

SoPHE NEWSLETTER

WINTER 2023

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Welcome to the first edition of our brand new SoPHE Newsletter. I hope that you have all had an enjoyable Christmas break, and (possibly somewhat belatedly) a very happy and prosperous new year to you all as well.

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GET SoPHE MEMBERSHIP TODAY

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Welcome to the first edition of our brand new SoPHE Newsletter. I hope that you have all had an enjoyable Christmas break, and (possibly somewhat belatedly) a very happy and prosperous New Year to you all as well.

Writing this introduction over the Christmas break, I realise that this will be the first time that I have written anything to you as the 'new' chair, and I can only apologise. But, to kick us off in 2023, we've decided to take a new direction with a newsletter and say goodbye to our previous journal of years past.

In our new style of newsletter, you'll receive updates on what SoPHE has been up to, alongside the all-important contemporaneous information on what is planned for the next few months – something I am aware has not been done well for some time. We'll still feature some technical content, and there is an interesting update from Steve Vaughan on domestic hot water temperatures, but a full technical article on the subject will be published in the CIBSE Journal – giving the subject a wider audience and proudly flying the flag for SoPHE within the general CIBSE community.

Amanda Stanley has stepped forward and will be taking over the role of chair of the Communications Group from James Ziebarth and leading the production of our new SoPHE newsletter, so a big thank you to James for his past efforts and wishing the same success to Amanda with the newsletter. 2022 has been a fantastic year for SoPHE. Our membership has remained steady, and we were able to run both our Manchester and our London dinners, as well as a technical conference, a Young Engineers Network/ Plumbing Centre of Excellence training day and competition and a manufacturers exhibition. All of our groups are meeting regularly again and our online professional development continue unabated.

It now feels as if we are back to normal, although I can see that with office and home working arrangements permanently redefined for most of us, ad-hoc face to face meetings will be less frequent. Therefore, we have another full calendar of events, such as the upcoming technical conference in March, to help bring us all together in person whenever we can.

All of our committees are continuously working in the background to provide successful events and/or useful learning and technical guidance. For 2023 I am particularly pleased to be able to say that our Industrial Working Group is planning a new summer networking event – but you will have to wait for the April edition of the newsletter to hear more about that - in the meanwhile I hope you like this one!

Best regards,

Peter White
CEng MCIBSE FSoPHE,
Director, PHDC



SOPHE MEMBERS: We want to hear from you

We need you, our fellow members of SoPHE, to help us in producing this Newsletter. Please share the love and tell us of issues you are facing in design and installation, grievances or useful tips and tricks. Other thoughts are: how can we help you?

OUR MISSION STATEMENT

'To achieve technical excellence in the field of public health engineering through knowledge sharing including peer reviews and undertaking research and development of innovative solutions in view to promote quality and sustainable designs'.

HAVE YOUR SAY

It has been some time since our last issue and lots has changed in our industry. We would appreciate your findings, so please send your articles into amanda.stanley@introba.com.

Amanda Stanley
FCIPHE MSOPHE

SPOT THE MISTAKE(S)

As SoPHE members, one of our roles is to uphold and encourage high standards across industry. I came across this on LinkedIn- can you spot how many mistakes there are?

If you have any images you would like featured, please email them to amanda.stanley@introba.com.



Introducing the
DORCHESTER
DR-SG
stainless steel water heater

Contact us to learn more



UPCOMING EVENTS

Save these dates

	FACE TO FACE				CONFERENCE & DINNER
	ONLINE CPDS	LONDON AND SOUTH EAST	NORTHERN	MIDLANDS	
	MA	AS	MA	DS	
FEBRUARY	Wednesday 22nd February Can sustainable design help solve the UK's drinking water dilemma? Chris Smith (ZIP Water Heaters Ltd)	Wednesday 15th February High rise research Introba office at 5pm 150 Holborn, Bloomsbury, Camden Town, London, EC1N 2NS Barry Stubbs & Tony Hill (Aliaxis)			
MARCH	Wednesday 29th March How to specify for hospital buildings Will Berry (Delabie)		Wednesday 15th March Flowfit, the future of pressfit Adam James (Geberit UK Ltd)		Thursday 23rd March Technical Conference: Fire
APRIL	Wednesday 26th April Mitigating the risk of water leaks in property Tony Gorman (Aqualink Detection Ltd)	Wednesday 19th February Reliable wastewater removal in commercial buildings Introba office at 5pm 150 Holborn, Bloomsbury, Camden Town, London, EC1N 2NS Sam Ely (Grundfos)		Friday 14th April Water Neutrality SoPHE Technical Symposium	
MAY		Wednesday 17th May 17 th Hyclean – Water Management Venue TBC at 5pm Andrew Aronald (George Fisher)	Wednesday 17th May Water treatment in commercial heating systems David Webster (Sentinel Performance Solutions Ltd)		Friday 12th May 11 th SoPHE Northern Dinner The Midland Hotel, Manchester

SAVE THE DATE: SoPHE DAY CONFERENCE 2023

BOOK NOW
CLICK HERE

After last year's success, SoPHE is pleased to announce that plans are being put in place to host a SoPHE Technical Conference on 23rd March 2023.

The 2023 Conference will have a focus on fire and will present a range of peer and expert presentations outlining the latest developments in fire strategy

and fire suppression for domestic and commercial premises, as well as the latest policy and guidance for building services engineers.

Expect to hear from advisors on regulatory and planning guidance, and industry experts talking about solutions, case studies and presentations how the fire regulations influence the water regulations and vice versa, and the impact on the built environment.

More information will be circulated in the new year. For the latest announcements about the conference – check the CIBSE SoPHE website or join the SoPHE Group on LinkedIn.

If you want to be involved in any way, please contact sophe@cibse.org for more information.

Kris Wojcik,
Business Development Manager,
Jets Vacuum AS

Public Health specialists for 98 years and counting...





See more here

A HISTORY DEFINED BY TRUST,
A FUTURE DRIVEN BY PURPOSE

FROM STRENGTH TO STRENGTH:

The Society of Public Health Engineers Annual London Dinner 2022

The Society of Public Health Engineers (SoPHE) rounded off a productive and successful year with their annual London dinner at the Royal Lancaster Hotel. The event was attended by over 350 people across 35 sponsored tables, bringing together professionals from across the public health industry.

CIBSE would like to extend their thanks and appreciation to all those involved in its organisation: the SoPHE Steering Committee, the SoPHE Industry Working Group and the generosity of the sponsoring SoPHE Industrial Associate members - without which the dinner could not take place.



The night was an opportunity to celebrate and award achievements within the public health engineering sector. Freya Scott (Arup) was named SoPHE Young Engineer of the Year following her work at the 2022 SoPHE Plumbing Centre of Excellence/ YEN plumbing competition. Rachel Yates (Arup) and Jess Humphries (Ramboll) were awarded joint second place. We would like to thank Pump Technology Ltd for their generosity in sponsoring the prizes for the Young Engineers awards.

The Chris Sneath Bursary was presented to Kevin Buchanan for his achievement of Level 2 first prize. The night was concluded with awarding the achievement of SoPHE Honorary Fellow Phil Salmon (Eng. Tech, MRSH, RP, MCIPHE, SoPHE Hon. Fellow) for his incredible contribution to the public health industry.

Jack Batley,
Membership Services Coordinator,
CIBSE



CAN WE COOL OFF THE CLIMATE EMERGENCY WITH HOT WATER?

Update from
Build2Perform Hot
Water debate

At the CIBSE Build2Perform event on 30 November, SoPHE debated the important issue of hot water delivery temperatures. The debate was chaired by Jassim Daureeawo with the following panel members: Rob Boyer (AECOM), Neil Essam (HDR), David Harper (Harper Water), Neil Mike Ralph (NHS Estates), Steve Vaughan (AECOM) and Peter White (PHDC). Panel members were selected to ensure the debate was balanced with those 'for' and 'against' lowering hot water temperatures, focusing on the pros and cons relating to reducing the industry standard approach of temperature regime for Legionella control within domestic hot water systems.

There was unanimous agreement that we are in a climate emergency, and we need to re-write some rule books. Providing efficient and safe public health engineering designs has never been so important but it cannot come at the price of creating a health risk. In many cases, domestic hot water energy consumption is significantly higher than the building's space heating energy demand, a critical opportunity for changes to 'the normal' hot water designs to make a real difference. The current trend to use air source and water source heat pumps for hot water generation also has a part to play but without doubt it is the climate emergency and priority to reduce energy consumption and strive for



net zero carbon buildings that is paramount. Surely, assisting to avert a climate catastrophe is the most important health priority? The initial debate focused on the CIBSE Guidance Note (*Domestic hot water temperatures from instantaneous heat interface*

units, 2021), which provides clear guidance on delivering instantaneous hot water at 50°C from HIUs as part of a low water content system (max 15 litres). The guide clearly defines the constraints, with the Health and Safety Executive considering a typical scenario

Guidance Note: Domestic hot water temperatures from instantaneous heat interface units

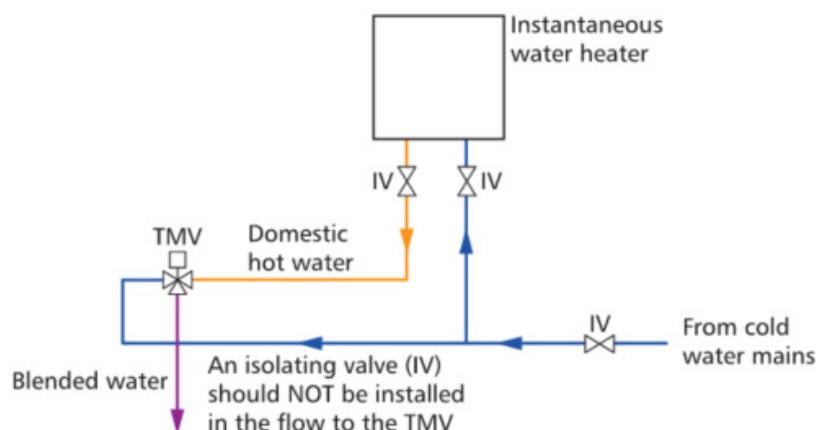


Figure 2 Pipework arrangement to prevent hot water bypass in event of cold water failure

as a low-risk system, with regard to Legionella risk. The CIBSE Guidance Note also provides suggestions to tackle the current technical constraints with thermostatic mixing valves (TMV) relating to mixing and approach temperatures. Overall, the debate panel generally agreed that they were comfortable with the lower temperatures and design approach detailed within the CIBSE Guidance Note, particularly when in

a residential application. The second part of the debate moved to consider the challenges relating to larger installations. This is not as straightforward, but the general consensus was that it is necessary to revisit regulations and how these are interpreted. It's not a case of 'not broke don't fix' when it comes to temperature regime for Legionella control and now is the time to challenge this standard industry approach.



Although using biocide as the primary method of Legionella control is stated as an alternative to temperature regime within HSG274 Pt2, it was agreed that this is not the norm within the industry. Concerns were raised with the monitoring methods and time-scales for routine analysis if biocide was used and how the technical constraints relating to TMV approach temperatures are overcome. There are also compatibility issues between some biocides and pipework materials, so caution is needed. Concern was raised that installing a central biocide treatment plant is a potential single point of failure; ensuring regular maintenance is carried out is also a big risk.

However, with a temperature regime solution comes the requirement for TMVs to avoid scalding risk in some applications. There is a risk that use of these valves could lead to pasteurisation cycles, and there is also a

potential increase in risk of overheating the cold water supply. Temperature regime also has no residual effect and has a limited effect on many pathogens (which is a critical shortfall within some healthcare projects), unlike many biocides. The application of low temperature (designing and operating the domestic hot water system at 42°C with no TMVs) and central biocide treatment within large parts of a central London hospital is a prime example and has successfully controlled Legionella for over 11 years within the domestic hot water system.

Questions were also raised around the potential over-specification of TMVs and whether they should be risk assessed in or out of a design; for example with mixer taps commonplace does this satisfy the bulk of applications (with exception to DDA/healthcare requirements)?

This is just a snapshot to give you a flavour of the debate. We will follow up with a SoPHE members event very soon and although the discussion will no doubt continue, we were all in agreement that as public health engineers, we all have a real responsibility to contribute to reducing carbon and the climate emergency... we can make a difference!

Steve Vaughan,
Technical Director, AECOM

SoPHE continues to strengthen its collaboration with CIBSE's Society of Digital Engineering (SDE). We are pleased to announce that a peak flow assessment and pipe-sizing digital tool will soon be released. This tool is based on current standards and design guides, and will soon be available at the link below.

<https://www.cibse.org/knowledge-research/knowledge-resources/knowledge-toolbox>

Another tool to enable designers to size grease-separating equipment in buildings is underway, kindly sponsored and supported by one of **SoPHE's IWG** associates: **ACO**.

ACO has also provided technical input during the drafting of the forthcoming **CIBSE Technical Memorandum on grease management**. Release date of the document will be communicated via LinkedIn, the CIBSE Knowledge Newsletter, and the CIBSE Journal in due course.

The selection process for principal authors of Guide G Public health and plumbing engineering is almost complete, and the committee is hoping to have all authors lined up by end of January 2023 to move to the next step.

A full day technical conference was organised by SoPHE on the 24th of March 2022. The theme of the conference was **'Drivers for change towards water and energy-efficient designs'**. The event was well-attended and was the first in-person event for SoPHE post-COVID.

The next full day SoPHE Technical Conference is currently at the planning stage, will be focused on 'fire protection' associated with building services. The organising committee has met, and a detailed proposed programme will be finalised soon. The conference will aim to provide better insight on the recent changes associated with fire protection systems in buildings in the UK and implications on our design.

SoPHE also participated at CIBSE's Build2Perform event on the 30th of November 2023. The setup was different from previous technical events as we had a panel of speakers who were debating **pros** and **cons** of **lower domestic hot water distribution temperatures**. Refer to Steve Vaughan's article summarising the debate outcome.

If you have any suggestions relating to technical content or guidance, or if you would like to get involved with the SoPHE Technical Committee, please contact me at: jassim.daureeawo@vortex.uk.com

Jassim Daureeawo
SoPHE Technical Chair



Pictured (left to right): Lutz Johnen, Stephen Royle, Julian Waumsley

This year has been one of regrowth for the SoPHE Young Engineers Network. We have tried to assess where those within the committee and in our networks felt we had knowledge or experience shortfalls. We have since approached the SoPHE committee to assist us in targeting these areas and help us find ways to plug them going into 2023. The main areas we identified were: the lack of site experience due to the pandemic, fire suppression design, and domestic hot water generation incorporating the latest technologies.

Therefore, we are planning two technical events: the first is on fire suppression, and an event on domestic hot water generation will take place later in the year. We would welcome any volunteers willing to talk on design aspects and 'watch it' notes with regards to these subjects.

As you may have seen we have started a series of site visits. These walks are aimed at helping YEN members who have had limited site access through the pandemic gain skills and knowledge alongside their peers. To attend these visits please contact myself or any of the committee's members to be added to our list of future attendees. Thanks to Sanjay Modasia and JA Brooks for this opportunity.



I would like to pass on my thanks to all YEN committee who have helped through the year, and to the SoPHE Committee & IWG who have helped with events or knowledge sharing.

If you would like to join the committee or offer support to YEN please email joe.russell@wsp.com.

Joe Russell (WSP)
Engtech LCIBSE
SoPHE YEN Chair