

## 2004 Australian National Plumbing Forum

This series of reports summarise the papers presented to the 2004 Australian National Plumbing Forum held 3 to 4 September 2004 at the Sheraton Perth Hotel, Perth Western Australia and also provide conclusions reached by the attending Plumbing Professionals from Australia and the World. The Forum was hosted by the Institute of Plumbing Australia Incorporated.

Note: The following has been transcribed and condensed from audio recordings and notes of the forum proceedings and not from written papers provided by the speakers. As such, matters in these reports do not constitute advice of any kind but provide a general overview of items discussed. Anyone reproducing, quoting or acting in any way on items contained herein do so at their own risk.

Friday 3 September 2004 – Forum Session One

Health and Plumbing – Russ Chaney

Perth Water Future – Dr Jim Gill

Regulations and Codes – Commissioner Michael Kefford and John McBride

So we had health and plumbing to start with and those are the points that our committee came up with out of the talk by Russ on things that may effect plumbing systems in Australia. It obviously came about the possibility that stack vent discharges are a problem. Or may be a problem and there has been no real research done yet apparently on just what the actual distances are required for that so maybe someone might have some ideas on whether they think what we do now is adequate or whether that it is a serious question that should be referred back to the standards people who write the standard that we work under AS3500. I will open the floor for that discussion or any other point on the screen we won't take them in particular order I will just ask you to have a look at them if you have got some thoughts on them as roving microphones are going and we will have a discussion.

[Inaudible in background]

That is exactly, and actually was proved in Hong Kong, that the prevailing winds carried the virus to other buildings by air so I mean it travelled quite a number of meters or it is possible that it did that we are not 100% on that I don't think.

[Inaudible in background]

The current regulations require that at least one vent is an open vent on the system so...

[Inaudible in background]

Ok well probably a more important question that we should be looking at is the floor waste and trap seal situation I mean the vent my understanding that it's a possibility that the World Health Organisation will more than likely look at this venting situation along the way or they may call upon the World Plumbing Council to be involved in that they have already identified that as a possible problem more at home we have got the trap seal situation and one that concerns me particularly in trap seals and is the traps in plant

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rooms - air handling unit plant rooms. You see many buildings and a lot of the older buildings the traps used to go to storm water they now go to sewer they might have been changed over to sewer and they don't have adequate trap seals and you have got air handling units spreading everything through the whole building. I see that as a major risk that needs to be enforced as much as anything I mean the regulation authority there the traps should be sealed and maintained.

[Inaudible in background]

That is what I am alluding to I mean they don't have a fixed source of water I mean they rely on condensation from air handling units or all sorts of odd things that don't always deliver water.

[Inaudible in background]

Well that could be probably one recommendation that could come out of this that will reinforce to the standards that trap sealing is a very important point, needs to maybe be tightened up and one identified risk that we picked up at this forum is the very thing that XXXX with a, or any fixture just charged by a manually turned on tap and there are a number of different instances where that happens so maybe that is something that could come out of this forum as a recommendation to tighten up within the standards on general trap charging of all types of traps.

[Inaudible in background]

Yes well partly listed in the last one we talked about knowledge of industry operatives and so on which you know touches on that and coming out of those what you have just mentioned about the training and so on and there is a fair bit of talk about continuing professional development being brought into, down into plumbing licensing and I think it probably even needs to be brought into tradesman level because the way plumbing fixtures change, regulations change these days is that there is no way that anyone who hasn't touched a plumbing book for 10 years knows what is going on now. So I believe some states have that I believe that has been introduced in one of the Eastern states maybe have a comment on that.

[Inaudible in background]

So is there a feeling that the regulations should be tightened in that way?

[Inaudible in background]

Okay well I don't know that we have come up with anything particularly positive out of that discussion as far as conclusion is concerned at this point in time, maybe we move on to the next segment we will have another go at this at the end of the forum tomorrow and anyone that thinks more about these things we will flash them back up again and they might have thought a bit about it they might come up with some more ideas.

[Inaudible in background]

Yes well that point of view has come out in the World in the consensus statement that came out of the last symposium on SARS that the, [inaudible in background] yes I realise that, yes this the reason that you may or may not be aware the reason that the

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SARS situation was worse than a lot of other diseases as far as transmission is that it is a corona virus and that means that it is in a droplet of moisture that protects the virus so the virus actually lives a lot longer than an unprotected virus if you like to say that. So a lot of the viruses we get away with that the things that are happening we can probably get away with them because a lot of the other viruses once they get out into the open air from their habitat that their borne in they die off fairly quickly. It is my understanding that the corona type virus will retain its capacity to harm a lot longer and that is why it is more readily transmitted in the way it has been so we probably have got away with a lot of problem plumbing in the past because the viruses that have escaped haven't travelled very far.

Yes I think if anything of a conclusion could come out of this discussion on transmission of disease through faulty plumbing and poor plumbing is that very fact of trapping and maintaining trap seals either trap seals that don't have anything going into them need to be maintained by some sort of automatic flushing or the maintaining of trap seals through proper venting and so on, on fixtures that could siphon so the whole trap seal and the idea of trap seals really needs to be made very public to the general public and to the regulated people that are putting together regulations how important a trap seal and the maintain of that trap seal is and that is probably something that we could maybe word up and over the period till tomorrow and we will put it up as an actual conclusion and see if you will vote on it.

Well I think the idea of this is if we do come up with some conclusions out of this forum over this day and a half the idea is that we take those conclusions away as the conclusions of a group of professionals and circulate those as widely as we can to regulators, health departments and the likes of what your talking about, Real Estate people, people in charge of buildings, maintenance people, this came out about the Amoy Gardens situation where the actual maintenance people on in the building were not trained in plumbing and they were doing all sorts of things with the plumbing and that is something that happens all over the place. I do quite a lot of work in the country in hospital situations and the hospital maintenance in a country hospital is usually done by the fitter. If you are lucky it might be the electrician, it might be an electrician that travels around the six or seven hospitals, I am talking about small country hospitals. They don't know what they are doing they know how to fix the things that drip or leak or get another valve and put it in but they don't understand the regulations, they are not allowed to do it. The government employees and the government are allowing it to happen and this is happening every day of the week. I have seen them fitting sterilisers and all sorts of plumbing products, without any thought to backflow prevention. A lot of these fixtures come in they have got a nice little tick on the side and it says type tested or B52 or some thing on the side with a standards mark and they think you can do anything you like with it. I mean that is about as good as some of those stickers are. I have seen autoclaves with a beautiful red sticker on the side with four ticks, five ticks whatever they are type tested or all sorts of different stickers sometimes they have got two or three standard stickers on it. You immediately look at them and you can see the cross connection without even walking in the room. The people putting those in are not plumbing people at all they are not even regulated. No one even sees them go in

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We move on to Perth's water future. How can the plumbing industry help the water corporation? Long-term sustainability. In Western Australia I would probably think that the two top ones are probably being fairly well acted on with the Master Plumber Organisation with their tie up with the Water Corporation and the Water Wise plumber schemes, there has been a bit of criticism about some of these schemes whereby plumbers tend to think they don't get too much out of them in some cases but it is all general knowledge and they should be using that as part of their own, they shouldn't just do those schemes and then expect the Water Corp to provide them the work, they should be using those schemes as a further education and then using that education to get their own work so I don't think there is any, that they should be sitting, I have had a few people come to me and say they have taken these water wise courses and they haven't got any work out of it and I say well what have you done about getting it? But I think you know those two, in WA itself it probably has been tackled fairly heavily by the MPA and the grey water situation is something that really needs some work doing on it it needs some work doing on it but cost-wise as well as readily available information on it for both plumbers and the community there is quite a number of schemes out there. Most of them tend to fringe on being commercial schemes reduced in size or capacity because of the stringent regulations put on them by the health department. I don't like to think maybe that reducing those regulations because of what we are talking about in the earlier segment about transmission of disease but there must be somewhere where we can get this happy medium that we can utilise this source of water more readily but I haven't got the answer I am just talking head up here.

On the fourth bullet point there has been some consultation on the local level in Western Australia and we must remember this is an Australian forum so don't let me harp on WA only, there are other people from other States and we want your input into this it is not a WA thing it is just the fact that on this subject that we have had discussions with the Water Corporation as far as looking at setting up a scheme where we get some major contractors and plumbing consultants involved in audits of commercial properties on a basis of doing them as an assessment of water use rather than an audit. To do proper water audit on a commercial building is quite expensive because as an audit it has to be proved and has to have a water balance to allow it, in my opinion, to be allowed to be called an audit. But if an assessment similar to the domestic one is upgraded to the type of fixtures and type of water patterns of water use in the commercial aspect if we can build on what was put together by the MPA on a domestic level.

The water corporation are keen to have a group of people that can provide that service to small operators like motels and small hotels small factory situations where they don't see the benefit of spending many, many thousands of dollars on a consultant to come in and do a proper full audit of the property. But they would be prepared to pay a few hundred dollars for someone to come in and do an assessment, and then that assessment could be written up into a standard format so that they could take it to a couple plumbers and have it quoted and have all the work done. Is anything like that been thought about in other States do you know?

Ok so what about the thought that we should be looking within the National regulation frameworks of insisting on water planning in large establishments?

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Yes I believe there has been work done in a local scene with developers and that at the moment.

Okay we seem to have done Perth's water future to death for a while.

Yes I mean there is a few of you who would have gone out to the treatment plant in the bus the other day where they are filtering some of the outfall from the major wastewater treatment plant and using it to water the oval down the road. Probably we should be starting to lobby governments to say you know you are going to spend 20 million on desalination plants what about the similar sort of filtration for the outfall from the sewer plant and pumped into its own holding reservoir and pump it through purple pipes to all the new developments or developments where you can pipe it too and come up with the two pipe system of water. I mean if you think about saving water and about reusing water that the fiddling around as we just found out and looked at is the fact that gardens are getting smaller so the amount of water you generate you can't use anyway and then you have got the problem of over watering or whatever and then you might, you get to the point of having smells and all the rest of it. Maybe we shouldn't be looking at so much at the individual house but at the wastewater treatment situation. I mean if you spent 20 million on doing that on a couple of developments you probably would make a fair bit of water.

Yes I mean when you start looking down what we are talking about at the moment where you are going to put a lot of small plants all over the place you are really starting to multiply infrastructure dramatically why not the bigger plant in the central location of the major waste water treatment plant and then pay for some extra pipe work I mean that to me sounds like the better option although you have taken the water several kilometres that way treatment and bring it back several kilometres at least you haven't got a pilot plant out here doing uneconomically treating sewerage when you have got a waste water plant a couple of kilometres down the road. So I mean the pilot type plant that they have got at Subiaco the one where they are going to be reclaiming water at Woodman point they are obviously going to work and they are saving water but maybe we should be looking at the bigger picture and the bigger plan similar as I say to spending 20 million on desalination plant why not spend similar money on a reclaim it water plant? And reclaim it you can actually reclaim it to drinkable level anyway these days if you wanted to but I mean the more economical way of doing it is to use probably the double pipe system. I believe it has been used in other parts, even parts of Australia I think the double pipe systems around now in the Eastern States I have seen pictures of the purple pipe going in.

I mean it is definitely a sore point with many people that we are treating water to World Health drinking standards and then pouring it on the garden I mean it is a real conundrum that one. And the dual system would make that work. I think it is probably something that we could pursue somehow and come up with some sort of a recommendation to say this should be certainly looked at or find out whether it is being looked at.

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On to regulation. I think the top one is a starter as to what do we support the idea of a set of National codes? I mean we have a set of national codes but it is a matter of everybody taking them up I was just talking to someone in the exhibition this week just now and I find that and I wasn't fully aware of it but the latest Australian AS3500 is not being taken up by many of the States including WA from my understanding. We are still operating on revisions from the 90's.

Ok well I think it would be fair to say that everyone's pretty happy with having a set of National codes would that be a true statement?

Well that sounds like a good suggestion of a place to start and considering we don't have the facilities of having a plumbing industry commission we have only got a plumbing licensing board that we are trying to build into a bit more than what it was. Still a long way short of an actual industry board or industry commission and therefore in my understanding doesn't have the teeth to go too far off the track on those sort of subjects other than actually licensing and regulation of the actual plumber and in some cases where they can actually do the, get into the illegal plumbing more on the side of the installation by an unlicensed person rather than the actual product that what it is coming out to me. So from this type of forum we should be looking at maybe some sort of a statement to bring it out in the open that the use of non-approved products are a health hazard. One way of putting it I mean they are not only a health hazard they are an economic hazard for insurers and for householders and they can pose a health situation so maybe we could come up with some sort of a statement to that effect.

Yes I think we are starting to get product with those sort of signage on them and I think we probably should thank Victorians for that because probably selling into Victoria now have to do that sort of thing and we probably are getting the benefit of that would that be fairly true?

Okay well we will just clean it up as it is coming up towards 5 o'clock. The other couple of points that came out of this segment as far as the bullet point situation we have got the product identification on a national level as I don't think there would be any argument against that sort of a statement I mean it is sort of happening anyway at the moment although as Michael said there is going to be other regulators, quality insurance coming into the situation which might sort of bastardise that a bit. Is, that, would that be true? So it is probably something that we should be once again maybe making a statement on the fact that we do require standardisation of product across Australia and if they are going to allow this deregulation if that is the right word of quality assurance of product, we need that deregulation to take into account that it has to meet certain national standards regardless of who tested it.

The water pressure idea is obviously quite a good one I mean 500kpa is probably fairly average around Perth apart from the odd high areas in the hills and so on. So we don't have, we have certain areas certainly from memory up in the hills there are some area's where it is quite high and you need to put pressure reduction on the house to make it work, even as far as your hot water systems are concerned. But it certainly is a good idea to reduce, get the pressures down in some cases, most of the tap ware that comes in I think from overseas the ceramic cartridge mixer taps and so on they are not designed to operate at high pressures they are designed to operate at lower pressures.

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Well I think there is only one manufacturer of cartridges in the world in the world.

Yes how do you regulate that does it become part of AS3500 so then it is up to their individual to do it. So it is actually going to be an individual thing.

The forth bullet point was to do with the introduction of water recycling storm water retention reuse grey water retention reuse within the building construction. We are moving along towards those sort of things with new building regulations to where they are required to meet certain environmental standards and we need to get into that bandwagon to be part of that I mean builders will take the easy way out they tell your plumber to put a bit of insulation around the hot water pipe and put a bit of insulation in the ceiling and they sort of win their points and they don't do any more than they have to so maybe we should be looking down that line and reinforcing that requirement to be maybe even upped a bit or whatever but my understanding is that the bare necessity in the housing industry is not a lot more than what they were already doing apart from as I say maybe insulating some hot water pipe and doing a bit of other insulation.