWO 132 and WWO 46 that pipes and fittings installed/intended to be installed, etc. were in accordance with the waterworks regulations, standards and requirements.

11. Taking into account the above conditions and the staff resources of WA, inspections generally follow the risk-based approach with an aim to prevent misuse and wastage of water and pollution to government water supply. The inspections focus on the sizes, configuration and alignment/position of pipes, fittings and meters against the approved plumbing drawings as well as the materials as listed in the Annex to Form WWO 46 submitted previously by the AP and LP.

12. In granting the eventual approval, reliance is placed on LP's and AP's certification that the pipes and fittings are in compliance with WWR as the final audit can never be a substitute for the proper and close day-to-day site supervision during construction. The steps involved in the inspection and approval of the plumbing works of the Affected Estates are set out at paragraphs 15 to 23 below in detail.

i.6(c) Inspection and approval in respect of the Affected Estates

13. The inspection and approval of plumbing works in relation to the inside services of the Affected Estates were carried out by WSD staff in the Customer Services Division of the Customer Services Branch whilst the collection and testing of water samples at the connection points were conducted by WSD staff in the Water Science Division of the Development Branch except for Tung Wui Estate and Choi Fook Estate (Phase 1), which were conducted by the HOKLAS accredited laboratories.

14. A list of the staff members in the Customer Services Division of the Customer Services Branch and Water Science Division of the Development Branch who were responsible for the inspection and approval of works after the plumbing works have been completed and testing of water in the Affected Estate is appended in the table below:

Inspection and approval of plumbing works

15. The steps involved in the inspection and approval process are described in the August Statement at paragraphs 39 to 45 and Annex 3D submitted to COI on 8 October 2015 [COI Bundle C5/No. 67e/4114.19-4114.39]. The paragraphs below aim to supplement the information already provided.

16. Plumbing works which require approval by the WA have to comply with Waterworks requirements under the provision of the WWO and WWR. In this regard, the WA has issued relevant guidelines such as Hong Kong Waterworks Standard Requirements for plumbing Installation in Buildings ("**HKWSR**") [COI Bundle CS/No. 47], Handbook on Plumbing Installation [COI Bundle CS/No. 48] and Water Supplies Department Circular Letters [COI Bundle C3/No.

37] for LPs and APs to follow.

17. During the proposal stage, the sequence of the inspection and approval procedures are set out below:

(a) Upon receipt of an application for water supply together with the plumbing proposal, a Waterworks Inspector ("**WI**") would assign an Assistant Waterworks Inspector ("**AWI**") from the Customer Services Branch to vet the proposal;

(b) In vetting the proposal, the AWI would follow the requirements stated in HKWSR and Handbook on Plumbing Installation for Buildings which contain typical plumbing details and diagrams. They would also check against other relevant guidelines such as WWO, WWR, WSD internal instructions, WSD Circular Letters to LPs and APs, if applicable. If the plumbing proposal is in order, an approval letter will be issued to the applicant and AP;

(c) With the approval letter, the applicant, AP and LP could then apply to the WA for permission to commence the plumbing works by submitting Form WWO 46 Part I & II and Annex. In the Annex to Form WWO 46, AP and LP would list out the proposed pipes and fittings required to be reported and intended to be installed in the plumbing works and standards of compliance;

(d) The WI would scrutinize the Annex to check whether the proposed pipes and fittings reported in Annex to Form WWO 46 are those generally accepted pipes and fittings which are either certified by a British Standard Institution called Kitemark, certified by the Water Regulations Advisory Scheme, or listed in the "Water Supply Pipes & Fittings, Water

Heaters & Materials Directory". If the submitted information is found to be in order, WA would give permission to the LPs to proceed with the plumbing works (Form WWO 46 Part III).

18. After plumbing works have been completed, a different AWI who is not responsible for vetting the relevant plumbing proposal will be assigned to conduct site inspection. This is to ensure that there is proper segregation of duties. To ensure there is sufficient manpower to carry out the inspection, the AWI may also lead a team of Customer Services Inspectors to conduct the same, subject to the scale of the plumbing works. As regards the list of LPs involved in the construction, etc of the Affected Estates, please refer to the Witness Statement of LAM Ching Man, Assistant Director/Customer Services.

19. Prior to the inspection, the AWI would study the relevant application documents submitted previously such as the latest approved plumbing drawings, approval letters and Form WWO 46 to familiarize themselves with the plumbing proposal.

20. A joint site inspection would then be arranged with the concerned LPs, during which the identity of the LPs had to be confirmed. To facilitate the inspection, the AWI and Customer Services Inspectors would carry out the site inspection in accordance with a provisional check sheet [COI Bundle C4/41/3351].

21. Because of the complexity of the plumbing installations, it is wholly impractical to examine every part of the water supply systems during inspection especially given the inherent limitations of such inspection when the works have already been completed. Many parts of the plumbing works are not accessible or visible at the completion stage to enable our staff to undertake close examinations. It is therefore necessary to prioritise. In addition, the proposed pipes and

fittings would have already been certified by the AP and LP to be compliant with the required standards. As a result, inspections will generally be guided by a risk-based approach, as follows:

(a) Any failure of the communal parts of the inside service will likely have a great impact on the proper functioning of the entire inside service plumbing system. As such, AWI and CSI will spend more time on the inspection on the communal parts including the connection points, sump tanks, up-feed pipes, roof tanks, downpipes and meter positions;

(b) As the completed inside service configuration and materials within individual flats is usually of a standard nature, the existence of defects found in individual flats are usually the result of deviations specific to the flat and will unlikely have a serious impact on the proper functioning of the plumbing system as a whole. Accordingly, AWIs and Customer Services Inspectors will randomly select a number of units for inspection. The selection is usually based on different types/sizes of flats for which their plumbing layouts would be different. Moreover, WA also places trust in the expertise and competence of APs, who engage a team of resident site supervision staff to supervise the works during the course of construction, to assure the quality of those parts of inside service which are considered to be of lower risk in terms of the proper functioning of the plumbing system as a whole;

(c) As most of the design issues or non-compliance with relevant standards and requirements would have been identified in the proposal stage, the overall objective of the inspection is to ensure that the completed plumbing works

conform to the approved plumbing proposals. The inspections carried out by WA emphasize on checking the sizes, configuration and alignment/position of pipes, fittings and meters, against the approved plumbing drawings as well as the materials as listed in the Annex to Form WWO 46 submitted previously by the AP and LP.

22. During the inspection, AWIs usually follows the layout of the plumbing system starting from the connection points. The exact sequence may differ between different AWIs, but is generally as follows:

	Steps	**Major items of inspection**	**Major Rationale**
Step 1	Inspect connection point	Position and material, size and alignment of the connection pipes and fittings	Ensure adequate water flow and water pressure to meet water demand
Step 2	Inspect master meter room near connection point	Location, size and number of meters	Ensure accurate readings and enable early detection of leakage

Step 3	Randomly select a block and go up to the roof, during which, AWIs will inspect upstream plumbing	Number of branch(es) and material, size, alignment of pipes and fittings	Ensure adequate water flow and water pressure to roof tank. Prevent contaminati on caused by cross connection
Step 4	Inspect downstream plumbing at the roof and on the external walls of the block	Number of branch(es) and material, size, alignment of pipes and fittings	Ensure adequate water flow and water pressure to individual flats. Prevent contaminati on caused by cross connection
Step 5	Randomly inspect individual flats on typical floors and non-typical floors	Position, material, and number of valves and water taps; and material, size, alignment of pipes and fittings	Ensure water points match with drawing as the number of water points affect water flow and assumed consumption in the system. Prevent contaminat ion caused by cross connection

Step 6	Inspect meter rooms/ cabinets	Installations Size and position of meters, whether meter connects to the correct unit, workmanship	Ensure accurate readings and facilitate future maintenance
Step 7	Attend the floors where pressure reducing valves are installed and inspect the same.	Position, material, size and alignment of valves, pipes and fittings	Avoid excessive water pressure
Step 8	Inspect roof tank and sump tank. These items are usually constructed by another LP, hence will be inspected on a separate day	Capacity, material and cover of the tanks; and Material, size, alignment of pipes and fittings connecting to the tanks	Ensure proper functioning of plumping system and adequate water supply
Step 9	Inspect pump rooms (one at the roof and the other one on the ground level) These items are usually constructed by another LP, hence will be inspected on a separate day	Installations including flow volume and pump head; and Material, size, alignment of pipes and fittings	Ensure adequate water flow and water pressure

23. If defects are identified during the inspection, the WI will issue Form WWO 1008 to the responsible LPs

requesting them to carry out rectification works. Further inspection(s) will be carried out by the AWI until all the defects are rectified. With respect to the domestic blocks of the Affected Estates, Forms WWO 1008 were issued during the inspections of Kai Ching Estate [COI Bundle C7.1/74/5139-5144], Lower Ngau Tau Kok Estate (Phase 1) [COI Bundle C9.1/76/6032-6033, 6068-6071], Hung Hom Estate (Phase 2) [COI Bundle Cl2.1/79/7619-7622], and Choi Fook Estate (Phase 1) [COI Bundle C14.1/81/8469-8484]. If no irregularities are found, the WI would approve the plumbing work by issuing Form WWO 46 Part V to the responsible LPs.

Testing of Water Samples

24. Collection and testing of water samples would then take place. The steps taken by WA staff/HOKLAS accredited laboratories are generally as follows:

(a) At the request of the LP, WA arranges water sampling staff under the Water Science Division/ HOKLAS accredited laboratories arrange to collect water samples from a sampling tap temporarily installed near the connection point.

(b) Water samples are taken following the procedures as detailed in the Sampling Manual [COI ref.: Bundle C2/No. 22/1635 to 1754].

(c) The water samples are tested for eight (now 12) physical, chemical and bacteriological parameters at the laboratory of WSD/HOKLAS accredited laboratories.

(d) The test results would be provided to the LP within 7 days after sampling upon payment of the sampling and testing fee.

(e) Once the water testing results for water samples near connection points are satisfactory and the connection fee has been settled, WA will effect water supply.

(f) The above applied to all of the 11 Affected Estates. In addition, three of the Affected Estates were completed after the issue of Circular Letter 2/2012 [COI Bundle C3/37/2215]. For two of these three Affected Estates (Kai Ching Estate and Wing Cheong Estate), after the water supply was effected, additional water samples were taken from the inside service and they were tested by HOKLAS accredited laboratories with the 8 parameters. As for the remaining one Estate (Kwai Luen Estate (Phase 2)), the Housing Authority carried out cleaning and sterilization of the fresh water plumbing system at the inside service without taking water samples for testing.

25. The water sample testing differs for buildings completed pre-2012, from 2012 to 2015 and from 2015 onwards. For details, please refer to the Witness Statement of LAM Ching Man, Assistant Director/Customer Services.

26. Testing of water samples near the connection points was undertaken in the 11 Affected Estates accordingly and the results were found to be satisfactory by the WA. Prior to the excess lead in water incident, once the water testing results for water samples near the connection points were satisfactory and the connection fee had been settled, WA would effect water supply.

27. As explained in the Witness Statement of LAM Ching Man, Assistant Director/Customer Services, the main purpose of the water testing for samples collected near the connection points is to prevent contamination of the government water supply through backflow at the

connection point whilst that of the water testing at the inside service within a building is to check the effectiveness of the cleansing and disinfection of the inside service. A summary of water sampling and tests involving WSD in relation to inside service is provided at **Annex 2**.

28. Separately, the AP will apply to WA (Form WWO 132 Part II) for a Form WWO 1005 "Certificate Regarding Water Supply Connection". In the application, AP is required to confirm that the pipes and fittings used in the plumbing works are in full compliance with Waterworks standards and requirements. The compliance with these standards and requirements, and in particular the compliance of pipes and fittings used, is a distinct matter for direct verification by the AP on behalf of the property owner/developer which has undertaken the construction of a building and its plumbing system.

i.9 Steps and measures by WSD after discovery of excess lead incidents

29. In the wake of discovery of excess lead in drinking water, WSD has undertaken enhancement measures, in addition to the existing control regimes, to address concerns of the affected residents and the general public regarding safety of drinking water.

i.9(a) Steps/Measures Taken to Address Health Concerns of Residents of Affected Estates and the General Public

30. The WSD has been providing assistance to the Housing Department ("**HD**") in collecting water samples from Public Residential Housing ("**PRH**") developments , including the Affected Estates, for lead testing at either WSD's laboratory or the Government Laboratory. Upon the announcement of excess lead discovered in drinking water

in the Affected Estates, the WSD also assisted the HD in providing clean fresh water supply to the affected residents by deploying water wagons and providing temporary water tanks and standpipes to promptly provide an alternative source of safe potable water at the Affected Estates.

31. The WSD installed one temporary standpipe (including mains laying) to the ground level of each of the concerned blocks of the Affected Estates within 1 to 4 days from the announcement of incidents respectively occurred at the Affected Estates, to enable affected residents to access and collect drinking water from standpipes. The WSD also expeditiously processed and approved applications by the HD to install downpipes and extend connection pipes from roof-top water tanks to each floor of the concerned blocks at the Affected Estates .

32. The WSD, in collaboration with other government departments, has also assisted the Information Services Department (ISD) in launching a themed website "Lead in Drinking Water Incidents" (http://www.isd.gov.hk/drinkingwater/eng/) to disseminate health information and latest updates to the general public, such as relevant press releases/videos, frequently asked questions, health fact sheets as well as links to other useful information and webpages. The website was introduced on 15 July 2015.

33. The booklet and leaflet, namely "Hong Kong's Water Supply - Reducing Lead in Drinking Water" [COI Bundle C5/Pages 4114.3-4114.14] collaboratively published by the WSD and other government departments and "Safety Advice on Plumbing Works" [COI Bundle C5/Pages 4114.1-4114.2] published by the WSD, were issued respectively on 24 August 2015 and 2 September 2015 to enable the public to have handy information on relevant topics such as quality of drinking water, factors leading to contamination and health fact sheets. The documents also advise them on precautionary measures for reduction

of lead in drinking water and the requirements for compliance with British Standards.

i9(b) Steps/Measures Taken to Enhance Compliance with Requirements and Standards

34. The discovery of excess lead in drinking water in Kai Ching Estate had prompted the WA to evaluate the risk of non-compliant materials being used in inside service but escaped from site supervision. Further, the WA has since established the Review Group on Inside Services (Review Group) and promptly issued circular letters to LPs and APs to enhance measures assuring compliance with relevant requirements and standards.

35. The inter-departmental Review Group, chaired by the Deputy Director of Water Supplies with Principal Assistant Secretary (Works) 3 from Development Bureau as the deputy chairman, was established on 29 July 2015 to review WSD's current application and approval process of inside service and the licensed plumber management regime. The Review Group makes recommendations for enhancement measures which are promulgated to LPs and APs via circular letters as appropriate. Further details are given in the Terms of Reference and membership of the Review Group [COI Bundle CS/Page 4063].

36. The relevant enhancement measures are summarised at the paragraphs below.

Soldering for Copper Pipes Connection and Water Sample Testing

37. WSD Circular Letter No. 1/2015 dated 13 July 2015 [COI Bundle C5/Pages 4066-4067] states that if soldering is used in connecting water pipes, WA requires the applicant to submit a supporting document confirming that

lead-free soldering materials are used. In relation to water sample testing, four additional test parameters (Lead, Cadmium, Chromium and Nickel) are required for each water sample tested upon the final inspection of newly installed fresh water inside service.

38. Furthermore, WSD Circular Letter No. 5/2015 dated 28 August 2015 [COI Bundle C5/Pages 4072-4075] states that the LP is required to demonstrate that the solder used for jointing copper pipes is lead-free by conducting non-destructive tests on solder pipe joints selected by representatives of the WA during inspection of completed plumbing works. In this context, non-destructive test means the application of methods (conducted by LP) agreed by the WA at location(s) selected by the representatives of the WA during the final inspection to check the presence of "leaded-solder joint" without the need to dismantle the newly installed pipes and fittings. With a view to providing further guidelines on the water sampling and testing in newly installed fresh water inside service, the WA (i) standardised the number and location of water samples to be taken and collected for testing of newly installed inside service; (ii) stipulated the requirement of all water samples meeting the acceptance criteria before effecting water supply; and (iii) advised laboratories to collect water samples according to a procedure published on WSD's webpage . The said sampling procedure is recommended by reference to ISO 5667 Part 5 on checking the quality of water for routine consumption.

Validity Period of General Acceptance to Potable Water Supply Pipes and Fittings

39. The WA made reference to overseas practice, including a similar approval mechanism of the UK Water Regulations Advisory Scheme, and introduced in the WSD Circular Letters a validity period up to a maximum of 5 years of the general acceptance/relevant certificate to

the potable water supply pipes and fittings (listed in the Annex to Form WWO 46) to strengthen the control and approval of these materials proposed in the application.

Revision of Form WWO 46 for Pipes and Fittings to be Installed

40. The WA revised the Form WWO 46 in the WSD Circular Letter No. 7/2015 dated 19 October 2015 (**Annex 3** to this Statement) to take further steps on control measures for pipe and fittings to be installed in plumbing works. The relevant key amendments on the Form WWO 46 entail the requirements to the LPs and APs for a development to: (i) inform that the LP is required to fill in details of pipes and fittings to be used in the Annex to Form WWO 46 by making reference to the relevant WSD's website; and (ii) obtain WA's approval on pipes and fittings listed in the Annex to Form WWO 46 before commencing approved plumbing works.

Inspection of Plumbing Works and Point Penalty System (PPS) for Licensed Plumbers (LPs)

41. In addition to the above measures, the WA promulgated revised arrangements on the inspection of plumbing works and point penalty system (PPS) for assessing the performance of LPs in the WSD Circular Letter No. 8/2015 dated 29th October 2015 (**Annex 4** to this Statement). The LPs are required to provide a sample board on site to display sample of pipes and fittings (e.g. taps, shower mixers, valves and pipes) as well as solder materials listed in the Annex of the submitted Form WWO 46, together with the relevant certificates, testing reports and catalogues, to facilitate WA's inspection of the plumbing works. Upon request by the WA, the LP will also provide other supporting documents, such as delivery

notes, purchase orders and product certificate from relevant suppliers/distributors with details on the place of origin of the pipes, fittings and solder materials used in the plumbing works. For the purpose of early detection of defects during interim inspections (generally for inspecting plumbing works which are underground or will be concealed by the time of final inspection), in addition to inspecting the completed underground or plumbing works which are to be concealed, the WA may inspect other parts of the plumbing works found on site which are yet to be reported as completed.

42. Under the WSD Circular Letter No. 8/2015 (Annex 4), the WA also revised the Form WWO 1008 used in the PPS when conducting final inspections. The revised Form WWO 1008 reflects a heightened focus on the seriousness of non-compliance in respect of materials for plumbing works and puts emphasis on the LP's responsibility of direct supervision over the plumbing works by introducing new and revised items in the performance assessment of the LPs. Penalty points on the Waterworks Form WWO 1008 have been increased when (i) materials of pipes and fittings used by LPs deviate from requirements ; (ii) leaded solder is used for jointing fresh water pipes and fittings; and (iii) LP is absent from the final inspection of new building project.

<u>i9(c)</u> Ensure Safety of Drinking Water in the Affected Estates and in Hong Kong Generally

43. In view of the widespread community concern about lead content in drinking water, the WSD has collected additional consumer tap samples randomly for lead testing. For details, please refer to the 3rd Witness Statement of CHAN Kin Man, Chief Waterworks Chemist.

i9(d) Other Recommendations Proposed after Lead-in-Water Incident

44. The Task Force, established by the Government on 15 July 2015, to investigate into, inter alia, the causes of excess lead content found in drinking water at the Affected Estates and to make recommendations to avoid recurrence of similar incidents in the future. The Task Force has announced its interim findings on 25 September 2015. Please refer to the Witness Statement of WONG Chung Leung dated 26 October 2015 for details. The Task Force has also completed the investigation and submitted a final report with findings and recommendations to the Secretary for Development on 31 October 2015 (COI Bundle A1/Page 650 to 801).

45. Amongst the Task Force's recommendation , the WSD has already stipulated the requirements for testing of four additional heavy metals (lead, chromium, cadmium and nickel) for water samples and testing the lead content of solder joints in newly completed inside service by LP and AP in the WSD Circular Letter Nos. 1/2015 and 5/2015 dated 13 July 2015 and 28 August 2015 respectively [COI Bundle CS/Pages 4066-4067 and COI Bundle CS/Pages 4072-4075]. As regards other recommendations of the Task Force, the WSD will consider the follow-up actions.

46. The WSD is separately proposing, through liaison with building management offices and other stakeholders, to enhance water quality in buildings by strengthening the prevalent "Quality Water Supply Scheme for Building - Fresh Water" ("**the Scheme**"). The Scheme encourages owners, operators and building management agents to properly maintain the plumbing systems within inside service. Certificates will be awarded to property managers of buildings which complies with requirements of the Scheme including where water samples taken from the inside service do not exceed the prescribed limits for various testing parameters including lead. The enhanced measures include (i) the addition of four heavy

metals (including lead) as new parameters for testing of water samples; (ii) increase in the number of water samples to be collected for testing in each building; and (iii) water sample testing in the random inspection by the WSD. The WSD has been discussing the proposed enhancements with the Advisory Committee on Water Resources and Quality of Water Supplies.

Dated this 11th day of November 2015.

問：張先生，啱啱剛才將你個證人供詞讀出，你確唔確認將呢一份供詞嘅內容採納為你主問證...

答：我確認。

羅先生：係，唔該晒主席，冇其他補充再。

主席：好。

<u>石先生盤問</u>

問：張先生，好簡短嘅問題，就麻煩你睇一睇你證人供詞嘅第 4 段，13774頁。呢度你就係提到水務署嗰個 Task Force，即係內部嗰個 Task Force 去調查食水含鉛事件，就裏面作出嘅一啲結論，你見到嘛？

答：唔。

問：你裏面嘅(b)就提到"Copper alloy fittings"，你就寫話"The copper alloy fittings may contain a small amount of lead, which is permitted by the British Standards. The Task Force concluded that the copper alloy fittings also leached lead but did not result in excess lead in drinking water."。

實情就係我想同你講一啲--我同你講幾樣嘢，睇下你同唔同意先，因為其實啲文件就好多嘅啫，睇過晒，星期五下晝，我就唔想呢

個再啲番啲嘢出嚟。

水務署內部係有個 list，就係有一啲嘅部件，水喉或者啲部件，叫做 approve 咗嘅，所以如果佢填 WWO46 annex 嗰度，佢填畀你嗰啲部件係 within 你嗰個 approved list 嘅話，你就會出個 approval，呢個一般嘅做法，對嘛？

答：係，如果 within 我哋個 approval list，就喺個 form 46 度填咗，基本上我嘅同事就唔會再 check。

問：Okay，得，好。咁就你都知道就正當嘅做法，其實就係如果喺個工程嘅早期入咗個 annex，而佢報上去嘅部件係 within 你個 list 嘅，但係到到工程嘅後期，實際做嘅時候，佢哋可能改變主意或者用咗第二隻貨，佢應該理論上就係個 LP 會簽番份嘢補番，根據你哋有個 circular，係咪呀？

答：係。

問：Manuscript，補番份畀你哋，...

答：係。

問：...就存檔，只要佢補番畀你哋嗰份嘢裏面嗰個部件都係你哋 approved list 嘅，就應該 okay，冇問題嘅，你都係唔會 challenge 嘅？

答：理論上應該係，但係個程序上，我哋個幫辦都要 check 番，make sure，我哋要 double check 番係咪有個咁嘅 directory，即係有呢個 item，...

問：係，明白。

答：...如果冇問題嘅，我哋應該唔會反對。

問：明白，所以佢如果漏咗呢招，就算佢用嗰樣嘢係啱嘅，within list 都好，可能都要扣分嘅，對嘛？

答：係。

問：Okay，好，呢個含鉛事件裏面，啟晴同埋葵聯裏面都發生過一啲嘅情況，我想睇下你知唔知啫，就係實際上用嘅部件，copper alloy 嘅部件就同報上去 annex 裏面嘅部件係有分歧嘅，...

答：我哋後期知。

問：...嗰啲叫 deviation material，你嘅供詞都有講。

答：係。

問：就但係用咗嘅部件--實際用嘅部件，即係冇喺個 annex 度報上嘅部件，佢其實都係 within 你個 approved list 嘅，...

答：係。

問：...只不過就係漏咗招，冇報上嚟啫，okay。

答：係。

問：但係嗰啲冇報上嚟，而又 within 你哋 approved list 嘅部件，就超咗 British Standard 嘅含鉛量，你知道有呢啲情況嘅，係咪呀？

答：係。

問：所以就因為你嘅第 4(b)段，嗰度可能嗰個傳遞嗰個意思有些少唔係太清楚，因為你話"The copper alloy fittings may contain a small amount of lead, which is permitted by the British Standards"，British Standard，冇錯，佢係唔會話要求你 0 嘅，佢可能畀你百分之四或者 0.5，或者佢有個好細嘅百分比佢容許，理論上佢係容許，但係實際 Task Force 驗出嚟，佢係話其實有啲部件係實際上係超咗 British Standard 嘅標嘅，你同意嘛？

答：其實咁嘅，我哋唔同嘅牌子嘅部件，佢其實就因應 British Standard，佢有 specify 一個 metal grade，其實喺...

問：Metal grade？

答：Metal grade，即係好似 CC491K 嗰啲咁嘅嘢。其實喺個 metal grade 裏面個 BS 裏面有 specify 嗰個 lead content 嗰個 range，就少少，但係其實係喺 British Standard 裏面超過一個 allowable 嘅 metal grade，但係我哋會--呢個 value 嘅意思就其實我哋 check 番佢當時嗰個 fitting，佢哋 specify 用嗰隻 metal grade，當時佢係 specify 4 至 6，佢其實就 check 到就係 deviate 咗少少 from --好似 above 6 少少。

問：都係 deviate 咗嘅？

答：係，deviate 咗少少。

問：長話短說，就係 British Standard prescribe 就有個 range 嘅，即係唔會話一定要係死咗一個數？

答：唔會。

問：可能佢畀你一個 range，但係實際上，驗出嚟其實佢都係超越咗嗰個 permissible range 嘅？

答：係。

問：超越咗少少咁喇？

答：係。

問：雖然就唔係罪魁禍首，因為後來都用種種嘅嘢測驗過，就係釋出嘅鉛份，其實嗰啲 isotope 都唔係由嗰啲嘢嚟嘅。

答：係。

問：你個人有咩睇法，對於-- on 你 approved list 嘅部件居然都會超咗標？雖然唔係罪魁禍首，係咪罪魁禍首另外一回事，但係你哋個 list 可能有啲問題，會唔會係呢？

答：我哋嘅制--現行嘅制度，當時--其實而家都仲用緊嘅，我哋係--你可以話我哋有三種嘅 category，正如好多同事都提及過，British Kitemark，或者係 WRAS，同埋個 lab test，local lab test。第一種就係一個 product check，係比較完善嘅，因為佢能夠一路去 mon.番嗰個 product 嘅 quality。

問：第一個叫 product check？

答：Product check 就係嗰個 British Kitemark。

問：Kitemark，Kitemark。

答：Whereas WRAS 同埋個 local lab test 嘅 test report 都係一個 type testing，佢始終係有佢嘅 deficiency 嘅，唔係一個--即係唔能夠--我承認唔能夠--唔係一個好完善，亦唔能夠係

guarantee 晒佢哋嗰個 quality control 一定係可以好 consistent。

問：因為第二、第三種，即係 WRAS 或者香港 lab test，淨係 capture 到你送上去咁啱咁件嘢嘅之嘛？

答：係，承認嘅，呢樣嘢，係。

問：即係你咁啱你嗰個 product line 中間有啲起落，你就 detect 唔到，capture 唔到，對嘛？

答：因為其實難保一樣嘢，個 product line 會變或者係會係--一路有啲唔同。

問：得。

答：但係就我哋部門--我哋理解，我哋部門嘅，喺就住呢方面，我哋係考慮緊新嘅措施，睇下點樣將佢更加完善。

問：好，明白，我...

主席：我想問一問，你個 product certifications，如果個 manufacturer 攞咗一個 Kitemark，佢搬咗個，say，嗰個 manufacturing 嗰個地方，譬如去咗另外一個國家，如果嗰個國家--即係如果嗰個新嗰個製造嘅地方係容許唔到譬如 British Standard 嗰啲人去 inspection 嘅話，咁咪即係冇咗嗰個 Kitemark㗎喇？

答：以我理解，British Kitemark 佢嘅制度，佢哋--就算佢搬咗間廠，British Kitemark -- BSI 都應該有人要去睇番間廠再 mon.住。咁當然，我嘅理解，如果 British Kitemark 發覺佢唔可以 inspect 嗰間廠或者唔去可以 guarantee 番嗰個 quality assurance，佢係會將呢個 product remove from 嗰個 list 嘅。

主席：From 佢哋個 Kitemark list？

答：係喇，咁所以點解我哋接受 Kitemark 嗰陣時，我哋要上 BSI 嘅網頁，去 reconfirm 呢個 product，呢個 cert. number 係咪 still valid 喺佢嘅網頁。

主席：得。

問：就係尋日都問過，不過你都可以再確保，就係話張 Kitemark 本身就冇 expiry date 嘅，只不過就係話佢遞張 cert.畀你，你自然會對照，就話如果已經唔係在 current 嘅 valid cert.嗰度，你就知道應該就係 BSI 可能出咗啲事，佢去驗，或者肥咗佬，或者直情就驗唔到，因為間廠畀你驗，或者種種理由，即係 BSI 覺得有需要抽走咗，係咪呀？

答：其實咁嘅，同意嘅，BSI 係冇 expiry date 嘅，其實就住呢樣嘢，因為我哋 introduce 咗一個五年嘅 validity period，有好多 supplier 佢 provide 一個 Kitemark cert.畀我哋，如果我哋有個唔同嘅 treatment，其實對於個 supplier 方面，佢其實有少少唔係好方便。咁就話如果佢話我哋 at all time 我哋啲同事都要上去個網頁去 reaffirm 番呢個 product 係咪 still valid，就對於個市場嘅運作唔係咁方便嘅。

因為點解呢？呢一刻我 check，佢入 form 46，我 check 到佢係有，你話第二日裝嗰陣時需唔需要再要 reconfirm 呢個會唔會係攞咗，所以就住呢個問題，我哋同 BSI 就喺有個--同佢哋傾--即係 agree on 一個 basis，因為其他 WRAS 同埋 test report，我哋有個最長嘅五年，有一個 requirement。

就住 BSI，我哋同佢傾過呢個 issue，佢就話可以 assure 我哋當如果今日我哋去 process 呢個 application，佢 guarantee 呢個 product suppose 係--佢有信心呢個 product 係可以 valid for 三年。亦係我哋知道 BSI 佢其實話過我哋聽佢哋考慮緊會係類似 WRAS 咁，佢第二日啲 product cert.都可能會 introduce 一個 expiry date。

問：WRAS 嘅 product cert.有 expiry date？

答：係五年。

問：五年，係即係佢寫明五年嘅？

答：佢寫明五年嘅，佢有埋個 from 幾時至幾時，我哋 check 過，全部係五年，佢喺個網頁都係寫五年。

問：得，得，但係你頭先你話你同 BSI 有咗個 understanding，就話你今日去 process 個 application，...

答：係。

問：...即係話今日如果有人走嚟畀張 BSI 嘅 cert.你，就話「我而家填 annex」...

答：唔係，佢申請個 general acceptance，我哋而家都會就住 BSI 嘅 product 就 issue 一個 general acceptance，當時我哋 base on 嘅 evidence，就係佢嗰個 product 嗰個 BSI cert.係乜嘢秝巴，我哋會同事會上網 check，reassure 番呢個 product 係 still valid 喺個網頁，我哋就...

問：Kitemark？Kitemark？

答：係 Kitemark。我哋就會 issue 一張 general acceptance，係 from 我哋 process 嗰日，就 for 三年，就會成為嗰張 general acceptance 嘅 validity period。

問：即係如果有人走嚟今日填張 046 佢個 annex...

答：唔係，唔係 046，Ga，general acceptance，我啲同事...

問：佢嚟申請攞 Ga？

答：Ga，我啲同事當如果有人報喺 form 46，報呢個 British Kitemark 嘅 Ga，佢亦會上番我哋嘅網頁 check 番呢個--嗰個係 still valid 嘅 general acceptance，佢哋就唔會有 question on 呢個 product。

問：你哋嘅 general acceptance 出一出，就 valid for 五年，而家係話？

答：最長五年。

問：最長五年。

答：但係喺個別情況，因為好似 WRAS 咁，如果佢個--我哋收到嘅 WRAS cert.裏面嘅 validity period 只係兩年嘅，我哋會跟番 WRAS 個 validity period，...

問：得，我明。

答：...只係 certify 兩年。

問：剩番，好嘅，係喇。

答：Similarly for BSI，我哋只係 issue for 三年。

問：因為 BSI 同你講，就話--首先嗰個人攞咗張 BSI 嘅 Kitemark cert.，就會走去攞個 general acceptance 先喇？

答：係。

問：譬如話嗰張 Kitemark cert.係 dated 兩年前嘅，...

答：佢 dated 冇關係嘅，因為點解呢？BSI 嗰啲 cert.會有個 first issue date 嘅，但係問題上，佢哋會一路去 mon.住個 product，...

問：得，得。

答：...as long as 嗰個佢--因為佢個 detail 就唔會畀我哋睇到，...

問：得，得。

答：...但係我嘅 understanding，佢同嗰個 applicant，就會一路，佢會有一個 reissue date 或者咁，但係嗰個唔重要，最重要就係話佢哋話畀我聽如果個 product still 喺佢哋嘅 directory，BSI 嘅 directory 係 exist 嘅話，就話呢個係 still under 個 BSI Kitemark 嗰個 approval。

問：好，即係話有個人今日走嚟攞 Ga，佢話畀你聽「我嘅 Kitemark number 係」乜乜乜咁樣，你就會走去 check 下 BSI 嘅網頁，睇下係咪呢個 Kitemark 仲存在喇？

答：同埋呢個 product，係。

問：仲存在，仲 covered by 呢個 Kitemark cert.，你就會批一個 general approval 畀佢 for 三年？

答：係，係。

問：係咪呀？

答：唔。

問：即係因為 BSI 確保就任何嘢如果仲喺佢網站度，佢就確保你肯定仲會 valid for 三年咁？

答：係。

問：At any time，都係？

答：係。

問:即係話如果嗰樣嘢佢就嚟要去再檢測,因為我呢個唔係好明,你 at any one time 去佢網站上面，只要擺得上去，佢...

答：唔係，佢 exist 喺個網站。

問：佢 exist 喺個網站嘅，就起碼仲有三年命咁解？

答：呢個係 BSI advise 畀我哋嘅--畀我哋嘅 advice。

問：如果有啲嘢 BSI 係譬如話佢哋 plan 咗「我打算一年後，或者我而家 in the pipeline，我就嚟要再重複我嗰個 audit 嘅 process」，咁隨時可能會搦走㗎囉喎即係？

答：係，有機會，我唔--係，有機會。

問：佢個網站仲擺喺度，即係話無論佢點都好，佢都 assure 你仲有三年命，點解可以咁嘅？

答：佢即係話係佢當時係我哋--如果--因為我哋要 process 呢個 general acceptance，就話如果我哋唔--有一個選擇，當時如果我哋唔 set 一個 validity period，對於喺 BSI 嘅 product，或者對於我哋去 process 呢樣嘢,係引起一定嘅 inconvenience 嘅。如果唔係，我哋可能就真係要喺個--即係 either 我哋 process 呢個 Ga，set 一個 validity period，or 就要我啲同事係個別收到個 product，然後就每次 process form 46 就上去嗰個網站去 re-validate 過呢個 product 係咪 still valid,所以我哋傾過，就話--我哋亦同 BSI 傾過，佢話係 feel comfortable，係我哋係畀個 validity period 係 for 三年，for 佢嘅 BSI product，as long as 你 check 嗰日係嗰個 product still exist in 嗰個 BSI 網站。

問：但係今日喺 BSI 嘅網站，但係舉個例，如果 BSI 真係原來聽日佢走去 check 間廠，發現原來已經肥咗佬，佢哋嘅網站可能一個月之後或者半個月之後可能拎走咗佢，because if failed，但係你哋就 rely on 之前嗰個禮拜，佢喺個網站仲存在嘅，出咗張三年嘅 general approval letter 畀佢，你嗰張 general approval letter cover 嗰三年咪 capture 咗一個 period，其實佢實際上係冇 Kitemark cert.個囉？

答：你可以咁講，但係我哋 somehow 要 work to 一個 feasible 嘅 arrangement。

問：Okay。

答：因為我哋亦同 BSI 傾過嘅，佢哋覺得我哋用三年呢個 validity period 係佢哋 feel comfortable，as at BSI。

問：Okay，我禮拜一再同你跟進下呢個，因為我要返去諗一諗。

答：Okay，好。

石先生：主席，我諗我哋禮拜一返嚟再跟進。

主席：好呀，星期一再繼續，係咪呀？10 點鐘。仲有幾多位證人呀？

石先生：仲有就係周先生，如果係。

主席：周先生同埋...

石先生：周先生，另外就係陳漢輝博士。

主席：係。

石先生：另外就係嗰個會議裏面，即係問有關 express concern on use of solder 嗰位水務署嘅同事，應該係何先生，何先生就係水務署嘅一位同事，...

主席：哦，哦，嗰個。

石先生：我哋就係要求咗一份證人供詞，但係佢應該禮拜一先畀到我哋。

主席：得，得，好呀，唔該晒，好。

2016年2月26日

下午4時33分聆訊押後

Friday, 26 February 2016

(10.04 am)

(Transcript of simultaneous interpretation
except where otherwise specified)

MR LAM CHING MAN (on former oath)

Cross-examination by MR LEE (continued)

MR LEE: Good morning.

I would like you to look at the Waterworks Ordinance.

Do you have something to say?

A. I consulted my colleagues at the prosecution unit yesterday.

There weren't any prosecutions in compliance with the British Standards. Generally speaking, when we conduct final inspection, if the pipes and fittings reported are not the same as the ones listed in the annex, then we would adopt a point-deduction system. Points will be deducted for defects and they have to rectify those defects. So that is a form of penalty.

Q. So you did all this before the incident?

A. Yes.

Q. Do you think that this point-deduction system satisfies the statutory requirements?

A. This is not very clear, but that's the practice of the licensing authority.

Q. So, according to the legal advice you received, no prosecution can be made due to non-compliance with the BS?

A. Not really. Strictly speaking, when I look at the regulations, if the requirements are not complied with, we can deal with it according to section 14(3) of the Ordinance. If there are violations, we can make prosecutions as per section 14(3).

Q. So I guess they had violated this section before?

A. It's a broad section. When we inspect newly completed buildings, we would usually adopt administrative measures such as the point-deduction system, in case of irregularities.

Q. So, in other words, prosecutions could be made and penalties could be imposed, but at the end you decided to just do the points?

A. (Chinese spoken).

Q. What's the Chinese name of this department?

A. The Customer Services Branch.

Q. Which division does it belong to?

A. It belongs to the Customer Services Division.

Q. Among the duties, you have build relations with the public?

A. Yes, we serve the public.

Q. So you are familiar with the scope of responsibility of

the division; right? That's why you have such a long witness statement?

A. Yes, I listed out the work of the CS Division.

Q. So you have to understand the work of your department; right?

A. I will do my best to understand the work.

Q. As I understand, due to the lead in water incident, your department would meet District Councillors and residents in the evenings. So have you ever attended those meetings?

A. No. My colleagues would go.

Q. Would you instruct them to attend these meetings?

A. Our operations staff would be involved. For affected estates, we would carry out temporary measures. For example, we would send vehicles, we would provide standpipes for the affected residents, and our operations staff would be involved in such work and they would explain the work to the residents.

Q. So, from your perspective, they are under your ambit, so do you feel that they should be involved?

A. We would do our best. A lot of my colleagues would attend upon request.

Q. For estates not deemed to be "affected", would you attend the residents' meetings?

A. It depends on their agenda. If an estate is not

"affected", we would not send water vehicles or install standpipes.

Q. So the question from them might be, "Why are we considered unaffected?"

A. If we can answer that question, we would do so, but we would not necessarily attend meetings.

Q. Yesterday, Mr Shieh asked you some questions. Overall speaking, whether the specific components are compliant with British Standards is not directly relevant to the lead content in water. Let's say if the lead level is 9 micrograms, you cannot attribute it to a specific component?

CHAIRMAN: I don't really understand your question.

MR LEE: Let me rephrase my question.

Let's assume that the lead level is 9 micrograms per litre. Given that you cannot say for sure that a specific component is non-compliant --

A. If the lead content is excessive, then we would assume that it's problematic and we would do follow-up work.

Q. What if the lead level is 9? You wouldn't investigate; right?

A. Yes, because we consider it on par with WHO standards.

Q. There are a lot of components, including pipes and fittings. Some components are unlikely to be the cause of excessive lead in water. Do you agree?

A. Components include pipes and fittings.

Q. So among these components, pipes or fittings, some of them are more likely to be the cause of excessive lead in water than others?

A. It depends on quantity.

Q. Which components are more likely to cause excessive lead in water? Are you saying they have equal chances of leading to excessive lead?

A. If a specific component is non-compliant, it might be problematic.

CHAIRMAN: Mr Lee, we looked at Prof Lee's report. First of all, I agree with what you said. For components like gate valves or other big valves -- now, from the meter room to the tap, there aren't a lot of big fittings. When you look at Prof Lee's report, we are mainly talking about Ts and bends. They can be considered components, and you can also consider them connectors.

Now, it's not the parts themselves that are problematic, but the real problem is they have to be soldered, so the soldering is the cause. Do you see what I mean?

When you look at the task force reports, they took photos of all the components, and there aren't a lot of big fittings and they might not necessarily contribute to the lead concentration. If you want to immediately

reduce the lead concentration, basically you have to dismantle the Ts and bends, and when you do so you would have to sample -- the big fittings. You can replace them with old parts, but the load of work would be similar.

A. I agree.

MR LEE: Since a long time ago, you identified solder as the main source of lead. Now, there are several methods to confirm that. Testing water samples is one; X-ray tests are another approach. What else? Any other methods?

A. The methods you said are the common methods.

Q. For the X-ray fluorescence meter, you only have one device; right?

A. We have quite a few. We bought quite a few.

Q. How much do they cost?

A. They were expensive. I wasn't responsible for the procurement.

CHAIRMAN: I think it's around $20,000.

A. Yes, it's a matter of $20,000 or so.

MR LEE: What about the stickers?

A. Perhaps $10 or so per strip or per sticker.

Q. So, if you look at the lead content in water, that would be a good indicator?

A. It's a good indicator.

Q. I know you need to draw a line, and you've drawn the

line at 10, and that is in order to comply with the British Standards. So 9 is high. There might be a substantial lead content, lead solder, it may be because of poor craftsmanship, because good quality and poor quality craftsmanship will affect the lead content. So, when your readings are higher than 10, then the workmanship might be poor; they might have used lead solder. You can make a guess.

So if it's at a level of 9, the workmanship might not be that bad, but there might be some leaded solder being used. Of course, the line isn't drawn by you.

So lead content in water is a good indicator.

Chairman had also asked you -- the water source is from the mains. It's high quality. It's lead-free. The lead can't even be detected. Once it's inside the building, once it goes to the roof tank, it's still problem-free, but when it reaches the taps, if you get a reading of 2 or 3, then you know that there's something going on. Whether it's a big problem, we don't know. We know there's leaded solder. It hasn't gone above the threshold, so you are not going to deal with it.

So when you see readings of 2, 3, 4, you know there's a problem, but it's not sufficient enough to trigger any action?

A. It might not be 2, 3, 4. We comply with the WHO Guidelines.

Q. So if it doesn't reach 10, you consider it has not contravened the British Standards. If that's the case, if you have water samples, people have done the tests for you -- let's say, for example, in each PRH block where you have taken water samples -- so for each PRH block you have some guidelines, you have some indicators, and when you read these figures, if it's a reading of 2 or 3 -- you would be worried if it's 9, but it hasn't crossed the threshold so you are not going to spring into action. But if it's 10, you will have to spring into action, and the whole PRH estate will be considered as "affected"?

A. Well, that's the Housing Authority. They will designate that.

Q. So you are aware of the consequences, when the PRH or when a whole estate -- when it's considered unaffected and when it's considered "affected". The threshold is 10, and the HA, Housing Authority, will decide, and you are aware?

A. Yes.

Q. So taking samples becomes very important then?

A. I agree.

Q. Because if it's stagnant water -- well, some water

samples are fine. All the connections are in line with the BS. They might not have used soldering, they might have used mechanical compression joints. So from the water mains all the way to the tap it's problem-free. Because Prof Lee had readings of zero, all the way it's problem-free.

So, under these circumstances, if you were to take stagnant water and non-stagnant water, if there was no difference -- for the readings of zero, there's no difference; there's no detection of anything at any time -- but if it's not a reading of zero, some have lead solder. We don't know how much; it can vary. But if stagnant water has a reading of 10, after flushing two or three minutes it's not going to be at a level of 10; it might be 2, or it could get lower?

A. Yes.

Q. So taking water samples becomes important?

A. I agree with what you are saying.

Q. Let's say this water has been sitting in my kitchen, and in the meter room it has an even higher concentration of lead. So let's say it's been stagnant and then I turn on the kitchen tap, and if you consume that water, if I boil that water for consumption, there would be lead in it. So assuming they use leaded solder, then if you turn on the tap, if I don't take samples here, I flush

it for two or three minutes and then all of that is flushed, then I take water samples from the kitchen tap, then it would not exceed the threshold. If stagnant water is 10, then after flushing it shouldn't be 10, and then you will follow up.

So whether it has contravened the BS, there's no way you can investigate; is that right?

A. That's right.

Q. So even if it's not 10, it could be 15, but after flushing it is not going to be 15?

A. Yes.

Q. So after flushing for two minutes, if we still have a reading of 10, then it's quite serious?

A. Mm-hmm.

Q. So let's say after flushing for two minutes you still have a reading of 10, and if you don't flush it for two minutes, if that user turns on the tap, the lead content could have been 20 or even 30; do you understand?

A. I understand.

Q. So there's two perspectives we need to consider. First of all, has there been any contravention of the BS standards -- we have to follow up whether they have contravened the BS -- and the second issue is the residents' health impact. The two questions are important.

A. (Nodded head).

Q. So this, you have been following it very closely, this incident. You know we have main contractors, subcontractors, and we have licensed plumbers.

A. (Nodded head).

Q. So if they were to choose samples, if they had the authority to take samples, they would choose flushed samples?

A. Well, I can't speak on their behalf. We have our internal principles, guidelines.

CHAIRMAN: They have their protocol.

A. We don't know what the contractors' protocol is.

MR LEE: Well, you can guess the relevant people, they would want to take a flushed sample, because the evidence wouldn't be there.

But from the residents' perspective, from the public health perspective, don't you think you should take samples of stagnant water, because they might be consuming that?

A. We said just now, we have our own sampling protocol.

Q. I understand. But you've met residents. You are concerned about their health.

A. Well, if residents are concerned, they would comply with guidelines. They would flush the water. The professor had also talked about that. You could flush for

30 seconds, you could reduce the contamination of heavy metals.

Q. You say one to two minutes. Why not two minutes?

A. Well, each household, their pipe length and the stagnant time is different.

Q. The pamphlet doesn't say how, for shorter pipes, one minute is good enough.

A. The professor has more data. He can tell you -- he's done a detailed analysis. He can tell you how many minutes of flushing you need.

Q. That doesn't matter. Of course two minutes would be safer than one minute.

A. It's also possible they might not need to flush for that long; they might be able to flush for 30 seconds. If you do that every morning, if you flush every morning, if you save the water in buckets, you could use it for other purposes; it's environmentally friendly.

Q. From the PRH residents' perspective, they have seen it on the news, on TV, almost every day -- they are worried whether their block is affected. You have met them. If you tell them, "Don't worry, you are not affected", then they will ask you, "Why?", and your answer is, "We took water samples."

Initially, when you took samples, you didn't take a lot of samples, but then you took more and more

samples. So now have you checked every building, every block?

A. According to the Housing Department, I think they have completed testing for every building. It took a few months, from July to December.

Q. So all samples, they had flushed two to five minutes, according to your department's protocol and suggestions. If you tell these PRH residents, "You are not affected because after flushing there was no problem", even though was it stagnant water or water flushed for two minutes -- how do you alleviate their fears?

A. As I said just now, taking water samples, my colleagues had talked about this -- you understand our stance.

Q. Well, do you agree with what I am saying?

A. If residents had this concern, we suggested that they flush before consuming the water. That could help them reduce their fears. It's also a practical measure.

Q. Another practical measure would be to take another water sample, of stagnant water. Then you can tell them, "The Commission has suggested we do another test. The chairman has told us to take an extra step. If we take that extra step and find out there's no problem, then you can rest assured, but if you are worried, you can flush", would you agree with that?

A. We need a thorough consideration. Currently our

department's stance --

Q. Mr Lam, why I am asking you that -- a lot of your colleagues have given evidence but they don't answer our questions. But you are willing to answer, and you are experienced, you have met with the residents. I have limited experience.

A. I am trying my best to answer. Thank you for your praise.

Q. I am not praising you.

A. I'm just trying to serve the customers. You understand that from July to December, it's almost five months. If I remember correctly, we took 7,000 samples.

Q. But all of those were flushed samples.

A. So given that we spent so much time, I tell my colleagues they can't take weekends off. You might not know that they work around the clock.

The biggest principle is that the residents' water safety is paramount. We want to achieve that.

Q. Your frontline staff, I am not saying that they are slacking off. For this Inquiry alone, I sleep very little. I think it's the same for other SCs.

But there's one criticism of your WSD, that's the line you draw: you set it at 10 micrograms per litre and then you flush the tap before taking the samples.

CHAIRMAN: Let's not waste any more time on that.

MR LEE: But do you agree with my view?

A. I completely understand your view, but I hope you understand our stance as well.

Q. I will not dwell on this issue.

When all the samples taken are flushed samples taken after two minutes, then it would make it more difficult for you to enforce the rules.

Let's not talk about the residents. Let's talk about the WSD. All the evidence would have been flushed away. So it's just like police officers arriving at a site and all the evidence has been washed away; it's the same.

A. Yes.

Q. The WSD collected a lot of water samples. They collected samples from each estate. If they take two samples, a flushed sample and an overnight sample, then it would be much easier for you to do the investigation.

A. Yes.

Q. But now this opportunity is gone.

CHAIRMAN: Well, they can still do it.

MR LEE: Do you think you should do it again?

A. From July to December last year, we spent endless nights in testing these water samples. The workload was unprecedented. We even had to ask our retired staff to come back and give us a hand. So whether we can do it

again -- the workload would probably be even higher. So this is a resource issue.

Q. So can you use stickers or other approaches? You said you would consider it.

A. If we are to do it, we have to consider a number of factors. For example, Prof Lee Hun Wei spent some time vetting our water samples. So what he did is largely similar to what we did.

CHAIRMAN: I think you should not focus on that line. Prof Lee only tested six unaffected estates. You cannot say that the six samples taken by Prof Lee applies to all housing estates in Hong Kong. Otherwise, you would be reading too much into the work of Prof Lee. He merely said "(in English) largely confirms". So he was just being polite; the professor was just being polite.

MR LEE: Do you understand my point?

A. Yes.

Q. The two professors had very little time. They didn't have the manpower or time.

A. I agree, but they were supported by universities.

MR SHIEH: The terms of reference do not include checking and verifying the cause. Their job was to ascertain the level of lead.

MR LEE: The source of lead in water comes from the solder, but according to the professors, overnight water samples

are to be used?

A. They have a special sampling protocol. They look at the upstream, midstream and downstream.

CHAIRMAN: Your leaflet asks for flushed samples, or samples that have been flushed for one or two minutes; but on the other hand, on the testing of lead, you asked people to flush the tap for two to five minutes. So do you see the contradiction here? On the one hand, to ascertain the level of lead, you ask people to flush the tap for two to five minutes, but on the other leaflet, you ask people to flush the tap for one or two minutes, if they are sure that there's no excessive lead. So there's a contradiction.

A. These are only general advice.

CHAIRMAN: Now you are contradicting with yourself.

A. For stagnant water, it's best to flush, but the time required is not that exact. It's not about the length of time.

CHAIRMAN: We can see a contradiction in itself already.

MR LEE: The chairman and myself are looking at the issue from a common-sense perspective. I'm not an expert at all. The chairman might be somewhat of an expert, but I'm not.

Now can I put it to you that on the sampling protocol, on the excessive lead in public housing

estates, the government is not very clear about the situation and it's not sure about the scale of the issue as well.

What about for housing estates beyond the 11 affected estates?

A. I don't think you can put it that way. I think the Housing Authority has a conclusion.

Q. But that conclusion might be wrong.

A. Now we have a scientific basis in our decision.

Q. I do not agree. According to the two experts, if overnight samples are taken, then the approach would be considered scientific?

A. Yes.

Q. You know about the existence of a task force; right?

A. Are you referring to the WSD Task Force?

Q. Yes.

A. Yes.

Q. The deputy director chaired the task force. Do you know that he decided early on that both overnight samples and flushed samples were necessary or needed?

CHAIRMAN: Are you referring to the task force investigation, rather than the WSD investigations on affected estates?

MR LEE: The task force asked for both types of samples.

A. I have not been involved in the work of the task force.

I understand that different methods were used to determine the level of lead in water, so that's why stagnation samples were taken. This is a bit different from the method mentioned by Mr Chan Kin Man.

Q. The task force contains experts, and from an early stage they asked for both types of water samples.

A. Yes, that's how they went about the investigation. The goals are a bit different.

Q. So how are the goals different? I see two scenarios or possibilities: one, to educate the public on how they can tackle this issue in the short term. Now, if they have to turn on the tap, they should leave it running for at least one or two minutes, and that applies to every tap in the flat. So that's a good reason to investigate the water samples. And, two, after the incident, how many public housing estates are actually affected -- they need to know; right?

CHAIRMAN: Well, the task force doesn't need to know.

MR LEE: At the end of the day, the government has to know.

A. Now the job of the task force is to determine the cause of the excessive lead.

Q. You were probably asked by the senior administration on the situation of public housing estates in Hong Kong, because the government has to take care of all buildings in Hong Kong, so you must be responsible?

A. Yes.

Q. You work with the Housing Department in taking water samples; right?

A. Yes. The HD asked us for help. Yes. They approached us right from the beginning.

Q. So they probably approached you even before the task force started its work?

A. For Kai Ching Estate, the first water samples were taken on 3 July, and subsequently more samples had to be provided. Now, starting from 8 July, we started taking water samples en masse.

Q. Were you personally involved?

A. At that time, I was not in this position. I only came back last August. But I understand that the HD approached us for help, and we are happy to support them. I was away from this post for four months, from April to July, and I came back after August.

Q. So you came back after the incident happened; right?

A. No, no, that's not what I mean. I can only do my best.

Q. So you were approached by the Housing Department. So which buildings were investigated? Have you run into any difficulties? For instance, some residents might not want you to do things in their flat?

A. Yes, I have heard such cases. Some residents might be living in China and they are simply not at home, so we

cannot go in, and some people don't want to be bothered. We would do our best to help.

Q. Of course, some people won't want you to visit their homes, but some are very co-operative. Most residents are willing to co-operate?

A. Yes, because that's about their welfare.

Q. Now, with the presence of Housing Department staff, it's much easier?

A. We usually follow the Housing Department.

Q. Yes, they enjoy a good relationship with the residents?

A. Yes.

Q. So who identifies the buildings to check?

A. In Kai Ching Estate, all blocks were investigated, and they would test some buildings completed before 2005 and some after 2005.

Q. In some cases, only specific blocks would be tested?

A. As I know, they would test every block.

Q. What about the unaffected estates?

A. Well, it's the same. At that time, we didn't know which estates were affected or unaffected, until after we obtained the water samplings.

Q. So who identified those buildings or floors to test?

A. Kai Ching Estate was the first estate. The HD would be responsible for the sampling schedule on how water samples are taken. Let's say when there are six blocks,

there's a different zone for each block. Maybe there would be six floors in one zone, and there's something known as sampling schedules for the first estate.

We wanted to take water samples at random.

Q. So it was done randomly?

A. Not really. They would obtain water samples floor by floor. Several floors might comprise a zone and they would take water samples from each zone. We should have a more systematic approach in taking water samples. So that's for the first estate. For other estates, we discussed the matters with the Housing Department. They passed all plumbing plans to the WSD.

So in every down-feed, every zone, we would take one sample. Every down-feed in every zone, we would take a sample, and we would apply that systematic approach. So there wasn't too much difference before and after. We tried to collect samples from each block.

Q. Okay. Let me ask you one question. In law enforcement, your department is responsible for that. Just now, I said the purpose is to see whether there was any contravention of the British Standards. If it's above 10 then there's a breach.

So, from that perspective, shouldn't you use stagnant water? Because we are looking at maximum values, maximum lead content. Then it should be

stagnant water.

A. Well, our department --

Q. From a law enforcement perspective.

A. Well, we need to take into account the Water Science Division, they have a protocol.

Q. I know Chan Kin Man said that when you take samples, we need to get an average, to see whether Hong Kong water quality complies with the WHO. But you are different. You are responsible for law enforcement.

A. Well, it's hard to differentiate.

Q. I mentioned just now that if you flush, you flush away the evidence. From a law enforcement perspective, you should use stagnant water. You had agreed to that just now, but I didn't ask it that way.

A. You have to understand, we have our work protocol.

Q. Did you argue with Chan Kin Man that, "You are flushing away my evidence"?

A. We did talk about it, but we need to respect the Water Science Division, their water sampling protocol.

Q. So did you have a discussion?

A. Well, the colleagues would talk about their work procedure.

Q. But did you say, from your law enforcement perspective, "We should use stagnant water"?

A. Overall, WSD has to comply with the protocol. They have

to take flushed samples.

CHAIRMAN: Let's not waste time. It's a separate issue.

MR LEE: You said you had a discussion.

A. We are talking about samples.

Q. You said "we".

A. WSD.

Q. I just want to know at what level did you do that, have a discussion?

A. At all levels.

Q. You had a decision that you would handle cases above 10, and you also agreed that you wouldn't take stagnant water samples, you would take flushed samples. When did you come to that decision?

A. We had guidelines. That was our longstanding procedure. Mr Chan Kin Man said that he had to comply with ISO standards. This is the ISO methodology.

Q. So was it prior to the incident?

A. That was the protocol prior to the incident.

Q. But prior to the incident we didn't have lead in water, so you would test the samples from the water mains, you would check for Legionnaire's, and then so subsequently the incidents occur, one after another. So there was no reason why you should stick to the old protocol?

A. Yes, I understand what you are saying.

Q. So your department will not take stagnant samples, even

though a lot of opinion asks you to do so, and you still insist on not doing that. That decision -- and I said your task force said that both samples were needed.

A. Well, it was a different nature.

Q. But the decision was that both types had to be taken, and now you are only taking one type of sample. When was that decision made?

A. Taking flushed samples, we have discussed this a long time. Mr Chan Kin Man --

CHAIRMAN: He was just asking you, when did Chan Kin Man decide that, that Chan Kin Man put forward his recommendation and somebody decided -- so who was it? The assistant director, or was it you, or the director?

A. Mr Chan Kin Man is not in our branch and I'm not the expert.

MR LEE: So at what level was it decided?

A. It was the whole department.

CHAIRMAN: So it was the director?

A. This is our internal position.

MR LEE: So it was the director?

A. Our department decision. We have been doing that all along.

Q. Did you ever convene a meeting to make a decision? Sometimes, the highest official decides -- he might have consulted all of you.

A. I didn't participate in those kinds of meetings. But it has been all along standing practice. We get an average figure, and we have to see whether that was safe.

Q. I don't want to argue with you. If you are talking about average, if I have these habits --

CHAIRMAN: Let's not argue. We've already explored this on many occasions. It's meaningless.

A. It was a longstanding --

CHAIRMAN: He's saying he doesn't know.

MR LEE: So you didn't participate in that decision?

A. Well, if I had participated in the meeting, it has been our longstanding attitude, methodology.

Q. You might not know, so let's say it was your department, and your director is responsible. Was there any higher official; are you aware?

A. I don't know. The director is the highest official in our department.

Q. But then the Housing Department also interacted with you.

A. We had to assist them to collect samples. They just co-ordinated.

Q. So you made that decision. You would only take flushed samples, flushed for two to five minutes. Have you heard any different opinion?

A. I didn't participate in meetings with the HD.

Q. Have you heard of different opinions?

A. (Chinese spoken).

CHAIRMAN: Just answer him.

A. We had different experts, yes.

CHAIRMAN: No. Your decision. Not this Commission. Listen carefully to the question.

A. There were different views from the public.

COMMISSIONER LAI: Where did you hear that?

A. I read newspapers. I saw newspaper reports.

MR LEE: So you should be aware that the Commission might ask these questions?

A. I respect the Water Science Division.

CHAIRMAN: Mr Martin Lee, you said I had the authority to interrupt you. Does that still stand?

Please don't continue to ask this question. We have explored it on numerous occasions.

MR LEE: (Chinese spoken). Okay, we will stop that line of questioning.

Then you know that the Commission had engaged two experts. They had very strong views. In the preliminary report, they said you have to take stagnant water, and you still didn't comply.

CHAIRMAN: We are coming back to this issue.

MR LEE: We are talking about chronological order.

CHAIRMAN: Well, how will they take water samples? We will

just ban that line of questioning. That's your red card. That's a red card.

COMMISSIONER LAI: (Chinese spoken).

MR LEE: I have a new question for you. When an estate has been designated as "affected", versus an "unaffected" estate -- so if they were "affected", you would meet the residents, you would tell them to flush, you would give them bottled water, and you would have special water connection; and what other measures did you have?

A. Once it was announced which estates were affected, we had blood testing for children. The Health Department had to assist. The WSD, we provided temporary water supply. We supplied water tanks. You also know that HD did a lot of work; they distributed bottled water. At the roof tank, they installed pipes, and subsequently they also installed filters. So they did a lot of work. We co-ordinated our efforts.

Q. I want to ask, in manpower, how much extra? It wasn't cumbersome. How much extra work?

A. We needed extra manpower to do this work. We had to install facilities.

Q. Of course you spent more money?

A. That's not important. We needed to provide a service to solve the problem, so that was the most important.

Q. And recently we had the budget. You are given more

resources. You are given more resources?

A. Yes, I'm aware there's been a little bit extra funding. That's part of the reason, because of excessive lead.

Q. So -- scrap that. I can deal with that in the submissions.

This pamphlet -- I don't need you to read through it -- you have added four parameters: Lead, cadmium, nickel and chromium?

A. Yes.

Q. You found nickel; right? Was it excessive? Did you find excessive nickel?

A. I can't remember.

Q. Chairman, I'm looking at task force minutes. C19.6, tab 137, page 14125.

Let's look at page 14125, paragraph 2.5. That was from the 6th meeting of the task force. It says:

"(In English) Members noted that leaching test results showed there was high leaching of nickel from kitchen taps and washing machine taps ..."

(Chinese spoken).

"(In English) ... but these findings should not be compared with the WHO provisional guideline value."

I will come back on that. Then it continues:

"The cross-section of these taps showed that nickel had seeped into their internal water surface during

electroplating, thus not complying with British Standard (BS) requirement that no metallic coating for surface in contact with water."

You see this part. Do you understand what it means?

A. Yes, I know.

Q. So why does it say comparison should not be made with the WHO provisional guideline value?

Let's continue. Let's look at the task force report itself. They compiled a final report. A1/19, internal page 19. 3.3.1, internal page 39.

A. Yes, I see it.

CHAIRMAN: Please hold on. Page 690.

MR LEE: Yes, that's the correct part. Under "(In English) Other findings":

"(In English) Leaching of chromium, cadmium and nickel.

3.3.1. The leaching test results for chromium, cadmium and nickel from the various components of pipes and fittings in the three water supply chains in KCE and KLE2 are shown in annexes 2.3(a)-(c). Based on the leaching test results, amounts of chromium and cadmium leached from various components were low. However, there was significant leaching of nickel in some taps in KCE, eg the highest leached amount of nickel after standing in 24 hours was 102 [micrograms] or 1,569

[micrograms per litre] in one washing machine tap. Elemental analysis on the cross section of these taps showed that nickel had seeped into the wetted surfaces of the taps during electroplating. Nevertheless, as the taps hold very small amounts of water (less than 150 mL) under stagnant condition, the leached nickel should be flushed away within one to two seconds after turning on the taps."

So this is what it says.

Now let's move on to the annex. Internal page A/35.

Let's look at A/34 first.

At the top, you see the words, "(In English) Leaching test results of the components dismantled from the water supply chain in Hong Ching House of Kai Ching Estate"?

Now turn to the next page.

Can you see H21 to H25, under the column "Item No."; do you see that?

A. Yes.

Q. On page 25, you see -- H25, you see, "(In English) 20 mm diameter stopcock (copper alloy) before meter". In that row, you can see the nickel level 108.1. That's the leached amount by concentration before cleansing deposits. So the nickel level is 108.1.

Now let's look at the row H33, "(In English) Tap at

kitchen (mixer) (copper alloy)". In the column of "Nickel", you see 112; right?

Now let's look at the row H36, "(In English) Tap for washing machine (copper alloy)"; for nickel, the level is 1,569; it's very high.

The next item, 77.7, which is also substandard.

Then the next item, 90.8; again, it's excessive.

Now let's turn to the next page, internal page A/36. The third-to-last item, H37, the nickel level is 78.1. It's excessive again; the WHO standard is 70.

Now we have the evidence. These reports were compiled by your task force. Are you going to take action?

A. I was not involved in the work of the task force. Having read these figures, these components were immersed in water before conducting the tests for the leaching of heavy metals.

CHAIRMAN: They are not looking at the quality of water samples.

I think he is not the appropriate person to answer this question. Perhaps we should ask Dr Chan Hon Fai from the ACWRQWS later on. These are two entirely different things.

Here, they are testing the leaching of heavy metals, but the WHO is talking about the level of lead in water,

so these cannot be directly compared.

MR LEE: What about whether points would be deducted?

CHAIRMAN: However, from this information, do you agree with Mr Lee that the WSD can carry out further work, to see if the tests are substandard?

A. Yes, we can dismantle them and check them for heavy metal levels and we can see whether they comply with British Standards.

Now, for nickel, when I look at the meeting minutes, they have electroplating, and nickel should not enter the water, but over the course of manufacturing, the metal might be immersed in water.

CHAIRMAN: But that's still your responsibility?

A. It might not have anything to do with the body of the fitting, but instead the electroplating.

MR LEE: In 2.5, the report made it clear that it is not comply with the British Standard. It says "not complying with British Standard (BS) requirement that no metallic coating for surface in contact with water."

The chairman made it very clear that you might not have enough evidence for follow-up work, but you should continue the work; do you agree?

A. Yes.

Q. Right now, you have four extra parameters. Now you have done a lot of things on lead.

A. It's not just lead. We would test all four parameters. We would test nickel as well.

Q. What about the other two?

A. We would also test for chromium in water samples.

Q. As a lot of witnesses have said -- you heard about the water safety plan; right?

A. Yes.

Q. So these must be included in the water safety plan; right?

A. For new properties or constructions, we have already added four testing parameters in the water samples. This is the first thing we will do. In terms of constant monitoring, and we would monitor the quantities during the daily monitoring.

Q. Now, for the water safety plan, in implementation, your department would be responsible for a lot of work?

A. We are already doing a lot of work for the WSP.

Q. Now I would like to know your views. What's your take on this: do you think there should be one WSP for each estate or one WSP for each block? How many households are there in one block?

A. Around 800 to 1,000 for public housing estates.

Q. So what's your stance? Are you aiming at one WSP for each estate or each block?

A. We have no water safety plan for the entire housing

estate. We don't have anything like that now.

Q. But you have started the work; right?

A. Even though we have no WSP, we have a series of measures in place. Although we don't have a proper WSP, we hope that people would follow our guidelines. If they follow the guidelines, it should be safe.

Q. You should never assume that things would be safe. You cannot say you would trust them, because that would be a problem, because that's partly the cause of this incident. When you find that people don't work based on your requirements, then that's where the problem comes from.

As Prof Fawell said, don't write anything down yet. The most important thing is for all the stakeholders to sit down together first and talk. So your department must be involved.

I don't want to waste more time on this, but I hope that more work would be done on your side.

A. We will carry out some studies. Mr Lee, you are very right. For a major water safety plan, many stakeholders have to be involved. It takes time. If it's our own system, then it's easy. But if we are to do it in housing estates, then that requires collaboration between different stakeholders.

Q. For public housing estates, it's good that you have

started discussions with the Housing Department, but you have to involve the residents; you have to do it as soon as possible.

A. We will consider this approach.

Q. I want you to be more proactive.

A. We have been proactive.

Q. Thank you very much.

A. Thank you.

Q. I now have a question about your circular, about the point penalty system, WSD's circular 8/2015. It's in your witness statement, page 13502.

Page 13504. There's a table, "(In English) Point penalty system".

We have "(in English) "Piping", "(in English) Previous items", "(in English) New items":

"(in English) -- substandard", they would be given five points.

"(in English) -- fittings and pipes not as reported on schedule ...", that's three points. Now they are given six points.

"(in English) Piping", there's no change there.

The next "Piping" item was not available before. Now we have "(in English) leaded solder for jointing fresh water pipes and fittings (10 points)."

10 points would warrant one warning letter, so they

get an immediate warning letter if they exceed 10 points. So that's the borderline.

CHAIRMAN: If you ask me, that's too lenient. They should be suspended.

A. There is some difference of opinion. If it's only one joint --

CHAIRMAN: Theoretically, it shouldn't even be there.

MR LEE: Are you saying it's 10 points for one joint?

A. So by mistake they might have one joint with leaded solder.

Q. So if you have two joints then you get, what, two red cards?

A. (Chinese spoken).

CHAIRMAN: I don't understand -- why do they count the individual joints?

A. So if there's one defect, they get a point penalty.

MR LEE: So if the whole project -- how do you calculate that? So you are saying it's for each joint?

CHAIRMAN: That's what he said.

MR LEE: So we have many joints in the project.

A. If we have many joints, then we might not have to apply this point penalty system. This is just referring to mistakes. For Kai Ching Estate, if it wasn't a mistake, if it was consistent, they would have to be suspended.

Q. Then "(In English) Others"; it was not available in the

past. You say, "(In English) Absence of the licensed plumber from the final inspection of new building project after submission of WWO46 part IV", that's 5 points.

What does it mean? So in the final inspection, you say the licensed plumber should be present, but if he is not present, his assistant or representative, if they are there, then they are given 5 points?

A. We have required the LP to be there. They cannot delegate their responsibility. They cannot --

Q. You are saying they can have an assistant present but they would get 5 points?

A. I cannot make it mandatory.

CHAIRMAN: So, aside from giving them a point penalty, what else can you do if they don't show up?

A. We will give them 5 points.

CHAIRMAN: You will continue to supply water?

A. As Mr Martin Lee said, they will have a representative. We will have to give them a penalty.

CHAIRMAN: So you are not allowing the licensed plumber -- well, the LP could say, "I don't mind. You can penalise as much as you want." I'm saying you require the LP to sign part IV, certify all works are done correctly. But if he is not present for inspection, then theoretically you shouldn't supply them with water.

MR LEE: The chairman is correct. They are required to be present.

CHAIRMAN: If you don't supply water, they will have to be present.

A. Our experience is that they will appear for these occasions. If you are not there, you will be deducted all kinds of penalties.

CHAIRMAN: I am saying, as a matter of practice, first of all, the LP should do the hands-on work, but I am setting that aside. The LPs, they are allowed to supervise the work, and in the final inspection, they have to be present. The LP, if he is not present, then who is going to be responsible?

A. It's very rare that they are not present. We just state clearly here --

CHAIRMAN: You just need to make that clear here. You can say, "If you don't show up, we don't supply water." You have to make that mandatory. From the evidence I have heard, the whole purpose of having an LP is to be responsible.

A. Well, if you look at the form, there are many items. If you are not present there, you get 5 points deducted, and it's very easy to get across the 10-point threshold. In our experience, it's very rare for them to not be present.

Thank you, Mr Chairman, for the recommendation. It's a very good recommendation.

MR LEE: It's very simple. The chairman is practical. If you don't turn up, they don't get the water supply.

A. That's a recommendation. We can explore that with the industry.

Q. In the previous page, 13503, in the middle, a small paragraph. Let's take a look at the large paragraph. The sixth line:

"(In English) At the final inspection, the LP shall upon request provide for the [Water Authority's] inspection relevant supporting documents for the pipes and fittings as listed in the annex of the submitted WWO46 as well as solder materials if and when used."

So that is important, and you needed to demonstrate that.

"(In English) During inspection, the [Water Authority] may use checklists to record findings. The LP or his authorised representative attending the inspection shall sign the checklist and he may make a copy of the checklist for retention if he so wishes."

So he is about to collect payment, he should be very anxious about that. You are not as astute as the chairman in applying this common-sense approach.

CHAIRMAN: (Chinese spoken).

MR LEE: (Chinese spoken).

I think you definitely know, because when Mr Chan Kin Man gave evidence, he raised a point, they could prove that there weren't so many users who got up in the morning and used that water for consumption.

A. I am aware, yes.

Q. In his evidence, he made that statement.

A. That certainly isn't complete; we only got some 500 respondents.

Q. Hong Kong has a lot of public surveys, but it's very rare to announce results before the survey is complete.

A. I recall that we had discussed personal habits. When people get up in the morning, do they boil a kettle of water or do they wash and cleanse? So we wanted to look into that, personal habits, and see whether people would consume the first-draw water.

Our department was doing that survey and we included a question, and we wanted to share that information with you. And you are correct, it's not complete. We still have a few more hundred respondents. Our target is to collect 1,000 respondents.

Q. You have a target of 1,000, but you have disclosed the results. We don't know what the subsequent outcome is.

A. It's still ongoing.

Q. Why is it taking so long?

A. I'm not fully cognisant of the details. It takes time to knock on households. There are other questions as well, a whole batch of questions, a lot of questions.

CHAIRMAN: Is it your branch doing that survey?

A. No. It's the Development Branch.

CHAIRMAN: That's Water Science?

A. Not Water Science.

CHAIRMAN: Development Branch?

A. Water Science is part of the Development Branch.

MR LEE: Is it done by Mr Chan Kin Man?

A. It's a water management review. We want to understand Hong Kong people's water use habits, and we had inserted a question. A lot of questions have to be asked. If you want to complete 1,000 respondents, it takes time.

Q. It says only 6.5 per cent of users cook or consume stagnant water. C21, tab 183. It's very short.

Have you found that?

The letter is dated 12 February this year.

Page 19059, the next page, 19060, B, "(In English) Survey methodology":

"(In English) We target to conduct a 30-minute face-to-face interview with 1,000 randomly selected households in Hong Kong."

Not just PRH? Both? You don't know. Do you know which interviewees are in PRH and which are in private

housing?

Your temporary results are in paragraph 14 on page 19062. It says:

"We commenced the main survey on 1 December ..."

And 511 households were interviewed.

In (a):

"About 93 per cent of households used the first draw water for non-potable uses (including washing face and hands, brushing teeth, showering ...) ...

(b) About 24 per cent let their taps to run a while ...", for 40 seconds; and:

"(Partially in English) (c) About 6.5 per cent used the first draw water for cooking or drinking purposes in the morning and 9.1 per cent of them run their taps for an average of 63 seconds before ... cooking or drinking."

So it sounds like a small number but there are a lot of people in Hong Kong?

A. Yes, the figure is 6.5 per cent.

CHAIRMAN: How much more time do you need?

MR LEE: I hope to finish before lunch. I will do my best.

CHAIRMAN: Please do, because a lot of questions have been asked, so please be straightforward.

MR LEE: Things are different since you issued a yellow card.

CHAIRMAN: Well, I issued a red. Now let's take a 20-minute break.

(11.32 am)

(A short adjournment)

(11.54 am)

MR LEE: Chairman.

Regarding complaints, I have some questions.

Usually, when you receive complaints -- for example, "Why is there no water supply?" -- in fact, they should contact the property management first, but customers will contact the WSD and you will deal with it immediately?

A. Yes.

Q. Do you have any records?

A. We have a phone hotline, 24 hours, 24/7. We have records.

Q. So, for the whole SAR, when there's any complaint or there's no water supply --

A. We have records, yes.

Q. Regarding water containing lead, when the incident broke out, dating back five years, have you received any complaints that a household or district had lead -- did you receive that kind of enquiry?

A. Prior to this incident, no, we have not received complaints regarding water containing lead. We had

other complaints regarding water quality.

Q. You are so sure? You've gone through the records?

A. I asked my colleagues.

Q. So that's why you can be so definite. But I have a request. I would like you to check and give us a written response. Can you do that, "yes" or "no", whether you have any complaints -- can you do that? Because I cannot ask him to come back.

CHAIRMAN: Yes. Go back and take a look.

MR LEE: Just a "yes" or "no" would suffice.

Prior to the incident, when and how did you follow up? If there was no complaint, then you can leave it at that.

I have two questions regarding two estates. They were not affected. One was Kwai Chung Estate and one is Yee Ming Estate.

Let me show you the documents first.

First, do you agree that in these PRH, affected or unaffected estates, you needed to take water samples, and you collected them with HD?

A. Well, HD led us and we collected. They have to lead us to the estates.

Q. After taking the samples, some were analysed yourself, in-house, and some were given to the government chemists. So is there any difference; the government

chemist or yours would be more important?

A. We treat them as the same.

Q. So you won't ignore their results only look at yours?

A. No. No.

Q. There's no reason for you to differentiate between the two?

A. Yes.

Q. I will now show you some documents. C19.7, tab 160, page 15523.

Page 15517, "(In English) Table of Water Samples Taken in the PRH Developments".

The first page, 15517, "(In English) Summary Table" -- first of all, on the left-hand side, we see "(In English) PRH Developments". We have 11 affected developments, and on the right-hand side, "Total No. of samples taken by WSD for lead and result issued": (A) equals to (B) plus (C) plus (D) plus (E.) We have a number of samples, 937.

The next column, "(In English) No. of samples tested by WSD for lead and result issued".

"No. of sample exceeding the WHO PGV for lead", that's more than 10, and out of the 11 developments, there were 67 samples that exceeded the limit. Then (C), "(In English) No. of sample with lead within WHO's PGV", that did not exceed the threshold; we have 445.

These were tested by the Government Laboratory for lead and result issued.

A. Yes.

Q. So we see the number of samples exceeding, we have 24, and then the number of samples within, we have 401; do you see that? That's what you did.

Then the next line, "Unaffected", these were buildings completed after 2005, and 2,123 samples were taken, 0 exceeding the PGV.

Now, for samples tested by GL, again the number of samples exceeding the value is zero. So, in other words -- now, let's look at the next row, "(In English) Unaffected PRH Developments Completed Before 2005", it's zero for samples tested by yourself and the GL.

Now, a few pages down, 15523 -- now let's look at page 15520 first. "(In English) Table No. 2 -- Unaffected PRH Developments Completed in or after 2005". So this is the first batch you developments you tested.

Now, page 15523. On the left, we have the numbers, right to item 56, which is Kwai Chung Estate.

"(In English) Total No. samples taken by WSD for lead and result issued" -- for (A), it's 81. So the number of samples exceeding the WHO PGV is zero, for samples taken by yourselves. Within WHO's PGV, there were four samples, and for the Government Laboratory the

number of samples exceeding the WHO limit is again zero, and within the limit there were 77.

Now please focus on this row. In a moment, I will show you other documents. The COI counsel came up with a summary in A3/45, page 2441. This is a very thick bundle. You can look at the heading of the table, "(In English) Summary table of water tests and results tested by [Government Laboratory]"; do you see that? Unaffected estates, completed between 1954 and 1979. Page 2487. On the right-hand column, there are colours. Do you see boxes in red for values exceeding 10, and the yellow boxes represent substantial values not exceeding 10; do you see those?

A. Yes.

Q. The values in red denote samples tested by the government. You see 12, and on that row you can see the number is 2739, the address, room 405, and the kitchen tap.

The second item -- these all belong to Kwai Chung Estate -- and the next value is 65, which is rather high, and you can see "(in English) meter position" on that row.

Then the next item, 150, very high. It doesn't specify the fitting, but again it comes from Kwai Chung Estate.

The next item, 110, again "(in English) meter position", 51, "(in English) kitchen tap". Do you see that?

A. Yes.

Q. The next entry, 72, "(in English) meter position".

So we have six items in total. Kwai Chung Estate was unaffected, so these samples were tested by the government. Six samples were substandard. Some of them were seriously substandard.

But how come the values tested -- the values returned were zero on the other document?

The second column to the right, the figure "0" should read "6". So if the number of samples exceeding the standard is six, then it should be categorised as an affected estate, according to the Housing Department.

Now, for Yee Ming Estate, please turn to page 15520. Table No. 2. The sixth item, the sixth row, "Yee Ming Estate"; right? The situation is the same. (A) equals (B) plus (C) plus (D) plus (E). The number of samples exceeding this is zero, according to you, and the number of samples within is also zero. In other words, you didn't test anything. The third column is also zero, the number of samples exceeding the WHO PGV, but that was tested by the Government Laboratory.

Now, 102 samples were within WHO standards. The

third column should actually read "1".

Let's come back to the thick bundle with coloured boxes: A3, tab 45. The page reference number is 2499. You can see some coloured boxes: a box in yellow and one in red. On those rows, you can see "(in English) Kitchens". That's for Yee Ming Estate. The address is not really relevant. So the value zero on the other table should read "1"; do you agree? The second column to the right, for the samples tested by the GL, it should read "1", so according to the Housing Department, it should be defined as "affected"; do you agree?

A. Yes.

Q. Thank you.

Now I have another question for you. Page 15524. C19.7. At the bottom, the footnote, please read the footnote. It says:

"(In English) Apart from these 3,780 samples ..."

It was specified above.

A. Yes.

Q. "(In English) ... the test results of 102 samples were not issued by [Housing Department] or discarded for various reasons, of which 73 were tested by WSD, 29 tested by [Government Laboratory]."

Do you see that?

A. Yes.

Q. The Housing Department did not issue results for 102 samples or they were discarded, for some reason. So the results of these 102 samples disappeared. You tested 73 and the GL tested 29. So why were those results discarded?

A. I wasn't involved in the analysis of this data. As Mr Chan Kin Man might have explained, some samples might have been discarded for special reasons, or those samples might be problematic, so they revisited the sites and conducted resampling.

Some samples might have been affected by environmental factors. I don't know the specifics. But they would certainly have enough grounds, if they are to reject some samples.

Q. In terms of health, if a user uses the water for consumption or cooking, those factors you quoted might not be relevant. Some of them might be external factors, but even though, these external factors must be relevant to the pipes or water quality?

A. Yes, the water samples might have been contaminated.

Q. If I take a water sample, I would be careful; I would not put it in a cup. You would put them in a bottle and you would seal them up immediately. So supposedly these samples should be clean even if the surroundings are dirty. You cannot rule out any contaminants, even

though you do it quickly, but the chances are slim?

A. I cannot rule out such possibilities.

Q. But would you say the chances are slim, from a common-sense perspective?

A. Yes, that might be small, but we are talking about more than 7,000 samples. We cannot rule out these scenarios.

Q. So officers who take water samples should be trained; they should know what to do?

A. Yes.

Q. So, if the surroundings are very dirty, then you would not take water samples there; right?

A. I cannot comment on specific cases.

Q. So if there's a lot of garbage around that area, you shouldn't take water samples?

A. But some units might have been pre-identified.

Q. Well, from a common-sense perspective, if the hygiene is so bad, they should at least write some notes or take a photograph. If samples are taken, at least they have to be sure that the surroundings are acceptable; that's common sense, right?

A. Yes.

Q. I read some witness statements, especially one from Prof Fawell -- sometimes, particles would enter the water and would be consumed. So, according to Prof Fawell, these samples should not be discarded.

A. In these cases --

Q. I'm saying that those samples should not be discarded.

A. It might be hard for me to answer this question. In general, I'm aware of environmental factors, and I believe they must have valid reasons, if they are to retake samples, but I don't know the specific reasons.

Q. Despite reading the footnotes, you cannot answer that question; right?

A. Correct.

Q. Now, on the number of enforcements for Kwai Chung, there were six, and one in Yee Ming. In law enforcement, were you prepared to take action?

A. I said just now, if they take a re-sample and if they didn't find any problem, then we would consider it unaffected. It has already been announced.

Q. But I find it problematic. There were six.

A. Well, they did a re-sample and another analysis, and they came to a decision.

Q. I'm not talking about the discarded ones. We found something. But for the samples that weren't discarded -- all the discarded ones weren't done by you. It was the Government Laboratory. But that shouldn't be a factor? They are not related.

A. It doesn't matter who did the sampling. It might be the protocol or the environment.

CHAIRMAN: But Kwai Chung Estate, I think you need to take a look at that, even though you say there were zero samples that exceeded the threshold, but a lot of them contain lead, it's just that they didn't exceed the threshold, 10. 71, 72, 156; that's a lot. That's a lot of units. It just so happens that -- I don't know when Kwai Chung Estate was completed -- it might have been completed a while, so they might have flushed lot away, but it still has problems.

Basically, we might have a lot of components that have used leaded solder. You know what the baseline. The baseline should be zero.

From a water quality point of view, there might be no problem, but from the BS perspective, there might be an issue there.

MR LEE: Another point I would like to ask -- in Yee Ming, go back to page 15520, Yee Ming Estate has 102 samples in (A). They were all tested by the government. You didn't do any --

A. Well, there was a division of labour. We knew that a lot --

CHAIRMAN: There's only one. If I remember correctly, there was only one block in Yee Ming Estate.

A. Regarding division of labour with the Government Laboratory, there wasn't any special reason. We just

shared the workload.

MR LEE: (Chinese spoken).

MR SHIEH: There are two blocks, a few blocks. A3, tab 43.

CHAIRMAN: As long as we know.

MR SHIEH: Yee Yan House, Yee Yuet House, Yee Ching House -- four blocks.

CHAIRMAN: We did one block.

MR SHIEH: (Chinese spoken) ... Prof Lee.

CHAIRMAN: Yes.

MR SHIEH: Prof Lee ... (Chinese spoken).

CHAIRMAN: Yes.

MR LEE: I would like to ask -- we saw that Yee Ming -- there were six in Kwai Chung, six that exceeded the threshold. So you think there is a good reason, but you didn't do the test?

A. They did go back and take samples. They did a second batch of samples. They must have done a re-sample.

Q. So, when you take these samples, since they are random, the purpose is to discover. You don't have time to do the whole block. You would flush for at least two minutes.

A. Yes.

Q. So we still detect lead. It's significant. You go and take further samples and see a zero result. So, in that case, if you went back and tested the affected estates,

you might come up with a zero finding again?

A. Well, if you look at the number of samples, it's quite --

CHAIRMAN: He can't answer you why it was discarded. They don't know.

MR LEE: This was not discarded.

CHAIRMAN: I know. I'm just saying, why is it not considered.

MR LEE: Could someone answer that?

A. I think they had a discussion. The Water Science Division, they had looked at that.

Q. So Development was responsible?

A. Yes, we looked at it.

Q. But were there any documents? But you don't know the reasons?

A. The general picture, there might have been environmental factors, and we had heard the explanation before.

Q. So could you elaborate a little bit --

CHAIRMAN: We have heard that before. We heard about dust, renovation, and so on.

MR LEE: Okay. This pamphlet, did you participate in the publishing of this pamphlet?

A. I did not take part, but I had looked at the draft.

Q. I can tell you, some areas are -- I'm not satisfied with some areas of this pamphlet. I would like you to --

A. I have heard the chairman's comments as well.

Q. That's fine. The chairman has faith in your abilities. I just want you to follow up, seriously. Okay?

A. Okay.

Q. I will end soon.

Prof Fawell has provided some opinion. He said that Hong Kong should have an independent regulator. You know what that is. Would you disagree or agree with that?

A. We are wearing two hats now, there are two bodies, and we need to think about that. That's a big surgery.

CHAIRMAN: I can't hear you.

A. If we were to undertake Dr Fawell's advice, if we were to have a DWI like in the UK, that would be a new model. We might need legislation. We would have to --

MR LEE: I understand the logic. You are not self-regulating.

A. Yes. We are aware of this recommendation.

Q. My last point I would like to you answer -- try your best -- your statement, you have looked at this issue. A responsible person would feel that there are some deficiencies in your department. Would you agree?

A. I agree that each stakeholder can do a better job. There is room for improvement.

Q. Could you tell me -- do you hope that legally there

could be some amendment to facilitate your work?

A. We are looking at the Waterworks Ordinance, and we are looking at what needs to be amended.

Q. Well, the existing legislation is difficult. Some barristers tell me there are some grey areas. They say that the whole piece of legislation seems grey; it's hard to enforce law. Do you agree?

A. Yes. We are looking at how it can be amended. We are doing that.

Q. And also powers. If you were to enforce the law, if there were regulators, what's your view on that?

A. As we said just now, when we have two bodies, two regulatory bodies, as in overseas, I think that would be major surgery, and we need legislative co-ordination. We will consider this direction, but I think I cannot make you any promises right now but we will review this.

Of course, having two separate parties is one feasible option.

Q. So now you are aware that we have APs. Do you know that Housing Department buildings are not governed by the Buildings Ordinance? Are you aware of that?

A. But they have to comply with the Waterworks Ordinance.

Q. So if there is any wrongdoing -- let's say, for example, in my property, I have to be responsible, the AP has to be responsible, but for the Buildings Department --

A. I think the Buildings Department will do its utmost.

Q. What about the future of APs? You are responsible for law enforcement.

CHAIRMAN: To my understanding, it seems to have been changed. We saw a circular where they are no longer exempt. But that's underground pipes.

A. We treat them like a private developer.

MR LEE: Is it still legally binding?

CHAIRMAN: It's a longstanding practice to issue circulars.

MR LEE: I have no more questions. Thank you.

MR A CHAN: (In English) Mr Chairman, the next witness is Mr Chan Hing.

CHAIRMAN: You have no questions for Mr Lam?

MR A CHAN: (In English) No.

CHAIRMAN: Thank you.

MS WONG: (Chinese spoken).

MR A CHAN: Sorry --

CHAIRMAN: Ms Wong, you didn't raise your hand.

MS WONG: (Chinese spoken).

INTERPRETER: The speaker is not speaking into the microphone.

Cross-examination by MS WONG

MS WONG: Mr Lam, when did you start to use WWO46? The WWO form -- are you referring to WWO46?

CHAIRMAN: This WWO46 -- is there any logic to the numbers?

A. We do have somebody following the numbering scheme. We have different functions. It has --

CHAIRMAN: It might be a minor point, but from a consumer perspective it doesn't make sense, WWO46, and then we have 106, 108 -- there's no rhyme or reason to it.

A. (Chinese spoken).

CHAIRMAN: Okay. Please continue.

MS WONG: B15.1, page 37621.

My question was, when did this form start to be in use? Was it since the licensed plumbers?

A. In the 1980s it wasn't called WWO46. It was called a Ga, and this form was in use in the 1980s, but when did it change format, I can't answer that. But it started in 1982.

Q. Did you participate in drafting this form?

A. If you are talking about the history, 20-plus years ago, I didn't start in the beginning.

Q. About in the middle, in the interim?

A. Well, regarding the amendments, I'm not sure -- what do you mean?

Q. Let me clarify. Page 37627. Further down the page, there is a list, 7(i), there's a list of British Standards. Was your department involved in the establishment?

A. Well, we created the entire form. Our department

did it.

Q. Before the lead in water incident -- well, in July 2015, by that time how many times had the form been updated?

A. In June 2015 -- well, the latest version was issued in June 2012, and the latest version was updated in 2015.

Q. How many times was the form updated during your term at the WSD? How many times was it updated?

A. Probably not a lot of times.

Q. Your witness statement adopted a risk-based approach, so how did you assess the risks?

CHAIRMAN: I think those have been covered.

MS WONG: Now, why didn't you include solder on this list?

A. All pipes were included and five terminal fittings were included. We talked about the functionalities of these five fittings, and as such these five terminal fittings were included, and they had to be reported, together with pipes.

Q. So did your department only stipulate important fittings?

A. But according to this form, whether the materials are listed here are not, the WSD's requirements must be met. But these five types of pipes and fittings already make up the bulk of the plumbing system.

Q. Now I would like to know about a few things. You know about the existence of the ACWRQWS; right?

A. Yes.

Q. It was established around April 2000, and a few meetings were convened.

Now, on the paper No. 7 of ACRQWS, some overseas experience was quoted, and in some places there were incidences of lead leakage. On W1, page 480, IVE Tuen Mun mentioned the issue of lead. So it wasn't a low-risk item.

Why didn't you consider including that on the list?

A. You were referring to paper No. 7 of ACQ.

Q. Yes.

A. As my colleagues might have said, we were given an assignment that tap water should be fit for drinking immediately after being turned on. So that puts an onus on maintenance. So our focus was on maintenance, on the maintenance of the inside service and identification of problems, and so on.

At that time, the biggest issue was yellowing of water, so the focus was on that, at that time. The study looked at overseas situations in Europe and America. They identified problems with maintenance in their inside services. In some countries, because of historical reasons, leaded pipes or leaded solder might be permitted, and these have been covered in a study. But these are of historical nature and they might not

apply in Hong Kong, because Hong Kong had banned leaded pipes a long time ago.

So the focus was on discoloration and yellowing of the water. So, at the end, they came up with recommendations. For example, the Quality Water Supply Scheme and educating the public on maintenance and cleaning, disinfection, and so on.

So this follow-up work all stemmed from that paper.

Q. So, in 2002, the switch was made from GI pipes to copper pipes, and solder was required.

In retrospect, do you think you should have considered the possible presence of lead in solder?

A. In 2002, the switch was made. Since 1987, leaded solder was banned, so it had been a long time, more than ten years. So the industry should have known the requirement, and a lot of government and private contracts have included that in the specifications.

So I don't consider that a new requirement.

Q. Do you personally know that plumbers generally are not very knowledgeable or educated? Do you think you have to let them know from time to time that lead cannot be used in pipes?

A. Now, the licensed plumbers or plumbers generally tell us that they are aware of this fact and that is a common trade practice.

Q. Very often, the workers are the people who actually do the soldering. Even if the plumber knows, it's not enough. The workers have to know, and they have to know the consequences.

A. I understand that the CIC would include these areas in their training for the workers. So I believe that the licensed plumbers are not the only ones to know. Plumbing workers who are trained should have that knowledge.

Q. (Chinese spoken).

CHAIRMAN: We have covered all these questions. Please don't repeat them.

MS WONG: Chairman, that's all from me.

CHAIRMAN: Thank you.

You may leave. Thank you.

(The witness withdrew)

MR A CHAN: (In English) Mr Chairman, with your permission, Mr Chan Hing will now take the stand.

CHAIRMAN: That's a very short statement.

MR A CHAN: (In English) There are two statements. Both are quite short. Certainly before lunch I can read the first one.

CHAIRMAN: (In English) Okay.

(Via interpreter) Please read out the first statement.

MR CHAN HING (affirmed)

CHAIRMAN: Please be seated.

Examination-in-chief by MR A CHAN

MR A CHAN: (In English) Mr Chan, I believe you know how this works. I will read two witness statements of yours to start with, and then you can confirm or clarify those statements as appropriate.

(1st statement read in English)

(In English) Mr Chairman, would this be a good time?

CHAIRMAN: We will continue with the 2nd statement in the afternoon. Thank you.

(12.57 pm)

(The luncheon adjournment)

(2.32 pm)

MR A CHAN: (In English) Mr Chairman, the 2nd witness statement of Mr Chan Hing:

(Paragraphs 1 to 6 of 2nd statement read in English)

(In English) Mr Chairman, I don't propose to read the table. Paragraph 7:

"As shown in the above table" -- that's between paragraphs 6 and 7 of the written statement -- "the Water Authority ..."

(Paragraphs 7 to 37 were read in English)

(In English) Mr Chan, you have heard the printed evidence that I have read out. Do you wish to confirm

for the purposes of this Commission that this is the evidence that you want to give up to this point?

A. I agree.

MR A CHAN: If you wait there, there will be other questions.

Cross-examination by MR SHIEH

MR SHIEH: Mr Chan, one of your witness statements has been covered by the WSD colleagues who have given evidence before you. I do not wish to repeat some questions, but there are some points I would like to highlight for your confirmation, because the order of your evidence and other witnesses -- the arrangement has been different. I just want to make sure we are talking about the same thing.

First of all, I want to refer to the 2nd witness statement. This morning, another senior counsel had asked this question. That is, you have an annex to WWO46. WWO46 has evolved over time. Looking at your witness statement, in the 1970s it was called form Ga?

A. WWO46 included a Ga. It wasn't called WWO46 back then.

Q. Looking at page 18804, you say that WWO46 consolidated form Ga and form H between 1989 and 2000. So does that mean there were three forms, form G, form Ga and form H?

A. Yes. Well, G and Ga are slightly related. Their nomenclature indicates that, forms G and Ga.

Q. So Ga would be a part of G? Because we know that WWO46 has parts I, II, III, IV, V. So G, Ga and H, are they equivalent to part I? Could that be form G? How did they evolve? We don't need the details. I'm just asking on behalf.

A. I'm not too sure. Form G has been in existence for quite a while. It existed more than ten-plus years ago.

Q. So there was a bunch of forms that were used previously, between 1989 and 2000, and it has been edited and consolidated and given a new name, WWO46. The new form has several parts.

Why did you use the period 1989 to 2000?

A. Over the course of consolidation, the two forms were first combined, and subsequently a new form was added.

Q. All right. I want to ask about the annex to form WWO46. What criteria were considered in considering the list of fittings to be included by the licensed plumber? This has been addressed in your 2nd witness statement.

I would like you to look at paragraph 25, the start of paragraph 25. In paragraph 26, you began to explain the evolution of WSD's approach to testing and stamping, and in paragraph 27, at the beginning the WSD would test the fittings themselves and they would stamp the form if the parts are all right.

For different parts like stop valves and draw-off

taps, the reason for listing them out in the annex is over worries of water seepage and there would be wastage of water. That's the historical context.

A. On 2 July 1982, there was a time when we first had form Ga. Paragraph 27, that circular letter was mentioned and the form Ga was mentioned, and prior to that, each part was sent to our workshop for testing and sampling. If it fails, it cannot be used anymore.

Q. So the WSD selectively tested some parts, because the WSD was aware of water seepage and dripping, which might lead to wastage?

A. This refers to functional fittings. Sometimes they are installed at the end. These fittings are made of different components. The structures were relatively complicated. At that time, if they didn't do a good job, the fittings might no longer function and the water would continue to flow.

If a series of valves and gates are non-functional, then it might lead to wastage of water or even flooding. There were a lot of consequences.

So, at that time, we felt these were important.

Q. So all these happened on the user end or the building end. It's beyond the connection point; right?

A. Yes.

Q. So basically it's about the inside service?

A. Yes.

Q. However, the maintenance -- custody of inside service is the responsibility of the tenant or user, but during the construction the WSD felt that it has a role to play.

And there's a role of supervision. Although those parts belong to the inside service, they have to take care of it eventually. They have to satisfy various requirements and, as such, the WSD requires the submission of these fittings for stamping, and eventually you place your trust on certain labs or the Kitemark or the WRAS of UK, and the evolution has been explained in the statement.

A. Before 1982, each fitting was sent to our workshop for testing. It created difficulties at that time because when the workload gets high then we could not handle the workload, so eventually the supplier would send the fittings to an approved lab for relevant tests, and after that we would grant the Ga, which is virtually a gate pass.

However, this cannot replace the quality control on the supplier's part.

Q. Yes, I understand. I'm not saying this is the only stage of gatekeeping. I am aware that you have four separate approaches.

A. I would like to elaborate on this requirement. This is

a regulatory requirement in schedule 2, part 2 of the regulation, clause 11. It's about taps and valves. All draw-off taps and valves have to be approved by the Water Authority. In other words, the five types of fittings.

Q. So the thinking is that the WSD has gone through a thinking process, and we have thousands of fittings, and the WSD might feel that they should not have to test every fitting.

The common requirement is that all fittings must conform with BS standards. If you just rely on the others, the WSD can say that the BS standards must be complied with and they are blameless, but the WSD did not adopt this attitude; right?

A. For important fittings, we would go one step further.

Q. By the time you discovered the fittings are non-compliant, it might be too late and damage has already been done by then, and the WSD feels that these five fittings are significant enough and they either had to be provided for stamping or they had to go through certification or lab tests?

A. Yes, that was our thinking at the time.

Q. So my question is: the inconvenience of water leakage is an inconvenience. You might not be the decision-maker at that time. Why didn't your colleagues consider other

risks to the user, namely health risks?

A. According to the requirements, pipes and fittings used in the inside service must comply with the British Standards. As far as we know, if pipes and fittings comply with BS, then the water quality is expected to be compliant. Coupled with the mechanisms for supervision, we have established standards for pipes and fittings, and we have a licensing system for authorised persons. For contraventions, we might revoke their licences.

For WWO form 46, I would like to introduce its function. The idea is to inform the WA that they are going to launch a waterworks -- so the APs and LPs have to be reminded that the pipes and fittings used must comply with British Standards.

We commission an AP for each construction project, and we also have an LP assigned by us, to confirm and remind them of the legal requirements on pipes and fittings. So we followed the standards.

In Hong Kong's construction industry, we have a satisfactory monitoring system. Apart from the developers, we have main contractors and we have different groups in the same construction site, and they each exercise their own responsibilities. Before the construction projects finish, we will visit the sites, and in cases of violations we will deduct points or take

disciplinary action according to the law.

The legal requirement on the use of lead-free solder is very clear already, so I haven't included that on form 46.

Q. What you said can apply for all five fittings; right? Now, you said lead is not expected to be found, and that applies to water seepage as well as excessive lead. It applies to both scenarios. But the thing is, the WSD did not use this logic. They feel that these five fittings are something special, and you have to take a look at them ahead of time.

You did not mention the point that you trust the trade. That's just a regulatory requirement. Now you are saying that you need to test these five fittings because of the regulations. Are you referring to schedule 2?

A. Yes.

Q. Now let's look at schedule 2. "(In English) The Waterworks Ordinance -- Waterworks Regulations". G1, page 141, schedule 2 on page 160.

A. Which part are you referring to?

Q. Part 2. Clause 11:

"(In English) No draw-off tap or valve shall be installed or used unless it has been tested in accordance with regulation 21 or otherwise approved by

the Water Authority."

Now the problem still remains. This is rule 11. But you wrote rule 11 after going through the same thought process.

It's an exceptional case, you don't have to include that line, because the BS is a default provision. They have to comply with it no matter what. But this is something additional or extra. We have to know which brand you use, because it's something special?

So if there are issues -- there might be flooding or water leakage and this would affect the residents, and as such the WSD felt that they should write it down. The risk of excessive lead leading to negative health impacts has been built in in your regulations.

A. Now, we learnt about the impacts of lead after the incident. There would be other risks. So in retrospect we understood there were a number of risks.

We had previously relied on the mechanism. We had faith in the system. And at the time we felt confident in it. We felt that complying with British Standards, pipes and fittings, as long as the workmanship was in compliance, then the water quality should comply with the standards.

So what will we do regarding lead? Well, we didn't consider that there was a lot of risk. If we thought

there was a risk, we would have handled it. And post-incident we have already taken a lot of measures. We have issued circulars. The first one was to tell them not to use leaded solder.

Q. Well, for good or bad reasons, no matter what, you had not considered that, you weren't aware of that risk. Leaking or dripping faucets, you were aware of that. Now you know about leaching of lead and solder.

A. We also have very clear clauses in our contracts.

Q. Then I would like to ask you -- we have heard Wong Chung Leung, assistant director, when the WSD is required to inspect the installation, the WSD, how do they do the inspections? There's a prioritisation, what can be inspected and what can't.

The deputy director said that some things you can conduct a visual inspection, and you might have a checklist, and your form WWO46 will also have brand names. It's not a very complex inspection. You can see brand name, and so on.

So would it be possible to have an implied consideration that what you can visually see and what you can recognise, those are the kinds of things that you will inspect be; but soldering or soldered components, you can't see that. So is that possible?

A. I would have a different consideration. The

regulations, in 864-2, it stipulates lead-free solder. The AP/LP, when they started the works, they were reminded, and they had also declared, that the materials they would use would comply with -- these were approved components, and so on. So they should have used lead-free solder, and we have to rely on this honour system. The AP, they play an important role, a management role.

I know that construction process, they have a material submission, and I feel that each project they have a management team.

CHAIRMAN: Why don't you just answer the question?

MR SHIEH: I was asking you a specific question. What kind of material requires -- what kind of material needs to be listed in WWO46? One response you gave is that it's a component that would leak, and I asked would there be another reason, being that these components can be inspected visually; you can recognise the brand name. So WWO46, one role the WSD wants to play is it wants to make it easy for inspectors to inspect, to conduct visual inspection. That might not be the design intention.

A. Well, we can think in reverse. One of our strengthening measures, we have added a lot of items to form 46, because we have awareness now.

So, to answer your previous question, why was it not in the list, it's because we weren't aware that people would breach the rules and use leaded solder.

CHAIRMAN: Listen carefully to the question.

MR SHIEH: Was it a habit or attitude that at the time the inspectors -- the inspector checking the pipes -- he was just going through a checklist. These were things that could be inspected visually. They were brand names, and so on. Was that -- even though it is not written, but subconsciously, was that the sort of thinking, administrative convenience?

A. As I said in my statement, there was an evolution. In this annex, we didn't have end fittings, and then subsequently we had a case where we found the pipes were leaking and therefore we included the pipes.

So, in my first answer, that's what I wanted to express. We recognised a new risk, and we have added a lot more to our current form.

Q. So you are saying you feel or your understanding was that these were incident-driven; there was a leaky faucet or something and you had to add these steps to it? And the form specified these items, plus other items, as you said.

A. It's incident-driven.

Q. Okay. I would like to ask you -- your other colleagues

have answered that, so I will be brief -- you referred to EN 864-2. That's a requirement in schedule 2. It's a British Standard. But you are aware that this British Standard, it's applicable to fittings and it has been superseded?

We now have 1254 -- I won't go through the details, because your evidence has covered that. The focus is, in 864, the lead content cannot be zero. You allow for 0.1 per cent. There's one that has been highlighted. But the most up-to-date standard is 0.07 per cent. You have traced that evolution.

I have also asked your colleagues and I would like to give you the chance to respond -- the WWR, you know we have rule 20, where we have to comply with the British Standards; but rule 19, you should be familiar with this. It says it has to be subject to schedule 2, and so on.

Schedule 2 refers to 864, and it says -- it highlights 864.

So a user, regardless of whether they are familiar with the law, you have to comply with the standard and then schedule 2 highlights these components. So you don't have to argue with me that you should find the most up-to-date version, but for a layperson, it says "comply with 864", so I'll comply with 864.

And let's take a look at 864. It says 0.1 per cent and I've used that. I have not looked at the up-to-date British Standards. Then I have not complied because I am caught by rule 20.

So this approach, I understand you will say it's because you didn't look at rule 20, but this sort of drafting, you have in rule 20, and then in rule 19 it's not up-to-date. You have some obsolete material. So potentially, it might create some confusion with the reader; do you agree?

A. Let me put it this way. In the first half of the statement, I have stated an amendment in 1992 and 1994 regarding piping material, what was prohibited; we had introduced new material. So we felt that that was a major change. And we had undertaken a timely amendment, so I explained we are not just -- we are not deliberately not updating the BS. I referred to 864, 1254, 0.1 per cent or 0.07 per cent. My judgment is that 0.1 per cent or 0.07 per cent, in our previous task force reports and other expert reports, leaded solder, it's not between 0.1 per cent and 0.07; it's 50 per cent.

In 864-2 and 1254, their requirements -- there has been some adjustment, but overall speaking, the functionality, the difference is very small, since it's

fine-tuning and when you amend the law it takes time and it takes effort. So this might -- we cannot go through these fine-tunings on a regular basis. We are talking about more than a decade ago.

CHAIRMAN: You are talking about a small amount.

A. Even for this roll of lead-free solder, we were saying it's 0.1 per cent, 0.07 per cent. It's less than a 0.2 per cent difference.

MR SHIEH: On this occasion, you used 50 per cent lead solder, so even if you use 1254 or the 864, you have that discrepancy, it doesn't have any causation effect. It's not because I have used 0.1 per cent.

CHAIRMAN: We understand.

MR SHIEH: But I'm asking -- forget the past -- even for this incident, why we have so many cases where it's more than 10 micrograms per litre -- it's not because the material complied with 864 but not 1254; in fact, that's not the case. So we are forward-looking. Do you feel -- we have some British Standards in schedule 2 --

A. Allow me to elaborate. My colleagues -- Mr Lam Ching Man explained that we will have timely updates and review of the law, and if you ask my personal opinion, should we have each BS in the law? Well, there's a lot of fine-tuning in the BS, and if you need to amend the law it's very timely, just like right now, recently, in

our circular letter, we have a new BS.

CHAIRMAN: Let me tell you, I was looking at the information, the so-called latest revised edition. Your definition. In Chinese, it's even more apparent.

MR SHIEH: It just talks about the British Standards.

CHAIRMAN: Let me look at the regulation under the BS, the definition under BS:

"(In English) BS means the latest revised specification ...", and so on.

When you look at the Chinese version:

"BS means the latest revised edition of a specification issued by the British Standards Institution."

MR SHIEH: If you revise the British Standards from 1 to 4 to 5 to 8, you have to revise the BS altogether. If you have to put the BS in black and white, it's very difficult.

A. If the BS is updated, then the regulations might have to be edited as well. For copper pipes and other fittings, BS is about pipes and fittings. Now, our latest list has been uploaded online.

On the one hand, you can say the regulations are not comprehensive, but with regards to the lead in water incident, the rules are clear and the trade generally knows that pipes and fittings have to comply with the

BS. We completely agree.

Q. Now we just want to talk about something conceptual with you. You can look at rule 20 and refer to the most up-to-date BS.

Now you can look up the latest BS; that's feasible, right?

A. Are you talking about legislative amendments? I might not be in the best position to answer this question.

Q. I am not asking you about legal knowledge.

A. Well, from a pragmatic perspective, we can list out these BS specifications in certain codes of practice, and when we amend the code -- well, if necessary, we can revise the code in the future. So that might be one viable solution.

Q. All right.

I would like you to look at your 2nd witness statement. Your website contains a link. For form WWO46, you used to require a list of fittings. Now, on the form, you ask the applicant to include the information listed on your website. So I believe that's for convenience, because it's easier to amend the content of your website rather than the form. So right now you would not list out the five types of fittings on the form?

A. WWO46 is a general form, to inform us of the progress of

the works. Some works last one or two years, and the form contains five parts. If I amend the form, we would run into issues of new forms and old forms. So that's a practical solution.

Q. So you would refer them to the website.

When I asked questions of Mr Wong Chung Leung, he said the website doesn't require the applicant to declare solder. Certificates of solder have to be submitted, but the solder is no longer governed by the annex of the form.

A. The circular letter requires the trade to submit certificates on the use of lead-free solder. When we first detected the risk, we took action immediately. WWO46 is a general form. Not all works involve solder, so there's no use to single out solder because of this incident.

So, overall speaking, we do not have to single out this item on form 46, because not all systems require solder. So this item is not included on form 46, but they have to submit samples for certain projects.

MR SHIEH: I have no further questions. Thank you.

MR HO: (Chinese spoken).

CHAIRMAN: Anyone else?

Cross-examination by MR TAM

MR TAM: I only have a few questions.

My name is Tam. I represent a few residents from Kai Ching Estate and Kwai Luen Estate.

In 2013 you belonged to the Technical Support Unit, and one of the tasks of the unit was to review WWO and WWR.

A. Yes.

Q. Were you involved in the work?

A. I took part in the review of the licensing of licensed plumbers.

Q. How many staff were involved in the work, the review and amendment of WWO and WWR?

A. The discussions were headed by Mr Lam Ching Man, the assistant director. The senior engineer and myself were also involved.

Q. So the three of you were involved. So Mr Lam, the assistant director, was the head?

A. Yes. For matters such as legal amendments, we have to escalate it to our senior management.

Q. In other words, the director?

A. Right.

Q. So how did it actually work? I would like to know details. Would any of your staff look at legislative amendments in other countries?

A. Now, let me tell you about the situation at that time. At that time, licences had to be renewed annually, and

there were voices from the trade, going for an increase in the validity period to three years. We would take reference from other local laws.

Q. So you did not take reference from overseas experience?

A. We did. We would look at what other countries or regions are doing.

Q. Now, we discussed a lot about the British Standard. So you would monitor changes to the BS; right?

A. No, not at that time.

CHAIRMAN: So, in the Technical Support Unit, only one engineer did the work?

A. And before July there were four engineers, and the work included a voluntary Quality Water Scheme. So a total of three staff were involved.

MR TAM: So you would only review the amendment to WWO or WWR upon an incident; right? You would not review it regularly, say quarterly; right?

A. In terms of the levy, we have a levy schedule and we conduct regular reviews. Other clauses require ample discussion and consultation.

Q. Of course, ample discussion is necessary. But what actually drives such discussions? Would you conduct periodic reviews, or would you wait until other departments or the trade voice their issues?

A. At that time, the trade voiced the issue, and we

considered the situation.

MR TAM: I have no further questions.

CHAIRMAN: Thank you.

MR LAW: (Chinese spoken).

CHAIRMAN: Thank you, Mr Chan. You may now leave.

(The witness withdrew)

MR LAW: Next, senior engineer from the WSD, Mr Cheung Yip Kui.

CHAIRMAN: Does anyone require a ten-minute break? If not, let's continue.

MR LAW: Before the witness enters the room, I would like to say I will read out the witness statement as usual, but the bulk of his evidence is about the names of the inspectors in different estates, so at this stage we might not need to read out the names.

CHAIRMAN: Yes, I agree it's not necessary.

MR CHEUNG YIP KUI (affirmed)

CHAIRMAN: Please be seated.

Examination-in-chief by MR LAW

MR LAW: Mr Cheung, bundle C19.5 is in front of you. Please turn to page 13772, and your witness statement will be displayed as well. As with other witnesses, I will read out your witness statement. Please pay attention, and at the end I will ask if you are willing to accept that.

CHAIRMAN: You can begin from the second paragraph.

MR LAW: Thank you. I will begin from page 13774.

(Paragraphs 5 to 14 were read in English)

(In English) Paragraph 15, page 13785.

(Paragraphs 15 to 22 were read in English)

Step 1: Inspect connection point; position and material, size and alignment of the connection pipes and fittings; and the major rationale is to ensure adequate water flow and water pressure to meet water demand.

Step 2: Inspect master meter room near connection point; major items of inspection include location, size and number of meters; and rationale, Ensure accurate readings and enable early detection of leakage.

Step 3: Randomly select a block and go up to the roof, during which AWIs will inspect upstream plumbing; major items of inspection include number of branch(es) and material, size, alignment of pipes and fittings; and major rationale being to ensure adequate water flow and water pressure to roof tank. Prevent contamination caused by cross connection.

Step 4: Inspect downstream plumbing at the roof and on the external walls of the block; major items of inspection include the number of branch(es) and material, size, alignment of pipes and fittings; and the major rationale being to ensure adequate water flow and water pressure to individual flats. Prevent

contamination caused by cross connection.

Step 5: Randomly inspect individual flats on typical floors and non-typical floors; major items of inspection include the position, material, and number of valves and water taps; and material, size, alignment of pipes and fittings; and the major rational being to ensure water points match with drawing as the number of water points affect water flow and assumed consumption in the system. Prevent contamination caused by cross connection.

Step 6: Inspect meter rooms/cabinets; major items of inspection include installations, size and position of meters, whether meter connects to the correct unit, workmanship; and the rationale being ensure accurate readings and facilitate future maintenance.

Step 7: Attend the floors where pressure reducing valves are installed and inspect the same; items of inspection include position, material, size and alignment of valves, pipes and fittings; the rationale being avoid excessive water pressure.

Step 8: Inspect roof tank and sump tank. These items are usually constructed by another LP, hence will be inspected on a separate day; major items of inspection include capacity, material and cover of the tanks; and material, size, alignment of pipes and fittings connecting to the tanks; and major rationale

being to ensure proper functioning of plumbing system and adequate water supply.

Step 9: Inspect pump rooms (one at the roof and the other one on the ground level). These items are usually constructed by another LP, hence will be inspected on a separate day; the major items of inspection include installations including flow volume and pump head; and material, size, alignment of pipes and fittings; the major rationale being ensure adequate water flow and water pressure.

(Paragraphs 23 to 46 were read in English)

Mr Cheung, I just read out your witness statement. Can you confirm that you will adopt this as your evidence?

A. Yes.

MR LAW: Thank you. I have no other supplement.

Cross-examination by MR SHIEH

MR SHIEH: Mr Cheung, please turn to paragraph 4 of your statement. You mention the task force. There are some conclusions there.

In (b), you refer to "Copper alloy fittings":

"(In English) The copper alloy fittings may contain a small amount of lead, which is permitted by the British Standards. The Task Force concluded that the copper alloy fittings also leached lead but did not

result in excess lead in drinking water."

A. Yes.

Q. So I would like to see if you agree. We went through a lot of documents and on a Friday afternoon I don't want to dig through all that. The WSD has a list of components, taps and so on, that has been approved. So when they fill out WWO46, the annex, and if it's within your approved list, you will issue an approval letter; is that correct?

A. Within our approval list, if they fill out form 46, then our colleagues won't have a further check.

Q. You are also aware that the proper way, the proper method, is when the construction works are at the initial stage, the material submitted is on your list; but when they actually conduct the works they might change their minds or use other products. So theoretically, the LP or AP should sign something and submit a form for your records and as that component is still on your approved list it should be okay?

A. Theoretically, yes, but our procedure-wise, our inspector needs to double-check to see if there's such an item, and if there's no problem, then there's no objection.

Q. So if they left out -- even though that product is correct, they might still get a penalty?

A. Yes.

Q. Okay. In the excessive lead in Kai Ching and Kwai Luen, there were some instances where the actual component used, the copper alloy component, was different from the one submitted, the deviated material, as you stated in your statement, but the actually used product, one that wasn't submitted in the annex, it's still on your approved list, it's just that they did not submit that. But the material that was used, that wasn't submitted but was on your approved list, it had exceeded the British Standard lead content. You are aware of that?

A. Yes.

Q. So, in your paragraph 4(b), the meaning there is not that clear, "(In English) The copper alloy fittings may contain a small amount of lead, which is permitted by the British Standards". They won't require zero lead content. It might be 4 per cent. It's a very small percentage; they tolerate that. But the task force said that some components have exceeded the British Standard.

A. Well, different brand name components. They have specified a metal grade, like CC491K, they specify the lead content range. But it's exceeded the allowed metal grade. But the wording here means that we checked the fitting at the time, and the metal grade, if it was between 4 and 6, and it deviated a little bit; it

deviated.

Q. To cut it short, the British Standards prescribe a range, so it's not at a fixed amount, they give you a range, but actually it had exceeded that permissible range, it had exceeded a little bit. Even though it wasn't the culprit, because through other tests the leached lead isotopes weren't from those components, so if the component is on the approved list but it exceeds the limit, even though it's not the culprit, so then maybe there's a problem with your list then. What's your position?

A. Our existing mechanism, you can say that we have three categories. We have Kitemark, WRAS and the lab test. So the first type, it's a comprehensive system. It can monitor the product quality. Kitemark and WRAS and a local lab test, they have some deficiencies. I admit it's not comprehensive and it cannot guarantee the quality control can be consistent.

Q. That is types 2 and 3, WRAS and the Hong Kong lab test.

A. Yes.

Q. So it can only test for the sample you have submitted.

A. Yes.

Q. So if you have some discrepancy in your production line it can't be detected?

A. Production lines might change, yes. Our department in

this respect, we are considering new measures to refine the process.

CHAIRMAN: Your product certification, if the manufacturer has Kitemark, and let's say they relocated their manufacturing base to, let's say, another country, and if the new manufacturing facility doesn't allow for British Standard inspection, then we don't get the Kitemark; is that correct?

A. My understanding is the British Kitemark, even if you relocate the facility, BSI will have people go and inspect the facility and monitor the situation.

My understanding that if British Kitemark realises they are not allowed to inspect the facility or cannot guarantee the quality assurance, then the product will be removed from the list, from the Kitemark list.

That's why, when we accept Kitemark, we go to the BSI website to confirm the number is still valid.

MR SHIEH: We had asked that yesterday and you can confirm. So Kitemark doesn't have an expiry date. They give you a certificate and if it's not on the current valid certificate, then you know that -- a BSI might have inspected them or they had failed or for various reasons, BSI feels that they needs to withdraw it from the list?

A. I agree, BSI doesn't have an expiry date. When we

introduced the five-year validity period, a lot of suppliers gave us a Kitemark certificate. If we have a different treatment, then it might be inconvenient to suppliers.

At all times, our colleagues will go to the website and reaffirm whether it's still valid. Then it's not convenient for the market, because at this point, when I check, I submit form 46, but when I install the product, do I need to confirm that it's still on the list? So we had agreed with BSI that the lab report and the WRAS, they have a five-year validity, and we talked to BSI and they assured us that if we process an application today, they can guarantee -- they are confident that this product can be valid for three years, and we know that BSI -- they told us they are considering -- in the future, they will introduce an expiry date like WRAS.

Q. That's five years?

A. It's five years. They will state the wording from when it begins and when it expires.

Q. Just now, you said you have an understanding of BSI, when you process an application -- so if today, if somebody gives you a BSI certificate and says "no", they will apply for a general acceptance?

A. Regarding BSI products, we will issue a general

acceptance form. It was based on our understanding that they -- what the BSI certificate number was, we would check with the website and confirm it's still valid, the Kitemark, and we would issue a general acceptance from our processing date, and that would be the validity period for general acceptance.

Q. So if somebody comes today and fills out a general acceptance, they apply for a Ga, so --

A. And when they apply for a Ga, we will go and check the website, that it's a still valid general acceptance; we won't have any questions.

Q. So it's valid for five years?

A. The maximum is five years, and similar to a WRAS, they have a validity period of two years, but we will apply the same two-year period.

Q. BSI have told you, first of all, that they get the Kitemark certificate, they get the general acceptance, and the Kitemark, how long is it dated?

A. It's not relevant. BSI certificates, they have a first issue date, but they will monitor the product, and as long as -- they won't show us the details, but our understanding is that they will have a re-issue date.

But that's not important. They will tell us. If the product is still in the directory, if it exists in the directory, then it's under the BSI Kitemark

approval.

Q. So somebody comes and gets a Ga and that tells you the Kitemark number is such and such, and you will check the BSI website and see if it's that product and if it's still in existence. Then you will give them a general approval for three years?

A. Yes.

Q. So BSI ensures that if it's still on its website, they will say it's valid for three years, at any time?

A. Yes.

Q. So, if it's up for inspection -- well, at any time, if it's on the website --

A. It exists on the website.

Q. It exists in the website; that means it's going to be good for three years?

A. That's what BSI advised us.

Q. If BSI is planning -- it's in the pipeline, there will be auditing, they will be conducting their audit process, then they might remove it.

A. (Chinese spoken).

Q. Well, but it's on their website, then no matter what, they are still going to say it's valid for three years?

A. We have to process the general acceptance, and there was a choice. If we didn't process, if we didn't have a validity period, then BSI products -- or for us to

process it, it would lead to inconvenience. Otherwise, we would need to -- either we process a Ga as set out in the validity period, or when they receive a product and when they process form 46, they have to go to the website and revalidate that, whether the product is still valid.

So after discussion -- we had discussed with BSI and they feel comfortable that we can issue a validity period of three years for BSI products, as long as the date -- you check the product still exists on the BSI website.

Q. Today, on the BSI website -- for example, if BSI decides to inspect a factory tomorrow and the result is a fail, then that entry might be removed on their website within half a month or one month.

But the three-year approval letter still existed, but during that period the company actually had no Kitemark?

A. Perhaps you can put it that way, but we have to come up with a physical arrangement. We have discussed the issue with BSI, and they are comfortable with the three-year period we adopted.

MR SHIEH: Let's continue on Monday.

Chairman, I will end here.

CHAIRMAN: Let's continue at 10.00 on Monday.

How many more witnesses do we have?

MR SHIEH: Mr Chau and Mr Chan. And the WSD officer, Mr Ho, who expressed his concern before. He will provide his witness statement next Monday.

(4.33 pm)

(The hearing adjourned until 10.00 am on Monday, 29 February 2016)

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