

# BIRWELCO USA -ON TRACK FOR 2018

After the industry downturn in 2016/ 2017, Birwelco USA is enjoying a steady expansion in work and fortunes, thanks in part to President Trump's much-talked-about tax reforms.

The most comprehensive tax reform plans since the mid 1980s, which includes a 14 percent cut in the corporate tax rate, is ushering in an era of further exploration, production and investment for energy companies in 2018, and this sense of optimism is being witnessed by Birwelco USA in the form of a current £2 million backlog of work at the start of 2018.

Heater Optimisation Studies completed in 2017 are now being taken to the next stage by the likes of Valero Total, LyondellBasell, Shell and other facility owners.

This has resulted in the release of detailed engineering and material supply on multiple projects in support of the coming 2018 and 2019 outages.

This uptake in activity at Birwelco USA is expected to keep Birwelco Limited busy too, by supplying vital support services to their group partners across the Atlantic.

Unit Birwelco Chairman, Bill Ledwood, said: "It is pleasing to see the landscape shift in the US, allowing a return to a more profitable and



productive era for industry there. The extreme fluctuations in global oil prices over the past few years have put added pressures on revenue within the energy sectors, which has been challenging for companies of all sizes, so it is great to see these high value contracts coming through for Birwelco USA."

Birwelco is already providing their support on a major heater revamp project for Birwelco USA at a site in Port Arthur, Texas. Birwelco's in-house expertise in electrical instrumentation and controls has made them an integral part of the team and has helped ensure the project objectives are met to the satisfaction of our client.



## FRUITFUL RELATIONSHIP WITH CF FERTILISERS CONTINUES TO BLOSSOM

Birwelco has redesigned a reform gas and steam superheater for CF Fertilisers' Ince site, in Cheshire. The unit will then be manufactured and assembled at Unit Superheater Engineering, along with supporting pipework and ancillaries, with the superheater consisting of chrome and 304 stainless steel piping. The Unit Engineers & Constructors team will carry out the removal of the existing superheater and will also go on to bid for the installation of the new superheater.

This project is the continuation of an established relationship between USE and CF Fertilisers, and the involvement of our personnel from Birwelco, USE and UEC teams illustrates how valuable it is to be able to call upon a range of specialist expertise from within our group. The superheater replacement will be delivered to the site ahead of a shutdown in September this year.

# NIMBLE RESPONSE FROM POWER SERVICES

Powers Services - the emergency call-out repair and maintenance team, led by Steve Atkinson - continues to deliver exemplary work, with demand for its expertise growing month-on-month.

The unique strength of Power Services, which is available 24/7, is in its crack team of mirror welders, embedded within the division. This finely-tuned team has a high level of expertise, and routinely turns jobs around within

three days that some companies may take 8 or 9 days to complete.

Clients benefit from the fact that if Power Services is called upon to revisit a site for subsequent work, the same personnel returns, and their familiarity with the site increases efficiency.

Power Services has successfully completed the utility piping to the Biomass Power Plant in Rotherham for Babcock Vølund (Denmark). This work involved design, fabrication and

installation of approximately 7,000 metres of utility piping, including supports and testing.

A project in Allington, Maidstone, saw the team replace fractured tubes in two superheaters, and Power Services attended the Diss PRL Eye power station to replace valves during a mini outage - part of work to help reduce emissions. The team was also called to the Damhead Creek Scottish Power station in Rochester, Kent, to replace some pendants which support the site's economiser and superheater. This job, which could typically take up to 9 days, was completed in 3. An emergency call-out to

Kent Renewables saw Power Services change a valve on a combined heat and power plant in Sandwich. Power Services was able to call upon USE's in-house fabrication team to make a new valve for the site - again allowing for a speedy turnaround of 2.5 days from initial call to completion.



# BIOMASS BOILER REFURBISHMENT FOR DRAX

Regular client Drax Power Ltd has come back to Unit Superheater Engineering for replacement economiser header sections for one of their biomass boilers.

The project includes sections 1 and 2, economiser tee assemblies, inlet bends and header supports, with all of these units designed to perform at a pressure of 194.4 barg and at a temperature of 363°C.

This is a pleasing repeat order thanks to the excellent engineering and fabrication work we supplied to Drax in 2016, on Unit 3.



# CHALLENGING ESSAR REFURBISHMENT AND INCREASED SCOPE OF WORKS

Unit Engineers & Constructors increased its workforce and its scope of works for the shutdown at Essar Oil UK Ltd's Stanlow Refinery, right up to its January turnaround, despite some unique challenges.

The first phase of planning and preparation at Stanlow began in March 2017 with an initial four planners appointed, and by the end of 2017 the job involved a seven-man crew on the planning side, building up to a 30-strong management team prior to and throughout the execution phase of the turnaround.



Phase one was completed by August 2017, with all of the KPI targets met, followed by phase two of the plan and prep phase, whereby the team identified and planned more than 330 items of work to be executed during the T/A. These included exchangers, columns, reactors, finfans, line works, pipework, valves and control valves.

The team rose to the challenge of extracting and posting 28 exchangers including a damaged furmanite clamped stab in bundle. Removal and replacement of a full reactor also went ahead, and the team dealt with the inherent restrictions of the HF Unit with the class C suits.

# EXPORT ACTIVITY FOR USE

Overseas contract wins in recent months will see USE take on a complex 8-order high value project for Sirte Oil in Libya, providing new exchangers and replacement exchanger parts.

Another major job for USE will be the replacement of a radiant shield boiler for ENCE GmbH, in Moscow. The installation will go ahead in a restricted space, so USE has designed and fabricated a transportation and lifting frame to enable easy installation at a relatively awkward angle.

# WELCOME

**Andrew Thompson**, who has joined USE as a Finance Director.



**Kay Blewer**, who has joined the Halesowen office as a Secretary and Receptionist.

# FURTHER PROJECTS FOR USE AND UEC FROM LONG-TERM SAUDI PARTNERS



Unit Engineers & Constructors have cemented their long-standing relationship with Hadi Hamed Al Hamam Establishment with the supply of two 900 tube carbon steel tube bundles for a reactor feed and effluent exchangers in Saudi Arabia.

The group has been working with Hadi Hamam for 15 years, with this project being part of a larger order, whereby bundles were supplied complete with hydrotest and protection shells, and loaded into the shells by UEC's Immingham bundle loading and pulling team.

Engineers from the Saudi refinery visited Unit Superheater Engineering to witness the final inspection.

## BIRWELCO FLARES

Birwelco continues to supply flare tips, incorporating its patented Sonajet technology, to leading names in the oil and gas industries. Recent orders include a replacement flare tip for Statoil's platform in the Heimdal gas field, as well as a refurbished flare tip for Total Elgin for one of its North Sea platforms.

## MULTIPLE ORDERS FROM DOW SILICONES

### DOWSIL™

silicones by 

Unit Superheater Engineering has carried out refurbishment for Dow Silicones UK Ltd on six heat exchangers ahead of the upcoming shutdown on

its Barry site in the spring. This refurbishment of six methyl chloride heat exchangers is part of a larger order, with one unit requiring an upgrade to duplex tubes and tubesheets to increase the service life of the exchanger. Further upgrade work involves new tube bundles, shells, tubesheets and retubes.

## CEMENTING THE P66 RELATIONSHIP

The Unit Engineers & Constructors team will deliver further work for long-standing client Philips66 – providing a new tube bundle on a fast track basis, for the Humber refinery.

As is often the case, this proved to be a group project, with the mechanical design work carried out by Unit Superheater Engineering and with Birwelco undertaking the process design check.



The replacement B601 superheater is for the site's Number One calciner unit waste heat boiler. Part of a larger order, this is the third time in recent years UEC has manufactured a superheater on this site and this project presented some challenges in production, particularly in the positioning and welding of 2¼ percent chrome panels to 1¼ chrome headers under braided preheat.

## MORE STORAGE CAPACITY FOR EASTERN AT ELLESMERE

Birwelco is pleased to be the engineering contractor of choice for the Eastham Refinery, at Ellesmere Port, where the team was called upon to carry out

some major modifications on its bitumen plant, including piping, pumps and a storage tank to help increase the capacity of the plant.

## SUCCESSFUL AUDITS FROM LLOYDS REGISTER

Following two positive audits, Unit Superheater Engineering now holds a new ISO 9001: 2015 certificate. The first was a routine ISO 9001 audit around management elements, as

well as a number of specific processes, including welding, heat treatment, NDT, inspection and testing. The second assessed the updated ISO 9001 Quality Manual.

## DIRECTOR'S APPRENTICE OF THE YEAR AWARD FOR REEF

We are very proud of the calibre of our apprentices, who consistently come to the attention of the industry. Most recently, Unit Engineers & Constructors apprentice Pipefitter, Reef Hattersley, has been given the Directors' Apprentice of the Year Award by the CATCH centre in Stallingborough – a leading technical training provider specialising



Reef Hattersley receiving his award from Business Manager, Dave McIntyre, and Workshop Manager, Colin Paxton.

in Mechanical in Stallingborough, Process and Health & Safety training.

Reef was given a certificate and a £50 gift voucher, with the voucher matched by his UEC managers as an extra reward.

This is the second year running that a UEC apprentice has scooped this award and it says very positive things about the healthy talent pool of young tradesmen who are coming into the industry.

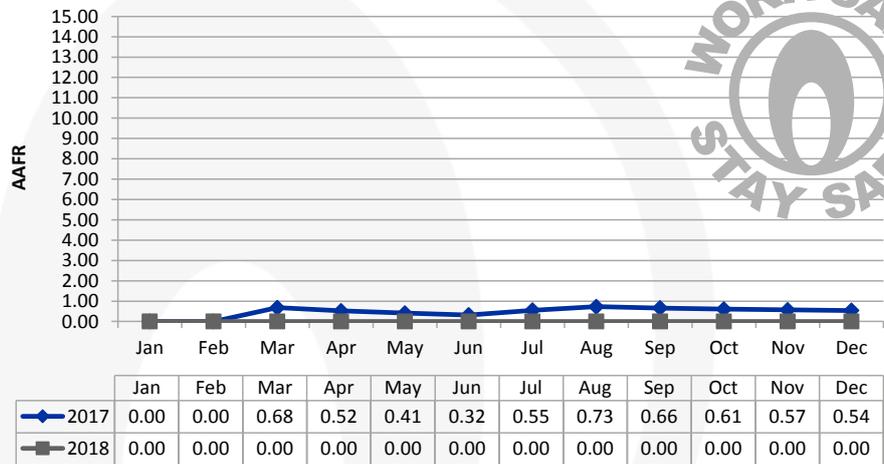
# REPORTING STATISTICS

The Group is continuing to prove its exemplary commitment to safety, with latest statistics highlighting the fact that there have been no incidents reported in 2018. The Group has always enjoyed an enviable safety record

and the diligence and dedication we see across our teams day-in, day-out is something we can all be proud of. A positive safety culture benefits us all and it is pleasing to see it embedded into our company ethos. **Well done!**



## All Accident Frequency Rate



### AAFR Formula

$$\frac{\text{Number of incidents(accumulative)} \times 100,000}{\text{Number of man hours worked}}$$

	Current Month	2018
Fatalities, Major Injuries or Reportable Incidents Recorded.	0	0
(First Aid / Medical Treatment) Incidents Reported.	0	0
Number of Hours Worked	34,272	34,272

**Hours worked without a reportable incident: 1,279,150**  
**Days worked without a reportable incident: 1100**

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