

Invitation to Register

19th European Biosolids & Organic Resources Conference & Exhibition

17th – 19th November 2014, Manchester Town Hall, Manchester, UK

MONDAY 17th NOVEMBER

BBSRC funded Anaerobic Digestion Network
Annual Workshop

TUESDAY 18th NOVEMBER

- Novel Feedstocks and Co-Digestates
- Experiences with Thermal Hydrolysis Treatment
- Best Uses of Energy
- Odour Control

WEDNESDAY 19th NOVEMBER

- Digester Performance
- Liquor Treatment
- Sludge Thickening & Dewatering
- Nutrition Recovery
- Sludge Stockpiling
- Digestate

"Absolutely superb"
CH2M Hill, USA

**"Fantastic conference.
High calibre people.
Excellent staff support"**
Bio-Organic Catalyst Inc

**"The "cutting edge"
conference for sludge
treatment in Europe"**
Cambi AS

SPONSORS \ \



MEDIA PARTNERS \ \



SUPPORTING ORGANISATIONS \ \



The Biosolids conference attracts the most authoritative global experts in the area of biosolids and organic resource handling, treatment and recycling. The programme covers both the latest innovations and updates of existing technologies. Presentations from respected industry experts and newcomers follow the development of technologies and legislation from inception to full-scale installations

The conference regularly gathers over 200 delegates from all over the world, many of them return every year both for the technical presentations and fantastic networking opportunities.

In view of the many very positive comments we received about Manchester Town Hall,

the venue we used last year, it was not a difficult decision to hold the event here again. We are all hopeful that after this year's event, we get similar post-event feedback.

The trend we have seen over recent years towards better energy recovery through digestion, continues as the industry seeks to reduce its energy usage and associated GHG emissions. At the same time, the needs for treating the liquor that results from biosolids or digestate dewatering, become increasingly important, with a number of innovative alternatives available to achieve this, with and without nutrient recovery. As energy and nutrient recovery through digestion form a key part of the

Circular Economy, which in turn is meant to fuel export driven innovative ideas that are the Green Economy, the government has funded a number of large research initiatives in this area. We are pleased to welcome one such initiative to this event, namely the BBSRC funded Anaerobic Digestion Network. The workings of this network and the funding and opportunities available for commercial and academic activities will be revealed over the two days in Manchester.

So we look forward to welcoming you to the North and hope you enjoy two days of debate, learning and socializing.

Nigel Horan, Conference Director

Manchester Town Hall

Albert Square, Manchester, UK

The Town Hall was designed by Alfred Waterhouse, and is regarded as one of the finest examples of neogothic architecture in the United Kingdom.

The exhibition will be held in the Great Hall which is decorated with celebrated murals by Ford Maddox Brown illustrating the history of the city. The conference's sessions will take place in the impressive staterooms.

Venue, travel and accommodation details will be sent out upon registration, alternatively you can view these on the conference website, www.european-biosolids.com



Conference Dinner at The Palace Hotel

Tuesday 18th November

The Conference Dinner will take place at the iconic Palace Hotel, a striking grade two listed four star hotel, based right in the heart of Manchester. It is located just across the road from Oxford Street train station and close to a world of attractions in this vibrant, bustling city.

A ticket for the evening is £60 (+VAT) per person which includes arrival drinks, a 3 course meal with coffee and ½ bottle of wine. Please add the dinner option to your basket upon registering at www.aquaenviro.co.uk

The Conference Dinner is a great opportunity to network with people in the industry in a relaxed atmosphere. Why not take a corporate table of 10 to entertain your guests? This is a perfect opportunity to entertain your most important clients.

Corporate tables are available at a cost of £600 (+VAT) for 10 people.

The event is always a sell out so we encourage you to book early to avoid disappointment.

Email: franceswoodhead@aquavenviro.co.uk to reserve your table.

Sponsorship & Exhibition

This highly regarded annual conference offers a fantastic opportunity to increase your company profile and gain brand awareness through sponsorship. The options range from inserts in the delegate packs, through to sponsorship of the dinner or a specific technical session.

Alongside the conference is the extremely popular exhibition. Stand spaces are 3m x 2m and are on offer at £850 (+VAT) for two days (18th -19th Nov). Current exhibitors include:

- Veolia Water Technologies
- Cambi
- MSE Hiller
- Paques
- GEA Mechanical Equipment UK Ltd
- Bucher Unipektin
- Huber
- Aqua Enviro
- Mono Pumps
- Sustec Consulting & Contracting BV

To reserve a space or discuss your sponsorship requirements in more detail please contact Frances – T. +44 (0) 1924 257891 or Email. franceswoodhead@aquavenviro.co.uk

MONDAY 17th NOVEMBER

BBSRC FUNDED ANAEROBIC DIGESTION NETWORK ANNUAL WORKSHOP

The Network addresses scientific and technical challenges in the development of anaerobic biotechnology, drawing on the expertise of leading academics underpinned by new tools and concepts. As well as enhancing the performance of anaerobic digestion (AD) as a second generation bioenergy process, these open up new areas of application in the creation of value-added bio-based products, widening the process scope to a biorefinery. Bio-molecular tools open up the possibility of improved diagnostics and advanced on-line process control, topics of immediate interest to industry.

The Network engages academia, industry and government to help promote and disseminate AD research and practice, particularly in the creation of value-added bio-based products and bio-molecular tools which open up the possibility of improved diagnostics and advanced process control, topics of immediate interest to industry. Funding is available through Business Interaction Vouchers and Proof Concept grants. Membership of the group is free

Topics for discussion will be centred around recent research carried out by the Network's Working groups:

1. Bio-molecular tools
2. The VFA Factory: extraction, downstream processing and conversion
3. Optimisation of anaerobic digestion processes
4. Feedstock enhancements, novel feedstocks and new markets
5. Process integration and modelling
6. Environmental interactions and societal challenges.

Conference delegates will be offered a discounted rate to attend the workshop.

TUESDAY 18th NOVEMBER

NOVEL FEEDSTOCKS AND CO-DIGESTATES

Bio-Diesel Recovery from the Fat Oil of Leather and Slaughterhouse Solid Wastes and its Exhaust Emission

Shanmugam, P.¹, Latha, S.², Ashwini, S.², Kanthasamy, P.¹, Thambiran, E.⁴,

¹Council of Scientific and Industrial Research, India, ²Anna University, India, ³SRM University, India

Biogas from pulp and paper mill sludge - an assessment of investment and technology requirement for an integrated production system

Hagelquist, A., COWI AB, Sweden

Resource recovery from pulp and paper mills by adaptation of their wastewater treatment to biogas production

Granström, K., Karlstad University, Sweden

Lochhead AD- Europe's largest dry AD facility- A way to go for co-mingled municipal food and green waste?

Csepany, G., SLR Consulting Ltd

Co-digestion at the Wuppverband WWTP's

Salomon, D.¹ and Kolisch, G.²,
¹Wuppverbandsgesellschaft für integrale Wasserwirtschaft mbH, Germany,

²Wuppverband, Germany,

Realising the biochemical potential of feedstocks in the circular economy

Smyth, M., Aqua Enviro Ltd

New Plant to Provide "Green" Energy from Sewage Sludge for Thames Water at Oxford

Humphries, T., and Sall, P., Veolia Water Technologies

Biogas plant Mosserud, Sweden – Successful implementation and Operation of Biogas Plant for Organic Household Waste, Manure and Grass Silage

Kanders, L.¹, Sthyr, F.², Enocksson, H.¹, ¹Purac AB, ²Biogasbolaget AB

Is There a Free Lunch in Food Waste?

Evans, T. TIM EVANS ENVIRONMENT

Supercritical CO₂ Mediated Continuous Countercurrent Fractionation of Valuable Components from Citrus Processing Bi-products

Yasumoto, S.¹, Quitain, A.¹, Sasaki, M.², Iwai, H.^{1,3}, Tanaka, M.³, Hoshino, M.³,

¹Kumamoto University, Japan,
²Institute of Pulsed Power Science, Kumamoto University, Japan,

³Maruboshi Vinegar and ASCII Co. Ltd., Japan

Sub/Supercritical Hydrothermal Liquefaction of Asian Biomass for Energy Conversion

Quitain, A.¹, Heng, C-Y.², Yusup, S.², Sasaki, M.³, Uemura, Y.⁴,

¹Kumamoto University, Japan,
²Universiti Teknologi Petronas, Malaysia,

³Institute of Pulsed Power Science, Kumamoto University, Japan,

⁴Centre for Biofuel and Biochemical Research, Universiti Teknologi Petronas, Malaysia

BEST USES OF ENERGY

Opportunities for using waste heat from processing organic residues

McCendry, P. SLR Consulting

Best uses for the energy produced

McCendry, P. SLR Consulting

Optimizing Energy and Waste Heat Recovery without a Land Bank – New Water's Approach

Burrowes, P.¹, Angoli, B.², Bartell, B.², Erschnig, M.², Westcott, P.², Desing, B.¹,

¹CH2M HILL, Canada, ²NEW Water, USA

Implementation of a local heat grid at Buchenhofen WWTP

Kolish, G.¹, Hubus, I.¹, Salomon, D.²,

¹Wuppverbandsgesellschaft für integrale Wasserwirtschaft mbH, Germany,

²Wuppverband, Germany

Biofuels from Digested Sewage Sludge: Pyrolytic Biofuel Production and Catalytic Upgrading Studies

Arazo, R.O.^{1,2,3}, Capareda, S.C.² and De Luna, M.D.G.³, ¹Misamis Oriental State College of Agriculture and Technology, ²Texas A&M University, ³University of the Philippines

Diliman

Advanced Energy Recovery from Sewage Sludge

Mills, N., Perrault, A., Pearce, P., Thames Water

Application of Biotechnology for Reducing Biosolids Production In-situ with Carbon Cycle Analysis

Whiteman, R.¹ and Davies, I.²,

¹ABS Inc, ²URS, USA

EXPERIENCES WITH THERMAL HYDROLYSIS TREATMENT

Why Thermal Hydrolysis and Anaerobic Digestion is Rising to the Top in North America

Williams, T. and Whitlock, D., CH2M HILL

THP Organic Load ramping up strategy based on Oxford STW THP plant start-up experience

Macedo, F.¹ Fountain, P.¹, Symonds, M.¹, Clegg, S.², Sluder, D.³,

¹Thames Water, ²AECOM, ³Kier Group

Thermal Hydrolysis at Davyhulme WWTW – One Year On

Edgington, R.M.¹, Belshaw, D.¹, Lancaster, R.¹, Jolly, M.², ¹United Utilities, ²Black & Veatch

Advanced Digestion at Beckton and Crossness: Innovative Design and Early Operational Experience

Merry, J.¹ and Fountain, P.²,

¹Imtech, ²Thames Water

Second Generation THP – Intermediate THP

Rus, E., Masse, A-L., Perrault, A., Mills N., Thames Water

Nye Mjøsianlegget, Norway – Biogas Plant with THP for Organic Household Waste

Kanders, L.¹, Gaustad, H.², Sargalski, W.², ¹Purac AB, ²Cambi AS

Cambi SolidStream® High Dry Solids Technology – Report from first full-scale installation, Germany

Kopmann, T.¹, Nilsen, P.J.², Solheim, O.E.², Traa, L.P.², ¹Amperverband, ²Cambi Group

Strategy Development of Sludge Treatment and Disposal in Beijing Based on Thermal Hydrolysis Advanced Digestion

Shi, L.¹, Chen, Y.¹, Li, Y.², Huang, O.², Liao, Z.³, Kleiven, H.³, Panter, K.⁴, ¹Beijing Drainage Group Co Ltd, ²Beijing General Municipal Engineering Design & Research Institute Co Ltd,

³Cambi Group, ⁴Ebcor Ltd

Lysotherm®: a novel approach to thermal sludge hydrolysis

Geraats, B. SH+E Nederland B.V.

Exelys™ Continuous Thermal Hydrolysis - is A Containerised Concept Every Sites Solution?

Gilbert, A. and Bigot, B., Veolia Water Technologies

Full scale experiences with TurboTec continuous thermal hydrolysis at WWTP Venlo (NL) and Apeldoorn (NL)

Van Dijk, L.¹, Luning, L.¹, de Man, A.², ¹Sustec Consulting Contracting bv, the Netherlands, ²Waterschapsbedrijf Limburg, the Netherlands

ODOUR CONTROL

Odour generation and dust in belt drying of sewage sludge

Heindl, A. HUBER SE, Germany

Odour control – Developing new strategies

Li Low, W.^{1,2}, Hill, D.J.², Roberts, C.²,

Lee, C.¹, Wilkes, M.¹,

¹Odour Services International Limited,

²University of Wolverhampton

DIGESTER PERFORMANCE

Anaerobic Digestion, There is Still Room for Improvement

Giacalone, S.¹, Winter, P.¹, Smith, S.R.²,

¹Thames Water, ²Imperial College London, UK

A Novel Approach to Seeding and Ramping up from Conventional to THP Digestion – How fast is too fast?

Molokwu, O.¹, Pook, M.², Macedo, F.²,

Fountain, P.², ¹Reading University, ²Thames Water

Lessons learnt from the commissioning of the mesophilic digesters at Peacehaven new Sludge Treatment Works

Lewin, I.¹, Palmer, N.², Clark, P.², Walker, M.³,

Mercer, A.⁴, Banfield, P.⁴, Tardy, N.⁴,

Cranshaw, I.¹, ¹MWH, ²Southern Water, ³4D, ⁴Veolia

A Comparison of Real AD Plant Performance: Howdon, Bran Sands, Cardiff and Afan

Oliver, B. and Merry, J., Imtech

Starting up a New Advanced Digestion Technology

Buchanan, A., Chan, T.¹, Riches, S.², Brookes, A.²,

Brown, C.³, ¹Black & Veatch, ²Anglian Water, ³Imtech

The Value of Understanding Site Performance – Lessons Learned in Conducting Site Performance Assessments

Pook, M.¹, Heitmann, M.²,

¹Thames Water, ²Reading University

The potential of Volatile Fatty Acids (VFAs) analysis to drive digester performance in Thames Water

Burgess, A.¹, Wallis, J.¹, Pool, M.², Smyth, M.¹,

¹Aqua Enviro Ltd, ²Thames Water

Operational experiences at Southern Water during the implementation of an innovative approach to the utilisation of an existing sludge treatment technology - Low dose liming of digested liquid sludge

McDonald, A-M. and Arnold, S., Southern Water

Bacterial changes during commissioning of digestion following thermal hydrolysis

Macedo, F.¹, Fountain, P.¹, Pook, M.¹, Mills, N.¹,

Neilson, P.J.², Murthy, S.³, Panter, K.⁴,

¹Thames Water Innovation, ²Cambi, Norway,

³DCWater, USA, ⁴Ebcor Ltd

Can you improve the future by simply understanding your business better?

Roach, N., Business Modelling Associates

DIGESTATE

Cost Benefit Analysis of Applying Digestate to Agricultural Land in Wales

Ballinger, A.¹ and Smyth, M.²,

¹Eunomia Research & Consulting, ²Aqua Enviro Ltd

Making Best Use of Biosolids

Taylor M.J., Withers P.J.A., Chambers B.J.,

ADAS Gleadthorpe

Engineering Practice for Biosolids Treatment by the CTB Process in China

Chen, J. Gao, D., Chen, T-B., Zheng, H-X., Li,

X-Y., CheBeijing Green Tech Environmental Engineering Co. Ltd

WEDNESDAY 19th NOVEMBER CONTINUED

SLUDGE THICKENING AND DEWATERING

North Coast Scheme Sludge Dewatering – 7 Years On

Sims, J., Huber Technology

TerraNova® Ultra - Ultradewatering of sewage sludge with integrated nutrient recovery- boost the energy balance

Butterman, M. TerraNova Energy

High Performance sludge dewatering for drinking water plants with the Bucher Hydraulic Filter Press

Huppert, M. and Mischler, J-P., Bucher Unipektin, Switzerland

Controlled Backmixing post gravity belt thickeners using Primary Sludge at Reading STW

Masse, A. Perrault, A., Fountain, P., Thames Water

Natural freezing-thawing to improve the dewaterability of pulp mill WAS and the anaerobic digestibility of the filtrate/pressate

Meyer, T. Allen, D.G., Tran, H., Edwards, E.A., University of Toronto, Canada

Practical techniques to assess the dewaterability of sludge and optimise performance and polymer dosing

Minall, R., Smyth, M., Horan, N.J., Aqua Enviro Ltd

Digestate Dewatering -Clearfleau and Huber Technology solution for Diageo

Clutten, T., Huber

NUTRIENT RECOVERY

A Modern 21st Century U.S. Wastewater Treatment Plant: Efficacy of Nutrient and Virus Removal

Pepper, I. and Schmitz, B., The University of Arizona

Advancing Extractive Nutrient Recovery from Wastewater

Williams, T.¹, Jeyanayagam, S.¹, Latimer, R.², Khunjar, W.², Pramanik, A.³,

¹CH2M HILL, ²Hazen & Sawyer, USA, ³Water Environment Research Foundation, USA

Commissioning Norway's first biofertiliser factory

Whipps, A.¹, and Tornes, O.²,

¹Pell Frischmann Ltd, ²IVAR IKS, Norway

Full Scale Phosphorus Recovery in Severn Trent Water

Wild, R.¹, Wickens, D.¹, Bejar, P.², Moxey, P.¹,

¹Severn Trent Water, ²NMC Nomenca

MINORGA® goes live! Preparing for Norway's first biofertiliser product

Tornes, O. and Norgaard, E., IVAR IKS, Norway

SLUDGE STOCKPILING

Quality biosolids recycling, winter stockpiling without risking prosecution

Evans, T. TIM EVANS ENVIRONMENT

The icing on the cake – options for physical stabilisation of sludge stockpiles

Pook, M. and Grace, H., Thames Water

Mechanisms of spontaneous combustion of stockpiles of biosolids – Risk reduction and process optimisation

Aganetti, R., Thorpe, G., L, J-D., Victoria University, Australia

Potential of a modified storage environment contributing to E. coli regrowth prevention strategies

Fane, S.¹, Tyrrel, S.¹, Cartmell, E.¹, Nocker, A.¹, Wilson, A.²,

¹Cranfield University, ²Severn Trent Water

LIQUOR TREATMENT

Full Scale Deammonification in the Mainstream & Sidestream

Wiltshire, P. and Wim De Mooij, H., Grontmij

ANITATM Mox: Experience from Start-up and Operation of Deammonification MBBR and perspective of a New Deammonification IFAS configuration

Nussbaum, B.¹, Piveteau, S.¹, Rosén, M.¹, Christensson, M.¹, Lemaire, R.², Bigot, B.³,

¹AnoxKaldnes AB, Sweden,

²Veolia Water Technical and Performances Department, France,

³Veolia Water Technologies, UK

AQUA ENVIRO EVENTS DIARY

Constructed Wetlands for Water Management and Pollution Control - CWA Annual Conference

7th - 8th October 2014,

Manchester Town Hall, UK

8th European Waste Water Management Conference & Exhibition

7th - 8th October 2014,

Manchester Town Hall, UK

Making Dewatering Work

23rd October 2014,

Aqua Enviro Training Suite, Wakefield, UK

Short Retention Time Anaerobic Digestion Processes for Industrial Wastewater Treatment – past, present and future

December 2014, Newcastle, UK

Phosphorus Removal from Catchments: Technology or Source Control?

Early 2015, venue TBC

Innovations in Wastewater Treatment

2nd – 4th September 2015,

University of Leeds, UK

19th European Biosolids & Organic Resources Conference & Exhibition

17th - 19th November, Manchester Town Hall, UK

REGISTRATION FORM

TITLE	FULL NAME		
POSITION	ORGANISATION		
ADDRESS			
TEL	FAX	E-MAIL	

ADDITIONAL DELEGATES (Must belong to the same organisation with the same invoicing address otherwise use a separate form)

TITLE	FULL NAME		
POSITION	EMAIL		

TITLE	FULL NAME		
POSITION	EMAIL		

CONFERENCE FEES	RATE	VAT @ 20%	AMOUNT PAYABLE	NUMBER	TOTAL PAYABLE
FULL DELEGATE (2 DAYS)	£550.00	£110.00	£660.00		
AUTHOR (2 DAYS)	£490.00	£98.00	£588.00		
STUDENT/ACADEMIC/CHARITIES (2 DAYS)	£200.00	£40.00	£240.00		
ONE DAY: DELEGATE/AUTHOR	£295.00	£59.00	£354.00		
PLEASE SELECT WHICH DAY YOU ARE ATTENDING:	TUES 18th	WEDS 19th			
AD NETWORK WORKSHOP (17th NOVEMBER) CONFERENCE DELEGATES	£75.00	£15.00	£90.00		
AD NETWORK WORKSHOP ONLY (17th NOVEMBER)	£150.00	£30.00	£180.00		
CONFERENCE DINNER (18th NOVEMBER)	£60.00	£12.00	£72.00		

TOTAL PAYABLE (inc. VAT)

PAYMENT IN ADVANCE

VAT invoice will be issued on receipt of registration.

I ENCLOSE A PAYMENT BY CHEQUE OF:

PLEASE MAKE CHEQUES PAYABLE TO
AE TECHNOLOGY TRANSFER

PLEASE INVOICE THE FOLLOWING PERSON/ORGANISATION FOR THE SUM OF £

FOR THE ATTENTION OF:

PURCHASE ORDER NO.

ADDRESS (IF DIFFERENT FROM ABOVE)

CREDIT/DEBIT CARD

CARD NUMBER

NAME ON CARD

EXPIRY DATE

SECURITY NUMBER (LAST 3 DIGITS ON REVERSE OF CARD)

REGISTERED ADDRESS (IF DIFFERENT TO DELEGATE ADDRESS ABOVE)

THE COMPLETED FORM SHOULD BE RETURNED TO:

AQUA ENVIRO, 8 APPLETON COURT, CALDER PARK, WAKEFIELD WF2 7AR

or e-mail to clarehunter@aquaveniro.co.uk or fax to +44(0) 1924 257 455 or tel: +44(0) 1924 257 891

You can also register and pay online at www.aquaveniro.co.uk

For full details of the conference visit www.european-biosolids.com