CHANGE OF DIRECTION
New Chair at the helm

Old Standard Extinguished!

Kicking up a STINK

Regular features
Around the bend
Go with the Flow
Industry News
Make the connection to our comprehensive range of durable, light and easy to install stainless steel pipe and you’ll get the ultimate complete drainage system as well as class leading customer service.

ACO PIPE® - Make the connection
Welcome to your latest newsletter....

Welcome to your new and improved edition of SoPHE News. The SoPHE Editorial team are committed to provide articles of interest to motivate and inspire you to get more from your membership, as well as more out of everyday work.

We’re extremely passionate about bringing you the latest in news, trends and innovations that impact you from around each corner of the UK, as well as around the globe.

In this bumper packed edition, Linda Delieu reports on page 8 from the recent AGM, where Chris Northey stepped down from his successful stint as the King of Plumbers, (see page 10) aka SoPHE Chair, with Steve Vaughan stepping up to steer the society in a new direction.

Our regular feature ‘Go with the flow’ coincidentally features new SoPHE Chair Steve Vaughan, who allows us to peer into what makes him tick on page 5.

Dan Collins sparks up an engineering overview on the recent changes to the domestic and residential sprinklers on page 4.

For your scratch “n” sniff pleasure PH engineer, James Ziebarth shares his once in a lifetime experience of venturing beneath the hustle and bustle of London to the dark and mysterious London Sewers on page 7.

Each of our regions have been active in bringing to you CPD seminars to expand your knowledge and further develop your skills, see page 11. We’re pleased to announce that the East Anglia region is going from strength to strength, as well as the Scotland region relaunch. SoPHE South West is about to spring into the action with Andrea Bertoneri in the process of organising CPD events....watch this space.

SoPHE selfie!

Tweet or email us with your photographs of reading this edition of the SoPHE News in obscure places, except the toilet of course.......extraordinary winner’s photos will be published in the next edition, plus a prize for the most unique!

Whether its making your day a little more enjoyable, or helping you increase your knowledge and awareness with the technical articles, SoPHE News wants to hear and share what matters to you. Connect with SoPHE News online. Tweet us @The_SoPHE or search for the SoPHE News group page on LinkedIn.

Now sit back, relax and enjoy the read as we help accelerate your success.

The SoPHE Editorial Team.

Advertising or editorial queries Paul Angus info@sophe.org.uk

SoPHE LinkedIn Technical Discussions

The SoPHE LinkedIn group has 560 members and an ideal platform to reach out to your SoPHE colleagues to discuss new technologies, raise technical queries and keep up to date with what’s going on with SoPHE in your region.

Contribution

Edior: Paul Angus info@sophe.org.uk
Publisher: Tim McDermott - Build PR info@sophe.org.uk

Contact SoPHE:

sophe@cibse.org


Cover Image: Inside Abbey Mills Pump Station courtesy of James Ziebarth

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The views and opinions expressed in this SoPHE Newsletter are not necessarily those held by Chartered Institute of Building Services Engineers. SoPHE News is circulated to Public Health engineers who are members of SoPHE, as well as CIBSE.
BS 9251 - Fire sprinkler systems for domestic and residential occupancies, was extensively revised in October 2014. Here we take a look at the main changes introduced and how the new allowance to use a combined domestic and sprinkler water storage cistern may change our designs. First we examine the parameters for using combined cistern and pumps;

A combined water storage cistern can not be used if:

- The water storage volume is less than the peak combined flow rate of the domestic and sprinkler booster pumps during the designed fire condition or if the required fire water storage volume can not be maintained during normal operation.

A combined water storage cistern may be used if both:

- The domestic water storage volume exceeds the required sprinkler water storage volume.
- The cistern can maintain, during normal operation, the volume equivalent of the combined flow rate of the peak domestic and the sprinkler demand during the designed fire condition.

If the above is achievable, the sprinkler water storage can be excluded from the total volume.

A combined booster pump set can not be provided if:

- Priority demand valves are not installed on the system and;
- The booster specified is not sufficient to provide the simultaneous peak flow rate of both the domestic and sprinkler water demand.

Current guidance states the supplies to sprinkler heads or sprinkler distribution pipework is fluid category 3, do you agree? Is fluid category 3 adequate protection?

It’s up to you to evaluate if combining the storage cistern / booster for the potable water and sprinkler systems is appropriate, but the opportunity exists.

As an engineer, would you be comfortable providing a double check valve as your only means of protection between your potable network and sprinkler distribution pipework, which has potentially been stagnant for several months?

Why not take up the discussion on the SoPHE LinkedIn discussion board?

It started as a pipe dream

Young engineers are the future of the public health industry and SoPHE recognises the importance of inspiring the next generation of public health engineers as well as supporting their development.

In support of this SoPHE are teaming up with CIBSE YEN to create a new young public health network - SoPHE YEN.

This group will hold events about new and emerging technologies, networking socials and technical lectures.

If you would like to be part of this exciting new group, please contact Ruth Howlett on info@sophe.co.uk
Steve, let me start by congratulating you on becoming the newly elected SoPHE Chair, you have big shoes to fill. What inspired you to select public health engineering as your chosen career path?

Thanks Paul. Firstly it’s going to be quite a challenge following the great work Chris Northery has done for the society over the last 5 years. I’ve always enjoyed engineering, at first it was Meccano, although the chemistry set and meth’s (not the crystal by the way!) was also close at hand. The main inspiration was from my father, who is a plumber and this is where I completed my apprenticeship and started to get involved with system designs.

So it all began with a plumbing apprenticeship, how did you find the transition from applying your practical skills, experience and knowledge to the consultancy environment?

I found this quite easy, as whether a plumber or public health engineer, much of our work involves problem solving. As a plumber I also lectured for a while at a local technical college, which also helped to strengthen my confidence, even then I was focused on ensuring others benefited from my knowledge. It must be said though that working in a warm and dry office in London, instead of cold and wet construction sites in rural Herefordshire was quite a revolution.

Your experience at the Metropolitan Police Property Department must have provided you with a wide variety of fascinating and interesting projects, as well as finding yourself in some compromising situations. What was the strangest you encountered?

I was so lucky to join the MPS and work on many high profile projects whilst being mentored by some of the best PH engineers in the industry. Wow, now I think of it, it’s almost 25 years ago since I leapt from the sticks to the smoke down south. As for compromising situations, well the best was when surveying services in a big house in Downing street, but I’m unable to divulge specifics about bathroom etiquette!

We’re all lucky to have encountered a mentor along the way, that person who inspired and transformed our vision guiding us on our selected career paths. How important is mentoring to you and do you have any fond memories of experiencing being mentored?

My father insisting that I attended technical college and follow a structured training path was a fundamental approach that has always stayed with me. I’ve since focused on providing guidance and support whenever possible. Fortunately the mentors I had also liked a beer or 3, and so it’s only right that I continue this tradition.

Looking back on your career, are there any particular projects that you reflect upon and are privileged to have been involved with?

To be honest, I’m proud to have been involved in so many great projects such as The Museum of World Culture in Gothenburg, Sweden. The Bernie Grant Centre in Tottenham is top of the list, as not only is it located on the site of a Victorian public baths, with retained listed facades, but I was able to convince the client to re-instate the original 60m deep water well, instead of abandoning it by filling with concrete. It now supplies water to the Performing Arts Centre, as well as the redeveloped town hall and adjacent leisure centre. The well water now serves a swimming pool, just as the original design did more than 100 years ago.

Your passion and enthusiasm for public health engineering has led you on a path to become the Regional Director of Public Health Engineering at AECOM UK, but more importantly the Chair of SoPHE. What drives you and what advice would you give to the water babies of the industry?

Paul, I’m sure you will agree that there has been a significant change in the influence that PH engineers have on a project in the last 10 years. The need to reduce water usage is now virtually a global constant, as is the pressure to reduce the demands on infrastructure and our environment. Although these issues are elevating our discipline for the better it is essential that young engineers obtain a strong grounding in the fundamental design principles to ensure they have the confidence to go head to head with challenging clients, architects and contractors. ……..as some things will never change.

You’ve been involved with SoPHE for a considerable length of time in the background, most recently forging links with ASPE, attending the annual conference in Chicago, plus chairing the successful drainage conference in London. Raising the profile of public health engineering obviously comes naturally, what’s next and how do you feel you can improve the direction of SoPHE in your new role?

We now have over 300 members, a new and successful contractors working group and the well established industry working group which provides a phenomenal depth of knowledge at our fingertips. I’m planning to ensure that SoPHE taps (no pun intended!) into this information bank, particularly for the technical benefit of our younger members (aren’t we all young at heart?) and the recently introduced installation best practice forums is a good example of how this is already starting to work well. I plan to build on the great structure that is already in place with a keen focus on training and educational development. The saying “the world’s a smaller place” has never been truer and with members not only from all over the globe but also many working on international projects the opportunity for SoPHE to enter the global arena is already upon us. Therefore I feel that collaborative working with international societies such as ASPF will bring significant benefits to our society members and I plan to ensure SoPHE also focuses on developing such links. After all Paul, with your newsletter editorial skills emanating from Oz we’re already working around the globe!

Steve, it’s been such a pleasure to finally meet you after all this time corresponding by email. It’s been awesome to hear your journey, experiences and funny anecdotes, thank you for sharing with SoPHE. I’m sure we’ll be hearing a lot more of what you’re up to and the direction you intend taking SoPHE on the international arena in your role as SoPHE Chair. Thank you for joining us on “Go with the flow.”

Cheers Paul, it’s been a real pleasure and I look forward updating you and all SoPHE members with progress over the forthcoming year.

We’re keen to hear from public health engineers, whether you’re at the start of your engineering journey or an established engineer. If you are interested in being interviewed as part of the “Go with the flow” regular feature then please contact Paul Angus - info@ sophene.org.au for further details.


**MAKE THE CONNECTION WITH STAINLESS STEEL**

*Here Andy Buchan, ACO’s Divisional Managing Director, discusses the advantages of stainless steel over other materials and highlights the key factors to consider when specifying stainless steel pipework in this sponsored article.*

ACO Building Drainage provides best-in-class drainage which delivers the high level of performance you would expect from one of the world’s leading commercial drainage specialists.

The company also has a comprehensive range of stainless steel pipe and related accessories available in the UK.

Here Andy Buchan, the company’s Divisional Managing Director, talks about the advantages of stainless steel over other materials and highlights some of the key factors to consider when specifying stainless steel pipe.

Stainless steel pipe is becoming an increasingly popular specification choice with today’s public health engineers and designers. The inherent qualities of stainless steel as a material mean it offers a host of benefits over other more traditional materials and plastics including long-term durability and aesthetics but for engineers its superior hygienic performance, ease of installation, on-site health and safety benefits, and system compatibility with steel channel and gullies are some of the key advantages it can bring.

Health and safety performance is optimised simply because stainless steel pipe products are of a significantly lighter weight than those made from traditional materials. As a result, the specification of stainless steel results in minimal use of on-site handling equipment and importantly, reduces the risk of a manual handling related injury.

The minimal use of on-site handling equipment also has another benefit: Installation is easier and quicker and, if the product range specified has a push-fit design, the time required to cut, fit and assemble a pipe system is also kept to a minimum, reducing related costs at both the installation and commissioning stages of a project.

If we look at performance in the wider context of the end user application, stainless steel is also the material of choice for engineers who are looking to deliver optimal hygienic performance. Stainless steel is easy-to-clean and its smooth surface helps reduce the likelihood of a pipe system becoming contaminated with harmful microorganisms and bacteria leading to permanent residence of pathogens within the pipe system. The high corrosion resistance of stainless steel also means that there is no need to apply internal coatings which can negatively impact hygienic performance.

When manufactured to high standards and fully pickled passivated, stainless steel pipe products also deliver the advantages of long-term durability, the need for virtually zero-maintenance and, in the case of ACO pipe products, an estimated life expectancy of at least 50 years.

So what are some of the key things a public health engineer should look for when specifying stainless steel pipe?

At ACO Building Drainage, we provide a complete and comprehensive range of high-grade stainless steel pipe products in sizes ranging from 50mm to 250mm diameter plus a full range of accessories. Our products are compatible not only with our channel and gully ranges but also with those of other leading manufacturers, and that means the public health engineers we work with get a choice of specification options and products that can be easily integrated with one another – something we believe is key.

Public health engineers can also benefit greatly from working with a supplier that provides dedicated and expert technical support. We have our own experienced in-house design team at ACO. They work with engineers to provide specification guidance and, when required, problem solving support and project management. They also engineer non-standard solutions for our customers as well as providing take-offs and hydraulic calculations as standard. This level of support can be vital on complex projects and, even on less complicated briefs, can make the difference between the delivery of a good job and a great one.

In summary, stainless steel pipe products can deliver a host of benefits for the public health engineer: system compatibility, easy installation and commissioning, performance and durability, superior hygienic performance, and aesthetical appeal.

When combined with the support of an experienced technical design team – and ideally short lead times – it’s perhaps easy to see why stainless steel pipe systems from ACO Building Drainage are becoming so popular.

**TECHNICAL PUBLICATIONS**

- **BSRIA: Legionnaires’ Disease - Risk Assessment (BG57/2015)**
  - This guide has been written to provide a structured framework for a legionella risk assessment and replaces BSRIA guide AG20/2000. It has been updated to take account of later standards and guidance documents including the 2013 edition of the Approved Code of Practice and Guidance (ACOP) and associated guidance (HSG274 part 1-3).
- **Legionnaire’s Disease – Operation and Maintenance Log Book (BG 58/2015)** is due for release April 2015. This guide will cover the recording of operation and maintenance data for risk systems and include a selection of editable forms. The 2015 edition takes effect on 1 October 2015 for use in England. The 2002 edition, as amended, will continue to apply to work started before 1 October 2015 or work subject to a building notice, full plans application or initial notice submitted before that date. Status is current and draft for public comment.
- **15/30299654 DC BS 8551. Provision and management of temporary water supplies and distribution networks (not including provisions for statutory emergencies).** Code of practice. Publication date 10 March 2015. Status is current and draft for public comment.
- **15/30299685 DC BS 8550.** Guide to improving the flood performance of buildings. Flood resistant and resilient action. Published 14 April 2015. Status is current and draft for public comment.
- **15/30319700 DC BS EN 13203-5.** Gas-fired domestic appliances producing hot water. Part 5. Assessment of energy consumption of gas fired appliances combined with electrical heat pump. Published 13 April 2015. Status is current and draft for public comment.
The Thames Water sewer walk through trunk sewer number 1 on the Northern Outfall is a very exclusive look at Victorian construction and ingenuity at its finest. Some of London’s finest brickwork laying skills are evident in the vast ovoid caverns constructed three brick layers thick. Joseph William Bazalgette (who was later knighted for efforts) proposed, designed and was instrumental in the construction of the London Sewer Network as a result of the “Great Stink” in the summer of 1858. He proposed a vast array of intercepting sewers collecting putrid water from the cities many tributary rivers (or open sewers) and diverting it away from the Thames River to outfalls at Beckton and Crossness. The result was a cleaner Thames river but most importantly a vast reduction in cholera outbreaks which were an epidemic during that period.

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The project was made even more monumental by the fact that most of areas south of the river (Battersea, Lambeth etc) and east of London (Plaistow, Isle of Dogs etc) were below the high tide mark and were effectively wetlands. This meant the outfalls from London were constructed above the surrounding land in huge earth embankments and large pumping stations at Abbey Mills and Crossness were commissioned.

The pumping stations at Abbey Mills and Crossness are also another example of Victorian ingenuity, pride and wealth during this time. Like all construction projects financial restrictions can dictate the scope and scale of a design.

For the Victorian sewer system this was having to knowingly construct sewers that we 20-30 times under capacity for most rainfall events. The knock on affect to this was frequent sewer relief discharges directly into the Thames, which still occur to this very day. Coupled with Bazalgette’s Victorian sewer design for 4million people and London’s current population of 8million people, mean the new Thames Tideway Tunnel is long overdue.

For the people who work within the 1500km of man entry sewers around London and the lucky enthusiasts (Prince Charles included) who experience the sewer walk there must be a strange sense of humbleness for what the Victorians achieved.
Branching out in a new direction

One the 2nd June 2015, the CIBSE Society of Public Health Engineers held the Annual general meeting. Linda Dulieiu, SoPHE Secretary reports on the proceedings.

The meeting was held at the AECOM London Office and hosted by Steve Vaughan.

Chris Northey, outgoing Chair, opened the meeting thanking everyone for their attendance. He thanked Steve Vaughan for hosting the evening’s event, and for organising the speakers – the SoPHE awards winners of last year – who presented their winning design and experiences from their trip to Bangladesh.

Chris reported that our membership now stands at 411 members, which is a fantastic achievement. This significant rise has come about from a new initiative from CIBSE, encouraging new student members to join a society of their choice within the CIBSE family.

Chris is standing down as our Chairman because he has held the post longer than the allotted 3 year timespan, and will be handing over the reins. He thanked everyone for their support during his term of office.

Treasurer’s report

Martin Shouler who was unfortunately unavailable for the AGM prepared a report, which Chris summarised, highlighting that the funds are healthy and we look forward to a packed calendar for the coming year.

Secretary’s report

Linda Dulieiu just asked those present to ensure that all correspondence is routed through the post or using the CIBSE email address if all else fails. Communication is the key to getting all ideas, events and information out to the membership.

On behalf of the Steering Committee and membership, Linda presented a small gift to Chris, as a small thank you for all his hard work and enthusiasm over the years. Thank you Chris!

Election of Officers:

Chair – Steven Vaughan
i. Nominated by: Simon Oliphant
ii. Seconded by: Jassim Daureeawo

Vice Chair – Jonathan Gaunt
i. Nominated by: Linda Dulieiu
ii. Seconded by: Sanjay Modasia

Treasurer – Martin Shouler*
i. Nominated by: Malcolm Atherton
ii. Seconded by: Jassim Daureeawo

Secretary – Linda Dulieiu**
i. Nominated by: Richard Kendall
ii. Seconded by: Simon Oliphant

Election of Committee Members: None of those present at the meeting expressed a wish to serve on the Steering Committee – therefore, the existing Committee was elected ‘en-mass’ – proposed by Peter White, seconded by Mark Toovey.

Steering Group committee
4 x executive officers listed above
Regional and international representatives:
East Anglia – Dean Burroughs
Northern – Malcolm Atherton
Scotland – Dr. Lynne Jack
Australia & Communications Editor - Paul Angus
New Zealand - Les Wilson

General committee members:
James Day
Jassim Daureeawo
Ian Fellingham
Simon Oliphant

Commercial installer group
Sanjay Modasia
Andy Dolan

Representatives from Industry / Working Group:
Mike Darvill
Alan Flight

At the end of the formal proceedings, Chris presented the Chairman’s chain of office to Steve Vaughan. On behalf of CIBSE and SoPHE, many congratulations to Steve.

*Martin will be holding this post only for one more year. **Linda will be holding this post only for one more year due to the initial term for any executive post is for a term of 3 years. Members are asked to consider if they would be willing to stand for these posts at the 2016 AGM.
Pumping up your technical knowledge

Steve Tuckwell of WRAS provides an insight into how to keep on the right side of the water regulations when designing a system with the use of pumps.

Water supply pressure

Building developers or users sometimes want greater water pressure than is available. Section 65 of the Water Industry Act (1991) requires water suppliers to provide a pressure which will enable water to reach to the top of the top-most storey of every building within the supplier’s area. However, water doesn’t have to be supplied above the height to which it will gravitate from the service reservoir or tank which provides the supply.

Where pressure is insufficient for users’ needs, pumps may be needed either on the supply pipe, to boost it throughout the entire premises, or on the pipe serving specific appliances, like domestic showers. But there are some conditions attached to the use of pumps.

Consent for a pump

Throughout the UK, plumbing systems supplied with water from the public system come under the scope of the Water Supply (Water Fittings) Regulations or the Scottish equivalent (the ‘regulations’). These require that the water supplier’s consent is obtained before installing a pump or booster drawing more than 12 litres per minute, connected directly or indirectly to a supply pipe.

Without this consent, the installer would risk a criminal prosecution for breaching the regulations. Consent is obtained by notifying the water supplier in writing of the details of the proposed installation. Water suppliers websites usually give details of what information is needed and where to send it and some have notification forms to make it easier.

Direct and indirectly connected pumps

The regulations refer to a pump “connected directly or indirectly to a supply pipe”. This means that consent is needed for a pump on a supply pipe - for example one located where it enters a building to boost pressure or flow throughout (Figure 1).

Consent is also needed for a pump on a distributing pipe fed from a storage cistern or break tank (Figure 2).

The risk of creating backflow conditions is the reason for the concern about using a pump to boost flow on a supply or distributing pipe. A negative pressure could arise in the upstream pipe if the pump demands more water than the supply into the system can provide. When sizing pipework, in calculating the simultaneous demands of the system allowance should also be made for those devices where a full demand is required at all times. This is particularly relevant in distributing pipe systems where branches serve pumped showers or other appliances.

No pumped showers, or other appliances incorporating a pump, should draw water from any supply or distributing pipe which also serves an appliance categorised as fluid risk 4 or 5 - for example, a pipe serving a bidet with an ascending spray or a flexible hose and spray/jet.

Fire sprinkler systems and pumps

A booster pump on the supply pipe is often requested is to provide adequate pressure for fire sprinkler systems in tall buildings. The Water Industry Act only requires water for fire-fighting to be available at hydrants on the supplier’s water main. When considering consent for a such pump, water suppliers will assess the ability of their mains networks to meet the demand without causing loss of pressure to other local customers.

A Giant leap forward - LUNA

Brian Whorlow, LUNA Group Chairman provides further insight into the Loading Unit Normalisation Assessment or LUNA Task Group. 2. LUNA, a joint CIPHE/CIBSE research project with group representation from both CIPHE and SoPHE members. The current method of utilising loading units is pre-dates to the 1960’s. The aim of this project is produce an updated and robust method of assessing the water design flow rates within buildings and their curtilages that will be adopted as a national design standard for the UK. Similar investigations and modified assessment methods which reduce design flow rates have already been introduced in several other European countries and in the USA, and the UK should be following this example.......

Are we significantly oversizing domestic water supply systems? Some readers who saw this article in the April CIBSE Journal might be wondering about the LUNA research project2. Firstly, I would like to provide a response to the opening question, which is undoubtedly ‘yes’ in respect of residential projects (there is less certainty with commercial projects). There is sufficient informal UK data, and comparison with some other national standards, such as the German DIN 1968-300 also point to this conclusion. The LUNA project has grown in complexity from its humble beginnings, in recognition of the need to undertake a thorough academic study that can be extended across all building occupancy types, that delivers a practical design method for engineers, is planned in a manner that will meet funding criteria, and has the necessary robustness to satisfy the various standard setting bodies.

From a pragmatic view, how we arrive at a design flow rate is unimportant; the aim is that we can estimate the actual working peak demand with reasonable accuracy, leaving a sensible (but not excessive) safety margin.

There are essentially two different demand estimation models in Europe; one is probability-based using relative loading units; and another is based on diversity of the connected load. As these two paradigms have different data gathering requirements the LUNA group have agreed that the project should be split into two phases, with the initial phase focusing on making a recommendation about which demand assessment route to adopt. At a LUNA group meeting in March this year Heriot-Watt University were appointed as research agents for the project, and were asked to edit the research programme to incorporate this phased approach ready for funding submission, with the intention of making start later this year.

In the interim, my personal opinion is that engineers should use the loading unit system within BS 806-3 for residential sizing, although I prefer to select pipe sizes based on velocity and head loss tables, rather than use the ‘simplified method’ in Table 3. For non-residential applications I use the CIPHE loading unit system. The national UK loading unit system effectively became obsolete when BS 6700 was withdrawn, although at the time of writing this piece, there are plans to reinstate it in an updated version of BS 8559.

Fig. 1: Pump connected directly to a supply pipe.

Fig. 2: Pump connected indirectly to a supply pipe. Preventing negative pressure and backflow.
The 5th Northern SoPHE Dinner was celebrated in style at the Midland Hotel, Manchester. Toastmaster, Dave “Biggles” Greenall began proceedings ushering the 126 guests to their seats. Chris Northey provided a brief speech highlighting the key direction SoPHE is moving towards, as well thanked the volunteer work of all the regions. Following the 4 course meal, comedian Les Gibson had everyone falling off their seats with his brilliant impressions, all tied together with link gags and observations on the night, even Chris aka King of the Plumbers saw the funny side, wrapping up what proved to be a hilarious evening of comedy.

Gary Bailey of WSP|PB won the award for the photo of the most unusual urinal, a competition set up prior to the dinner. Mike Darvill, SoPHE Industrial Associate Chairman then thanked everyone for attending; he thanked the respective table sponsors personally for supporting the evening by naming each one to the audience.

Due to the warm welcome that was received at last year’s Dinner with regards to the unusual naming of the tables, it again “fell” to Natalie Harrison (a Senior Public Health Engineer based in Manchester) to provide this year’s names! They ranged from “leaky backwash”, “greased nipple”, “leaky plughole” and ended with “moist flange”! Can’t wait for the table titles for next year!

Well done Malcolm Atherton for another well organised and enjoyable evening......setting the standards high for next years dinner!

We organise the SoPHE Northern region seminars every other month. Approximately 25/30 engineers attend our seminars, topics so far this year have included:

- Andy Colley from Zip UK presented on utility efficient hot water in the workplace.
- Peter Jennings from ACO Drainage played against Manchester City to a well-received audience on the topic thin walled stainless steel pipe systems.
- Our kindred organisation IHEEM held a joint seminar with SoPHE, which Angus Homer from Horne Engineering presented on “Engineering v’s Legionella”

Following on with the legionella theme, Eric Martin of Durapipe / Girpi examined plastic pipework in building services and L8 Legionella regulations.

We are also fortunate enough to be involved in the CIBSE regional committee, where a focus upon enticing students into building services and public health engineering, we are welcome to suggestions and ideas.

Slice of lemon, sprinkled with Northern Sole!

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The theme of drainage then continued on the 5th May with Bucher UK presenting to a well attended and informative CPD on the benefits of stainless steel in above ground drainage applications. Frank Netherwood opened the talk by explaining how stainless steel is a modern light weight and durable alternative to more traditional drainage pipework systems, initially describing the types of stainless steel available and the applicable manufacturing and drainage standards.

In April, the Installation Best Practice forum returned for the second time to be chaired by the SoPHE Contractors Working Group. These forums bring together industry best practices in an interactive discussions with consultants, contractors and manufacturers on various topics. Sanjay Modasia (DG Robson Mechanical) chaired the event. The forum was very well received by all those who attended as it provided a valuable insight into the contractors experiences of this material and system together with guidance from the manufacturers.

The final SoPHE London event before the summer break took place on the 2nd June and welcomed the 2014 Young Engineers winners to present their winning project. Emma Hughes, Jonathan Piatak and Catherine Minor described the visit to Bangladesh which allowed them to further develop their winning entry into a practical, adaptable and cost effective solution which considered construction and on-going maintenance requirements. During their visit further collaboration with WaterAid Bangladesh, visits to local communities and other key partners provided further understanding of the opportunities and constraints as well as reviewing other new projects relating to sludge management.

Whilst updating the SoPHE Twitter account, the editorial team are frequently exposed to sometimes unbelievable reports, funny facts and often bizarre public health engineering related stories. We attempt to bring the cream of the crop from around the world that may not make into “The Sun’s” headlines for your reading pleasure in this light hearted segment of the newsletter Keep up to date and don’t miss out by following us on Twitter and our Linkedin group.

We searched the archives to bring you this unique article published in the Popular Science magazine 1938, where a fascinating experiment was conducted. Fred Orsinger, Director of the National Aquarium in Washington DC hit on the idea whilst at a friend’s house who was faced with the dilemma of digging up the kitchen floor to clear a blocked drain. His theory, based on the urban myth that alligators cannot walk backwards, was to utilise the alligators digging mobility to clear the drain. Pipe dream, fact or fiction, we’ll let you decide......needless to say, any experiments will have added fuel to the fire on the urban myth of what lurks deep in our sewers! Fast forward to modern day Japan, where the problem of being stuck in an elevator for a prolonged period of time in the event of an earthquake with the urge to spend a penny is becoming a significant issue. The Japanese are light years ahead in the development of the WC, however certainly need to consider alligators digging mobility to clear the drain. Pipe dream, fact or fiction, we’ll let you decide......needless to say, any experiments will have added fuel to the fire on the urban myth of what lurks deep in our sewers!

The London technical CPD’s are held monthly, Bill Sinclair from AO Smith presented in February on Solar Thermal systems explaining the fundamental system arrangements and constraints of a typical system and went on to highlight specific issues that should be considered, such as protecting the system against overheating and parasitic energy consumption. Bill explained how providing suitable control technology to ensure that the solar pump modulates in parallel with the solar input ensures system efficiencies are maximised, as well as highlighting the issues of over sizing.

In March we welcomed Peter Jennings from ACO Building Drainage who presented on grease management systems within commercial kitchens and food processing areas. This was a well attended event, as it covered a particularly relevant subject following the discovery of a 15 tonne “fatburg” in the sewer system in Kingston upon Thames which blocked 95% of a 2.4m brick sewer. Since this presentation, another “fatburg”, 40m long and 10 tonnes has been discovered and removed from the Chelsea sewers. The Water Research Centre (WRC) have estimated the total cost to UK in the region of £22m/annum.

In April, the Installation Best Practice forum returned for the second time to be chaired by the SoPHE Contractors Working Group. These forums bring together industry best practices in an interactive discussions with consultants, contractors and manufacturers on various topics. Sanjay Modasia (DG Robson Mechanical) chaired the event. The forum was very well received by all those who attended as it provided a valuable insight into the contractors experiences of this material and system together with guidance from the manufacturers.

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In the Pipeline | Events for your diary

**September**
- **Where:** AECOM London
  - **When:** 10th September 2015
  - **What’s on:** Aquilar - Water Leak detection Systems
  - **Where:** B+B Edinburgh
  - **When:** 10th September 2015
  - **What’s on:** ACV - Introduction of Tank-in-Tank for domestic hot water services & ACO Drainage + Thin-Walled Stainless Steel Wastewater Pipe Systems

- **Where:** Rainbar Manchester
  - **When:** 16th September 2015
  - **What’s on:** Clearwater Technology - Catalytic Chlorine Dioxide & Engineering Services

- **Where:** Tattershall Castle, Victoria Embankment, London
  - **When:** 24th Sept 2015
  - **What’s on:** Sustainable Water Policy for the UK

**October**
- **Where:** AECOM London
  - **When:** 6th October 2015
  - **What’s on:** CIBSE Event: To mark John Swaffield’s posthumous Book

**November**
- **Where:** B+B Edinburgh
  - **When:** 22nd October 2015
  - **What’s on:** SMS Environmental - Legionella Training Seminar + Lochinvar - Domestic Hot Water: Sizing/Selection

- **Where:** Royal Garden Hotel, London
  - **When:** 5th November 2015
  - **What’s on:** SoPHE Anniversary Dinner

- **Where:** Rainbar Manchester
  - **When:** 18 November Wednesday
  - **What’s on:** Polypipe - Stormwater treatment
Feedback, contributions and sponsorship

We would welcome any comments on this newsletter or contributions to future editions, in particular with regards to:

• Future events for consideration
• What should SoPHE be providing to our members
• Items or comments you think may be worth raising or informing your fellow members
• Technical articles from members, giving situations encountered and how they were overcome

Please email any comments, feedback or suggestions to Paul Angus who can be contacted by emailing: info@sophe.co.uk