

Health Sector News

HV training facility aims to improve practice

Simulated fault-finding will play a key part in the high voltage (HV) training now being offered at Eastwood Park's new in-house HV facility at its Falfield, Gloucestershire site.

Created following significant investment, the new facilities 'mimic' those in a small-scale hospital site – with distribution sub-stations representing hospital services, a dedicated Authorised Person (AP) HV office, and a variety of different switchgear, 'reflecting typically what is found in hospital estates in the UK'.

Kevin Furey, Eastwood Park's new HV trainer (pictured), says that practical HV training, with a combined focus on safety rules and procedures, is essential for safely managing HV supplies on site. Eastwood Park accredited courses will 'combine the highest safety levels and a structured approach to HV switching and fault-finding'.

Kevin Furey explained: "Our practical guidance and exercises comprise working with a live 11 kV testing rig and live 11 kV phasing. Our simulated 11kV open ring system, with six distribution sub-stations



and an intake sub-station, is based on a typical hospital system with dual feeds and a bus coupler. Learners will also undertake pressure testing of cables and vacuum circuit breakers. Our open ring system comprises newly refurbished switchgear, typifying what is most common in industry. The open ring has switched simulated faults, to give delegates the opportunity to fault-find and operate the switchgear under close supervision."

He added: "There will also be testing of protection systems and grading exercises, as well as tuition on how to make safe underground cables prior to working on

them by using the Ackvoke spiking gun, plus cable fault location. The new site also features a cutaway of a typical 11 kV transformer, showing the internal workings."

Learners will be trained on the safe operation of HV systems, including via participation in several scenarios covering typical maintenance and repair tasks, and on 'all the necessary and latest safety documentation, Permits to Work, and Sanctions to Test, required to carry out these tasks'. Assessments will take place on typical practical scenarios, and via a formal technical awareness exam.

Kevin Furey added: "Learners can be assured that they will leave Eastwood Park having received the best training available, and equipped to follow vital safety procedures when operating HV equipment."

Eastwood Park is delivering HV City & Guilds-accredited programme status training for Authorised Persons within healthcare, industry, and the Ministry of Defence, as well as a comprehensive overview for managers/heads of departments responsible for HV.

Cover Story

BEMS helps Leeds Teaching Hospitals NHS Trust keep *Legionella* at bay

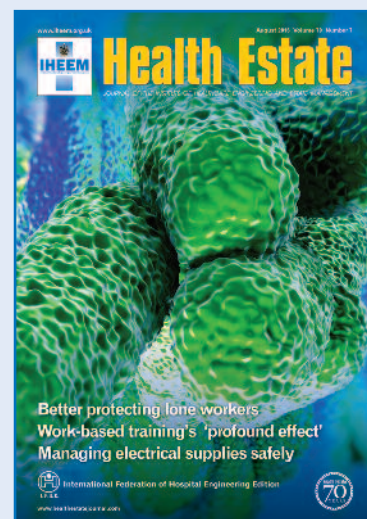
Due to their large and often complex water supply systems, hospitals are potential breeding grounds for the bacteria that have the potential to cause Legionnaires' disease.

Leeds Teaching Hospitals NHS Trust is leading the way in risk mitigation and compliance through the innovative use of a building energy management system (BEMS) from Trend Control Systems, which monitors, controls and provides information on the status of the water supply, storage and distribution system.

Integrating the Trend BEMS into the water quality management system at Leeds Teaching Hospitals means that craftsman specialist, Geoff Harris and his team have a proven management tool for their *Legionella* monitoring and control policy, which has enhanced their ability to maintain compliance and be resilient in a sustainable manner.

Geoff Harris said: "The health and safety of patients, staff and visitors is of paramount importance to the Trust and the data produced by the Trend BEMS, along with the alarm system, makes our infrastructure highly resilient and drastically reduces the risk of waterborne infection. However, the benefits do not stop there; if the Trust didn't use the BEMS to monitor the DHW systems, manpower and resources would be diverted from other maintenance functions, with obvious consequences. A sustainable system means the Trust is able to work smarter and simultaneously, to achieve complete compliance with HTM 04 and ACoP L8."

Trend Control Systems is a major international manufacturer and supplier of building energy management systems, with a worldwide distribution and support network covering over 50 countries.



Trend Control Systems Ltd
Albery House
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Tel: 01403 211888
To view the full version of this case study, visit: www.trendcontrols.com

Howorth to distribute Trumpf equipment

Howorth has extended the range of equipment and service it offers to the healthcare sector by becoming the distributor for Trumpf medical operating lights and service pendants throughout England, Scotland, Wales, and the associated Islands.

Trumpf became part of the HillRom group in 2015, while Howorth has a long history of supplying third-party pendants and operating lights. Tom Ford, divisional director, Medical, at Howorth Air Technology, said: "Trumpf recognised Howorth's unique position in critical care environments. Howorth has the sales, engineering, installation, and service teams covering the UK needed to properly support Trumpf's existing customers, and it is both companies' intention to expand operations in the UK."

The strength of the combined offering has been recognised by a major private hospital



group, which has engaged Howorth to provide operating lights, medical service pendants, Exflow Evolution ultraclean ventilation systems, and theatre control panels, for 22 operating theatres and treatment rooms. Most of the theatres are

either digitally integrated or hybrid rooms.

Howorth can undertake full turnkey installations, employing its own in-house design and engineering staff, and is qualified to Level 5 – Achilles Building Confidence.

'Dementia-friendly' flooring seminar

Polyflor has announced the launch of a new CPD seminar on 'dementia-friendly flooring', approved by both the Royal Institute of British Architects (RIBA) and the Society of British and International Design (SBID).

Contributing towards CPD credits for both RIBA and SBID members, the 'Specification of Dementia-Friendly Flooring' seminar is one of three informative sessions on the subject of specifying vinyl flooring which can be

delivered by Polyflor representatives throughout the UK free of charge. New for 2016, the hour-long session includes helpful information on understanding more about the condition and the appropriate design principles to consider when specifying flooring for dementia-friendly environments.

Polyflor's CPD offering also includes RIBA and SBID-approved sessions on the 'Specification of Vinyl Floorcoverings', and 'Specification of Safety Vinyl Floorcoverings'. The company has also launched a specialist care brochure presenting new 'dementia-friendly flooring principles' developed in collaboration with the University of Salford's School of the Built Environment and Institute for Dementia, which are also incorporated within the CPD.



Clean steam ahead

In response to the growing requirement for clean steam, Spirax Sarco has unveiled a dedicated UK clean steam manufacturing facility at its Cheltenham headquarters.

The new 1,200 m² factory will manage production of Spirax Sarco's range of clean steam system components, including BT6-B, BTM7, and BTS7 thermostatic steam traps and clean sample coolers – 'with many more products to follow'.

Designed to reflect industry expectations, the facility will manufacture only stainless steel products to eliminate the risk of cross-contamination of ferrous and non-ferrous metals. Meanwhile, product assembly will be completed in the company's first dedicated ISO 7 cleanroom – the default classification for medical device packaging.

Offering customers full traceability and certified validation of the materials used to manufacture each product, the facility will also enable Spirax Sarco to significantly improve the availability of its clean steam technologies and the associated technical and sales support. At its opening, Group CEO, Nick Anderson, said: "Our belief is that organisations operating in the food and beverage, healthcare, and pharmaceutical industries, should be able to guarantee quality, service, and traceability of all clean and pure steam products from a single point of supply."

New President has air of cool

Malcolm Thomson has been elected President of the Building Engineering Services Association (BESA) for 2016/17.

Having begun his career in 1972 as a technician apprentice with Sadia Airofreeze, on completing his training he installed and serviced supermarket display cabinets and cold rooms for BOC Linde, later joining Subcool, which specialised in commissioning large centrifugal and absorption chillers, where he became a director. He became a director and co-owner of Halcyon Air in 1985, before in 1999 founding Enigma Environmental Services, which provides cooling and associated building engineering services, both in the UK and overseas.

A Fellow of the Institute of Refrigeration, and a director of the Air Conditioning and Refrigeration Industry Board, Malcolm Thomson is a former chairman of the BESA South Midlands Regional Branch, vice-chairman of the Refrigeration, Air Conditioning and Heat Pump Group, and a member of the Association's Membership Committee. He was elected vice-President in July 2014, and President-Elect in July 2015.

The presidential team at BESA for 2016/17 is as follows: Jim Marner, immediate Past-President; Malcolm Thomson, President; Tim Hopkinson, President-Elect; and Giuseppe Borgese, vice-President.

Nigerian accolade for Brandon

Brandon Medical's award-winning operating light, the Quasar eLite, has recently been installed in theatre facilities at two leading healthcare institutions in Nigeria – the Aminu Kano Teaching Hospital in Kano, and the Divine Medical Centre in Lagos.

The lighting and operating theatre



equipment specialist describes the Quasar eLite as one of its 'most premium' products. It provides up to 160,000 lux of bright light, and has features including red balance control, while a lightweight chassis and 'intuitive' lighting controls make it easy to manoeuvre and use.

Brandon said: "The medical lighting set up by our Nigerian distributor, Dhanodi Engineering, left a lasting impression at the Aminu Kano Teaching Hospital (see photo). Professor Aminu Zakari Muhammad, chief medical director there, said he was impressed with both Brandon Medical's products, and our services." The 450-bed facility, in north-western Nigeria, offers a range of clinical services, and incorporates a School of Health and Information Management.

"The Divine Medical Centre, based in the state of Lagos, was also enthusiastic about the hard work put in to transform its operating theatre," Brandon explained. Dr Greg Osagie, owner and chief medical director, said: "Fantastic theatre lighting – surgery made easy. Bravo to Brandon."



From one-man band to pan-European supplier

Specialist in used medical equipment, Devon Medical, has recently expanded its headquarters in Bristol – almost doubling the size of its work area – following an increase in both staff and business over the past 12 months.

The offices and warehouse now include 15,000 square feet of space, a 'state-of-the art' meeting room, and cold storage for MRI and CT scanners. The once 'one-man band' now facilitates work across the UK and Europe, removing and transporting radiology equipment 364 days a year, with offices in Bristol, Lancashire, and France. The company said: "The growth has come at a time when people thought there would be a decline in procurement within the NHS."

The growing Devon Medical workforce has quadrupled over the past few years, allowing the teams to work on various projects simultaneously. The company added: "The expansion has also seen the turnkey side of the business flourish, with hospital construction tying in perfectly with the equipment decommissioning."

Office manager, Rob James, said: "The quality and care of our de-installations is of paramount importance to us, and having the time to carefully coordinate the removals is what makes us stand out from the rest."

Grade II-listed buildings get 'much-needed' £1.5 m refurb

Grade II-listed buildings at Central Manchester University Hospital are being restored to their former glory in a £1.5 m refurbishment by Novus Property Solutions.

The buildings, located in the heart of Manchester's Knowledge Quarter, form part of Europe's largest clinical academic campus, and the Central Manchester University Hospitals NHS Foundation Trust has appointed Novus on a measured term contract to deliver a comprehensive programme of upgrades.

As well as refurbishing the buildings themselves, a team of five Novus operatives are working with a large number of sub-contractors to deliver groundwork and road alterations, as well as general repairs. The works will significantly improve the accessibility of the buildings, with ramps and moulded railings being included in the rebuilding of a Grade II-listed wall. One early on-site challenge was the relocation of two flammable gas stores, which was achieved using a 100-tonne crane in the early hours of the morning.

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Security guidance launched in the Commons

New security guidance setting out six key principles to guide engineers and technicians in identifying, assessing, managing, and communicating issues about security – developed in consultation with 35 professional engineering institutions – was officially launched at the House of Commons recently at an event hosted by the Rt Hon John Hayes MP, Minister for Security.

The event was attended by over 100 people from across the engineering profession, including speakers, Terry Morgan CBE CEng FEng, chairman of Crossrail, and the head of the Centre for the Protection of National Infrastructure (CPNI). The Engineering Council, as the

regulatory body for the engineering profession, has led the way in developing this important material, with the support of CPNI and the professional engineering institutions. It provides guidance for engineers and technicians on their role in dealing with security, and their associated responsibilities to keep society safe.

The guidance defines security as 'the state of relative freedom from threat or harm caused by deliberate, unwanted, hostile, or malicious acts'. The principles emphasise the importance of taking a security-minded approach to both professional and personal life, and being aware of, and taking responsibility for, all security-related issues.

Take part in next year's 'Big Bang'

The Big Bang Fair has launched a nationwide call for companies, activity providers, institutions, and show organisers, to play their part in next year's Fair, which takes place at the NEC, Birmingham, from 15-18 March 2017.

Celebrating its ninth year in 2017, The Big Bang UK Young Scientists and Engineers Fair brings together the STEM community in a collective effort to inspire over 70,000 young people, their teachers, and parents, across four days each March. Camilla Barker, head of The Big

Bang Fair at EngineeringUK, said, "The Fair is a unique opportunity to inspire thousands of young people to pursue a career in science or engineering. We want to offer those young people the biggest and best range of hands-on STEM activities, interactive stands, workshops, theatre shows, busking, and competition showcases. We'd love to hear from organisations that would like to play their part."

For more information, visit: www.thebigbangfair.co.uk/activities

Diary dates

8 Sep IHEEM WALES Branch Regional Conference and Exhibition, The Village Hotel, Cardiff.
T: 01633 213160.
www.iheem.org.uk/wales

13 Sep Clinical Engineering Conference 2016, Holiday Inn, Stratford-upon-Avon.
T: 01245 546000;
<http://tinyurl.com/hc295t9>

20 Sep IHEEM Southern Branch Electrical Compliance seminar by Cobweb IS, Andover War Memorial Hospital, Andover.
T: 01425 638196;
E: chris.james@turnerfm.co.uk

26-28 Sep Infection Prevention 2016, Harrogate International Centre.
T: 01506 292034;
<http://tinyurl.com/kfw6vnt>

4-5 Oct Healthcare Estates 2016, Manchester Central.
T: +44 (0)1892 518877;
www.healthcare-estates.com

11-12 Oct Care & Dementia Show 2016, NEC, Birmingham.
T: 020 7921 8166;
www.careshow.co.uk

1-2 Nov EHI Live, NEC Birmingham,
T: +971 (0) 4 407 2578;
www.ehilive.co.uk/

17 Nov Southern Branch Bioterrorism event, Royal Bournemouth Hospital, Dorset.
T: 01425 638196.
E: chris.james@turnerfm.co.uk

Dec IHEEM Fire safety seminar, 'Working together for safer healthcare'.
T: 023 9282 3186;
www.iheem.org.uk/events

2017

25-26 Apr Hospital Innovations 2017, Olympia, London.
T: 44 (0)1892 518877;
www.hospital-innovations.com



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A creative use of 'dead space' for Spire

When Spire Harpenden Hospital sought to improve the appearance and storage capacity of its operating theatre suite, materials management specialist, Medstor, was brought in to design a functional, creative, and stylish solution – completing the project in two weeks from design to installation.

Many Medstor projects require its designers to 'think outside the box' to deliver a custom storage and materials management solution. At Spire Harpenden Hospital, Medstor developed a design that changed an irregular area of wall in the theatre storage area 'beyond recognition', bringing together a range of units of different heights and sizes to create a bespoke wall of high volume storage in previous 'dead space'. The cabinets

support the Medstor tray system, which allows theatre staff to organise stock into configured trays to maximise space and create a safe storage environment.

Medstor worked closely with the hospital throughout to minimise disruption to the theatre suite's day-to-day running. Ian Rice, theatre manager, also had some specific requests, necessitating a custom solution – the Medstor team responded by designing a larger



cabinet to store laparoscopic kits, and an enclosed and lockable fluids cabinet for IV fluid boxes.

Medstor said: "The combination of full-height cabinets with trays, bespoke cabinets, mobile cabinets, a Metromax shelving system, and catheter baskets, has transformed the area into a highly functional space that increased and streamlined storage, and created the stylish and modern aesthetic required throughout."

Free electrical testing software

A new version of EDIS Local – a free, fully functional electrical testing and certification software system designed for use on PCs – has been released and is available for download.

EDIS Local is a key part of the EDIS Cloud 'ecosystem', which Cobweb IS says 'makes it easy for electricians to send data to organisations that use the EDIS Cloud to manage electrical compliance'.

The company added: "Since 2012's original V1.0 release, EDIS Local has been downloaded over 3,000 times, and is used by electricians daily to create and print BS7671-compliant Electrical Inspection Condition Reports, Minor Works Certificates, and New Installation Certificates. It can be used for small, single-page minor works jobs, or larger jobs with 100+ page Condition Reports.

EDIS Local is 'a free distribution for contractors or in-house teams needing a convenient way to create and print electrical certificates'. The software follows BS7671 guidelines, and allows users to manage supplies, boards, and certificates, via a 'user-friendly' interface and database. The system generates certificates in PDF, which can be attached to, printed, saved, or 'synced' with the EDIS Cloud, an enterprise system for planning, monitoring, and reporting on electrical compliance. For a free copy of EDIS Local, visit <http://www.electricalcertificates.co.uk>

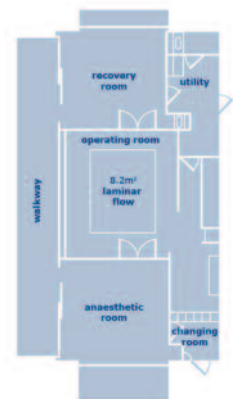


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