

2016年1月22日

上午10時03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

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

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

鍾耀明大律師，由的近律師行延聘，代表保華建築營造有限公司

黃佩琪大律師及李頌然大律師，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

孖士打律師行陳宇文律師及梁樂鋒律師，代表中國建築工程（香港）有限公司

孖士打律師行陳韻華律師，代表瑞安承建有限公司

主席：係，Mr Khaw。

香港房屋委員會第十六證人：黃比（水質事務諮詢委員會委員（於2000至2008年代表房屋署）宣誓繼續作供許偉強先生盤問

問：黃生，早晨。

答：早晨。

問：係。我就代表委員會有啲問題想同你討論一下。麻煩你而家睇一睇你證人口供嘅第7段，即係Y1，第38頁。Y1，38頁，第7段，咁個度都講咗少少背景，就話你初次參加嗰個ACWQS (ACQWS?) 嗰個會議嘅時候，即係你嗰個扮演個角色係乜嘢嘅。你嗰度簡單都介紹咗，當

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時因為你係嗰個 Management Branch，當時係 Acting Assistant Director；同埋你亦都有講到，喺 7 段後面嗰度，就話你亦都同時間，當時係個 co-chairman of 一個我哋應該叫做聯絡小組，一個 Liaison Group on Construction Quality (“LGCQ”)。

尋日梁先生嚟畀口供嗰陣時，我都有同佢簡單討論過呢個 LGCQ 嗰個工作嗰個範圍。我就想問一問你一啲背景嘅資料，嗰個 LGCQ，就你喺個 footnote 嗰度都同我哋講解咗幾時成立，同埋佢主要嗰個工作嗰個範圍。最主要都係 construction 同埋 estate management，即係 maintenance，兩個 division 你係會有多啲連繫，咁就即係確保一啲工程上面，如果有啲維修工作嗰啲就可以跟進，大家可以討論一下咁樣，即係呢個係最主要嗰個工作範圍，係咪呀？黃生。

答：主要兩個 division，即係兩個 branch，係唔係好多--即係雖然好多會，但係唔係好多場合你係討論一啲關於收咗貨嘅屋邨，...

問：明白。

答：...即係我哋係特登提供一個 communication 嘅渠道，咁兩邊走埋。

問：有個溝通渠道，唔。

答：第二，就係我哋有好多--講得唔好聽，就係話即係好 defect 响到，即係入咗伙收到好多投訴，或者有 defect 漏水，或者即係如果你睇好似 CQ 嗰啲 minute，我哋就好多。

問：見到，唔。

答：咁嗰啲我哋盡量响利用嗰個場合，就係同我哋嘅新樓部話番畀佢聽，等响佢個設計嗰度 review 一下。

問：明白。

答：另外，好似仲有一個即係雙方面都有同事係需要啲 training 嘅，咁大家去討論下有啲咩嘢 training 需要，主要都係咁樣。

問：好嘅。個別例子關於嗰啲 defects，即係收咗樓之後點樣處理，就住你哋嗰個聯絡小組點樣去跟進嗰啲工作，我就唔會多談。我最主要其實想問一問你，就係就住呢個聯絡小組嘅工作裏面，我睇下黃生你記唔記得當時大概 1999 年，你加入嗰個小組嘅時候，就應該有討論過，

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當時就係話使用銅喉作為畀即係總承建商多一個選擇呢方面，我相信你應該係咪記得，即係就住呢個課題？

答：講番啲歷史背景。

問：好呀。

答：我哋保養嗰面有啲 re-plumbing programme，就响九幾年就開始做，因為當時嗰個 GI pipe 唔准用，咁我哋就有個 programme。

問：唔。

答：咁有個 programme，我哋响保養部都考慮過好多種物料嘅，我哋其中有一種就係用銅喉嘅，用銅喉，咁我哋都累積咗少少經驗。

問：明白。或者我畀你睇一睇其中有個你哋聯絡小組個會議紀錄，咁或者我哋即係 refresh 下個 memory，睇下。

答：好呀，好呀。

問：如果你打開 B15.4。

答：第幾次嘅會？

問：B15.4，我可以直情畀個文件夾你。係呢個 1999 年 9 月 15 號，group meeting 嘅第七個，number 7。

答：係，係。

問：好。

答：我有，不過蘇巴唔同，唔緊要，唔緊要，...

問：唔緊要，我諗你可以...

答：...大家搵到嘅。

問：...是但睇一個都得嘅。

答：係。

問：呢度我見到就係第七個會議，1999 年 9 月 15 號，咁我哋見到有 development and construction branch 嘅同事，咁亦都係有

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management branch，即係包括咗你本人，Mr B Wong，就係你當時有出席到個會議嘅，咁亦都係以個即係 acting assistant director/management 嗰個角色嚟到係參加呢個會議嘅。如果我哋...

主席：等一陣先，Mr Khaw，等一陣先。

許偉強先生：係，好。

主席：未上到。

許偉強先生：唔好意思，呢個係--我可能講錯咗，睇下先。應該係 B15.4，係嘞。

主席：B。

許偉強先生：B15.4，有嘞，有嘞。

主席：係，第幾頁呀？Tab...

許偉強先生：39997。

主席：39997。繼續。

許偉強先生：好。

問：黃生，就呢度我哋見到 39997 嗰度，就有你參與嗰個會議。如果我哋睇下跟住嗰頁，39998 嘅 4.3 嗰度，就有講及個“Report on the Use of Plumbing Materials for Fresh Water Supply”，睇到嘛？

答：睇到。

問：咁就即係呢個亦都係有關當時話去討論，就話會唔會使用銅喉即係嗰個課題就作出一啲嘅討論喺個會議度。咁喺呢度 4.3 亦都見到有個 interim report 嘅，睇到嘛？即係“An interim report was tabled. Final report was targeted for issue during the first quarter of 2000.” 如果我哋睇番文件夾的話，就

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喺呢個應該個會議紀錄有個附件嘅，個附件嗰度有個 report，唔知你有冇搵到？

答：有。

問：個 report 就喺個文件夾嘅 40002。

答：唔。

問：我哋可以睇下呢度，咁最主要呢個 report，當時都係就住你哋個聯絡小組而即係去準備嘅。我想問一問，你有冇份參與即係製造呢一個 report？

答：我記得當時我哋有一組 technical development 嘅 team，嗰啲同事係負責...

問：明白。

答：... compile 呢個...

問：呢個 report 嘅，係咪呀？

答：...report 嘅。

問：好。

答：咁 report 曾經上過會嘅，上過 maintenance committee，咁就 endorse 過嘅。

問：係，冇錯。

答：咁就我有睇過。

問：唔。有睇過？

答：我有睇過。

問：即係我個問題就係你本人就有話參與嗰個制訂嗰個工作，係咪呀？

答：係嘞，冇去落手落腳去畀意見，...

問：明白，明白。

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答：...但係我都知道有個咁嘅。

問：明白，好呀，唔該。我就就住呢個 report，其實我都想問番你有少少一啲嘅跟進嘅資料。首先，我想問下，當時話畀呢個總承商使用銅喉，同埋比較緊呢兩種喉，即係 lined GI pipes 同埋嗰個銅喉呢一個咁樣嘅課題，當時嚟講，喺你哋個即係 liaison group，係咪一個都比較即係重要嘅課題，當時？算唔算話一個比較大嘅課題呢？

答：普通課題。

問：普通課題，係。

答：即係因為我哋討論嘅嘢好多，...

問：明白。

答：...咁其中一項嘅，呢個。

問：明白。

答：咁就我哋唔係討論到去畀邊個承建商做，因為主要就係即係我哋有少少經驗，我哋做過，咁將我哋嘅經驗寫番出嚟。

問：明白。

答：咁 1999 年 new work 嗰陣時我記得係未嘅，好多年後先至...

問：係，我知道。咁佢呢度最主要--如果你睇番呢個 report，其中一項主要嘅討論就係講緊即係銅喉同埋即係呢個 uPVC-lined 嘅 GI pipes，嗰個好處、唔好處...

答：壞處，係，係。

問：...嗰個分別嘅。不過，尋日我都問過梁先生，同埋我都想問一問你，就係就住當時你話大家去討論邊啲嘅好處、壞處咁樣，呢個亦都係咪你哋 technical development 個 team 即係去到做啲 research 咁樣？

答：响保養嗰面就有少少，即係我哋都有累積一啲嘅經驗。

問：你哋 maintenance 嗰邊都會去畀番啲經驗出嚟，係咪呀？

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答：嘅，嘅。

問：好。當時我哋睇到個--如果講銅喉先，銅喉嚟講，就 advantage 同埋 disadvantage，咁似乎我哋睇下銅喉嗰個有一欄，第一嗰度就我哋睇到嗰個“Withstand pressure up to 25 Bar when used with soldering joint”，睇到嘛？咁但係就如果 disadvantage，就“Withstand pressure up to 10 Bar only when used with compression fitting”。咁呢個就似乎係講緊銅喉裏面都分例如 compression fitting 或者 soldering joint 咁嘅分別。

記唔記得當時係咪就住即係呢兩種嘅物料，即係用焊料嚟到去接駁，定係用呢啲攞杧，應該我哋講攞杧呢個 compression joint 去接駁，都係即係做咗一啲研究，有冇...

答：冇，冇，冇，冇。

問：都有嘅？

答：冇詳細去討論，亦都有特別...

問：冇詳細去討論，係咪呀？

答：...研究。

問：唔。即係呢個就係一般嘅認知？

答：即係因為呢個一般，水務署曾經都有一個 report，即係尋日我派咗少少，有一個 exhibit 就係關於呢個嘅，昨日。221，尋日嗰個 page 221，“General Information on the Use of Different Types of Pipe Materials as Inside Service in Buildings”嗰個。

答：係。

問：221，响個 6 嗰度。

答：係。

問：係，bundle Y1。

答：係。

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問：即係你嘅意思係話你當時嗰個討論都有即係參考過，...

答：有睇過呢個，有睇過，...

問：...係咪呀？水務署...

答：...因為呢個係權威嚟㗎嘛，呢個。

問：水務署就住...

答：Water Authority 出過一本咁嘅書仔，我唔知呢個係咪最 update 當時。

問：Okay，明白。就係呢個我...

答：我唔清楚，不過我又有即係睇到呢個 copy，即係其實好多 material 嘅，好多。

問：明白，明白。我咁樣總結下係咪咁，呢個就 1994 年 12 月水務署發出嘅一個即係文件，咁就入面有講到啲唔同物料嘅即係 pipe materials 講緊，係咪呀？

答：唔。

問：即係你嘅意思就係話當年，即係喺你哋聯絡小組去討論話嗰啲喉，即係例如銅喉個好處、壞處嘅時候，其中一個參考嘅資料就係呢個水務署發出嘅資料？

答：唔係聯絡小組討論，...

問：唔，係。

答：...而係我哋即係 draft 嗰個...

問：Draft 個 report 嗰個？

答：Draft report 嗰陣時係參考咗呢個。

問：唔，明白，好。當時我想問下，就住呢個銅喉即係個使用嘅方面嘅討論，咁例如你哋個聯絡小組當時都應該會有期望到，即係如果真係銅喉就係大規模咁樣使用嘅，可能有啲即係物料或者係啲部件或者材料，以前可能比較少用嘅，跟住落去就會大批咁樣用，即係有咁嘅機

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會嘅，係咪呀？即係有咁考慮過嘅？

答：聯絡小組冇考慮呢啲問題，...

問：冇考慮呢個問題？

答：...因為當時大家用緊唔同嘅嘢，lined GI pipe 係大規模用緊响新樓部。

問：係，唔。

答：保養部就雜崩嘅，又有 GI，...

問：冇錯。

答：...又有乜又有物，因為一定要保養，以前剩落。

問：冇錯。

答：咁我哋就有少少關於銅喉嘅經驗，咁只不過係大家 exchange 一啲即係大家嘅經驗同埋意見。

問：唔，係。

答：咁就我哋唔期望當時响--嗰個 period 我哋即係唔知道新樓部係採用邊樣。

問：明白。你就講話當時大家分享經驗，喺個小組度，係咪呀？咁至於你哋如果係做緊即係保養嗰個部門嘅，因為以前都處理銅喉有啲經驗，咁所以亦都分享畀例如即係建築嗰邊，design 嗰邊咁。我想問一問，就係你哋之前話喺個 maintenance 嗰方面對銅喉有經驗，嗰陣時你嗰個經驗係一般嚟講，係講緊即係一啲攞杭式嗰個接駁嘅銅喉，定係一啲即係 solder joint 嘅銅喉？

答：我哋嘅經驗其實係累積返嚟嘅，即係基本上都係睇番水務局佢有呢個小冊子用咩嘢料。

問：唔，唔。

答：另外，水務局亦都有另外一個 guidance--guide to re-plumbing fresh water supply 嘅。

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問：係，係。

答：一路落嚟，我哋都係同水務署聯絡，咁我哋就响嗰度學嘅。

問：明白。

答：基本上，即係大家都唔係 waterworks 嘅 engineer，咁我哋係保養嘅人。

問：唔。

答：水務署响 194，即係嗰個 bundle Y1 嗰個 194 嗰度，就 1995 年就出過一個 guide 畀我哋，即係點樣 re-plumbing 嗰陣時 submit 乜嘢，有 line diagram 嘅，點樣呀，要留意啲乜嘢，...

問：係，係。

答：...咁就我哋跟呢個學。

問：明白，明白。咁或者我想問下，即係就我之前嗰個問題，就係你喺呢一個聯絡小組，即係我哋而家講緊呢個時間都係 1999 年 11 月嘅呢個時間，之前，即係你有冇啲即係個人親身嘅經驗係有關即係處理一啲銅喉嘅工程，就住例如維修即係嗰方面嘅，即係就住銅喉工程，你自己有冇接觸？

答：我唔係好多。

問：唔係好多？

答：唔係好多，我嘅印象中，我有特別 in charge 喺呢度。

問：唔，明白。所以就住你個分享經驗嗰個認識，就係話即係你可能睇到例如水務署發出嚟啲啲資料等等？

答：係呀，呢啲係我哋個寶藏，...

問：明白。

答：...即係一路做一路學㗎咋。

問：明白，明白。咁我想問下你，即係就你個人嚟睇，即係當時有呢個討論可能會使用銅喉呢樣嘢，咁從你喺 maintenance 個 management

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角度嚟睇，咁即係話如果真係大批咁使用銅喉，即係對你真係做維修嘅時候，都可能要即係清楚知道用啲咩嘢物料，可能會即係用嗰個工序係點呀，如果維修方面有啲咩嘢問題，即係嗰啲你都當時知道，如果萬一用銅喉，都要清楚嗰方面嘅資訊？

答：我哋著重點，因為有 book，即係希望即係做嘢就係以人為本嘅，...

問：係。

答：...即係樣樣都係從嗰個租客個角度，就係點樣係最方便、最快脆。

問：係。

答：咁我哋點解銅喉會用，我就記得就係我哋話--即係响我哋自己保養嗰面傾，就係話 ease submission，即係容易啲，同埋又唔會--即係最緊要係快脆，readily available，咁就純粹快脆，...

問：明白，明白。

答：...我哋就係咁樣响呢個認知之下，就試嗰個銅喉嘅。

問：好。我想問一問，就係啱啱我講過嗰個唔同嘅即係銅喉嘅種類，有攞枋，有即係 solder joints 嘅。

答：係，係。

問：你記唔記得當時喺你哋個 liaison 嗰個 group 入面，有冇特別話就住用邊一隻物料去討論？

答：冇，冇，冇，冇。

問：冇嘅？

答：冇嘅，冇，...

問：有冇話...

答：...冇去到咁仔細嘅。

問：冇去到咁仔細嘅，好。我哋睇下跟住一路嗰個小組嘅討論，就有幾個跟進嘅文件想你睇一睇。首先，就係 40012，呢個就係第九次嗰個會議，2000年1月18號嘅。佢呢度就喺 2.4 嗰度，就有講到就係呢

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一個等緊個 final report 嘅，當時。咁似乎我哋睇下個“Action”
嗰一欄，即係隔離嗰個 margin，就講緊嗰個 final report 就應該
係“CBSE”同埋即係“CA/D&S”，即係 development and standard
嗰邊去負責制定嘅。

答：唔。

問：即係我問下你，就係呢個 final report，咁跟住就如果我哋睇下
--或者我問一問你先，就係有冇--即係呢個 final report 跟住有
冇做過出嚟？

答：我唔記得。

問：唔記得？

答：因為呢兩位都係應該係新樓部嘅。

問：係。因為跟住我見到你哋個討論，就係例如講緊--如果我哋講番
40023。40023，2.2 嗰度，就係都係講緊“Action in hand;...”，
咁就話個“...chief building services engineer would
pass the draft final report to SMS/TD for comment”
咁樣。

然後，就去到 40031。40031，就 2.2.1，呢個就係講緊跟住一
次過會議，就係 meeting 12，2000 年 8 月嘅時候，咁就講緊就係
話 SMS 係呢個...

答：Technical development。

問：係嘞，technical development，係嘞，呢個係應該係個...

答：保養嗰面。

問：...保養嗰方面，係嘞，嗰個 maintenance surveyor，...

答：係。

問：...應該 senior maintenance surveyor？

答：係，係。

問：咁就係“had given reply on the Report for CBSE/2's

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consideration and follow up.”因為我喺呢個文件度，我睇唔到嗰個 report，所以我就之前想問一問你，知唔知個 report 係咪即係有做過，你記唔記得嘅啫？

答：冇印象。

問：唔係好記得，唔緊要。跟住我哋睇下，跟住嘅跟進就喺 40044 嗰度嘅，亦都係你哋 liaison group 嘅，你亦都係有出席嘅。

答：係。

問：就想同你澄清一下呢度，40044，2.2 就係咁講，咁就佢呢度話“AD...”即係 development 嗰方面嘅 AD，就“...reported that feedback was received from SMS/TD. He informed that fittings of adequate pressure rating for copper pipes was not available and the suppliers were being asked to work on this.”跟住就“SMS informed that copper pipes were not used in MB for risers which required high pressure rating.”

“MB”係咪講緊呢個 multi-storey building？

答：唔係，唔係，唔係。

問：呢個“MB”係咩嘢？

答：MB 係 management branch，即係...

問：Management branch。

答：...我哋保養同埋管理外面嘅。

問：Management branch，好。跟住就係“AD/D would liaise the matter with SMS/TD.”咁後面就真係有啲 comment 出咗嚟嘅之後，就喺呢個 40055，呢個係第十五次會議，就係 2001 年 2 月 1 號，2.2 嗰度，黃生，你見到？

答：唔，唔。

問：“Report on Plumbing Materials for Fresh Water Supply”，都係個“CA advised no formal feedback was received...”跟住後面有啲 handwriting，咁就“...on the failure of UPVC

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lined GI pipes. It appeared that..." 係咪 ME，應該係咪呀？呢個 MB？

答：MB。

問："...MB concern were on re-plumbing..."，係咪呀？"...work where these materials had..." 睇下先，"...been used rather than on failure of existing installation." 咁樣，係咪呀？

答：唔，唔。

問：即係記唔記呢啲 comment 係邊個加上去，記唔記得？

答：似乎係 CA/D&S。

問：好。

答：即係呢啲字跡。

問：好呀。跟住如果我哋講緊 2.2.2，就係佢都"AD/D reported that feedback was received from SM/Audit regarding in proper use of G.I. pipe fittings. Since problems were identified, the Contractors were required to rectify the problems concerned."

2.2.3 Since fittings of adequate pressure rating for copper pipes was not commonly available, SMS/TD advised that ductile iron could be used for risers which required high pressure rating.

2.2.4 AD/D concluded the use of G.I. pipes has not been ruled out however the use of copper pipes may be considered in the future."

答：唔。

問：咁似乎呢度就仲未有定案嘅，即係都仲係講緊...

答：係呀，係呀，係呀。

問：...兩種大家嘅取捨...

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答：係呀，佢話係...

問：...係仲未好清楚嘅，係咪呀？

答：係呀，兩個都有 rule out 嘅。

問：明白。即係呢個時候都仲係研究緊再作進一步嘅研究，先至可以作出一個即最後嘅決定，係咪呀？

答：但係個決定就係 construction branch 嗰面決定，唔係...

問：係邊個 branch？

答：Construction branch，...

問：Construction branch。

答：...即係起新樓嗰面決定。

問：唔。大概你記唔記得例如呢個係 2000 年左右嘅討論，大概幾時嘅，即係 construction branch 嗰度係決定話用銅喉咁樣？

答：好可能佢哋會試嘅，即係我唔記得 exactly...

問：唔，唔緊要。

答：...幾時，都係嗰個左右，即係...

問：係，明白。

答：...二零...

問：2000 年年頭，即係 2000 年初？

答：唔係，唔係，2002 之後嘅事嚟㗎嘞，...

問：係，明白。

答：...就算佢做 trial 都好。

問：好。我想問一問，就係你之前就一路傾緊即係選擇唔同類型嘅喉管嗰個材料，即係大家有啲咩嘢好處、壞處，但係未有定案咁嘅。到即係 2000 年初嘅時候，即係 2000 至 2002 嘅我哋知道，2002 就直情有

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啲 revised specifications 係講咗用銅喉啲，我一陣間會同你再跟進下嗰方面。

C

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答：唔。

D

E

問：咁呢段時間，當時話決定咗用銅喉，我想問下，例如有冇邊個部門係會去諗下，用銅喉即係可能會有啲乜嘢危險或者風險，或者係即係對居民會唔會個身體有啲咩嘢影響，呢方面，即係當時例如房委員或者房署有冇咩嘢特定嘅部門去到去即係檢視呢樣嘢？

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答：冇嘅，冇嘅，冇嘅。

G

H

問：冇嘅，okay。

H

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答：即係你大約講風險管理嗰個考慮咩嘛？

I

J

問：係嘞，冇錯。

J

K

答：我當時記得就唔係--冇傾呢啲嘢。

K

L

問：冇傾呢啲嘢嘅，唔。

L

M

答：咁記唔記得話就住可能要用銅喉或者決定咗用銅喉，咁啲物料、部件即係用咩嘢牌子，即係邊啲可以符合規格嗰方面嘅，有冇話你哋同供應商--即係你哋部門又好，或者其他部又好，你記唔記得會同供應商有啲咩嘢接洽大家去傾下，「喂，用啲咩嘢嘢？」咁，呢樣你知唔知？

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問：因為我哋响個聯絡--quality liaison group 嗰度，大家分享經驗，或者有啲咩嘢惡果，有啲嚴重，先至交換嘅啫。

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答：係。

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問：開頭點樣做，當然係負責個 project 嗰邊嘅部門負責。

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答：唔，好。

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T

問：即係佢係 designer，佢梗係會諗呢啲嘢，...

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答：明白。

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答：明白。即係你個意思就係話如果選擇咗用銅喉，真係要同供應商去即係睇下用啲咩嘢物料啲，嗰個就會係建築嗰方面，即係 design 嗰方面個同事？

問：嘎，佢哋會，因為我記得我哋保養都係參考水務局嗰本嘢，水務局嗰本嘢其實有啲 approved list 嗰類咁嘅嘢嘅。

答：係。

主席：有啲咩嘢話？對唔住。

許偉強先生：Approved list。

答：Approved list，即係你用啲就穩陣，或者你...

問：明白。所以就你嘅角度或者你嘅部門嘅角度嚟睇，...

答：我即係...

問：...即係如果要...

答：唔需要討論嘅，即係佢一定會--佢又會入紙去水務局攞 approval，咁佢又會跟啲 guideline，...

問：明白。

答：...所以冇諗呢啲嘢，冇傾呢啲嘢。

問：明白，好，明白，唔。以你嚟講，即係當時嗰個討論緊話轉唔轉用銅喉咁樣，即係以你嘅認知，或者你對個市場嘅認識，咁改咗之後，即係決定咗用銅喉，嗰個市場上嚟講，即係應該都係好準備充足嘅，即係如果你要去改嘅話，即係喺市場上面係可以迎合到呢樣嘢嘅，係咪呀？

答：我有...

問：因為市場上私人...

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答：...exactly 咁嘅經驗，不過我哋保養呢因為唔係好大量，即係一座、半座 re-plumbing，我哋有限料，即係我哋嗰陣時冇呢啲問題嘅。

問：明白。

答：咁但係可能新樓部又會聯絡嗰啲 supplier（供應商）或者一系列嘅材料嘅人，或者個 association 等等，可能佢哋會做一啲 research。

問：明白。就你自己知唔知道話例如 2000 年之前，就住啲私人發展商嘅項目，係咪用銅喉都係幾普遍，已經？

答：我唔敢 exactly 肯定，不過同事話畀我聽，「欸，出面成日都用喇喇。」咁即係一個--即係都好多用嘅。

問：好，唔該，好呀。咁或者我哋嚟睇一睇嗰個 2002 年嘅時候，我哋就知道屋宇裝備工程師佢哋嗰個部門，即係 CBSE 嗰個部門，就出咗一啲即係我哋知道係 revised specifications，就關於嗰個即係使用銅喉嘅話，因為啲物料可能有啲改變，咁佢哋啲規格上面應該要符合啲乜嘢，就作出咗一個都幾詳細嘅一個 revised specifications。就住呢個問題，我先問一問你，就係一般嚟講，你做即係 management 嗰邊，即係 maintenance 嗰邊，你有冇機會接觸嗰啲即係材料規格嗰啲 specifications？

答：當我哋接觸，通常都係出...

問：有事㗎嘞？

答：...DCMBI 嘅 instruction，咁就...（聽不清）。或者之前我哋啲同事同佢討論過都唔定，但係我哋知都係知道有 change，有 instruction 出。

問：明白。

答：我唔記得同事有冇同佢哋討論或者 feedback，不過我就好清楚我哋新樓部同事就做好多 research，乜嘢都做 research，係攞好足料，即係好 scientific 咁樣做。

問：唔。一般嚟講，喺個建築過程，例如或者我哋講收樓之前，建築部嘅同事，包括我哋講緊屋宇裝備工程師嘅同事，會唔會話同你哋有啲溝

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通，就住嗰啲物料嘅 specification，會同你哋有啲乜嘢--即係有啲商量、有啲溝通，即係知道，「喂，有啲乜嘢 specification 嘅，就住呢個 project。」即係你哋係咪都有呢個溝通？

答：我諗 individual officer 大家討論下就會有，但係如果佢需要，佢多數會寫過嚟嘅，...

問：明白。

答：...即係寫過嚟，我哋會 formal 答佢咁嘅。

問：好呀。或者我哋...

答：其實唔係好多討論嘅，我記得當時。

問：明白，好。或者我哋睇一睇 15.3，個文件夾 15.3。

主席：15.3。

問：B15.3, 39600。呢個我哋就其實都睇過都幾次，就係當時應該係 2002 年 7 月嘅，就係呢個 development 嗰邊嘅，...

答：係。

問：...咁就出咗一個...

答：DCMBI。

問：...呢個 DCMBI 咁嘅 instruction，咁就應該係全方位咁樣發布。

答：唔。

問：咁如果我哋睇下 39605 嗰度，咁個 distribution 應該就即係概括面都好大概嘅，係咪呀？

答：係呀，係呀。

問：應該我諗...

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答：我哋收到嘅。

問：你哋都收到嘅，係咪呀？

答：唔，唔。

問：即係因為我見到“AD/M”嗰度，都應該有你哋部門都收到嘅。你本人都有睇過呢份嘢當時，係咪應該？記唔記得？

答：AD--我記得我係做 M2。

問：係嘞，你係 M2 嘅。

答：但係佢冇...

問：但係我就係想知一知，當時例如出咗呢份嘢，...

答：AD/M3 就我哋保養嗰面嗰個 headquarter 嗰個 AD 嚟嘅，...

問：係。咁...

答：...佢就處理同新樓嗰面聯絡嘅。

問：明白，咁...

答：咁所以我呢份嘢，我唔係好有印象係詳細睇過。

問：明白。

答：可能即係 circulate，响啲地方會睇過都唔定，但係我唔係好深，我個印象。

問：唔。但係咪詳細睇過都好，我想問下當時即係都知道有呢一個即係更新咗嘅 specification，即係呢一個制訂，係唔都即係應該係知道，當時？

答：因為呢個係 library 嚟嘅，即係 Specification Library，即係乜嘢物料佢有新嘢，佢就擺落去，咁佢點樣採用就個個 project 唔同。

問：明白。

答：即係當然我哋保養部有同事睇過，咁我就唔係...

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問：唔係好記...

答：...好深印象。

問：好，好。唔緊要，我哋睇一睇就係你嘅證人口供嘅第 14 段，即係 Y1 嘅 41 頁，第 14 段。呢度都係講番話即係對於嗰個--我哋講緊個鉛嗰個物料，即係嗰個物質，就係係咪有毒嘅，咁呢度你就話，即係一般嚟講，你都係即係知道鉛呢樣嘢即係有毒嘅物質，就話“use of lead pipes and fittings containing lead ought to be avoided.”即係呢度你係咁講，即係話含鉛嘅一啲即係水喉嘅部件或者物料係應該避免用嘅。咁“In this context, paragraphs 8 and 9 did not attract any special attention”，呢個就係你講緊即係之前有啲你開會參考咗個文件嘅 paragraph 8 and 9，呢度我暫時唔...

答：嗰個係水諮會個 Paper No. 7。

問：係嘞，水諮會個 paper，即係我講 No. 7 嗰個。我想問一問你，呢度你講話你即係知道如果係用嗰啲含鉛嘅水喉或者部件係唔啱嘅呢樣嘢，即係要避免嘅。你幾時開始知道即係呢樣嘢？

答：幾時呀？因為呢個即係好普通常識。

問：好普通嘅常識？

答：即係我哋讀書嗰陣時已經講，嗰啲阿 Sir 已經講，即係 lead 就唔好亂咁用咁樣。

問：係。

主席：你讀書嗰陣時候，係你讀大學嗰陣時候，專...

答：工專。

主席：工專嘅時候？

答：Hong Kong Technical College, 1969 至 72。

B

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C

許偉強先生：係。

C

D

D

E

主席：等一陣吓，工專，Hong Kong Technical College。你本身係讀乜嘢？我想問一問。

E

F

答：我係讀 building surveying。

F

G

主席：唔。得，繼續。

G

H

許偉強先生：好。

H

I

問：即係你係講緊讀工專嘅時候，係咪就係即係當時特別係就住有關水務方面嘅課題，...

I

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K

答：係。

K

L

問：...係有講到即係關於唔好用含鉛呢樣嘢？

L

M

主席：唔好用鉛。

M

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O

問：即係唔好用鉛嘅呢樣嘢？

O

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Q

主席：係，係，唔係唔好用嘅。

Q

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S

答：我唔記得 exactly 嗰陣時阿 Sir 點講，但係嗰陣時曾經 quote 啲 case，我哋 UK 外面真係用鉛嚟做喉個嗰咁樣，所以當時就話「欸，嗰啲鉛唔係問題，因為佢到咁上下又 form 一浸嘢 coat 咗佢，就冇事嘅。」

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問：係，係，係，係。

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答：咁當時個認知就係咁，但係「唔好用，唔好亂咁用」咁樣。

問：即係有講到唔好亂咁用咁樣？

答：即係唔好--即係提過，响課堂提過。

問：係，好嘞，唔。我想問一問你，就係將個時間就再褪番後少少，即係呢個你講緊一九七幾年，你講緊書嘅時候就有呢方面嘅知識？

答：係。

問：好嘞，去到我哋講緊例如 2002 年左右，即係話要用呢個銅喉，要用銅喉，咁即係有冇--當時就話你個記憶，即係有冇特別去諗話「用銅喉，就唔好用有鉛嘅物料做銅喉嗎」咁樣，有冇特別去...

答：冇，冇，冇，因為第一，唔好用鉛造嘅水喉，我就一定會。

問：係。

答：我哋記得因為水務署有一本嗰本書仔，其實介紹銅喉，咁我哋跟足佢，冇事嘍，即係邊個 project 我哋亦都係參考佢，因為我哋响嗰度學到好多嘢，水務署嗰本嘢。

問：明白，好。

答：咁所以冇特別考慮。

問：冇特別考慮？

答：更加唔會考慮咩嘢含鉛乜嘢 solder，即係當時冇呢個，當時成個腦海裏面，黃水事件，黃水事件，唔係鉛水，黃水事件日日都畀人轟炸，日日都上嚟請願，即係我哋一定要諗方法解決佢，咁所以就係咁樣做。

問：明白。我知道你剛才同我講話你對於 2002 年嗰個 revised specifications，就即係唔係話好詳細咁睇過。

答：唔。

問：我就想帶你去睇一睇其中有一個環節，就喺呢個 15.3, B15.3, 39616 嗰度。

答：DCMBI 嗰張？

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問：冇錯。

答：係幾多？B，邊一張？

問：係 39616 嘅...

答：39616？

問：係嘞，其中一個條款就係 SUP 1.M178.N，即係“SOLDERING ALLOYS”嗰度。

答：M178.N？

問：係嘞，M178.N。

答：係。

問：“SOLDERING ALLOYS FOR COPPER AND COPPPER ALLOY CAILLARY FITTINGS”嗰度，睇到嘛？

答：係。

問：呢度我哋都而家睇到，就係當時似乎屋宇裝備工程嗰個 team 嗰啲同事，就即係開宗明義都講得好清楚，就話即係淨係能夠用一啲 lead-free category 嘅 solders 咁樣。咁我想一問就係話，即係照咁睇，就似乎當時房署都有同事係即係將呢樣嘢就好斬釘截鐵咁講咗出嚟，就係話唔好用 lead-free 嘅 solder，即係 identify 到呢一個咁嘅可能有嘅危險，就咁睇。

答：唔，唔。

問：我想問下，就住即係呢啲咁嘅物料點樣去遵守呢啲英國標準，唔好用啲咩嘢有重金屬嘅物料、含鉛嘅物料咁樣，即係呢方面，跟住仲有冇你哋有再討論呢方面嘅嘢？

答：冇呀，我保養就有好深入去 participate 响呢個 specification 度嘅 review。

問：明白。

答：同埋佢整咗出嚟，我哋都深信佢係跟 British Standards 嘅。

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問：好。而家或者我哋睇一睇你喺嗰個 ACQWS 入面，即係嗰啲開會嘅一啲紀錄。

C

D

答：係。

D

E

問：如果我哋睇番--一路講緊就係個 Paper No. 7 嘅，咁就如果我哋睇番呢個 Y1 嘅 27 頁。

E

F

答：邊個會議？

F

G

問：第三個會議。

G

H

答：第三個會議？

H

I

問：2001年1月15號。

I

J

答：係，係。

J

K

問：係嘞。

K

L

答：Paper No.7？

L

M

問：佢有提及 Paper No.7 嘅個會議。

M

N

答：係。

N

問：即係我講緊個會議就係 minutes of the third meeting。

O

答：Minutes of third meeting 嘅，好，好。

O

P

問：係嘞，2001年1月15號，喺 Y1 嘅 27 頁。

P

Q

答：係。

Q

R

問：係嘞。咁就呢個係 2001 年，就即係我哋如果睇番個時間表，似乎都係即係你哋嗰個聯絡小組當時如果有討論緊即係使用銅喉嗰個咁上下個階段，1999 年、2000 至到 2002 呢個階段。 你有出席到呢個會議，黃生？

R

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T

答：係，係，係。

T

U

問：咁喺呢個會議，我哋講緊如果睇番 internal page three，即係第 6.1 段，我哋文件夾嘅 29 頁。咁呢度就係有討論過嗰個 paper

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No.7 嘅，睇到嘛？

答：係，係。

問：就係個 Paper No.7 就係講緊 “Quality of Water in Buildings”。

答：唔，唔。

問：如果我哋睇番 Paper No.7，就應該就喺文件夾嘅第 7 頁，黃生，可能你自己有個 Paper No.7。

答：係呀。

問：就你如果睇...

答：Paragraph 6.1，係咪講緊？

問：The paragraph 9。

答：9？

問：係嘞。呢度就...

答：你而家講緊 Paper No.7，唔係講 minute？

問：係。

答：好。

問：而家講番就係 Paper No.7。

答：係，係。

問：係嘞，就 Paper No.7 嘅 paragraph 9。

答：Paragraph 9，係。

問：咁喺 minute 入面就講咗 Paper No.7 喺嗰個會議度係有討論到嘅咁。

答：呢個 Paper No.7 就响會議紀錄就話討論過。

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問：係，冇錯。

答：喎。

問：係嘞。咁就如果我哋睇番--不如我哋睇一睇，如果你睇番呢個 Paper No.7 嘅第 9 段，似乎就係講緊即係外國嘅一啲經驗。咁就講就係話--如果我哋由第 8 段開始睇，就話“The problem of water quality in buildings is not unique to Hong Kong. A literature research of publications and through the internet has been conducted. The situation in the United Kingdom, United States of America, Canada and Singapore has been briefly reviewed.”

第 9，就係“In the UK and USA, the most common problem 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 ionization of lead and by re-plumbing.”咁樣。

咁跟住就講番啲啲國家有啲乜嘢嘅 complaints，同埋啲個即係因由喺邊度咁，咁佢亦都講到就係話“Canada, Singapore, like Hong Kong, have banned the use of unlined GI pipes in tackling the corrosion problem.”即係我明白個背景，因為你哋當時都係討論緊啲黃水嘅問題，咁所以都有話接觸到就係一啲外國嘅經驗咁樣。

首先我想問下你，就係唔好講呢個 Paper No.7 先。即係 Paper No.7 喺剛才我哋睇到啲個會議，就係 2001 年 1 月 15 號啲個會議之前，你本人就住一啲即係外國嘅經驗，就話可能有因為用銅喉，而釋出咗一啲鉛啲啲問題，你自己有冇...

答：冇，冇，冇，冇，或者佢冇...

問：...知道呀？

答：鉛喉釋出鉛我就知，即係當時冇人講銅喉釋出鉛呢一樣嘢，...

問：明白。

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答：...即係我嘅認知。

問：明白。

答：即係我雖然唔係咁 adequate 响呢個 water engineering。

問：係。咁就你喺你嘅證人口供，就...

主席：想問下你哋，即係你哋嗰啲 maintenance management branch, Housing 裏面，我知道 building service 當然有好多瓣，咁其實你哋有冇話有啲人係特別叻啲係水，有啲人特別叻啲係電，有啲人係特別叻啲係火嘅呢？

答：Building service branch-- 即係我哋有一拵 building services engineer, ...

主席：係。

答：...有人嘅 background 係 electrical and mechanical, 有人係 background 係 fire。

主席：係。

答：即係風、火、水、電、煤，佢都有人有啲比較熟啲嘅。咁但係响--我要講番我哋保養嗰邊，做水喉嗰邊，其實就 maintenance surveyors 嗰面做嘅，因為要 re-plumb, 成棟樓有好多 building work involve, 咁我哋都係一路做一路學，即係跟...

主席：水務署。

答：...水務署出過嗰幾本嘢；同埋我哋都有定期同佢哋開會，講點樣入屋做嘢，或者點樣 submission, 即係其實有好 regular 嘅 meeting 同水務署。咁就你話係咪邊個特別專，我唔敢講，我哋--即係佢哋都係一路做一路學。

主席：因為你如果譬如你講到去做 re-plumbing 嘅時候，其實即係差唔多由頭再起過晒所有嗰啲嘢個囉嗚？

答：唔可以嘅。

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主席：係，我知道唔可以，係。

答：係好困難，一個好困難，即係着住件衫响度改。

主席：係呀。

答：即係其實 re-plumbing 又 involve 九百戶咁多人，淨係安排聯絡點樣入去換佢個櫃，停水、停個泵，嗰一系列嘅工作係好繁重。

主席：唔係，我知，即係嗰啲我明白。即係我嘅意思即係你譬如你去到要做 re-plumbing 嘅時候，咁基本上你要同啲住戶換晒啲水喉，...

答：係呀。

主席：...咁差--當然你...

答：差唔多等同 new work。

主席：即係差唔多等如 new work，係囉，係囉。

答：煩過 new work 添，可能。

主席：係囉，係囉。

答：因為 new work 冇人响度。

主席：係囉。咁個做--落手落腳嗰啲都係出面啲 contractors 去做？

答：主要係我哋 term, maintenance contractors, ...

主席：係囉。

答：...咁佢亦都有佢嘅 licensed plumber 嘅。

主席：係。但係譬如要做到換水喉，其實都係你哋 maintenance 嗰啲 engineer 或者啲 surveyors 去設計個計劃，究竟點樣做，用啲咩嘢...

答：料。

主席：...料？

答：係呀，係呀。

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主席：咁嗰陣時換銅喉都有諗過，完全冇諗過？

答：冇聽過話釋出鉛呢樣嘢。你今日問我，咁你十幾年累積咗經驗，或者睇過啲 literature，唔出奇，即係有 literature 講過唔出奇。但係當年真係冇呢個咁嘅認知。

主席：得，好，唔該。

問：如果睇番你個證人口供嘅第 13 段。

答：13 段？

問：係嘞，即係 Y1 嘅 40 頁。就呢度就咁講，即係講番嗰個 Paper No. 7，就你都講，第 13 段嗰度亦都講，話個 focus of Paper No. 7 就係即係嗰個 discolouration 同埋 turbidity，都係因為--即係都係講番個黃水個問題，係咪？

答：唔，唔。

問：咁呢度你就話個“The comment that ‘In the UK and USA, the most common problem is the presence of lead in water since during their development stage, lead pipes and lead-soldered copper pipes were widely used’...” 你呢度就係咁講嘅，“...was really an introductory and passing remark.” 即係話即係你當時嗰個喺個證供就話「喂，可能係個開場白嚟嘅啫，或者可能係即係順帶提到嘅」咁。

咁我就想問一問你，因為似乎嗰個 Paper No. 7 就喺會議度有傾談到，當然即係傾談多少，即係細節係點，嗰個就好難喺個文字度咁睇到嘅。

答：唔。

問：不過，就咁如果我哋睇嗰個 Paper No. 7 嘅第 9 段，即係你講緊啱啱你 quote 咗出嚟嗰度，似乎就係一啲分享經驗嚟嘅，即係分享一啲外國即係可能佢哋水喉方面出咗事，係啲咩嘢原因嘅一個經驗嘅分享。即係似乎就咁睇第 9 段嗰度，即係起碼嚟講，唔好理話當時你哋係咪講緊黃水定係其他嘅課題，即係第 9 段嗰度講，似乎就係畀大家有個認識，就係「喂，外國就住使用銅喉發生嘅問題，即係有介紹到

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嘅」，即係呢樣你同意嘛？

答：呢個我未必同意，因為我真係唔記得有討論過。

問：係，係。

答：如果睇番佢嘅 PowerPoint，佢有講外國經驗，但係完全就有提到呢一個 point。即係响個 paper 就有呢一句 statement，但係响 PowerPoint，譬如你而家睇 124 嘅 PowerPoint，page 124，"Literature Research on Worldwide Experience on How to Ensure Water Quality in Buildings"係冇。

問：好。

答：即係講嚟講去就係 UK、USA installation 點樣，星加坡點樣，係呢個，係。

問：即係話...

答：咁所以我根本唔記得當時有冇傾。

問：好。

主席：即係如果有講過，都係一個好 minor 嘅 topics，可能叨過咁樣樣？

答：You may be right。即係如果主題係講，就一定會有响 PowerPoint 出，即係出 bullet point 提，即係佢都...

主席：唔係，因為我...

答：...唔係好...

主席：我明你講咩嘢。因為我哋知道喺美國或者喺英國，其實睇 2000 年頭嘅時候，2000 年頭嘅時候，就有最主要就係尤其是係 lead solder 嘅問題，英國就係最緊要。即係如果佢即係講到係英國或者講到係美國，如果係--當然美國我哋知道就主要就係因為啲鉛喉嘅問題，就多過係鉛嘅焊料嘅問題。但係英國喺嗰個時刻嗰個 moment，就似乎係鉛嘅焊料就個問題困擾英國就遠高於鉛，即係當然鉛喉都有。

答：我有，有呢個經驗。

B

B

C

主席：得，唔緊要。

C

D

答：即係聽--即係你而家話畀我聽，我就「啊，我覺得係喎。」

D

E

主席：唔。我想問一問，其實二零零--我哋而家知道，我哋而家出事嗰啲屋邨，好多時都係 2008、2009 年先至開始建造同埋落成，咁但係我睇番你個--我睇番 Y1 裏面，其實就你講到話更換食水管嗰個屋邨，

E

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其實 2005 年 2 月，呢度你已經講到就開始，因為我睇番你 156 頁，Y1 156 頁。即係 2005/06 年，就係已經--呢度寫住「（截至 2005

F

G

年 2 月）」，就已經係我相信係換咗咁多個三十九...

G

H

答：Re-plumbing。

H

I

主席：...re-plumbing 就用銅喉個囉喎？

I

J

答：應該係嘅。

J

K

主席：係囉。即係換句話嚟講，即係其實你哋 maintenance 有嘅經驗遠超過新樓 construction 嗰邊添，即係因為你 re-plumbing 仲煩過全新起。

K

L

答：係呀，係呀。

L

M

主席：咁我就好想知道，即係我哋而家睇落去，當時--我唔知道其實佢當時 2005 年當時係用 compression 抑或 solder，不過可能兩樣都有。

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答：睇下先。

O

P

主席：即係我嘅意思表達，其實你哋嘅經驗係遠遠超過 development and construction？

P

Q

答：我哋係有累積到一啲經驗，...

Q

R

主席：係囉。

R

S

答：...但係嗰個經驗係 repeat 嘅。

S

T

主席：係囉。

T

U

答：即係座座都係咁做嘅啫。

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主席：不斷咁樣樣去...

答：係。我記得 Housing 就即係如果我哋千幾座樓，千幾座樓用 copper 嘅都佔成六、七百 block 嘅。

主席：係囉，係囉。

答：用 compression 都佔成五百個 block 嘅。

主席：係囉。

答：咁其他啲就係 soldering。

主席：就係 solder，係。因為我哋而家見到好多啲係--即係換句話嚟講，其實房署用銅喉，用呢個無鉛嘅焊料，其實係 2005 年開始已經差唔多已經...

答：但係我哋個 specification 好似冇乜嘢焊料個嘢。

主席：你哋個...

答：我哋用 ductile iron，上一水。

主席：我知，ductile 就上啫。落嚟呢，落嚟？

答：我哋好特殊嘅情況下，用個 solder 個嘢。

主席：唔係，你 re-plumbing 嘅時候，我嘅意思，你 re-plumbing，你上去...

答：我哋入屋就用--個 inside flats，我哋就用 compression joint。

主席：係囉。

答：Common area 亦都係 compression joint。

主席：即係你講 re-plumbing 嘅時候，就唔用 solder 嘅？

答：係呀，冇用 solder，除非好特殊嘅情況，即係有一、兩、三幾個特殊嘅情況。

主席：咁我哋頭先話你咩嘢八百幾座又有，五百幾座用，啲啲你喺邊度睇

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到出？

答：我哋房屋署內部嗰啲文件。

主席：唔。因為...

答：即係房委會嗰啲內部嘅文件。

主席：因為我就有興趣知道，就係點解如果你嗰陣時做 re-plumbing 一路都有事，但係當然如果用 compression 就梗係會冇事，係咪？但係如果你嗰陣時--其實即係嗰陣時你已經係用 solder，實際上你哋如果根據你所講係正確嘅話，其實你哋如果用銅喉，用 solder 嘅經驗，其實係遠遠早過 Construction and Development？

答：冇乜嘢呢個經驗，真係冇乜嘢呢個經驗。

主席：唔。

問：我跟進一點，就係你當時 2005 年更換食水喉嗰個工程，即係你同我哋講都係話用番嗰個 compression joint 咁樣，即係及後我哋知道而家涉事嘅屋邨，咁就都係用呢個 solder joint 嘅呢樣嘢。我想問下，就係就住呢段時間，例如 2005 至 2008 嗰段時間，有冇話即係你哋 maintenance 嗰邊嘅同事有同 construction 嗰邊有啲咩嘢溝通，就係嗰個 compression joint 同埋 solder joint 應該點樣去取捨，用邊樣呢咁，有冇呢啲咁嘅討論，記唔記得？

答：冇乜嘢特別嘅討論，不過我哋就鍾意用嗰個 mechanical joint，因為方便，同埋响人哋屋企搞搞陣就即係唔係好--即係燒焊未必係最好嘅方式。

問：因為我知道...

答：咁係呢一個 message 可能傾過，其他冇乜嘢特別，可能 SMS/TD 同新樓部傾過，「或者個 pressure 唔好--即係你小心啲，爆個啲，啲喉，唔得個啲，你一定要用 ductile 個啲。」我哋好似用 ductile，上一水。

問：係。

答：即係呢一類嘅嘢有討論，但係 solder 含鉛、冇含鉛，我相信就冇人

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討論。

問：好。因為你哋當時都有 Estate Management 嘅同事即係畀過口供，就同我哋講，就係話就住嗰啲涉事嘅屋邨，即係佢雖然建築嗰陣時係用即係 solder joint 嘅，但係去到維修嘅時候，就會用 compression joint 嘅。

答：係咩？

問：係嘞，咁即係...

答：咁你點呀，鋸咗佢出嚟換 compression joint？

主席：佢係咁講。

答：咁可能係，我即係唔敢代表佢講。

問：因為嗰陣時我哋就有啲奇怪，即係點解建築嗰陣時同埋維修會用兩種唔同嘅物料，所以點解我帶出呢個問題，就問一問你，即係你做嘅時候，...

答：我唔知。

問：...知唔知道有呢啲咁嘅討論？

答：唔知，唔知，呢樣...

問：得。

答：...冇--cannot recall。

問：好，唔該。剛才你就提到嗰啲 PowerPoint，我都想同你問一問。就係如果你係睇番呢個 2001 年 1 月 15 號嘅 meeting，即係 third meeting，第三個 meeting，ACQWS 嘅第三個 meeting。

答：Meeting No.3？

問：係嘞。呢個就係文件夾 Y1 嘅第--sorry，呢個 Y1 嘅 29 頁。Y1 嘅

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29 頁，即係我哋見到就係呢一個 minute 嘅第 6 段，黃生。

答：第 6 段？

問：係嘞。

答：係。

問：咁就講番個 Paper No. 7，有“Quality of Water in Buildings”。咁呢度就話“The chairman introduce that the purpose of this paper was to present the possible strategies for enhancing the entire water supply system such that Hong Kong citizens could have confidence in drinking high quality directly from their taps...” 咁呢個當時都係一個目標嚟嘅，即係希望就大家飲水喉水都有信心，即係希望做到呢樣嘢，就...

答：呢個係理想，呢個係理想。

問：...即係理想當時就係咁樣講。

答：嘅。

問：“...and to invite members’ views on the possible strategies being studied. A handout containing Appendix 1 to the Paper and a colour printout of the forthcoming slide presentation were tabled in the meeting.”

跟住 “After presentation of paper..., Members generally agreed that there was a need to properly maintain the plumbing systems in buildings.”等等。

咁我想問一問，就係剛才你講嗰啲 PowerPoint，喺呢個 meeting 度，...

答：就係頭先嗰份，一二幾...

問：...講嗰個 colour printout 嗰個，係咪就係 122 開始嗰份？

答：係呀，係呀。

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問：係咪呀？

答：122 至到 126。

問：係，就係呢份？

答：係嘞。

問：當時係咪即係個委員嗰個 chairman，即係應該係方先生，...

答：方鏗先生。

問：...係咪呀，即係佢就做 presentation 嘅？

答：No, no, no, chairman 唔做 presentation, ...

問：唔係佢做 presentation？

答：...係水務署嘅同事。

問：Okay, okay, 明白。水務署嘅人做 presentation 嘅，係咪呀？

答：係。

問：得，唔該。好。我想問一問你，就係就住你哋嗰個諮詢委員會開會嗰度，都討論過好多次嗰個關於嗰個世衛嗰個標準。

答：世衛標準。

問：咁啲詳細我唔會同你即係探討。我就想你睇一睇 G2，G2 就先我哋睇下 636，可能你自己有文件嘅話，636 就係呢一個...

答：水諮會。

問：水諮會，...

答：第幾...

問：...second meeting--唔好意思，睇下先，636 應該係個 first meeting。

答：First meeting？

問：係嘞。我帶你睇一睇啲文件先，然後我先至再問一問你。636，即係 first meeting 嘅第 6 段，就係講緊呢個 ACQWS Paper No. 1，就講緊即係世衛個標準，同埋有啲 International Standards 咁樣。如果我哋睇下 6.1，就話“The purpose of this paper was to introduce and compare the three most well known water quality guidelines/standard in the world. In the same way as Singapore and New Zealand, Hong Kong had adopted the World Health Organisation (WHO) Guidelines as the standard for drinking water quality. The WHO Guidelines were designed to protect human health aimed not just at developing countries. Members generally agreed that such a practice was considered effective in protecting public health and therefore should be continued.”咁呢度亦都有講番。

跟住 6.2 就話有“94 health related chemical parameters of the HO guideline and about 30 other aesthetic parameters had been included”。

我哋呢度睇下個 Paper No. 1，就喺文件夾嘅 929。929，就如果黃生你有自己嘅 Paper No. 1，就第 2 段嗰度，都係有介紹到個 WHO 個 Guidelines for Drinking-water 嘅。

答：係。

問：咁呢度都係講番佢有啲 guidelines value 等等，點樣制定出嚟，有啲咩嘢國家都採用佢嘅等等。咁就畀你睇多一個文件，就係 meeting No.2，second meeting，喺文件夾嘅 639 頁。Second meeting 就有討論過呢一個叫做 Paper No. 4 嘅，睇到嘛？喺 641，即係喺呢一個 minute 嘅 5.3 段，黃生。

答：係，係。

問：就講緊“ACQWS Paper No. 4 - Publication of Water Quality Data”，咁入面就有講一啲--咪住先，5.3.1，“this paper was prepared to present a detailed proposal on the format and frequency of publication of water quality data on the Internet and in the form of a pamphlet.”咁跟住都係講下木湖個抽水站有啲乜嘢資訊等等。

咁如果我哋睇下呢個 Paper No. 4，953 嗰度，喺 953 頁。953

嗰度--就如果我哋睇下 954 先，即係呢一份文件，呢個 Paper No. 4 嘅第 8 段，都又再講多一次，就係“WSD adopts WHO’s Guidelines for Drinking water Quality (1993) as standards for treated water.”

咁跟住就話“In addition to in bacteriological quality detailed in Part (A), and the health related chemical parameters listed in Part (B), a third table showing quality parameters which give a good indication of characteristics of supply”咁樣。

如果我哋睇下啲附件入面，就其中一個附件就係講緊 959。959 就當時就列出咗，就係就住東江水個水質，就喺個木湖抽水站嗰度，佢點樣去到即係 monitor 咁樣，咁佢亦都有介紹到一啲 chemical of health significance 喺世衛嘅 1993 年嗰個嘅。咁我哋見到都有即係分唔同嘅 parameter，唔同嘅參數，咁其中一樣我哋見到就係嗰個鉛嘅，有 lead 嘅。

咁如果我哋睇下就係 963 頁，呢個就實情係講緊 drinking water quality for the period, 99 年至到 2000 年，又係睇番嗰啲世衛標準嗰啲 parameters 嘅呢個。咁呢個就比較 general 啲，就係講緊呢一段時間嗰個食水供應驗出嚟，一般嗰個情況係點樣，咁我哋都見到有 lead，亦都有個世衛標準等等。

我想問一問，就係因為喺啲文件度，我哋就睇過好多次，有關提及到嗰個世衛標準，我想問下，就係即係開過咁多次會，你本人有冇話去參考過嗰個世衛標準，其實嗰個所謂 guidelines 嗰個內容係啲乜嘢？

答：我想講講，因為嗰個會好多專家响度，我係去學嘢嘅啫，即係我只係用家嘅角度提供意見。所以佢每一次嚟嗰啲 paper，我就睇下有啲乜嘢可以學，其實次次佢就個 conclusion 就話我哋 comply with 世衛，咁所以我都好安心，就係每一次。如果佢哋突然間有一次話唔係 not in compliance，我哋就先即係要返去 alert 啲同事，咁就主要就係咁樣。咁可能嗰啲專家就互相有 discussion 同埋有 debate，...

問：明白。

答：...關於點解呢度咁，點解呢度咁，即係嗰個但係我唔明嘅，我好多時都唔係好明，因為 as a layman，我有辦法明得到佢哋。

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問：明白。

答：個情況就係當時嗰個 setting 就係你有黃水，咁啲居民就賴埋去「喂，你東江水又唔掂，你 water treatment 又唔掂。」要求--成日問，成日問「喂，你要 verify 啲一點啲。」咁水務署就係即係諗過一啲方法，咁其中就係想 open 咗呢啲嘢，publicize。

問：明白。

答：即係你--我定期公布，你就唔會再嚟 complain，我定期話呢啲 comply，呢啲唔 comply。咁但係有一樣好清楚記得，就係佢係參考過全世界幾個標準，又歐盟、美國咩嘢環保局。咁傾咗一大輪，原來如果樣樣--即係各有各好，不如如果樣樣做齊，要使多三百個 billion，咁當時就即係大家都比較震撼少少啲個數字，結果傾完，又係原來世衛標準都 practical 嘅，都已經 adequate for the use，咁所以一路都係用世衛標準。

問：Okay。即係你嘅意思就話即係個世衛標準啲個內容，或者即係我哋所睇到啲參數，驗啲乜嘢啲，啲啲就喺個開會啲度，你就係靠例如水務署嘅人同埋佢哋講解，...

答：係呀，係呀。

問：...或者佢哋有專家同你講解？

答：係呀。

問：咁你本人自己就有話特別去睇過，例如啲個世衛標準？

答：我睇就睇文件。

問：就睇佢哋交界你啲文件？

答：嘎，嘎，因為佢查查--都已經夾咗一查畀你。

問：好。我想問一問，最後，就係黃生你參加呢啲會議，我知道你證人口供都有講過，就係話即係參加啲會議討論嘅課題，就唔係話每樣房署跟住都要跟進，係咪呀？即係可能你都要做一個決定，如果有啲咩嘢跟進，你就會向房署、房委會去匯報番呢樣嘢嘅？

答：唔。

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問：我想問一問，當時如果你開咗啲會，有啲事情係要跟進嘅，你會係即係匯報畀邊個，當時？

答：我記得我哋比較 involve 嘅，即係好積極去參與就係嗰個叫做優質食水計劃。

問：係，冇錯。

答：咁嗰個我哋返嚟經常匯報嘅，就响 BD/M meeting，因為 involve 晒所有保養嘅同事同埋管理嘅同事。咁嗰度我哋就都做咗好多嘢，即係嗰幾年真係密密做，又有 re-plumbing，又有 step up 嗰個，又要參加嗰個優質食水計劃，因為佢政府好倚賴我哋，因為我哋係政府部門，咁我哋必須要積極嘅參與呢個計劃，咁就我記得 chairman 都好 appreciate 我哋做咗好多嘢，即係嗰個計劃我好清晰。

問：明白。我想問一問，就係例如你每一次開完會，例如嗰啲會議紀錄，或者係從個會入面得到嗰啲資訊、嗰啲 report，你使唔使話喺個即係內部有存檔？

答：有個嘞，有 registry，...

問：即係你哋有個 system？

答：...存咗，因為冇 action，咁就 file；如果有 action，就會擺出嚟去 BD/M meeting 討論。因為 BM/D meeting 就隔個禮拜開嘅，個個禮拜都開，所以都好 convenient。嗰度每一區九大軍區，即係咁多個區嘅總經理响晒度，亦都有保養嘅同事响晒度，咁嗰度就係我哋保養，咁樣做法。

問：明白，好。你剛才提到個優質食水計劃。

答：係。

問：我想問一問，就係呢個就係嗰個 Water Quality Supply Scheme for Buildings，呢個就係完工之後，嗰啲大廈嘅管理公司就可以同呢個水務署申請一張 certificate？

答：係呀，係呀。

問：咁我哋見到啲啲文件入面，就見到有另外一個優質食水計劃嘅，有一個叫做即係嗰個 Water Quality Recognition Scheme 嘅，當時。

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答：係呀。

問：即係我想問一問，就係嗰個--即係原先嗰個 recognition scheme 係咪跟住就演變到而家嗰個即係 Quality Water Supply Scheme for Buildings 嗰個？

答：轉化咗，改咗幾次名。

問：係。

答：改咗幾次名，即係一路到咁上下，又加多啲嘢，又到咁上下就會做一啲嘢。咁但係呢個我記得就响水諮會，即係話開頭就話要硬攻，又話要立例，又要點樣逼人哋去維修保養，咁但係傾咗一輪，覺得唔係好 work，我哋認為用鼓勵嘅方法更加 work，咁就所以採取呢一個 scheme，亦都傾咗好多、好耐嘅。

問：得。

答：咁呢個 scheme 就又考慮過個錢嘅，因為嗰陣時又話「欸，你咁貴，冇人會參加你。」咁一定要即係畀佢哋去參加，容易啲去參加，...

問：係，...

答：...就嗰陣時個 setting 係咁。

問：明白。就住嗰個大廈，即係優質食水嗰個認可計劃，你哋當時房署即係同--即係都有參與到呢個水務署呢個計劃。

答：係。

問：我想問下就住嗰個計劃啲啲細節，當時你有冇負責就住呢方面嘅房署內部係討論？

答：我哋房署冇內部特別去研究嗰個計劃，但係我响水諮會就經常匯報，亦都水諮會有 working group 係傾嘅，即係研究嘅。咁其實响個 paper，水諮會嘅 Paper No.13 就詳細講晒呢一個計劃點樣做。

問：Okay。

答：咁之前我哋大家即係互相 circulate，即係「咁樣做好唔好呀？」呢個就係咁樣去做。

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C

問：明白。至於呢個優質食水計劃，就即係佢都有制訂一啲標準，你要符合，你先至可以即係擺到嗰張 cert 㗎嘛？

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答：係。

D

E

問：咁嗰啲標準嘅制訂呢個，就係你哋係都係聽番水務署嗰邊嘅制訂？

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答：係嗰班水諮會嗰啲專家大家討論，十幾、廿個專家，又有學者，又有環保，又有嗰班專家去傾。

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問：明白。即係至於制訂嗰個標準，點樣先至可以話符合啲咩嘢參數嚟到去擺嗰張即係 cert 嘅，即係制訂呢啲咁樣嘅條件，當時你哋房署有冇參與？

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答：我記得就有乜嘢參與，即係主要係因為你呢個係水務署去執行，水務署去執行，咁佢咁多專家傾過，認為呢個比較中庸、比較可行，咁就我哋就大家 agree 咁樣。

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問：明白。

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答：但係反為跟進，我哋就要做，即係又要做 test，又要洗水缸咁樣盛，一系列嘅嘢都好多嘢做當時。

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許偉強先生：好，我有其他問題。

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主席：得，或者我哋早休先，休息二十分鐘，然後再繼續，我諗第二啲律師都會有問題嘅。唔該。

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上午 11 時 21 分聆訊押後

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上午 11 時 47 分恢復聆訊

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出席人士如前。

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香港房屋委員會第十六證人：黃比（水質事務諮詢委員會委員（於 2000 至 2008 年代表房屋署）宣誓繼續作供

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主席：邊位律師想問問題？冇人有問題問？

殷先生：我有簡單幾條問題。

主席：冇人問問題，咁 Mr. Yin 問完就有個囉嗎？唔好個個都等到最後，佢一起身問問題，就其他人有機會。

鍾先生：保華。

鍾先生盤問

問：其實係有一、兩個問題係澄清嘅啫。黃先生，正話提到就係話保養嗰面，有大概五百棟嘅 re-plumbing 或者係--應該係 re-plumbing 嘅水喉係用咗 compression joint 嘅。我想帶一帶，有一個 paper 同你對一對，睇下係咪你講緊嗰五百棟。唔該個個 Bundle B3.2，item 66，2387 頁。黃先生，呢一個表其實係房委會個 Review Committee 裏面，就其中有一個 meeting 就係同保養部傾嘅，佢哋嗰個總結就係保養部比較就又少咗呢啲嘅鉛水問題。個原因就有一個 paper 係 RC29，2015 年嘅，裏面呢個其中就係一個表，我哋睇到個表，如果中間 Common Area，嗰度寫住“Copper”，“Compression”嘅 joint 嗰度，個 No. of Domestic Blocks 係 503 嘅，呢個會唔會係有機會你講嘅內部嘅 paper 嗰個統計？

答：會。

問：唔該你。另外想問多一個問題嘅，follow up 嘅問題，就係話其他嘅地方我哋睇到，除咗 copper，有一啲係 non-copper 都係用 mechanical joint 嘅，咁如果我哋將 1,188 棟樓減番 solder joint 嘅 151，我哋有 1,037 棟樓 either 用 copper 或者係 non-copper 都係用 mechanical joint。你可唔可以解釋下或者其他我哋所講嘅 non-copper 係指邊一類嘅 pipe？

答：因為嗰個 paper 就唔係我寫嘅。

問：會唔會有機會係不鏽鋼？

答：我唔係好清晰，但係如果根據我即係以前嘅印象，其實有其他物料用過嘅，即係膠喉、PEX pipe，好多種物料我哋都試，即係當時保養部。咁就試咗，冇理由攞咗佢，因為成功，咁又可以繼續用嘅，冇理

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由叔咗佢，即係可能係嗰類。

問：Okay。咁正話提到如果個 re-plumbing work，除咗入屋嗰度係難啲有 access 嘅話，其實如果全棟樓個 re-plumbing work，其實係將啲水喉係換過晒？

答：係呀。

問：咁喺 re-plumbing 之後，其實嗰啲水喉要 withstand 嗰啲嘅水壓，係同最先嗰陣時一樣嘅，係咪？應該係一樣，係咪？

答：未必一定，未必一定。

問：係。

答：因為好多時我哋 re-plumbing 好可能連即係嗰個泵房嗰啲又會 improvement 做，係更改。同埋如果我哋有遇到有啲 complaint 關於水壓，尤其是係頂層，成日都話拍唔著個熱水爐，嗰類咁嘅情況，我哋好可能我哋嗰啲同事同水務局傾過之後，可能更改，即係有啲 improvement 做嘅嘅，咁所以所有水壓係咪都係同舊時一樣，就唔敢答你。

問：係。即係如果根據因為有啲個別情況，水壓唔夠嘅話，就會喺個 re-plumbing，就會喺個 re-plumbing 裏面就加番啲水壓畀佢，係咪？

答：直頭响個泵房裏面即係改，即係呢度又牽涉我哋其他啲工程師，會幫手睇。

鍾先生：Okay，冇其他 question。

主席：唔該。

殷先生補問

問：係，黃生，我其實想同你總結下你嘅證供，因為其實你知道嗰個 ACQWS paper 7 嗰度，頭先都許大律師同你睇過，咁就我哋知道有呢個第 8、第 9 段，尤其是係第 9 段，喺呢個 ACQWS paper 7，喺 Bundle G2，

980 頁睇到。嗰度就有一句帶過，就係話“*In the UK and USA, the most common problem is the presence of lead in water since during their development stage, lead pipes and lead-soldered copper pipes were widely used.*”嗰句即係話喺英、美，一個好常見嘅問題，就係水入面有鉛，點解呢？就喺佢哋個發展個過程之中，曾經係好廣泛、好普遍咁樣使用鉛嘅喉，或者係用含鉛嘅焊料嚟做呢個銅水喉。

咁你頭先畀咗個證供就係話其實呢個即係開場白咁嘅啫，輕輕帶過，因為專注當時係講鏽水嘅、黃水嘅。咁我想問一問你個人嘅認知方面，關於呢一方面，你就話讀書嘅時候聽過話外國有用鉛做水喉嘅，會引申有問題，呢樣你知嘅。你頭先就話--如果我有記錯，就話但係用銅水喉都會有鉛釋放入水呢樣嘢，你就未聽過，係咪呀？

答：响開嗰個會嗰陣時就有聽過嘅。

問：開嗰個會嗰陣時有聽過。固然之應該你唔知道其實八幾年前，歐美嗰方面係好常用呢個有鉛焊料嚟接駁銅喉呢樣嘢，你唔知㗎喇？亦都唔知道...

主席：有咩嘢？八幾年嗰陣時候咩嘢話？

殷先生：八幾年代之前，歐美方面都好常用有鉛焊料嚟接駁銅水喉，...

主席：呢個你喺邊度睇到？

殷先生：...文獻上我哋遲啲都可以攞出嚟。

主席：唔。

問：咁八幾年嘅時候，佢哋就引入咗呢個法例，話唔准用有鉛嘅焊料，但係後來點知十幾年，ban 咗唔准用，八幾年、九零年唔准用，到九零年代尾，都發現原來都仲有水喉佬用呢啲含鉛焊料，呢樣嘢你都唔知㗎喇。咁所以換句話講，即係話即係雖然法例寫明話要用無鉛嘅焊料，合同亦都--個 spec 話唔准用無鉛焊料，但係本地香港嘅水喉佬都會話佢唔知道呢件事，或者佢明知故犯用啲唔合規格嘅焊料，呢一個風險你個人係唔為意？

答：响我開會嗰陣時候，完全冇 catch 到我 attention 呢樣嘢。咁我就 --當然今時今日我嘅認知就可能多咗，知道總之 by metal contact 都可能有出事，但係當時我嘅認知就係响工專學到，「啊，人哋用 lead 水喉，你哋即係唔好用 lead 嚟做水喉，同埋嗰啲 fitting 都唔好用 lead 喎。」嗰陣時就係咁嘅認知。

殷先生：我有嘢問。

主席：唔該晒，黃先生，畀完證供，唔該晒，你可以離開，唔該晒。

殷先生：主席，我哋下一位證人係陳少德先生。

主席：好呀。

香港房屋委員會第十七證人：陳少德（水質事務諮詢委員會委員（於2010年起代表房屋署）以本地話宣誓作供
殷先生主問

問：陳生，你應呢個調查委員會嘅要求係作咗一個書面嘅證人口供，我而家就幫你讀一讀出嚟。

WITNESS STATEMENT OF CHAN SIU TACK

I, CHAN Siu Tack, Assistant Director (Estate Management sub-division 2), Housing Department ("HD"), do say as follows:-

1. I make this statement to address the questions raised in the letter from Messrs. Lo & Lo dated 23 November 2015.
2. I have read the statement of Mr Wong Bay provided to the COI. Based on my involvement in and knowledge of the ACQWS meetings I generally agree with the content

of his statement and do not intend to repeat matters which he has addressed unless I have something to add or clarify. Before answering the questions however there are a few further remarks I wish to make.

3. When I first joined the ACQWS in 2010, I was Assistant Director (Estatement Management sub-division 2). During my time at the ACQWS, the focus of the discussions had changed to conservation and management of water resources. Subsequently, ACQWS was renamed as the Advisory Committee on Water Resources and Quality of Water Supplies. The issue of lead was never raised as a topic in these discussions.

As the current representative of the Housing Department in the ACQWS, please make all necessary enquiry and review the records and documents of the ACQWS and/or the Housing Department (the "Records and Documents") and confirm whether Mr Wong, as a member of the ACQWS, has played any part in the preparation of Paper No. 7 and, if so, describe his role and his work and the work of any other members or persons in the preparation of Paper No. 7.

4. Based on my enquires, the records and documents available to me do not show that Mr Wong Bay was involved in the preparation of Paper No. 7. Mr Wong Bay also addresses this in his statement.

If Mr Wong has not played any part in the preparation of Paper No 7, confirm and identify, with reference to your enquiry and the Records and Documents, the author(s) of Paper No. 7 and the member(s) and person(s) who assisted in preparing and writing Paper No. 7, in particular paragraphs 8 and 9 thereof. Please also identify the member(s) and person(s) who undertook the "literature and research of publications and through the internet" as referred to in paragraph 9 of Paper No. 7.

5. Based on my enquiries, the records and documents I have reviewed do not show who assisted in preparing and

writing Paper No. 7, and who undertook the research as referred to in paragraph 9 of Paper No. 7. I agree with Mr Wong Bay that the Water Supplies Department ("WSD") take the lead with regard to documents, circulation of them etc.

Paper No. 7 was subsequently considered in an ACQWS meeting which took place on 15 January 2001. A copy of the minutes of that meeting is enclosed (Enclosure 4). Mr Wong was present in that meeting as a representative of the Housing Department. Please confirm (with reference to your enquiry and the Records and Documents) whether Paper No. 7 was circulated to Mr Wong, the Housing Department and/or the Housing Authority prior to that meeting and, if so, identify the relevant recipient(s) in the Housing Department and the Housing Authority of that Paper.

6. Based on my enquiries, records and documents I do not know whether Paper No. 7 was circulated to Mr Wong Bay or the Housing Department / Authority. Mr Wong Bay addresses this in his statement. During my time involved with the ACQWS meetings, documents such as agendas and meeting minutes were prepared and circulated by the WSD. Papers were no longer prepared, but the WSD would give power point presentations and sometimes circulate handouts at ACQWS meetings.

As regards the ACQWS meeting on 15 January 2001, please confirm (with reference to your enquiry and the Records and Documents) whether matters stated in paragraphs 8 and 9 of Paper No. 7 were ever discussed and, if so, give an account of the relevant discussions.

7. From my enquiries, the records and documents there is no record of these matters being discussed within the HD.

As a representative of the Housing Department and a senior officer thereof, explain and describe your role and objective in attending and participating in the work and

meetings of the ACQWS. Please confirm whether, during the course of your membership (2010 to now), the Housing Department took any action or followed up on any areas of discussion or decision by the ACQWS, and whether there was a requirement in the Housing Department for any of the said actions to be taken. Please describe the requirement and/or the follow up work and actions (if any).

8. As the Housing Department's representative my role was essentially an advisory role. During my involvement with the ACQWS, there has not been anything that required follow up action by the HD.

9. There is no requirement in the HD for any follow up actions to be taken, and I agree with Mr Wong Bay's comments to the effect that if any follow up action is required that would be considered on a case by case basis.

In relation to the work, meetings and activities of the ACQWS, please confirm and explain whether and how you and your predecessors would report and disseminate the relevant materials, (including the ACQWS Papers, minutes of meetings, documents, memoranda and notes taken) to the Housing Department and/or Housing Authority and bring to their notice matters relevant to the work and responsibilities of such departments. In particular, and with reference to your enquiry and the Records and Documents, please confirm whether (a) the matters in paragraphs 8 and 9 of Paper No. 7 and (b) WHO Guidelines were been reported and made known to the Housing Department and/or the Housing Authority at the material times.

10. The decision as to whether, and how to report and disseminate relevant materials is based on individual judgment.

11. As per paragraph 8 above, there has not been anything that required follow up action by the HD. If there was, I would have adopted the same approach as Mr Wong

Bay, namely, I would bring this up to the appropriate person at the appropriate forum. I would not overburden them by providing them all the materials circulated at the ACQWS, but to provide them with the key issues and information. Moreover there are half-yearly meetings between WSD and HD. WSD would brief HD concerning their initiatives and seek HD's support through these meetings.

12. Based on my enquiries, the records and documents available I am not aware of:-

(a) Paragraphs 8 and 9 of Paper No. 7; and

(b) the WHO Guidelines being circulated within Housing Department. I was not involved with ACQWS until 2010 but for the period of my involvement I agree that most references to the WHO Guidelines refer to WSD's confirmation of compliance with WHO Guidelines.

問：陳生，你頭先聽我讀完你嘅書面證供，有冇需要更改或者補充？

答：冇。

問：你願意採納佢作為嘍研訊人面你嘅證供？

答：Okay，願意。

殷先生：我有其他問題。

主席：唔該。

許偉強先生盤問

問：陳先生，想問一問你幾時加入房署工作？

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答：1984年。

問：1984年。我想問一問就係大概喺2000年左右嗰段時間，就我哋知道就有啲討論，就係關於當時會唔會即係讓呢個總承建商有多一個選擇用銅喉嗰方面，你記唔記得你當時有冇參與呢啲咁嘅討論？

答：我嘅背景，我係結構工程師嚟嘅，咁當時2000年，我喺新工程嗰面，因為我都係主要負責結構，咁所以基本上就有 involve 喺關於啲 plumbing 嗰啲 design。

問：明白。即係就住嗰方面嘅討論，你就唔會參與？

答：冇 involve 嘅。

問：你幾時開始係正式加入 Estate Management 嗰邊？

答：我2009年尾就係 post 去 Estate Management Division。

問：2009年。你由2009年開始做 Estate Management 之後，有冇接觸過啲關於水喉方面，即係要做 maintenance、要維修，嗰啲咁樣嘅工作？

答：我就接觸到就係啲同事報告畀我哋聽，仲有啲 re-plumbing 嘅嘢要做嘅，即係...

問：Re-plumbing？

答：...都差唔多係尾聲，因為基本上就係我哋係1995年開始做，做到2012年，其實大部分都完晒，咁仲有啲--有一、兩個邨可能有啲我哋叫做 partial replacement，即係某一部分可能唔妥當，就換咗嗰部分，都同以前嗰陣時候換啲已經唔同咗。

問：所以你接手做 Estate Management 嗰陣時，關於 re-plumbing 嗰邊嘅工作就接近尾聲，係咪呀？

答：係嘞。

問：咁至於例如新工程，即係你接咗手之後，即係新嘅工程，我哋知道就係--我哋聽咗一啲 Estate Management 嘅同事講，就新工程嚟講，就 construction 嘅時候就用 solder joint，咁就 Estate Management 嘅時候就用 compression joint 嘅，呢一方面你知唔知？

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答：我淨係--即係因為我去到 Estate Management Division 先至接觸到 plumbing 多啲，咁我就知道喺 for Estate Management Division，我哋用 compression joint，咁個理據都係因為我哋喺有人住緊嘅屋邨做緊嘢，咁所以我哋基本上就唔用燒焊，第一，有個火嘅危險；第二，同埋因為燒焊有味，有人住緊，咁啲味就好 nuisance。所以我哋嘅 standard，你基本上喺 EMD 就係一定係用 compression joint，係基本上除非好 exceptional 先至係用燒焊，即係差唔多我諗可能 99.9 per cent 都係用 compression joint。

問：即係假設完工之後，即係我哋所知道有個 warranty period，即係有個保養期。

答：係。

問：如果係保養期嘅時候，你知唔知--因為如果保養期啲啲咁嘅工程，就係咪唔屬於你哋 Maintenance 嗰邊嘅工作？

答：如果新工程佢交樓過嚟，佢 within 佢嗰個 DLP，defects liability period，咁有咩嘢事，我哋一定係叫番新工程嗰個 contractor 執手尾，我哋唔會掂。

問：唔。你知唔知即係你接任咗 Estate Management 之後，就住新工程，如果我哋仲係講緊係即係保養期嗰段時間，如果啲銅喉係有--啲銅喉係需要即係做維修或者更改嘅話，嗰啲就係用 solder joint，你知唔知？

答：基本上我哋就有理，總之新工程嘅 main contractor 去做，咁做番、跟番，因為新工程嘅同事會負責收貨。

問：咁就住例如食水銅喉，即係用銅喉呢樣嘢，...

答：係嘞。

問：...咁就要用啲無鉛嘅物料或者包括焊料，呢樣嘢你知道嘅，係咪？

答：我就有特別嘅--即係除咗呢件事發生之後，之前我就有特別理解到係要一定無鉛。因為我喺 Estate Management Division，我哋就淨係知道用銅喉，用 compression joint。

問：唔，明白。咁你哋自己就即係甚少接觸啲 solder joints 嘅工作？

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答：燒焊就有嘅。結構方面就有燒焊嘅，但係要同啲水喉呢，燒焊就完全兩碼子事嚟。

問：唔。我想問一問你，就係喺你接手做--就住嗰個水諮會嗰個委員會，嗰個作為房委會嘅代表，即係 2010 年之後喇--應該 2009 年，係咪？定係 10 年，睇睇先，應該...

答：2010 年開始。

問：2010 年開始。咁就喺嗰個會議入面，你記唔記得有冇討論過啲關於食水嘅世衛標準嘅嘢？

答：水務署嘅同事就會--有個 regular item，就係 quality of water in buildings 嘅，咁佢好多時都會講，就係話佢哋做嘅 testing 就係 comply with 世衛嘅標準。即係提世衛標準，多數都係喺咁嘅 context 度提嘅，咁我記得有個會佢都提過。因為世衛出 2011 年嗰個標準，咁佢哋當時係用緊 2008 年嘅，咁佢就--因為其實大部分嘅 committee 嘅 member 都係即係 laymen 或者唔係水嘅 expert，咁佢就好簡單咁介紹 2011 年同 2008 年就主要就有幾個 parameter 轉左，咁有啲就 delete 左，咁就水務署就要 develop 啲 test 嚟--因應番可以 test 到啲咁嘅 parameter，就係咁簡單嘅介紹啫。

問：係。你自己嚟講，你就冇特別話就住嗰個 WHO 嗰個 guidelines 就特別去睇過？即係你都係靠...

答：靠水務署嘅。

問：...水務署嘅？

答：係嘞，係嘞。

問：最後我想問一問你，鉛水事件即係爆發左之後，你自己本人有冇參加過呢個 committee 嘅進一步嘅會議，即係最近？

答：我最後一去，二零--今--舊年年尾--我去到舊年年尾，好似 10 月嘅，就最後一次。

問：2015 年年尾？

答：2015 年年尾，係嘞。

問：即係 10 月嘅開始，係咪？

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答：跟住我就轉咗畀第二個同事開嘞。

問：明白。

答：咁就係咁多。

問：當時開會有冇就住呢個鉛水事件作出啲咩嘢討論？

答：佢主要就水記 call 會嘅，因為佢哋負責。即係去 secretarial support 咁。佢哋 call 會，最主要就係想檢討番嗰個 Quality Water Scheme 嗰個運作。因為即係我哋嚟講，Housing 嚟講，就即係我哋嚟現有屋邨，我哋就係基本上我哋要晒所有邨，就擺晒嗰個 Water Scheme 嗰個 cert。咁因應呢個事件，咁水務署就將嗰個 testing 嘅 requirement 擴闊咗，即係加咗幾個重金屬，咁變咗佢哋就要檢視番佢，即係佢現有嗰個 Quality Water Scheme 需唔需要檢討。咁主要就話嚟嗰幾個會都係講緊嗰個 Quality Water Scheme 要點樣檢討，日後點樣推行番出去咁。

問：好嘞，檢討除咗你話嘅 10 月嗰啲會，即係鉛水事件曝咗光之後，除咗有話就住優質食水嗰個計劃，就話就住啲乜嘢參數可能要加多啲...

答：係嘞。

問：... 嚟到做之外，有冇其他一啲探討話有啲咩嘢地方之前可能做得不足？例如房署或者水務署都需要再作跟進嘅，有冇呢啲咁嘅討論？

答：冇。

問：除咗優質食水嗰個計劃之外，冇嘞，係咪？

答：係，冇，係。

許偉強先生：我有其他問題。

主席：我想問下你，喺你第 11 段嗰度，你有講到話水務署同你哋房屋署每半年就有一個會，係咪好多年嚟嘞，已經？

答：我嘅理解，都好耐吓嚟嘞，都。

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主席：唔知幾多年嘞？

答：我要睇番紀錄先知。

主席：咁喺呢啲會度講乜嘢？

答：主要佢就係有幾方面，有啲新工程嘅同事就係有啲 project，就可能點 streamlining 嗰個 process，同水務署嗰個一啲 submission，或者有啲 new initiative，咁同水務署傾，多數 working-level 嘅人。咁同埋有時就我好似 paragraph 11 講，水務署有啲新 initiative，好似頭先話優質食水計劃，或者佢有啲 --最近--好似舊年有啲“Save 10 litres”嘅一個 promotion programme，就安一啲--即係喺水龍頭安啲 flow controller，咁佢就即係喺嗰啲會就介紹，就希望房署就支持。咁我哋基本上係政府部門，我哋一定支持，就搵啲屋邨嚟安，咁通常係傾嗰啲咁嘅嘢。

主席：咁嗰啲嘅層次，係你頭先話 working-level，係咩嘢--即係啲 engineer 出席，抑或咩嘢人出席？

答：我諗去到 senior，Senior。

主席：Senior engin...

答：有時即係以一個 chief 做 chair--即係我哋呢面有個 chief 嘅。

主席：Chief 乜嘢？

答：好似係 CBSE。

主席：咁都屬高層次？唔係，係你哋 Estate Management 嘅 CBSE 吔，...

答：係 new works 嘅事，new works 嘅。

主席：哦。

答：咁所以頭先我講係佢有一大槪就係講 new works project 嘅一啲做嘢嘅方法。

主席：嗰啲就係講 in--對唔住，你哋 Estate Management 就有參與嘅呢個？

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答：我哋有人喺度。

主席：有人喺度嘅？

答：係。

主席：就諗...

答：我哋個同事應該係我諗係 senior 嚟。

主席：C&D 嘅 CBSE 就係做 chair？

答：係。

主席：即係代表你哋？

答：代表部門。

主席：代表你哋 Housing Department 走去坐？

答：係，係。

主席：Water Department, Water Supplies 就係咩嘢人嚟坐？

答：我就唔記得咗，可能正常應該對應番 chief 嘅。

主席：Chief engineer 咁上下，佢哋嗰啲，係咪？

答：係。

主席：咁就係講 project-based 嘅，即係唔講大題目？因為...

答：佢有啲 project-based，有啲大就--大題目就唔係好多，通常如果講大題目，多數都係 WSD 有啲 new initiative，咁想房署支持。咁因為通常嚟講，佢有咩嘢 new initiative，最容易搵就搵我哋，我哋就做 pilot 嘅。

主席：係，係，咁 okay。即係水務署同你哋係有一個好 regular，有個 platform 係可以大家溝通嘅？

答：係。

主席：得，唔該。

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我有問題，冇人有問題。

唔該晒，陳先生，冇人有問題，唔該晒，可以離開。

石先生：今日我哋就有其他嘅證人，咁但係就想而家報告一下下個星期嘅證人嘅情況。

主席：係。

石先生：星期一我哋就有聆訊，星期二我哋就原本係重召係房署嘅 Ms Ada Fung。

主席：係。

石先生：咁就 Ms Ada Fung 之後，我哋就係有建造業議會嘅證人去講解佢哋嘅課程，即係大工、中工之類嘅一啲嘅課程嘅資料同埋分別。咁就預料就係禮拜二、三就係會有馮女士，跟住就到 CIC 嘅證人，就或者可能林德深先生會禮拜三都可以返一返嚟。咁禮拜四就會係 VTC，即係 Vocational Training Council 嗰面嘅證人。咁就剛才殷大律師同我講過，就係馮女士星期一早上有一個即係...

殷先生：星期二。

石先生：星期二早上有個重要嘅會，咁佢就要 11 點鐘--佢預料 11 點鐘可以返到嚟，咁殷大律師就提議就係一係我哋就遲啲開，11 點開，或者我哋可以 11 點鐘前，我哋可以傳召 CIC，即係建造業議會其中一個證人，咁就唔會話即係遲咗開咁樣。即係呢兩者我哋都有重大嘅即係異議嘅，因為我哋照睇，星期二、星期三兩日，我哋要嚟傳召三位證人應該係相對地鬆動，咁就即係我哋嗰方面係唔介意採取任何一個嘅方案。即係遲啲 call 馮女士，call 完馮女士，先至 call 兩位 CIC 嘅證人又得。先擺一個 CIC 嘅證人，傳召咗佢先，跟住到馮女士，跟住傳召另外一位，亦都得。

主席：我基本上--唔係，我唯一嘅考慮就係會唔會令到嗰位 CIC 嘅證人好唔方便啫。即係如果佢嚟咗，畀咗一個鐘頭嘅證供，跟住...

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石先生：唔係，我同殷大律師講過，如果 CIC 嗰位證人嚟到，畀咗一個鐘頭，馮女士到，我哋就照繼續嗰位證人，就唔會加插馮女士入去，因為馮女士等得嘅。

殷先生：係，主席，我哋係要求委員會畀一個 indulgence 我哋。因為...

主席：得，得，唔係，我有--咁--咁...

殷先生：我哋係唔緊要。如果佢行先，就逐個 understanding 就係嗰個證人畀完佢個證供，我哋至上。

主席：哦，得，得。

石先生：即係我都 indulgence，都唔可以再要求番即刻可以入嚟。

主席：得，好，咁我哋聽咗 CIC 個證人先，好唔好呀？

石先生：好。

殷先生：好。

主席：咁我哋今個禮拜聆訊就係咁多，結束，唔該晒。

2016年1月22日

下午12時21分聆訊押後

Friday, 22 January 2016

(10.03 am)

(Transcript of simultaneous interpretation

except where otherwise specified)

MR WONG BAY (on former affirmation)

CHAIRMAN: (In English) Mr Khaw?

Cross-examination by MR KHAW

MR KHAW: Mr Wong, good morning.

On behalf of the Commission, I would like to take up
with you some questions.

If you may refer to paragraph 7 of your statement,
bundle Y1, page 38, paragraph 7, here there is a bit of
background there. When you first joined the ACQWS, you
talked about your role there, and you said that you were
part of the management branch. You were at that time
acting assistant director.

In paragraph 7, towards the end of it, you said you
were co-chairman of the liaison group on construction
quality, or LGCQ.

Yesterday, when Mr Leung testified, I discussed with
him the work undertaken by the LGCQ. Let me put
a question to you about the background. For the LGCQ,
you have explained when it was established and the terms
of reference of the LGCQ; basically, construction and --
there would be communication between the development and

construction branch and the management branch, and there would be a follow-up on the maintenance work.

A. The two branches, we had a lot of meetings but we didn't have a lot of opportunities to talk about the management of the housing estates, after delivery. This is a platform for communication. Also, there were a lot of defects. After occupation, we received complaints about water leakage. If you look at the minutes, it's all documented there. We took the opportunity of this forum to talk about the review.

Both sides may need training to be given to the staff. It's basically a forum for that.

Q. For the defects after occupation and the follow-up work by the LGCQ -- I won't go into that -- basically, I want to put this to you. With regard to the LGCQ, Mr Wong, do you remember back in 1999, when you first joined the liaison group, you must have had some discussions on the adoption of copper pipes as an alternative choice for the contractors. Do you remember that?

A. By way of historical background, we do have some re-plumbing programmes at the maintenance division, which started in 1999. GI pipes ceased to be used, and in the maintenance division we did consider a number of materials. One of them was copper pipes. We did have a bit of experience there.

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

B Commission of Inquiry into Excess Lead Found in Drinking Water Day 44 B

C Q. Let me refer you to the minutes of the LGCQ, just to jog C
your memory. B15.4.

D A. Which meeting? D

E Q. I can show you the tab. 15 September 1999, liaison E
group meeting No. 7.

F A. Yes. I've got it here, different numbering though. F

G Q. You might just wish to refer to that. G

H That is the 7th meeting, 15 September 1999. H

I Development and construction branch was represented I
there, the management branch, your goodself, Mr B Wong,

J was at the meeting, in your capacity as acting assistant J
director/management --

K CHAIRMAN: Mr Khaw, can you hang on a second, please. K

L It's on the screen. L

M MR KHAW: I beg your pardon. I may have got it wrong. M
B15.4.

N CHAIRMAN: What page? N

O MR KHAW: 39997. O

P CHAIRMAN: Please. P

Q MR KHAW: Mr Wong, page 39997, you joined that particular Q
meeting.

R If you turn over the page to the next page, 4.3, R
"(In English) Report on the use of plumbing materials

S for fresh water supply"; can you see that? S

T A. Yes. T

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Q. At that time, discussion took place about the possibility of adopting copper pipes and there were discussions there.

In paragraph 4.3 there is an interim report:

"(In English) An interim report was tabled. Final report was targeted for issue during the first quarter of 2000."

If you look at the tab, there is an annex with the report there. The report is on page 40002. This report was prepared for the liaison group.

Were you involved in the drafting of this report, Mr Wong?

A. I remember there was a technical development team responsible for the drafting and the compilation of this report.

Q. Yes.

A. The report was presented to the maintenance committee for endorsement.

Q. Yes.

A. I read the report.

Q. My question is you were not involved in the drafting of the report?

A. I wasn't there, no. I wasn't there drafting the report.

But I know about the report.

Q. All right. With regard to this report, let me follow up

with some more questions. The idea of allowing the main contractor to use copper pipes and by comparison with lined GI pipes, at the liaison group, was it a major topic for discussion? Was it a big issue for discussion?

A. It is a subject of moderate importance. There are so many issues to discuss. We are not talking about any particular contractor. We did have some experience there, and we just spell out our experience there.

In 1999, I think copper pipes were not used.

Q. If you refer to this report, one of the items for discussion is the advantages and disadvantages of copper pipes and lined GI pipes. I put it to Mr Leung yesterday and I'll put it to you again: when discussion took place about the merits and demerits of the pipes, was there any technical research by the technical research team?

A. In the maintenance division, we have some experience.

Q. You would share the experience?

A. Yes.

Q. Let's talk about copper pipes first, the advantages and disadvantages. There is a column, number one:

"(In English) Withstand pressure up to 25 bar when used with soldering joint."

Can you see that?

"(In English) Disadvantages: Withstand pressure up to 10 bar only when used with compression fitting."

It seems that with copper pipes, there are two different materials -- soldering or compression jointing, the two types of jointing, was there any research conducted on those?

A. We didn't go into that in detail. No, we didn't conduct any research. The Water Supplies Department did produce a report. Yesterday, I distributed the exhibit on this just yesterday. Page 221:

"(In English) General information on the use of different types of pipe materials as inside service in buildings".

That's page 221 in item 6, bundle Y1.

Q. So you mean that at the time the discussion had made reference --

A. Because it is an authority. I'm not sure if that is the most updated version. You can see this copy. It has a lot of material there.

Q. Let me summarise. This was a document issued on December 1994, talking about different pipe materials. It was issued by the Water Authority. So, in your liaison group, when you talked about the advantages and disadvantages of copper tubes, one reference --

A. Well, not the liaison group. It was -- when we drafted

the report, we had made reference to this.

Q. So at that time, regarding the discussion on the use of copper pipes, your liaison group had expectations that it would be used widespread, and some components or materials previously might not be used so much but would be used widespread. There was that possibility?

A. Well, the liaison group did not consider that. Because at the time they were using different material. Lined GI pipe was used very widespread, and maintenance would use all kinds of material, GI pipes and such, and we had some experience of copper tubes. It's just that we had exchanged some experience.

We did not expect that period because we did not know what materials new buildings would use.

Q. So you said you were sharing experience, and you were in repair and maintenance department, you had some experience with sharing your experience on using copper tubes. So, in maintenance, you had some experience with copper tubes, and your experience was in compression joints, or was it soldered joints?

A. Well, our experience was accumulated over time. We referred to this little pamphlet issued by the Water Authority. The Water Authority also had a guide to re-plumbing fresh water supply, and we were in contact with the Water Authority and we worked from their

material.

We are not waterworks engineers. We are just repair and maintenance. Bundle Y1, page 194, in 1995, they had issued a guideline regarding what to submit during re-plumbing and so on. So we referred to this one.

Q. Okay. I understand. So my previous question -- in this liaison group, in November 1999, prior to that, did you have personal hands-on experience dealing with copper tube engineering, maintenance and such? Did you have hands-on experience?

A. Not a lot. My recollection, I wasn't in charge of that.

Q. So, regarding your sharing of experience, you might have read material from the Water Authority?

A. Yes. These are our treasures. We learn on the job.

Q. So I would like to ask you, personally, when there was a discussion regarding the use of copper tubes, copper pipes, so from the maintenance management perspective, if there was widespread use of copper pipes, then during maintenance you would know what materials to use, what the work flow would be and what difficulties you might encounter. So you should be aware of that, if you were to use copper tubes widespread.

A. Well, our focus is we want to focus on a human approach. We want works to be quick and convenient. Why did we choose copper tube pipes? Within our maintenance

department, there was ease of maintenance, and it had to be readily available, the repairs had to be quick and convenient. So, under this understanding, we had that discussion.

Q. We talked about different types of joints. There are solder joints, compression joints. Do you recall in the liaison group, was there a discussion on the use of specific material?

A. No. We didn't get that detailed.

Q. So, in the discussion, within the liaison group discussion, there are some documents I would like to refer you to. Page 40012. That is the 9th meeting, on 18 January 2001.

In paragraph 2.4, it talks about -- they were waiting for the final report, and in the "Action" column, the final report should be CBSE and CA/D&S, development and standards.

So I would like to ask you, this final report, if we -- well, let me first ask you: was this final report completed?

A. I cannot recall.

Q. Because I see in your following discussion, at page 40023, paragraph 2.2, it talks about:

"(In English) Action in hand; [the chief building services engineer] would pass the draft final report to

SMS/TD for comment ..."

Then at page 40031, in paragraph 2.2.1, it refers to
a meeting 12 in August 2000. The SMS --

A. Technical development.

Q. Technical development. That should be about
maintenance, the maintenance surveyor.

A. Yes.

Q. The senior maintenance surveyor.

A. Yes.

Q. "(In English) ... had given reply ... on the report for
CBSE/2's consideration and follow-up."

I didn't see the report and I want to ask you
whether the report was completed.

A. I don't recall.

Q. Then the next follow-up is at page 40044. It's your
liaison group. You had attended that, and I want to
clarify with you. Page 40044, 2.2:

"(In English) [The AD for development] reported that
feedback was received from SMS/TD. He informed that
fittings of adequate pressure rating for copper pipes
was not available and the suppliers were being asked to
work on this.

SMS ... informed that copper pipes were not used in
MB for risers which required high pressure rating."

"MB", does that refer to multi-storey building?

What is "MB"?

A. Management branch.

Q. "(In English) AD/D would liaise the matter with SMS/TD."

Then we have some comments later on. Page 40055.
That is the 15th meeting, on 5 January 2001.

Paragraph 2.2:

"(In English) Report on plumbing materials for fresh
water supply", and we see:

"(In English) [The chief architect] ... advised no
formal feedback was received ..."

Then we see some handwriting:

"(In English)... on the failure of uPVC lined
GI pipes. It appeared that MB concerns were on
re-plumbing work where these materials had been used
rather than on failure of existing installation."

Okay, so do you recall who added these comments?

A. It seems to me the CA/D&S, from the handwriting.

Q. Then 2.2.2:

"(In English) AD/D reported that feedback was
received from SM/Audit regarding improper use of GI pipe
fittings. Since problems were identified, the
contractors were required to rectify the problems
concerned.

2.2.3. Since fittings of adequate pressure rating
for copper pipes were not commonly available, SMS/TD

advised that ductile iron could be used for risers which required high pressure rating.

AD/D concluded the use of GI pipes has not been ruled out however the use of copper pipes may be considered in the future."

So it seems there isn't a conclusion. They are still talking about -- they are still weighing the pros and cons of the two materials?

A. Yes.

Q. At that point, they were still looking at further studies to reach a final decision?

A. Yes. But the construction branch --

Q. Which branch?

A. Construction branch, they were building new buildings.

Q. So that was a discussion around 2000. When did the construction branch decide to use copper pipes?

A. Most likely, they would do some testing. I don't recall exactly. It was around that time. It would be after 2002, even if they did some trials.

Q. So I would like to ask -- we were talking about choosing different types, different materials, the pros and cons and not reaching a conclusion. So in 2000 to 2002, there were some revised specifications. I will follow up, deal with that later.

During that period, copper tubes was decided upon,

was there any department that had to think using copper tubes might have some risks or might have some adverse health impact on residents? So at the time the Housing Authority or Housing Department, was there any department that looked into this?

A. No. You talked about the risk consideration. I don't remember having any discussion on this.

Q. Do you remember then, after copper pipes had been decided on, what brand of materials would be used, what brands would be up to standard? Did your department or other departments get in touch with the suppliers about this?

A. At the liaison group on construction quality, we shared experience, and at the beginning it was the project division that would consider all this, like the designers. We would not go into minute detail about this.

Q. So you are saying that after deciding on copper pipes, it would then be the design team that would consider the materials?

A. We had regard to the WSD approved list.

CHAIRMAN: Say again?

A. Approved list. We would have regard to the WSD's approved list. It would be safe to use these materials.

They would submit materials to the WSD for approval,

and the guidelines would be applied, so we would not discuss anything of this kind.

MR KHAW: As far as you were concerned, there were discussions on whether to use copper pipes. As far as you know, as far as your understanding of the market, after copper pipes have been adopted, the market should be well prepared for that. With this change, the market should be able to cater for that.

A. I didn't exactly have this kind of experience.

Maintenance didn't cover a massive amount of materials. We deal with one or two blocks at any one time. But the new building construction division would get in touch with the suppliers and the associations, and they may conduct some research.

Q. Before 2000, for the private development projects, was it commonplace to use copper pipes?

A. I can't be certain exactly, but from my colleagues, they said that copper pipes were used pretty extensively outside.

Q. The year 2002, the CBSE division issued some revised specifications about the use of copper pipes and all the specifications that have to be measured up to, and there was a set of revised specifications.

Let me put this to you. On the management side, did you have any chance to be exposed to the specifications

about the materials?

A. The DCMBI -- we would have had some discussion -- but by the time we knew about it, we were informed all the changes.

I'm not sure whether there were any discussions with them, but the construction division did a lot of research and they got hold of a whole lot of information. They conducted this in a scientific way.

Q. In the process of construction, before occupation or before completion of the project, would the CBSE communicate with you about the specification of the materials and have discussion and communication with you about the specifications of the materials on a particular project; any communication there?

A. I think individual officers may have some exchanges and they may write to us, if necessary, and we would give them a reply. We didn't have a lot of discussions.

Q. B15.3, page 39600. We have looked at it a number of times. That was in July 2002, from the development division, that's the DCMBI. That's the instruction from the DCMB, and that was issued comprehensively.

If you look at page 39605, the distribution list is pretty long.

A. We received it, yes.

Q. "AD/M", so it has been distributed to your division.

You have seen that yourself?

A. AD -- I remember I was M2. AD/M3 was the AD for headquarters, for maintenance. He would liaise with the construction branch. I don't remember very well about reading it in detail. Maybe it was just circulated. I might have read it but I don't have a very good memory of it.

Q. Whether you have read it in detail doesn't really matter, but at that time you knew about these revised specifications; you had some knowledge of that?

A. That's the Specification Library. All the materials, all the new materials, would be put there. How they would be adopted would vary from project to project. The maintenance division must have seen it. I don't have a vivid memory of it.

Q. If I may refer you to paragraph 14 of your statement, page 41, bundle Y1. Paragraph 14, please. Here, it talks about the toxic substance, the lead being a toxic substance, and you said you knew that lead was toxic, and you said:

"(In English) ... use of lead pipes and fittings containing lead ought to be avoided. In this context, paragraphs 8 and 9 did not attract any special attention ..."

That's paragraphs 8 and 9 of the document you read.

That's the ACQWS's paper.

Here, you basically are saying that lead pipes and fittings containing lead ought to be avoided. When did you become aware of that?

A. When did I become aware of that? This is general knowledge. This is common sense. We were told about this by our teachers in school, and lead should not be used.

CHAIRMAN: When you were in school? University or ...?

A. Hong Kong Technical College, 1969 to 1972.

CHAIRMAN: Hang on. Hong Kong Technical College. What did you study?

A. Building surveying.

CHAIRMAN: Yes, please.

MR KHAW: When you were in technical college, was there a subject on plumbing and lead should not be used?

A. Yes.

CHAIRMAN: (Chinese spoken).

A. I don't remember exactly how the lecturer said, but there were cases quoted about the UK and elsewhere, they did use lead in the plumbing system, and it was said that there were not any problems because the lead would be coated, but lead should be avoided in any case.

MR KHAW: Let's shift the time a little bit. That was in the 1970s, when you were in college, you had this kind

of knowledge. By 2002, copper pipes were going to be used. From memory, did you know that when copper pipes were used, soldering materials containing lead should not be used?

A. We should not use copper pipes made of lead. The Water Supplies Department published a booklet regarding copper pipes. If we followed that, everything should be okay. I've learned so much from that WSD booklet. So we didn't have any particular consideration about lead or leaded solder.

At that time, in our minds, we were preoccupied with the yellow, the discoloration of water. There were so many complaints and we were preoccupied with finding a solution to that.

Q. In 2002, there was the revised set of specifications. You didn't look at that in detail.

Let me show you B15.3, page 39616.

A. DCMBI? What page?

Q. Page 39616. SUP 1.M178.N, "(In English) Soldering alloys for copper and copper alloy capillary fittings"; do you see that?

A. Yes.

Q. The CBSE team made it very clear at the outset that only lead-free category of solder should be used.

It seems from this that at that time the Housing

Department did make it categorical that lead-free category solder should be used, and they have identified this potential risk.

So, for these materials and how you should comply with the UK standard and how you avoid any lead-containing materials or materials with heavy metal, did you have any further discussion on this?

A. No, because, for instance, we did not participate in the specifications review, and once it had been set, we had believed that they complied with British Standards.

Q. So now, let's take a look at the ACQWS, some records of meetings. We were talking about Paper No. 7 -- Y1, page 27.

A. Which meeting?

Q. The 3rd meeting. 15 January 2001. It mentions Paper No. 7. This is minutes of the 3rd meeting. Y1, page 27, "Advisory Committee on the quality of water supplies".

If we look at the time your liaison group had talked about using copper pipes, it was around 1999. You had attended that meeting, Mr Wong?

A. Yes.

Q. If we look at internal page 3, paragraph 6.1, page 29, it discusses Paper No. 7. Paper No. 7 was about quality of water in buildings.

So if you look at Paper No. 7, that's page 7 -- you might have a copy of your own -- paragraph 6.1 -- paragraph 9.

A. We are talking about Paper No. 7?

Q. Paper No. 7, paragraph 9, because the minutes refer to Paper No. 7.

A. Paper No. 7, in the minutes, they said they had discussed that.

Q. Yes. So let's take a look. Let's take a look at paragraph 9 of paper 7. It is talking about overseas experience.

If we look from paragraph 8:

"(In English) The problem of water quality in buildings is not unique to Hong Kong. A literature research of publications and through the internet has been conducted. The situation in the United Kingdom, United States of America, Canada and Singapore has been briefly reviewed.

In the UK and USA, the most common problem 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."

C Then it talks about the countries have different
complaints, and the various reasons. It also refers to:

D "(In English) Canada and Singapore, like Hong Kong,
E have banned the use of unlined GI pipes in tackling the
corrosion problem."

F So I understand the background. You were talking
G about discoloration of water, and you had come across
H overseas experience. So I would like to ask you, set
I aside Paper No. 7, just now, in the minutes of
J 15 January 2001, prior to that, regarding overseas
experience, they might have used copper pipes, and lead
had been leached?

K A. No, no. I know lead pipes can leach lead, but nobody
L talked about copper pipes leaching lead, as far as
M I understand, even though I'm not an adequate person to
speak on water engineering.

N CHAIRMAN: I would like to ask you, the maintenance
O management branch within the Housing Department --
I know building services cover a lot of topics, but are
P there people specialising in water or some people that
Q specialise in electricity and some people specialise in
fire?

R A. Well, we have a group of building services engineers.
S Some people's backgrounds are in electrical and
T mechanical engineering; some people have a background in

fire. So there are people with different specialities.

But regarding maintenance of pipes, the maintenance surveyors, they are responsible, because they have to do the re-plumbing. So we learn on the job. We follow the guidelines issued by the Water Authority, and we hold regular meetings with them, how to do submissions, how to enter the premises. So we meet with the Water Authority regularly.

So I cannot say who is more specialised. They are also learning on the job.

CHAIRMAN: Because when you do re-plumbing, it's almost the same as re-installing from the start?

A. You cannot do that. It's very difficult. It's like refitting your tailored suit on the go.

So even deploying people, stopping the water supply, stopping the pump, it's very troublesome.

CHAIRMAN: I understand. I mean, when you have to do re-plumbing, you have to re-install the pipes for the tenants.

A. It's almost like a piece of new work.

CHAIRMAN: So the hands-on work would be done by contractors?

A. Our maintenance contractors, they also have a licensed plumber.

CHAIRMAN: But if you do re-plumbing, so the maintenance

engineers or surveyors would design a plan and decide what materials to use?

A. Yes.

CHAIRMAN: So, when you decided to use copper pipes --

A. We had never heard of leaching lead. So if he ask me today, I have accumulated decades of experience, it's not surprising, but at that point back then, we didn't hear of it.

MR KHAW: Back to paragraph 13 of your witness statement.

Y/42. Here, it talks about Paper No. 7. In paragraph 13, you said:

"(Partially in English) The focus of Paper No. 7 was on the discoloration and turbidity due to rusty pipes. The comment that 'In the UK and USA, the most common problem is the presence of lead in water since during their development stage, lead pipes and lead-soldered copper pipes were widely used' was really an introductory and passing remark."

So at the time in your evidence, you said that was just an introduction, or you just mentioned in passing.

Paper No. 7, it had been discussed in the meeting, and of course how thoroughly it was discussed, it cannot be surmised from the paper. But in paragraph 9, what you quoted just now, it seems that it was a sharing of experience. Overseas had some problems and what the

reasons were, and so on.

So it seems that regardless of whether you were talking about discoloration or other topics, paragraph 9 seems to say that overseas, regarding the use of lead pipes, they ran into certain problems. Somebody had mentioned that. Do you agree?

A. I might not agree because I don't recall whether we had discussed that.

If you look at the PowerPoint, they had talked about overseas experience, but they didn't mention this part. This statement is in the paper, but in the PowerPoint, if we look at the PowerPoint, page 124:

"(In English) Literature research on worldwide experience on how to ensure water quality in buildings."

It doesn't mention that. It talks about the UK, USA installations and Singapore. This one.

So I don't recall --

CHAIRMAN: So if it was mentioned, it was a minor topic mentioned in passing?

A. If it was a topic, it would be in the PowerPoint.

CHAIRMAN: I understand what you are saying. We know that in the US or in the UK, at the beginning of 2000, there were lead solder problems, especially in the UK. So, in the UK and US, of course we know that in the US they had lead pipes problems more than leaded solder. But at

that point, in the UK, they seemed to have lead solder problems. Of course, they had lead pipes as well. So now you are telling --

A. It jogs my memory that might be the case.

CHAIRMAN: I would like to ask -- we know that the affected estates, it was in 2008-09 when they started construction and they were completed. But if we look at Y1, you say that re-installing the fresh water supply, in February 2005 you say that had already started.

Referring to Y/156. In 2005-06, it says, as of February 2005, there was re-plumbing in 30 estates using copper pipes.

So, in other words, maintenance, your experience far exceeds a new building construction. Re-plumbing is more complex than a new start. So it seems that -- I'm not sure in 2005 whether they used solder or compression joints. They may have used both.

What I am trying to say is your experience far exceeds development and construction?

A. Standards, it's repeated.

I remember Housing, in the first few estates, in the 1,000-odd estates, copper made of 600 or 700 out of 1,000-plus units, and compression joints also made up some 500 blocks, and the rest of them are just solder.

CHAIRMAN: We see that. In other words, Housing Department

used copper pipes. They used lead-free solder. They had started this practice in 2005.

A. But it seems that our specifications don't mention solder material.

CHAIRMAN: They just refer to towers going up.

A. We have very special cases using solder.

CHAIRMAN: When you undertook re-plumbing, the up-feed.

A. The pipes going into the flats, inside flats, we used compression joints.

CHAIRMAN: Yes.

A. Common area, also compression joints.

CHAIRMAN: You are talking about in re-plumbing you didn't use solder?

A. No, we didn't use solder, except in special circumstances, a couple of exceptional circumstances.

CHAIRMAN: There were 800 or 500 blocks. Where was it mentioned?

A. In the internal documents of the Housing Department.

CHAIRMAN: I am interested to find out, when you did the re-plumbing, everything was all right. Of course, if you used compression joints, there were no problems. But at that time you were already using solder.

From what you said, if everything was done properly, in the light of -- I mean, your experience with soldering together with copper pipes, your experience

surpassed that of the C&D.

A. (Chinese spoken).

MR KHAW: In 2005, you undertook the re-plumbing work. You said compression joints were used. Subsequently, we learned that for the affected housing estates, they used solder joints.

In this period, 2005 to 2008, did your maintenance staff communicate with the construction staff about the advantages and disadvantages of compression joints and solder joints?

A. We didn't have any discussion like this. But we preferred the mechanical joints because it was so convenient, and you are working in people's homes and soldering may not be the preferred option. I think we did discuss this particular message. Maybe SMS/TD might have talked with the construction division about the pressure. Maybe they talked about ductile. But up-feed, we used ductile pipes.

But solder, leaded or unleaded, I don't think there was any discussion at all.

Q. The Estate Management colleagues did testify. They said that for the affected housing estates, when they were under construction, solder joints were used, but when it comes to maintenance, compression joints would be used. So how did you go about doing it? Did you saw them off

and replace them with compression joints?

A. We were a little bit surprised why the CDC and the maintenance division would use different materials.

Q. That's why I am putting to you whether there was any discussion like this.

A. I don't know. I cannot recall.

Q. You mentioned a moment ago the PowerPoints. If I may refer you to the 3rd meeting, on 15 January 2001, the ACQWS, 3rd meeting, meeting No. 3. That's bundle Y1, page 29. See paragraph 6 of the minutes, Mr Wong, "Paper No. 7 -- quality of water in buildings":

"(In English) The chairman introduced that the purpose of this paper was to present the possible strategies for enhancing the entire water supply system such that Hong Kong citizens could have confidence in drinking high quality water directly from their taps ..."

That was very much the objective: you hoped that people would have faith in the quality of the tap water.

"(In English) ... and to invite members' views on the possible strategies being studied. A handout containing appendix 1 to the paper and a colour print-out of the forthcoming slide presentation were tabled in the meeting.

After presentation of the paper by WSD, members

generally agreed that there was a need to properly maintain the plumbing systems in buildings."

Let me put this to you. You talked about PowerPoints a moment ago. The colour print-out, is it from page 122?

A. Yes, 122 through to 126, this one.

Q. The chairman gave the presentation.

A. No, no, it wasn't the chairman who did the presentation. It was the WSD staff who did the presentation.

Q. Right, WSD gave the presentation.

A. Yes.

Q. Let me put this to you. For the Advisory Committee, there were a number of times that you discussed the WHO standards. I won't go into great detail about it, except to refer you to G2. Let's have a look at page 636. That's the 2nd meeting of the ACQWS -- I beg your pardon, that's the 1st meeting.

Let me take you through the paper and then I will put some questions to you. Paragraph 6 of the meeting:

"(Partially in English) ACQWS Paper No. 1 -- [WHO] guidelines and international standards ..."

6.1. The purpose of this paper was to introduce and compare the three most well known water quality guidelines/standards in the world. In the same way as Singapore and New Zealand, Hong Kong had adopted the

[WHO] guidelines as the standard for drinking water quality. The WHO Guidelines were designed to protect human health and were aimed globally, not just at developing countries. The members generally agreed that such a practice was considered effective in protecting public health and therefore should be continued.

6.2. At present, all 94 health related chemical parameters of the WHO Guidelines and about 30 other aesthetic parameters had been included ..."

Let's have a look at Paper No. 1 on page 929.

Page 929, Mr Wong -- you may have your own copy of Paper No. 1 -- paragraph 2 refers to the WHO Guidelines for Drinking-water. There are some guideline values and what countries adopted these.

Let me refer you to one more paper. Meeting No. 2, that's the 2nd meeting. Page 639. In the 2nd meeting, there was discussion on Paper No. 4. That's on page 641, paragraph 5.3:

"(In English) ACQWS Paper No. 4 -- publication of water quality data".

5.3.1:

"(In English) ... this paper was prepared to present a detailed proposal on the format and frequency of publication of water quality data on the internet and in the form of a pamphlet."

And there was mention of Muk Wu Pumping Station and all the rest of the data.

Paper No. 4, page 953. Here on this paper, page 953 -- let's move on to paragraph 8 on page 954. It repeats:

"(In English) WSD adopted WHO's Guidelines for Drinking-water Quality as standards for treated water."

Paragraph 9:

"(In English) In addition to the bacteriological quality detailed in part (A), and the health related chemical parameters listed in part (B), a third table showing quality parameters which give a good indication of the characteristics of the supply ..."

In the appendix, page 959. Here on this page, it is about the quality of Dongjiang water, as monitored at Muk Wu Pumping Station. There are chemicals of health significance described by the WHO Guidelines, 1993. There are different parameters there. One of them, as we can see, is lead.

Page 963, this is drinking water quality for the period between 1999 and 2000. Again, reference is made to the WHO Guidelines for Drinking-water. There's the general situation of the water quality there, in the test, lead. Also, the WHO Guidelines are included here.

Let me put this to you. In the paper, we saw

reference to the WHO Guidelines. You have had so many meetings. As far as you are concerned, did you look at the WHO Guidelines and the standards? Did you look at these in detail?

A. There were so many experts at the meeting. I was in a learning mode, as a user. So I would read the documents, to see what I could learn from them.

The conclusion generally was there was compliance, I was relaxed about it, and if they talked about non-compliance, then we would alert my colleagues.

The experts might have discussion between them about the parameters, but I didn't understand all the details, as a layman.

So that was the situation. The setting at the time was that there was discoloration in the water and the residents blamed the Dongjiang water. The Water Supplies Department tried to think of some solution and they published all this data, in order to stop the complaints. I remember that they had reference to international standards, the EU standards and the USEPA standards. There were merits with the different systems, and if we adopted all of these, it would cost an additional \$3 billion. It was quite a staggering figure.

At the end of the day, it was decided that the WHO

standard was adequate for use.

Q. You are saying that the WHO standards or parameters, you relied very much on the WSD's explanation, their experts doing explanation?

A. Yes.

Q. You personally did not look at all these details?

A. I read the documents.

Q. So you read the documents that they provided?

A. Yes. (Chinese spoken).

Q. I would like to ask, Mr Wong, when you attend these meetings, your witness statement said that the topics discussed, it doesn't mean that everything has to be followed up by the Housing Department. You have to decide on what to follow up, and you would report back to the Housing Department.

So I would like to ask -- at the time, after attending meetings, certain matters required follow-up. Who would you report to at the time?

A. I recall we were involved. We actively participated in the water quality programme. We would constantly report to the BD/M, because it would involve all maintenance and management staff. We did a lot of work in those few years. We had re-plumbing. We had to participate in the water quality programme.

The government relied on us. We are a government

department; we need to participate actively. And I recall the chairman appreciated our work. That programme was very clear in my mind.

Q. So the minutes or information from the Housing Authority, did you have to keep archives?

A. Yes. We have a system. We have a file. If there's an action, we have to discuss it in BD/M meetings. They convene every eight weeks. And every district; we had even people from Guangzhou military area.

Q. Just now, you talked about the water quality programme. That is the Quality Water Supply Scheme for Buildings. So management companies, they could apply for a certificate from the Waterworks Department.

A. Yes.

Q. So, from the documents, we see there is another water quality programme, the Quality Water Recognition Scheme. So I would like to ask, the first Recognition Scheme, did it turn into the Quality Water Supply Scheme for Buildings?

A. It had changed names a few times, so we would add some new criteria. But I recall that in the ACQWS, initially they talked about legislation and compulsory maintenance, and so on, but then later on they decided to encourage the users, so that's why we adopted that scheme. We had a lot of discussion for a long time. We

considered financial implications. It was expensive.

People would not participate. They have to be willing

to participate. So that was the train of thought.

Q. Regarding the Quality Water Supply Scheme for Buildings, at that time the Housing Department had participated in the Waterworks scheme. But the details of the plan, of the scheme, were you responsible within the Housing Department?

A. We did not have an internal specific meeting, but I would constantly report in the ACQWS. There was research and study. There's a paper No. 13 of the ACQWS that talks about this scheme.

Prior to that, we would circulate amongst each other, consulting each other.

Q. Regarding the Quality Water Scheme, they have some criteria in order to get the certificate. So these standards, you would comply with the Waterworks Authority?

A. It's the ACQWS experts. There were dozens of experts, from scholars to the environmental protection, and so on.

Q. For establishing standards and parameters and criteria to be complied with, those conditions, did the HD participate in that?

A. My recollection is we didn't participate a lot, because

it was to be implemented by the Waterworks Department and they had so many experts, it was feasible. So we just agreed to it. But follow-up, we had to act on that. We had to do testing, we had to clean up the pumps. A lot of work was involved.

MR KHAW: I have no other questions.

CHAIRMAN: Let's take a 20-minute break and continue.

I think other counsel have questions. Thank you.

(11.21 am)

(A short adjournment)

(11.47 am)

CHAIRMAN: Which counsel, any counsel have questions?

Nobody?

MR YIN: (Chinese spoken).

CHAIRMAN: If there are no questions, then after Mr Yin -- please don't wait until the last minute. Once he stands up to ask his questions, that's the end of the queue.

Cross-examination by MR E CHUNG

MR E CHUNG: I have one or two questions that need clarification.

Mr Wong, regarding maintenance, there were some 500 re-plumbing that used compression joints. I have a paper that I would like to go through with you. Bundle B3.2, item 66, page 2387.

Mr Wong, this table is made by the Housing Authority

Review Committee. They had a meet with the maintenance department. Their conclusion was that the maintenance department have less lead problems because we have a paper RC29 dating back to 2015, where they have this table.

If you look at the middle column, it says "Common Area". Under the item compression joints, the number of domestic blocks is 503. Is this what you were quoting, from the internal paper you mentioned?

Another follow-up question is, other areas, aside from copper, we have non-copper pipes that were joined by mechanical joints. So if we minus that from 1,188, so we have some 500-odd joints that use mechanical compression joints.

So, when you say non-copper, which pipes are you referring to?

A. I didn't write -- could it be stainless steel? I'm not sure. But according to my previous recollection, there were other materials, PVC pipes and other materials were tested. The maintenance department had tested different material.

So, if we tested it, we wouldn't uninstall it, if it worked. It might have been that type.

Q. Just now, you mentioned that for re-plumbing works, aside from installing interior units, so re-plumbing

would install all the pipes. So when you do re-plumbing, it has to withstand pressure, so it has to withstand the same pressure before re-plumbing? It should be the same?

A. Not necessarily, because a lot of times, when we do re-plumbing, the pump room might undergo some improvements, some amendments. If we have water pressure complaints from the top storeys, then in those cases our colleagues, after discussion with Waterworks, we might make some improvements to the pump.

So the water pressure might not be the same as before.

Q. Because of individual circumstances, if there's insufficient pressure, so you had pressure when you do re-plumbing?

A. The whole pump room, we would have to make changes. That would involve other engineers. They would have to assist.

MR E CHUNG: I have no other questions.

Re-examination by MR YIN

MR YIN: Mr Wong, I would like to summarise your evidence. You are aware that the ACQWS -- Mr Khaw went through that with you. We know that in paragraphs 8 and 9, especially paragraph 9, in ACQWS, in G2/982 there's a sentence there that reads:

"(In English) In the UK and USA, the most common problem is the presence of lead in water since during their development stage, lead pipes and lead-soldered copper pipes were widely used."

So that sentence says in the UK and US, a common problem is the presence of lead in water, because during their development, at one time lead pipes and lead-soldered copper pipes were widely used. Just now, you gave evidence saying that was just an introduction; the focus was actually on water discoloration.

I would like to ask you your personal knowledge. You say that when you were in school you heard that lead pipes were used overseas; you were aware of that. You said, if I remember correctly, you have never heard of lead being leached from copper?

A. During the meeting, I have not heard of that.

Q. Therefore you should not know that prior to the 1980s, in Europe and the US, they had used solder containing lead.

CHAIRMAN: (Chinese spoken).

MR YIN: Prior to the 1980s, it was very common to use leaded solder.

CHAIRMAN: Where did you read that?

MR YIN: We get that from the literature. We can go through that later.

In the 1980s, they had introduced legislation saying that leaded solder should not be used, but later on, after it was banned for ten-plus years, at the end of the 1990s they still found that plumbers were using leaded solder.

You weren't aware of that?

A. No.

Q. In other words, even though the legislation prohibits -- requires lead-free solder, the specifications call for lead-free solder, but local plumbers will say that they were not aware or they would knowingly use inappropriate solder; you are not aware of this circumstance?

A. Well, at that point, during the meeting, it had not caught my attention. Of course now I would have more knowledge and I would know that metal contact could lead to that. But at that point we just knew that we should not use lead pipes and lead fittings. So that's all we knew back then.

MR YIN: I have no other questions.

CHAIRMAN: Thank you, Mr Wong. You have given your evidence. You can leave now.

(The witness withdrew)

MR YIN: Chairman, our next witness is Mr Chan Siu Tack.

MR CHAN SIU TACK (affirmed)

CHAIRMAN: Please take a seat, Mr Chan.

Examination-in-chief by MR YIN

MR YIN: Mr Chan, in response to the Commission of Inquiry, you had provided a written statement. I will read the statement for you.

(Statement read in English)

Mr Chan, you heard that I read out your statement.

Do you have any changes to be made?

A. No.

Q. Would you like to adopt this as your evidence for the Commission hearing?

A. Yes.

MR YIN: I have nothing further.

CHAIRMAN: Thank you.

Cross-examination by MR KHAW

MR KHAW: Mr Chairman, when did you actually join the Housing Department?

A. It was in 1984.

Q. By about the year 2000, we understand that there were discussions as to whether the main contractor should be allowed to use copper pipes. Were you involved in these kinds of discussions?

A. I am a structural engineer by profession. In the year 2000, I worked for the construction division. I was

responsible for structure, and I wasn't involved in the design of plumbing.

Q. So you were not involved in discussion?

A. No.

Q. When did you formally join the Estate Management Division?

A. I was posted to the Estate Management Division in 2009.

Q. From 2009, you were posted to the Estate Management Division. Were you involved in any maintenance of plumbing works?

A. My colleagues reported to me that there were re-plumbing works that were still outstanding, but that was the fag end of the project. We started the project in 1995. By 2002, most of them have been completed, except one or two housing estates where we had to do partial replacement, and the situation was different than before.

Q. So, when you took over, the re-plumbing work was coming to an end. What about new construction, new projects?

We understand -- we heard from Estate Management staff that for new projects, during construction they use solder joints, but the Estate Management Division would use compression joints. Were you aware of that?

A. It was when I joined the EMD that I knew about the re-plumbing. We used compression joints. The reasoning

was that these units were occupied and we try not to use soldering, because that would be a fire hazard, and also the bad odour would become too much of a nuisance to the households. So, for the EMD, we would not use soldering joints. We would use compression joints. I would say 99.9 per cent we used compression joints.

Q. After completion, there is a warranty period. During the warranty period, the projects do not come within the EMD?

A. Within the DLP, the defects liability period, if there are any problems then we would ask the contractors of the construction division to fix the problem.

Q. After you have taken over the EMD, these projects may come under the defects liability period. If copper pipes had to be fixed, solder joints would be used; were you aware of that?

A. The main contractor of the new project would follow up on the matter, because they would take over the project.

Q. For the adoption of copper pipes, for fresh water plumbing system, lead-free solder had to be used. Were you aware of that?

A. Before the lead in water incident, I didn't know in particular that lead-free had to be used. EMD, we used compression joints for the copper pipes.

Q. So you hardly ever had any exposure to solder joints?

A. We did have welding, but the welding is not the same as soldering for water pipes.

Q. After you have taken up the membership of the ACQWS in 2010, on behalf of the HD --

A. Starting from 2010, yes.

Q. -- from 2010, do you remember, at the meeting, whether there were any discussions of the WHO Guidelines?

A. Well, the WSD would have an regular item on quality of water in buildings. They would say that their standard of testing complied with the WHO standard. It was in this kind of context that we heard about the WHO standards.

The WHO had the 2011 standard but they were still using the 2008 standards. A lot of the members were laymen, not water experts, and they would explain and elaborate the changes in parameters between the two standards. Some were deleted, and the WSD had to develop certain tests using the new parameters. There was a brief presentation.

Q. But as far as you were concerned, you didn't look at the WHO Guidelines, did you? You relied on the WSD?

A. Yes, I relied on the WSD.

Q. Finally, let me put this to you. After the lead in water incident, did you take part in further meetings at the ACQWS?

A. Towards the end of last year, I think October --

Q. 2015?

A. Yes, 2015, October, that was the last meeting, and then someone else took over.

Q. At the meeting, did any discussion take place about the quality of water?

A. They call meetings to review the Quality Water Scheme, the operation of that particular scheme. On the part of the Housing Department, we get the certificates of all the housing estates. The WSD extended the parameters of the testing requirements -- more heavy metals were included -- so the Quality Water Scheme, how should it be reviewed, how should it be implemented and so on.

Q. So the review, aside from the meeting in October and after the excess lead in water incident was exposed, there were some new parameters added. Were there any other explorations where there were some inadequacies, for example the Housing Department or Water Services needed to follow up? Were there such discussions?

A. No.

Q. So aside from the water quality parameters --

A. No.

MR KHAW: I have no other questions.

Questioning by THE COMMISSIONERS

CHAIRMAN: I would like to ask you, in your paragraph 11 you

mention the WSD and HD, there are some half-yearly meetings. Has that been longstanding, for many years?

A. I understand it's been for quite a while.

CHAIRMAN: You don't know how many years?

A. I need to check the records.

CHAIRMAN: So what is discussed in these meetings?

A. Mostly -- well, we have new construction projects. Some colleagues would talk about streamlining the process with WSD, they would look at the submissions, initiatives, and would discuss with WSD. It's working-level people.

Sometimes, as in paragraph 11, WSD might have new initiatives, the water quality programme, for example, and recently, last year, "Save 10 litres", a promotion programme, where flow controls could be attached to the facets. It was introduced in those meetings and we sought HD's approval and support, then we would install it in some estates.

So we would talk about those kind of matters.

CHAIRMAN: You said it's working level. Would engineers attend?

A. Senior, chief --

CHAIRMAN: What chief?

A. I think CBSE.

CHAIRMAN: That's high level. So the Estate Management,

CB --

A. New works. I said just now, a lot of it is about new works projects and their working methods.

CHAIRMAN: Excuse me, did Estate Management participate?

Would you have a person attending?

A. Our colleague is a senior.

CHAIRMAN: C&D's CBSE was the chair.

A. Yes.

CHAIRMAN: He would represent the Housing Department. And Water Supplies, who represented them?

A. I think it was their counterparty, chief engineer.

CHAIRMAN: And they weren't talking about policies?

A. Some were project-based. We didn't have a lot of big policy matters. For big policy, the WSD would have some initiatives, and they would seek HD support. Whenever they have new initiatives, they would seek us to do the pilot programmes.

CHAIRMAN: So the Waterworks and you have a regular platform for communication?

A. Yes.

CHAIRMAN: Okay. I have no more questions. Anybody else with questions?

Okay, thank you, Mr Chan. You can leave now.

MR SHIEH: We have no other witnesses for today. I would like to go through the list of witnesses for next week.

On Monday, we have no hearing. On Tuesday, we will call Ms Ada Fung from the Housing Department. After Ms Ada Fung, we have the CIC talking about their curriculum, different trade licences, the curriculum. So we forecast Ms Fung will be on Tuesday and Wednesday, and then we have CIC, and then Mr Lam Tak Sum might be able to return. Then on Thursday we have a VTC witness.

Just now, Mr Yin told me that Ms Fung has an important meeting, and she thinks that she can return by 11 or 12, and Mr Yin has suggested that we start late, at 11, or we could call one of the CIC witnesses, so we don't have to start late.

We don't have any big preference or objection, because Tuesday-Wednesday we have three witnesses. There should be sufficient time. We do not mind taking either option. We could either call Ms Fung and then call the two CIC witnesses, or we can have one of the CIC witnesses called first and then Ms Fung, and then the second CIC witness.

CHAIRMAN: My only concern is will the CIC witness be inconvenienced if he arrives and gives one hour of evidence?

MR SHIEH: I talked to Mr Yin. If the CIC witness has given one hour of evidence and then Ms Fung arrives, we will continue with that evidence and won't interject Ms Fung

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

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C in the middle. She can wait. C

D MR YIN: Chairman, we would ask for some indulgence. If she D
E goes first, the understanding would be the witness would E
F complete their evidence. F

G MR SHIEH: Even with indulgence, we cannot ask them to G
H appear immediately. H

I CHAIRMAN: We will hear the CIC witness first. I

J So this concludes this week's hearing. Thank you. J

K (12.22 pm) K

L (The hearing adjourned until 10.00 am L
M on Tuesday, 26 January 2016) M
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