



The newsletter for the nuclear & nuclear medicine professional



NEWS

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### AQUILA NUCLEAR ENGINEERING HAS PRODUCED A NUCLEAR DECOMMISSIONING AGENCY CASE STUDY

Aquila Nuclear Engineering has produced a case study for the Nuclear Decommissioning Authority (NDA) following two successful Magnox contract awards. The project was to design, manufacture, factory test, install and commission two pieces of plant for the Chute Silo Project at Berkeley - a Shielded Transfer Flask & an Import/Export Facility.

The case study presents a unique opportunity for the rest of the industry to discover open detail about these projects, showcasing how significant time and cost reductions were achieved on both parts of the project.

As a Small to Medium sized Enterprise (SME) we always aim to provide improved customer focus. It leads to much stronger relationships and this contract proved no different. Thanks to some great working relationships, Aquila and the Magnox project team were able to push honest and open discussion and encourage challenge, innovation and fitness for purpose. This simplification meant results: we achieved a programme reduction of 3 months and we were able to save £960k of taxpayers' money - having met the same functional requirements that were quoted via a Tier 2 company, 12 months previously.



To read more about the collaboration, find the case study, available to read now, at www.aquilaeurope.eu under the downloads section.

# LIGHTYEAR; TO "INFINITY AND BEYOND"



Well that may be stretching it a bit but we are certainly making our mark in the industry and being recognized as a group of

pragmatic, resourceful engineers, capable of designing and delivering what we say, when we say. Our extensive experience in the nuclear industry serves us well in being able to offer established solutions, tried and tested in the past. This de-risks projects and makes the outturn costs more competitive. This is extremely important to all of us, as UK taxpayers.

### CULHAM CENTRE FOR FUSION ENERGY

"Aquila Engineering is pleased to announce that it has been awarded the contract for the Manufacture, Supply and Installation/Commission of Hot Cells for United Kingdom Atomic Energy Authority, in Culham. The suite comprises an import/export cell with three interlinked shielded cells, containing material sample preparation and test equipment. The primary containment includes a suite of stainless steel gloveboxes and biological shielding, manufactured in steel up to 450mm thick."

This contract allowed the Aquila team to demonstrate its market-leading knowledge of containment, shielding, remote handling and materials transfer.

# AQUILA NDA SUPPLY CHAIN AWARD NOV 2014



AQUILA WAS 1 OF 3 SHORTLISTED OUT OF 68 COMPANIES WHO APPLIED FOR THE AWARD, "GOING THE EXTRA MILE"

Ron Gorham, Head of Supply Chain for the NDA, introduced the award for "going the extra mile" and said, "This award goes to a company in our supply chain who has delivered a successful project, provided excellent customer service, offered flexibility, quick response and demonstrated sheer determination and bite of us, and in the face of adversity, a

commitment to succeed, in spite of us, and in the face of adversity, a company where nothing can really be too much trouble.

The only highly commended in "going the extra mile," goes to Aquila Nuclear Engineering for the Berkeley Chute Silo Flask and Export Facility.

Normally working in a tier 3, having a direct contract with Magnox and being a small but specialist organisation, Aquila was able to provide improved customer focus, forming strong relationships. This excellent working relationship, enabled honest and open discussion, encouraging challenge innovation fit for purpose. Providing this challenge and providing continuous suggestions to improve Aquila, saved almost £1 million (50% of the original price) shaving 3 months off their programme."



# GLOVE BOX & CONTAINMENT



At Aquila, extensive experience means exactly that. As a company, we work alongside our partners across the whole delivery process, covering scheme design right the way through to full manufacturing drawings.

In the past 18 months, we have designed and delivered over 50 containment systems to the nuclear industry.

As an authority in the design, manufacture, assembly and the installation of gloveboxes, containment and isolators, we are delighted to announce the publication of our first White Paper: Gloveboxes, containment and isolators for the Nuclear Industry.

Aimed at those relatively new to nuclear containment, or new to the capabilities of Aquila Nuclear Engineering, it details some of the areas of high importance when selecting a supplier. It also provides an insight into the requirements of containment and the philosophy we apply at Aquila Nuclear Engineering, based on over 25 years' experience in the design and build of integrated containment systems.

#### AVAILABLE AS A DOWNLOAD

Use the scan code with your smartphone or download from our website:

www.aquilaeurope.eu/downloads



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### CALDER GROUP UPDATE

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# HOTLABS 2014

**AQUILA WERE INVITED TO** PRESENT A PAPER AT THE **HOTLABS 2014 CONFERENCE IN BADEN, SWITERLAND** 



The title of the paper, "Design and manufacture of Hot Cells-Process is King".

The paper focused on the importance of the preparation of a functional requirement specification (FRS) for the process around which the shielded cell and containment can be designed.

The paper presented the Aquila Influence Diagram (AID) which is a tool used to capture all aspects associated with the development of an FRS.



#### AVAILABLE AS A DOWNLOAD

To download the paper, please scan the QR code with your smartphone.

# **AQUILA HOSTS** THE NDA SME **STEERING GROUP**

WITH A STRONG GOVERNMENT INITIATIVE PUSHING SMEs TO SELL NEW INNOVATION AND EFFICIENCY, DIRECTLY TO THE NUCLEAR INDUSTRY, AQUILA HOSTED THE NDA SOUTHERN REGION SME STEERING **GROUP AT ITS TWYFORD HEADQUARTERS** EARLIER THIS YEAR.

The objective – as directed by DECC – was to listen to SMEs and encourage new and existing companies into the nuclear industry, with the end goal of increasing their market share direct from Tier 1 organisations.

### GETINGE LA CALHENE (GLC)

# SOLE DISTRIBUTOR **UPDATE**

Aquila's relationship as UK sole distributor for Getinge-La Calhene, has been firmly reinforced over the past 12 months - thanks to the increasing number of enquiries and orders for standard GLC Products, including DPTE posting ports, manipulators and flasks.



Clients have included, AWE, NNL and DSRL. In early October, GLC launched their new MT200 TAO telemanipulator which has been developed in partnership with AREVA and CEA. To learn more about the MT200 TAO, scan the QR code with your smartphone.

# FULL HOUSE

Just some of the benefits of our 25 years' industry experience came to fruition this year...

Aquila achieved full house approval from Lloyds Register for ISO900, ISO14001 and OHSAS18001.









### **BUSINESS FOCUS** COMMENT **FROM**

#### Dave Barker, CEO of Aquila Nuclear Engineering said:

"After 3 years of trading, we have established an experienced and robust team of nuclear engineers within Aquila. Being part of the Calder Group has been pivotal in achieving this goal.

Our focus within the nuclear and nuclear medicines markets is key to our success and is being translated into European opportunities and orders. We have successfully recruited in both the commercial team and delivery team at Aquila, importantly across a wide age range and different industry sectors."

# CANDLE FILTER **TEST FACILITY**

#### **AQUILA HAS DELIVERED A CANDLE FILTER**

#### TEST FACILITY FOR USE WITHIN THE

#### NUCLEAR INDUSTRY.

Aquila, has designed, manufactured and tested a candle filter test machine for the nuclear Industry. The system employs a process using a methanol bath recirculation system within a fume cupboard. The whole system is controlled by a pneumatics panel adjacent to the fume cupboard. Test air is fed into the filter through the rear of a mandrel via a swivel coupling. Filter rotation is achieved by an externally mounted handle located at the operator position, external to the fume cupboard.

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# **VIPER JOINT VENTURE LAUNCH**

Aquila, has teamed up with Lymington based, RTL Materials, for an exciting new joint venture. We are pleased to announce the provision of remote inspection, radiological survey and repair solutions for the nuclear industry, with the use of RTL's proprietary, Bi-stable Rolled Composite (BRC) as the payload delivery mechanism.

BRC, is already used successfully in other industries, including Space, Geotechnical and Defence. This is the first time a non-bespoke system will be used in the Nuclear Industry with the fully integrated turn-key system - welcome to Viper.

#### Developed and manufactured in the UK, just some of its features include:

- Vertical/Horizontal deployment to 25m unsupported in both planes
- End mounted sensors
- Rapid positioning thanks to a lightweight, compact shape
- No break in continuity between tip and root
- Can be manually driven or powered
- Highly robust, proven technology.



### AQUILA NEWS IN BRIEF



Aquila, has installed a 10 tonne overhead crane within our main workshop. Chris Thomson said, "this handling capability will greatly improve our efficiency and mitigate any health and safety issues associated with special lifts."

Resources continue to join Aquila at our Twyford facility and due to this, we are taking on additional offices in February 2015, this will double the size of our existing office space.



Following an exhaustive audit by AWE we are delighted to announce that we have achieved approved supplier status for:

- Design-task based consultancy
- Fabrication-Built to drawing (on Commercial off the Shelf item)
- Gloveboxes

### **INDUSTRY NEWS \** NUCLEAR AND NUCLEAR MEDICINES

### TALKS ON NUCLEAR WASTE STORAGE AT **CHAPELCROSS** // Galloway News 10th Nov 2014 Three public meetings on 28, 29 November and 15

January 2015, are to be held on proposals that could lead to radioactive waste from nuclear subs being stored at Chapelcross.

Chapelcross' own nuclear rods were removed last year after a major defuelling project and the site is currently being decommissioned.

Earlier this year, the Ministry of Defence - which needs to find somewhere to store waste from 27 nuclear subs - revealed Chapelcross was one of five UK sites being considered. Defence Minister, Philip Dunne, said, it has a, radioactive waste, have been removed safely. Under the "proven track record in handling radioactive material in a safe and secure way."

An assessment of the sites and public consultation will be carried out before any final decision is made. This



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#### PLEDGE TO HELP HUNDREDS MORE

#### CUMBRIAN INVENTIONS

#### // In Cumbria 10th Jan 2014

The man in charge of an initiative that has helped foster hundreds of innovative Cumbrian inventions has pledged to try and keep the scheme running for another five years. off. It would mean a great deal to us if it did and would be Speaking to in-Cumbria as part of our Insights series, Adrian Davis-Johnston, programme and engagement manager at Innovus, says he is confident funding will be available to help more inventors prosper.

will consider costs, operational effectiveness, a strategic environment assessment (SEA), and factors such as anticipated public opinion, policy and planning.

However, the Chapelcross Site Stakeholder Group has already been told by the Scottish Government that it would challenge Chapelcross becoming a submarine dump. A licence would be required from the Scottish Environment Protection Agency with Scottish Ministers having the power of direct refusal. The chosen site will be used as an interim storage site for the reactor components until after 2040 when the UK's geological disposal facility is planned to come into operation.

The MoD is understood to have 18 former Royal Naval nuclear submarines currently stored afloat in Devonport and Rosyth. They can only be completely dismantled once the reactor components, which are categorised as MoD's submarine dismantling project, nine submarines that are currently still in service will also be dismantled once they reach the end of their service lives.

Innovus, based in Lillyhall, provides funding and financial support to a huge range of inventors in Cumbria, but its funding is due to run out in 2016.

Mr Davis-Johnston told in-Cumbria: "We currently have funding to last until 2016, but we have bid for funding that would keep us going for five years from now. We are established now so it would be a shame if it didn't come testament to the scheme so far."

#### WILL COAL BE CUT ENTIRELY FROM

#### **GERMAN ENERGY MIX?**

#### // Oil Post 10th Nov 2014

Germany is looking into cutting its use of coal power, at the same time that it is cutting out nuclear. If it does, there could be a ripple effect because Germany is a major player in the European energy market. A Berlin-based journalist said that Germany's emphasis on renewables is already impacting electricity markets in Poland and the Czech Republic. (Denmark is also exploring how it might go coal-free, but even sooner.)

"The conservative government of Chancellor Angela Merkel last week issued a discussion paper proposing to implement the strictest controls on coal fired generation yet to be seen in Europe, and to redesign its energy system around renewables, which will account for around two thirds of supply within two decades," Giles Parkinson reports.

Currently, about 45% of Germany's electricity comes from burning coal. However, it was reported recently that new coal plants will not be financed there. About 24% came from solar and wind last year, but that amount could expand to 45% by 2025, if targets are met.



25<sup>™</sup> NOVEMBER Evening Lecture on Nuclear Medicine

25<sup>™</sup> NOVEMBER ILW MANAGEMENT - Retrieval, Treatment, Packaging and Storage

4<sup>TH</sup> DECEMBER 2014 Nuclear Industry Association/Nuclear Institute Annual Dinner 2014 4<sup>™</sup> DECEMBER 2014 Nuclear - Powering the UK

4<sup>™</sup> DECEMBER 2014 Nuclear Institute Annual General Meeting 2014

27<sup>TH</sup> JANUARY 2015 Development of an Effluent Treatment Process for SDP 18<sup>TH -</sup> 19<sup>TH</sup> FEBRUARY 2015 2nd Nuclear Decommissioning & Waste Management Summit

3<sup>RD</sup> MARCH 2015 Nuclear Energy in the UK

17<sup>™</sup> MARCH 2015 The UK ABWR - the Technology, GDA and beyond

### FIND OUT MORE

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