

Boiling Point



Heating *at work.*

IT'S A HARD NO_x LIFE

THE WHATS, HOWS AND WHYS OF NITROGEN OXIDES FROM COMMERCIAL BOILERS.

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BOURNE VIEW
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Sam Boshier

Editor/Marketing Manager

FROM THE EDITOR

Last issue of Boiling Point started with a mention of Brexit, as we were rapidly approaching the leave deadline when we went to print.

Six months down the line, we find ourselves in a similar position: We're supposed to leave on 31st October - with or without a deal. What's going to happen? Who can tell.

It is the uncertainty, of not just Brexit, but regulations, carbon emission targets and other Government initiatives that often holds our industry back. The RHI made solar and biomass an attractive technology to install but then the scheme was changed. CHP has been a popular choice in recent years but now we are seeing some projects scale this back. Hydrogen, electric, wind, solar, what will be the fuel of the future? We have recently attended industry events to hear more about what the future will bring. I don't think there can be one answer, it will be a combination of technologies and fuels.

Short changed

It's not just trends in technologies that are changing but also Government funding and regulations. The Cleaner Heat Cashback scheme was reduced not long after it was launched. And you can see from the CCC report that we summarise on pages 4/5, the UK, again, hasn't been making as much progress as we should towards carbon emissions reductions. Theresa may have put a stake in the ground, but it's time to start seeing action rather than words.

Investing in people

I am proud to say at Hamworthy, we are investing in people – the employees already here and new ones joining the family. At a time when businesses are scaling back and we hear stories of 'people being replaced by machines', we still see the value of having a real person on the end of the phone or on site.

Of course, that doesn't mean we can't use technology to enhance service. Over the coming months you will see some new features online from Hamworthy that will support you in doing your job – watch this space!

Keep on learning

Part of the investment we've been making has been in trainers and training facilities. We now have locations across the UK (Leeds, Wokingham, London and Poole) available for training. Turn to page 9 to see what is available and how attendees have benefited.

Groupe giving

To continue the positive ending, it was great to see the final amount Groupe Atlantic UK, ROI and North America Divisions raised for Macmillan in 2018-19 – enough to fund a nurse for 9 months. And all the hard work has not gone unnoticed with the initiative being shortlisted for the HVR Community Spirit Award.

We're continuing our support for them this year with all brands in GA UK working towards a target of funding 150 heating grants. Macmillan Grants are small payments to help people with the extra costs that cancer can cause. They are usually a one-off payment and for people who have a low level of income and savings. We are well on track and you can read about some of the campaigns we have run this year on our website, including a plant sale by one of our service team's daughter and the recent 'World's Biggest Coffee Morning'.

Best Wishes

Sam Boshier

Editor/Marketing Manager

Dates for your Diary

Roadshow

We're bringing our boilers to your doorstep:

21 Oct - 8 Nov
SCOTLAND

11 Nov - 23 Nov
EAST MIDLANDS

Full schedule & booking available at hamworthy-heating.com/tour

21 Nov
BESA Awards – Sponsor of Building Services Engineer Apprenticeship Award



>£40k

raised since Feb 2018 for Macmillan Cancer Support by Groupe Atlantic UK brands

Did you know?

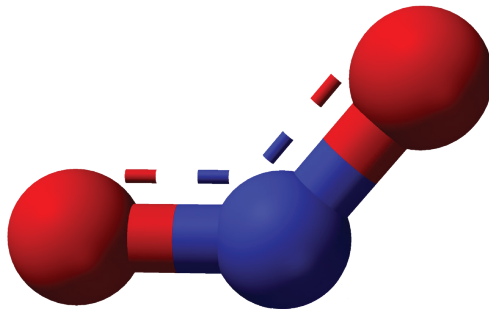
During the economic slump of the 1920s Hamworthy Engineering developed other products and markets in order to survive. A most unlikely side-line included pickles and jams produced by the canteen's French chef.



Boiling Point

AUTUMN/WINTER19

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It's a hard NO_x life

Nitrogen oxide emissions have become the recent focus of legislation. We investigate factors that influence their production and what standards are applied to measure them.

On the way to net zero

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We've committed and now there's the question how to get there. Our recap on the Committee on Climate Change's annual report and what heating in the future might look like.

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We hear Ross Anderson's thoughts on the Medium Combustion Plant Directive.

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We've been busier than ever training our customers. Get to know your options to book CIBSE-accredited CPD courses or product training.

Bourne View case study

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A state-of-the-art care home turned to Hamworthy for high efficiency boilers and direct fired water heaters for the brand new facility in Poole, Dorset.



- Facebook: hamworthy
- Twitter: @heatingatwork
- LinkedIn: hamworthy-heating-ltd
- YouTube: HamworthyHeating

CREDITS

Cover: A burner in action - the temperature at which fuel is burnt is one of the deciding factors of NO_x emission production in a boiler.

Contributors



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Got a question?

With commercial heating and hot water knowledge on tap, don't hesitate to get in touch:

Sales: 01202 662552

Service: 01202 662555

Spares: 01202 662525

Technical: 01202 662505

Looking for technical info?

You can visit the online technical library to download full product info including CAD files, BIM objects & data tables.

hamworthy-heating.com/technical-library

Find all current and past issues at hamworthy-heating.com/boiling-point-magazine

AT A BREAKING POINT – OUR WAY TO NET ZERO BY 2050

It has been a few tumultuous months since our last issue of Boiling Point. In June, just prior to her resignation, Theresa May announced the UK would be seeking to reach net-zero carbon emissions by 2050. In July, when we started working on this edition of Boiling Point, we saw another record-breaking month of high temperatures – a timely reminder for the need to act. This was followed by several climate change warnings of a ‘point of no return’ as well as school strikes as part of Fridays For Future making the news. We saw protests from Extinction Rebellion all over the country and it seems we’re now waking up to the reality that there really is urgent action to be taken to avert a climate breakdown.

Committee on Climate Change 2019 Progress Report to Parliament

Mentioning its own Net Zero report from May 2019, which provided evidence that new goals can be met with the already agreed budget, the CCC criticises in its 2019 Progress Report to Parliament that *“tougher targets do not themselves reduce emissions.”* What does that tell us? **Actions speak louder than words.**

Apart from the power sector, we haven’t seen as many reductions in CO₂ emissions as we would have hoped. That means 1% on average (2% with temperature adjustment) whereas the net-carbon target by 2050 would require an average annual reduction of about 3% of the 2018 emissions – quite a challenge.

Looking at buildings, we have seen a 3% increase (1% fall when adjusted to milder winter temperatures, though) of carbon emissions in 2018. While emissions from domestic buildings have fallen by 2%, non-residential buildings gained 1%. Worryingly, building emissions (commercial and domestic) in 2018 were higher than in 2015 – regardless of temperature adjustment.

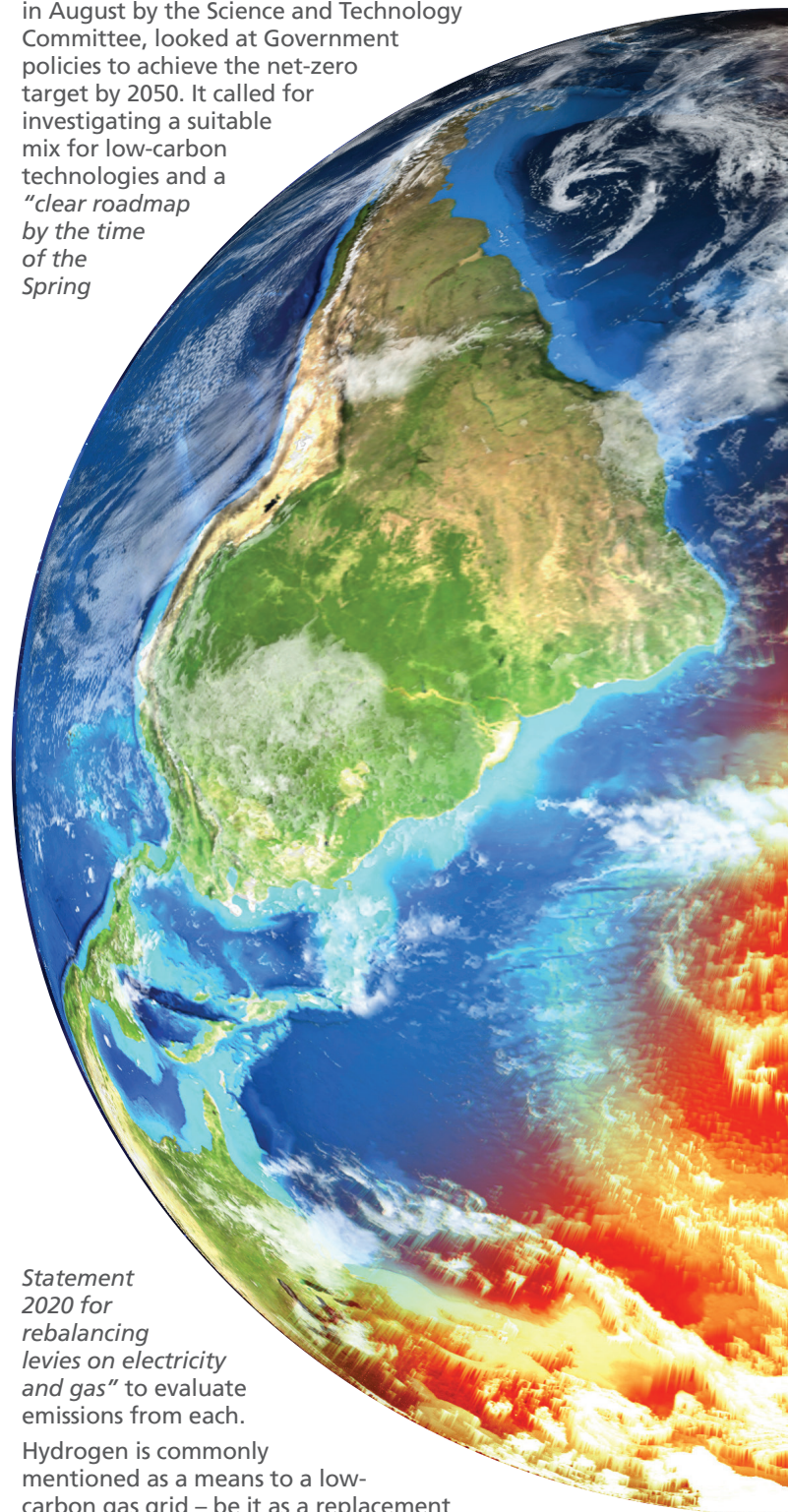
Work with what we’ve got

These figures don’t come as much of a surprise. In our last Boiling Point, we reported the sharp decline of insulation rates in buildings. If support for initiatives is dropped, we will have a hard time to improve our old energy-inefficient building stock. While there’s of course the potential to upgrade to more efficient boiler plants and optimise the way it is controlled, we should look at ‘leaky buildings’ to improve the building fabric, reduce heat loss and hence energy wastage and CO₂ emissions. To put it simply: to fix the cause rather than the symptoms.

The future of our gas grid

The suggestion by the CCC for a total ban on gas connections to new housing developments certainly made waves in our industry. Some questioned how realistic the proposal was, but for us it was also a question of how this idea could be extended into commercial heating.

As one of the sectors that has decarbonised the least and given the fact that about one third of the UK’s overall emissions stems from heating, there’s urgent need for us to look at low carbon technologies. Making use of an already existent infrastructure, the Clean Growth Report, published in August by the Science and Technology Committee, looked at Government policies to achieve the net-zero target by 2050. It called for investigating a suitable mix for low-carbon technologies and a *“clear roadmap by the time of the Spring*



Statement 2020 for rebalancing levies on electricity and gas” to evaluate emissions from each.

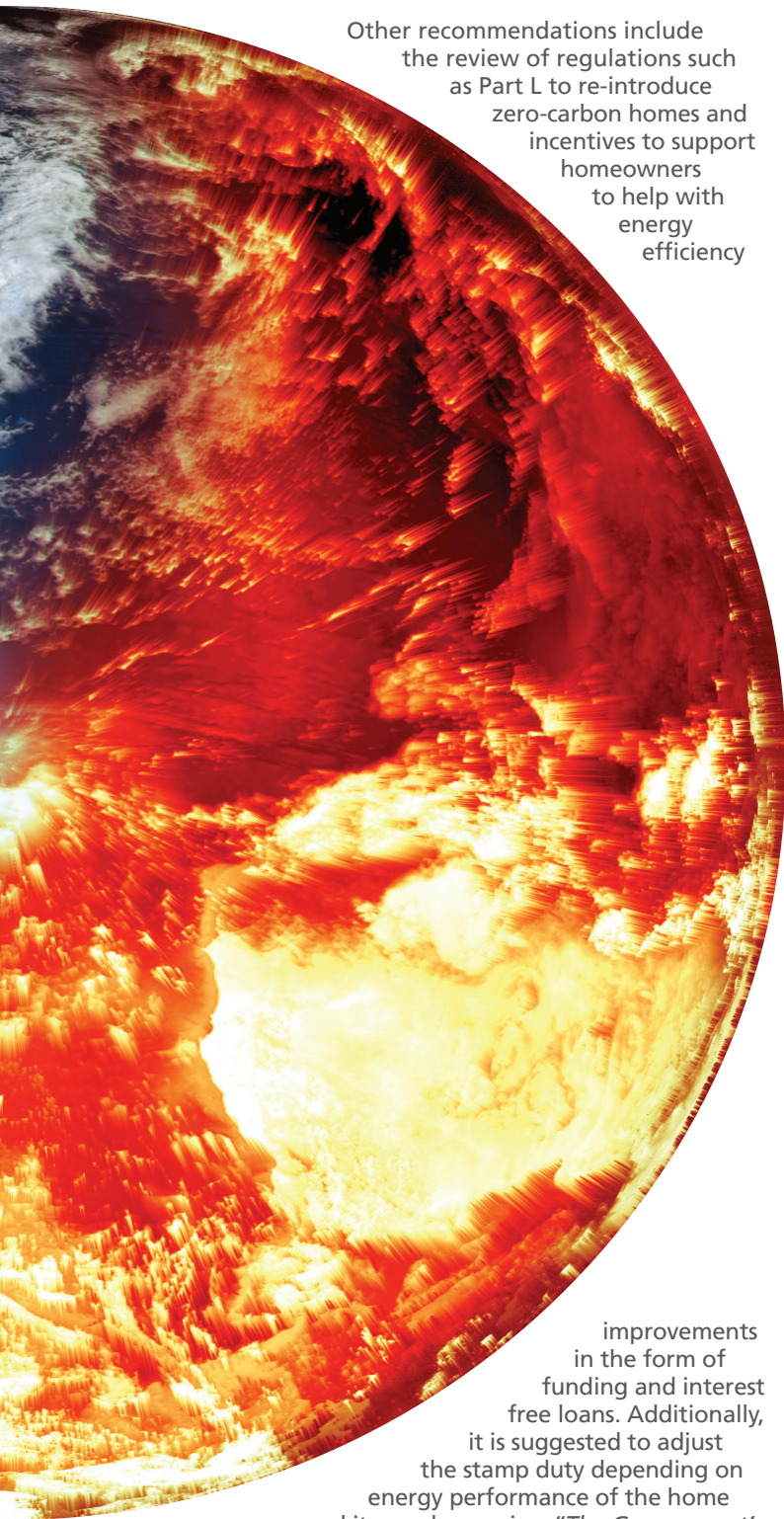
Hydrogen is commonly mentioned as a means to a low-carbon gas grid – be it as a replacement for natural gas or in terms of a mixture with natural gas. The former is currently being tested within the Hy4Heat Programme, commissioned by the Department for Business Energy & Industrial Strategy which will run until March 2021. While the investigation of safety aspects of hydrogen as replacement has priority, the biggest problem is current appliances not being compatible with pure hydrogen. The Clean Growth Report calls for a large-scale trial by 2025 but also for demonstration and modelling projects.

For a hydrogen natural gas mixture it is mostly a matter of finding safe levels of hydrogen while also ensuring

compatibility with existing appliances. This proposal makes the most out of current infrastructure (= the gas grid) and already installed equipment.

Further measures

Other recommendations include the review of regulations such as Part L to re-introduce zero-carbon homes and incentives to support homeowners to help with energy efficiency



improvements in the form of funding and interest free loans. Additionally, it is suggested to adjust the stamp duty depending on energy performance of the home and its purchase price. *"The Government's new energy efficiency policy must provide all homeowners with the incentive to make energy efficiency improvements to their property, with particular thought given to lower income households."*

Furthermore, the reduction of CO₂ emissions also includes the removal of CO₂ from the atmosphere (we're talking about 130 million tonnes of carbon dioxide by 2050!) The report states that *"this is significantly greater than the extent of greenhouse gas removal envisioned in any of the Government's previous 'illustrative pathways' to meeting its original 2050 target."* Another challenge ahead.

The verdict

I wouldn't want to repeat what I said in our last issue, but it is quite clear that something needs to be done **now**. The CCC has repeatedly warned the Government that it is time to get concrete on how to achieve the carbon savings we are supposed to achieve and time is running out.

Out of 25 policy actions suggested by the CCC, the Government has delivered only one. A mere 7 out of 24 indicators showed that progress is on track in 2018 and, most worryingly, the required emission reduction per year for the Net Zero target is 50% (!) higher than the previous 2050 target and still 30% higher than the average achieved since 1990.

The CCC's three key messages to the Government

Establish a net zero policy as a common mindset across all government levels and departments

Ensure a business-friendly and clear direction of policies that gets everyone on board and considers their needs

Help to drive international efforts by setting the UK's new net-zero target as an example

Further reading:

- Summary Report, 2019 Progress Report to Parliament, Committee on Climate Change, July 2019: theccc.org.uk/wp-content/uploads/2019/07/2019-Progress-Report-Summary.pdf
- Clean Growth: Technologies for meeting the UK's emissions reduction targets, Science and Technology Committee, Conclusions and recommendations, August 2019: publications.parliament.uk/pa/cm201719/cmselect/cmstech/1454/145412.htm



Julia Maul – Marketing Communications Executive, Hamworthy Heating

IT'S A HARD NO_x LIFE

Legislation is not merely about energy efficiency anymore but has long seen a focus on air quality as well, specifically NO_x emissions. For this reason, we look at what they are, why we should be concerned about them, what system is in place to reduce them and what we can do as a manufacturer.

What are NO_x emissions?

NO_x is a collective term that stands for nitrogen oxides which mainly consist of nitric oxide (NO) or nitrogen dioxide gas (NO₂). NO_x emissions can produce ozone (O₃) in the presence of sunlight can have harmful effects on throat and lungs (including aggravation of asthma and emphysema) but also irritate eyes and nose and mouth. Nitrogen oxides themselves mostly affect the lungs, reducing immunity to lung infections. The effects are similar to those of ozone.

What affects the production of NO_x emissions in commercial gas boilers?

There are different types of NO_x formation in combustion (thermal, prompt and fuel) but for condensing gas boilers, thermal NO_x is the most important one.

For a fully premixed burner, NO_x emissions are fundamentally correlated to the flame temperature and depend on the following factors;

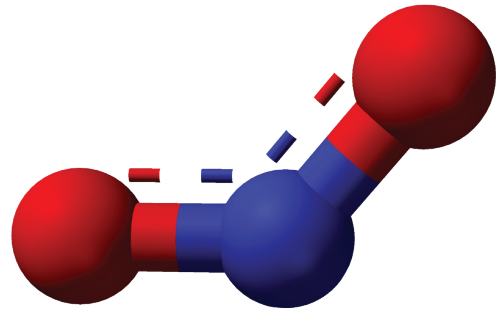
- **Air dilution λ value**
Higher λ values lower the flame temperature and reduce NO_x emissions.
- **Burner & gas air ratio controls**
An optimised air and fuel mix can improve NO_x emissions.
- **Modulating characteristic**
Modulating boilers adjust their fire/gas use according to the heat load, making them more efficient and 'clean'. For this reason, the prescribed method to assess NO_x emissions according to BS EN15502 is a weighted average of the boiler operating at different modulations. Emission samples are taken across the entire modulation range when the boilers are working at lower or higher fire (i.e. spring, summer, autumn and winter heat loads) and then adjusted to reference conditions of 0% O₂ (dry air free).

Not following this process means more favourable conditions can yield 'better' NO_x results. Dry air figures ensure a level playing field to compare manufacturers' NO_x figures. If the boiler is under 70kW, the manufacturer's product fiche should have a section detailing emissions, this would be in line with this methodology. This should be checked against published data as this could be quoting either wet NO_x levels (not dry air free) or levels at minimum modulation.

All of the published data of Hamworthy products is defined in this way (0% excess oxygen, dry air). We must be careful when analysing different manufacturer's products to ensure we are comparing apples for apples. By using the British Standard, we can ensure accurate comparisons are made.

- **Efficient heat transfer**
The more efficient the heat transfer away from the combustion chamber, the lower the flame temperature and NO_x emissions can be.
- **Gas group**
Various gas types have different calorific values (CV) which indicate how much energy (in megajoules) they can produce per unit of volume (m³). Fuels with a higher CV create a higher intensity flame and hence higher NO_x.

These measures are all applicable to conventional premixed steel, metal fibre and ceramic burner types, in combination with a well-designed gas air ratio control system. This allows NO_x emission levels low enough for the next generation of domestic and small commercial boilers.



A trade-off between efficiency and NO_x?

Taking our Upton modular boiler as an example, gas and air are premixed before entering the burner which ensures a fully mixed combustion gas. A metal fibre surface distributes the combustion gas evenly over the surface of the burner. This, in combination with a high efficiency condensing heat exchanger, helps to keep the combustion temperature low and inhibits the formation of thermal NO_x.

While this burner/heat exchanger design helps to cut NO_x emissions up to a certain point, lowering the combustion temperature further can reduce the seasonal efficiency of the boiler. However, Ecodesign and CO₂ budgets have been the main driver to increase seasonal efficiency to reduce carbon emissions. As a result, there would be a trade-off in efficiency to achieve substantially lower NO_x levels.

What does the legislation say?

Ecodesign

In September 2018, Ecodesign reduced the emission level on all natural gas boilers up to and including 400kW to a level of 56mg/kWh. This changed from net figures to gross. The previous best classification was Class 5 and stated at 70mg/kWh net. 56mg/kWh gross converted is 62mg/kWh net, so a reduction has been made. A new Class 6 was set up to comply with the energy-related products (Ecodesign) requirement.

Medium Combustion Plant Directive

Since 20th December 2018, medium combustion plants (which also applies to commercial boilers) with a thermal input between 1MW to 50MW must stay below NO_x emissions of 100mg/NM³ (gas) or 200mg/Nm³ (oil). All of Hamworthy's gas/air premix boilers are below these levels and have been tested in accordance with this standard. Have a look at the next page to hear ICOM's Ross Anderson's thoughts on this piece of legislation.

What else is being done to reduce NO_x emissions from commercial heating?

London, which regularly breaches air pollution limits for the entire year and where commercial gas consumption produces 7% of its NO_x emissions, has the power to set its own limits. As a result, schemes for natural gas boilers with maximum NO_x levels that vary from 24mg/kWh to 40mg/kWh are now being specified.

BREEAM

BREEAM is a voluntary assessment method for the environmental impact of a building. BREEAM credits are awarded if a building meets certain criteria in terms of acoustics, renewables, floods managements or commercial boilers (pollution/local air quality) etc.

While it is non-mandatory, there is a large uptake in London. For any construction started pre 2018, up to 3 credits can be earned for boilers with NO_x emissions below 40mg/kWh.

For newer buildings (post 2018), a maximum of two credits can be earned for boilers with NO_x emissions below 24mg/kWh.

What is Hamworthy doing to reduce NO_x emissions in its boilers?

In terms of product development, we are always exploring how we can improve our products. As part of this process, we are looking into burners and combustion controls which permit leaner conditions – using less fuel and improving efficiency to investigate and adopt lower NO_x emission targets where achievable.

In operational terms, there is already a lot that a user of commercial boilers can do to reduce NO_x and carbon emissions. As outlined above, if a boiler is modulated down (lower fire), this improves efficiency, and also decreases NO_x emissions. Effective use of built-in boiler controls and measures such as weather compensation can reduce emissions as well.

Find out more:

This article is an abstract of our article on NO_x emissions. For the full-length version and other knowledge features, visit: hamworthy-heating.com/NOx



A section of our Upton heat exchanger.



HEATING UP WITH REGULATIONS

The Medium Combustion Plant Directive will have a significant impact on heating plant with a nominal heat output of over 1MW. Ross Anderson of ICOM explains.

When it comes to energy regulations, boilers and burners tend to come under particular scrutiny because of their assumed energy consumption and emissions. Products with outputs up to 400kW fall under the ErP Directive, outputs from 401kW to 1MW are covered by current standards (such as BN EN 15502 and BS EN 303-3) and plant above 1MW falls within the remit of the Medium Combustion Plant Directive (MCPD).

The MCPD covers all plant with a net thermal input between 1MW and 50MW that combusts any fuel (gas, oil, biomass, waste etc.) – making it applicable to boilers, CHP, diesel generators, incinerators and other specialised equipment. It is estimated that 90% of the affected plant falls into the 1-5MW range with 80% of these items being boilers.

A key issue for boilers (and burners) under the MCPD is achieving the emission levels set for different categories of fuel and plant age. The MCPD also introduced a registration scheme with building owners required to register qualifying plant. Plant from 1MW to 20MW has to be monitored every three years by measuring emissions, whilst plant between 20MW and 50MW is subject to annual testing.

The latest version of the MCPD came into force in December 2018 and only covers new plant in the range of 1MW to 50MW. There are no major problems anticipated for meeting these requirements.

However, the next two phases will be more of a challenge. On 1st January 2025, existing plant between 5MW and 50MW will have to comply with the MCPD emission levels. From the 1st January 2030, existing plant in the range of 1MW to 5MW will also need to comply.

As noted above, the emissions from the plant will be monitored on a regular basis, depending on which group they fall into, ensuring that levels of sulphur dioxide, nitrogen oxides (NO_x) and particulate matter all comply.

For older existing plant this may prove problematic as it is unlikely to be compliant. It may also be difficult to obtain the required parts for plant upgrades.

Similarly, where plans for plant replacements between now and the MCPD deadlines already exist – and given the typical working life of such products – future compliance will need to be a factor in the choice of suitable plant.

All of this certainly creates challenges for boiler manufacturers but is also significant for those required to specify, operate and maintain the plant. Being aware of what the future holds is the first step in being ready to meet those challenges. Thus, whilst the 2025 and 2030 deadlines may seem a long way off, it's important to be aware of them and plan accordingly. In this respect, boiler manufacturers such as Hamworthy are in an ideal position to advise their customers.



Ross Anderson
Director, ICOM

OUR TRAINING CENTRES



OUR PROMISE TO YOUR DEVELOPMENT

This year, we made a commitment to train 850 customers. We have exceeded this target. And in 2020 we will be giving even more time and resources to our training offer.

Everyone is different which is why we offer a range of options to suit. From hands-on product training that can be delivered at your site or at one of our training centres located across the

country to CIBSE-accredited CPD seminars available over a lunch break to fit with your timings.

CPD seminars and product training at the centres is free of charge. See what is available below and if you would like to organise a group booking at our training centres, just get in touch: marketing@hamworthy-heating.com

CIBSE-accredited seminars

These courses benefit anyone wishing to understand the latest industry developments and discover new ways to add value, performance and efficiency to your commercial heating and hot water projects. Courses typically last one hour.

Courses available:

- **New Boilers on Old Heating Systems: Hydraulic Design**
– A story of separation
- **Best Practice Heating & Hot Water Plant Refurbishment** – The role of a site survey
- **Best Practice in Domestic Hot Water (DHW)**
– 3 modules (DHW sizing, design, safety and legislation)
- **Energy Saving in Commercial Heating and Hot Water** – Could you save £1million?

We'll be adding more courses for the start of 2020, so look out for details very soon.



"A lot of data and information covered in a short space of time which was executed very well by the speaker." Stephen Walsh, J.V. Tierney & Co.

"I liked the concise nature of the event and the level of information felt right." Chris Bailey, NPS Norwich

"Presented very well, sides very clear, concise and easy to follow." Carl O'Connor, Malone Group

Product training

These courses will guide you through the servicing and fault finding of Hamworthy products so you can ensure they are operating at their maximum efficiencies. Typical courses are from 9.30am – 3.30pm.



"Good quality training, very informative on the LMS controller."

Andy Jackson,
Bmech Services

"Excellent training day, trainer's knowledge and experience of products faultless."

Jason Jeffery, AWE

"Good hands-on training, excellent trainers and course material."

Kevin McGrane,
A+E Heating



HOW TO BOOK

Online: hamworthy-heating.com/training hamworthy-heating.com/CPD

Email: marketing@hamworthy-heating.com

ART DECO MEETS MODERN HEATING & HOT WATER

Poole, Dorset

Bourne View is Colten Care's new flagship nursing home based in Poole. As part of an independent family-run company with 21 care homes, the 3-storey new build with 'Canopy Café', designed in Art Deco style, offers a relaxed atmosphere and a whole range of facilities such as an in-house salon, spa, and laundry room while providing all-around care for its residents.

Bourne View not only stands out from a design and care point of view, Colten Care also makes an active effort to be sustainable. It has become the first major provider in the UK's private care home sector to begin a group-wide reduction of single-use plastic - an environment that is a heavy user of this. Furthermore, sourcing local suppliers - from food to hand-crafted furniture - ensure premium quality and support the community.

Principal designer and contractor Colten Developments employed local consultants Mabey Francis as M&E designers and contract administrators. Watertite Heating were appointed as mechanical contractors who procured all mechanical items including the plant.

Mabey Francis specified Hamworthy Varmax boilers, Dorchester DR-FC Evo direct fired condensing water heaters and pressurisation equipment.

Andy Cope, director for Mabey Francis, commented,

"Reliability is by far the most important factor for heating and hot water in a working care home which depends on these essential services. It was imperative that the installation complies in all respects with Legionella guidance to ensure a safe environment for the home's future residents. Secondly, a high efficiency heating and hot water plant minimises energy use, reduces carbon emissions, and costs."

The two chosen Varmax 180 condensing boilers with a gross efficiency of 96% have a stainless steel heat exchanger with 5-year warranty at their core and deliver a combined output of up to 382kW. Thanks to a combined turndown of 10:1, they can modulate down and deliver outputs from as little as 38.2kW, improving efficiencies.

Andy continued,

"We decided to specify Hamworthy boilers, because we have been designing the M&E services for all of Colten's new build care homes over the last 25 years which have all been completed with Hamworthy boilers. We specified the Varmax based on resilience and life expectancy. Other than this, we find the pull-out step on this model and the integral light fitting to be very practical for commissioning and servicing the boiler."

Commenting on the installation, which was completed by Watertite Heating, Mike Dennett, projects director for the company, said,



"The heating design comprises of a gas fired, pumped low pressure hot water system fed from the two Varmax floor standing condensing boilers in the plant room, complete with purpose made flue system."

A Trend building management system provides weather compensation and boiler sequencing. While the former means the flow temperature in the system is adjusted according to outside temperature to avoid energy wastage, the latter ensures the Varmax boilers run under sequence control, meaning both boilers can operate at more efficient low fire together rather than one at high fire. This evens out use across the installation, improving the lifetime of the equipment.



Hot water supply and Legionella

One of the main concerns in care homes and healthcare facilities are Legionella bacteria. These are present in natural water sources but also man-made water systems, albeit usually in low numbers. Water temperature is a significant factor in controlling the risk, with optimum conditions for bacterial growth occurring between 20°C and 45°C. While Legionella can cause diseases in everyone, the elderly belong to the high risk group.

Two Dorchester DR-FC Evo 45 direct fired condensing water heaters with a gross thermal efficiency of 96% deliver a combined continuous output of 1,940 l/h (44°C ΔT) to satisfy the hot water needs of the care home. A destratification kit as well as a purpose-made flue system were also installed.

Andy elaborated,

"We chose separate direct fired water heaters because they allow the heating boilers to directly compensate for heating with no compromise to efficiency upon hot water demand. The Dorchester DR-FC Evo model was selected for its condensing technology and proven reliability continuing the long line of Dorchester water heaters we have specified over the years. The destratification kits help with Legionella protection."

Hot and cold water are supplied to the many facilities in the care home that offer all the convenience but also support the necessary care for its inhabitants: hair salon and spa basins, laundry sink and basins, all showers and baths as well as – essential for nursing homes and healthcare facilities - sluice basins.

The water heaters and chosen ancillaries ensure residents are protected from Legionella: While the destratification kit distributes sufficiently hot water evenly throughout the vessel to prevent the bacteria from multiplying, the water heaters include an anti-Legionella function which heats the contained water up to 65°C for an hour to kill any present bacteria. This can be set to run automatically for continuous safety.

Customer feedback

On the project, Mike Dennett reflected,

"Colten have always allowed reasonable space for the plant room. The principals of the company understand the importance of allowing enough room to install and maintain the heating and hot water generating plant. As a company, Watertite Heating are very proud of the standard of our mechanical installation both within the plant room and throughout the entire building. We believe the Art Deco design and attention to detail in decorating and dressing the home really do make this latest edition to the Colten portfolio a true flagship for their brand."

On working with Hamworthy, he added,

"The support I receive from Hamworthy's area sales manager is always excellent. Data sheets and brochures are also easy to download, making forward planning easier. Lastly, delivery dates were agreed in advance and adhered to."

Andy Cope commented,

"As a practice, we have been specifying Hamworthy products for over 40 years. They are based locally to our offices and have provided us with excellent technical support and after-sales service."

Steven Pinder, site manager for Colten Developments who worked with Watertite Heating and Mabey Francis on the project, concluded,

"We at Colten are pleased as a local business ourselves to be using another local company who have proved more than capable of providing an excellent product with an excellent service."

This installation joins the other 20 nursing/residential homes all of a similar size in the Colten group that have been completed using Hamworthy products. The whole installation has gone smoothly without problems and we're very happy with the result."

FEATURED PRODUCT

Varmax

No-flow boiler with twin returns for simplified system design.

- Floor standing, high output condensing boiler
- Stainless steel heat exchanger
- Outputs from 127kW (single models) to 956kW (dual models)
- Up to 96% gross seasonal efficiency
- 5-year heat exchanger warranty
- No requirement for dedicated primary circuit
- No minimum flow rates
- Wide differential temperatures for higher efficiency



FEATURED PRODUCT

Dorchester DR-FC Evo

Direct fired condensing water heater with fast response to hot water demand.

- Continuous outputs (@44°C delta T) from 600 to 2,400 L/h
- Meets strict standards for NO_x emissions in new buildings
- Ultra-quiet operation – can be installed close to point of use
- Down-firing pre-mix burner reduces effects of scale buildup
- Modulating burner closely matches the load to reduce wastage
- Anti-Legionella function to protect from harmful bacteria



Find out more:

hamworthy-heating.com/case-studies

INVESTING IN OUR TECHNICAL TEAM

Given the complexity of commercial heating system installations, the technical department hotline is one of the busiest in our business. Despite positive feedback from you for the support received, we were also aware of the frustration that can arise from call waiting times, which is why we decided to act.

More staff were hired to cover the demand. Two new engineers, **Jason Crowne** and **Mark Hewer**, have joined the technical team which is now staffed with five applications engineers.



Jason joined the company as applications engineer last year and has been familiarising himself with Hamworthy equipment since. With 20 years of experience in the gas industry, he enjoys the daily challenges the job brings.



Mark started at Hamworthy at the end of April this year. He has a background as a heating engineer for over 30 years, working for several well-established building services organisations in the South West.

Clive Williamson, contracts manager who oversees the technical department, commented,

"We closely monitor our technical help line performance. With more staff, we can offer an enhanced service. As a direct result of increasing the team size, we can already see dramatically reduced average call wait times."

Mark is being trained specifically in our products at the moment. Once he becomes fully versed in our equipment, we expect our service to improve even further."



In the field, technical sales manager **Barrie Welsh** has been supporting the sales team for the last year, visiting plant rooms and giving expert advice on heating systems on site.

With an early start in the industry as plumbing and heating engineer apprentice, he soon moved on to an industrial gas company which was his stepping-stone to the commercial/ industrial sector. Having worked on machinery from steam equipment, high pressure water heating to large space heating, industrial process plants, and sizeable district heating schemes, he incorporates the wealth of experience Hamworthy was looking for to support its customers on any project.

Sam Boshier, marketing manager for Hamworthy Heating, added,

"We're seeing an increased use of artificial intelligence in customer services such as bots, but for us, it is vital for our customers to have a person to talk to at the end of the phone. It's important we can offer a personalised service."

For technical assistance, call our hotline at 01202 662505 or send an email to technical@hamworthy-heating.com.



COLLECTIONS AND RECYCLING FOR THE COMMUNITY

As part of our initiative to support local charities and to become more environmentally friendly in the office, we started several initiatives. Gemma Hitchens, our finance manager, introduced the concept of Ecobricks at the beginning of the year. To make them, non-recyclable plastic such as wrappers, crisp bags, etc. are tightly packed into plastic bottles which are then used to build things. Ecobricks are made around the world. It's not only a way to trap plastic so it doesn't pollute the environment but also to remind ourselves how much plastic we're using on a daily basis. In July, we delivered our first 15 Ecobricks to local Lockyer's Middle School in Corfe Mullen.

We have also collected used toiletries and cosmetics which we donated to Dorset Cancer Care. Recently, the local charity helped a two times cancer survivor by paying for her new swimsuit with built-in prosthesis. The keen swimmer hadn't swum in seven years but regained confidence and entered the Pier to Pier Swim to raise money for the British Heart Foundation thanks to the charity's help.

We're not done with our collections yet. We're currently gathering CDs and DVDs and will continue to do the same with jigsaw puzzles.

You can follow our charity news by signing up to our newsletter: hamworthy-heating.com/signup

STILL TIME!



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