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2016年2月22日

上午11時06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

王鳴峰資深大律師、陳樂信大律師及羅頌明大律師，由律政司延聘，代表水務署署長

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

何沛謙資深大律師及殷志明大律師，由羅夏信律師事務所延聘，代表香港房屋委員會

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

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

孖士打律師行陳宇文律師，代表中國建築工程（香港）有限公司及瑞安承建有限公司

水務署第四證人：黃仲良（水務署副署長）宣誓繼續作供
許偉強先生盤問

問：黃生，早晨。

答：係，早晨。

問：首先就住你嗰三份證口供，咁我想先問一問你，就係澄清一下你嘅工作經驗嘅。

答：好呀，好呀。

問：咁就我知道你就係2015年開始就擔任你而家呢個副署長嘅職務嘅。

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答：係，啱。

C

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問：你係幾時正式開始加入水務署㗎？

D

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答：我應該係 1989 年 6 月 15 號。

E

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問：89 年？

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答：6 月 15 號。

G

H

問：6 月 15 號。我想問一問就係你擔任呢個副署長之前，即係 2015 年 4 月份之前，你都係做呢個助理署長㗎，係咪，個職位？

H

I

答：我做過一段時間助理署長，因為我喺做副署長之前，其實我係有一年半係去咗發展局嘅，...

I

J

問：明白。

J

K

答：...做呢個首席助理秘書長。

K

L

問：明白。

L

M

答：之前我就做過大約一年嘅助理署長。

M

N

問：喺助理署長之前，你個職位係...

N

O

答：總工程師。

O

P

問：工程師？

P

Q

答：係。

Q

問：喺作為助理署長嗰個時間，我哋睇一睇，就係你最主要嗰個工作範圍--因為我哋知道例如助理署長，佢亦都有啲分工嘅。

R

答：係呀。

R

S

問：你作為助理署長嗰陣時，你最主要嘅工作範圍係邊幾方面㗎？

S

T

答：其實我嗰陣時嗰個助理署長嘅職位就叫做 Operation，即係運作科，即係主要睇番嗰個供水個系統嗰個 operation，即係啲分配、供水嗰啲嘢。

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C 問：即係個 waterworks，嗰個供水系統？

C

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答：係。

D

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問：咁我想而家同你睇一睇你嘅第三份證人口，有幾點喇，我就想問一問。
喺 C21 嘅 18770。

E

F

答：係。

F

G

問：咁我哋都知道--即係睇過你呢一份嘅證人口供，主要個目的都係就住
呢個工程師學會佢哋所發出嗰個報告，作出有啲回應嘅。

G

H

答：其實 more 係想澄清番一啲誤解啫，...

H

I

問：明白。

I

J

答：...同埋想講番我哋工作上，其實即係鉛水事件之後，我哋有啲
update，咁想講番出嚟咁啫，係。

J

K

問：明白。即係最主要都係即係就住喺嗰個報告入面可能對即係水務署，
即係有啲制度上面，即係可能有啲 comments，你係想回應番，就即
係你話嗰啲就可能係一啲嘅即係 misunderstanding。

K

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M

答：誤會，係嘞，misunderstanding 嗰啲嘢。

M

N

問：咁或者我哋先睇一睇喺你個第三份證人口供裏面所講有關嗰個持牌水
喉匠嗰個制度先。

N

O

答：好呀。

O

P

問：因為嗰個制度底下有啲問題，其實我都問過署長嘅，咁我都想即係同
你再討論一下。

P

Q

答：好，好呀。

Q

R

問：因為可能你喺嗰個水務署任職嘅時間比較長啲喇，咁可能你會有多少
少嘅資料提供都未定嘅。

R

S

S

T

答：好呀，好呀，okay。

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U

問：首先我想問一問，你知唔知道就係大概我哋講緊早期啲喇，即係七零
年代以前，即係公司都可以擔任持牌水喉匠呢個角色，你知唔知㗎？

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答：呢個就即係我第一手資料就有嘅。咁我係喺呢件事之後，咁就即係同啲同事討論番，即係我哋署長都有詳細講過嗰個一路發展，咁我有陣時都會喺度，咁我都知道嗰個，即係有咁嘅認知，話有咁嘅發展，係話之前其實係可以公司做呢個持牌水喉匠。

問：明白。你有冇睇過即係相關嘅法例，即係話以前嘅法例，就住即係公司可以做持牌水喉匠呢方面，你自己有冇即係參考過？

答：我就有真係睇過嗰條條例，不過我聽佢哋有討論過。

問：咁你亦都喺個討論入面，你都知道即係呢一個公司作為持牌水喉匠呢一個咁樣嘅即係做法喇，咁就喺七零年代嗰陣時都即係有啲改變嘅。

答：係。

問：之後就係一定要個人身分先至可以做持牌水喉匠，呢樣嘢你知道嘛？

答：你係咪即係意思去到 1992 年嗰次 amendment，就由一間公司可以做持牌水喉匠，變咗一定要係個人先至可以做持牌水喉匠，係咪？

問：以我哋所知--或者我哋睇一睇個法例，好唔好？

答：好呀，好呀，好呀。

問：咁麻煩你睇一睇呢個 A3；A3，2537。我哋睇咗 2536 先。

答：Okay。

問：A3，2536。2536 就係呢個即係比較較早期啲嘅一個版本嚟嘅，咁我哋睇到，呢一度我哋睇到，就係一九三幾年嘅版本喇，咁跟住就做過一啲修訂嘅。咁就我哋見到喺 2536 嗰度都講出咗有啲喺 1940 年、1950 年嘅修訂，咁所以係一個較早期嘅版本。

如果我哋睇一睇 2537 嗰度，2537 就如果我哋睇下第 3 段，講 licensed plumber 嗰度，咁我哋都睇到話“licensed plumber includes any person”，亦都包括咗“corporate body licensed by the water authority to construct, alter or repair inside services ...”咁樣；見到嘛？

答：見到。

問：咁呢度似乎都個法例就都訂明咗就係個持牌水喉匠就可以係公司嚟

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嘅。呢個即係佢解釋...

C

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答：清楚。

D

E

問：...嗰度係咁講嘅？

E

F

答：係，係，係，係，係。

F

G

問：咁我哋又睇一睇嗰個法例嘅演變。即係如果我哋睇一睇 A3，同一個文件夾。

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H

答：2550，係咪？

H

I

問：係嘞，2550。呢個係 74 年嘅版本嚟嘅，即係都隔咗都有幾十年嚟嘞，個版本。咁 2550，如果你睇下中間，對落少少喇，都見到個“licensed plumber”嘅嗰個定義。

I

J

答：唔，唔。

J

K

問：咁入面就講話“... means a person licensed under this Ordinance to construct, install, maintain, alter, repair”，等等喇，咁亦都包括--我一陣間遲啲同你討論一下嚟嘞，就係一個人，佢話係當佢做持牌水喉匠。即係佢自己可能唔係真係持牌水喉匠，都被當為，deemed to be，一個持牌水喉匠，都會包括埋之內嘅，呢個。

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咁似乎--我哋如果睇番，就住呢一個版本嘅條例入面嘅有關嘅一啲規則，咁我哋睇一睇就係--你剛才所講嚟嘞，就係 92 年之前。92 年之前，如果我哋睇下作為持牌水喉匠嗰個即係需要嘅一啲嘅資格喇。如果我哋睇下 2519 頁。

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答：2519？

Q

R

問：係嘞。

R

S

答：Okay。

S

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問：2519 頁，第 33 段嗰度都係講出咗即係一啲嘅作為持牌水喉匠，你需要取得啲咩嘢資格，咁點樣先可以申請作為持牌水喉匠喇。

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答：係。

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問：如果我哋睇 2519、2520 嗰啲咁樣嘅資格，再睇番我哋剛才睇 2550，嗰個“licensed plumber”嗰度就有咗呢一個“公司”嗰個--即係嗰個 reference to 一啲「公司」咁喇，似乎就係講緊就話 1974 年嘅版本似乎就係話即係持牌水喉匠係需要以一個個人嘅身分嚟到做嘅。

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答：哦，okay，明白。

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問：即係如果你咁睇，就應該係咁樣。

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答：係，係。

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H

問：但係如果我哋嚟睇一睇嗰個 deemed licensed plumber 嗰個運作係點呢，咁我哋可以睇番我哋剛才睇嗰個 regulation 喇，喺 2522 頁嗰度。

I

I

答：2522。

J

J

問：第 38，個 regulation 38。

K

K

答：Okay，睇到。

L

L

問：咁呢度就解釋咗話“Persons carrying on plumbing business”喇。呢度就講“Any person, not being a licensed plumber, ...

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...carries on business of plumbing for the purposes of this Ordinance; and

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... employs any licensed plumber for the purposes of such business, shall be deemed to be a licensed plumber.

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... Every person who is deemed to be a licensed plumber” 就要去 submit 畀個 licensing authority 嗰啲“name of every licensed plumber employed by him” 咁樣。

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咁似乎即係話--呢度嘅意思就係話，啊，即係如果人佢自己唔係，本身唔係，一個有資格嘅 licensed plumber，不過佢如果請咗一啲人返嚟幫佢做嘢，而嗰啲人係 licensed plumber 嚟嘅，咁呢個人雖然佢唔係 licensed plumber，都當咗佢係 licensed

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plumber 咁嘅做法㗎嘞咁。咁呢個似乎就係我哋睇到 1974 年嗰個情況喇。

咁但係如果我哋睇番，先睇一睇呢個 1974 年我哋剛才睇緊呢個版本，如果你可以，麻煩你睇一睇嗰個第 15, section 15, 喺 2555 頁。

答：係。

問：如果你睇下 section 15, 就見到有關個法例就係講出咗有啲乜嘢係需要由呢個持牌水喉匠佢去到即係做嘅，或者我哋講所謂施工嘅。咁呢度，呢個 section 15 都講得好清楚，就係話即係“fire service, inside service shall be constructed, installed, repair” 或者 “removed by a person” --即係“no fire service ... inside service shall be constructed ... by a person other than a licensed plumber ...”，等等喇。

咁 subsection (2) 就係講話除非係一啲 minor nature 嘅嘢嘅，咁呢個就同我哋而家睇緊現時嘅水務條例都係一樣嘅，...

答：係。

問：...呢個 section 15。

但係個 deeming provision, 關於個 deemed licensed plumber 呢樣嘢，就似乎我哋睇到就係 1992 年嗰陣時，1992 年即係話我哋嗰個 grade I、grade II 嗰個已經廢除咗嘞，亦都係比較有系統地就係話叫即係 VTC 去專門去畀啲課程，等啲啲即係有關人士，佢哋可以申請做持牌水喉匠嘅。即係呢方面嘅制度有改到嘞咁。

如果我哋可以睇一睇嗰個喺 1992, 改變嘅時候，即係水務署有一個畀 Legislative Council 嘅一個 brief, 就喺 A3 嘅 2567 頁。2567, 就係如果你睇番第 9 段。睇一睇。咁我就唔讀出嚟嘞，...

答：Okay。

問：...你可以睇一睇第 9 段所講嘅。

答：睇完。

問：係。第 9 段個講法即係話佢想更加強嗰個對於 licensed plumber

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嘅監管喇，咁所以其中一樣當時個建議就係取消埋嗰個 *deeming provision* 嘅。

答：Okay，係。

問：即係當時就係咁樣講。

如果我哋睇過呢啲咁樣嘅，即係呢個法律，個法例上面嘅演變或者個規則上面個要求喇咁，似乎我哋咁樣睇，就係喺個法例個字面上嚟到睇就似乎都幾清晰，就係話起碼由七零年代--我哋講 74 年個版本開始到而家，個法例似乎都係話即係如果你要做啲實際嘅水喉嘅工程嘅工作，係只係可以由 *licensed plumber* 佢哋去施工嘅。即係呢樣嘢，你同意嘛？即係如果係個法例上面嘅即係文字上面嚟到講，就應該係必須由呢個 *licensed plumber* 先至可以對於呢啲咁嘅 *inside service* 或者 *fire service* 啲工程做施工？

答：呢個我諗我答你唔到，因為即係喺法例上嗰個 *legal* 嘅 *interpretation*，我就唔係咁專長。

我想回應少少，就係第一，就係--即係我諗署長其實喺作供嘅時候都講過，即係 *practically* 其實即係如果 *licensed plumber* 話親手落手落腳做，呢個我諗即係係好難嘅，即係幾乎做唔到嘅，即係可以咁講。

問：係。即係我都明白你話即係法例可能--即係大家要睇下點樣解釋，點去演繹咁樣。

答：嘎，嘎，嘎，嘎。

問：但係即係我都想就住--因為你作為副署長，咁你都要執行嗰個法例喇嘛，係咪？

答：係，係，係，係，係。

問：咁你即係當然對個法例要有一定嘅認識喇。

答：唔，唔，唔。

問：咁所以我哋睇完呢個七零年代開始嗰個法例所寫出嚟嗰個演繹嘅方法，咁你同唔同意就話法例裏面似乎就有任何一啲條文--除咗啲 *minor nature* 嘅 *work* 之外，有其他條文係容許一啲 *non-licensed plumber*，即係唔係 *licensed plumber* 嘅人，

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去對呢啲咁樣嘅即係實際水喉工程可以作為施工咁樣；即係呢樣嘢，你同唔同意？

答：或者我畀少少意見喇。即係我就唔係好--即係話嚟參與呢個討論嗰陣時話睇過睇咁多 document 喇，不過我睇到兩點。即係第一，就係話其實喺 74 年，你都同意喇，其實嗰個 deeming provision 就即係意思如果有一個人，佢自己其實唔係水喉匠嚟嘅，或者佢唔識做嘅，但係只要佢請到一個持牌水喉匠呢，佢自己已經可以成為一個持牌水喉匠嚟嘞。換言之，呢個唔識做嘢嘅人其實佢係可以施工個嘢，係咪？即係你跟唔跟到我個 logic？

黎先生：佢唔係嘢。

問：唔係。

答：唔係咁解？

問：唔係咁解嘢。即係...

答：我唔知喇，或者你哋會比較我清楚啲。即係個 deeming provision 咁嘅，我自己解讀喇，係咪？即係我係譬如我請咗個持牌水喉匠，喺 74 年嗰陣時，我請咗個持牌水喉匠，咁我就係持牌水喉匠喇嘛，啱唔啱？咁其實我係可以去做水喉工作嘍嘛。

問：但係即係如果嗰個人...

答：呢個解讀啱唔啱，我唔知喇，係。

問：但係即係如果嗰個人係一個 deemed licensed plumber, ...

答：係喇，我 deemed...

問：...但係佢--佢自己就有資格嘅，咁而你...

答：但係我已經成為有資格喇嘛，係咪？

問：好。咁即係你個覺得佢都係即係可以去施工嘅；即係呢個係你嘅理解？

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答：唔係，如果我咁解讀喇，或者你哋比我更加清楚喇。即係我自己即係唔係一個專業律師喇。我自己嘅諗法就話如果我請咗個持牌水喉匠，喺 74 年裏面，我已經係持牌水喉匠喇嘛。呢個我諗清楚喇。

問：好。噏，...

答：好。咁我就應該可以施工喇嘛。咁我想講埋落去啫。咁即係當然如果我唔識做持牌水喉，其實我有乜可能我可以做得到呢樣嘢喇。咁係好明顯地我一定要請啲人去幫我手喇，包括有持牌水喉匠，可能同埋其他工人喇。

咁就到到呢個 92 年嘅時候，咁就其實--頭先你都睇到嗰個 LegCo brief 嗰度，有講過個 strengthen control 嗰度喇。如果 1974 年，即係當其時譬如如果我係一個--請咗人嘅，我自己唔識做水喉嘅，不過我係一個老闆，我請咗持牌水喉匠，咁我就係持牌水喉匠。咁我相信我一路嘅做法，我都係會搵一班工人去幫我去做呢樣嘢。到到 1992 年嗰個改動，如果係想將呢個咁嘅安排話 scrap 咗去，唔可以做呢，其實呢個係一個好重大嘅 policy change 嚟嘅，對個業界嘅影響係非常之大嘅。

咁以我--其實我做咗年半發展局喇，咁即係都有少少 touch on 一啲立例嗰啲工作喇。即係如果喺一個立例工作裏面，如果牽涉到一個咁大嘅 policy change，如果牽涉到一個對業界嘅影響咁大嘅話呢，其實好明顯一定要做一個好 thorough 嘅 consultation 嘅。即係你斷不能出咗一條例，令到個業界突然間係成個安排改變晒嘅。咁所以--但係我哋亦都睇番，92 年其實嗰陣時其實就有做過一啲咁嘅 public consultation 嘅，咁所以，好似署長話齋喇，即係嗰個--我相信就算去到 92 年嗰個 intent 都唔係想咁嘅。不過，我明白嘅，大家--即係律師，即係可能你哋睇嗰個條文有唔同嘅解讀，咁呢個我--我諗我唔係好適合或者我都唔係有咁嘅 qualification 可以同大家討論呢個問題，不過我就睇番嗰個，practically，即係我如果從一個實際業界操作，我就會咁睇囉。

問：即係你話嗰啲仔細嘅點樣去解讀個法例呢，咁呢個我哋暫時撇開一面先喇。

答：係，好呀，好，好，好。

問：咁如果我哋講 92 年嘅時候，如果我哋剛才睇嗰個你哋水務署即係畀嗰個 Legislative Council 佢哋有個解釋，或者有個 brief 咁喇，咁都好清楚喇，喺 2567 頁嗰度，A3，就係講話即係當時其中一個安

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排就係去即係廢除咗嗰個即係 deeming provision，即係關於 deemed licensed plumber 呢樣嘢係廢除咗嘅。

C

D

答：Okay。

D

E

問：即係呢樣嘢係...

E

F

答：同意嘅。

F

G

問：...真係做咗，當時。

G

H

答：事實係。

H

I

問：咁唔好理個法例係點樣演繹先。

I

J

問：呢樣嘢就係改變咗嘅。

J

K

答：係，啱。

K

L

問：咁你剛才同我講嘅意思就話如果呢樣嘢改變咗，係一個重大嘅...

L

M

答：Policy 嘅。

M

N

問：...即係政策改變嘅話呢，咁就應該要做一個即係諮詢嘅，一個大規模嘅諮詢嘅。咁你嘅講法就話當時雖然個 deeming provision 冇咗，但係之前就有做過一啲大規模嘅諮詢，喺業界，係咪？

N

O

答：係，同意。

O

P

問：係咪？

P

Q

答：或者我--如果你唔介意，我都講少少喇。即係喺第9段嗰度，我都睇到個字眼話“strengthen [the] control over [the LP]”嘅。其實我相信，即係如果我又--即係以有限嘅討論，當其時所謂 strengthen 嗰個 LP 嘅 control，我認最重要一樣嘢就係話當你有一個 deeming provision，即係我，譬如我係老闆，我請咗個 LP。其實可能我今日擺咗個牌，我做咗 LP，轉頭我炒晒嗰啲 LP，咁我基本上我間公司都有 LP 嘅，但係我仍然可以成為一個 LP。咁我認當其時呢個，我覺得係最想希望就處理呢個問題，應該。

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問：但係我想就住呢一個問題，我想問一問你，就係你由 1989 年開始即係任職水務署，咁到而家喇，即係你哋水務署，貴署，嗰個即係對於我哋剛才睇過嗰個條例嘅 section 15，即係話 LP 先至可以對呢啲咁嘅工程作為施工呢樣嘢嘅，你哋一路嗰個即係解讀，係都係覺得，啊，呢樣嘢係容許一啲唔係 LP 嘅人，去真係落手落腳去做工程嘅，係咪咁樣？

答：我就有--因為我入咗水務署，前嗰段時間其實我有點參與呢個 CS 嘅工作嘅。不過我亦都有同啲 CS 嘅同事即係傾過喇，因為呢件事件，咁佢哋係佢哋嘅解讀係咁樣樣。

問：係。咁呀...

黎先生：我想可唔可以問一問呢一個 point，呢一點呢？

答：係，係。

黎先生：黃生，你哋睇番啲啲檔案，事實上睇唔睇到當年，係 92 年嗰陣時，改動法例嗰陣時，嗰啲嘅文件呢？點解會呢一個係條文係更改嘅呢？因為譬如你 drafting instruction，嗰啲會唔會睇得到㗎？我覺得啲檔案應該睇到個㗎。照計我哋改一樣咁明顯改變，梗有個理念喺背後㗎嘛。

答：喺，喺。即係...

黎先生：文件上應該睇到嘅，喺唔喺？

答：即係我自己本身--我自己就有睇過啲啲文件嘅。即係我唯一個諗法，或者我都有機會同啲同事傾嘅時候，其實最想就正如我頭先講嗰個，堵塞嗰個情況，就話當一個 deemed LP，佢旗下啲啲 LP 炒晒，佢自己仲係 deemed LP 㗎個㗎。

黎先生：唔係，呢個你口頭上大家傾啫。我就想睇你哋上件上，可唔可以追查？

答：哦，好呀，呢個我答你唔到嘞，喺呢度，因為我自己有親自己睇過啲文件。

黎先生：你可唔可以返去睇下呢？我...

B

B

C

答：好呀，好呀，好呀。

C

D

黎先生：因為以我工作咁多年，我好相信呢啲法例嘅更改，背後嘅理念，一定喺啲文件上睇到個啱。

D

E

答：啱，啱，我都同意。

E

F

黎先生：係咪？

F

G

答：我都同意。

G

H

黎先生：冇乜理由話係你改一樣嘢嗰陣時，你係寫上去譬如話係畀出 drafting instructions，諸如此類，咁一定有個原因喺度。

H

I

答：係，同意。

I

J

黎先生：冇理由就咁就過咗㗎，我好奇怪嘅。

J

K

答：Okay。

K

L

L

M

問：唔該。或者我又請你睇一睇即係你哋所出嘅其中一啲 circular 喇，就有關話究竟邊啲人士先至有資格去做啲實際嘅水喉工作呢咁。

M

N

如果我請你睇一睇，黃生，就係 C3，2422。

N

O

答：C3。

O

P

問：2422 嗰度，我哋都有問過署長嘅，就係佢話當時亦都係因為有啲即係 incidents，有啲事件，就係即係有啲持牌水喉匠就有話繼續一路做落去，咁喺中途就即係可能走咗嘞。咁你哋就住呢啲咁嘅事件，你哋覺得有個需要，發一個咁嘅 circular，咁就去到提醒啲 licensed plumber，其實佢哋嗰個職責範圍應該係點樣，咁樣。呢度我哋睇到，如果從--第一段就講出個背景。咁喺第二段都係話，啊，即係你如果係即係承諾咗要做個 licensed plumber，你一定要即係繼續落去嘞，〔C：唔。〕你唔可以即係假手，即係突然間將你嗰個 responsibility，將個責任，就轉咗去其他人度嘅，咁樣。

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第三段，呢度就係咁講話“So long as you remain to be the licensed plumber of a particular job for which you have signed”嗰個“... Form ‘G’, you may employ workers who

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are not necessarily licensed plumbers to assist you in carrying out the work. But under no circumstances should you use your licence to enable non-licensed persons to undertake plumbing work without involving yourself in the supervision of the work."

咁呢度就講得好清楚嘞，就係即係話，第一，就係你作為如果係--你係 licensed plumber 嘅話呢，咁你就即係唔可以嚟有 licensed plumber 嘅情況之下就請咗一啲 non-licensed plumber 去做喇咁。第二就話，啊，你係容許去請一啲 non-licensed plumber 去協助你去做嘅，咁樣。

咁我就想問一問你，因為--呢個係九零年出嚟喇。咁如果我哋出嗰個 circular 嘅時候，你有冇話討--即係最近有冇話睇番件事喇，即係討論過，就係話當時出呢個 circular 嘅時候，有冇考慮過，喂，呢個 circular 嘅說法可能同即係法例嗰個字眼上，即係好似少少唔係好脗合嗎，因為法例就要求話由個 licensed plumber 去 carry out plumbing work；呢度就話「啊，唔使，你可以搵 non-licensed plumber 去做都得」咁。我想問下你，最近有冇討論過，就話當時出呢個 circular 嗰陣時，大家有冇去諗下，喂，可能呢個 circular 同嗰個法例可能會有啲唔係好脗合嘅地方個嗎咁；有冇呢樣嘢嘅討論呀？

答：呢個我就有睇過啲 document，亦都有特別同啲同事問過話有冇睇到一啲資料關於呢樣嘢嘅，我自己唔知道。

問：冇問題。因為林署長，咁佢都嚟作供嗰陣時都承認，就話似乎呢一個咁嘅 circular，同埋個法例本身個要求，可能即係大家有啲唔係好清晰嘅地方，佢係咁講嘅。因為法例就講到明“shall be carried by licensed plumber”。

答：係，係，係，明。

問：呢度就似乎話「啊，唔使 licensed plumber 都得嘅」咁。就似乎有啲唔係好清晰嘅地方。你自己覺得係咪都係有一啲咁樣嘅即係唔係好清晰嘅地方呢，兩者之間？

答：即係我自己詳細研究過呢張 circular against 嗰個 legislation。即係我都係講番，如果 practically 即係你話一定唔准佢，一定要全部落手做嘅都係 LP 呢，我覺得呢個就 practically 應該係唔可行。

B

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C

問：係。但係如果你而家睇番個法例，section 15，就話一定要 LP 嚟到做嘅咁。咁你而家睇番，咁你覺唔覺得，咦，似乎呢個 circular 可能同個法例唔係好銜接啲，咁樣？

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答：我都係咁講喇，因為我都唔係正式嘅律師喇，咁我唔係好清楚呢樣嘢。

E

F

問：好，得，明白。即係你哋一路個解讀，都係覺得就算嗰個人唔係一個 licensed plumber，即係佢都可以即係自己實際上落手落腳去施工嘅，呢樣嘢？

F

G

答：即係有 supervision by 個 LP 喇。

G

H

問：係。但係喺個--即係你哋又有話特別希望喺個法例上面，咁多年呢，去澄清呢一點啲，似乎？

H

I

答：呢個我真係唔清楚。不過我留意林署長喺作供嘅時候都講咗，即係--主席都有提過呢個意見喇，咁我哋都會 113300... (聽不清) 詳細啲睇睇條法例嘅。

I

J

J

K

問：即係呢個你都係認為即係再需要探討一下，釐清一下啲...

K

L

答：因為其實喺今次 hearing 都聽到好多唔同嘅睇法喇，咁我覺得都值得返去再睇睇條法例。

L

M

M

N

問：好，好。你喺真係個事件之後，咁我哋亦都見到你哋都有出過最新嘅 circular 喇，係睇番 C3 嗰個文件夾。

N

O

答：C3？

O

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問：係嘞，2219。

P

Q

答：二二...

Q

R

問：一九。

R

S

答：...一九。

S

T

問：或者我哋睇一睇你哋個 website 嗰個，睇 A4，A4 嘅 2731。

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問：A4，2731，就如果睇下頂頂嗰度，就係有個--講緊個 circular，

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“Circular Letter No. 4 [of] 2015”嘅。咁呢度呢，如果你睇番剛才嗰個文件夾 C3，就喺 2199 頁。2199，就係呢個鉛水事件即係發生咗之後，即係你哋水務署就覺得可能有需要出一個咁嘅 circular 嚟到釐清一啲即係可能公眾或者係業界一啲嘅即係唔清晰嘅地方，可能；所以你呢度就開宗名義就講咗 “For the avoidance of doubt, all plumbing works using soldering for connecting copper pipes shall have the permission of the Water Authority and shall be carried out by a licensed plumber in accordance with section 14” 同埋 “15 of Waterworks Ordinance.”

即係呢度就似乎係即係想澄清番就係話即係如果有任何懷疑都好喇，咁都想澄清番就係話根據嗰個水務條例，係需要由嗰個 licensed plumber 去到做呢個施工嘅。呢度似乎就係咁講。

答：因為當其時就即係睇到，即係開始知道 soldering 可能係一個風險嚟喇，即係驚住啲人唔識用有一啲 leaded solder，於是乎就當其時出咗呢封信，就提番大家，即係搵 LP 做，咁就安全啲。

問：冇錯。你哋出呢一封 circular 之前都一定即係再有睇番係 section 14、section 15 of 個 Ordinance，然後就想釐清番一啲嘢，咁所以就講清楚喇，呢度。咁我想問一問，你呢度所講話 “shall be carried by a licensed plumber” 嘅意思係話，啊，你哋而家想釐清嘞，就係睇番法例，真係需要由個 licensed plumber 親自落手落腳去做嘅呢，定係仍然係維持你哋一路鉛用緊你哋嘅解讀就係話就算冇 licensed plumber 都得嘅，其他人嚟做，就算 non-licensed plumber 施工都係唔緊要嘅，定係邊樣呢？

答：應該係後者嚟嘅。

問：後者嚟嘅？

答：事實上，如果你有留意--我唔知入到 bundle 呢？當日，即係出咗呢封信之後亦都有啲--業界，如果你記得，有啲工人已經開始話，「喂，咁我哋冇得做呀」咁。咁我哋其實係出咗一個 press release 嘅，係解釋番話其實即係個--我哋嘅睇法都係個工作可以係由工人做，但係要 under the supervision of 個 LP 咁樣嘅。

問：就咁睇個 circular 就即係見唔到...

答：睇唔到。

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C

問：...有呢一個咁樣嘅即係容許呀。即係 circular 好似講到好實咁樣，就係話，欸，shall be carried out by a licensed plumber 嘅，就好似冇乜走盞個喎，即係要...

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答：所以我哋當晚有個 press release 嘅，其實--我唔記得係咪當晚喇，即係總之係有個 press release 解釋呢個情況，係嘞。

E

F

問：Okay。咁你哋隨後就係--即係你哋當晚有個 press release 解釋番呢個情況。咁你當時係咪都會覺得，喂，呢個 circular 可能都唔夠清晰，即係要靠個 press release 嚟到再講清楚啲呢？

F

G

G

H

答：因為有啲人--即係正如--好似你頭先嗰個解讀，就話，啊，係咪即係要 LP 親手去做個 soldering 呢？咁可唔可以...

H

I

問：即係業界都有呢方面嘅疑問？

I

J

答：工人呀，其實最重要啲工人...

J

K

問：工人。

K

L

答：.....擔心，佢哋咪冇得做咁樣樣，咁因為其實而家好多工人都做緊呢個工作㗎。

L

M

問：即係話可能當時有啲工人就聽過呢一個咁嘅 circular 之後，就問番你哋，就話「喂，究竟我哋可唔可以落手落腳做㗎，定係一定淨係...」

M

N

答：咁我哋解釋番係可以嘅，咁樣樣。

N

O

問：得。因為你哋個 circular 嗰個--有關你哋嘅 website，就住呢個 circular 入面嘅解釋，就似乎又闊番少少嘞。

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Q

答：咁呀？

Q

R

問：嘎。如果你睇番 A4，嗰個 2731 嗰度，頂頂嗰度就講番就係話 "Circular ... 4 [of] 2015"。

R

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"What is the purpose of this Circular Letter?"

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As stipulated in the Waterworks Ordinance, apart from alterations of repairs works of a minor nature, the construction or installation of inside service shall have the permission of the Water Authority and

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shall be carried out by a licensed plumber. The purpose of issuing WSD Circular ... is to remind relevant parties that all plumbing works using soldering for connecting copper pipes shall have the permission of the Water Authority and shall be carried out by a licensed plumber."

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呢度係加多咗一句，喺個 circular 就有嘅，...

G

G

答：最後，後面嗰句喇，係咪？"The licensed ... can be assisted by worker ..."

H

H

問：...就講話"The licensed" --係嘞，最後嗰句，"The licensed plumber can be assisted by workers in carrying out the works if necessary."

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J

答：係嘞，係。

K

K

問：咁所以我想問一問就係--即係我就過呢兩份文件，我都問過林署長，就係話如果一個業界，係假設一個 licensed plumber，佢睇完呢個 circular，咁就話「喂，要我去做㗎。」跟住又睇下你哋個 website，就話「啊，唔使我做都得個㗎」咁。即係個資訊上係咪有少少含糊--好似有啲含糊不清嘅地方呢？

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答：其實--所以我哋唔--即係就住呢啲呢，我哋都同業界有幾緊密嘅溝通嘅。咁所以咪正正就係話當佢哋有唔清晰嘅時候，或者--咁我哋就即係透過各個途徑去解釋番畀佢聽。

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問：明白。咁但係你剛才都講喇，即係就住呢一個課題，你都即係覺得係即係有需要，即係你哋喺嗰個水務署，或者你哋同業界，都要再討論下即係嗰個法例，係咪應該即係寫得可以清楚啲咁。

P

P

Q

Q

答：呢個，林署長都有咁講過㗎嘞，...

R

R

問：好。

S

S

答：...我哋返去會再睇。

T

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問：咁我哋就睇番另外一個問題，就係剛才我哋都帶出過嘅，就係 1992 年嘅時候...

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主席：我想問一問，根據--即係睇番呢度，下面嗰一段，就“According to the circular, please clarify whether all solder joints must be carried out by a licensed plumber.”

咁跟住下低嗰度咪有 clarifications 嘅，“However he should involve in supervision of ...” --呢度其實我想問下你，“Under the Waterworks Ordinance, construct, install, maintain ...” ‘et cetera, et cetera,’ “... shall be carried out by licensed plumber. The licensed plumber can be assisted by workers when needed. However he should involve in supervision of the plumbing works.”

Supervision 即係乜嘢？

答：即係我諗佢要負監管嗰個工作，佢要負責喇。

主席：即係佢要 present 個囉嗎？

答：我諗我哋睇得闊啲喇，佢要負責喇。

主席：即係點啫？即係點啫？

答：諗，...

主席：即係佢要負責啫，事後，即係唔合資格，事後啲料唔啱，佢要負責，咁又係負責。

答：我諗一般建造工程，其實最重要個 licensed plumber 係--即係佢可以親自去睇，可以 put in a system 去睇。即係可能佢要請一啲人。係，咁我覺得都係一個 supervision 喇。

主席：唔係，即係我明喇，如果個 licensed plumber 可以 assist by workers when needed，我明吖。譬如好簡單啫，如果譬如要抬幾十條銅喉上去嘅，咁佢一個人抬唔到，咁佢叫其他人抬，咁就梗係冇問題喇，係咪先？

答：唔。

主席：咁但係你呢度其實寫咗出嚟之後，其實一樣咁 dubious 嘍咋啫，其實，老老實實。

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答：即係你嘅意思係唔係太清晰，個情況？

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主席：唔係，唔清晰，直情唔係好清晰喇，因為--不過唔緊要喇，繼續喇，係。

D

E

答：Okay。

E

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G

問：跟住我想問一問你，就喺你個證人口供嗰度，或者你睇番 18773，... (聽不清) 嗰個。喺 18773 頁度，就你都講出咗有啲關於工程師學會，就係講話即係就住呢個何謂 minor nature 嘅 work，好似個定義就唔係好清楚咁，咁你呢度作咗個回應就話「啊，其實都唔係唔清晰嘅，因為我哋有啲 handbook 都係講過，就係即係何謂 minor nature 嘅。」咁你呢度就係解釋咗喇。

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答：係。

J

K

問：咁我想問一問你嘞，就係即係你呢個咁嘅 handbook，就話你 2011 年就已經開始上網喇，即係喺個網上發布呢個 handbook，係咪--即係 2001 年呀，對唔住。

K

L

L

M

答：係。

M

N

問：係定抑或係 2001 定係 2011 呀，我想知道？

N

O

答：應該 2001，係咪？因為我--呢度寫。

O

P

問：2001，係咪？

P

Q

問：2001 就開始喺網上發布。我想知道除咗呢一個咁嘅 handbook，喺網上發布之外，你哋有冇話即係出啲咩嘢文件就嚟知會個業界，就話「呀，誒，邊啲係 minor nature 嘅呢」咁；即係有冇嘍？

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答：我答你唔到呢個問題，因為我唔係太清楚即係 during 即係佢嗰十幾年有冇過呢啲嘢。

S

T

問：即係唔係，因為你就住...

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答：不過我想講嗰本 handbook，其實係啲業界都應該經常 make refer

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to 嘅書嚟嘅。

問：係嘞，即係我想知就係例如，假如我係一個工人，我想知道就係「喂，我而家做緊嘅嘢，喂，係唔係話要個 licensed plumber 睇住我做嘅，要 supervise 嘅，定係我可以，欸，唔使佢睇住嘞，我自己可以落手落腳搞掂佢嘅？即係我要知道㗎嘛。」即係工人嚟講。即係你就係 expect 個工人就會去上網，就睇嗰個 handbook 咁呀？

答：或者遲少少你可以再問一問我其他嘢同事。我嘅理解就係網上可能都有啲資訊就係關於乜嘢叫 minor work 嘅，都知--係咪去到咁 detail 呢，咁呢個我就唔係太清楚。

問：因為就住呢個 minor work，呢方面呢，咁因為你就對呢個 Hong Kong IE 佢所講啲啲有啲批評喇，叫做；就或者啲 comments 喇，你就即係特登啲呢個第三個口供嗰度寫咗嘞咁。咁你做呢份口供之前，有冇話同啲同事去查問一下，就話「喂，除咗呢個 handbook 擺上網之外，喂，有冇啲其他文件係會即係發放畀業界㗎，等佢哋知道呀」，有冇做過呢方面嘅查詢呀？

答：我有詳細同佢傾，因為我--我想講番，即係當日 Hong Kong IE，佢最大個誤會，佢就話以為係需要入張 WWO 46 畀水務署，然後之後水務署答番佢呢件嘢係咪一個 minor work。咁我哋就話其實唔需要嘅。即係嗰個基本上個業界係可以喺個 handbook 已經知道咩嘢叫 minor work。甚至如果有唔清楚嘅，可以可能問 WA 都得，咁樣樣。

問：正正就係咁嘞，即係我就想--就係話你當時做呢一份證供嗰陣時就係，就係話「喂，究竟咩嘢係 minor nature 嘅 work 呢？喺業界方面呢，佢係咪真係有啲充分嘅理解--係咪真係有充分理解？」咁係嚟到作呢個回應㗎嘛，即係你當時取態一定係咁樣喇。

答：係。

問：咁我就想知道，你就話就住呢一方面，除咗個 handbook 之外，你有冇問過下你嘢同事，就話「喂，除咗個 handbook 之外，仲有啲乜嘢，等人哋可以知道，好清楚咁了解到嗰啲 minor nature 究竟係何解呢」咁？

答：詳細討論就有嘅，但係我都有知道佢哋，講過畀我聽，話網上都有啲資訊關於咩嘢叫做 minor work，咁樣樣。

問：跟住我想同你睇一睇，就係我哋之前有提過下嘅，就係 1992 年，就

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係話嗰個 licensed plumber 嗰個資格即係有啲改變，咁就其中一個改變就係 grade I、grade II 嗰樣嘢就廢除咗嘞。咁另外亦都...

答：其實我想講少少。唔係廢除咗嘅，其實，喺條例裏面都仲有 grade I、grade II，只不過即係我個 statement 都有解釋過個情況，就係因為 92 年之後，因為啲人擺到個 qualification，基本上都可以係做到 grade I 嘍嘞，咁所以就唔會再有人 apply grade II 咁解。

問：係，係。即係都係做一個大範圍啲嘅工作嘅，係咪？

答：係嘞，係嘞，係嘞。

問：即係 grade I 就可以做多啲嘢嘍喇。

答：嘎，嘎，嘎。

問：咁就呢一個，當時個改變，其中另外一個即係會牽涉到嘅，就係話即係需要你讀 VTC 嗰啲課程，...

答：係。

問：...咁然後先至可以嚟申請做持牌水喉匠嘅咁。

因為之前嗰個規例就雖然都有講話，呀，即係你可以係持有啲乜嘢即係 certificate 嘅。但係之前嘅規則就似乎就係話你就算有 certificate 嗰啲人，如果你可以證明到自己有相關嘅經驗嘅，都可以申請做持牌水喉匠。呢個係以前嘅做法，即係 92 年之前，係可以咁樣嘍嘛。

答：呢個我唔清晰嘅，呢個，我唔清楚。

問：咁唔緊要。我哋可以睇一睇嗰個有關嘅條例喇。如果我哋睇下 A3，2519。2519，咁我哋睇下個第 33 個 regulation，入面就講到就話“Application for plumber’s licence”，咁有講話你要 hold 啲咩嘢 certificate 就可以喇，咁就可以 apply 喇咁。呢個就係個 subsection (1) 所講嘅。

答：唔。

問：但係如果你睇下 subsection (2)，佢就話雖然 subsection (1) -- subregulation (1) 有咁嘅規定，但係任何人“who has knowledge of plumbing may apply to the

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licensing authority for a plumber's licence of any grade specified in regulation 35."

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咁呢度就似乎就講得好清楚嘞，就係話就算有啲 cert，有張證書，都唔緊要嘅，如果你可以證明到你有相關嘅經驗，你都可以去 apply 嘅。

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我想首先問一你問你，就係就住 92 年之前嗰個發牌制度。92 之前，你知道就有啲考試嘅，即係你哋水務署自己有啲考試嘅，畀啲申請者嘅。呢樣嘢你知嘅？

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答：我知嘅，我知嘅。

H

I

問：咁我哋其實都有聽過幾位持牌水喉匠，即係涉事嘅持牌水喉匠，佢哋作供，其實都有講過呢方面，有關嘅資訊嘅，就係話即係佢哋當--有啲就係 92 年之前擺到個牌嗰啲人，咁佢哋就係嗰陣時就係要考過試，就要畫啲圖；就畫啲圖，就係有關啲啲...

I

J

J

K

答：水喉圖。

K

L

問：...水喉點樣走，嗰啲 design 係點樣；即係佢哋要做呢方面嘅。咁你知唔知就係當時，92 年之前嗰啲考試，係唔需要話特別就住例如焊接水喉嗰個工序或者嗰個工藝係去考佢哋；即係呢樣嘢，你知道嘛？

L

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答：我唔清楚，但係我知有，好似有 practical 嘅考試嘅，佢哋嗰陣時應該。

N

O

問：我哋...

O

P

答：但係係咪做焊接呢，咁我就唔清楚。

P

Q

問：Okay。你唔清楚。我哋聽番嚟嗰個證供，就亦都知道有唔少持牌水喉匠，佢哋係 92 年之前考呢個試嘅，咁但係佢哋就同我哋講番考呢個試嘅時候就唔需要考呢水喉接駁嗰個工序嘅。

Q

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答：你嘅意思接駁定焊接呀，我想搞清楚？

S

T

問：即係水喉焊接，即係 soldering 嗰個工序。

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答：因為--即係我唔係第一手資料，亦都唔係真係好清楚，不過我理解即係譬如喺九零年代之前，香港嘅水管大部分就係用 GI 喉嘅，即係嗰啲所謂水管，咁嗰啲其實都係多數接駁就係搞壓，就唔係牽涉到做

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solder 嘅。

Even 我亦都聽過有人講嗰陣時嘅銅喉都係即係用一啲 mechanical 嘅方法接駁嘅。咁所以你話嗰陣時有冇特別去考 soldering 嘅，即係焊接呢，咁如果有，我覺得都唔係好出奇嘅事，咁樣樣。

問：Okay，明白。因為我哋例如聽過其中有一位持牌水喉匠，就係金日工程公司...

答：Okay。

問：...張達欽先生。

答：Okay。

問：咁佢自己都承認，佢就話「其實我唔識做焊接工程嘅」，即係話唔識做啲水喉銅喉嘅焊接嘅工程嘅，佢自己唔識嘅，但係佢都係持牌水喉匠嚟嘅。即係呢個喺嗰個業界度，你知唔知道係都會有呢個情況，就係早期一啲申請做持牌水喉匠嘅人，嗰啲工人，咁佢哋可能就有--對於嗰個水喉焊接嗰方面係有呢方面嘅認識，但係都做到持牌水喉匠嘅？

答：其實我諗所有專業都要有同一個問題嘅。即係譬如我做工程師，考牌嗰陣時，可能電腦設計係即係有嘅。咁我一路做落去，其實我都一路要 acquire 個 skill。即係無論--我諗如果你仲要喺嗰個行業有競爭能力嘅，即係你持牌水喉匠，唔緊要，可能佢八零年代考個牌嗰陣時，焊接唔係好 common 嘅，到焊接需要做嘅時候，佢一定我諗--大家--我成日覺得一個專業係 apply 一個 basic skill 咁嘛。你對嗰樣嘢，你掌握咗咁嘛。咁當佢有一啲新嘅嚟到嘅時候，咁佢哋一定一路要學識嘅。我諗每一個專業都有咁嘅情況。我諗醫生一樣面對咁嘅問題。「我以前嗰啲微創都有」，咁唔通啲醫生就做唔到醫生？可能佢一路要 acquire 個 skill 囉。所以我唔認呢個應該係普遍現象，因為你--如果唔係，根本就冇競爭力，你亦都唔可能喺嗰個市場做到...

問：我唔係講緊一個普遍現象。但係我就係講緊就係話有啲咁嘅情況，就係話喺 92 年之前申請做...

答：啱咁。

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問：...持牌水喉匠嘅人士，佢有啲可能真係當時係即係唔需要考...

答：係喇。

問：...有關嘅焊接嘅工程嘅，咁所以--但係佢哋都係成為到持牌水喉匠嘅咁。

答：呢個可以嘅，我相信應該可以嘅。

問：92年，好明顯我哋睇到，就係就住持牌水喉匠嗰個資格方面，就似乎你哋水務署就希望係更有系統咁樣去到監管，咁亦都係即係訂明咗要係擺到啲乜嘢嘅即係證書，要讀過啲咩嘢課程，先至可以去申請做持牌水喉匠嘅。咁我亦都問過VTC，咁亦都知道佢哋嘅課程入面有包括到啲咩嘢，其中都包括呢個焊接嘅工程。即係呢方面我哋知道㗎嘞，已經。

咁我想問一問就係--你哋92年既然係要做一個咁樣嘅即係有系統嘅咁樣去監管持牌水喉匠嘅資格，但係92年之後，就住92年之前申請到做持牌水喉匠嗰啲人，因為佢哋可能所經過嗰個--即係嗰個擺到個牌嗰個方式會有唔同，咁92年之前嗰啲人，佢哋考嗰個，可能係考水務署嗰個試，就唔係話有啲係經過個正統訓練嘅。咁就住嗰一班92年之前擺到牌嘅，你哋有冇話--水務署有討論過，就話就住嗰班人...

主席：Mr Khaw，等一等先。得，繼續。

問：...--就住嗰一班92年之前擺到呢個持牌水喉匠嗰個牌照嘅人，有冇考慮過話，啊，需唔需要佢哋喺續牌之前係要--係有乜嘢即係進一步確認佢哋嘅資格㗎，或者提供一啲在職訓練畀佢哋㗎，有冇考慮過呢樣嘢呀，水務署？

答：我就有睇過即係當其時轉接呢個--即係嗰個所謂 transition 嗰個 arrangement。不過我相信即係任何制度，即係當你有個轉接時候，我諗都有一啲即係以往已經有嗰個譬如專業資格等等--即係等於我哋工程師考牌，可能期期都唔同嘅，有陣時又改變咗，有啲要求唔同咗，但係以往做咗工程師嗰啲都會繼續畀佢做工程師㗎嘛。即係除非真係話--其實你可以想像下，呢一班人其實一路喺個業界係操作緊

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嘅，除非佢去到一個好唔掂嘅地步嘅啫；如果唔係，你個個 transition 通常--如果要 smooth 嘅，你都係要咁樣做㗎喇，係咪？即係有啲係之前佢可能有個 qualification 擺咗，咁跟住就畀佢係可以繼續做落去。咁然後新嘅，有啲新嘅要求，咁等於--我諗好多專業都有類似咁嘅情況。

問：好嘞，而家我哋如果到啲證供，即係就住而家我哋涉事嘅一啲持牌水喉匠，即係佢哋自己嘅證供都係話「喂，我其實唔識做焊接個喎。即係我當年考牌嗰陣時冇考呢啲嘢個喎。」但係你個法例又好，或者係你個 circular 都好，起碼即係佢哋都要去監督啲工人做水喉工程，其中包括焊接嘅工作。咁你覺唔覺得，喂，即係呢方面就唔係咁理想呢？即係如果有啲，佢哋完全都有呢方面經驗嘅持牌水喉匠，有經驗做或者佢哋根本唔識做焊接工程嘅，但係佢哋--即係你哋嘅解讀就係佢哋起碼都要去監督啲工人，去確保佢哋做啲嘢啱嘅咁。咁呢方面你覺得即係有需要改進嘅地方呢，喺個持牌水喉匠嘅制度底下？

答：我同意個制度即係永遠都有進一步改善嘅情況。即係我諗你講呢個 point 就係而家好多專業都開始講嗰個持續進修嗰個問題，即係一路有新嘢。咁我都睇到其實好多專業已經開始 introduce 番一個持續進修嘅要求。咁你話持牌水喉匠係咪需要呢樣咁呢，我覺得可以睇嘅。

即係其實我諗即係喺香港好多專業嗰個制度，你亦都睇到好多年一路改變落嚟。即係我哋工程師，以前都有 CPD 呢個要求，而家開始都有，因為其實真係實在好多新嘅嘢一路出緊嚟。如果你仲要喺個行業度可以操作得到嘅，咁都希望呢啲人有 CPD 咁樣樣。咁我覺得呢啲係可以探討。

問：咁另外我哋都想睇一睇就係你哋嗰個條例裏面，咁我哋都知道--我諗唔需要翻嗰個頁出嚟，就係我哋都討論過好多次㗎喇，就係關於水務規則裏面所提到嗰個英國標準，裏面所講嘅。水務規則入面，所有提到嘅英國標準就係一個 BS 864，嗰個標準嚟嘅。咁呢個我哋都知道其實都已經有...

答：Update 㗎。

問：...--即係已經係更新咗好耐下㗎喇，已經。咁但係水務條例裏面就係--即係水務嗰個規則裏面就有講到就話英國標準就需要用最新嗰個嘅，最新嗰個。咁其實你個證人口供亦都有即係探討呢樣嘢。喺你個證人口供嗰度，或者我畀你睇一睇嗰個有關嗰個討論。C21，喺

18775 頁。咁喺第 19、第 20 段，你亦都講話即係其實你哋都要 strike 個 balance，就話究竟係用最新嗰個英國標準嘢，定係話，啊，即係其實如果業界一般嚟講都覺得即係之前可能嗰個標準係一路用緊，都唔需要冇咩嘢轉變嘅，咁你哋就即係唔覺得話需要特--就特別去大做文章，就話去有咩嘢改動咁樣嘅。

答：係。

問：就呢方面我就想問一問你嘅，就係你喺 21 段嗰度都話你哋有個 “Technical Support Unit”，咁係一個 “Customer Services Branch” 嚟嘅，咁就係去 “follow the updating of BS and the adoption of [the] updated BS in Hong Kong for many years”，就算係即係鉛水事件之前，已經有呢個部門嘅同事一路著手做緊呢樣嘢嘍。即係佢哋會睇住，啊，幾時個 British Standards 會轉咗，需唔需要更改，等等。

我想問一問就係就住呢方面，你哋嗰個 Technical Support Unit，就話例如佢哋去決定可能有個 BS standard 轉咗嘍，咁佢哋去考慮需唔需要就住你哋喺文件上作出一啲改變，又或者例如有個 form，嗰個 WWO 46 有咩嘢改變；定係話，啊，唔需要嘍，其實喺業界嚟講，就算唔轉呢，都無傷大雅嘅；佢哋作一個咁嘅決定嘅時候，我想問下你哋即係水務署入面有冇咩嘢即係正式討論或者有啲文件，係就住就每一次個 Technical Support Unit 去決定一個 BS standard 轉咗之後，你哋需唔需要覺得係有改變嘅？呢方面你哋有冇呢啲文件，係有呢啲討論嘍？

答：呢個我答你唔到，因為咁 detail 嗰個操作，可能你要問番我其他啲同事。即係我唔係好清楚即係個 detail。我知道 TSU 就會睇住，佢哋亦都會同我哋有個叫 assistant director，Consumer Services，去即係如果即係想轉變，adopt 第二個 BS 嘅時候，就會同個 AD/CS 同意咗，轉咗，咁樣樣。

問：因為你都喺水務署都好多年，咁你自己嘅經驗入面，有冇話就住例如一個 BS 嘅改變，咁而你哋個署方入面作出咩嘢特定嘅討論，即係同例如 Customer 嗰個 Services...

答：Services。

答：...個 unit，嗰個 branch，或者個 Technical Support 個 unit，作出一啲內部嘅討論，你自己有冇參與過？

B

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答：哦，我有參與過呢個工作。

C

D

問：有參與過？

D

E

答：嘎，嘎。

E

F

問：咁我想問下你又知唔知道你做呢個口供嗰陣時，有冇話去問一問就係話 Technical Support Unit 佢如果去決定咗嗰個 BS 轉嘅時候，咁呀究竟你哋署方覺得需唔需要作任何改變，去通知業界話「喂，噏，呢啲呢就唔變嘞，呢啲呢就變咗嘞」；即係有冇啲咁樣嘅通知業界嘅做法㗎，你哋自己？Circular 似乎就有嘞，我哋睇過你哋 circular。

F

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答：我諗主要都係喺啲 form 嗰度通知番佢，同埋我哋有啲 plumbing handbook，有啲 standard waterworks requirement 嗰啲地方，即係我哋如果有個改變，就喺嗰度 update 番佢，咁樣樣。

I

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問：如果你話喺 form 嗰個改變，或者我哋都睇一睇嗰個 form 喇。15.1。

K

L

主席：15.1。

L

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M

N

問：或者我哋睇下喺 37627 頁。37627，如果我哋揀一個例子嚟睇下，好唔好？

N

O

答：唔，唔。

O

P

問：呢個 37627，就係 2012 年你哋嗰個 WW0 46 嗰個牌嚟嘅。呢度就喺啲“Notes”嗰度就講話「啊，你要用啲咩嘢 British Standards for 啲 pipes and fittings」咁。我哋揀其中一個例子好嘞，揀個 copper alloy 個 gate valve 嗰個例子。咁嗰度我哋就知道係寫住“BS 5154”嘅，見到嘛？

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答：係。

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問：見到嘛？如果我哋睇番你同事陳慶--興（慶？），同事，嗰個證人口供入面就都有提到呢方面嘅。如果我哋睇一睇 C19.5,13518。13518 嘅第 8 段，陳生就咁講嘅，就話“*For the following major types of plumbing materials, the applicable BS relevantly*

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provide as follows”。

如果我哋淨係睇下 (b) 個度，因為 (b) 就係正正我哋剛才睇個個 copper alloy 嘅 gate valve 個度，佢就話“Item 8 [of] Part 2 of Schedule 2 of” 個個 “[Waterworks Regulations] requires ... [the] copper alloy gate valves shall comply with [British Standards] 5154.” Okay?

但係個 BS EN 12288 就係個 latest version 嚟嘅，就係 2010 年嘅 version 嚟嘅，就所以應該就係話我哋剛才睇到個 BS 5154 已經就將佢變咗做 12288 嘞，已經咁。咁佢又亦都係將個個有關嘅文件就遞交咗畀我哋。

跟住佢呢度就講話“All the copper alloys listed in Annex A to BS ... 12288 are permitted to contain lead up to a specified percentage. For example, the lead content of CC491K grade copper alloy”就係“between 4 per cent”至到“6 per cent by mass”嘅咁。

即係呢度似乎都講出咗，就係就住個個 copper alloy 個個 gate valve 嚟講，咁就--如果我哋睇番係水務條例個個所講嘅英國標準就都幾舊下嘍嘞，個個；個個我哋講緊係 5154 個個；咁 2010 年就已經轉咗做 12288 嘞。咁 12288 亦都有啲清楚嘅 requirements 訂明一出嚟嘅咁。

但係似乎你--如果你睇番 2012 個個版本，37624，gate valve 個度都仲係沿用緊 5154 個。

答：5154，嘅。

問：咁我就想知道嘞，就係話，喂，例如你話，啊，通知業界就可能要透過呢啲咁嘅 form 呀。咁似乎個 form 又起唔到個作用嘞，因為個 form，即係隔咗兩年都有轉過個嘞。

答：其實個個 5154，即係我同同事了解，就係話即係如果你喺呢張 form 46 度，你如果有個 copper alloy gate valve 係 comply with 5154 嘅呢，其實你都仲會接受嘅。因為其實個個 change，由 5154 去到 12288 就唔係好明顯嘅。即係呢個好 minor 嘅 change 嚟嘅。咁所以--即係好似正如你頭先問嘞，即係我哋都想 strike 個 balance 喇。當然如果有業界 submit 一隻話 comply to 12288 嘅，咁我哋一定接受，呢個冇問題。

B

B

C

問：你會咩嘢話？

C

D

答：接受，接受。

D

E

問：我正正就係想問一問你呢樣，就係你剛才話對你哋嚟講可能係啲 minor change 嚟嘅啫，咁都無傷大雅嘅咁。

E

F

如果我作為持牌水喉匠，咁例如我去即係要作一個申報嘅時候，或者我要知道，喂，究竟係用邊一隻料呀，又或者其他啲持份者都好，咁佢哋透過乜嘢可以知道你哋署方係認為呢一個改動係 minor 㗎，定係 major 呢？即係我想知道個業界嗰個資訊方面，點樣去知呢？

F

G

G

H

答：其實當佢做呢個，入嗰陣時喇，呢度個 46 就有呢啲 British Standards 嚟度。咁佢咪其實睇番呢個，即係我哋都仲可以接受個囉。

H

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J

問：係嘞。如果我哋睇番呢一個，就 5154；如果我係一個持牌水喉匠，我睇番呢個 5154。但係如果我喺業內，我就聽到人講話「喂，唔係嗰，...」

J

K

K

L

答：12288。

L

M

問：「...5154 應該轉咗囉嗰，12288 先至掂嗰，而家」咁。咁我睇番個條例就話「喂，你要用最新嗰個嗰。」最新嗰個梗係 12288 喇。咁我作為個持牌水喉匠，喂，咁我跟邊個好呢？係咪跟你呢個 form，就一定有走雞呢？如果跟呢個 form，但係嗰個又唔係最新嗰個 regulation 嗰個，我會唔會即係中招，或者會唔會係即係...

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N

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答：我明你意思，但係其實唔--即係其實業界同我哋嗰個工作就好互動。即係唔--即係其實大家都基本上都好多溝通，所以佢哋都知大約我哋個 practice 可以係咁樣做。

P

Q

Q

R

問：我就想知道點溝通呢方面？例如你講緊 form 就我哋睇到，兩年都有轉到。例如你話 2010 年轉咗 12288。照常理推斷，你個 customer service 個 branch 入面，個 technical team，就一定有睇過，就轉咗 12288。

R

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T

答：嘎，嘎，轉唔轉呢咁樣。

T

U

問：轉咗，咁佢要決定轉唔轉呢。

U

V

答：轉唔轉呢咁，嘎，嘎。

V

B

B

C

問：佢點樣同業界去到話「喂，喺，你唔使用 12288 嘍，你用 5154 都得
嘍嘍」。有邊方面，即係除咗張 form 冇轉到之外，有邊方面係同業
界係真係去探討或者去--即係去到傳遞一個資訊，就話唔使改都得。

C

D

D

E

答：我諗都係主要靠呢張 form，即係佢哋睇到呢張 form。

E

F

主席：要咩嘢，對唔住，要咩話？

F

G

答：吓？

G

H

主席：要咩嘢話？

H

I

答：吓？

I

J

主席：你頭先個...

J

K

許偉強先生：睇張 form 佢話。

K

L

主席：吓？

L

M

答：睇張 form。

M

N

許偉強先生：睇張 form。

N

O

主席：要睇張 form？

O

P

答：係，張 form 有個 British Standard 喺度，如果佢入件嘢，即係
去到譬如 BS5154 嘅，我哋會接受佢。如果佢入一件更新嘅，即係譬
如個 supplier 話畀佢聽「喂，有件仲正啲喎，去到已經 BS 12288」。
佢又寫落去，我哋都 okay 嘅其實。

P

Q

Q

R

問：即係話如果嗰張 form 就寫咗一個舊嘅，雖然法例係要求你用最新嘅
個，都唔緊要嘅，即係你哋都覺得唔需要跟個法例去做？

R

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T

答：我哋都可以接受，係，即係我哋需要冇 balance。

T

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主席：咁有問題個咯喎。

U

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C

答：係。

C

D

主席：因為你仲係寫緊 864。

D

E

答：呢個主席你--即係我哋聽過，呢個...

E

F

主席：咪囉。

F

G

答：...我諗我哋都會返去睇睇嗰個條例嗰個安排點樣樣。

G

H

主席：864 你個 original...

H

I

答：明㗎，呢個。

I

J

主席：...仲係 C and G, Grade C & G。我想有一樣嘢問一問，...

J

K

答：好。

K

L

主席：...因為我驚我唔記得㗎。其實就係你署長有講過，就係話去到呢個--簽呢個 WWO46 part IV 嘅時候，我哋記得就係要個 AP 同埋個 LP 兩個人一齊簽。你個署--林署長就曾經同我哋講過話，當然佢嗰陣時佢有--佢有佢自己嘅第一身經驗，佢就話以前就係要驗物料，譬如嗰啲部件，究竟用咩嘢部件係用呢，就係要驗。後來就話因為業界話太麻煩，太耐，於是就經過同業界商討之後，就從善如流，就 LP 同 AP 兩個人都簽名。就將呢一個責任亦都係交界 AP 負責。呢一個咁樣嘅做法，就你所知係幾時開始咁樣做？

L

M

N

O

答：我嘅認知，以 1982 年之前，所有我哋嗰啲叫做 terminal fittings, 即係主要啲水龍頭嗰啲，就啲持牌水喉匠如果用嗰啲嘢，佢就會成 lot 送晒去我哋灣仔普樂里嗰度有個 depot。我哋啲同事就會逐舊逐舊擺出嚟，visual inspect, 同埋會做一個 hydraulic test, 即係去--即係試下佢漏唔漏水咁樣樣。

O

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如果嗰件嘢 okay 嘅話，佢哋就會打個 stamp 落去，就話呢件嘢可以用，如果唔 okay, 我記得好似話搵啲紅油噴咗打個交叉咁樣。然後之後個 LP 就返嚟擺番件嘢就出去用咁樣樣。

R

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呢個就去到 82 年，就發覺唔多掂。因為以前我諗我哋--我哋細個嗰陣時，一間屋可能得兩個水龍頭咁樣。到到 82 年，因為啲樓開始複雜，即係啲 fittings 越嚟越多，同埋嗰陣時嗰個--我諗工程都多。其實業界係有個聲音嘅，就話「大佬，你再咁搞法，即係阻慢晒」。同埋我哋水務署亦都做唔到，已經開始發覺太多。

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嗰陣時我印象中見到--即係我攞一攞啲 file，即係當其時我哋啲前人就開始諗，咁點呢咁樣。因為以前其實水務可以話對呢啲物料都幾大嘅控制，因為差唔多件件擺嚟睇過晒，然後先得。於是乎佢哋就諗，搵邊個呢咁？LP 固然其中一個，另一個佢哋就想搵個 authorized person，即係一啲專業嘅 architect、engineer、或者 surveyor；就將--要佢哋證明呢啲嘢係掂，變咗就即係令個--speed up 個 process，就想快啲。

因為其實我諗當其時最大嘅考慮就係話，其實 authorized person 基本上就喺地盤就有長駐嘅，其實佢 day day 睇住，即係唔好講水喉。其實所有建造，喺個地盤，無論風火水電，全部佢哋都睇晒，甚至嗰個 structure 個 safety 亦都睇晒。

佢哋有一隊人可以好 comprehensive 咁樣睇咗，當其時我哋前人就將呢個責任 entrust 畀嗰個 AP，就要佢睇過晒之後 certify，我哋然後先肯畀水，或者畀佢開工咁樣樣。

主席：呢個係一九八幾年 implement 嘅呢？

答：係。

主席：一九--你頭先講到 1982 年。

答：1982。

主席：唔。即係由 1982 年開始，就將部分嘅責任就交咗畀呢一個 AP？

答：我唔知算唔算將個責任--即係其實我哋要佢幫我哋做一樣嘢，即係嚟等我哋知道呢啲。

主席：係，因為你哋驗唔到，係咪？

答：係，我要求佢幫我睇晒啲物料，證明啲嘢掂，然後我哋先會供水畀佢之類。

主席：係，得，唔該。

答：Okay。

問：唔該。就住工程師學會嗰個報告裏面都有提及過，就係話其實如果我

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哋睇番嗰個 Form WWO46 嗰度，似乎有一半，即係所講嗰啲英國標準都係 outdate 咗，即係都已經不再沿用。但係就有話即係去適時咁樣作啲更改。

你覺得係咪即係水務署嗰呢個即係有關更新嗰個英國標準，即係呢啲世界標準嗰個做法，可能即係唔夠--唔夠即係快，或者即係冇話一睇睇到就即刻去做咁樣？

答：其實我想講講，即係以往物料嗰個諗法，其實 more 係即係用一個較為 practical 嘅諗法。即係正如我 statement 講，係 strike a balance between 嗰個--即係要 strict compliance with 個 regulation，同埋個業界個操作。

問：係。

答：所以以前基本上，如果你有件料，即係可能 to 一個 British Standard，and then 個 British Standard 畀人 supersede，我哋亦都唔話一定呢件嘢即刻唔可以用。因為有人可能已經買咗好多貨喺度咁樣樣。同埋呢件嘢基本上，我哋如果嗰個 change 唔係一啲好 significant 去 affect 佢嗰個 performance，基本上我哋都容許佢繼續用。

問：Okay。

答：所以嗰個--嗰個--其實嗰個思維以前係咁，不過，我都想講番，鉛水事件之後，即係我哋察覺即係物料嗰個風險，即係可能比我哋想像高。所以而家我哋其實都做咗個動作就係話，都係唔好，我都將啲 British Standard 我擺上網一路 update。我相信呢個係一個--一個進步嚟嘅。

問：呢度我正正就係想問一問你呢一方面。

答：係，係。

問：就喺你嘅證人口供第 20 段，20 段嗰度你就話：

“In any event, the list of BS specified for product compliance has been removed from the updated Form WWO46 issued in October 2015.”

呢度即係話喺個 form 度，唔好搞，而家唔好再講邊啲 British

B

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Standard, 唔好再講。你哋就採用咗而家呢個做法就係...

C

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答：上網。

D

E

問：... "Note 8 of the updated Form WWO 46 advises that all pipes and fittings including any materials intended to be used for the construction" 等等，就要 comply with the relevant BS listed on WSD 個 website。

E

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答：係。

G

H

問：The updated list of BS adopted by WSD can be accessed through 邊個邊個 website, 呢度講。我就想問一問你，而家呢個咁嘅新嘅做法，呢個咁嘅 website, 都一定繼續就係個 technical support team 嗰啲人去睇住，幾時轉 British Standard, 去到睇下幾時去喺個 website...

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答：轉咗去，係，轉咗。

J

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L

問：... 嗰度去轉。我就想問一問，就係而家個新嘅做法，你哋係會繼續用番你哋之前個思維即係話嗰個 technical support team-- (音頻系統的干擾) 我哋繼續，嗰個 technical support team 嘅同事，即係佢哋仍然都會諗下--即係你所講個 strike 個 balance, 即係話 (音頻系統的干擾) ...

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主席：佢可能要企喺嗰度就唔會 interfere。

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問：佢哋仍然會用個舊--即係以前嗰個思維，即係話會 strike 個 balance, 就係話睇下--就算有啲 British Standard 轉咗，佢哋都仍然會去--即係用自己嗰個即係考慮，或者係即係覺得業界邊啲會適應到等等，定係話有理冇理，唔好理，一轉咗 BS, 我就上網改。係邊個做法而家？

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答：我諗 somewhere in between, 即係--即係無可否應，我哋而家嗰個物料控制係 stricter, 即係比以前嚴格。即係如果你睇下一個 statement, 關於嗰個五年 validity period, 其實都係同一個意念嚟嘅。

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即係以往真係話唔緊要，你有件嘢 comply with 一個舊嘅 BS，其實如果有乜大改變，我都畀你用。呢件事之後，我哋真係會 strict 咗，即係無可否認我哋係嚴格咗，係要求一啲可能 British Standard 我哋會即係緊張啲話可能要--甚至嗰五年嗰個我哋都係用一個同一個諗法。

問：呢個 “somewhere in between” 就即係--可能真係值得商榷。

答：係，係。

問：因為點樣為之 “somewhere in between” ？

答：因為你可能要明白一樣嘢，可能工程界嗰個運作就係話，你唔係嗰日改咗 British Standard，咁突然間香港可能都多人已經 sort 咗啲料、買咗啲料，或者準備開工嘅啲料；你突然間話完全唔準用，呢個係好大問題對個業界。

就算如果你有留意，我哋早前 set 嗰個五年嘅 validity period，其實業界反响都好大已經。因為佢突然間可能好多料我以前用得，我而家突然間都唔畀用。

所以我諗我哋會睇番第一，個業界嗰個 adaptability 有幾多，嗰個 BS 嘅改變有幾大影響，我諗真係要 strike a balance。你話好 clear cut 有條 formula 點點點，我諗就做唔到呢樣嘢。

問：Strike a balance 我明你嘅意思，但係個問題就係你有嗰個規則一日嚟度，就係話你要跟新嘅 BS 先至得。

答：啱，唔，唔。

問：如果有嗰個規定嚟度嘅話，就即係會有好多混淆嘅情況，就係話喺業界嘅人士，佢哋睇到法例就係咁嘅要求，但係睇到你哋 website 又好，或者其他文獻又好，又好似唔使。即係究竟我點跟呢？

答：即係其實兩方面，正如我哋呢度講，其實而家如果我哋將個 latest British Standard 上網，照計業界就應該容易跟到，即係你上網睇番而家最新嗰個 British Standard，或者我哋而家...

問：但係嗰個 website 都未必係最新，因為你話 somewhere in between，...

答：啱，啱，啱，啱。

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問：...即係你都仍然係要考慮，未必係...

答：即係我哋仲--應該--應該清晰講就係嗰個我哋接受嘅 BS，即係我哋仲接受嘅 BS。當然你用一個--你用一個更新嘅，我哋梗係接受，冇問題。即係起碼我呢個 BS 係我哋仲可以接受咁樣樣。

問：好。我哋想睇你新嗰個 form，嗰個--嗰個表格係--嗰個內容。或者我哋睇一睇，呢份應該係新文件，啱啱擺入去，C21/19087。呢個就係應該--我所知就應該 2015 年 10 月之後你哋就採用咗呢一個 form。

答：係。

問：如果我地可唔可以麻煩秘書處同事就再落多幾頁，去到有一個 notes 嗰度。

答：即係最後個 19--應該係 19094。

問：應該係...

答：19094。

問：19094，唔該，係。如果我哋睇下呢個 notes 嘅第 2 段，呢度講話：

"Parts I and II of this Form shall be submitted to the Water Authority for permission to commence the construction ...", 跟住就 "All pipes and fittings and any materials to be used for the construction, installation, alteration or removal ...shall comply with the requirements of the Waterworks Regulations."

呢度又好清楚，就係話我係講緊 Waterworks Regulations，any change of previous approved 要通知佢哋。呢度個 notes 就唔係話叫人哋去搵你個 website 入面係講邊啲 British Standard。呢個就係話你都係要跟番個 requirements of the Waterworks Regulations。Regulations 就講到明係要最新，最新嘅。但係如果我哋睇 website，我哋剛才都討論過，就都有機會唔係最新。

答：係。

問：似乎你呢個--新嗰個 form 嘅第 2 點都仍然係叫啲人話「喂，一定要

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跟足 Regulations 去做」。

答：其實如果你睇番第 8 段，係咪第 8 段？我哋都有講明 “Form shall comply with the relevant British Standard listed out on the WSD's website.”

問：係，冇錯，冇錯。

答：其實仲有 -- 我想 point out，其實即係 Waterworks Regulations，雖然我哋有講係 latest BS，嗰度講咗其中一樣嘢。第二，其實個 Water Authority 都有一個權力，係有一啲 relaxation 可以做得到。

所以我諗就唔係話我哋而家咁嘅做法係違反咗水務條例，應該就有呢個情況。我哋就會睇第 8 嗰度，講清楚大家就跟嗰張喺網上嗰個 British Standard 做，我諗呢個即係最暢順，即係喺業運作嚟講係容易啲做。

問：即係而家個做法，你就係覺得，如果業界跟網上 -- 跟網上嗰個資訊就得？

答：運作到。

問：就係 -- 即係可以話係遵守到個法律嘅要求，就算網上嗰個唔係一個最新都好，就跟網上就已經足夠？

答：嘅，我咁睇法。

問：似乎即係你哋真係要考慮下嗰個 -- 即係嗰個規則嗰度係咪需要作啲咩嘢改變。

答：其實係，因為上一次主席都提過呢個意見，我哋而家其實都著手去睇番。即係話譬如你喺例條度嗰個 British Standard 係咪 list out 出嚟，定係我哋用第二啲方法去處理呢個問題。

問：好。睇番個表先。

答：好。

問：我哋都係睇番呢個表。如果我哋睇下之前用開個版本，入面 15.1/37627。

B

B

C

答：37627？

C

D

問：37627，都係剛才嗰個 notes。即係我哋啱啱探討緊嗰個 British Standard 嗰樣嘢。呢度就--第 7 段嗰度，之前你哋嘅做法就係話：

D

E

"For fittings, only draw-off taps, stop valves, gate valves, ball valves and combination fittings need to be reported."

E

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F

G

其實就唔係好多樣嘢，即係呢度揀咗大概五大類。有啲其實都有包到，即係就算我哋--即係睇過啲房署嗰啲文件，就係有關可能啲 flange，或者一啲其他嗰部件都有包。即係你哋揀咗呢幾樣嘢，就話即係佢哋需要去到 submit。我哋都知道當時係有包括嗰個焊料，即係呢樣嘢係咁樣。

G

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答：係，啱，啱。

J

J

問：當時你哋話特別去揀呢幾樣嘢需要申報，係咪即係都係一個資源上面嘅考慮？即係你哋人手上嘅考慮，定係某一方面嘅考慮？即係話揀咗呢五樣嘢出嚟，你唔使寫晒，寫呢幾樣嘢就夠？

K

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答：如果以我嘅認知，其實呢個有個歷史發展。即係正如我頭先講，1982 年之前，其實呢啲咁嘅 terminal fitting，我哋叫 terminal fitting，呢五隻嘢就送去我哋度自己驗。

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問：係。

O

O

答：That's why 喺 82 年之後，其實嗰啲 form 基本上就有呢五隻嘢。

P

P

問：係咩嘢話？

Q

Q

答：冇呢五隻物料，喺嗰張 form 度。

R

R

問：係。

S

S

答：就因為嗰陣時，我諗呢啲咁嘅 fitting，其實嗰陣時最大嘅 concern 就係，我唔知大家以前舊嗰啲水龍頭嗰啲，即係扭得幾扭，如果有啲渣嗰啲就好快漏水。即係如果大家以前有用過扭嗰啲，直頭喺側邊上面飆水出嚟。嗰啲或者又悶唔冚，成日滴水，浪費食水，嗰陣時係好緊張嗰時。

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於是乎，當其時呢咋就擺咗落個 Form 46 度要佢哋報。到到後期，

V

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喺--我諗陳慶嗰個 statement 好似都有講過。

C

D

問：係。

D

E

答：有個 case，就喺薄扶林花園，當其時佢哋入咗伙之後啲水管就好多啲 GI 喉爆咗，都好多投訴咁樣樣。於是乎我哋喺應該 87 年之後，又因應呢個，即係啲水管原來都唔係好掂，又會有問題。於是乎又將 pipes 就加埋落去咁樣樣。

E

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所以嗰個發展一路--嗰陣時就係話一啲佢哋睇到所謂風險較高啲啲，就擺咗落個 WW046 嗰度，就要佢哋呈報。

G

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I

Practically 都仲有個問題，就係話其實你要諗番，即係我哋--雖然話好多水務署 approve 嘅水龍頭咁樣樣先算，即係如果你上網講緊成萬隻，如果我哋--佢唔事先報咗畀我哋聽，其實有個問題，當你落到地盤嗰陣時，譬如有啲 A、B、C 牌子，呢隻係咪 approve 嘅呢咁樣樣。

I

J

J

K

我哋做起嘢上嚟其實方便好多，如果佢一早報咗話我 A、B、C 牌子係我打算用，我哋當其時已經可以 check 到呢個 A、B、C 牌子係咪已經係 approve 嘅。啲同事落到地盤好簡單，睇下你係咪用緊 A、B、C 牌子，就知道你係咪用緊啲 approved 嘅嘢。我諗有個 due 嘅情況。

K

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問：唔該。我哋睇一睇你個證人口供第 31 段嗰度所講。

N

O

答：係，好。

O

P

問：呢度就係講出咗你所講嗰個...

P

Q

答：Sorry，第幾頁，唔好意思。

Q

R

問：唔好意思，係 C21/18778 嘅第 31 段。

R

S

答：係。

S

T

問：剛才你同我哋講解過關於嗰個歷史背景，就話點解要驗呢五隻。當然即係對於你哋水務署嚟講，其中一個考慮就係話你哋可能咁多隻，你報晒我都有意思，我根本--你亦都唔會監管到咁多。

T

U

答：係，係，睇唔到咁多。

U

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C

問：係咪？所以你哋就要去選擇性地去--針對性地要求佢哋去揀邊啲，啱唔啱？

C

D

答：啱，啱。

D

E

問：呢個我明嘅。

E

F

答：Okay。

F

G

問：例如喺 31 段，你哋所講，就係話有個--你所講嘅，或者你哋署方，即係不同嘅人士都有講嘅，一個 multiple-stakeholder's 嗰個理論。

G

H

答：係。

H

I

問：呢度就係話--你話 WA 個 role 係 regulatory。

I

J

"inspection of plumbing installations is generally guided by a risk-based approach. The Customer Services Division of WSD is responsible for the inspection of the finished plumbing works..."，跟住就 staff members 就 possess 嗰啲 knowledge 去睇。

J

K

"In conducting such inspection, more attention is paid to the communal parts of the inside service ..."

K

L

因為即係嗰個你哋覺得比較更要啲，係咪？同埋其他就會：

L

M

"... other items are checked on a random basis as they are considered to be of lower risk in terms of proper functioning of the plumbing system as a whole."

M

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跟住亦都講話水錶固然重要，佢個位置固然重要。我想問一問你，呢度你講，就講出咗幾點。就講到有個 risk-based 嘅 approach，下面亦都講就話你喺嗰個 inspection 嗰度注意啲咩嘢多啲，注意啲咩嘢少啲，有啲係 high risk、有啲係 low risk 咁樣。

Q

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呢個所謂嘅 risk-based approach，即係如果我就咁睇，你嗰個說法，就即係我就會解讀成為就係話一定係做過啲 risk assessment，去探討過就係話邊啲係 high risk，邊啲係 low risk，然後先至可以--你啲 staff 去到現場按住本子去做事，就係話 low risk 我哋睇少啲，high risk 我哋睇多啲。

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我就想問下，你哋水務署方面，呢個 high risk、low risk，product inspection 嗰度，嗰個 risk assessment 有冇真係做過？

答：我想咁講，即係個--我相信 formal 一定有做過嘅。但係...

主席：Formal 一定有做過，唔。

答：即係冇做過，應該冇做過。但係即係我都想講番，即係我哋作為專業人士，即係其實我哋心裏都叫做有啲--其實我諗唔止專業人士，其實每個人都 informally 其實做咗好多 risk assessment。

即係我唔知方唔方便舉個例，即係你行入嚟，你有冇諗過個天花會跌落嚟，其實係可以碌落嚟，不過我哋入嚟都唔會話落定頭盔，點解呢，其實因為知道個風險好細咁樣。

當日我相信啲同事去睇嘅時候，佢哋都會有一個判斷，即係覺得邊啲嘢係有一個較為高風險啲。高風險嘅 assess 仲有一個，睇番個 consequence，因為風險兩個部分，一個 possibility，一個 consequence。你見佢哋都有話譬如喺 communal 嘅 part，嗰啲個 consequence 就真係好大，譬如嗰個水缸污糟嘅，做咗出嚟，你其實係會令到即係成棟大廈啲人都唔掂咁樣。

我諗佢 in a sense 都係以一個咁嘅--即係一個判斷。即係呢個判斷我覺得 to some extent 都係一啲 risk assessment 嚟嘅，去做呢樣嘢。

問：即係咁講，即係你剛才都講話即係每個人都可能在他的心中，都有一個 risk assessment，個盤算嘅。

答：係。

問：但係即係你作為水務署嚟講，因為你哋工作即係會影響到一個市民都係即係好廣泛，啱唔啱？即係絕對就唔能夠話就住每一次 inspection，今日我派 A 同埋 B 落去，今日我就依靠 A 同 B 心中盤算個 risk assessment；聽日我派 C、D，就靠佢哋，作佢哋心中嘅盤算，就唔可以咁。即係你哋一定--即係作為水務署，一個咁大嘅

B

B

C

政府嘅部門，...

C

D

答：同意，同意。

D

E

問：...一定係要--即係要去到確定咗邊啲係 risk factor 先，邊啲 high risk，邊啲 low risk，然後先至會去到知道同事去到現場做 inspection 嗰陣時，要點查法，查啲咩嘢㗎嘛，呢樣你同意嗎？

E

F

答：係，同意嘅。所以其實即係唔係去到話，由每次嗰個同事去到 inspection 做個判斷嘅，即係其實我相信，即係而家我 31 段講嗰個安排，係一啲同事好多年積累嘅經驗，大家交流，然後定出嚟，我哋不如咁樣去睇呢件事囉，嘎。

F

G

G

H

H

I

問：好。咁我又想問一問你，而家鉛水事件發生咗之後，咁就似乎你哋嗰張新嘅 form，嗰個 annex，就有話特別去 single out 咗嗰五樣嘢出嚟嘅，就似乎係任何物料你都要填㗎嘞，係咪？

I

J

J

答：都未去到咁，未去到咁。

K

K

問：未去到咁？

L

L

答：唔得，呢啲其實 practically 都做唔到嘅，因為實在好多物料嘅。

M

M

問：係。咁或者我哋去睇一睇而家新嗰個 form。

N

N

答：好呀。

O

O

問：就似乎就有去到界定即係邊啲物料要填，邊啲物料唔使填。

P

P

答：應該喺嗰個--如果我有記錯，嗰張 form 係話喺第 8 嗰個 note 嗰度，係睇番喺嗰個網上嗰啲 BS，我哋有定咗邊啲係要報，邊啲唔使報。

Q

Q

問：唔，或者...

R

R

答：應該我如果有記錯，因為我...

S

S

問：或者我哋去睇一睇下...

T

T

答：好呀，好呀。

U

U

問：...C21。

V

V

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C

答：係。

C

D

問：一九零--剛才應該係講緊 19094。

D

E

答：94，係。

E

F

問：睇一睇你第 8 段。

F

G

答：係嘞。第 7 段喇，你睇。

G

H

問：係嘞。

H

答：第 7 段最後嗰句，“only those fittings listed in WSD website need to be reported in the annex”。

I

問：唔。

I

J

答：即係因為 practically 係有可能做得到嘅，因為實在係好多嘢。

J

K

問：但係你哋而家嗰個 website，話即係需要要求佢哋呈交嗰啲部件嗰啲資料，都多咗好多。

K

L

答：多咗㗎，係呀，即係有啲譬如 pipe plans 呀，嗰啲會而家要報番囉。

L

M

問：唔。因為我哋之前都問過署長嘅，咁就係就住嗰啲你呈交嗰啲部件嗰啲資料，咁署長亦都--如果我有理解錯佢嘅證供，就係話你哋水務署，即係就住佢呈交嗰啲部件，咁就你哋自己唔會去驗嘅，係咪？

M

N

N

O

答：其實應該咁講，如果嗰啲部件，即係如果你有留意我哋張 form，有幾個方法，第一，佢如果係已經有個所謂 Kitemark 嘅 British Standard 嗰啲，咁我哋可以接受，或者係英國有張...（聽不清）cert.喇。但係其實好大部分，佢哋啲部件係要搵去香港我哋認可嗰個 laboratory 做咗一次化驗先嘅。

O

P

P

Q

Q

R

問：係。

R

S

答：然之後得出一個 laboratory report，然之後交入嚟，我哋先 approve 畀呢件嘢用嘅。

S

T

問：唔。即係以你所知，就例如每個工程項目，呈交咗嗰個 Form WWO46，入面所列出嗰啲部件，水喉部件咁，嗰啲你哋水務署，就唔會話即係就住嗰啲部件，去作出任何嘅即係關於啲化學成分嘅檢驗，你哋就有

T

U

U

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B

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做呢樣嘢？

C

D

答：因為之前佢已經驗咗喇嘛。

D

E

問：唔。我哋睇一睇你證人口供另外一個範疇，就係喺你嘅第 18776 頁喇。C21，18776，第 24 段開始。

E

F

答：係。

F

G

問：呢度呢你就評論緊工程師學會，佢其中有一個即係 observation，一個觀察，或者一個評論。

G

H

答：唔。

H

I

問：就係話，就係“the arrangement for LP to be solely responsible for all scope of work is no longer adequate”咁。咁你跟住後面，你就一路去講番，...

I

J

J

K

答：一啲討論。

K

L

問：...即係話「喂，其實」--你都係針對嗰個 solely 嗰個字去到即係作一啲回應。

L

M

答：係，係，係。嘎，嘎。

M

N

問：首先我想問一問你，就係喺一個水務條例底下，加上水務規則，你哋作--即係就住咁多個你哋所講嘅持份者嚟到講，你哋唯一監管嘅，你哋唯一監管嘅就係持牌水喉匠，對嗎？

N

O

O

P

答：喺條例裏面係。

P

Q

問：喺條例裏面，係咪？

Q

R

答：嘎，嘎，嘎。

R

S

問：對嗎？呢個你同意嘅？

S

T

答：對，對，對，對。

T

U

問：咁你後面所講就話「啊，其實水務署好早都已經體會到，如果你淨係去依賴持牌水喉匠，係不足夠嘅，不足夠嘅。」

U

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C

答：唔。

C

D

問：呢度你係--25 段係咁講喇。

D

E

答：係。

E

F

問：第二句就話“the WA has long recognized that reliance on LPs solely to ensure quality of insider service is inadequate”。

F

G

答：係，啱。

G

H

問：咁 26 段就解釋，26 段嘅解釋就係話“In view of this and in addition to the LP system, the WA has, as early as 1982”，就 put in 咗個 system that involves APs。咁 AP 就則師喇，咁就 qualified 嘅。

H

I

I

J

答：工程師，...

J

K

問：嘎，工程師，或者則...

K

L

答：...或者測量師都可以。

L

M

問：嘎。咁以我--即係我哋睇到嘅，通常如果係房署嗰啲咁嘅項目嘅，...

M

N

答：嗰啲就則師嚟嘅。

N

O

問：...佢去簽，通常係個則師嚟嘅咁樣。

O

P

答：主要係則師，係，啱。

P

Q

問：咁佢哋都係 qualified professional 嚟嘅，所以就即係佢哋都要去到睇，究竟嗰啲咁樣嘅規則，或者啲規格係咪符合嘅咁。即係呢度你就講話「喂，淨係 LP 就唔夠嘞，1982 年開始我都知道，我唔可以淨係靠佢嘞，所以就捉埋 AP 嚟一齊幫下手。」

Q

R

R

S

答：嘎，嘎，嘎。

S

T

問：咁捉埋佢嚟，其中一個做法，我哋而家睇文件就知道，就係嗰啲 WWO46，就係要由個 AP...

T

U

答：同 LP 簽嘅。

U

V

V

B

B

C

問：...同埋個 LP 一齊簽嘅。

C

D

答：係，係。

D

E

問：就呢個亦都係你哋所講，即係主要話 involve 咗 AP 嘅一個做法，係咪？

E

F

答：就另外 132 喇。WWO132 喇。

F

G

問：係嘞，就喺表格上面...

G

H

答：嘅，有兩張 form，即係 certify。

H

I

問：...就係要求 132 同埋 46，都係要求嗰個 AP 去簽嘅。

I

J

問：即係呢個就係你所講，就話 1982 年知道咗 LP 唔足夠嘞，搵咗 AP 嚟做，就係喺嗰個表格嗰度，...

J

K

答：係，啱。

K

L

問：...就需要佢哋都確認番，就係嗰啲用料等等，都係符合要求嘅呢樣嘢。

L

M

答：係，啱，啱。

M

N

問：係咪呀？

N

O

答：啱。

O

P

問：好嘞，咁我想問一問，就係有咗呢個咁嘅要求之後--即係有呢個咁嘅要求，喺表格上面簽名喇，第一，我想知道嘅，水務署，就住每一個工程咁講，就住每一個表格咁講，就住啲 AP，佢哋一般嚟講，對於水喉個部件認識有幾多，水務署知唔知呀？

P

Q

答：其實一個 AP，即係通常可以係則師，可以係工程師，可以係 surveyor 咁樣樣，我相信佢對一個--成個嘅 project，你話佢樣樣嘢都識，我估就唔會嘅。

Q

T

問：唔。

T

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答：但係一個 AP 最重要一樣嘢，其實我諗佢做得，就係話佢 put in a system。即係如果你有問--有機會問啲則師，佢哋都會咁同你講，就話--譬如我對 building services，我唔識嘅，咁我咪請一啲 building services engineer 返去幫佢。你問我，我相信 AP 對 plumbing work 係會有啲認識，不過一定唔會係話好詳細，但係我亦都知道，其實 AP 係一定會 engage 一啲 building services engineer 去幫佢手嘅。

問：唔，好。

答：嘎，就去睇番個 plumbing work 囉。

問：好。但係你呢度，就似乎你個口供，就唔係話「喂，我係靠個 building services engineer。」你係話「喂，我係倚賴個 AP 嚟去做。」

答：因為個 AP 係要負責㗎嘛，其實佢係好多範疇㗎嘛，個 AP 佢一定係擺一啲佢認為足夠嘅。其實我諗成個 project 嘅運作，唔單只喇，佢仲有--我嘅理解仲有啲所謂 technical competent person。譬如佢個 supervision, on site, 我都相信個 AP 有可能話每層樓，逐層樓，逐層樓去巡喇，每次落石屎去睇，呢個唔可能嘅。

問：不過你就假設即係佢哋簽咗個名落去，就係做多咗一個把關，幫你哋，係咪咁嘅意思呀？

答：其實我作為一個專業人士，我自己覺得即係 once 我 sign 一個名落去 confirm 一樣嘢，其實係我要負上呢個責任。

問：係。

答：即係我以前做 Resident Engineer，咁我簽個名話呢件嘢掂嘅，咁我相信 at least 我 satisfy 自己係有足夠嘅 checking。可能我唔係自己親自落去睇過件嘢，但係我相信我下面嘅 site staff 係一定睇過晒，啲 testing 做足，然後我先夠敢簽個名話呢件嘢 okay 㗎嘞。

問：係，好。咁即係話你哋覺得 AP 簽咗個名落去，即係佢哋都要就住佢簽咗嘅嘢，...

答：負責喇。負責喇。

問：...確認咗嘅嘢，要負責㗎。

B

B

C

答：係喇。

C

D

問：喺呢一度之前，我哋睇一睇，即係回顧一下。

D

E

答：好呀。

E

F

問：就係話，你要求佢簽名之前，咁你起碼都知道，你搵呢個人嚟簽名，佢簽嗰個名係咪有意義先？一定要有意義先喇，係咪？

F

G

答：啱吖。係，啱，啱。

G

H

問：如果你話有意義嘅話，咁你一定要確保，呢個簽名嗰個人，佢簽名之前，佢係知道佢簽呢個名係要符合啲咩嘢要求嘅。例如，佢簽咗，話「哦，要符合水務署嗰個規定啫，要符合水務規則啫」咁。

H

I

答：啱。

I

J

問：佢起碼都--你都要知，確保下，呢個簽名嘅人，佢有呢方面嘅認識吖，係咪？

J

K

答：佢一定有認識，嘅。

K

L

問：嘅，一定有認識喇。

L

M

答：同意，同意。

M

N

問：咁我想問下，82年開始就覺得持牌水喉匠不足夠喇。

N

O

答：唔。

O

P

問：82年到而家，你哋有冇話，向例如 AP 又好，或者你所講嘅可能 building services engineer 又好，發出嗰一啲咁嘅指引，就話「喂，你簽呢啲咁嘅文件之前，唔該你細閱邊啲嘢，明白晒呢啲，然後先至可以符合我哋水務署嗰個規定個啫，規格個啫。」有冇呢方面嘅工作做過呢？

P

Q

答：我相信係唔需要，因為個--大家要明白個 authorized person 呢，其實係一個專業人士嚟嘅。即係我諗大家都明白，即係都唔使--即係譬如我自己做工程師，唔需要人提我，「當你簽個名，譬如話呢個 structure 係 safe 嘅時候呢，唔夠你就 go through 晒，睇過晒落石屎啲紀錄準唔準確，啲鐵穩唔穩陣。」唔需要㗎嘛，我知道 when I am asked to 簽個名話呢個嘢 safe，我明白我自己要負緊一個

Q

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責任，我需要去 check 一啲咩嘢嘢㗎嘛。咁所以我相信係冇乜理由話要...

問：你...

答：...教佢話「你要睇過啲乜嘢，然後先可以簽個名落去囉。」

問：對唔住，我唔係好同意你呢個講法，因為點解呢？

答：Okay，好，唔緊要。

問：我哋而家唔係就咁睇緊個別 AP 佢識幾多嘢，佢識幾多嘢，而家係話水務署。你呢度講緊得好清楚，就話 1982 開始就覺得 LP 唔足夠，我哋要搵多一班人返嚟，嚟簽名，先可以確保啲嘢係掂嘅。

答：係。

問：係，先可以...

答：嘎，啱，啱，啱。

問：...即係確保呢個水質係安全嘅咁樣。你喺做呢個步驟嘅時候，你決定咗要搵 AP 嚟簽名嘞，咁你哋水務署作為一個執行嘅機構，都要知道，「喂，呢個新加入簽名嗰個人，究竟佢對於我哋嘅規則有幾多了解？」起碼都知啱，如果唔係，你點執行嗰個文件呢？

答：或者你頭先你都講，你同我嘅睇法有唔同意見喇，即係我自己嘅睇法就話，即係作為一個 authorized person，其實如果大家了解一個地盤，尤其是一個樓廠，係咪？即係你當--中間牽涉嘅嘢真係好多嘅，我諗即係除咗 plumbing，又有去水呀，電呀，裝修呀咁樣。個 AP 最重要嘅一樣嘢，我諗--我亦都相信佢哋嘅 training 應該係咁，就係話你如果自己對嗰件嘢唔認知嘅，或者唔熟悉嘅話，你一定係應該擺一班熟悉嘅人落去幫你手做呢樣嘢，呢個我睇法喇。

問：唔。但係擺呢一班熟悉，即係你哋假設佢係熟悉嘅，但係就住你哋自己知道需要符合嘅規則，回番我當--啱啱嗰個問題就係，你哋 82 年到而家，都唔會特別就住你哋嘅規則需要有啲咩嘢要求呢，同啲 AP 去商討嘅？

答：因為即係我諗大家都做建造業，即係我覺得唔需要。因為冇乜可能個 AP 話要仲要人教佢，「你要知邊啲，係知邊啲」。

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主席：唔係，而家實際嘅情況就係，房署上嚟嗰啲 AP，個個都話「我哋乜都唔識㗎嘛。」

答：其實佢自己唔識唔緊要㗎，佢有啲 building services engineer 㗎嘛。

主席：啲 building services engineer 上到嚟，都係話「我哋唔識㗎嘛。」

答：咁佢話叻唔過嘅，有啲人。

主席：唔係，你明唔明呀？

答：我明。

主席：你明，咪個問題就係，你水務署，你擺一個人落去，要嗰個人負責，我有問題，冇異議，...

答：Okay。

主席：...係咪？

答：唔。

主席：不過個問題就係，你點樣樣可以確保呢一個人佢係完全知道佢自己要做緊啲乜嘢嘢。究竟去簽呢一個名落去嘅時候，究竟佢係證實，或者證明啲乜嘢嘢。

答：唔。

主席：啱唔啱？個問題就係咁，你搵 AP，因為我哋知道 AP 係一個起樓嘅 project 裏面可能係最大個個人，咁於是你咪捉嗰個 AP 落去簽名囉。

答：唔。

主席：係咪？但係個問題就係如果個 AP 都唔知道佢自己簽個名落去做咩嘢，其實可能你會話--其實最有用嘅，係應該捉個 BSE 落去。因為 BSE 可能比較仲專長啲添，係咪先？駁水嗰啲。咁個問題就係即係你--我明咩，你要捉最大個個落去，捉佢落水，我絕對明白，不過喺同時，你都要知道捉佢落水，你都要 make sure，「啊，呢個人真係

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知道落去游緊乜嘢水個喎。」究竟佢呢度--呢趟係咩嘢水嚟嘅先，係咪先？如果佢連啲佢都唔知嘅，咁當然你話「啊，我按 paper，有人負責嘞。」咁但係實際上，即係譬如好似而家咁樣樣。

我唔知究竟有幾普遍喇，係咪？而家你聽到啲--房署啲則師，我諗你都有睇，個個都話「我哋唔知㗎」，係咪？跟住啲 BSE 上到嚟話「啊，我哋個 spec. 就係睇完之後，就擺落去㗎咋，我哋都唔知點解㗎。」咁個問題--我諗許大律師個問題，咁你都要知道--即係你水務署，你做過啲咩嘢嘢，要啲 BSE 又好，要啲 chief architect 又好，知道究竟佢哋簽嘅嘢，個 significant 究竟係咩嘢嘢呢？你明唔明呀？

答：我明你意思。

主席：係囉。

答：不過我--即係我自己個睇法，即係如果你睇番 WWO46 或者 132，AP 要簽啲句嘢，其實我諗係幾簡單清晰想佢做啲乜嘢嘢。不過你話佢唔認知呢，我嘅睇法就其實佢應該 engage 一啲認知嘅人。正如佢喺地盤裏面要負責即係所有嘅樓廠各方面嘅工作，其實佢都要負責，你話尤其最大嘅。

主席：我知，即係我哋而家講緊房署咁嘛，房署差唔多如果佢哋所講嘅嘢係真嘅話。

答：Okay。

主席：房署 construction and development，二千五百個 staff，上面所有上面我哋叫上嚟啲 A--叫上嚟啲 CA，個個都--我諗都做咗唔少日子先至坐到啲個位，係咪？

答：唔，唔，唔。

主席：如果一個全香港 so-called 最大嘅 developer，佢上到嚟啲 architect 話「我哋個個都唔知嘅。」咁你私人機構啲，我諗可能二百五十個都有喇，一個 department，係咪？即係因為房署都唔起--唔係落手落腳起樓啲人嚟㗎嘛，係咪？

答：係，唔。

主席：即係我好相信，如果係二千五百個人裏面都話冇人知嘅，咁你求其

B

B

C

行人去，我唔知呀。

C

D

答：但係佢啲 building service engineer 呢？

D

E

主席：咪話唔知囉。

E

F

答：都唔知，okay。唔。

F

G

主席：咪就係話唔知咩嘛，佢哋。唔係，佢哋擺咗呢--即係我哋當然講緊鉛嘅焊料喇，係咪？講緊鉛嘅焊料，佢哋話...

G

H

答：Sorry，主席，其實如果你有留意，睇 HKIE 個 report 呢，佢都成日建議搵啲 building service engineer 去負責番啲嘢。

H

I

主席：我明，我明呀，我梗係明喇，係咪？即係佢哋而家傳上嚟嘅，嚟到我哋面前嘅 building service engineer，就係話「我哋嗰陣時擺呢啲嘢落去個 specification 嗰度，就純粹係因為睇到個 BS 咁寫，於是我就抽啲我哋認為重要嘅嘢出嚟，就於是寫咗落去我哋房署嗰個 specification library 裏面。」係咪？「至於點解我哋寫落去呢，至於個背後原因，點解 British Standard 要咁樣樣寫呢，我哋就完全唔知嘞。」

I

J

我哋面前嘅 building service engineer，就係話「我哋嗰陣時擺呢啲嘢落去個 specification 嗰度，就純粹係因為睇到個 BS 咁寫，於是我就抽啲我哋認為重要嘅嘢出嚟，就於是寫咗落去我哋房署嗰個 specification library 裏面。」係咪？「至於點解我哋寫落去呢，至於個背後原因，點解 British Standard 要咁樣樣寫呢，我哋就完全唔知嘞。」

J

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寫落去呢，至於個背後原因，點解 British Standard 要咁樣樣寫呢，我哋就完全唔知嘞。」

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寫落去呢，至於個背後原因，點解 British Standard 要咁樣樣寫呢，我哋就完全唔知嘞。」

L

M

答：其實主席，其實我覺得呢，都唔緊要嘅，即係我哋做 construction 嚟計呢...

M

N

主席：我--我唔...

N

O

答：即係--嘎，sorry，你講。

O

P

主席：我唔同意唔緊要呀，如果...

P

Q

答：唔係，即係我意思呢，佢哋最重要係 comply with 個 British Standard。

Q

R

主席：都--我唔同意。

R

S

答：唔可以呀？Okay。

S

T

主席：因為如果你完全唔知道個 rationale，喂，你點做 risk assessment 呀？

T

U

答：唔，但係 comply with BS 係清楚咩嘛，即係。

U

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主席：你 identification，你 hazard characterization，你 identify 咗個 hazard，跟住下一步你就做 risk assessment 嘞，你唔知個背後 rationale，你點做 risk assessment 呀？究竟嗰個 risk 係一個 moderate 咩，抑或 insignificant，抑或 significant，你點做呀？

C

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E

答：唔係，諗...

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主席：即係譬如好似講到焊料咁樣樣，當你唔知個 risk 係幾大嘅時候，咁你喺你個心目中，comply 唔 comply，重唔重要咩？Com...

G

G

H

答：Sorry，如果我睇喇，或者我畀個專業嘅意見喇。

H

I

主席：係。

I

J

答：即係以 construction 嚟計，即係我覺得呢個基本嘅 ABC，就落到去地盤，你打開個 contract，就係跟 spec.，跟圖做嘢㗎嘛。即係如果你有留心 Hugo 嗰日講，佢都係話，其實佢唔使知嘅，最緊要知道嗰件嘢係要 British Standard。我哋其實如果你打開本 contract 裏面，我諗講緊嘅 British Standard，我諗即係大大話話都一千幾百個嘅。

J

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M

主席：我明，我明。

M

N

答：所以 compliance 係好重要嘅，你睇住嗰件嘢，係咪達到--嘎。

N

O

主席：唔係，你當然一個人唔會識晒喇，不過你一個 organization 裏面，係咪起碼都要有啲人知道呢？

O

P

答：唔。

P

Q

主席：有啲人知啲嘢㗎嘛，當然...

Q

R

答：呢個同意嘅。

R

S

主席：...你唔可以知晒嘅，...

S

T

答：呢個同意嘅，同意嘅。

T

U

主席：...係咪先？係咪？冇人知得晒㗎嘛。但係個問題，就係你唔可以話有一個人知㗎嘛。

U

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答：Okay。

C

D

主席：係喇。

D

E

E

問：或者我哋就住呢個問題，我哋睇一睇即係房署，...

F

F

答：好呀，好呀。

G

G

問：...佢其中一個即係總則師，即係佢所講，即係佢嘅理解係點樣喇，好唔好呀？

H

H

答：好呀，好呀。

I

I

問：B15.1, 37708。佢呢度，由28段開始，佢都係講番嗰個 licensed plumber 嗰個扮演個角色同埋個責任。咁佢話個 licensed plumber 個 roles and responsibilities, has stipulated in the Waterworks Ordinance 咁樣。咁佢講佢所即係參與嗰個工程嘅 licensed plumber 係邊個喇咁樣。

J

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跟住佢就第三句，最後嗰度，就係 "As far as I knew in the period I served as Contract Manager for this contract, responsibilities of the LP for the plumbing installation included notifying the Water Authority of the commencement date and scope of plumbing works to be carried out at Part I of Form WWO46. The LP had to notify the Water Authority of the completion of plumbing works" 等等，"He also had to supervise the execution of the plumbing works on site."

M

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第29，佢就話 "I relied on China State to monitor the service of the LP and would expect the LP to execute his duties under the Waterworks Ordinance and Waterworks Regulations."

R

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S

咁即係似乎呢度就係 AP 佢哋嘅講法，就話「喂，我都係靠人哋去做嘍咋。即係我係--我都靠人哋去做嘍。」例如佢呢度話「relied on 個總承建商--China State 總承建商去 monitor 個 service of LP」，同埋佢會 expect 個 LP 自己就去 execute 佢嘅 duties under 嗰個條例同埋個規則嘅。

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答：係，唔。

問：呢度我哋係其中一個即係證供，咁我哋亦都聽到剛才主席都有同你提--探討過就係話，好多其實嗰個所謂 contract managers，喺房委會嘅，佢哋都話「喂，其實我即係並唔係知得好清楚關於嗰啲咁樣嘅--有關 waterworks 嘅 regulations 等等，嘅 details 呀，British Standard 呀嗰啲，我未必真係好清楚嘅。」

所以就係話--我個問題就係話，1982 年開始，你已經係要求 AP 做一個咁嘅把...

主席：87。To be precise 87。

許偉強先生：哦，87，對唔住。

問：係 87 年開始，就係已經...

答：其實 82 開始㗎，87 就再改咗，加埋 pipes 上去應該。

主席：哦，得。

問：好。咁就八零年代開始，就已經係要求個 AP 去做多一重嘅把關嘅時候，即係講番我--可能我係重複番我之前個問題，就係呢三十幾年裏面，就住你哋需要 AP 知道幾多有關你哋水務條例，水務規則入面嗰啲 standard, specification 等等，佢哋需要幾多呢，你哋同個 AP 係冇乜特別嘅溝通，...

答：如果你...

問：...可唔可以咁講？

答：你話完全冇溝通係唔啱嘅，即係事實上，你知我哋一路都有出啲 circular letters，其實啲 circular letters 係有畀埋 AP 嘅。

B

B

C

問：係有畀埋...

C

D

答：AP。

D

E

問：AP，係。

E

F

答：嘎，嘎。所以佢亦都知我哋即係一路有啲咩嘢特別嘢需要提番佢哋，都有講㗎。

F

G

問：唔。另外一個方面，就係話你喺呢個簽個 form 呢，因為 AP 同埋 LP 都要簽，你哋作為水務署，其實你係咪期望佢哋兩位係有啲 coordination，有啲溝通㗎？

G

H

答：我相信係喇，應該會㗎喇。

H

I

問：嘎，你相信係咁，係咪？

I

J

答：嘎，嘎，嘎。

J

K

問：你都--即係照計你哋要求佢哋，都要有啲溝通先得㗎嘛，係咪？

K

L

答：如果佢--我諗下佢哋點運作啫，如果有溝通。

L

M

問：係嘞。咁佢係--即係佢係你哋又有話特別去就住佢哋個工作範圍，要求 LP 又好，AP 又好，向你哋匯報嘅，唔需要㗎嘛？

M

N

答：去到咁細，我諗唔使，係咪？即係佢--即係個地盤嘅運作，即係如果你--即係要去到咁細，我諗 generate 好多嘅 paperwork，又未必好有效囉，我覺得。

N

O

問：咁樣講，啱唔啱呢，就話你係 expect 佢哋有溝通，但係佢哋實際上有冇溝通呢，你哋係冇從得知嘅？

O

P

答：唔係，即係我覺得係...

P

Q

問：除咗睇個簽名之外。

Q

R

答：你 AP 簽個名落去，話啲喉料掂，話啲嘢跟足圖做--即係我唔知佢或者唔直接同個 LP 溝通喇，咁佢起碼都同個 plumbing contractor，唔同個 plumbing contractor，你都可能同個 main contractor 溝通，係咪？或者同自己班 supervisory staff。因為 AP，你知其實喺地盤係有一班駐地盤嘅人員睇住晒啲嘢，即係當

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佢...

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主席：唔係，個問題就係因為 ultimately, ultimately, 你哋供水係根據佢哋兩個人嘅簽名㗎嘛。

E

F

答：係呀，係呀。

F

G

主席：啱唔啱呀？

G

H

答：啱，啱。

H

I

主席：所以基本上許大律師，即係咁你基於乜嘢嘢去供水畀人哋呢？

I

J

答：基於 AP 確認咗佢啲嘢跟足。

J

K

主席：即係純粹兩個簽名，如果佢？

K

L

答：係呀，佢個簽名其實好重要㗎，我覺得。即係佢簽得個名落去，應該確認咗啲嘢，其實。

L

M

黎先生：咁佢係 Housing 又覺得，基於你嘅簽名搞掂㗎，嗰啲水電嗰個，係咪呀？

M

N

答：基於我哋簽名。

N

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O

P

主席：即係...

P

Q

Q

R

黎先生：房屋--房委會又覺得咩嘢呢？嗰度起好嘞，因為你都簽咗話畀佢有供水，佢又覺得咪又搞掂囉。

R

S

答：呢個其實唔係好啱，你 contractually 有咁清晰嘅要求，係咪呀？即係你喺個合約上，佢要跟住個合約做嘢㗎嘛。我覺得你 AP 除咗話要應酬...

S

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C

主席：唔係，如果你兩個政府部門，如果係 under 同一個 bureau 嘅話，
咁你個 bureau head 就有得解個囉嗎？你明唔明我意思呀？

C

D

答：唔啱，即係--嘎。

D

E

主席：即係你而家 so happen 係兩個人喺唔同嘅政策科裏面啫，...

E

F

答：其實唔緊要嘅，...

F

G

主席：...如果我係同一個政策科嘅，咁...

G

H

答：唔係，in respect of 就算 private sector，我哋都有同樣嘅
要求嘅，其實。

H

I

主席：唔，或者我哋食完飯先至再繼續喇，好唔好呀？

I

J

答：好呀。

J

K

K

下午 1 時正聆訊押後

L

L

下午 2 時 32 分恢復聆訊

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出席人士如前。

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水務署第四證人：黃仲良（水務署副署長）宣誓繼續作供
許偉強先生繼續盤問

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問：黃生，就轉一轉去另外一個課題。

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答：好。

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問：因為我哋之前都問過林署長，就有關一啲海外經驗嗰方面啲資訊，
我亦都知道你哋有位同事周先生亦都做咗一個口供，就講番出--解釋
番點解可能當時水務署就住一啲其他國家上面係發生嘅一啲有關
用咗鉛嘅一啲焊料引致嘅問題，可能當時就有特別去睇到，佢解釋咗。

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答：Okay。

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問：其中有啲包括話你哋有冇訂閱某一啲 journal 或者嗰件事係咪喺全世界有廣泛地報導，你哋所以唔知，係咪咁呀？

答：唔，唔，唔。

問：我就想問一問就係一個好簡單嘅啫，就係話你哋水務署，唔好理話每個國家個別事件發生得到嘅資訊係點樣，就住每個國家可能發生咗一啲事，例如我哋講緊蘇格蘭，講緊威爾斯，發生咗呢啲事之後，我哋都知道可能佢哋喺法例上面都有啲嘅跟進嘅，可能都做咗一啲多一重可能嘅一啲監管，或者喺法例上面啲要求多咗啲嘅，我想問下你哋水務署，例如就住其他國家，例如啲歐美國家，佢哋喺法例上面啲改進，你哋有冇啲乜嘢部門嘅同事係負責去睇呢方面嘅資訊？

答：如果根據我所知，如果去到講其他國家嘅法例嘅改變啲啲，就未必有同事話專責去跟番啲法例嘅。

問：明白。例如可能當年，例如蘇格蘭，佢就事件發生咗之後，佢哋有兩個階段嘅調查，最後可能佢哋就話因應啲啲調查之後，就決定法例上面，就就住可能如果用咗啲啲含鉛嘅焊料呢方面，可能加重咗個刑罰嘍喇咁樣，呢方面，就你哋唔會話特別有人去睇呢方面嘅資訊？

答：你意思係蘇格蘭當年因應呢件事，喺個法例上加重咗刑罰呀？

問：係，係喇，係喇。

答：我自己就唔係好知道有件咁嘅事。

問：即係你哋部門入面都唔會話特別有一個小組去到就住外國啲啲對於水務啲個法例嘅演變，即係你哋要睇住嘅咁？

答：我諗周世威先生都會再詳細啲講番我哋部門關於 R&D 啲方面，其實我哋嘅工作都分得幾散嘅，可能每個 division 佢哋自己嘅工作嘅範疇，有啲乜嘢，會有啲 R&D，至於你話去到咁細，講到話外國有冇啲法例上嘅更改，可能未必去到咁細嘅。

不過我都想講一講，其實就實在以我哋香港嘅水務署咁嘅資源，都唔係話大得咁緊要，其實一個--我覺得喇吓，即係一個較為有效嘅方法，其實係最好睇住幾個喺世界上有 authority 嘅組織嘅，譬如我哋 BSI，譬如 WHO，因為佢哋--我哋個睇法，就係呢啲咁嘅組織，其實個 radar 大好多嘅，佢哋可能有好多專責嘅人去搜集全世界，因為其實可能大家都明白，全世界每日可能 even 喺水務上面發生嘅

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事，我諗都好多嘅，如果我哋能夠跟進幾個大概 association 佢哋對呢啲嘢有認知嘅，佢哋有咩嘢特別嘅消息或者透過佢哋嚟收集，可能會有效嘅。

問：好喇，或者我哋討論一下你哋嘅資源上係例如做得到嘅，或者係其實已經做咗嘅，我哋見到有啲嘢，入面我同你討論一下幾點。

答：好，好，好呀。

問：首先我就想同你講一講，就你都一定之前有討論過或者有聽過，就係嗰個水諮會，佢有個 paper No. 7 嘅，我哋都有睇過呢樣嘢。

答：聽過，聽過。

問：如果你睇番嗰個 C21 個文件夾，周先生嘅口供，喺 C21 嘅 18932，唔該，佢就解釋番當時嗰個 paper No. 7 嗰個準備同埋準備呢一份文件嘅時候考慮過啲咩嘢資料等等佢都有講，或者我哋可以睇一睇，43 嗰度佢就話個“Paper No. 7 was prepared”，佢之前都係講番一啲可能當年嗰啲食水喉有出現銹嗰啲問題，或者係我哋講緊啲黃水嘅問題，講番呢個背景。

“Paper No. 7 was prepared with the focus of concern on the proper maintenance and cleansing of the plumbing system of existing buildings. Based on the literature research at that time, lead pipes and leaded-solder copper pipes were widely used in”英國同埋美國，“during their development stages”等等，“In contrast, the use of leaded pipes was banned in Hong Kong since as early as 1938, followed by the ban of leaded solder in 1987. Further, the ban of unlined GI pipes in December 1995, unlined GI pipes were commonly used in Hong Kong for fresh water inside service in the then existing buildings.”，跟住佢就話，所以個“the risk of presence of lead in water in the UK and USA had no direct application to Hong Kong.”咁。

首先有一樣嘢想問下你嘅，就係就住用銅喉先，講用銅喉呢樣嘢，我哋都聽過房署、房委會或者有啲其他作供嘅證人都有講過，就係其實呢個做呢個食水喉用銅喉呢方面，其實喺 80 年代開始都有用嘅。

答：啱，啱，啱。

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問：呢樣嘢你都知嘅，係咪呀？

答：係，知，知，知。

問：知道嘅。如果我哋再睇下跟住佢個證供--周先生個證供嗰度，佢就講，佢就話嗰個--佢就提到一個美國嘅文件，一個 USEPA 嘅 leaflet。

“Lead in Your Drinking Water issued in 1993 was referred by counsel for the Commission during the hearing on” 11月2號，“According to WSD”嘅“records, the said leaflet was within the research materials leading to the preparation of Paper No. 7. Be that as it may”，“the interest and focus of Paper No. 7”就“on the proper maintenance and cleansing of the plumbing system in existing buildings.”

如果我哋睇番嗰個 paper No. 7，我哋經常關注嘅一點，我哋睇番嗰個 paper No. 7，如果我哋去到 Y1，我帶你睇多兩份文件，跟住我哋可以再討論一下。

答：好呀，好呀。

問：Y1 嘅第 7 頁，呢個就係我哋一路睇緊 paper No. 7 其中一段，即係我哋比較有興趣啲嘅，就係呢度第 9 段就所講話就係英國同埋美國，“the most common problem”，呢個就係你哋同事做呢個 paper No. 7 得出嚟嘅其中一個佢個資訊嚟嘅，就係“is the presence of lead in water since during their development stage, lead pipes and lead-soldered copper pipes were widely used. The problem has to be addressed by dosing inhibiting chemical additives during the water supply treatment process to suppress ionisation of lead and by re-plumbing.”等等。

呢度佢都講出咗，就係話嚟其他國家，一個比較常見嘅問題都係就話用鉛造嘅喉喇之前，或者係一啲 leaded solder copper pipes，我哋而家講緊嗰啲嘢，即係 leaded solder 嘅 copper pipers 就會可能釋出有鉛呢個問題，呢個就當時你嘅同事就可能睇咗啲文憲之後就講番出嚟。

其中一個佢講到話睇過嘅文憲，我哋都可以參考一下，就係 A1 嘅，A1 399，佢呢度就係嗰個美國嗰個--我哋知道係叫

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Environmental Protection Agency，即係嗰個環保嘅組織嚟嘅，佢亦都係作出一啲咁樣嘅--呢啲文件就畀公眾，等佢哋知道就係食水安全所涉及一啲嘅問題嘅，呢個其中我如果睇到 399，我哋睇下中間，睇唔睇到個“Health threats from lead”嗰度？

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答：“Health threats”，睇到。

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問：再落嚟，見到“Sources of lead in drinking water”？

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答：係。

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問：呢度佢就話啲“Lead levels in your drinking water are likely to be highest”，如果--其中一樣，就係“your home has copper pipes with solder”，呢樣嘢都好清楚講出咗，就係話可能個 leaded solder 引致嘅問題嘅。

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另外再清楚啲，我哋可以睇下 401 頁，401 頁就一開頭嗰陣時就講緊 1986 年 6 月個時候，就當時列根總統，美國，就“signed amendments to the Safe Drinking Water Act. These amendments require the use of ‘lead-free’ pipe, solder, and flux in the installation or repair of any public water system”，跟住就亦都講，就話“Under the provisions of these amendments, solders and flux will be considered ‘lead-free’”，如果佢哋 contain 一個某個 level 咁樣嘅，即係講到都幾清楚，嗰啲規格應該係點樣。

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呢個就係呢個我哋講緊 1993 年，即係你哋同事話都考慮過呢份文件，而出咗呢份 paper No. 7 嘅，即係呢段...

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答：即係睇過，佢睇過呢份文件。

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問：係，佢有睇過呢份文件，paper No. 7。Paper No. 7 呢份文件裏面其實有一個我哋都幾清楚嘅一點，就係都有提出過，就係話水中含鉛其中一個原因，如果我哋睇下歐美國家，都係同呢一個 leaded solder 其中一個比較大嘅一個原因嚟嘅，似乎你個同事當年做呢份 paper 嘅時候，就應該就咁純粹從文字上睇，佢就清楚有呢樣嘢嘅，即係 leaded solder 會引致到水中含鉛呢樣嘢，佢係知道有呢樣嘢嘅。我想就問一問你自己有冇印象，就係當時呢個 paper No. 7 publish 嘅時候--因為佢唔單只係 publish 嘅，喺個水諮會嗰陣時大家都有討論過嘅，我哋亦都有文件，啲會議紀錄都係證明到呢樣嘢嘅。

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答：係。

問：水諮會有討論過，你哋內部自己同事又做過呢份咁嘅文件，paper No. 7 出嚟，你哋當時水務署其實--應該咁講，你哋個同事做份--起碼做呢份文件嘅同事，佢都應該係知道嗰個 leaded solder 會引起個危險喺邊度，同意嘛？

答：同意，同意。

問：但係你哋水務署嗰方面，就內部就有話特別就住呢件事有任何一啲比較有規模嘅溝通，係咪呀？當時。

答：第一，我有第一手資料嘅，因為當其時我就有 involve 喺水諮會嘅 paper 咁，事後都聽番啲同事講，即係因應呢件事，實在好似周生個 statement 講，當其時整個 exercise，如果你睇番啲前文後理，當其時就話最想可唔可以能夠喺水喉攞到水飲，其中一個好大概 concern，當其時就話啲 GI 喉生銹嘅，當然呢個同事嗰陣時係做咗好多 research，我聽佢講過，佢話嗰陣時有成六、七--四百定六百頁嘅文件嘅，可能佢睇到呢樣嘢，我自己推算，即係我純粹自己推算，因為呢份文件，我諗 2000 年嗰陣時做嘅，其中可能一個--你睇番呢個，佢都有講，其實喺美國就係 86 年之前可能有人用 leaded solder，86 年因為佢就 ban 咗咁樣。

我相信如果喺香港嘅情況，我哋就大約都係 similar 時間我哋都 ban 咗用 leaded solder 嘅，但係 before 譬如 87 年之前，香港我相信用 solder 去 joint copper pipe 應該係少之又少嘅，因為當其時第一，就係最 common 嘅就係用 GI 喉，我今朝講過係用 mechanical。就算有啲所謂豪宅真係有用 copper pipe 嘅，其實都當其時我嘅理解，都係主要用 mechanical joint 嘅。

所以你話個同事當其時睇到呢樣嘢，係咪諗到喺美國呢個 leaded solder 可以直接 apply 喺香港，或者即刻將兩樣嘢 correlate，我推斷，佢可能嗰陣時有咁將兩件嘢捩埋一齊。

問：即係當時，你嘅意思就係你...

主席：都唔係，對唔住，唔係嗰，因為簡國良先生咪話畀我哋聽佢一早已經做嗰啲叫做咩嘢？抹咩嘢？錫瓜？

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答：九幾年嗰時，好似，係咪呀？

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主席：佢話八--唔係，...

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答：喺深圳做嗰陣時，係咪呀？

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主席：...佢七幾年已經開始。

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問：錫瓜。

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主席：錫瓜。

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答：七幾年佢話用--唔係，呢個我不便評論，因為我嘅理解就係之前係少嘅。

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主席：最初可能係少，但係去到八幾年，其實都已經都幾 common 㗎喇。

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答：你意思係用 solder joint copper pipes？

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主席：Solder joints，係呀。

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答：唔係，我有同啲所謂 LP 傾過，不過當然呢個唔係好準確，我嘅理解，佢哋嘅說法就話早期嘅 copper pipe 係多數係 mechanical。

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主席：早期係 mechanical，我接受，但係你去到 1987 年，你話 ban 咗用呢一個有鉛嘅 solder，請問嗰陣時你哋水務署有冇做過啲咩嘢話畀出面啲人聽唔准用咁樣樣呢？

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答：第一，我有睇過當其時嘅文件，不過你問我，我估都唔會話特別 highlight 呢樣嘢，因為個 British Standard 已經轉咗，當其時...

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主席：乜嘢話？

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答：即係個 British Standard 轉咗，即係話要唔准用...

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主席：British Standard 轉咗，係。

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答：同埋我嘅認知，當其時真係實在唔係 common 㗎啫，如果用--不過你

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話簡國良先生有第二個講法，我嘅認知，就唔係好 common。

主席：因為點解呢？因為你如果個--老老實實，我都明白你 2015 年先至做副署長，係咪？但係個問題唔可以個個人行到上嚟都話「我當時」--因為老老實實，嗰陣時個個都年輕，係咪？個個都係可能未做到呢個位，咁唔可以個個人行到上嚟都話「法官，你問我，我唔知嚟喎，嗰陣時我仲係做好 junior 嘅咋喎，我乜都唔知嚟喎。」如果係咁，個個都唔使上嚟答嚟喎。

答：唔係，okay，不過我真係冇睇過啲 document。

主席：唔係，好喇，如果係既然係 1987 年唔知點解，2001 年或者 2004 年又有啲咩嘢特別嘅原因要令致到水務署喺 VTC 嗰啲課程上高話要話畀人哋聽呢？

答：呢個--對唔住，我都答唔到，因為我手頭冇，可能要搵一搵我林正文先生，睇下可唔可以叫佢搵定啲資料，答一答。

主席：繼續。

許偉強先生：好。

問：咁我問一問你，你話你當時就有參與，可能講唔到當時嗰個情況，我想問下你，而家你哋睇番嗰個 paper No. 7，我相信你哋一定水務署有討論番當時係點，所以周生亦都寫番 statement 出嚟解釋喇。

答：係呀，係呀，係。

問：如果我哋純粹睇文件嚟講，而家咁睇，當時 paper No. 7 文件入面，內容入面就講出咗，起碼 identify 咗，道出咗一啲含鉛嘅焊料有機會產生嘅一啲危機，美國嗰份文憲亦都係帶出咗呢個問題，如果我咁講，你同唔同意呢？即係當時你有個同事又專責去做一份咁樣嘅研究報告，起碼當時係有一個機會畀你哋水務署去討論一下嗰個 paper No. 7 入面所講及嘅一啲關於可能水嘅質量有機會牽涉到嘅危險同埋呢個含鉛焊料有關嘅，起碼有一個機會你哋水務署可以探討下呢個問題嘛？

答：其實我就較難 comment on 呢個 point 嘅，因為其實當其時，如果

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你睇番件事個 context，就係話佢哋真係個 focus 係睇緊嗰個 GI 含鉛，我諗呢度都講過好多次，即係關於嗰個生銹水嗰個嘅問題嘅。

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問：我想問一問你嘅，就係我哋知道，睇到文件，知道 1993 年嘅時候，ASD，即係呢個--應該係...

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主席：建築署。

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問：...建築署，Architecture...

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答：係，建築署，係。

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問：嗰個建築署入面，佢哋所列明有啲 specifications 入面，都已經寫到明係要用無鉛嘅焊料嘅，呢樣嘢你哋水務署知唔知？即係 93 年，建築署已經有啲咁嘅要求，你哋知唔知道？

J

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K

L

答：我自己就唔知，不過事後傾番，就聽到有--建築署話佢哋 93 年開始已經將 copper pipe 寫番入佢哋個 specification。

L

M

問：冇錯，即係你話當時你就唔知，不過而家發生咗呢件事之後，你有聽過？

M

N

答：係，係，係，我了解到就，係，聽過。

N

O

問：我哋再睇下另外一個即係我哋所講嘅可能有一個機會當時水務署可以就住呢個問題作一啲更加深入少少嘅討論嘅，就係我哋同 VTC 入面嘅有關人士討論嘅時候都帶出一個咁嘅問題嘅，或者我哋睇一睇呢個 W1，W1 486，呢個就係我哋知道就係有關一啲水務署同埋 VTC 間唔中有啲 working party 嘅，即係呢樣嘢，個 working party 間唔中有啲會議嘅，呢個你知道㗎？

O

P

P

Q

Q

R

答：係。

R

S

問：喺呢個 182 頁，就係就住一個--當年就係 2004 年嘅一個會議入面...

S

T

答：Sorry，182？

T

U

問：Sorry，482 頁。

U

V

V

B

B

C

答：四百...

C

D

問：唔好意思，482頁。如果你睇到，就係喺呢一頁嘅最後嗰度，第8段，
“AOB”嗰度，有位何先生，我哋睇番何先生，就應該係當時水務署嘅
一個 engineer 嚟嘅，佢就聯同另外兩位 senior engineer 就係
出席呢個會議嘅，你都睇到喺 480 頁嗰個名單嗰度--人物名單嗰度
都睇到嘅。

D

E

E

F

答：唔。

F

G

G

H

問：呢個我哋見到你哋水務署嘅呢個工程師都話，即係佢表達咗佢有啲關
注，就係就住一個“lead-free soldering material in pipe
connection”，呢個好仔細嘅，點解我咁講呢？就係佢唔係就咁講
好籠統地好似你剛才講，可能一啲好籠統嘅生銹水問題或者係一啲好
籠統嘅就食水質量嘅問題，佢呢個好清楚帶出咗一個點，就係講緊
“lead-free soldering material in pipe connection”，
就好清楚嘅呢度。我哋亦都知道其實呢個 2004 年嘅時候就係比較廣
泛用銅喉作為食水喉嘅嗰陣時㗎喇。

H

I

I

J

J

K

K

答：係，係。

L

L

問：呢位何先生就喺你哋個...

M

M

答：水務署。

N

N

問：...水務署就係做呢個工程師。

O

O

答：Engineer, engineer, 係。

P

P

問：我又想問下，你哋有冇話研究過當時其實何先生去開呢個會嘅時候要
帶出呢個問題，之前有冇同水務署可能傾過，即係表達過佢呢方面嘅
關注等等，有冇去--你有冇...

Q

Q

答：我自己真係冇睇過相關文件，所以我話可能要搵下--遲啲我同事睇下
可唔可以攞番啲資料上嚟，再解釋番畀大家聽。

R

R

S

問：好，因為...

S

T

T

U

黎先生：你知唔知呢位何先生而家仲喺唔喺水務署？

U

V

V

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C

答：可能喺，可能喺，我唔肯定，對唔住，呢樣嘢，不過可以再問林生跟一跟。

C

D

D

E

問：呢位係...

E

F

F

G

主席：Senior Engineer 嚟。

G

H

答：K W Ho。

H

I

問：K W Ho。

I

J

答：係，Ho，K W Ho。

J

K

問：你可能要返去查一查，睇下會唔會...

K

L

答：係呀，要，要，要，因為我唔係好肯定，應該係介乎退休與未退休之間嗰啲同事。

L

M

問：但係就住你嚟作供之前，你就冇特別翻閱過啲咩嘢紀錄，...

M

N

答：冇，我有，我有睇過。

N

O

問：...就睇番佢呢一個咁樣嘅，即係當時嘅陳述係點解會呢樣...

O

P

答：我有，我自己冇。

P

Q

問：好。另外我哋有啲資訊就係呢一個水喉同埋潔具商會畀我哋一啲嘅資訊嚟嘅，我哋都可以討論一下，就係呢個應該喺 AB1，AB1，就係有一位陳先生，就係陳尚仁先生作供嗰陣時都同我哋講解過佢哋嗰個商會其實對於呢個含鉛嗰啲物料其實都有討論過同埋發表過一啲嘅刊物或者意見，首先我想問一問黃生你，你認唔認識陳生，陳...

Q

R

R

S

S

T

答：認識，認識。

T

U

問：認識嘅。都係係咪透過商會嗰啲活動認識嘍？

U

V

答：應該唔係，因為喺--如果我冇記錯，應該係 2009 年嘅，佢嗰陣時係

V

B

B

C

水諮會一個 member 嚟嘅，就嗰陣時水諮會會 from time to time 都會上去東江視察嘅，我試過一次係同佢一齊上去東江視察過一次，咁就認識佢咁樣樣。

C

D

D

E

問：喺邊度視察話，你話去？

E

F

答：去東江，去東江視察。

F

G

問：東江？

G

H

問：之後就一路都大家有聯繫？

H

I

答：認識喇，可以咁講。

I

J

問：認識？

J

K

答：係。

K

L

問：首先我想帶你睇一睇其中一份陳生提交出嚟嘅文件，AB1 第 93 頁，呢度就係佢話當時就係講緊呢個 1998 年嘅時候，佢哋商會就出咗一份咁樣嘅好似一個通知咁樣，就畀業界嘅咁樣。首先就想問下你哋水務署有冇 check 到過話有冇收過呢啲咁嘅通知？

L

M

M

N

答：我唔肯定佢哋有冇 check 過。

N

O

問：唔肯定？

O

P

答：係，唔肯定有冇 check 過。

P

Q

問：如果我哋睇番呢一個通知嘅內容，其實我哋問過陳生點解當時會發呢一個咁嘅通知，佢自己都唔能夠好確實當時個背景點解，即係實質上點解要出呢一份通知，但係如果我哋睇呢個內容，就都幾清晰嘅，個內容都係話如果要用走錫配件，就必須要用無鉛成分，如果用無錫嘅配件，就必須用無鉛嘅錫條咁樣。

Q

S

答：係，係。

S

T

問：你就唔知道話--知唔知道當時點解會發出呢個咁嘅通知？

T

U

答：我唔清楚呢樣，我唔清楚。

U

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問：你唔清楚，係咪呀？

答：係。

問：我亦都想問一問你，就係佢跟住及後佢就話喺 2014 同埋 15 年有啲周年嘅聚餐，就有派發過有啲嘅刊物或者有啲文件，就係就住啲 lead-free 嘅 copper alloys，即係啲銅嘅銅喉嘅部件，就發出咗一啲嘅資訊嘅，我首先想問一問你，2014 同埋 2015，首先講 2014 先，嗰個聚餐你有冇出席㗎？

答：如果睇個--因為我唔係真係記得好清楚，如果睇啲 date of 嗰兩個 article，就我有出席嘅機會係大嘅，因為我喺 2014 年我仲喺發展局，我係返番水務署係 2015 年 4 月 8 號嘅。

問：2015 年 4 月。

答：我見佢第二個 article 都係 April 2015，所以我有乜印象好似去過，不過我真係唔敢百分百肯定。

問：有冇印象話你曾經喺某處得到呢啲咁嘅文件？

答：我應該未見過嘅，呢兩份嘢我就未見過。

問：都未見過，唔緊要，如果有見過都好喇，或者麻煩你睇一睇第 98 頁。

答：98，okay。

問：98 年嗰度，就我哋而家睇到頂頂開頭，就係講啲“Legislations Regulating” “Lead content”咁，呢度或者我讀一讀出嚟，佢話“Despite that there is still yet regulations to control the Lead content in the water supply fittings in Hong Kong nor the Europe, an Act was launched in the California”，USA，就喺 2010 年嘅，“to control the Lead content of the water supply system as follows”，咁就講出啲規格同埋有啲乜嘢嘅物料係需要用無鉛嘅，呢個就係美國當時嘅做法。

首先我想問一問你，就係就住美國，佢呢度講，就係例如加州，佢哋喺 2010 年所話希望--即係要立法，就去管制，特別就住一啲有鉛嘅有關食水銅喉嘅部件或者物料一啲嘅管制呢方面，你哋水務署有冇任何認知，即係對於嗰個...

B

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C

答：呢個我自己都聽過嘅，...

C

D

問：聽過嘅？

D

E

答：...即係佢哋行，即係話將嗰--因為佢哋以前所謂 lead-free，我嘅印象中，係 8 個 per cent 為之 lead-free 嘅，copper fitting，到後來佢哋就定咗一條新例，我印象中，如果我有記錯，好似 effective 都要去到 2015 年先正式生效嘅，不過呢個我唔準確嘅。

E

F

F

G

問：你話你聽過呢個加州就住呢方面立法嘅事情，咁...

G

H

答：美國，我諗 in general，佢...

H

I

問：係喇，美國，即係...

I

J

答：其實我--唔係立法嘅，其實我知道佢 impose 咗一啲咁嘅有新嘅 requirement。

J

K

問：對於--尤其是係對於鉛嗰方面嘅新 require...

K

L

答：Copper alloy fitting，因為嗰陣時有一段時間都好爭論咩嘢叫 lead-free 嘅，嗰陣時就我有--如果業界有啲傾起嗰時，佢都話畀我聽其實喺美國以前所謂 lead-free 嘅 copper alloy fitting 係講緊 8 個 per cent lead 都叫做 lead-free 嘅，後來佢哋就收緊咗，就去到 0.25 個 per cent 咁樣樣。

L

M

M

N

N

O

問：停一停先。

O

P

答：好呀，好呀。

P

Q

問：我想問一問你，就係你剛才話喺業界，都就住個 lead-free 嘅定義係都有過討論嘅？

Q

R

答：唔係，應該話咁講，即係嗰陣時有啲--即係啱啱發生呢件事嗰陣時，有啲人都話 lead-free 係咪去到 absolutely 零嗰啲咁嘅討論嘅，啲報紙都有問呢啲問題嘅，有...

R

S

S

T

問：即係水務署係有參與呢方面嘅討論嘅？

T

U

答：我唔可以講話參唔參與討論，即係知道有啲咁嘅討論，所以嗰陣時我就聽過有呢樣嘢，就話喺美國 lead-free 曾經一段時間佢哋用 8 個

U

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per cent 為之 lead-free 嘅，後來佢哋就將呢樣嘢收緊咗就 0.25 咁樣。

C

D

問：唔好意思，我想搞清楚嗰啲事件嗰個來龍去脈嘅啫。

D

E

答：好呀，好，okay，okay。

E

F

問：就係你講話喺業界就有討論關於嗰個--即係有啲人...

F

G

答：或者誤會咗，我唔係話--即係其實如果大家有印象，有一段時間，當含鉛事件出嚟，譬如--我最記得我自己都去過一個記者會，咁 copper pipe，我哋話基本上係 lead-free 嘅，然後有啲 media 嘅朋友亦都搵到出嚟話「唔係喎，我哋做咗一條 copper pipe，個 lead content 係零點零零幾個 per cent 喎，點為之 free 呀？」咁樣樣。我哋就嗰段時間都解釋番其實所謂好多嘢所謂 lead-free，背後其實有個 per cent 喺度嘅，正如嗰個 lead-free solder 都唔係真係零嘅其實。

G

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H

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J

K

問：即係佢講個 grading，嗰個 grading 就未必一定係完全係零嘅？

K

L

答：係喇，係喇，係喇，即係你睇番美國而家所謂 lead-free solder，其實佢都係講緊 0.2 個 per cent lead 嘅。

L

M

問：我想問一問，你話...

M

N

答：我就得知咗有呢樣嘢。

N

O

問：...你話就住呢方面，可能有人提出過呢啲疑問咩嘢，呢個都係鉛水事件之後嘅事嚟嘅，係咪呀？

O

P

答：係，我就知呢樣。

P

Q

問：之前你業界有冇就住 lead-free --你剛才講話 lead-free 呢個定義討論，之前係有嘅？

Q

R

R

S

答：我唔知道，我相信未必有。

S

T

問：好，你有冇聽過話呢個美國有個叫做 Reduction of Lead in Drinking Water Act，2014？

T

U

答：咁準確我就唔知，咁準確就。

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問：Okay。好，另外我就想問一問你另外一個問題，就係就住我哋聽咗都幾多人嘅證供，就係就住呢個驗水，即係個抽水辦應該點，我唔會同你討論啲啲細節。

答：Okay，好。

問：因為陳健民先生亦都解釋咗佢嘅睇法，佢亦都係畀出咗佢嘅證供，就係支持番佢當時個決定，...

答：嘅講法，係。

問：...就話鉛水事件發生嘅時候，攞個水辦應該係攞頭浸水定係攞一啲沖咗幾分鐘嘅水，大家都有好多討論，你本人可能亦都聽佢個證供，亦都聽過我哋委員會請番嚟嘅專家 Prof Lee、Prof Fawell，佢哋都講出咗話佢哋就似乎唔係好同意陳健民先生個個話如果要係去調查啲個水中含鉛啲個成分，就如果淨係攞沖咗個水，似乎可能代表性唔係咁足夠咁樣呢方面，即係大家都...

答：大家都有啲討論。

問：...講咗自己嘅立場，水務署亦都聽咗咁多人嘅意見，我想問一問，就住方向性地或者你哋嘅心態上面去諗下，就係聽咗咁多人嘅意見喇而家，亦都有兩個咁權威嘅專家都講出咗自己個睇法，其中一個睇法都係講出咗，就係話如果你係淨係用呢啲沖咗嘅水可能就唔係咁全面嘅，亦都有機會就有一啲可能原先可能有影響到啲啲，會唔會佢哋如果係更加全面地幫佢哋驗水嘅，可能佢哋啲個居民嘅疑慮可以解除多啲咁樣。

水務署聽咗咁多人嘅意見喇而家，你哋對於例如喺驗水、抽水辦方面，到而家為止，我想問一問，就係你哋個方向會係點呢？即係就住一啲可能係之前列入咗係冇受影響嘅屋邨，但係當時係抽咗一啲沖咗嘅水做水辦嘅，你哋會唔會再比較大規模啲、全面啲幫啲啲咁樣嘅居民去再去做多啲水辦去測試，嚟釋除佢哋嘅疑慮呢？我想知道你哋嘅方向係點？

答：我自己咁睇，即係其實以陳健民先生佢都好詳細解釋番當日我哋啲個抽水辦嘅方法咁樣樣，我都留意到李行偉先生--教授，佢亦都有用咗佢一個獨立嘅 sampling 嘅方法去做，似乎我而家睇番兩個--即係用一個好唔同嘅 approach 去處理呢個問題嘅時候，得出嘅結果其實都幾吻合嘅。所以如果你問我，由一個科學角度嚟睇，我就覺得既然仲有一個--兩個幾 independent 嘅方法做出嚟個結果都吻合嘅，個結

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果應該係可靠嘅。

問：因為始終李教授都講出咗，喺個證人台都講出咗，由於時間上面或者資源上面，可能個限制，即係佢哋做一份報告，冇可能話好全面地，就住一啲冇受影響，即係而家列作冇受影響嗰啲屋邨咁去做一啲好足夠嘅水辦嘅測試嘅，我個問題就係而家水務署知道咗呢啲咁嘅專家佢哋嘅睇法，你覺唔覺得有個需要就住一啲可能列入咗係冇影響屋邨嘅居民嗰個食水嗰方面，係再進一步嘅呢個水辦嘅測試，嚟到真係釋除咗佢哋嘅疑慮呢咁？

答：其實李教授，我見到佢都做咗有六條係冇受影響嘅屋邨嘅，個 sample 都唔算細嘅，佢得出嘅結果其實係吻合嘅，正如我頭先咁講，大家用一個唔同嘅方法去 approach 同一個問題，而得出個結果其實係吻合嘅，雖然你話李教授個 sample which 我其實覺得都唔細嘅，其實佢都抽咗六條屋邨，independently 去做一樣嘢，去 approach 一樣嘢，得出嘅結果大家吻合到，我覺得係個結果係可靠。加上其實我哋嗰面做嗰個 sampling 就 more systematic 嘅，其實同埋大規模嘅，我諗如果比較個水辦，我哋嗰面都比較多一啲。所以我嘅睇法就其實幾好，用兩個唔同嘅 approach 去得出同一個結果，科學上其實即係一個幾好，令到我哋相信個結果其實幾 reliable。

問：但係咁講嘞，呢個李教授佢嘅資源上嘅限制或者時間上面嘅限制，可能真係咁嘞，佢做出嚟嘅可能係...

答：我-- sorry。

問：...對你哋嚟講，你覺得可能係吻合，但係作為水務署，如果你哋而家知道咗可能淨係抽一個沖咗嘅水未必話真係一個好全面嘅做法，如果你作為一個可能係列入咗冇受影響屋邨嘅居民，可能你都會心中會存疑，就係話究竟真係有冇事呢，你唔可以排除呢樣嘢㗎？

答：其實我唔係好同意話咁好彩呢樣嘢嘅，即係科學上其實佢都做咗成六條邨，佢唔係擺一條邨嚟同我比較，佢做咗六條邨，and then 我哋--其實佢--如果你有為意，佢仲有做咗十一條 affected estate 嘅，係咪呀？你嗰條分界線佢都做咗出嚟，大家個結果吻合嘅，我哋做到 affected，佢又 affected，我哋做到 affected，佢都吻合我哋嘅結果，我咁睇，即係其實個結果應該可靠。

問：即係講到尾，都係例如聽咗李教授、聽咗 Prof Fawell 嘅意見，水務署嘅立場，我哋講個方向嚟講，都係而家個決定都應該唔會...

B

B

C

答：起碼我--即係我真係從一個科學角度去諗呢件事。

C

D

問：撇開用科學角度先，我而家純粹係話作為一個--你話 PR 又好，或者作為一個負責任嘅政府部門都好，睇咗咁多證供，聽咗咁多專家嘅意見，你哋係咪而家個方向或者你嘅取態都係就住嗰啲而家被列入不受影響嘅屋邨，唔會再做進一步嘅水辦測試？

D

E

E

F

答：我話我之前做嘅結果其實係可靠，我覺得。

F

G

問：即係你哋都唔打算--...

G

H

答：暫時睇唔到--我睇唔到個需要，暫時。

H

I

問：...唔打算再做進一步嘅水辦...

I

J

答：我而家睇唔到個需要。

J

K

問：好。最後我想問一問你嘅，就係就住 Prof Fawell 有幾個意見都同你探討一下。睇一睇 v1，如果我哋 v1，你睇一睇第 118 頁，118 頁第 74 段開始，就 Prof Fawell 就講番佢自己嘅一啲 opinion 或者 recommendations 嘅，我哋睇下 47 頁佢呢度就係話有個需要，就係“for formal drinking water standards”...

K

L

L

M

答：Sorry，第幾頁？

M

N

問：...同埋一個 regulatory 嘅“structure for drinking water for Hong Kong to ensure that there is co-ordination of all matters relating to drinking water quality.”...

N

O

O

P

答：Sorry，唔好意思，第幾頁？

P

Q

問：唔好意思，118。

Q

R

答：118，okay。

R

S

問：係喇，118，74 段嗰度。

S

T

答：Okay。

T

U

問：我哋睇到佢其中一個建議就係話需要有一個所謂 regulatory 嘅部門或者一個組織去到做一個中央統籌啲嘅工作嘅，統籌，就話就住點樣去確保食水安全、質量好，就住多方面去做一個檢視。如果你睇一睇

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呢一個第 75 頁，佢就講出...

答：75 頁？

問：唔好意思，第 75 段，119 頁，第 75 段嗰度，佢都係講番例如一啲其他英國或者其他國家就有一個獨立嘅 regulator for drinking water quality，佢都覺得呢個係一個幾好嘅做法嚟嘅。

我想問一問，就係就住呢一個建議，有一個獨立嘅 regulator 去到全面啲，唔好話淨係各家自掃門前雪，就唔好淨係獨自己理自己，Prof Fawell 經常就強調要有 co-ordination，唔好淨係聽咗自己啲嘢、做咗自己啲嘢就算，大家要合作嘅，所以就先至建議有一個咁樣嘅獨立嘅一個咁樣嘅 regulator，去做一個全面食水檢視嘅一個工作。你哋水務署睇完 professor 嘅意見，覺得呢樣嘢你哋同唔同意呢？

答：部門暫時未有一個好詳細嘅討論呢個問題，不過我自己個人意見，我都覺得--因為其實喺世界各地都有類似咁嘅架構嘅，我覺得呢個咁嘅方向係可以探討嘅。

問：即係你哋都覺得如果有一個獨立嘅 regulator 係會有佢嘅價值嘅度嘅？

答：咁樣，我第一，就喺個部門裏面未詳細討論呢個問題，Fawell 個 report 佢哋都係收咗唔係好耐，我自己嘅睇法就話其實喺世界各地好多嘅地方都有類似咁嘅架構，我覺得呢個方向係好值得探討。

問：好，唔緊要，我唔係叫你而家就認頭嘅。

答：Okay, okay。

問：我想知道你嘅取向係點嘅啫。

答：好呀，好呀。

問：另外就係第 76 段，你睇一睇，亦都 Prof Fawell 就講話 "I believe that it would be appropriate for WSD to consider creating the position of water quality manager who would report to the director and who would have the role of overseeing drinking water quality data and activities from all parts of the organisation. This

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role would also involve evaluation of the particular trends in water quality data and working to assist operational sections to work towards gradual improvement, which is a key part of the WHO framework for safe drinking water.”咁樣，呢個亦都係佢另外一個意見，就係話應該要再搵多一個 position，就係一個 water quality manager，等佢可以亦都係全面啲去 evaluate 下一啲國際嘅標準，同埋邊啲係適用喺香港度咁樣，呢一方面你哋又點睇呢？

答：我諗同頭先個個一樣，你問我，我覺得呢個係可以探討嘅。

問：第 77 段，“understand the need for and importance of bureaucracy, many of the policies and procedures seem to be fragmented between various documents.”，應該係 various departments，“I also understand that this gradually happens in many organisations as changes are made but it would be beneficial to consolidate and streamline all documents, particularly as changes are incorporated over time to make the documents easier to access and more transparent, and to ensure that the chance of misunderstanding and using out of date procedures is minimised.”。

剛才我哋食晏之前都有討論過，就話例如可能你哋就諗住個 AP 會做啲嘢，AP 可能個說法就話「我唔知我要做幾多嘢喇喎，我就可能假手於人。」咁樣，有好多人都可能會有呢啲咁樣嘅想法，就係話——未必好一致嘅，亦都係 Prof Fawell 經常講話有啲所謂 compartmentalisation 嘅一個問題，即係話大家只顧自己就唔得嘅，要有多啲協調嘅。你哋水務署就住呢方面嘅提議，就話可能要唔同嘅部門多啲協調、多啲去溝通嚟到去做一個好啲嘅方案，就住水嘅質量、安全，响呢方面你哋水務署有啲咩嘢睇法呢又？

答：其實我個睇法又未至於咁 compartmentalisation 嘅，即係其實我嘅理解，水務署同——我啲同事其實同譬如 Housing Department 都有一啲定期嘅會議，每半年有一個會，不過你話係咪即係 Fawell 呢個一個 general 嘅方向，我又覺得係 okay 嘅，一定係，因為永遠我覺得所有 system 都有 improvement 嘅空間嘅，同埋佢講緊呢個方向其實係一個好合適，盡量，希望透明，多啲 consolidation，多啲溝通，呢個我覺得永遠都係好嘅，咁係可以睇嘅我覺得。

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問：因為我諗 professor 嘅意思就唔係話開會就夠，即係唔係話你哋部門就大家有啲跨部門嘅會議就夠，一定要係你哋先嚟部門自己去諗咗大家要做啲乜嘢，然後有啲真係比較深層次嘅討論先有意思嘅，就唔係淨係話坐低傾完幾個項目，可能好似你話 paper No. 7 帶出咗個問題，但係又冇人去跟進嘅，亦都唔係話好理想，所以你哋有冇話諗過就住呢方面，有冇啲乜嘢進一步可以改善咁？

答：Detail 我真係而家講唔到，因為我有詳細研究，但係我覺得方向，呢個 Prof Fawell 提出嘅方向，我覺得係永遠都--係好嘅，即係因為佢希望 streamline 到啲嘢，能夠多啲溝通，我覺得呢個方向一定係好嘅，值得去...

問：好，最後我想返番去剛才我問你驗水嗰個問題。

答：係，好。

問：就係話我哋睇過李教授嗰個報告，起碼有一樣嘢就係話喺葵涌邨，佢所做嘅測試都驗到大概有十一個樣辦，葵涌就係一個 unaffected 嘅，呢個係 unaffected 嘅屋邨嚟嘅，佢應該就總...

答：有一個，有一個。

問：唔好意思。總共就係有大概十一個 samples 嘅，就而家驗到就係有超標嘅。

答：葵涌邨...

問：其中包括葵涌邨嘅，都包括咗例如葵涌邨，佢哋有啲嘅食水嘅樣辦都係超標嘅。

答：哦，佢嗰--即係嗰個可能有少少誤會，佢話--其實佢見到之前喺有五條屋邨，有啲...

問：因為佢喺個報告度提過你哋其實驗嘅時候都有啲結果，就住有啲 unaffected 嘅屋邨，就當時就係驗到都有十幾個樣辦其實都係超標嘅。

答：其實有五條邨，有十一個，其實應該係解釋番清楚，當日呢啲樣辦係經過我哋化驗師等等再睇過，就發覺個樣辦本身有啲偏差同埋有啲問題嘅，即係正如我諗大家最早期都知道，譬如水泉澳邨，我哋曾經都驗過水辦出嚟，超咗標嘅，後來就發覺因為當其時有裝修等等啲嘢

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進行緊，大家都明白嗰個分--即係我哋做緊而家嗰啲 lead 嗰個，其實即係好 trace 嘅咋，你跌一粒塵落去，已經成個結果影響咗。

嗰陣時我哋見到嗰個環境上面就係可能好多灰塵，於是乎喺--水泉澳邨，我印象中，佢哋係有 go back 返去再取過辦，甚至--如果我有記錯，喺附近嘅單位再擺辦，然後證實咗之前嗰個水辦係有偏差嘅。我諗嗰十一個水辦都係類似咁嘅情況。

問：講番當時個做法，你哋去到一啲屋邨嗰度做咗呢啲水辦嘅測試，跟住你哋就按照你哋得出嚟嘅結果，亦都係你哋自己嗰個解讀，同埋你哋聽咗專家嘅意見，就將佢有啲就分成咗 affected estates，有啲就 unaffected 嘅，因為 unaffected 嗰啲雖然係有啲超標咗嘅結果，...

答：唔可以咁講，其實 affected estate，以往其實我覺得都定一個幾 stringent 嘅 standard，當喺條邨裏面，可能擺個樣辦，只有一個樣辦超咗標，成條邨就 declare affected 㗎喇。

問：我想問一問當時作呢個決定就係話，你可能係葵涌邨嗰啲，佢都有啲樣辦，可能你講話係個別例子，有啲樣辦係超咗標嘅，但係就你哋決定都可以唔需要歸納佢作為一個 affected 嘅 estate 嘅...

答：應該咁講，其實當其時就應該係有我哋啲 chemist 有個 professional judgement，佢睇番啲數字同埋譬如有啲樣辦，佢哋好多時--我印象中，佢哋-- detail 我係唔知嘅，不過佢哋會追問番個 sampler 當日譬如「你喺個擺水辦嘅時候，個情況係點樣樣呀？」我記得佢哋講過有啲例子，譬如去到有一個廁所係好似好耐都有用嘅，再加上當其時上面仲有個抽氣扇好多塵嘅，你擺個樣辦其實會唔會造成污染呢咁樣，但係一定唔會話就咁唔要佢就算嘅，一定係要 go back 番再取過樣，再睇番，甚至如果有需要，再做一啲其他嘅 investigation 去 confirm 番究竟嗰個辦係咪可以，因為我諗陳健民先生佢哋作為科學家，都係一啲科學家，佢哋都係用一個好 scientific 嘅方法去睇番所有嘅樣辦嘅結果嘅。

許偉強先生：我有其他嘅問題。

何先生盤問

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問：副署長，我代表房委嘅。就想今朝你都介紹過，如果啲--即係 forms 嗰個問題，我都想有啲問題關於啲 forms 嘅，同你跟進下，可唔可以？

C

D

D

E

答：好，好。

E

F

問：你就講話嗰個 46 號表格就經過啲演變，咁...

F

G

問：係，46 號，我就想同你睇番陳慶先生嗰份第二份口供，喺 C21，佢就比較詳細就係講過由 19 --即係最初嗰個 form G...

G

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H

I

答：G...

I

J

問：...一路演變去到 46 號表格咁樣嘅，我想請你睇陳慶先生佢嗰份口供紙，喺 G21，我特別想同你睇一睇第 27...

J

K

答：Sorry，C21，係咪呀？

K

L

問：對唔住，C21。

L

M

答：Okay。

M

N

問：第 27 段開始。

N

O

答：Sorry，page 幾多？可唔可以畀一畀？

O

P

問：18801。

P

Q

答：1880...

Q

R

問：18801。

R

S

答：18801，okay。係，得。

S

T

問：呢處就係--你今朝都有提過，就 82 年之前嗰個做法，就係有一啲 fittings，係要經過水務署去 test 同埋去 stamp 嘅，呢度就你見到陳生佢嗰個第 27 段，(i)、(ii)、(iii)、(iv)，sub 嗰啲項目之前嗰句，佢就話“The testing and stamping activities covered five types of terminal fittings as water would run to waste in case of defects.”，你見到嘛？

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答：睇到。

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問：主要嚟講，我理解就係當時點解要 stamp，點解要 test 呢，就係唔想有漏水嗰個情況出現，係咪呀？

D

E

答：係。

E

F

問：所以你就係 -- 當時個諗法就係要集中係做嗰啲 terminal fittings？

F

G

答：係。

G

H

問：我哋見到呢度，“draw-off taps”，你見到第一項，第二項就“stopcock valves”，第三項“gate valves”，第四項“ball valves”，係咪呀？

H

I

答：唔。

I

K

問：我亦都見到譬如每一項，你睇個“draw-off taps”嗰項先，你都見到最後嗰度就係“Leaking taps or combination fittings can be a direct nuisance.”，又係將嗰個重點就係擺喺唔好漏水。

K

L

答：唔。

L

M

問：第二項，“stop valves”，你又見到最後嗰句話“A defective stop valve will hinder replacement or disconnection of water meters and will cause water leaks”，又係講漏水嘅。

M

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O

答：係。

O

P

問：第三項，“gate valves”，最後嗰句就係“It will cause water leaks at meter position”。第四項，“ball valves”，“A defective ball valve will lead to overflowing of water tanks.”，雖然唔係直接講漏水，不過都係講嗰個--用英文講，就係“functionality”，唔好睇水，唔好漏水，唔好睇水。

P

Q

R

答：係，呢個 float valve 係嗰啲浮波。

Q

T

問：浮波。

T

U

答：如果佢個水位升到某一度，如果佢唔 function，就繼續升，就

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overflow，嗰個。

C

D

問：哦，okay，明白，明白。都係從一個...

D

E

答：嗰水嘅角度。

E

F

問：...嗰水嘅角度同埋講呢啲物料，講佢嗰個 functionality 嗰個問題，見到嘛？

F

G

答：見到。

G

H

問：唔該晒。呢個就係嗰個 stamping 嗰個用意，係咪呀？

H

I

答：係。

I

J

問：你譬如再揭遠少少，就 28 段，stamp 就正係話譬如好似我哋去到中間第 28 段中間嗰處，你見到有一句啱啱嗰個 2000 個“kPa”之後嗰句，“The test result would be considered satisfactory if there was no leakage apparent for a certain duration.”，即係真係只係睇漏唔漏水嘅啫，唔再睇其他...

J

K

K

L

答：呢個 1982 年嗰陣時係咁喇。

L

M

問：冇錯。29 段就講 Kitemark，如果你有個 Kitemark 就唔使經過呢個比較複雜嘅程序去 stamp，係咪？

M

N

答：係，啱。

N

O

問：好喇，你然後跟住就講 82 年之後至到 86 年，就係今朝你所講，就係話如果成日--嗰陣時工序就比較繁複咗，所以亦都業界係希望唔係話成日要等水務署去 stamp，嗰個就好費時失事嘅做法，呢一段 30 段、31 段就係講呢一個咁嘅意見嘅，你見到嘛？

O

P

P

Q

答：係。

Q

R

問：好，我想你睇下呢一段，首先嚟講，譬如中間第 30 段，中間嗰度，“Furthermore”，即係有啲 storage problems 添，唔單只係要好費時失事，同埋如果你要將呢啲咁樣嘅 terminal fittings 畀晒水務署，你根本冇地方擺添，係咪呀？

R

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答：係。

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問：呢度係咁講嘅。然後跟住就話所以就有個 new system 出左嚟，82年嘅時候，就話“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”，然後就係“intended to be used”咁樣，呢個就係你所謂嘅最早期就係點解會有個 46 個個演變出嚟，係咪呀？

答：係，啱。

問：我可唔可以都係基本上呢一個演變唔係話你突然間想驗多咗好多嘢，呢個演變就係話以水務署--如果你全部以水務署做，佢係做得好費時失事，所以你就話「不如搵第二個幫我睇，去 certify 佢喇」？

答：呢個我相信喺 82 年嗰陣時，嗰個轉變係基本上咁嘅，即係你頭先講咗，就係話因為水務署嗰個已經處理唔到咁多，都影響咗業界嗰個進度，於是乎咁樣做。

問：係一個--從一個--即係可以咁講，方便啲去 process，等嗰個工序去進行？

答：其實都唔係方便嘅問題，而係你要做到--即係要繼續令個業界可以向上運作，...

問：可以繼續運作。

答：...你基本上要咁做。

問：明白。所以就有個 WWO46，我相信你呢度所寫--對唔住，陳生所寫，話“Intended to be in installed and were in compliance with the required standard”，呢個都係等如好似我哋而家個 part I 嗰個咁樣嘅，個 annex part I？

答：係呀，係，係，係。

問：係咪呀？

答：係，係。

問：當然你而家呢一個講法就係話「如果佢未做，未開工之前，我希望佢上一個表格入嚟，嗰個 annex part I，就列咗佢大概會用啲乜嘢，

B

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我哋知道佢會用乜嘢嘅，嗰啲佢列咗落去嗰啲就應該要係符合個水務要求。」咁樣？

C

D

答：同埋嗰啲冇列出嚟嗰啲。

D

E

問：我一陣間再同你睇其他嗰啲，好唔好呀？

E

F

答：好呀。

F

G

問：然後跟住就係你話有四個 categories，喺 82 年，見到未？

G

H

答：係。

H

I

問：好喇，Kitemark，然後第二個 categories 就係要喺呢個英國嗰個 National Water Council 嗰度認可喇喇？

I

J

答：唔。

J

K

問：第三個就係你哋 WA 要認可喇喇？

K

L

答：唔。

L

M

問：同埋第四個就係如果有認可，就要...

M

N

答：Standard...

N

O

問：...提交嗰啲 report 畀你哋去做番嗰個 standard 嗰啲嘅，係咪呀？

O

P

答：唔。

P

Q

問：我想問你，當時呢四個--即係你改咗-- 82 年嘅時候改咗呢四個，基本上都仲係諗緊嗰啲 functionality 嗰個問題？

Q

R

答：當其時係，不過我想講，就話後來演變就有啲--即係變，因為個時代一路進步。

R

S

問：冇錯。

S

T

答：因為如果你有留意，到後期我哋所謂嗰個 (c) 嗰啲，當我哋要--即係無論係 (a)、(b)、(c) 都係嚟喇，當你要得到水務署嗰個--或者水務監督嗰個 acceptance 嘅時候，其實嗰件嘅配件係要搵去畀實驗室化驗嘅。

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C

問：化驗嘅。

C

D

答：如果你有睇番而家嗰啲 lab test report，基本上就甚至連個 fitting 個個 material 個 composition 都有做埋嘅，所以 82 年嗰陣時可能係咁樣嘅改變，但係到而家嚟講，呢個已經係 more than that 㗎喇應該。

D

E

E

F

問：好，我或者再望再落去，...

F

G

答：好呀。

G

H

問：...我一陣間睇埋後面嗰段嘅時候，我哋睇下有冇個咩嘢改變，好唔好呀？

H

I

答：好呀。

I

J

問：講嘅 82 年嚟講，你做呢一個改變，即係話費時失事，要晒 stamping，但係你嗰個新嘅替代嘅一個制度基本上都係以 functionality 為主，可唔可以咁講？

J

K

K

L

答：82 年嗰陣時係咁，係。

L

M

問：係喇，咁就去 86 年至到 2015，呢一段就係現時--我相信係你講緊係應該鉛水事件未...

M

N

答：之前，係，之前。

N

O

問：...引起關注之前嗰個情況。

O

P

答：係。

P

Q

問：好喇，呢度就話 86 年係因為喺薄扶林花園嗰度有一個爆水喉嘅事件，就有一千戶係受影響，係咪呀？

Q

R

答：係。

R

S

問：呢度然後跟住就話有 "Applying WSD's risk-based approach, the then form Ga was revised" 一個 86 年嘅 circular, "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" "with effect from" 87 年

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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 a lower risk of causing major nuisance and wastage in case of defects are not required to be reported specifically."

我想喺呢度停一停，呢個 87 年嘅事件都係因為爆水喉，都係因為爆水喉，因為呢個事件就加埋咗 -- 唔係淨係嗰啲 terminal fittings，要加埋喉管，係咪呀？

答：唔。

問：我想知道呢個加埋喉管，背後嗰個理念都仍然係話啲喉管要用得啱，都係一個 functionality 嘅關注嚟，係咪呢？

答：Okay 嘅，係。

問：係咪呀？

答：Okay。

問：呢個講緊 87 年嘅囉嗰？

答：係。

問：你就話有個 risk-based approach，所以嗰五種嘅 terminal fittings，喉管就要係 -- 一定要喺個 annex 嗰度寫清楚？

答：唔。

問：其他嗰啲你就叫做 lower risk，你喺第三十 -- 對唔住，唔係你，陳生喺第 34 段嗰度就界定其他嘢係 lower risk，就會 cause nuisance 或者 wastage 嘅，就唔需要去 specifically report，你見到佢咁寫嘛？

答：唔。

問：如果我解讀得正確，都仍然係一個 functionality 嘅取態嘅關注，對嘛？

B

B

C

答：Okay，係。

C

D

問：係？

D

E

答：當其時係，87年。

E

F

問：但係呢一段係講緊 87 年到而家，到到鉛水曝光之前都仲係一個咁樣嘅情況。

F

G

答：我諗要小心啲睇番呢樣嘢，第一，就係話其實而家我正如頭先講，fittings 去到今時今日，其實你如果擺去 laboratory 驗，擺 Kitemark、擺...（聽不清），全部一定係連嗰個 material 個 composition 都睇埋㗎喇。

G

H

H

I

問：冇錯。

I

J

答：所以基本上當我哋話呢件嘢 comply with 一個 British Standard 嗰陣時，其實已經唔淨只係講 functionality，連佢個 material 個 composition 都已經係睇埋㗎喇。

J

K

K

L

問：我想知道你就係--我而家就係想同你研究下，你嗰個所謂 risk assessment，喺呢度，你係 assess 啲乜呢？你係 assess 嗰個配件 com 唔 comply with BS 咁，抑或嗰個配件會唔會令到佢成個組件有 weakness，有漏水嘅情況咩，你所因為呢度講話 wastage and nuisance 咩嘛？

L

M

M

N

答：唔，唔，唔。

N

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P

問：但係呢度呢一段，我而家睇到咁多，我有睇到你話「我 risk assessment 係睇嗰個配件或者物料，係從一個食水品質嗰個方向去諗嘅。」呢度 so far，我睇到呢一個位，都睇唔到你嗰個 risk assessment，嗰個方向。

P

Q

Q

R

答：其實唔使睇得咁窄件嘢，我自己嘅睇法就，正如我頭先講，去到今時今日，去到二千年代之後，其實所有呢啲咁嘅 fittings，我已經講過，無論你喺英國擺 Kitemark，你都要符合嗰個 material 嗰個 composition 個要求嘅。我相信我哋要求緊話一件嘢，你要 comply with British Standard 呢，就唔係窄到話「你淨係 functionality 冇問題。」呢個你推番 82、87 年，你可以咁講，即係當其時，我諗大家嘅 concern 嗰個--以前大家知香港食水缺乏，大家好緊張，我哋水務署亦都好緊張，但係去到今時今日，其實

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British Standard 我哋要求已經係 comply with 好多嘢喇已經。

問：因為個 build-in 咗喺個 British Standard 裏面，係，佢話要用 lead-free solder，一個正確嘅 British Standard 本身話要用 lead-free solder，可能係從另外一個角度去睇點解要有一個咁樣嘅 British Standard？

答：我唔係好明咩嘢叫另一個角度去睇。

問：即係話譬如唔係淨係 functionality，佢講緊點解要用 lead-free solder，...

答：係喇，係，通啲。

問：...就可能係從一個 health 嘅角度去睇喇。

答：應該有咁嘅機會，即係起碼同個 material composition 係有關係嘅，除咗佢嗰個--如果你睇番個 British Standard，佢除咗話嗰個--即係啲 mechanical parts 嗰個情況，啲 dimension 等等，亦都有對個 material composition 有個要求嘅度。

問：我就係想知道你頭先同我哋講，許律師問你問題嘅時候，你就話「我有做過一個 risk assessment，冇一個正式嘅 risk assessment，no formal risk assessment」？

答：我諗嗰時講緊嗰個--當其時應該...

問：你記唔記得你咁講過？

答：嗰陣時係講緊個 inspection 嘅，如果我有記錯，講緊 inspection 嗰陣時嗰個，有個問我有冇做過一個正式嘅 risk assessment，我諗係講緊個 inspection 嗰陣時嘅。

問：我想知道喇，如果你係話淨係講 inspection，你所謂嘅 risk assessment 係水務署幾時做過一個從水質安全嘅或者水質嗰個問題出發嘅 risk assessment？

答：冇，我相信一定有正式做過一個咁嘅 risk assessment 嘅，不過我都想...

問：冇。

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答：其實有陣時我覺得大家唔需要即係話水質 risk assessment，其實一個好 basic 嘅嘢，你用嗰件嘢 comply with British Standard，其實一定 okay 嘅，唔會對個水質構成影響嘅，呢個好 basic 嘅嘢嚟嘅啫，即係正...

問：我哋都知㗎，所以我哋就係話我哋係 monitor 個 contract，你就話「總之你 monitor 個 contract」...

答：其實如果你 monitor 個-- sorry。

問：...「你做得個 contract 係照」...

答：British Standard。

問：...「字裏面--個 contract 嘅要求做，就冇事喇。」係咪呀？

答：係喇，同意，同意嘅。

問：呢個就你就覺得「咁樣，我就唔需要再去做一個水質--從一個水質角度去考慮嘅 risk 或者係個 risk 嘅大與細，邊一個環節可能會係出現到問題，或者如果真係唔 comply 嘅時候，嗰個問題有啲咩嘢嘅影響，個影響會係輕微㗎，嚴重㗎，抑或係點。」就唔需要做呢個步驟，係咪呢？

答：其實你如果有呢啲咁嘅 BSI 等等呢啲國際組織，當佢訂定一啲喺個 potable water supply system 裏面用嘅 fittings，佢去訂定每一樣嘢嗰個 material composition，其實一定係話只要你跟得到呢咩嘢，其實嗰個食水鏈個水質就 okay 㗎喇，我諗呢個好 basic 嘅嘢嚟，即係你跟足做，冇問題嘅。

問：我知，因為如果譬如 LP 跟足做，main contractor 都唔需要點樣去睇添喇，main contractor 咪可以話冇問題喇，因為 main contractor 畀 subcontractor 嘅時候係喺個 contract 裏面有寫。

答：但係我諗個 main contractor 都有個責任，要確保嗰個 contract 裏面嘅要求係做咗嘅。

問：我想知道--你唔好理其他人嗰個責任喺邊。

答：好呀。

B

B

C 問：我想睇番係水務署嗰個諗法係點。

C

D

答：好。

D

E

問：你話唔需要...

E

F

主席：即係你而家想講白啲，就係話「如果你覺得你哋冇事嘅，我哋房署都應該冇事吖，我哋做嘅嘢一樣之嘛，同你做嘅嘢。」係咪咁嘅意思？係咪咁呀？

F

G

G

H

何先生：我問個問題係稍為...

H

I

主席：文雅啲？

I

J

何先生：我係想帶番出嗰個問題，我哋而家面對緊嗰個問題係喺邊度，即係當署長、副署長話「我擺咗 AP 喺度㗎，AP 簽咗，咁就應該 okay 喇，樣樣都冇問題。」我想明白番到底我哋睇番世衛嗰啲文件，我哋都睇番 Prof Fawell 嘅意見，始終嚟講，水務署係咪真係話唔需要做個 formal risk assessment，因為咩嘢原因都好。其實我係想少少睇下水務署呢一套嘅理念個背後係點解佢話「我唔需要做 formal risk assessment。」如果佢話佢唔使做個 formal risk assessment，可能好多其他 party 都可以用同樣嘅道理，就話「我都唔使做個 formal risk assessment」。

J

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N

O

主席：唔係，我諗如果你要咁講，你就要用番 Prof Fawell 嗰啲，因為你哋用嗰個 risk assessment 用得太多，你哋用呢個 concept 用得太多，你記住 Prof Fawell 講，其實首先就係 hazard identifications，啱唔啱先？

O

P

P

Q

何先生：係，冇錯。

Q

R

主席：跟住就係 risk assessment，跟住就係 control measures，跟住就係 verification of control measures，四樣嘢嘅，講清楚啲。

R

S

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T

何先生：係，其實我所講，主席，我同意你個講法，因為呢個就係講個 hazard identification，第一步嗰個問題。

T

U

主席：第一步先，係呀。

U

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問：或者我轉--我澄清，我所理解嘅，就係有一個 formal 嘅 hazard identification。

D

E

答：同意。

E

F

問：同意？

F

G

答：同意。

G

H

問：所以你如果貴署都有呢個 formal identification，我哋唔使講話 engage 其他人去...

H

I

I

J

主席：跟住都有下一步，跟住都。

J

K

何先生：即係冇得講落去喇已經。

K

L

L

M

答：唔係，你話想探討下個 system，我都想講一講，你喺個合約裏面，房署好清晰知道個要求，寫咗落個 specification 度，然後去執行，要個 contractor 跟 specs. 做嘢，天公地道嘅事嚟㗎。

M

N

問：係吖。

N

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答：如果你嚴格話咩嘢 hazard identification 或者 risk assessment，你係咪意思話有啲 British Standard 係可以跟，有啲唔使跟，或者有啲唔使咁緊張，係咪咁嘅意思？

P

Q

問：絕對唔係咁嘅意思。

Q

R

答：如果 go back 番我頭先個說法，如果你所有 British Standard 全部 comply with，其實嘢就 okay 㗎喇。

R

S

問：我絕對唔係...

S

T

答：如果你有諗過話有啲 British Standard 係唔使跟，有啲要跟，或者有啲高風險、低風險，如果用咁嘅做法，我就覺得其實安全嘅。

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問：我係分開--好清楚分開兩樣嘢嚟嘅。

C

D

答：好呀，okay，好呀。

D

E

問：Hazard identification 係第一個步驟，當我同 Prof Fawell 研究嗰啲理念嘅時候，我哋已經都研究過呢個問題，呢個一定係第一個步驟，就算我哋講個 hazard identification，都可以分開講，我哋想 identify 啲乜呢咁，你可以話 identify「我唔想喺我個工程項目裏面受到阻延。」或者我 identify「我喺個工程項目，如果呢一啲嘢唔跟標準，我可能會影響我個工序或者影響個 performance。」或者點樣，亦都有一個所講嘅 risk 或者係 hazard 就係講會唔會影響水質安全。

E

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H

I

答：唔係好明，你意思係如果有啲 British Standard 或者有啲 specification 唔跟嘅話，會唔會影響到個工作進度或者水質？

I

J

問：水質安全，係。

J

K

答：即係...

K

L

問：係有唔同嘅角度去睇...

L

M

答：你呢個係咪有個前提話係會有啲 specification 會唔跟呀？

M

N

問：我唔係話會唔跟，而係話嗰個 spec. 喺嗰度，或者嗰個 British Standard 喺嗰度係有一個用意嘅，個前提就係譬如 BS 864 轉去 1254 可能係有個用意嘅，你跟 British Standard，當然，如果你跟咗，可能跟咗 1254 嘅，可能就有呢個問題出現喇。

N

O

O

P

答：Okay 喇，就 okay 喇。

P

Q

問：但係嗰個用意喺邊度呢？你作為一個關注水質嘅機構，你係唔係都會去睇下呢一個 British Standard 背後嗰個用意係乜，我哋如果--會唔會有個唔跟嘅情況出現，如果真係有人唔跟嘅時候，會有啲乜嘢影響，個影響會係大咩，細咩，抑或點？佢可能影響係影響工程嘅進度或者係某一啲地方嘅 performance，你唔跟個 British Standard。亦都有可能係影響--譬如好簡單，喉管，你個 pressure 唔啱，你受唔受到嗰種熱，係咪？我哋睇到㗎，你有啲係嗰個 mixture --個 British Standard 嗰個 mixture 唔同，個受熱程度就唔同，你 carry 嗰啲熱水定凍水，就唔同，呢個係影響 performance 多啲嘅，...

Q

R

R

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B

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C

答：但係你...

C

D

問：...同我哋而家講緊話個鉛含--對唔住，個焊料含鉛嗰個用意可能會唔同㗎喎，你明唔明到我講話...

D

E

答：其實我都好似跟唔到--可能我哋一個 engineer 同一個 lawyer 嘅諗法，你亦都係仲話係如果有啲 British Standard，我哋要知佢背後如果跟唔到，個結果係乜嘢咩嘛，係咪呀？咁但係...

E

F

F

G

問：所以個 risk identification -- 對唔住，hazard identification 就係要用呢樣嘢。

G

H

答：你 identify 個 hazard，就話去睇下如果人哋唔跟，個結果係乜嘢，係咪呀？

H

I

I

J

問：如果有唔符合嘅情況底下，會有咩嘢風險，個風險係大定細，個風險會影響到啲乜，會唔會帶嚟一個好輕微嘅後果，即係唔使理佢，或者會帶嚟一個稍為嚴重嘅後果，或者會帶嚟一個健康風險嘅後果。

J

K

K

L

答：其實如果你工程--即係大家寫得落個合約度，寫得落去要守嘅 specification，我相信都要守嘅，如果有乜影...

L

M

問：你有答到我個問題。

M

N

答：唔係，如果有影響嘅，其實係唔需要寫落去嘅。

N

O

主席：唔係，兩個問題嚟嘅先。

O

P

答：好，okay。

P

Q

主席：唔係，兩個問題嚟嘅先。唔係，首先你嘅意思就即係--譬如好簡單，譬如 1254，係咪？講緊呢個啲啲，我哋--你知我哋講緊咩嘢？

Q

R

答：係。

R

S

主席：裏面有好多唔同嘅...

S

T

答：嘅要求。

T

U

主席：...要求，係咪？

U

V

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答：係，啱。

主席：譬如又講 thickness，又講--諸如此類，又有 maximum temperature，maximum pressure 諸如此類，好喇，呢度係一 part，如果首先就係如果呢度係唔--譬如唔符合呢一個 standard --唔符合呢一方面我叫做 physical 嘅 standard 嘅話，你一定要 identify 到個 hazard 出嚟先得啱，你...

答：Sorry，你講埋先。

主席：個 hazard 就係譬如好簡單，如果你唔符合呢一方面嘅嘢，可能會話嗰條喉會爆，好似佢頭先咁講，係咪？或者你嗰啲 fittings 插唔到入去，如果你個 ball size 唔同嘅話，諸如此類，係咪？

答：唔。

主席：總之有好多嘢，好喇，呢個就係你 identify 咗個 hazard，跟住個 risk 有幾大呢？係咪？你就話「哦，其實可能都」--我唔知大定細，可能大概，譬如你話嗰呢一個 scenario，呢一個特別嘅情況之下，如果你嗰啲喉爆咗，就會有啲咩嘢影響，你個 risk 係可以好大，於是你就做咗一啲 control measures 去助佢，諸如此類，跟住佢就 verify 究竟你嗰啲 control measures 究竟 work 唔 work，呢個就係 one aspect of 1254，另一個 aspect of 1254 就可以係呢個焊料，係咪咁呀？

答：（沒有可聽到的回答）

主席：呢個就係水質，好喇，跟住你就話「呢一個我哋個 hazard 就係有冇鉛會走咗出嚟」，個 risk 係緊唔緊要呢？個 risk 就話原來緊要嘅，因為譬如--你做過 risk assessment，你睇咗 Scotland，睇咗全世界，原來好嚴重嘅，係咪？跟住你 control measure 係啲咩嘢，跟住你 verification，佢個意思即係話你做呢啲每一樣嘢之前，你都要多角度去睇究竟係個目的係想做咩嘢先。

係咪咁嘅意思？

何先生：多謝主席。或者我哋真係去睇下嗰個 1254，我就覺得應該幾清楚。

B

B

C

C

D

答：但係主席，或者我想講個...

D

E

何先生：多謝主席，我個意思係咁樣。

E

F

F

G

答：Okay。

G

H

H

I

主席：係咁樣樣，不如我哋啱十分鐘先，好唔好？

I

J

答：好呀。

J

K

K

下午 3 時 53 分聆訊押後

L

L

下午 4 時 09 分恢復聆訊

M

M

出席人士如前。

N

N

O

主席：1254。

O

P

何先生：係。

P

Q

Q

R

水務署第四證人：黃仲良（水務署副署長）宣誓繼續作供
何先生繼續盤問

R

S

問：或者我哋睇一睇嗰個 1254, 1254 嘅 10310, 1254 喺 C19.1, 10310, 我想可能其實嗰個 point 都清楚㗎喇，我想同你講下，譬如我就咁睇呢個 10310, 你見到個 Table 6 嗰度，譬如好似就咁講 solder 先算，你見到有啲係 “Lead/tin”、“Tin/silver”，下面有 “Brazing” 咁樣，見到嘛？

S

T

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答：係。

C

D

問：見唔見到？

D

E

答：係，見到，見到。

E

F

問：見到？

F

G

答：係。

G

H

問：如果譬如好似後面右手邊咪有個表嘅？

H

I

答：唔。

I

J

問：你譬如話有 maximum temperature，即係話裏面如果你係用某一種嘅物料，嗰個 maximum temperature 你想係 30 度咩，去到 65 度又點，如果你想要裏面個喉管要去到 110 度嘅，又要點，即係 maximum pressure 又有唔同嘅，你見到嘛？

J

K

答：見到，見到。

K

L

問：譬如我做一個 hazard identification，一個 risk assessment on 呢一啲咁樣嘅嘢，我係關注嗰個喉管，如果我用錯咗個物料，會唔會係承受唔到嗰個溫度或者嗰個壓力，呢個係講緊個喉管嘅...

L

M

答：表現。

M

N

問：...functionality，個表現個問題。

N

O

答：係，我頭先都好...

O

P

問：啱唔啱先？

P

Q

答：你啱嘅，不過我想補充，頭先主席臨 break 之前講咗一樣嘢，我頭先 break 嗰陣時好詳細諗過個問題，正如我講，可能 engineer 同 lawyer 有少少唔同，有情況，我哋做 construction contract，當我哋有個 specification 擺咗出嚟，其實就有所謂 partially comply 呢樣嘅嘢。

Q

T

問：冇。

T

U

答：因為你做嘅嘢就要全面 comply 嘅，所以你話如果有件嘢--譬如有一

U

V

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個 fitting 之類，我哋去 to BS，say 1255 咁樣樣，佢基本上就要符合晒所有 1254 嘅嘢，in case 你話佢有啲嘢唔符合，理論上，under the contract，就唔可以接受嘅。

問：明白嘅。

答：至於頭先個個 risk assessment，個意義喺邊呢？我嘅理解，就係去到一啲情況，譬如真係想 accept 一啲所謂我哋叫 substandard 嘅嘢嘅時候，咁就會大家傾，譬如好多時候，話起咗層樓，做啲石屎，最後發覺石屎唔夠力啲咁樣，咁點呀？一係拆咗佢，一係就大家去傾，一個 negotiation on 一個所謂 supplementary agreement a 唔 accept 呢啲嘢，...

問：即係我...

答：...我諗嗰個層面喺呢度，所以可能我哋大家開頭傾，...

問：我想打斷你，...

答：好，好，okay。

問：...因為我覺得我唔可能同意你將個 risk assessment 咁樣去睇法嘅。如果你話 risk assessment 只係睇下--如果大家 comply，咪可以接受囉，risk assessment precisely 正正就係話如果有人唔 comply 嘅時候，會有啲咩嘢 hazard 走出嚟，如果個個人都奉公守法嘅，其實係唔需要好似委員會講咗幾次，唔需要警察，正正話警察要有啲乜嘢嘅部署，或者佢個裝備夠唔夠，佢個調查係咪應該要加強某一方面，佢個 equipment 或者係--就係因為可能有人會唔奉公守法，你先話「呢一樣嘢我應唔應該要諗一諗我而家個裝備係咪可以應付一啲如果係--譬如電腦犯罪咁先算喇，日新月異，如果我根本係諗住個個人都唔會電腦犯罪嘅，我唔需要做呢個 hazard identification，我永遠都唔會需要 update 我啲啲裝備、equipment 啲啲咁嘅情況」？

答：你呢個講法都同意嘅，即係基本上，如果咁講，如果撥番落我哋建造業嗰度嚟計，我相信喺呢個層面度會分幾個，譬如 supervision team，即係 AP，佢可能要評估番佢下面嘅 contractor 唔跟 specification 嗰個風險有幾大，and then 佢 put in 你話頭裝備，係咪多啲 supervision staff 去睇番呢樣嘢，水務監督可能亦都要睇番嗰個 supervision team 又 fail、個 contractor 又 fail、個 LP 又 fail 個風險有幾大，and then 又 put in 一啲你

B

B

C

話頭裝備，去 tackle 呢個 risk，係，...

C

D

問：我可唔可以...

D

E

答：呢個可以咁講嘅。

E

F

問：可以咁講，係咪呀？

F

G

問：我想同你提出嘅，就係水務監督做嗰個 risk assessment 或者 hazard identification 嗰個角度係從食水質素嗰個角度去出發嘅。

G

H

I

答：我諗全面喇，即係你水質，functionality 都係一個重要...

I

J

問：水務監督唔係睇下嗰條--即係嗰個工程進度會唔會影響你嗰個地盤嗰個工程進度，...

J

K

答：嗰啲佢唔使睇。

K

L

問：嗰啲你唔需要理，係咪？

L

M

答：唔需要，唔需要，唔需要。

M

N

問：你係因為正正你係監管嗰個水質嗰個問題，所以水務監督如果係要做呢啲 hazard identification，係要從一個水質、水安全嗰個角度去做嘅。

N

O

答：都同意嘅，即係正如正...

O

P

問：某程度上，唔係等同 contractor 做唔做呢一個咁樣嘅 assessment，或者個 developer 做唔做呢個 assessment，某程度上。

P

Q

R

答：其實雖然兩件嘢唔係 exactly the same，但係其實達致個目的係 the same，個問題就係當你個 contractor，當你個 LP put in 一個 specification，正如呢個例子，只要佢能夠 ensure 到個 contractor 或者係 LP 跟足個 specification 做嘢，其實達致個結果都係個水質安全嘅。

R

S

T

U

問：我想知嗰個係--即係大家嗰個 risk，對於乜嘢個 risk 嗰個性質個

U

V

V

B

B

C

關注點係唔一樣。

C

D

答：唔係好明。

D

E

問：你同意或者唔同意，唔緊要嘅。

E

F

答：唔係，即係...

F

G

問：可能我都會喺結案陳詞，我都會再提番呢啲觀點嘅。

G

H

問：不過我想聽下你個講法啫。

H

I

I

J

主席：佢嘅意思即係話你哋嘅 focus 係應該 on water qualities, whereas 佢哋嘅 focus 係可能有另外一啲嘢，譬...

J

K

K

L

問：有其他嘅...

L

M

答：Comply with specification, 佢哋嘅 focus --都唔係。

M

N

N

O

主席：佢哋未必係 specifications 嘅，佢哋可能係話「我哋個 focus 就係要供水畀啲住客」諸如此類，係咪？究竟嗰啲--呢個係佢哋其中一個佢哋要 focus 嘅嘢，...

O

P

答：但係佢都要 ensure 個 contract comply with 㗎嘛。

P

Q

主席：當然嗰啲水都要安全，不過個問題，個 primary responsibilities 係喺你哋嗰度。

Q

R

R

S

答：唔，但係...

S

T

主席：我唔係話佢哋冇，你哋係最主要，即係佢嘅意思係想咁樣樣講。

T

U

何先生：我意思係咁樣。

U

V

V

B

B

C

C

D

答：That's why 我哋 put in the standard, 就叫佢哋要 comply with。

D

E

問：當然，我明你講咩嘢嘅，個個人都應該要盡佢嘅責任去 comply with standards, ...

E

F

答：即係其實我都好想強調...

F

G

問：...做好佢嗰個 performance, 我明你講咩嘢。

G

H

答：Sorry, 即係個 authorised person, 其實我同意你嘅說法嘅，每個人都要盡佢個責任，無論對 LP, 應該要 comply。

H

I

問：但係你接唔接主席頭先咁樣嘅分析，主要嘅責任如果講水安全...

I

J

答：主席好似分析你講嘅說話，就係...

J

K

K

L

主席：唔係，或者我調番轉頭問。

L

M

答：Okay, 好呀。

M

N

主席：調番轉頭問，...

N

O

答：好。

O

P

主席：...我就代表房署問你，...

P

Q

主席：...即係咁講呀。

Q

R

R

S

何先生：我可以坐低喇，係咪呀？

S

T

主席：你鍾意，隨便你。

T

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你哋點樣樣 ensure 啲 LP fulfil 咗佢哋嘅 legal responsibilities, 喺呢一個譬如 WWO46 part IV 嗰度? 你點樣樣--我哋知道佢要簽名, 係咪?

答: 係, 係。

主席: 好喇, 佢簽咗名, 你點樣樣 make sure 佢簽嘅名、佢講嘅嘢係真係做到呢?

答: 其實有兩個層面, 第一, 就係我哋有 conduct final inspection, 但係嗰個我都承認唔係一個好 comprehensive 嘅 final inspection 嚟嘅, given 嗰個。第二, 其實喺個--我哋仲希望--其實我有一樣都幾重要, rely on, 就係有一個 AP, 有一個 continuous supervision on site, 呢個 system 希望佢都睇住個 LP 做嘅嘢掂唔掂嘅, 因為我估...

主席: 再講多次。

答: 我哋兩個層面, 一個就係 final inspection, 我哋當然要做, 第二...

黎先生: 唔係, final inspection cover 啲咩嘢先?

答: Final inspection, 或者其實我呢度有略略有提過, 可能我哋同事可以再--即係個 communal 個 system, and then 可能係一啲地方會抽樣, 再睇一啲嘅部件 com 唔 comply...

主席: 基本上 functionalities 之嘛。

黎先生: 即係 physical?

答: 其實應該係睇番嗰個 material 係咪同嗰個 annex 夾唔夾, 有個 plumbing proposal, 佢哋有睇嘅, 其實都有睇, 譬如你用嘅龍頭, 你用嘅...

B

B

C

主席：咪基本上又係返番去嗰啲--唔係，...

C

D

答：Okay，唔緊要，我都想...

D

E

主席：唔係，唔係，唔係，...

E

F

答：Okay，好呀，好呀。

F

G

主席：...兩件事嚟嘅。

G

H

主席：因為你哋啲同事上嚟講，基本上係話睇 functions 嘅啫，因為點解呢？你睇你係完全睇唔到嗰啲 composition of 嗰啲 fittings 嘅，啱唔啱先？

H

I

答：啱，係。

I

J

主席：你唯一睇嘅，譬如嗰條銅喉係咁走、alignment 走，你係睇呢啲嘢嘅啫，平唔平、個水錶裝得啱唔啱，全部講嚟講去都...

J

K

答：仲有一樣嘢，就係嗰個銅喉個牌子係咪之前佢報入嚟嗰個。

K

L

主席：唔係，啱，但係呢啲都係...

L

M

答：如果個牌子 comply 咪 okay 囉。

M

N

主席：呢啲都係睇嘅啫，你唔會--你冇得 test 㗎嘛，係咪？

N

O

答：啱，啱，啱。

O

P

主席：你純粹係睇個 function 嘅啫，其實老老實實。好喇，跟住就...

P

Q

答：其實嗰個--如果佢隻牌子 comply with 一個 British Standard，其實理論上個物料都係 comply with 個 standard 嘅。

Q

R

主席：唔係，唔係，唔係，我哋唔好講住先，即係...

R

S

答：Okay，第二 part，我就...

S

T

主席：係喇，第二 part，咁又點樣樣？

T

U

答：第二 part，我哋就即係如果喺個 system 裏面係幾 rely on 一個

U

V

V

B

B

C

AP 去睇住成個 plumbing system 嗰個 construction, that's why 我哋--...

C

D

主席：唔係，...

D

E

答：...that's why 我哋要求佢做一個咁嘅 certification, 就話嗰啲嘢...

E

F

主席：唔係，你 rely AP 去做 supervision of 嗰個 LP 呀？

F

G

答：係，因為佢其實係一個 contractually, 其實我...

G

H

主席：冇 contractual 㗎。

H

I

答：AP contractually 要睇住個...

I

J

主席：冇㗎。

J

K

答：...sub-subcontract 㗎。

K

L

問：你唔係真係咁樣諗，係咪呀？如果你咁樣諗，就法律上好錯誤，而導致你可能成個監管嘅 philosophy 都錯晒，你係咪真係咁諗先？

L

M

M

N

答：我覺得係--即係我作為水務監督，我認為 we put in a system 去 ensure 一啲嘢，即係有啲嘢我唔能夠咁 continuous 去睇到嘅，即係你要明白我哋成日話你喺地盤嗰度一路進行緊好多工作，我哋能夠做到嘅 supervision 其實唔係太多嘅，你可以想像個樓廠一路嗰度起緊，就算我哋話如果想做一啲 surprise 嘅 inspection 其實都非常困難嘅。

N

O

O

P

P

Q

問：你講譬如話 supervision 或者巡地盤嗰啲咁樣，我暫時係想撥開嗰個問題，我聽到你講話你哋可以做話要巡地盤嗰啲，你唔想再加多個...

Q

R

R

S

答：唔係，其實你...

S

T

問：...工序嗰度做巡地盤咁，...

T

U

答：Okay。

U

V

V

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問：...但係同我而家講緊嗰個成個理念，水務署對於佢嘅責任嗰個理念，同你巡唔巡地盤可能有--我未去到嗰個階段，我仲係同你講睇緊你哋有冇做過呢一個 hazard identification，去正確咁理解你哋係作為一個水專家去以一個水安全嘅角度去睇個 hazard identification。

答：你意思 hazard identification...

問：因為如果--你可能可以做嘅嘢係好--你需要做嘅嘢好少嘅咋喎，你加多個 parameter 入去，或者你整多個 circular 出嚟去引導全行去等佢提高佢個警覺，有可能已經係達到咗某一啲嘅目的，你明唔明呀？你唔係一去，你就話「係咪要我去巡地盤呀？」咁，呢個可能係一個好嘅做法，亦都可能第二時我唔知會唔會建議「你哋巡多啲地盤喇。」咁。

不過首先嚟講，成個 philosophy，你要 identify 到個 hazard，你然後先再開始講話「我擺啲乜嘢 monitoring measure 上去。」你可能嗰個 monitoring measure 係一件好簡單嘅嘢，但係可能亦都係牽涉好複雜嘅嘢都唔定，但係第一步都未做，我都未講到點可以再開始諗個 monitoring measure 係乜，點樣可以再去我驗啲乜、唔驗啲乜，根本後極都無從說起，對唔對？

答：其實我唔係好明，其實 there is a system 係去做 site supervision 嘅，係好 robust 嘅，即係房署嗰個，或者唔好淨係講房署，所有香港建造，其實係一個好 robust...

問：你唔好將個焦點去擺喺人哋嗰度先，我想問咗你先，得唔得？

答：唔係，可唔可以畀我講埋先？

主席：唔係，...

何先生：對唔住。

主席：...我聽到黃先生嘅意思就即係話佢個 theme 就即係話某程度上，你就即係話你哋水務署個 responsibilities 某程度上就 delegate 晒出去畀其他人去做？

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答：唔可以咁講，其實我想講個 point，就係話我哋希望有一個最有效嘅制度，cost effective，亦都有效嘅制度去睇番個度，其中有一樣嘢，係有一個我哋知道喺地盤有一個 continuous supervision 嘅 team 喺度，而呢一個 team 其實佢哋個 interest 同我哋係一致嘅，因為房署--或者唔好講房署，所有 developer，或者則師，佢哋都希望 complete 咗一件嘢係 to standard，係啱 specification，因為佢都希望將來個 product itself 係一件好嘅嘢嚟，係將來畀啲住客用㗎嘛。

我哋覺得最有效嘅方法，想 make use of 呢個 system 去幫我哋去睇番啲嘢，and then that's why we ask 個 AP 去 certify，至於有冇其他 alternative 比呢個更有效呢，呢個真係要探討，因為我哋都仲要諗番好多個 effectiveness 嘅問題。

你譬如--正如頭先講話你可唔可以--我哋譬如 from time to time 派啲人落去睇呢咁，因為 given 你喺譬如 plumbing system，如果大家了解，喺一個樓廠裏面，其實唔係時時都有水喉工作做，譬如我哋同事如果想做個 surprise check，落到去，可能個陣時都未有水喉工程進行緊嘅，甚至如果有水喉工程進行緊...

問：即係你唔好--我相信大家唔係好 constructive，如果引一啲咁樣嘅例子，因為你梗係個水喉工程做緊，大家有個安排，然後先落去，你引一個例子係話根本啲水喉工程都未開始，叫你落去，...

答：唔係，如果你...

問：我唔想講一啲咁樣嘅--喺一個咁樣嘅討論層面去講。

答：好，好。

主席：返番去我頭先個問題先，其實我頭先個問題，你嘅答案係咪就係--我就係話你有啲咩嘢去 ensure 個 LP 係做咗佢要做嘅嘢，返番去，你嘅答案就好簡單嘅啫，第一，你哋有做一啲 final inspection，就係 on 我哋頭先啲所謂啲 functionality test，第二個你嘅答案就係話因為房署係有佢哋嘅 AP 喺度 monitor 呢個 LP 嘅工作，所以你哋就...

B

B

C

答：想 make use of 呢個 system。

C

D

主席：即係你哋就 rely on 呢一個房署嘅 AP？

D

E

答：仲有一樣嘢，就我哋仲有啲物料嗰度嘅填報等等啲啲。

E

F

主席：物料嘅填--唔係，呢個另外一樣嘢嚟嘅。

F

G

主席：因為我問你係點樣樣可以 make sure LP 係做咗佢哋要做嘅嘢，
嗰個係 LP 做嘅嘢，你點樣樣可以 make sure 佢做嘅嘢，呢度係冇
嘍嘛，佢係填咗，佢咪做咗佢要做嘅嘢，係咪？

G

H

H

I

答：唔，唔。

I

J

主席：我個問題就係你點樣樣 make sure 個 LP 係做咗佢要做嘅嘢，你
嘅意思就即係--如果我聽你所講，就係即係基本上實際上你哋自己做
嘅就只係最後嗰一 part，final inspection，就係咁多喇？

J

K

K

L

答：Final inspection，或者中間仲有一啲 interim inspect，都
係 before the pipes cover up。

L

M

主席：Interim --都係，嗰個另外一樣嘢嚟，嗰個唔使，唔好--我哋暫
時撥埋一邊。

M

N

答：Okay。

N

O

主席：即係做一樣嘢。

O

P

P

Q

問：我想睇下--首先嚟講，我聽到你講咩嘢嘅。

Q

R

答：好，好。

R

S

問：我聽到你講咩嘢嘅。委員會同埋今朝許律師都問咗你，其實我哋就呢
一個項目，講個焊料嗰個項目，要用乜嘢嘅 standard，喺法例底下，
個 regulation 底下，就寫係 864，當然我明你話有個要用最新嗰
個，但係你哋就有改，冇改，然後你就話如果個個都跟，就當然係唔
會發生有問題，我就想知道你又話要 rely on LP 去跟，又話 rely
on...

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答：AP。

問：...AP 去跟，但係如果當你個法例本身，你都唔去 update 嗰個 standard，而署長個講法--我唔知你知唔知，署長個講法就係話其實都有啲酌情，即係跟唔跟嗰個最新嗰個法例嘅要求嘅，呢個係署長嘅講法，如果有需要嘅時候，可以上網，大家都睇到個最新嗰個應該係點，或者水務署個要求係點，我想知道如果你話「我真係全權或者完全倚賴 LP、AP 去跟」，你知唔知佢哋去跟啲乜呢？如果你負責嗰條法例嘅，都係仲係寫緊 864 嘅時候，你叫佢哋去跟，佢哋跟啲咩嘢呢？

答：唔係好明，其實佢哋大家都知道跟--而家譬如 864 已經改咗幾轉，去到 1254，呢個都清晰啲啲，因為好多合約，全部好清晰寫晒，我都睇過，寫晒最 update 嗰個標準。

問：合約就如果我自己係作一個 private developer，我可能我對下，...

答：咁咪大家知道...

問：...我需要用嗰個合約，但係我而家講緊水務署，水務署都未曾做咗人哋做嘅嘢，人哋喺個合約--對下手嘅合約就已經講咗用一個乜嘢嘢嘅焊料，個 spec.又係乜，水務署對香港公眾就仲係講緊 864。

答：唔係，你有少少誤--即係雖然主席有睇法，話我哋譬如想唔係啲業界難跟，但係其實始終都係講緊係跟最新嘅 British Standard 嘅，呢個條例就清楚嘅。And then 其實我唔懷疑呢樣嘢，因為其實我真係有機會都睇過一啲私人合約，睇過房署嘅合約，呢個嘅要求係清晰，大家寫到--即係大家都知道。

問：即係只不過人哋做得好過你嘅咋啲，其他人，British Standard update 咗之後，識得去 update 佢哋自己份合約或者個要求，但係水務署作為最終嘅水質嘅守護者就有 update 你對法例嗰個要求。

答：我哋法例係講明用呢個最新嘅 British Standard 咁嘛。

問：咁點解會去到--即係好似譬如今朝亦都有同你講過話嗰啲 copper alloys，你嗰個 446 -- 46 號嗰個 note 7 都仲有啲係過期嘅 BS 嘅 standard，貴署嘅署長亦都有曾經講過話「有時我哋都唔係全部要求用個最新嘅，因為都有個酌情，亦都要睇下業界反應。」咁即係你如果話「我要 LP 去跟，我將個責任擺 LP、擺 AP 嗰處。」如果唔

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清晰嘅話，你叫人哋去跟啲乜？你點解個責任擺落人哋嗰度嘅時候，但係你自己都未將你對人哋嘅要求寫出晒--寫得清清楚楚？

答：我都頭先講咗，呢個係 latest British Standard，你頭先你咁講，仲有個 assumption，好似啲 AP、LP 就未必太清楚，其實佢哋--譬如 LP 尤其是，基本上佢 day-to-day deal with 啲 supplier 等等，...

主席：唔係，人哋識就人哋嘅事，佢嘅意思就好簡單啫，人哋識 update，呢啲你哋又...

答：明嘅。

主席：1983 年去到而家 2016，大大話話都幾多年呀？三十幾年呀。

問：係咪又係返番去嗰個老問題，其實你哋真係冇--你諗住人哋幫你做埋你應該要關心嗰個水質安全嘅時候，你自己係冇作出一個好全面嘅風險評估，然後真係睇清楚我哋到底應該喺邊一個位置加上一啲 monitoring 嘅 measure 或者係一啲 verification 嘅 measure，即係就係呢個老問題啫？

答：唔係，其實你睇到個情況，我覺得你係睇番個情況，你睇到個風險喺度，係咪而家個風險就話啲人唔知道要跟乜嘢呢，其實係清晰，即係房署、developer 等等都知道佢哋自己係要跟啲咩嘢標準，個情況係睇到㗎嘛。

問：我唔再同你糾纏，我去另外一個文件，好唔好呀？

答：Okay，好。

問：我想你睇一睇 Hong Kong Institute of Architects，HKIA，最近 1 月尾嘅時候畀咗一個文件畀委員會嘅，喺 A4 tab 55，個文件係 2976 開始，你有冇睇過呢份文件？

答：見過嘅。

問：見過，係咪呀？

B

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C

答：見過。

C

D

問：就我想你首先就睇一睇 1.1 同 1.2 段，喺 2977。

D

E

答：Okay。

E

F

問：你見到“Architect”，喺中間嗰度個 Diagram 1 嗰度，“Architect”喺上面，然後“Authorized Person”、“Registered Structure Engineer”、“Registered Geotechnical Engineer”、“Building Services Engineer”咁樣。

F

G

G

H

答：睇到。

H

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問：見到？

I

J

答：係。

J

K

問：跟住就 1.4，你見到--對唔住，1.2 先，1.2 先，個表底下，佢呢度咁講嘅，“Plumbing installation is an essential part of the building services system for the distribution of water.”，“due to historical reasons, it is currently not controlled under the [BO].”，所以喺 BO 底下，就唔--Cap 123 底下就唔包呢一個 plumbing 嘅。

K

L

L

M

答：唔。

M

N

問：然後跟住就再落少少，就講到 Cap 102，就係水務條例，然後跟住就話“Water Supplies Department is responsible for the administration and enforcement of the WWO and WWR”，我相信你同意嘅，係咪？即係 so far。

N

O

O

P

答：Okay，係。

P

Q

Q

R

問：然後 1.4，佢就講 architect 係做啲乜，1.4 第四行你見到嘛？

R

S

答：唔。

S

T

問：“The architect remains to be the leader of the consultant team”，佢用呢個字，“co-ordinating the input from such specialist consultants.”，佢咁講，當然 architect 唔係對水嘅嗰個項目係最專門，佢雖然喺個頂，但係佢係做一個 co-ordinator 嘅角色，你見到嘛？

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答：唔。

問：見到。然後就落去 3.1, 3.1 第三行，你見到呢度咁寫，“Currently, the ultimate responsible party for the quality of plumbing installations rests with the LP, whose role is to construct, install, maintain, alter, repair or remove fire services or inside service. The role and duties of the AP”, “although he is required to sign in the latest” “form 46, has not been prescribed or defined in the WWO or WWR.”，呢個講法都係正確嘅，係咪？

答：唔？

問：呢個講法係正確嘅？

答：Okay，係。

問：個表喇，個表對上嗰句就話 “some major construction activities including the plumbing trade currently do not require registered specialist contractors and registered workers in the installation works.”，然後跟住你見到個表，個表就真係 visually 你睇到零零舍舍 Cap 102 底下嗰個監管係同人哋唔同嘅，人哋譬如 Cap 46 喺電工方面，當然個 46 就係-- 406 就係嗰個監管嘅條例，跟住 contractor 佢係要有個 registered electrical contractor，佢需要嘅 workers 係 registered electrical worker 嘅，我相信擺得呢啲叫做 registered 乜 registered 物，都係話有個發牌制度，要對佢哋嗰個資歷各樣嘢都有一個比較有監管，同埋要有個比較嚴謹嘅要求，咁樣對唔對，咁講法？

答：即係你意思喺呢...

問：啲咩嘢 registered 乜 registered 物嘅，即係...

答：因為喺啲條例裏面有個要求。

問：係咪？

答：就有個要求。

問：Again，講緊嗰啲 regulatory philosophy，你要得到咩嘢

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registered 乜物，即係話我要對你有個監管嘅制度，我要發牌畀你，同埋我係會對你有個比較嚴謹嘅--有個要求--有個嚴謹嘅要求。

答：我有詳細睇過啲例，不過我相信佢有咁嘅 requirement，要啲 registered 一啲 worker。

問：你睇喇，Cap 406，兩格 registered contractor 同 worker；Cap 311，Air Pollution Control，contractor 要 register；drainage installation，喺 BO 底下，Cap 123，registered general building contractor；gas，Cap 51，registered gas contractor；air-conditioning installation 有 FSI contractor；fire services 有佢自己嘅 registered contractor；lifts，lift 當然係需要好高嘅專業。

就唯獨是喺 contractor 嗰度，就喺水嘅方--plumbing，102 就唔係咁嘅監管，零零舍舍係有呢個要求，你見到？

答：見到。

問：正正呢一個係唔係喺個監管上，係應該要再去睇番你嗰個 plumber 嗰個監管嘅制度係唔係仲係合適，你零零舍舍好似落後於人咁樣。

答：我諗如果你用咁嘅話仲整個制度仲有冇得進一步改善嘅，或者更加完善去 go in line with 其他啲啲咁嘅安排，呢個我覺得係可以--呢個方向可以探討嘅。

問：呢個文件我睇到佢成個文件嗰個佢所提出嘅建議就基於一樣嘢，喺個第二行第二個部分，point 2 嗰度，就有個叫做“Designated professional and workers for designated skills”，你見到嘛？

答：Sorry，第幾版？

問：第 2978。

答：297...

問：即係個文件嘅第二頁嘅 clause 2 嗰度，part 2 嗰度。

答：Okay。

問：佢個方向係叫“Designated professional and workers for

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designated skills”，我演繹，我用中文講就叫「專工專責」，係咪咁樣嘅 philosophy？

答：其實如果你睇佢呢份 document，我見佢最終就喺 6.0 嗰度有個 “Suggested Statutory Framework”，即係喺 6.2，下面嗰幅圖，佢都係建議話 “Architect”，個 “Lead Consultant”，下面有 “Authorised Person”，and then 再下面有啲 “Building Services Engineer”，跟住有個 “Registered Plumbing Contractor”，and then 一啲 “Registered Plumbing” -- 即係呢個我見到就係佢整份文件嗰個建議。

問：我暫時唔討論佢而家呢個建議啱唔啱，我係睇番佢提出咗幾樣嘢，第一，就係 architect 雖然係最高嗰度，佢係個 co-ordinator，佢唔係辦辦佢都係佢做專家嘅。

答：所以佢咪要 engage 個 building services engineer 幫佢。

問：係，即係譬如好似 structural engineer 雖然係 under architect，但係 architect 未必完全明白晒...

答：所以佢咪需要有個 structural engineer 幫佢。

問：... 結構工程師計數啲啲咁嘅嘢，係咪？

答：啱，啱，係。

問：個問題就係如果我哋講食水安全，我哋唔係講番就咁喺個地盤嗰個 contractor administration，我哋直情就係將個關注點擺喺食水安全嗰處，如果我哋用一個「專工專責」呢一個咁樣嘅概念嚟睇，我自己會睇到就係話水務署同埋個 LP，呢兩個持份者，水務署有個領導嘅地位添，然後 LP 呢一個持份者係如果你講「專工專責」，係針對食水安全，呢兩個係主要嘅 party。

答：如果你就正正睇呢份 document，雖然你唔係好想睇 6.2，不過我都 -- 其實我 -- 正正我一路個睇法就係咁，你一個地盤，6.2 嗰個 chart 正正就係呢個 Hong Kong IA 佢一個建議嚟，亦都係一個合適嘅建議，就係話其實始終個地盤係去 take the lead，或者控制成個 project，就係個...

問：你話個地盤要 take the lead？

B

B

C

答：唔係，其實 authorised person，我意思。個 authorised person 其實係要管理...

C

D

問：唔係水務署？

D

E

答：唔係，水務署其實係作為一個...

E

F

問：唔係，我想你搞清楚先，你話 authorised person take the lead，我想你係唔係話唔係水務署先？

F

G

答：水務署作為一個監管機構，即係 more important，就係 set 個 standard 畀個--話畀大家聽應該跟一啲咩標準去做嘢，但係你真正一個地盤要做得掂，我就認為真係應該好似而家 Hong Kong IA 個建議，就係要 engage 一個 building services engineer，and then 可能一個 plumbing contractor，咁樣去做，就 deliver 喇，我覺得就呢個--即係呢個其實係好接近其他瓣數，正如你頭先舉個例，registered structural engineer 等等嘅，其實係一個好合適嘅做法嚟嘅。

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問：我想問你，咁水務署扮演咩嘢角色先？

L

L

答：Regulator，set 個 standard 畀佢哋。

M

M

問：咁就完成咗水務署嘅責任？

N

N

答：我都係話嗰個 regulatory role，你畀個標準，可能又做一啲 inspection 咁喇。

O

O

問：即係如果...

P

P

答：唔係，你要最...

Q

Q

問：...regulatory role 即係 license，想啲 licensed plumber，個 BS 就擺咗喺個法例嗰度，咁就...

R

R

答：And then 可能有啲 inspection。

S

S

問：Inspection，即係去到入 part IV 嘅時候，你就去睇下啲喉管係咪跟你個 annex 1 個 spec.，跟住就有啲公眾教育，咁係唔係就係完成咗嗰個作為食水安全嘅監管部門嘅責任？

T

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U

答：其實呢個同你--我咁講，即係樓宇安全，可能都係咁樣樣。

V

V

B

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C

問：唔係，我想問水務署啫，我...

C

D

答：唔係，我哋--唔係，你應該唔可以單一，你睇番成個制度 system 去睇件事，即係你 structural safety 都係一件...

D

E

問：你答咗我問題先喇。

E

F

答：我覺得做一個 regulatory role，我哋要做嘅嘢咪頭先講話 set 番一啲標準，我哋要有啲 inspection，可能有啲要求大家點做。但係我始終個說法就係話 Hong Kong IA 個 recommendation，一個 effective 去 ensure 啲嘢係 properly constructed 嘅，係佢而家 put in 呢個 recommendation 係好值得參考。

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問：我就其實我即係同你研究咗咁耐，我聽到你最後明確嘅訊息就係其他人，AP、BSE，個個都做晒你哋嘅嘢 take on 你個個 duty，...

I

J

答：唔可以咁講，即係大家--即係我...

J

K

問：...咁水務署就變咗「我而家已經做嘅嘢就已經足夠晒。」係唔係即係基本上你成個監管嘅 philosophy 就係咁樣？

K

L

L

M

答：你唔可以話--即係其實水務署有佢個角色扮演，就係個 regulatory role，我一路都好強調。

M

N

問：我頭先數咗幾樣嘢，我相信我已經數盡晒你所提出嚟你嘅監管，做咗啲乜嘢，你係咪覺得已經係做咗一個監管水質嘅機構嘅責任呢？

N

O

答：如果我哋睇番 benchmark，我哋其實個 regulatory 可能都係做一啲類似咁嘅工作。

O

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Q

問：喺我哋香港呢個環境底下，你係咪話“yes, we have done all that is required of us”？

Q

R

答：我唔敢講話一定係 all，不過我覺得基本要做嘅嘢就係咁樣樣，你話係咪再有可能再睇，有冇啲再進一步完善嘅空間，呢個永遠都可以嘅，我覺得。

R

S

S

T

問：即係...

T

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答：即係你霎時間咁叫我話一定咁，我覺得就永遠都可以再進一步完善，不過當然我哋都可以睇番好多外國嘅經驗、點樣做法，或者睇番其他條例嘅經驗咁樣樣。

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主席：我諗去到起樓，去到地盤執行嘅，當然係佢哋 architect 有佢個 role 去 play，但係作為一個水質嘅提供者同埋一個守護者，你都有你個 role 去 play 㗎，啱唔啱呀？

答：我同意嘅，同意嘅，我哋有我哋嘅 role 要 play。

主席：但係去到呢個水質嘅提供者同埋水質嘅守護者，去到呢一個角色嘅時候，你會同意你哋個 role 其實先至係一個 lead role，whereas 如果你去到起樓、鋪水管、裝水喉諸如此類啲咁嘅技術層面，就可能係一個 AP，佢有一個 lead role 去 play 㗎。

答：同意。

主席：即係睇下你究竟從邊一個 perspective 去講、睇喇。

答：同意，同意，其實所以 that's why 我都覺得其中一樣嘢好重要，就係 put in 一個 standard，一個合適嘅 standard，然後你哋就可以跟啲個 standard 去做嘢，去確保番啲嘢係 okay。

問：我完全同意你而家最後呢句說話，如果你 put in 一個 standard，你係可以令到好多其他嘅人都有個聚焦，睇住呢一個 water quality standard 去做嘢嘅，就係正正 Prof Fawell 講，你如果有樣嘢，有個 ball，每個人個眼係 focus on the ball，個問題就係而家係咪有--個 ball 係咪夠晒聚焦之嘛。

答：其實我同意 Fawell 個說法，個 ball 就唔係淨係一個人對眼去睇嘅，應該係全體都要睇住嘅，因為嗰件嘢無論係 to 水務-- to 其他嘅 stakeholder 可能都重要，當然我贊成主席講，我哋可能水務署係要 take 個 lead role 㗎度。

問：好。我想同你再睇一睇...

主席：不如留番聽日先，好唔好呀？

何先生：係，好。

B

B

C

主席：你都唔會問完㗎喇，係咪？今日。

C

D

何先生：今日應該未必會完成。

D

E

主席：我哋聽日再繼續。我哋聽日就回復番我哋正常嘅時間，即係朝頭早
10 點鐘先至開庭。

E

F

何先生：好。

F

G

主席：四點半鐘就休庭。

G

H

何先生：唔該，唔該。

H

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主席：我哋聽朝 10 點。

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2016年2月22日

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下午4時50分聆訊押後

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C Monday, 22 February 2016 C

D (11.06 am) D

E (Transcript of simultaneous interpretation E

F except where otherwise specified) F

G MR WONG CHUNG LEUNG (on former affirmation) G

H Cross-examination by MR KHAW H

I MR KHAW: Good morning. First of all, in relation to your I

J three witness statements, I would like to first ask you J

K to clarify your work experience. K

L I know that starting from 2015 you became the deputy L
director. When did you join the WSD?

M A. I think on 15 June 1989. M

N Q. Prior to being a deputy director, that is before April N
2015, you were the assistant director?

O A. I was, for a period of time. Before I became the deputy O
P director, for a year and a half, I was the permanent P
Q secretary in the Development Bureau and I was Q
R an assistant director for about a year. R

S Q. Prior to assistant director, what was your post? S

T A. Chief engineer. T

U Q. At the time when you were assistant director, what was U
V your scope of duties? What are the major areas? V

A. It was called operations assistant director, which oversees the operation of water supply and distribution.

Q. So waterworks?

A. Yes.

Q. I want you to look at the 3rd witness statement of yours. C21, page 18770.

The purpose of this witness statement is to comment on the report of the Institute of Engineers?

A. It is more to clarify some misunderstandings, to give information about the update after the excessive lead in water incident.

Q. In the report, there were some comments about the system inside the WSD, and you were referring to some misunderstandings?

A. Yes, some misunderstandings.

Q. In your 3rd witness statement, you refer to the licensed plumber system. I asked some questions of the director in relation to these systems, but I would like you to supplement. Because you have been in the WSD for quite a long time, you may be able to supply me with more

information.

First of all, do you know that at around an earlier time, that is prior to 1970s, companies could be licensed plumbers? Did you know that?

A. I don't have first-hand information. It's after the incident, when I was having discussions with my colleagues, because the director was talking about the development, so I became aware that in the past, companies could become licensed plumbers.

Q. Did you read the relevant legislations that companies could be licensed plumbers?

A. No, I did not myself read those provisions, but I have heard about it.

Q. In your discussions, you were aware that companies could be LPs, but there was some change in the 1970s. After that, only an individual could be a licensed plumber.

A. You mean in 1992, in that amendment, it changed from a company to an individual?

Q. Perhaps let's refer to some documents. A3, page 2537. First, the page before, 2536. It's an earlier version. It's the 1930s and there were some amendments.

On page 2536, it says in 1940 and 1950, there were some amendments. So it's an earlier version.

Let's look at page 2537. Paragraph 3, "licensed plumber", it says:

"(In English) ... includes any person or persons or corporate body licensed by the water authority to construct, alter or repair inside services ...", et cetera.

Do you see that?

A. Yes.

Q. It seems that the law stipulated that firms could be companies.

A. Yes.

Q. Let's look at the change in the law. A3, page 2550.

A. 2550?

Q. 2550, yes. It's a 1974 version, so a few decades after that.

In the middle, "licensed plumber" is the definition:

"(In English) ... means a person licensed under this Ordinance to construct, install, maintain, alter, repair or remove ...", et cetera.

It says "a person deemed" to be an LP, so the person may not be a licensed plumber but it's a person deemed to be an LP.

So, in relation to the regulations, you talk about prior to 1992. Let's look at the qualification of an LP. Let's look at page 2519. Section 33, qualifications of a plumber's licence. If you look at the qualifications set out in pages 2519 and 2520, and if you look at page 2550, you see that the reference of "body corporate" has disappeared. In the 1974 version, it says that licensed plumbers would have to be a person. That's how you would read it too?

A. Yes.

Q. In relation to deemed licensed plumber, let's refer to the legislation we have looked at. Page 2522.

Regulation 38. Here, it explains, "(In English) Persons carrying on plumbing business":

"(In English) (1) Any person, not being a licensed plumber, who --

(a) carries on business of plumbing for the purposes of the Ordinance; and

(b) employs any licensed plumber for the purposes of such business, shall be deemed to be a licensed plumber.

(2) Every person who is deemed to be a licensed plumber under subregulation (1) shall ... submit to the licensing authority the name of every licensed plumber employed by him."

That means, for example, if a foreman himself isn't a licensed plumber, but if he employs licensed plumbers to work for him, then although the foreman himself is not a licensed plumber, he is deemed to be one. That seems to be the situation in 1974.

If we look at the 1974 version which we just looked at, section 15 on page 2555, you can see what work should actually be undertaken by a licensed plumber, according to the regulation:

"(In English) ... no fire service or inside service shall be constructed, installed, maintained, altered, repaired or removed by a person other than a licensed plumber ..."

Then subsection (2), there is an exception for work of a minor nature, which is the same as the current

Waterworks Ordinance.

However, for the deeming provision of a licensed plumber, you can see that in 1992, when the grade I/grade II system was repealed, and a systematic approach was undertaken for the VTC to provide courses for the relevant individuals to apply to become a licensed plumber, was set up.

If we look at 1992, the WSD provided a Legislative Council brief, on page 2567. If we look at paragraph 9 on page 2567 -- I'm not going to read it out; you can read it yourself.

All right. So according to paragraph 9, to step up the supervision of licensed plumbers, the recommendation at the time was to repeal the deeming provision. So if we look at the changes in legislative requirements, it seems that on the face of it, the law is clear. In the 1970s, starting from the 1971 version, until now, it seems to suggest that for somebody to engage in plumbing works, only licensed plumbers should be allowed to undertake those works, as far as the law is concerned. That is, only licensed plumbers could undertake work involving fire services or inside services.

A. I am afraid I can't answer you on this, because I am not very clear about the interpretation of the provisions.

I think when the director gave evidence, he said that practically, for licensed plumbers or for -- I mean, practically, it would be very difficult for licensed plumbers to actually undertake the work.

Q. That depends on the interpretation of the law, but as the deputy director you need to enforce the law, so you need to be familiar with the law.

So, starting from the 1970s, we have looked at the provisions and how they are interpreted, and do you agree that apart from minor alteration works, there is no provision allowing non-licensed plumbers to take up these works?

A. Well, it's just my comment. I did not read all the documents. But I have two observations. For the 1974 version, there was a deeming provision. That is to say, if an individual isn't a licensed plumber or doesn't have the knowledge but employs somebody who is a licensed plumber, then the individual will be deemed to be a licensed plumber.

Q. In other words, that individual can also undertake the work?

A. No, that's not how it is interpreted. Well, I don't know, perhaps you can clarify for me, because there is a deeming provision. That's my interpretation. Say in 1974, if I employed a licensed plumber, I would be deemed to be a licensed plumber. That means I could undertake plumbing work. Is this interpretation correct?

Q. It's just a deemed licensed plumber.

A. Yes, but I will be deemed to be a licensed plumber.

Q. So, in your view, the person can get his hands on the work?

A. I am not a lawyer by profession, but I think, when in 1974, I employed a licensed plumber, then I would be deemed to be a licensed plumber. Then I would be allowed to take up the work. Of course, if I had no knowledge at all, it would be impossible to take up the work, so I definitely would need to employ workers who had knowledge, including workers and licensed plumbers.

In 1992, as you can see in the LegCo brief,

C "(In English) strengthen control". So in 1974, if at C
D the time I was somebody who employed licensed plumbers D
E and then was deemed to be a licensed plumber, then, E
F following the previous practice, I would engage workers F
G to work for me, and when there was a change in 1992 to G
H scrap this arrangement, that would be a major policy H
I change, having a huge impact on the trade. I was in the I
J Development Bureau for a year and a half, and I somewhat J
touched on legislative work.

K In enacting legislation, if a major policy change is K
L involved having a significant impact on the industry, L
M a thorough consultation would have to be conducted. You M
N cannot just come up with a piece of legislation N
O involving major change in the industry. O

P So in 1992 there was no such consultation conducted. P
Q So, according to the director, that wasn't the intent Q
in
R 1992. But I understand that perhaps the lawyers may R
S interpret the provision in another way and it's not S
T appropriate for me to discuss this with you. T

U But from a practical point of view, so far as the U

C actual operation of the trade is concerned, that's my
D observation.

C

D

E Q. For the specific interpretation of provisions, we will
F discuss that later.

E

F

G In 1992, and if we refer to the LegCo brief of the
H WSD, there is an explanation. On page 2567, it was
I explained in detail that the deeming provision for
J licensed plumbers was repealed, and it was actually
K repealed. Setting aside the interpretation of
L provisions, that actually happened. So, like you said
M just now, if that was a substantial change,
N a consultation or extensive consultation should be
O conducted.

G

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N So, according to you, although the deeming provision
O was repealed, there had not been any consultation
P beforehand; right?

N

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Q

R A. Well, perhaps, if I may, in paragraph 9:

R

S "(In English) To strengthen control over [LPs] ..."

S

S

T Then for the sake of discussion I think
U strengthening control at the time means that if say I,
V the employer who employs LPs, and then after I become

T

U

V

V

a deemed LP, I then sack all the LPs, such that there is

no LP left in my company, I think that will serve the issue that the 1992 change sought to tackle.

Q. Now, you joined the WSD in 1989. And in relation to section 15, that is only LPs can carry on a plumbing business or undertake plumbing work -- so, for those non-LPs undertaking work, it was all along allowed?

A. When I first joined the WSD, I did not directly participate in this area, but I did discuss with the relevant colleagues and that is their interpretation.

COMMISSIONER LAI: A question for you, Mr Wong. Referring to the records, do you find any documents relating to the 1992 change? Any drafting instruction that you can find? I suppose these should be found in documents, because it involves such a significant change.

A. I myself didn't read all the documents. My observation, and when I discussed with colleagues, I also said that when a deeming LP sacks all the LPs, then he himself remains a deeming LP.

COMMISSIONER LAI: But that was just a casual discussion.

Do you find any information in the documents?

A. I can't answer you now.

COMMISSIONER LAI: Can you go back and find the documents?

A. Yes.

COMMISSIONER LAI: Because I believe that definitely for

change in the legislation, the philosophy would

definitely appear in some documents at least. So

perhaps there should be some drafting instructions,

et cetera. I find it peculiar that a change would take

place all of a sudden.

MR KHAW: Perhaps let me refer you to some WSD circulars in

relation to persons who can take up the actual plumbing

work.

So please turn to bundle C3, page 2422. I put the

same question to the director in relation to page 2422.

Some incidents took place at the time. Some licensed

plumbers failed to carry on the business.

In relation to that, the WSD issued a circular,
reminding licensed plumbers of their responsibility.

Paragraph 1 sets out the background, licensed
plumbers withdrawing from the plumbing work of
a project, and the second paragraph reminding licensed

plumbers to carry on the work, once the licensed plumber has undertaken the work.

Then paragraph 3:

"(In English) So long as you remain to be the licensed plumber of a particular job for which you have signed Waterworks Form G, you may employ workers who are not necessarily licensed plumbers to assist you in carrying out the work. But under no circumstances should you use your licence to enable non-licensed persons to undertake plumbing work without involving yourself in the supervision of the work."

So it's very clear here, first, if you are a licensed plumber, then you cannot employ more licensed plumbers, without any licensed plumbers present, and you are allowed to employ non-licensed plumbers to undertake plumbing work, and that was issued in 1990.

Did you look into this, after the incident, that at the time of the issuance of the circular, perhaps, the wording of the circular is not consistent with the law, because it says that "licensed plumbers to carry out the work", but here it says non-licensed plumbers may carry

out the work. So did you have any recent discussions about the issuance of this circular?

A. Perhaps the circular is not compatible with the law. I did not read the documents, nor did I ask my colleagues about information in this regard.

Q. The director, Mr Lam, admitted in evidence that it seems that the circular may not be clear in relation to the legal requirements, because the law says "shall be carried out by licensed plumbers", but it seems that in the circular it says that non-licensed plumbers may carry out the work. Do you think that is not clear?

A. I have not carefully looked into it, that is to compare the circular with the legislation. When it comes to practicality, if you don't allow non-licensed plumbers to carry out the work, I simply think it is not feasible.

Q. If you look at the law, section 15, which says that only LPs can carry out the work, do you think it is not consistent with the law?

A. I am not a lawyer, so I am not clear about that.

Q. All along, it's been your interpretation that

a non-licensed plumber may carry out the work?

A. Yes, under the supervision of an LP.

Q. Over the years, you had no plans to clarify the law?

A. I really am not clear about this, but I am aware Mr Lam, the director, said in his evidence that we would look into it.

Q. So you think there is a need to explore it and to clarify it?

A. I have heard different views saying that maybe we should look into it.

Q. After the incident, we see that you have issued some new circulars.

Please refer to C2, page 2219.

I would like you to look at A4, page 2731. It's your website. At the top, it's circular letter No. 4 of 2015. C3, page 2219. At page 2219, it's after the excess lead in water. The WSD saw the need to issue a circular letter to clarify areas of doubt. It says:

"(In English) For the avoidance of doubt, all plumbing works using soldering for connecting copper pipes shall have the permission of the Water Authority

C and shall be carried out by a licensed plumber in
D accordance with section 14 and 15 of Waterworks
E Ordinance."

C

D

E

F It seems it is a clarification of any possible
G doubt, that under the Waterworks Ordinance, works have
H to be carried out by licensed plumbers.

F

G

H A. Well, at that time, we were aware that soldering may be
I a risk because people might not know and they might use
J problematic soldering material. So I think -- well, we
K issued the letters because it would be safer that LPs
L carry out the work.

H

I

J

K

M Q. You issued a circular and you want to clarify something
N about sections 14 and 15 of the Ordinance -- it says
O "shall be carried out by a licensed plumber". You have

L

M

N

P referred to the law, and you think that such works shall
Q be carried out by a licensed plumber, or is it the case
R that you maintain your previous view; that is,
S non-licensed plumbers may also carry out the work?

O

P

Q

R

T A. It should be the latter. I don't know whether it's in
U the bundle. After this letter has been issued, you may
V recall that some workers complained that there is

S

T

U

C a possible loss of jobs, and we have issued something
D stating that it's still our view that works can still
be

C

D

E carried out under the supervision of an LP.

E

F Q. However, in this circular we don't see that. It seems

F

G quite certain in this circular, saying that the works
H shall be carried out by a licensed plumber, so there is
I no elbow room.

G

H

J A. There was a press release, but I don't remember whether
it's the same evening, to explain the situation.

I

J

K Q. That evening, there was a press release to explain the
L situation. Perhaps you thought that this circular is
M not clear enough, so you had to issue a press release?

K

L

M

N A. Some people might share your view, that is soldering
O will have to be done by an LP, and workers were worried
P that they would lose their job, but currently there are
workers doing that job.

N

O

P

Q Q. So you say that workers asked you whether they could
R carry out the works themselves?

Q

R

T A. Right, and we explained to them.

S

T

U Q. The explanation in your website, in this circular, it

U

C seems that it's different. C

D Let's look at A4, page 2731. At the top, it says,
E "(In English) Circular letter No. 4/2015." What is the
F purpose of this circular letter: F

G "(In English) As stipulated in the Waterworks
H Ordinance, apart from alterations of repairs works of
I a minor nature, the construction or installation of
J inside service shall have the permission of the Water
K Authority and shall be carried out by a licensed
L plumber. The purpose of issuing WSD circular letter [of
M this number] ... is to remind relevant parties that all
N plumbing works using soldering for connecting copper
pipes shall have the permission of the Water Authority
and shall be carried out by a licensed plumber."

O There is an additional sentence here that's missing
P in the circular letter. It says: P

Q "(In English) The licensed plumber can be assisted
R by workers in carrying out the works if necessary." R

S I have seen two documents and I have asked Mr Lam,
T the director. Say if a licensed plumber in the trade,
U after reading the circular, saying that "I myself will
V have to do it", and then later there is another one V

saying, "I don't really have to carry out the work" --

don't you think that information is a bit unclear?

A. We are in close communication with the trade. Where there is anything not clear, we will use different channels to explain to them.

Q. And you said that in this regard, you as the WSD need to

discuss further with the trade as to whether the law should be written more clearly?

A. Yes. The director also said that.

Q. And in 1992 --

CHAIRMAN: Sorry. Please, if you look at this, the paragraph underneath:

"(In English) According to the circular, please clarify whether all solder joints must be carried out by a licensed plumber."

It says here, "(In English) However he should involve in supervision of ..." So:

"(In English) Under the Waterworks Ordinance, construct, install, maintain ... shall be carried out by

licensed plumber. The licensed plumber can be assisted by workers when needed. However he should involve in supervision of the plumbing works."

What is supervision?

A. I think he should be responsible for supervision.

CHAIRMAN: So he should be present?

A. I think it should take a wider scope: he is responsible.

CHAIRMAN: So what does it mean? So afterwards, if there was non-compliant material used, he should be held responsible?

A. I think, for our construction work, the licensed plumber can put in a system to supervise it, can personally supervise it or engage someone else to supervise it.

They are all supervision.

CHAIRMAN: I do understand that the licensed plumber can be assisted by workers when needed. It's very simple. Say, for example, carrying dozens of copper pipes upstairs, of course someone else can help him. However, this is equally dubious.

A. You mean it is not clear?

CHAIRMAN: It's not clear, that's for sure.

Never mind. Please continue.

MR KHAW: In your statement -- it's page 18773 -- you said, on this page, that the Institution of Engineers said that the definition of "(In English) minor nature work" is not clear. You said that is not clear. There are some handbooks explaining what are "(In English) minor nature". This handbook, it says that starting in 2001 it was published on the website -- sorry, 2010.

Is it 2010 or 2011?

A. It's 2001.

Q. So it was published on the website in 2001. Apart from this handbook which is updated onto the website, do you have any other publications to inform the trade what are "works of minor nature".

A. I cannot answer your question because I am not very clear whether that's been done in the past decade or so. The handbook is something that the trade make reference to a lot.

Q. Say I am a worker and I want to know whether the work I am doing should be done under the supervision of a licensed plumber or I can do it myself. So you expect

the worker to read the handbook online?

A. Perhaps you can ask my colleagues afterwards.

I understand that there is information on the website explaining what is "minor works", but as to the extent of the detail, I am not very clear.

Q. You commented at least or criticised the HKIE's remarks on minor work. But before that, did you find out with your colleagues that apart from the handbook, whether there is any circular to the trade in this regard?

A. I want to say that the biggest misunderstanding of the HKIE that day was that WWO46 was required to be submitted to the WSD, to verify whether it was a piece of minor work. We clarified that perhaps there is no need to submit the form, and if necessary may seek advice from the WA.

Q. Exactly on this point, as far as trade is concerned, there is a question on whether there is adequate knowledge on what constitutes "minor work".

So my question is this. Apart from the handbook, have you asked your colleagues well, apart from the handbook, what else do we have to let people understand

clearly what is meant by works not of a minor nature?

A. There isn't any detailed discussion, but I was told by colleagues that information is available online on what is meant by "works of a minor nature".

Q. We briefly touched on this before, on the change in 1992, and one of the changes was that the grade I/grade II system was abolished.

A. Well, I want to clarify that it is not that it was abolished, but as I have explained in the statement, after 1992, basically, after getting a qualification, an individual can already carry out work as an LP and there wasn't a need to apply for a grade II anyway.

Q. Yes, but then one could undertake work of a wider scope.

So one of the changes was that one could only apply to become an LP after undertaking certain VTC courses previously, although there were some requirements on holding certain certificates. But then there was also provision before 1992 that somebody could be an LP without holding the certificate as long as some criteria were fulfilled.

A. I'm not sure about that.

Q. All right. We can refer to A3 now. Page 2519.

On page 2519, regulation 33, it talks about the
"(In English) Application for plumber's licence". Then
the certificates to be held. That's in subsection (1).

But if we look at subsection (2), it says:

"(Partially in English) Notwithstanding
subregulation (1), any person who has knowledge of
plumbing may apply to the licensing authority for
a plumber's licence of any grade specified in regulation
35."

So it seems to be clear here that even without those
certificates, it doesn't matter, as long as you can
prove you have the relevant experience. So, about the
licensing system before 1992, we understand that the WSD
conducted examinations for applicants. Do you know
about that?

A. Yes.

Q. And we also learned from the testimonies of several
licensed plumbers on this area. Some obtained a licence
before 1992 by taking an examination at that time,
involving some drawings on the alignment of pipes and
the design, and so on and so forth.

Do you know that before 1992, as far as the

examination was concerned, there was no examination on
soldering?

A. I am not sure about that, but I suppose there were
practical tests, but I'm not sure whether it's on
soldering.

Q. Before 1992, some licensed plumbers undertook that exam,
but according to them, the exam did not include.
Soldering of pipes. Do you mean soldering or just
jointing of pipes?

A. I'm not very familiar about that. But in the past,
before 1992, a lot of GI pipes were used, involving
jointing by compression, not soldering.

I understand that the jointing method was mostly
mechanical, so I wouldn't be surprised if the
examination at the time did not include soldering.

Q. Because we heard from Mr Cheung Tat Yam, a licensed
plumber of Golden Day Engineering, telling us that he
doesn't have the knowledge of jointing copper pipes by
soldering. So do you also know about this? For
licensed plumbers who've got the licence very early,

they did not have the knowledge, but they were able to undertake the work?

A. I think that applies to every profession. An engineer, perhaps originally a certain skill didn't exist, but then as you continue to become an engineer, you need to

acquire the skill. So perhaps in the 1980s, when soldering wasn't popular, the licensed plumbers might not know about it. You only acquire the basic skills. But when new technology or new skills are developed, you need to acquire those skills and that happens to every profession. The same applies to doctors, for example.

So I think this is a general phenomenon. Otherwise, you won't survive in the market.

Q. I am not talking about things in general. I am talking about licensed plumbers, who became licensed plumbers in

1992. At that time, the examination did not include soldering, and yet they obtained the qualification as licensed plumbers?

A. Yes, I believe it was possible.

Q. So in 1992, I reckon that the WSD would like to take

C a more systematic approach over supervision of LPs, and
D therefore you devised some courses and we also asked the
E VTC what the courses entail, and the courses include
F soldering copper pipes.

G So, in 1992, the department devised a systematic
H approach to regulate the qualification of LPs, but then
I before 1992 there were different ways of obtaining the
J qualification, some had taken the WSD's examination --

J (Audio system interference)

K CHAIRMAN: Please pause here.

L
M MR KHAW: So, in relation to the licensed plumbers who got
N their licences before 1992, was there any consideration
O as to any further steps to recognise their qualification
P or to further their knowledge before renewing their
Q licence?

Q A. I did not look into detail at the transitional
R arrangement, but I reckon that whenever there is
S a change, those who have obtained a professional
T qualification before the change -- for example,
U engineers -- they would be allowed to carry on with the
V same professional title, unless they are really

incompetent. That should be the approach for a smooth transition.

For those who obtained certain qualifications beforehand, they should be allowed to carry on, with new requirements, and I think this situation should happen to the trade as well.

Q. For LPs involved in the incident, according to their testimonies, they did not know soldering either. That was not included in the examination. But at least according to the law, they should supervise workers in plumbing works including the jointing of pipes. So do you agree that this is not very satisfactory? Say if licensed plumbers themselves did not have the experience or knowledge at all, at least the law requires them to supervise the workers to make sure that the work is correct, then do you agree that the system should be improved?

A. I agree there is room for improvement, as far as the system is concerned, and I think you are touching on a point of continuous professional development for many professions, and I see that for many professions, they

have introduced a CPD requirement. As for LPs, I dare not say whether the same should apply, because frankly, in the past, we didn't have the CPD requirements. Now we have CPD, because of new developments in the industry, and those professionals should acquire new skills and knowledge.

Q. I don't think we need to turn to the page, but we have discussed this a number of times, the British Standard referred to in the Waterworks Ordinance or the Waterworks Regulations. It's British Standard 864. We understand that it has been updated long ago, but in the Waterworks Regulations, it provides that the latest BS should be used.

Perhaps let me refer to your witness statement. C21, page 18775. In paragraphs 19 and 20, you said you need to strike balance whether to use the latest BS or otherwise. If the trade has been using the same BS for a long time, then it may not be necessary to make substantial changes every time the BS is updated.

You talk about a support unit, which is a unit under the Customer Services Branch, to follow the updating of

BS and the adoption of updated BS in Hong Kong for many years before the lead in water incident. That means you already have colleagues responsible for the updating of BS, whether any change should be adopted.

I would like to ask, in this regard, the technical support unit say there is a change of BS standard, and they would consider whether there needs to be some change in documents or the WWO46, or is it the case that they would think that it would make little difference that nothing's changed? So was there any formal discussion within the department or was there any document about whether there was a need to change anything subsequent to a change of BS standard?

A. I can't answer you, because it's about the detailed operation. You will have to ask the relevant officer.

I know that the TSU and if there was going to be a change to the new adoption, there would be a discussion with the assistant director.

Q. You have been in the department for quite a long time. Have there been any specific discussions about a customer services unit that is in the technical support unit? Were you part of any discussions?

A. No.

Q. When you made the statement, did you ask -- well, if the technical support unit deemed it necessary to introduce a change subsequent to a BS unit, you have a duty to inform the trade that these have been changed and those have not been changed. It seems there is nothing in the circular.

A. I think it's mainly done through forms, and the plumbing handbook, standard waterworks requirements, and there would be updates.

Q. B15.1, page 37627.

On this page, let's choose one as an example. It's the WWO46 version in 2012. Under "Notes" it says this British Standard will have to be used for types of fittings. Let's see "gate valve of copper alloy". It's BS 5154. Do you see it?

A. Yes.

Q. If you refer to your colleague Mr Chan Hing's witness statement -- he referred to this as well. C19.5, page 13518. In paragraph 8, Mr Chan said:

"(In English) For the following major types of

C plumbing materials, the applicable BS relevantly provide
D as follows."

E Let's refer to (b), it's copper alloy:

F "(In English) Item 8 in part 2 of schedule 2 of the

G [Waterworks Regulations] requires, inter alia, that
H copper alloy gate valves shall comply with BS 5154."

I However, BS EN 1288 is the latest version in 2010,

J and it says that it's BS 5154 has been changed to 12288.

K The relevant documents have been submitted. It says:

L "(Partially in English) All the copper alloys listed
M in annex A to BS EN 12288 are permitted to contain lead
N up to a specified percentage. For example, the lead
O content of CC491K grade copper alloy is between
4 per cent and 6 per cent by mass ..."

P It seems that in relation to copper alloy gate
Q valves, if you refer to WWO, the British Standard, it
R seems that thereon it is rather old. It's 154. In
S 2010, it changed to 12288 from 5154. It also sets out
the requirements.

T If you look at the 2012 version, that is page 37624,

U gate valve is still 5154. You said that you will use

forms to inform the trade, but it seems that that isn't the case because it's been two years and still the form hasn't been changed?

A. Well, for 5154, as far as I understand, on form 46, if it's copper alloy gate valve which complies with 5154, it will be accepted, because the difference between 5154 and 12288 is very minor. Of course, if there is a submission of 12288, we will accept.

Q. You said it's only a minor change to you. If I, as a licensed plumber, have to make a submission, and I need to know which standard is to be used, or it's just the case of any stakeholders, how will they know whether the department thinks the change is minor or what?

A. Well, when a submission is made, that is on 46 there is the British Standard, and it states what will be accepted by us. So it says, 5154, if I'm an LP and if I hear from other people that it's changed from 5154 to 12288, and I refer to the legislation and it says the latest standard, which is 12288.

Q. So which am I to use? Follow the form and that will be

safe? However, the form is not the latest version.

Will I get caught inadvertently?

A. Well, we are very interactive with the trade, and basically there is a lot of communication. So they know about our practice.

Q. What is the communication? If you say form, what we see is that it hasn't been changed after two years, and you said in 2010 there was a change to 12288. The customer services technical support team surely would have seen it and they would have decided whether to change or not, and they decided to change it.

How did they communicate it to the trade; saying

that, "You don't have to use 12288, 5154 supplants it".

So apart from the changed form, how did you explore with the trade to disseminate the information that it's all right if you don't change it?

A. I think it's mainly to use the form.

CHAIRMAN: What did you say, sorry?

MR KHAW: The form, referring to the form.

A. Well, on the form, there is the British Standard. Say

BS 5154, we will accept that, and if there is a more

updated, say the supplier says you can use BS EN 12288
and it's used, we will accept that as well.

Q. So you are saying on the form, it's an older version,
although the law says you have to use the latest
version, you would think that would be okay?

A. We will find that acceptable, yes.

CHAIRMAN: Then it's problematic, because you are still
using 864.

A. Yes, we have considered that, we would consider the
legislative arrangement.

CHAIRMAN: It's still grade C and G and it's still 864.

I would like to ask something. I don't want to
forget. The director said, when part IV of WW046 is
signed, AP and LP would both have to sign. The director
once said to us -- well, of course, he had no first-hand
experience -- he said, in the past, materials would have
to be examined. Say, for example, the components and
what was actually used would be tested. However, the
trade said it's too cumbersome; it would take too long
a time. There was a discussion with the trade and they
have adopted the trade's opinion.

The LP and the AP would sign both, and the responsibility is changed to the AP.

As far as you know, when was this approach adopted?

A. Well, as far as I know, prior to 1982, the terminal fittings, that is taps, if an LP intends to use them, then they will have to send the whole batch to a depot at Bullock Lane in Wan Chai, and there would be visual inspection and hydraulic test conducted, to see if it's watertight. If it's all right, then there will be a stamp saying that the material can be used. Otherwise, as far as I understand, it would be sprayed with a huge cross in paint.

In 1982, it was found that it is not all right, because in the past, there may be only two faucets in a unit. However, after 1982, there were more and more works, and works got more complicated, and it was the opinion of the trade that it would cause delay and there was too much work for the WSD.

I have gone through the files and my predecessors started to think about what to do, because in the past there was quite stringent control. All the parts will

have to be examined. And they thought that apart from the LP, there needs to be an AP, surveyor, architect, certifying that the components are compliant, in order to speed up the progress.

The major consideration was that the authorised person would be resident on the site. It's not just about construction of a plumbing system. They look at all the different aspects of the construction works. So the responsibility was passed on to the AP for them to certify before we effect water connection or we improve commencement of work.

CHAIRMAN: So that was 1980-something, and you said 1982?

A. Yes.

CHAIRMAN: So, starting from 1982, some of the

responsibilities have been transferred to APs?

A. I don't know whether you can call it this way. We would just ask them to help us with this part of the work. That is for them to inspect all the materials and certify them viable before we connect water supply.

MR KHAW: In relation to the HKIE report, this was also touched upon. If we look at form WWO46, it also refers to the BS, only that is the outdated BS. It is not

updated in a timely manner.

So, about the updating of BS, do you agree that it

is not done in a timely manner; it is not updated
immediately?

A. I think the philosophy adopted in the past was that
a more practical approach is taken. We need to strike
a balance between strict compliance and operation of the
trade.

So if a component complied with the BS in the past
and no longer complies with the updated standards, we
don't want to just let it phase out. As long as it
still can perform its function, we will allow the use
of
the materials.

But after the lead in water incident, we have
actually changed our approach. I believe that this is
an improvement, since we have uploaded the latest BS
online.

Q. I would like to refer you to paragraph 20 of your
witness statement:

"(Partially in English) In any event, the list of BS

C specified for product compliance has been removed from C
D the updated form WWO46 issued in October 2015." D

E That means, on the form, you have done away with the E
F list of BS specified for product. Then: F

G "(Partially in English) Further, note 8 of the G
H updated form WWO46 advises that 'all pipes and fittings H
I including any materials intended to be used for the I
J construction, installation, alteration or removal of the J
K approved plumbing works covered by this form shall K
L comply with the relevant BS listed out on WSD's L
M website'. The updated list of BS adopted by WSD can be M
N accessed via ..."

N Then the file. N

O About this new approach. On the website, definitely O
P the technical support unit, TSU, will need to oversee P
Q the website and see when the BS should be updated on the Q
R website. R

S So the technical support team colleagues would S
T definitely consider striking a balance. T

T (Audio system interference) T

U CHAIRMAN: You may have to stand over there to avoid U

interference.

MR KHAW: So, adopting the previous philosophy, a proper balance should be struck. That is, even when the BS has been updated, they would still place weight on their own consideration and consider whether it's appropriate for the trade, or whether the BS would be updated immediately online, as soon as the BS submit updated?

A. I think both approaches are being taken. If we look at the five-year validity period, the latter part of the witness statement, you can see the change. In the past, we say, all right, as long as there is no substantial change and that it complies with the previous BS, we would allow you to use it. But undoubtedly, after this incident, we have tightened our control, and that's the same philosophy applied for the five-year validity period.

Q. Somewhere in between -- I think we need to put a question mark here -- because what is meant by "somewhere in between"?

A. I think you need to understand one point. For the engineering sector, when the BS is updated, since many

have already procured materials, if you would just ban the use, it would be very problematic. So we will consider the adaptability of the trade and how significant the change of the BS is, and what is the impact. I think it's not feasible to talk about a strict formula.

Q. I understand this. But you have a new rule, that is you have the rule that you need to follow the latest BS. But if you don't follow the rule, there will be confusion. The trade may see a set of requirements in the law, but another set of requirements in the paper. In your papers, it seems the requirements -- one cannot follow the requirements.

A. If you go online, you will see the updated BS now, on our website.

Q. But this may not be the latest standard, because you say the approach is somewhere in between.

A. Right. I can say that we accept that, but if you adopt the latest BS, then you are all the more welcome.

Q. If you look at the new form -- C21, page 19087. As far as I know, this is the form adopted by your department

after October 2015. Perhaps the Secretariat colleague
can help us turn to the subsequent pages.

CHAIRMAN: It should be page 19094.

MR KHAW: Thank you.

If we look at paragraph 2 under "Notes":

"(In English) Parts I and II of this form shall be
submitted to the Water Authority for permission to
commence the construction ... All pipes and fittings and
any materials to be used for the construction,
installation, alteration or removal ... shall comply
with the requirements of the Waterworks Regulations."

So here, it's very clear that you are talking about
Waterworks Regulations, and any change, and so on and
so
forth, shall be notified. So you are not asking people
to go online to find out the latest BS. You are still
asking people to observe the Waterworks Regulations,
which is the latest one.

But as I mentioned just now, even on your website
the BS may not be the latest one, and still in your new
form you are still advising people to follow strictly.

A. Can we look at note 8. We said that the form shall comply with the relevant BS listed out on the WSD's website. Here, it says the latest BS, on the one hand, and on the other hand, the WSD does exercise flexibility. So it's not the case that it will be a breach of the Waterworks Regulations.

In note 8, people are advised to follow the BS listed out on our website. I think this will be for the trade's convenience.

Q. So the practice now is that if the trade follows information available online, then this will suffice; they will be complying with the legal requirements? Although the BS online may not be the latest one.

A. I believe so.

Q. So perhaps you should consider whether to change the rules.

A. Right. We will go back and consider whether to make amendments on our website or to deal with it some other way.

Q. Let's go back to the previous version. B15.1/37627, the notes we referred to just now about the British Standard. Paragraph 7. Previously, your practice was

that:

"(In English) For fittings, only draw-off taps, stop valves, gate valves, ball valves and combination fittings need to be reported."

So not many items here. Five types or so, not all kinds of fittings, because according to the Housing Department's list, there are other types such as flange, et cetera, and you have only selected five types that need to be reported, and we understand that solder materials were not required.

For fittings that need to be reported, for those selected to be reported, was there any consideration on manpower resources?

A. As far as I understand, there is a history behind this. We call it terminal fittings. Before 1982, the terminal fittings were sent to our depot for inspection, and basically, after 1982, there were no longer these five items on the form. I think the biggest concern for these five types of fittings -- I don't know if you know that if you use the old kind of taps, once you fasten it

too quickly, there would be water leakage, and as a result these fittings were included in the form.

I think Mr Chan Hing's statement also referred to this. Subsequently, there was a case, after the intake stage, there was a bursting of pipes, and there were a lot of complaints, and after 1987, because of the problem that arose in the incident, pipes were also included in the types of fittings.

So those high-risk items or fittings were included, and reporting was required.

Although there are taps approved by the WSD, if you want to buy one, you can check it online. Although there may not be reporting beforehand, if you want to know whether brand A, B or C are approved -- I mean for convenience, if they have made reporting beforehand, certain brands, A, B or C, then during site visits our colleague will verify very easily whether these are WSD-approved taps.

Q. We go back to your witness statement. C21, page 18778, paragraph 31. You give us some background information on the five types of fittings. But the WSD's

consideration is this. You could not oversee everything, so you decided to adopt a targeted approach.

In paragraph 31, you said that in your department, there was mention about a multiple-stakeholder's approach.

"(Partially in English) ... WA's role is regulatory and its inspection of plumbing installations is generally guided by a risk-based approach. The Customer Services Division of WSD is responsible for the inspection of the finished plumbing works. Its staff members possess the necessary knowledge [to inspect it and oversee it]. In conducting such inspection, more attention is paid to the communal parts of the inside service ..."

Because you think it is more important. And:

"(In English)... other items are checked on a random basis as they are considered to be of lower risk in terms of proper functioning of the plumbing system as a whole."

You continue to say that water meters are also important and its position is equally important.

So you pointed out one thing, risk-based approach, and you have identified areas that you pay more attention to in your inspection, and there are areas of higher risk and lower risk. This risk-based approach, my interpretation is that there must be some risk assessment to identify high and low-risk areas, before your staff can go to the site and carry out their works accordingly. That is, more attention will be paid on high-risk areas. So this high-risk, low-risk and the respective inspection, but have you done any risk assessment? I believe that there must be a formal one.

A. Formal has not been done, but we are professionals.

I think it's not just professionals. Everyone has done some informal risk assessment. Say, for example, when you walk inside this room, have you thought about the roof collapsing on you? I'm sure you might have, but you have gauged the risk and found that it's rather small.

I believe that our colleagues have made a decision or a judgment as to what constituted high-risk. Say, for example, in communal parts, there may be a bigger

consequence. Say if the water tank is dirty, then it will affect all the units in the block. I think you have made a judgment call, and in a way it's risk assessment.

Q. You said that everyone might have done some risk assessment in their heads. You are the Water Supplies Department. Your work affects everyone. For this inspection, you said A and B. There you rely on the risk assessments in their heads. Tomorrow, it's C and D, and you rely on their own risk assessment inside their heads. You are a major government department. You have to first identify risk factors, high and low-risk areas, before you would know inspections what and how they are done when you send officers there?

A. Yes, that's right. We don't leave it to colleagues making a judgment call when they actually get there. There has been exchange of experience and views among our staff, before a consensus is reached.

Q. Now there is this excess lead in water incident, in your new form, in the annex, you have not singled out the five items. It seems that you have to fill it in for

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C all materials? C

D A. No, not to that extent, because it's impractical. There D
are indeed a lot of materials.

E Q. Let us refer to your new form. You have not defined E
F what materials have to be filled in. F

G A. If I remember correctly, if you refer to note 8, you G
H have to refer to the online list which states what has H
I to be submitted. I

J Q. C21, page 19094. Let's refer to number 8. J

K A. Number 7 maybe. Number 7, last line: K
L "(In English) ... only those fittings listed on L
WSD's website need to be reported in the annex."

M Because it's impractical to cover everything. There M
N are indeed a lot. N

O Q. On your website, there is information about materials O
P to be submitted, and there has been a lot added to it. P

Q A. Yes. Pipe plans will have to be submitted. Q

R Q. We have asked the director some questions in relation R
S to information related to fittings. If I understand the S
T director's evidence directly, he said that in relation T
U to submission of fitting information, you, your U
V

department, would not actually conduct any tests?

A. It should be put this way. If you have read the form,

there are different ways. There is the Kitemark,
British Standard, and most of the fittings will have to
be submitted to Hong Kong-accredited laboratories for
tests, and you will have to submit the lab report before
we give you approval.

Q. For a project, you submit WWO46, which sets out pipes
and fittings. The WSD will not conduct any chemical
tests, because they have already been done.

Let's refer to another part in your statement.

Page 18776, C21, starting from paragraph 24. You
commented on an observation of the HKIE, which says:

"(In English) ... the arrangement for LP to be
solely responsible for all scopes of work is no longer
adequate."

You continue to speak, to reply, mainly focusing on
the word "solely".

Under the WWO and the Regulations, you talk about
different stakeholders. The only one that you regulate
are LPs?

C A. Under the Ordinance, yes. C

D Q. You continue to say that the WSD, at a very early stage,
E was aware that relying solely on LPs is inadequate. E
F That's what it says in paragraph 25. The second line:

G "(In English) The WA has long recognised that G
H reliance on LPs solely to ensure quality of inside H
I service is inadequate." I

J Paragraph 26 is your explanation: J

K "(Partially in English) In view of this and in K
L addition to the LP system, the WA has, as early as 1982, L
M put in place a system that involves APs ..."

M That is, architects, engineers or surveyors. M

N Well, for HD projects, usually there are architects N
O who sign. O

P (In English) ... who are qualified P
Q professionals ..."

R So they have to see whether regulations and R
S specifications are complied with. S

T Starting from 1982, you realised that you can't T
U solely rely on LPs, so you have added APs, and one of U
V the ways, as we can see, is that WWO46 will have to be V

signed by both LPs and APs, and that's one of the ways to involve APs.

There's also WA 12, that is the two forms, 46 and 132. APs are required to sign. You said that when the Water Authority realised in 1982 that relying solely on LPs is not enough, so they involved APs to certify that materials used are compliant.

So I would like to ask, with this requirement in place, that is they are required to sign on the forms, in relation to every project, and in relation to the forms, how much does the AP know about pipes and fittings? Does the department know?

A. Well, AP can be surveyor, architect or engineers.

I believe that they won't know everything about the project. But if they are the AP, they will put in a system. If you ask architects this is what they are going to say to you, if they don't know about certain areas, say building services, they will engage a building services engineer to help them. I think that APs will know something about plumbing works, but they will engage someone else, say building services

engineers, to help them oversee the plumbing works.

Q. But your statement said that they would not rely on the BSEs, but it says AP?

A. But the AP oversees a wide scope of area, and I think the operation of a project, as far as I understand, that is also technically competent persons, say I don't think the AP will inspect every single floor when it comes to pouring of concrete.

Q. Well, your design is that you add them as an additional gatekeeper?

A. I am a professional, and I think that if you append your signature to confirm something, you will be held responsible. When I was resident engineer, and if I signed to say that this is in order, I will have to be

satisfied that there is such checking. I might not have personally checked everything but I believe that my staff have made sure that everything is in order before I sign the name.

Q. So you think that when an AP signs, it means that they have confirmed that they will be held responsible. But

before they sign, you will have to make sure that the signature is signed in a way that it is meaningful, and in this way you have to confirm that prior to signing, that person is fully aware of what the requirements are. Say, for example, the WWO or WWR are fully complied with.

So you have to know that the person who appends the signature will know about these areas?

A. Yes, of course.

Q. In 1982, the department realised that there were inadequacies. An AP, whether it's the BSE or the architect, would be required to sign. Did you promulgate any guidelines to these people, saying that you will have to satisfy yourself that these requirements are complied with before you sign?

A. I don't think it's necessary, because you need to understand that for the authorised person, he is a professional. Such as myself, I am an engineer. Before I sign to certify that the structure is safe, when I am asked to sign to certify that the structure is

safe, I understand my responsibility, what I need to check. So it would be unreasonable for me to teach someone to check for anything.

Q. Sorry, I don't agree with you, because we are not talking about the knowledge of individual APs, because even for the WSD, back in 1982, you already agreed that it is not adequate, and that to rely on LPs, you need to engage an AP to ensure that drinking water is safe.

So, as the executive arm, the WSD should know how much this additional person, the authorised person -- how well this person understands the new regulations.

A. My view is this. It may be different from yours. As the authorised person, as he is involved in a lot of areas -- electricity, plumbing, interior decoration -- I think for the AP the most important thing is this. If you are not familiar with a certain area, you need to engage a group of people who have the knowledge to help you with it.

Q. So you assume that he is familiar with it, but as far as the regulations or requirements for compliance, you will not discuss with the APs on the WSD's requirements?

C A. We don't think it is necessary, because we don't think
D the APs would need anyone to teach them that. D

E CHAIRMAN: But the problem is, according to the Housing E

F Department's witnesses, they say they don't understand F
G anything about that. But even for building services, G
H they have building service engineers, but the building H
I services engineers also said that they do not have the I
J knowledge, because when the WSD points its finger to J
K somebody, holding somebody responsible, then it's all K
L right for us. But the problem is, how can you ensure L
M that this person knows full well what he should do, and M
N when this person signs his name, what is he certifying? N

O The problem is this. The AP is involved. The AP,
P as we know, may be the number one person responsible for
Q a building project, so you will hold this AP P
R responsible, by requiring him to sign. But in fact, the Q
S most effective way should have been to involve the BSE,
T because the BSE may have specific knowledge. R

S I understand your rationale, that you are holding S
T the top person responsible, to get him involved, but at T
U the same time you need to make him understand what he U

is

involved in.

Of course, on paper, you are holding somebody responsible. I don't know how prevalent this is. Because according to the Housing Department's architects, all of them said they didn't know. Then for the BSEs, they said they didn't know either. They just checked the spec and followed the requirements.

I think Mr Khaw's question for you is this: what has the WSD done to make sure that the architects or the BSEs understand the significance of the matter that they are certifying, by signing their names?

A. I know what you mean, but if we look at WWO32 or 46, there is a statement making it clear what the AP should do. Because the AP is the top dog, he is responsible for everything on the site.

CHAIRMAN: I know. But if the HD is to be believed, the HD construction team has a staff of 2,500. For the so-called biggest developer in Hong Kong, the APs or the architects in the top positions also testified that they did not have the knowledge. Then, for a private

C company, it wouldn't have an establishment of more than
D 250, I guess. D

E So if nobody of the 2,500 knows anything about it,
F then what about the building services engineers? E

F A. They said they didn't know. F

G CHAIRMAN: Exactly. They also said they didn't know. G

H Of course, we are talking about leaded solder. H

I A. Sorry, Chairman. If you have read the HKIE report, the
J HKIE report also recommends involving BSEs. I

K CHAIRMAN: I understand. Of course I understand. For the
L BSEs who testified before us, they said when they put
M these things in the specification, they said that having
N read the BS, they took what were important and
O incorporated them into the document to be used by
P the HD. P

Q As for the reason why the BS included that, we had
R no idea. It's all right to disagree, but the most -- Q

R A. Well, I don't agree because if you don't understand the
S rationale at all, how can you conduct the assessment? R

T CHAIRMAN: Well, BS identification has a characterisation. T

U You identify the hazard. The next step is to conduct U

a risk assessment. If you don't understand the rationale behind, how can you conduct the assessment? Whether the risk is moderate, insignificant or significant, how can you conduct an assessment? For example, soldering materials, if you don't know how significant the risk is, then in your mind, would you consider it is important or not important to comply?

A. Let me give my take. As far as construction is concerned, I think the ABCs for construction is to work according to the plans in the construction site. So if you open the contract and look at the British Standards, we are talking about over 1,000 BSs, so compliance is very important.

CHAIRMAN: Of course, one doesn't have all the knowledge, but in an organisation there should be somebody "in the know", at least to have some knowledge. The problem is you cannot say that no one knows about that.

MR KHAW: Perhaps we should refer to one of the architects in the Housing Department, and see what his understanding is. Page 15.1, page 37708. Starting from paragraph 28, he talks about the roles and

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C responsibilities of the licensed plumber. Then says: C

D "(In English) The roles and responsibilities of the D

E licensed plumber are stipulated in the Waterworks E

F Ordinance ..."

F Then he talked about the identity of the licensed F

G plumber and the projects in which he participated. G

H "(Partially in English) As far as I knew in the H

I period I served as contract manager for this contract, I

J the responsibilities of the LP for the plumbing J

K installation included notifying the Water Authority of K

L the commencement date and scope of plumbing works to be L

M carried out at part I of the form No. WWO46. The LP had M

N to notify the Water Authority of the completion of N

O plumbing works and requested for inspection and approval O

P by the Water Authority at part IV of the form WWO46. He P

Q also had to supervise the execution of the plumbing Q

works on site.

R 29. I relied on China State to monitor the service R

S of the LP and would expect the LP to execute his duties S

T under the Waterworks Ordinance and Waterworks T

U Regulations." U

V

C So that seems the AP is relying on others as well,
D because it says he relied on China State to monitor the
E service of the LP and expected the LP to execute his
F duties under the Ordinance and regulations.

G So this is the evidence of one of the architects,
H and the chairman just now also asked some questions.

I For Housing Authority's contract managers, a number of
J them have said that they did not know very well details
K of the British Standard, waterworks regulations,
L et cetera. So my question is this: since 1982 --

CHAIRMAN: To be precise, it should be 1987.

MR KHAW: Since 1987 --

M A. In fact, it was since 1982. In 1987, pipes were
N included in the types of fittings to be reported.

O Q. So, since 1982, the WSD had already required the AP to
P be the gatekeeper. Then, over the past three decades,
Q in relation to the AP's knowledge requirement on BS and
R Waterworks Regulations, there hasn't been any
S communication.

T A. You can't that we had no communication, because we
U issued WSD circulars, which are also forwarded to APs.
V So they should know about the circulars.

Q. The LP and AP are both required to sign the WSD, so does the WSD expect communication between the AP and LP?

A. I presume so.

Q. So basically, there should be some communication between them, I suppose, to make it work. However, in relation to the scope of work, you do not require the LP or the AP to report to you?

A. No, not down to these specific matters, operational matters, because this would generate a lot of paperwork and may not be effective.

Q. You expect them to communicate but you don't know whether there is actually any communication, apart from looking at the signatures?

A. The AP signs to verify that the plumbing works are in compliance. I don't know whether there is any communication, but at least there should be communication with the plumbing contractor or main contractor or the supervising staff, because the AP also has a team of supervising staff at the site.

CHAIRMAN: The problem is this. Ultimately, you approve water supply according to their signatures. So on what

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C basis do you supply water to the site? C

D A. Based on the things certified by the AP. D

E CHAIRMAN: So based on the signatures? E

F A. I do think that the signatures of the two persons are F

G very important. G

H COMMISSIONER LAI: However, the Housing Department, on the H

I other hand, relies on your signature for approval. The I

J Housing Authority's view is that after completing the J

K project, if the WSD signs and approves the water supply, K

L that's the end of the matter? L

M A. It shouldn't be with, because there are clear M

N requirements in the contract to be followed. N

O CHAIRMAN: Well, if the two government departments are under O

P the same bureau, then the bureau can't explain away. It P

Q so happened that there are two bureau chiefs, but if Q

R it's under the same bureau? R

S A. Well, even in the private sector we have different S

T requirements. T

U CHAIRMAN: Let's resume after lunch. U

V (1.01 pm) V

(The luncheon adjournment)

C (2.33 pm) C

D MR KHAW: Mr Wong, I will now move on to a different area. D

E It was mentioned before that there was some E
F international experience and a colleague of yours, F
G Mr Chau, prepared a witness statement explaining why, G
H back then -- well, there was use of leaded material, H
I whether it was widely reported in the international I
arena. I

J I would like to ask a simple question. In relation J
K to individual countries and what happened, and the K
L access to the information, say for example in Scotland, L
M after something happened, there was some legislative M
N follow-up work. Say, for example, multi-tier N
O regulation, et cetera. O

P So, in relation to other countries -- UK, US -- in P
Q relation to legislative improvement, do you have Q
R a dedicated team to follow that up? R

S A. In relation to legislative changes in other countries, S
T there may not be a special team following that up. T

U Q. Say in Scotland, something happened, and there were two U
V inquiries made, and subsequent to that the law was V

changed, that if leaded material is used, there will be enhanced penalty.

A. You mean an enhancement of penalty in Scotland subsequent to an incident? I myself am not really aware of it.

Q. So, in your department, is there a team looking into legislative changes in overseas countries?

A. I think, in relation to R&D, there will be another colleague to give you more information, because it's rather fragmented, my colleague being Mr Chau.

In relation to minute details like whether there has been any legislative changes overseas, we may not have covered that to that extent. We don't have unlimited resources. A more effective way is to focus on a number of countries with authorities, say BSI, WHO. Our view is that for these organisations, they have a bigger ambit. They may have a dedicated team to collect information. There may be a lot of things happening in relation to water supplies, so we will follow up on major associations, their special information. It will be more effective to get information through them.

Q. If resources allow, for things that you have already done, I would like to go into detail.

You might have heard about the water resources committee. If you refer to C21, the evidence of Mr Chau. Page 18932. It was explained what information was taken into account in relation to the preparation of paper No. 7. He talked about, back in those days, that there was rusting and discoloration. He gave some background information. He said:

"(Partially in English) ... Paper No. 7 was prepared with the focus of concern on the proper maintenance and cleansing of the plumbing system of existing buildings. Based on the literature research at that time, lead pipes and leaded-solder copper pipes were widely used in the UK and USA during their development stages and consequently the most common problem was the presence of lead in water at the material time. In contrast, the use of leaded pipes was banned in Hong Kong since as early as 1938, followed by the ban of leaded solder in

1987. Further, the ban of unlined GI pipes in December 1995, unlined GI pipes were commonly used in Hong Kong for fresh water inside service in the then existing buildings."

He continued to say that:

"(In English) ... the risk of presence of lead in water in the UK and USA had no direct application to Hong Kong."

He said, in the application of copper pipes, from the HA or HD or from some other witnesses, they have said that in the use of copper pipes, it was already in place in 1980s. You are aware of that?

A. Yes.

Q. Mr Chau continues to say -- he talks about:

(Partially in English) The USEPA's leaflet 'Lead in Your Drinking Water' issued in 1993 was referred by counsel for the Commission during the hearing on 2 November 2015. According to WSD's available records, the said leaflet was within the research materials leading to the preparation of Paper No. 7. Be that as it may, as mentioned, at the time, the interest and focus of Paper No. 7 was on the proper maintenance and

C cleansing of the plumbing system in existing buildings." C

D If you refer to paper No. 7 -- Y1. I will show you D

E two more papers first. Y1, page 7. It's a paragraph in E

F paper No. 7 that we are interested in. Paragraph 9 F

G says: G

H "(Partially in English) In the UK and USA, the most H
I common problem ..."

J That is one of the observations or information J
K gleaned from the research. K

L "(In English) ... is the presence of lead in water L
M since during their development stage, lead pipes and M
N lead-soldered copper pipes were widely used. The N
O problem has to be addressed by dosing inhibiting O
P chemical additives during the water supply treatment P
Q process to suppress ionisation of lead and by Q
re-plumbing."

R It pointed out that a common problem in other R
S countries is the use of lead pipes and leaded solder S
T copper pipes, something we are now talking about. It T
caused leaching.

U This observation was made subject to literature U

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C research. C

D In A1, page 399, it's the US Environmental D

E Protection Agency. They issue documents in relation to E

F safety of drinking water. "(In English) Health threats F

G from lead" -- can you see that, in the middle? G

H A. Yes. H

I Q. Down below, "(In English) Sources of lead in drinking I

J water", it says: J

K "(In English) Lead levels in your drinking water are K

L likely to be highest if ... L

M -- your home has copper pipes with solder ..." M

N And it says there may be problems caused by copper N

O pipes with solder. O

P Page 401, at the beginning, says: P

Q "(Partially in English) In June 1986, Q

R President Reagan signed amendments to the Safe Drinking R

S Water Act. These amendments require the use of S

T 'lead-free' pipe, solder, and flux in the installation T

U or repair of any public water system ... U

V Under the provisions of these amendments, solders V

U and flux will be considered 'lead-free' when they

contain not more than [a certain level of lead]."

It's clearly in the specification.

This was something that your colleagues have said.

They said they have considered this in 1993.

A. Yes.

Q. Paper No. 7, this document, they have both touched on this point. One of the reasons for lead in water, if you take reference from the US and the UK, is very much related to lead in solder. Leaded solder will cause lead in water, and it's expressed in the in the paper.

Do you recall, when paper No. 7 was published, and in the ACQWS it was mentioned and there were minutes showing that your colleagues prepared paper No. 7, the colleagues who prepared this were aware of the dangers of leaded solder?

A. Agreed.

Q. However, the WSD not participate in any large-scale communication in relation to that?

A. First of all, I did not take part directly in the preparation of paper No. 7 of the Advisory Committee, the ACQWS, and also, according to Mr Chau, for the whole

exercise, the most important point is whether we can drink directly from the tap, and the issue at the time was that some taps were rusty. At that time, there was a 600-page document. Perhaps the colleague had seen that. That's just my speculation.

The paper was drawn up in the year 2000, and in the United States, in 1986 or before, leaded solder had been used. So in 1986 it was banned, and around the same time we also banned the use of leaded solder in Hong Kong. But before 1987, I think it was quite rare to use leaded solder to joint pipes, because at that time, as I said in the morning, GI pipes were more common, and the method of jointing was mechanical.

So, if you ask me whether the colleague, on reading this, could correlate the issue with the use of leaded solder in the US to the situation in Hong Kong, I don't think he would have this awareness.

CHAIRMAN: But Mr Kan Kwok Leung told us --

A. Back in the 1990s --

CHAIRMAN: No, in the 1970s, he already used the method of soldering.

A. No, that's just my understanding. At first, it wasn't very common. It might be the case.

CHAIRMAN: But by the 1980s, it would have been quite common, and I mean jointing pipes by soldering.

A. I discussed with some LPs before. Maybe it is not very accurate. My understanding is that at the early stage, pipes were joined by mechanical methods.

CHAIRMAN: Now, in 1987, when you said leaded solder was banned, did the WSD do anything to tell others that leaded solder cannot be used?

A. No, I did not take part in the preparation of that paper, and the British Standard had changed, and my understanding at the time is that it really wasn't common. Perhaps Mr Kan Kwok Leung's views differ from mine, but my understanding is that it wasn't common.

CHAIRMAN: All right. I understand that you assumed this position as assistant director in 2015 only, but frankly, at that time, everybody was young, everybody had not assumed a high position, that everybody could say that, "I was only in a junior position so I had no idea." Then everybody could say that, "But I really

haven't read any of the documents."

So you had no idea why that took place in 1987.

What about 2004? What happened such that the VTC started to include this in their courses?

A. I really can't answer that. Perhaps I should ask Mr Lam Ching Man to prepare some information so as to answer this question.

MR KHAW: You said you did not take part in the process of drawing up the paper. But now I suppose the WSD definitely would have discussed this paper No. 7.

A. Yes.

Q. About paper No. 7, at least in the paper the issue was identified. That is, leaded solder may cause problems. And the US paper also points to this issue.

A. (Nodded head).

Q. When your colleague was in charge of preparing this report, there should have been an opportunity for the WSD to discuss paper No. 7, and the issues therein, relating to water quality and issues relating to leaded solder. There should have been an opportunity for the WSD to explore the issues.

A. It's difficult for me to comment on this point, because

if you consider the context, the focus was on GI pipes,
as I said, about rusty pipes.

Q. We understand from the papers that in 1993, the ASD,
that is Architectural Service Department, in its
specifications, it was already stated that lead-free
solder should be used.

Do you have any idea of this ASD requirement in
1993?

A. No. I don't know that personally. I didn't know, but
subsequently, through discussion with colleagues,
I understood that it had already been included in the
ASD's specification in 1993.

Q. So you know after the incident?

A. Right.

Q. Let's look at another opportunity when the WSD could
have explored further into these issues. That is, when
we explored the issues with the VTC witnesses, we
identified the issues.

Let's look at bundle W1, page 486. This is one of
the meetings held by the working parties of VTC and WSD.

On page 486, that relates to a meeting. It should be

page 482. That relates to a meeting in 2004. At the bottom of this page, paragraph 8, "[AOB]", Mr Ho was mentioned. Mr Ho should be an engineer of WSD at the time. Together with two senior engineers, he attended the meeting. You can also see the attendance list on page 480.

So the WSD engineer also expressed concern over the lead-free soldering material in pipe connection. That's very specific. I got the impression that it wasn't something very general, as you put it just now, a very general issue in relation to rusty pipes or water quality. It's very specific here. Lead-free soldering material in pipe connection.

In 2004, we understand by that time that it was already quite common to use copper pipes in a fresh water supply system. And Mr Ho was an engineer with the WSD.

Did you try to find out why Mr Ho had raised this issue at the meeting and whether anything had been raised with the WSD?

A. I myself haven't read the documents. That is why I said

I should find my colleagues to prepare for some information.

COMMISSIONER LAI: Is this Mr Ho still with the WSD?

A. I don't know. Possibly. I need to ask Mr Lam to follow up on this.

MR KHAW: KW Ho? Perhaps you should go back and check it.

A. I can't quite remember. Perhaps he is either retired or due to retire.

Q. But before you gave evidence, you haven't read this statement, the statement made by him?

A. No.

Q. Also, we have information provided by the Association of Plumbing Fittings and Sanitaryware. That's in bundle A1 from the Hong Kong Plumbing and Sanitaryware Trade Association Ltd.

Mr Chan Sheung Yan also explained to us, in his testimony, the trade association's discussion in relation to lead-free solder and some publications.

First of all, do you know Mr Chan?

A. Yes.

Q. Through the association's activities?

A. No. If my memory serves me correct, it was around 2009, when he was a member of the Advisory Committee. From time to time, the Advisory Committee would conduct visits, and on one occasion we were together on a visit to Dongjiang.

Q. You have been in contact with him since then?

A. We are acquaintances.

Q. Let's look at page 93, a document provided by Mr Chan.

In 1998, the trade association issued this notice to the trade. First of all, did the WSD receive this notice?

A. I don't know whether they received it or not.

Q. If we look at the notice -- when we asked Mr Chan why this notice was issued, he could not tell for sure why, against the backdrop at the time, why this notice was issued.

In the notice, it says potable lead-free soldering fitting should be used for non-soldering components, and lead-free solder should be used for end-feed capillary fitting. Then later on, during some gatherings,

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C publications were distributed in relation to lead-free C

D copper alloy fittings. D

E In 2014, did you attend that banquet, or meal E

F gathering? F

G A. I can't tell for sure, but probably I did not attend, G

H because in 2014 I was still in the Development Bureau, H

I and I returned to the WSD only on 8 April 2015. So I

J I cannot say for sure. J

K Q. Was it possible that you got hold of these two articles K

L from other sources? L

M A. I am not sure if I have read them before. M

N Q. Anyway, please turn to page 98. It starts with, N

O "(In English) Legislations regulating lead content". O

P Let me read it out: P

Q "(Partially in English) Despite that there is still Q

R yet regulations to control the lead content in the water R

S supply fittings in Hong Kong nor the Europe, an Act was S

T launched in the California, US, in year 2010 to control T

U the lead content of the water supply system as U

V follows ...". V

U And it sets out the specifications, in particular

V

what material should be lead-free. That is, in relation to the US, say in California, in 2010, they wanted to legislate, to specifically regulate leaded water supply parts.

Does the WSD know about it?

A. I have heard about it, but in the past, in my recollection, lead-free is 8 per cent. Later, there is a new piece of legislation. I remember that it was only effective in 2015.

Q. You say you have heard about the legislative exercise in California?

A. Well, I think it's the US. It's not a legislation. I know that there were new requirements imposed, in relation to alloy fitting. At that time, there was controversy in relation to what is actually lead-free, and when I had discussions with the trade, I was told that in the past, in the US, lead-free copper alloy fitting is about 8 per cent, and later it was tightened to 0.2 per cent.

Q. Please pause there. You said that in the trade, the definition of lead-free was discussed?

A. No. Let me put it like this. Right after something happened, someone said, well, does it mean 0 per cent if

it has to be lead-free?

Q. So the WSD was involved in the discussion?

A. I can't really say that. I knew there were these kinds of discussions, and it was heard that there was a time in the US, 8 per cent was lead-free, and later it was tightened.

Q. Let's clarify the matter. You said there were discussions in the trade.

A. I'm sorry. You may recall that there was a point of time after the excess lead in water incident, I have attended some press conference. Are copper pipes basically lead-free? But someone said no. There is a copper pipe with lead content of 0.00 something, how can it be lead-free? At that time we explained that, well, it says lead-free but there is a certain percentage. Even in Scotland, it is not zero. If you refer to the US, then lead-free solder is 0.2 per cent.

Q. We were aware of that. You said someone raised these

questions, that is after the lead in water incident?

A. Yes.

Q. Prior to that, in relation to definition of lead-free, was there any discussion in the trade?

A. I am not aware of any.

Q. Have you heard that there was a reduction of lead in drinking water in the US?

A. I don't know about it in exact details.

Q. I want to ask you, in relation to water sampling and testing, we have heard a lot of evidence. I am not going to go into details with you, because the experts have already given their opinion, and witnesses have also testified to support the decisions, that is to take first draw -- to take a flushed sample instead of first draw. You might have heard the evidence and you have also heard Prof Lee and Prof Fawell, our experts. It seems they do not agree with Mr Chan Kin Man' evidence in relation to water sampling and testing.

That is, in order to test for lead, flushed sample is not representative enough. The WSD has heard a lot of opinions. You have heard a lot of opinions and two

C authoritative experts, and one of the bodies of opinion
D is that using flushed sample may not give
E a comprehensive picture, and there is a chance that a
F more comprehensive way of testing would dispel the
G concern of residents that are potentially harmed. So as
H at now, in relation to water sampling, what will your
I direction be? Those that are not classified as affected
J estates, you have collected flushed samples from them.
K Would you adopt a more comprehensive approach at
L a larger scale to take water samples, to dispel their
M concerns?

C

D

E

F

G

H

I

J

K

L

M A. Mr Chan Kin Man explained in detail our water sampling
N approach. I am also aware of Prof Lee's evidence about
O the independent and vetter's approach, they are very
P different. However, the findings are quite similar, and
Q from my perspective, if the results are compatible from
R two independent methods, then it means the results are
S quite reliable.

M

N

O

P

Q

R

S Q. Mr Lee said there are constraints of time and resources.
T As a result, there may not be sufficient sampling and
U tests done in potentially affected estates.

S

T

U

C But now, given the experts' opinion, do you think
D there is a need to conduct further water sampling tests
E in these potentially affected estates?

C

D

E

F A. I see that Prof Lee has conducted tests for six
G unaffected estates. The findings of his research are
H quite similar, because there are two perspectives
I tackling the same problem; however, the findings are
J similar. Prof Lee independently conducted tests on six
K other estates. So I do think that the results are quite
L reliable, and our water sampling approach is of a larger
M scale and systematic. It's actually quite good, because
N two different approaches are used, reaching the same
O conclusion. So it's actually shown us a very reliable
P picture.

F

G

H

I

J

K

L

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O

P Q. But Prof Lee talked about time constrains and resources
Q constraints. It may be so happened that that is the
R result. In your eyes, maybe they are consistent with
S your expert's finding.

P

Q

R

S

T Well, Prof Lee said that flushed sample is not
U comprehensive and if you were a resident, maybe you
V would worry that there may be a problem?

T

U

V

A. Well, he took samples from six unaffected estates, not one. He has on top of that obtained additional information. However, the results are consistent.

Q. Prof Fawell has also given evidence as well, and you have heard the expert opinion?

A. I was only approaching it from a scientific perspective.

Q. Setting that aside, as a responsible government department, you have seen a lot of evidence, heard a lot of expert evidence. Is your stance that currently unaffected estates will not have samples conducted?

A. But then we don't see the need to.

Q. So you have no plans to take further water samples?

A. I don't see any need for the time being.

Q. Lastly, in relation to some observations of Prof Fawell -- V1, page 118. Start from paragraph 74, Prof Fawell states his opinion, advice and recommendations. It says here:

"(Partially in English) ... there is a need for formal drinking water standards and a regulatory structure for drinking water for Hong Kong to ensure that there is co-ordination of all matters relating to

C drinking water quality."

C

D A. Sorry, the page number?

D

E Q. 118, paragraph 74.

E

F One of his recommendations is that there is a need
G for a regulatory body to act as a central co-ordinator
H in relation to water drinking safety.

F

G

H Paragraph 75, page 119, he said that in the UK and
I some other countries there is an independent "regulator
J for drinking water quality". He said it is a preferred
K approach.

H

I

J

K

L So, in relation to this recommendation, that is
M an independent regulator to a more comprehensive
N approach instead of minding your own turf. That is, for
O the independent regulator to oversee drinking water
P quality in a comprehensive way. The WSD, having heard
Q Prof Fawell's recommendation, what's your view?

L

M

N

O

P

Q A. There hasn't been any detailed discussion within the
R department, but as I said, there are similar structures
S in many other places, so we can explore it.

Q

R

S

T Q. You also think that an independent director would have
U its merits?

T

U

A. First of all, this issue hasn't been discussed in detail within the department. My observation is that around the world there are similar regulatory bodies, and I think that is worthwhile to explore into this issue.

Q. I'm not asking you to give me a definite answer.

I would just like to know the department's intention.

Then paragraph 76. According to Prof Fawell:

"(In English) I believe that it would be appropriate for WSD to consider creating the position of water quality manager who would report to the director and who would have the role of overseeing drinking water quality data and activities from all parts of the organisation. This role would also involve evaluation of the particular trends in water quality data and working to assist operational sections to work towards gradual improvement, which is a key part of the WHO framework for safe drinking water."

This is another recommendation of the professor, that is to set up a position of water quality manager, to evaluate more comprehensively global standards and what standards can be applied, and what is your view?

A. I think similar to my previous answer, I think it's

worthwhile to explore this issue.

Q. Page 120, paragraph 77:

"(In English) While I understand the need for and importance of bureaucracy, many of the policies and procedures seem to be fragmented between various documents. I also understand that this gradually happens in many organisations as changes are made but it would be beneficial to consolidate and streamline all documents, particularly as changes are incorporated over time to make the documents easier to access and more transparent, and to ensure that the chance of misunderstanding and using out of date procedures is minimised."

So, before lunch, we already discussed this. You would task the AP -- you would expect the AP to do something, and the AP may explain that they don't know how much should be done and they would entrust others to do the work. You may have different views. This is what the professor suggests, that there is compartmentalisation, and co-ordination is therefore

required.

As far as the WSD is concerned, there should be better communication with the department to come up with a better policy. What is the WSD's view?

A. I don't think there is serious compartmentalisation here. The WSD and the Housing Department hold regular meetings. As to whether this is a feasible general direction, I think so, because indeed there is room for improvement. I think he is talking about higher transparency, more communication, and I think definitely we can look into that.

Q. I think Prof Fawell's suggestion is that you should not just have meetings; you should start with setting up work initiatives for your own department before holding meetings for in-depth discussion, in order to make the meetings more meaningful, instead of raising issues but not following up on the issues.

So, in relation to that, what is your idea? Any further improvement?

A. I haven't looked into the issues in great detail, so I can't comment on that, but I think the direction that

C Prof Fawell is suggesting is of course good. C

D Q. Finally, we have read Prof Lee's report. D

E For Kwai Chung Estate, where he conducted some E
F tests -- Kwai Chung Estate is an unaffected estate, and F
there are 11 positive samples.

G I'm sorry, it should be said that altogether there G
H are samples -- I mean there are positive samples H
I identified, including samples taken from Kwai Chung I
J Estate. Some of the samples were found to be in J
K exceedance. K

L A. I think there is a misunderstanding here. When he said L
M that in five estates -- M

N Q. Well, because in his report he mentioned that in N
O relation to some unaffected estates, according to your O
P test results, in fact 11 samples in five estates. P

Q A. Let me explain more clearly. That day these samples Q
R were checked by our chemists, and the samples were found R
S to have problems. Initially, the WSD conducted tests S
T and found some positive samples. However, for some T
U units, there was renovation work going on, and for lab U
analysis, even dust would affect the result.

As a result, samples were taken again from the same units or neighbouring units, to confirm the problems in the original samples.

Q. So you went to some units to take samples, and then, according to your test results, according to your analysis and interpretation of the results, and having sought advice from professionals, you then classified some estates as "affected" and some others as "unaffected"?

A. Let me put it this way. For affected estates, a stringent standard had been set. That is to say, as long as one sample from an estate is in exceedance, the whole estate would be regarded as an affected estate.

Q. What about Kwai Chung? You may say that there were individual samples that were found to be positive, that is in exceedance; they were not regarded as affected estates?

A. I should put it this way: it was the professional judgment of our chemists. They looked at the figures, they looked at the samples. I don't know the details but they would ask the sampler the circumstances when

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C samples were taken on that day, and I recall in one case C

D the toilet hadn't been used for a long time and the D

E ventilating fan above was full of dust, and there was E

F a question of whether the sample was contaminated. F

G We cannot confirm. Just because of that, we would G

H revisit the unit to take another sample to confirm it. H

I Mr Chan is also a scientist, he is a chemist, and he I

J would of course look at the findings on a scientific J

K basis. K

L MR KHAW: I have no other questions. L

M Cross-examination by MR HO M

N MR HO: I represent the Housing Authority. N

O This morning, you walked us through the forms, and O

P I would like to follow up with you about these forms. P

Q About form 46, you talk about changes over time. Q

R I would like to refer you to the 2nd statement of R

S Mr Chan Hing. C21. He mentioned, in quite some detail, S

T how form G was gradually changed to form 46. T

U Mr Chan's statement is in C21, and I would like to U

V go to paragraph 27 with you, on page 18801. V

A. Yes.

Q. You also mentioned this morning that before 1982, fittings were required to be tested and stamped by the WSD.

So in paragraph 27 of Mr Chan's statement, the sentence before the ten points -- it says:

"(In English) The testing and stamping activities covered five types of terminal fittings as water would run to waste in case of defects."

Do you see that?

A. Yes.

Q. So my understanding was there was a need to test and stamp fittings, to prevent water leakage. The idea back then was to focus on terminal fittings, such as draw-off taps, stopcock valves, gate valves and ball valves, as you can see.

So let's look at draw-off taps first.

"(In English) Leaking taps or combination fittings can be a direct nuisance."

That is to say the focus was on leakage.

And stop valves, again the last sentence:

"(In English) A defective stop valve will hinder replacement or disconnection of water meters and will

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C cause water leaks ..."

D Again, water leaks. Then gate valves, the last D

E sentence: E

F "(In English) It will cause water leaks at meter F

G position ..."

H Then (iv), ball valves: H

I "(In English) A defective ball valve will lead to I

J overflowing of water tanks."

K Not directly referring to water leaks, but in K

L English, its functionality not to waste water. L

M A. Ball valves is a device to stop water from flowing, M

N because if it doesn't function the water level will N

O continue to rise. O

P Q. So it's about function? P

Q A. Yes. Q

R Q. This is the purpose of stamping. R

S If you turn to page 28, in the middle of S

T paragraph 28, you see the sentence following "2000 kPa": T

U "The test result would be considered satisfactory if U

V there was no leakage apparent for a certain duration." V

U In other words, the focus was only on water leakage

V

and not anything else. That was the practice in 1992.

A. Yes.

Q. Then paragraph 29. If you had the BSI Kitemark, you wouldn't have to go through the complicated sampling procedure.

Then it goes on to say, as the procedure became more

and more complicated, the trade believe that it was take a long time for the WSD to stamp all the fittings.

Paragraph 30 goes on to talk about the change. In this paragraph, in the middle, for example:

"(In English) Furthermore, storage problems ..."

That means apart from time and effort, if all the fittings were to be sent to the WSD, there would be storage problems. That is why, in 1982:

"(In English) 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 ... intended to be [used or] installed ..."

That is the reason why there was 46, a very long time ago. The change or involvement is not suddenly because all of a sudden you want to test a lot more things; but because if everything is to be done by the WSD, it would take a lot of time; that's why they delegate?

A. The change in 1992 was like this, as you said, that the WSD could not deal with so much and it also affected work progress in the trade. That's why.

Q. So it's a facilitation to processing the submissions?

A. No. You have to ensure smooth situation of the trade.

Q. And as a result there was WW046. Mr Chan said, "Intended to be in installed and were in compliance with the required standard", so that is part 1, yes?

A. Yes.

Q. You said here that prior to commencement of work, then the annex of part 1 will be submitted, setting out what materials are intended to be used. Those on the list should be compliant with the prescribed standards.

A. And also some others that are not on the list.

Q. I will go into that.

You said there were four categories in 1982; yes?

A. Yes.

Q. Kitemark. The second category is the acceptance and certification by the National Water Council of the United Kingdom. The third category is acceptance from you, and the fourth one is the stamp?

A. Yes.

Q. At that time, in 1982, when there was a change you were only thinking about functionality?

A. Yes, at that time, but I would like to say that later, there was a change, because we evolve with the times. Whether it's (a), (b) or (c), if you would like to get acceptance from the Water Authority, the fitting will have to be tested by a lab.

If you read lab test reports, the composition of fittings is tested. So there was this change in 1982, but now it's more than that.

Q. I will go into that later.

In 1982, when this change was introduced, that is stamping, et cetera, the new system was mainly based on functionality. That's the case in 1982.

Between 1986 and 2015, that is this paragraph, you are referring to prior to the excess lead in water incident. You said in 1986, in Pokfulam Gardens, there was a pipe burst affecting 1,000 households, and it says:

"(In English) Applying WSD's risk-based approach, the then form Ga was revised via [a 1986 circular] 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 ... 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 a lower risk of causing major nuisance and wastage in case of defects are not required to be reported specifically."

I would like to pause here. This 1987 incident is also a pipe burst. Because of this incident, not just pipes but terminal footings are included as well. The rationale behind is that pipes will have to be used

C properly and it's also functionality concern; right? Is
D it the case?

C

D

E A. Okay. Is 1987.

E

F Q. Yes. You said there is a risk-based approach. The five
G types of terminal fittings and pipes will have to be
H recorded in the annex. And others -- you call them
I a lower risk.

F

G

H

I Paragraph 34, Mr Chan assumed that other fittings
J with lower risk, that may cause lower nuisance or
K smaller nuisance or wastage are not required to be
L reported specifically. It's still functionality;
right?

I

J

K

L

M A. At that time, yes, that's right, in 1987.

M

N Q. This paragraph covers the time between 1987 to prior to
O the excess lead in water incident.

N

O

P A. I think we have to be very careful here. As I said,
Q fittings nowadays, if you get Kitemark or submit them
to

P

Q

R lab test, they will look at the material composition as
S well. So if we say that this complies with the British
T Standards, it is not just about functionality. It's the
material composition as well.

R

S

T

U Q. Well, this risk assessment, what is assessed? The

U

C fittings' compliance with BS, or whether the fitting C

D will cause weakness, resulting in leaks? Because it D

E says here wastage and nuisance. But I don't see that E

F the risk assessment is about drinking water quality. F

G I still don't see it here, that being the direction of G

H the risk assessment. H

I A. You should not adopt such a narrow view. As I said, in I

J this day and age, that is after 2000, whether it's J

K Kitemark from the UK or what, you have to comply with K

L material composition requirements. We require L
something

M to comply with British Standard. It is not so narrow as M

N focusing on functionality. N

O Do you know that in the old days there was water O

P shortage, but now requirements of British Standards P

comprises a lot of things. P

Q Q. Well, it says that it's the use of lead-free solder, Q

R that is the British Standard. That may be because of R

S a different perspective? S

T A. I don't really understand. What do you mean, T

U "a different perspective"? U

V - 100 - V

C Q. It means not just about functionality. The use of
D lead-free solder is a health perspective.

C

D

E A. That's possible. At least it's related to material
F composition.

E

F

G If you look at the British Standard, apart from the
H mechanical part, dimensions, et cetera, there is also

G

H

I a requirement on material composition.

I

J Q. You told us, in reply to Mr Khaw's question, that there
K has not been an official risk assessment done.

J

K

L A. I was referring to --

L

M Q. Do you remember saying that?

M

N A. I was talking about the inspection, if I remember
O correctly. I was asked whether there was any risk

N

P assessment. I took it to mean those related to

O

Q inspection.

P

R Q. Well, risk assessment -- when has the WSD done a risk
S assessment in relation to water quality?

Q

R

T A. I think there has not been any formal risk assessment.

S

U You don't have to get stuck with water quality risk

T

V assessment. If it complies with the British Standard,

U

then they should be all right. There won't be any

V

implications on the water quality.

Q. We know we all do -- we monitor the contract and you said, well, as long as you monitor the contract, if you follow the contractual requirements, that would be all right, and you think there is no need to do a risk assessment on water quality or to do a risk assessment on a level of risk areas and how it would affect -- how water quality would affect other things.

A. If you are talking about BSI and some international organisation, if they are deciding on the use of fitting in a water system, as long as you follow the standard they set down for, then the water quality should be fine. It's basic, you just follow it.

Q. I know. Say if the LP follows it closely, the main contractors don't really have to supervise. The main contractor can say, "Everything is in order"?

A. I think the main contractor has the responsibility to make sure that contractual requirements are complied with.

Q. I just want you to focus on WSD. The mentality of the WSD. So to put it bluntly --

CHAIRMAN: Well, if you think that's fine, then what the WSD -- what the HD has been doing should be fine. Is that what you are trying to say?

MR HO: Well, my question is just a bit more subtle.

I just want to bring another point. The deputy director said that AP is there in order to ensure that everything is in order. We have looked at WHO documents and Prof Fawell's report. Is it the case that WSD doesn't have to conduct a formal risk assessment?

I just want to know about the rationale behind it?

If they say that there is no need to do a risk assessment, then many other parties may use the same reason.

CHAIRMAN: If you want to proceed in this way, because

I think you have some just used the term "risk assessment" too generously. Prof Fawell talked about hazard identification and then risk assessment and then control measures and then verification of control measures; four things. So please make it clear.

MR HO: Chairman, I agree with you, because the first step is hazard identification. But perhaps let me clarify.

C My understanding is this: there is no formal hazard
D identification.

C

D

E A. Agree.

E

F Q. That is why, if your department doesn't have hazard
G identification, then -- well, that means there is no
H second step.

F

G

H A. You want to talk about the system, and I want to comment

H

I on it. In the contract, the Housing Department is well

I

J aware of these specifications in the contract. When the

J

K contract is enforced so that the contractor acts

K

L according to the specifications, that's just reasonable.

L

M Strictly speaking, if you talk about risk assessment or

M

N hazard identification, are you suggesting that we should

N

O follow some of the BS standards but not others? If you

O

P want full compliance -- if you have full compliance with

the British Standards, then everything would be fine.

P

Q If you adopt this approach, that is to comply with some

Q

R standards but not others, then I don't think it would
be

R

S safe.

S

T

T

U Q. I'm talking about two separate matters. Hazard

U

identification is the first step. When I discussed with Prof Fawell the rationale, we covered this, and this is hazard identification, the first step. That is, what are we trying to identify?

You can say that you want to identify obstacles to your project, or you want to identify things which you must follow so that the project would not be delayed. You may also want to identify hazards which may affect water quality.

A. I don't quite understand. Are you suggesting whether non-compliance with certain specifications would affect water quality? Are you suggesting that some of the specifications can be complied with and not some others?

Q. My suggestion is that for BS 864, there was a purpose for the BS to change from 864 to 1254, but if you comply with BS 1254, that's all right, but what is the purpose?

As the organisation concerned with water quality, wouldn't you also try to find out the purpose of the British Standards, and in the event of non-compliance, what will be the impact, whether the impact would be significant or insignificant? In what sense would the impact be about? Would it affect the progress of works?

Say, for example, if the pressure isn't right, we can

see. The British Standard says that if the mixture is different, it's temperature tolerance would be different, and this affects performance more than anything else.

This may be different from the issue that we are looking at, that is whether the solder is leaded.

A. I don't quite follow. Perhaps we are just thinking from different perspectives, as a lawyer and as an engineer. Are you trying to find out the consequence of non-compliance with the specifications? That is what hazard identification is about. You identify the hazard, to find out what happens if there is non-compliance.

Q. That is, what are the hazards of non-compliance, how significant are the hazards, what would be affected? Would the impact be insignificant or significant, or would there be a health risk?

A. If it's stipulated in the contract, if it's included as a specification in the contract, I believe there should be compliance. If there is no significance, no impact,

C then it should not have been included. Two separate
D questions.

C

D

E CHAIRMAN: What you mean to say is this, am I right, for
F BS 1254, we know what we are talking about, there are
G different requirements on, say, fitness, maximum
H temperature, maximum pressure, et cetera.

E

F

G

H

I This is one part of it. If the so-called physical
J standards are not complied with, then you need to
K identify the hazard. The hazard could be, say -- now,
L if you don't comply with these standards, the pipes
M would burst -- for example, the fittings might not be
N able to be installed because of size difference. So you
O identify the hazard and then you consider how
P significant the risk is. I don't know, it could be
Q a significant risk, in certain scenarios, under some
R special circumstances, if the pipe burst, what the
S impact would be.

I

J

K

L

M

N

O

P

Q

R

S Then you implement control measures and then you
T verify whether the control measures are effective. This
U is one aspect of 1254.

S

T

U Another aspect of 1254 could be solder materials.

U

That's in relation to water quality. So the hazard would be whether lead would be leached, and the risk is significant, because you may conduct risk assessment, you may look at examples around the world such as Scotland, and then consider this to be a significant risk. That is to say before you act, you must think from different perspectives the purpose of that action.

MR HO: Thank you, Chairman. Perhaps if we look at 1254, things would be much clearer.

CHAIRMAN: Let's take a ten-minute break, shall we?

(3.53 pm)

(A short adjournment)

(4.10 pm)

MR HO: 1254. Page 10310 in C19.1.

The point is clear. In table 6, page 10310, solder -- you see lead/tin, tin/silver, brazing; can you see that?

A. Yes.

Q. On the right-hand side, you see a few columns, "Maximum temperature"; that is, if you use a certain material, maximum temperature 30 degrees, 65 degrees, 110 degrees,

C and the different maximum pressure.

C

D If I conduct a hazard identification risk
E assessment, if my concern is the wrong use of material,
F whether the temperature or pressure will exceed the
G tolerance of the material?

D

E

F

G A. Well, yes, you are right, but I would like to supplement
H some information. I have actually thought about what
I the chairman said before the break.

G

H

I

J Tin alloy is different. In construction contracts,
K when there is specification, there is no such thing as
L partial compliance, because you have to fully comply
M with it. So, if there is an item, let's say a fitting,
N say BS 1254, then everything has to be complied with.

J

K

L

M

N
O When there is a non-compliance in any part, it's not
P full compliance. The significance is that say if there
Q is acceptance of a substandard material, say for example
R concrete of a building, and if the concrete is not
S strong enough, either the concrete is removed or there
T is a supplementary agreement.

N

O

P

Q

R

S

T Q. Let me interrupt you. I can't agree with your seeing
U the risk assessment in this way. But if it's only about

T

U

C compliance, risk assessment identifies hazards when
D there is a non-compliance. If everyone abides by the
E rules, there is no need to have, say for example, police
F officers, as the Commission mentioned a number of times.
G We look at how well the police are equipped, whether
H there is sufficient investigation, because there may be
I people who would break the law. That's why you need to
J think whether the police are well equipped to deal with
K the breaches, say for example computer crime. If you
L assume that no one will commit computer crime, then
there is no need to get equipped accordingly.

C

D

E

F

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H

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L

M A. Well, I agree with what you said. Using the example of
N a construction site, there are many different levels.
O Say AP, the AP will have to assess the risk of
P contractors not complying with the specifications, and
Q then the AP will think whether there should be more
R supervision staff, and the Water Authority will have to
S consider failure of the AP, contractors and LP, and then
they should equip themselves to tackle the risk.

M

N

O

P

Q

R

S

T Q. What I want to put to you is this. When the Water
U Authority conducts a risk assessment or hazard

T

U

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

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C identification, it does so from the perspective of water C

D quality. D

E A. I think it's a comprehensive one. E

F Q. The Water Authority is not concerned about whether the F

G progress of works would be affected. G

H A. That's right. H

I Q. Because for hazard identification, the Authority is I

J concerned about the quality of drinking water. J

K A. Then I agree. K

L Q. To some extent, it is not the same as the assessment to L

M be conducted by the contractor or the developer. M

N Although they are not exactly the same, but the general N

O purpose is the same. O

P A. In this scenario, as long as the contractor or the AP P

Q can work according to the specification, then Q

R by and large the water quality will be safe. R

S Q. We are talking about the nature of the risks and their S

T concerns are from different perspectives. T

U A. I can't quite agree. U

V Q. Perhaps I will reiterate this point in the final V

T submission.

CHAIRMAN: I would just like to hear from you -- so your suggestion is that their concern is on water quality, and your concern may not be the same. It may not be the specifications but, say, their focus may be on water supply to tenants and whether this should be one of their focuses.

Of course, safe drinking water is important. But the primary responsibility lies with you. I'm not saying that they are not responsible, but you carry the main responsibility.

A. That is why we have the British Standard, for them to comply with.

MR HO: I understand what you mean, that is other parties should also fulfil their responsibilities.

A. I want to emphasise that I agree with you, everybody should fulfil their responsibilities.

Q. But do you accept what chairman said just now? His analysis, as far as the safety of drinking water is concerned --

A. Well, chairman was just analysing what you said.

CHAIRMAN: Let me ask you, on behalf of the Housing Department --

C MR HO: So may I be seated? C

D CHAIRMAN: Up to you. D

E How do you ensure that LPs would fulfil their legal E

F responsibilities? On this, say part IV of WW046, we F

G understand that they are required to sign. Okay. After G

H signing, how do you make sure that what they declare H

I when they sign is true? I

J A. Well, at two levels, we conduct the final inspection, J

K but I must say it is not a very comprehensive final K

L inspection. Also, we rely on this as well, it is quite L

M important -- there is the AP who has continuous M

N supervision on site. That is, the AP should monitor. N

O CHAIRMAN: Please repeat. O

P A. At two levels, we have final inspection, first of all. P

Q COMMISSIONER LAI: What is covered in a final inspection? Q

R A. I think I briefly mentioned here: the communal system, R

S and then random sampling would be done to look at the S

T components. T

U CHAIRMAN: That is functionality test? U

V A. To see if it fits the annex, the plumbing proposal, the V

taps.

C CHAIRMAN: Back to the same thing.

C

D A. No, two different things.

D

E CHAIRMAN: Because your colleagues basically told us that
F you would look at the functions of fittings, because by
G visual inspection there is no way you would know the
H component of fittings. So you would just look at
I whether the water meters have been installed correctly.

E

F

G

H

I A. And also to look at the brand of copper pipes, whether
J it is as submitted previously.

I

J

K CHAIRMAN: Right, but only by visual inspection. You would
L just look at the function, frankly speaking.

K

L

M A. So if the brand complies with the British Standard, then
N theoretically it should comply with the standards.

M

N

O CHAIRMAN: Setting this aside, what about part 2?

O

P A. The system relies quite heavily on the AP to oversee the
Q construction of the whole plumbing system. That is why
R we require certification.

P

Q

R CHAIRMAN: You rely on the AP to supervise the LP?

R

S A. Because contractually --

S

T CHAIRMAN: Well, no contractual relationship.

T

U A. The AP should oversee that as part of the contractual

U

relationship. It's a sub-subcontract.

MR HO: Then the whole philosophy is wrong. Your understanding of the law is wrong. Is that really what you think?

A. As the WA, I think a system should be put in place, because we cannot have continuous supervision ourselves. As works are being carried out on the site, there is not much we can do. In terms of supervision, let's imagine it would be very difficult to carry out supervision as works are being carried out on the site.

Q. I want to for the moment set aside this point. I have heard you. You already said that you wouldn't want an extra kind of work at the construction site. But I am talking about the mentality of the WSD in relation to its responsibilities. I am still on the same point. Have you conducted any hazard identification to correctly understand your position as water experts, to consider it from the angle of safe drinking water? There is little that you need to do; say, to add a parameter or to issue another circular, to guide the whole trade to heighten their awareness. By doing so,

you might have achieved some purpose.

It's not necessarily site inspection. It might be good practice. I don't know whether there would be a recommendation for your department to step up site inspection. But as far as the whole philosophy is concerned, you need to identify the hazards before considering monitoring measures to be implemented. The monitoring measures may be very simple, they may be very complex, but if you don't even do the first step, how can you then talk about tests and monitoring measures?

A. I don't quite understand. There is a system, a robust system, for site inspection, for not only the Housing Department projects but other projects.

CHAIRMAN: Well, what I understand from Mr Wong is this.

His theme is this. To some extent, the WSD's

responsibilities are all delegated.

A. No, no. What I meant to say was that we want to have a most cost-effective and effective system for supervision. We understand that at the site there is a team responsible for continuous supervision, and we share the same goal with them. For HD projects or all

other projects, they want to complete a project that complies with the BS. They would like to have a good product for consumers. That is why they asked the AP to certify the work.

As to whether there are more effective measures, we need to explore the issue, because, as you said just now, say, for example, whether we can have regular inspection, you must understand that in a construction project there may not be plumbing works being carried out all the time. If I send staff to do site inspection at that time, there may not be -- plumbing work may not have started yet.

MR HO: You are citing an example that even before plumbing works begin, you start site inspection. I don't want to start a discussion with you at this level.

CHAIRMAN: Going back to the previous question, "Do you mean to say what measures there are to ensure that the LP has done its job?", and your answer is very simple. You talk about final inspection, that is functionality tests, and then secondly, in your answer, you said that the HD also has APs to monitor the work of LPs. So you

C rely on the Housing Department. C

D A. And also material submission and reporting -- D

E CHAIRMAN: That's another matter, because the question was E
F how you could make sure that the LP would do his job, F
G and that's the job of the LP. How can you make sure G
H that he does his job? And there is nothing. H

I My question is how you make sure that the LP will do I
J his job. As far as your role is concerned, there is J
K nothing but final inspection. K

L A. And also material submission and approval. L

M CHAIRMAN: Setting that aside. M

N MR HO: Just one thing. First of all, I heard you. I heard N
O what you said. The Commission and also Mr Khaw this O
P morning asked you about this, about the standard to be P
Q adopted for solder. Under the regulation, it says 864. Q

R Of course, I understand there is also a provision that R
S refers to the latest BS. But no revision has been made. S

T Then you said, had there been full compliance by T
U everyone, there wouldn't have been a problem. U

V Then you said you relied on the LP for compliance V
and also the AP for compliance.

U However, if you didn't update the standard in the U

provision, and according to the director, I don't know

whether you are aware of this -- according to the
director, there is some form of discretion as to whether
the latest statutory requirement should be followed.

That's the director's words. If necessary, one could
look up the internet to see the latest WSD requirement.

So, if you rely wholly on the LP and AP for
compliance, would they know what to comply with?

Because if the regulation concerned still refers to
BS 864, then what are you asking them to comply with?

A. There have been a few revisions since 864, it's now
1254, and everything has been made very clear that the
latest revision has to be followed.

Q. But I am talking about the WSD. The WSD hasn't done it.

However, contracts already state the specification of
solder material. However, WSD is still telling the
public about 864.

A. Well, the chairman may have the view that we don't
require strict compliance from the trade, but we follow
the latest revision of the British Standard. I have
read some private contracts and some HD contracts. It's

very clear. They know.

Q. I am saying that they have done better than you have, because the others know to update their requirements or contracts whenever there is a revision. However, the WSD, being the final gatekeeper of water quality, has not.

A. The law says the latest British Standard.

Q. This morning, you were asked about note 7 of 446, copper alloy. That is the WWO46 and note 7. However, your director said that there is a discretion, and you said that you require the LP to follow and you have shifted the responsibility onto LPs and APs, and if the requirements are not clear, how are they supposed to follow? You have placed the responsibilities on others. However, you have not made clear what your requirements are.

A. As I said, it's the latest British Standard. You assume that APs and LPs don't know about the latest revision. However, for LPs in particular, they are in contact with suppliers.

CHAIRMAN: Is there a problem if they know to update it, but

it's now 2016. Since 1983 it's been about 30-plus years.

MR HO: So is it back to the same problem, that is if you want others to make sure there is assurance of water quality, you should conduct a comprehensive risk assessment and put in place an evaluation or monitoring system?

A. I think you have to take into consideration the situation. Is it the risk that people don't know what to follow? But the HD and developers all know what to follow. We can see that.

Q. I am not going to get bogged down on this point. Hong Kong Institute of Architects. In January, at the end of January, in A4, tab 55, starting from page 2976.

Have you seen this document?

A. Yes, I have.

Q. Please have a look at paragraphs 1.1 and 1.2 on page 2977. In diagram 1 you see "(In English) Architect", and then "(In English) Authorised person", "(In English) Registered structural engineer", "(In English) Registered geotechnical engineer",

C "(In English) Building services engineer".

C

D A. Yes.

D

E Q. 1.4 -- sorry, first 1.2, under the diagram it says:

E

F "(In English) Plumbing installation is an essential
part of the building services system for the

F

G distribution of water. However, due to historical

G

H reasons, it is currently not controlled under the [B0]."

H

I Cap 123 does not include plumbing. Further down,

I

J Cap 102, that is the Waterworks Ordinance.

J

K "(In English) Water Supplies Department is
responsible for the administration and enforcement of
L the WWO and WWR ..."

K

L

M I think you agree with that?

M

N

N

O A. So far, yes.

O

P Q. 1.4, line 4, the role of the architect:

P

Q "(In English) The architect remains to be the leader
of the consultant team co-ordinating the input from such
R specialist consultants."

Q

R

S An architect is not an expert on waterworks,

S

T although he is the figure on top, as stated in the

T

U diagram?

U

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C A. Yes. C

D Q. 3.1, line 3, says: D

E "(In English) Currently, the ultimate responsible E

F party for the quality of plumbing installations rests F

G with the LP, whose role is to construct, install, G

H maintain, alter, repair or remove fire services or H

I inside service. The role and duties of the AP ... I

J although he is required to sign in the latest WWO J

K form 46, has not been prescribed or defined in the WWO K

L or WWR." L

M And that's correct, right? M

N A. Yes. N

O Q. Then another diagram. The line above the diagram: O

P "... some major construction activities including P

Q the plumbing trade currently do not require registered Q

R specialist contractors and registered workers in the R

S installation works." S

T Then there is the diagram. You can see, under T

U Cap 102, the regulation is different. Say Cap 46, when U

V it comes to electrical installations, well, 406, V

U actually -- 406 is the governing legislation -- there

V

C is

C

D a registered electrical contractor, and there is also
E registered electrical worker. If there is the word
F "registered", there is a registration system to ensure
G qualification and regulation. The requirements are in
H general stricter.

D

E

F

G

H A. You mean --

H

I Q. So registered this, registered that?

I

J A. Yes, under the Ordinance, there is a requirement.

J

K Q. We are talking about the regulatory philosophy. If
L there is the word "registered", that means there is
M a regulatory system in place, and there will be more
N stringent requirements.

K

L

M

N A. I have not read the legislation in detail, but yes,
O I reckon there is some kind of registration requirement.

N

O

P Q. 406, registered electrical contractor and worker;

P

Q Cap 311, registered electrical contractors, that is
R generator installation, air pollution control; Cap 123,
S drainage installation, that is registered general
T building contractor; gas, Cap 51, registered gas
U subcontractor; air-conditioning installation, FSI
V contractor, fire services installation contractor; fire

Q

R

S

T

U

C

C

D

D

services installation, their own contractor, lifts as well.

E

E

However, on the contractor level, when it comes to

F

F

plumbing, the regulatory system is very different.

G

G

There is nothing on the contractor level. Can you see?

H

H

A. Yes.

I

I

Q. On the regulatory perspective, shouldn't there be some

J

J

kind of regulation on contractors? Because you have

K

K

lagged behind others.

L

L

A. You mean if there is any room for improvement in the system, to align this with other aspects, I think we can look into it.

N

N

Q. The recommendations in this paper are based on one

O

O

thing. In point 2, "Designated professional and workers

P

P

for designated skills."

Q

Q

A. Which page?

R

R

Q. 2978. That is page 2 of the document, part 2.

S

S

It says, "Designated professionals and workers for designated skills".

T

T

It's workers for designated skills; is that right?

U

U

A. 6.0, there is suggested such a statutory framework.

V

V

"Architect (lead consultant)", underneath it says
"Authorised person" and "Registered building services."
Engineer and plumbing contractor, and registered
plumbing workers. That is the recommendation.

Q. I am not going to talk about whether the recommendation
is right or not, but they have made a number of points.
First, the architect may be the top guy, but he doesn't
have to be an expert in every aspect. That's why they
need to engage other parties, say structural engineer.
That's why they need structural engineers.

A. Let's say, for example, they need engineers to help with
the calculations.

Q. The question is, if we are talking about drinking water
safety, not contract administration at the site, the
focus is on drinking water safety. If there is the
workers for designated skills, my take is that the WSD
and the LP, the two stakeholders -- well, WSD has
a leading role -- if workers for designated skills are
about drinking water safety, that's needed.

A. You may not want to talk about 6.2, but my view is that
the chart in 6.2 is the recommendation of the HKIA.

C It's quite appropriate, because the site has to take the
D lead.

C

D

E Q. You take the lead.

E

F A. No, it's the authorised person, not the WSD.

F

G Q. Please clarify. You said authorised person taking the
G lead. Do you mean not the WSD?

G

H A. WSD is a regulator. It is more important for them to
I set a standard. For a construction site to work

H

I

J properly, like the HKIA's recommendation, you have to
K engage a BSE and a plumbing contractor. It's very close
L to the other areas as cited by you, say registered
M structural engineer. It's an appropriate approach.

J

K

L

M

N Q. What's the role of the WSD?

N

O A. Regulator, to set the standard.

O

P Q. So that is the responsibility of the WSD?

P

Q A. I would say it's a regulatory role.

Q

R Q. Regulatory role, that means giving licence to the LP,
S including BS and the law, and inspections? That is,
T when the project reaches part 4, you then inspect
U whether it is in accordance with the spec, followed by
V public education. Then you would regard yourself as

R

S

T

U

V

having fulfilled the responsibility of supervising for the safety of drinking water?

A. I think the same applies to building safety.

Q. No, I am asking about WSD. You can't single it out.

You need to look at the whole system. Structural safety is also important. Please just answer me.

A. I consider ourselves playing a regulatory role. Like I said, we set standard. We carry out inspections. We impose requirements for compliance. The HKIA has recommended an effective system for things to be properly constructed. I think this recommendation is worthy of our -- for us to look into.

Q. So I have heard from you that other personnel, such as the LP, AP, they have done all their works, and that means basically your role is done; that is everything about your role of supervision?

A. I can say, basically, we play a regulatory role.

Q. That is what I pointed out just now. Would you consider yourself having fulfilled the responsibility as the organisation overseeing water safety?

A. In other countries, similar regulators also engage in

C similar roles.

C

D Q. So is the answer "yes" when I ask whether you have done
E all that is required?

D

F A. I wouldn't say all, but basically these are things that
G we need to do, but there is always room for improvement,
H because if you ask me all of a sudden this question,
I I say that we always have room for improvement. But
J then we need to draw reference from overseas experience
and other pieces of legislation.

E

F

G

H

I

J

K CHAIRMAN: In a construction project, of course an architect
L has a role to play. But as water supplier, as the
M gatekeeper, you also have your role to play; right?

K

L

M A. I agree.

M

N CHAIRMAN: So when it comes to supply of quality water and
O the gatekeeper, would you agree that your role is a lead
P role, whereas when it comes to the laying of water
Q mains, installation of pipes in the construction
R project, on these technical matters, the AP has a role
S to play?

N

O

P

Q

R

S

T A. I agree. That is why I think one important thing is to
U put in standards for compliance.

T

U

MR HO: I fully agree with you that if you put in a standard, you can allow others to follow the standard. Like Prof Fawell said, if there is a ball and everybody's eyes focus on the ball -- but the question is whether we have this ball for people to focus on.

A. I agree with Prof Fawell, but this ball should not just be seen by some but by all.

Of course I agree with the chairman that perhaps the WSD should play the lead role here.

MR HO: (Chinese spoken).

CHAIRMAN: Why don't we wait until tomorrow. I don't think you can finish your questions today.

MR HO: No.

CHAIRMAN: So let's continue tomorrow. Let's resume our normal hours tomorrow. We will start at 10 in the morning and adjourn at 4.30.

(4.51 pm)

(The hearing adjourned until 10.00 am the following day)

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