

From academics...

Building up individuals' plant engineering skills is always rewarding, but for one training firm that took on a Nigerian project, the experience has been mega. Brian Tingham reports

In just six weeks, 17 academics who could not read a circuit diagram were transformed into plant technicians, capable, for example, of building, commissioning and safely isolating three-phase motor panels. And by the end of this year, EPC (engineering, procurement and construction) contractor Aker Solutions will be putting these technicians – employed by Nigerian oilfield services provider PetroSmart – on the front line.

This story is interesting, because it shows what can be done when solid engineers put their minds to it. It centres on Technical Training Solutions (TTS), the small, specialist training company that ran this project in Port Harcourt, Nigeria, this summer.

Rochester-based TTS (which started life as the EETPU training college at Cudham Hall, Sevenoaks) is not run by a bunch of businessmen, but four engineers from defence electronics and factory maintenance. So, when, 18 months ago, an email invited them to form a partnership with a Nigerian firm, unlike most, they did not click 'delete'.

Co-director Martin Smith did some digging.

The Nigerian company concerned was PetroSmart, but Smith remembered a phone call from Aker Solutions, one month earlier, enquiring about training students in Nigeria. At the time, Aker Solutions had liked TTS, but needed to figure out how to replicate this British operation for Nigeria.

It turns out that Aker Solutions had contracted PetroSmart to make that happen. But training at this level requires real plant – in this case meaning an investment of £60,000 for industrial equipment alone – to enable TTS' approach of learning by doing. TTS could not take the risk, but, by December last year, persuaded PetroSmart to transfer funds up-front.

So the project began – and TTS had three

months to adapt from being a training services provider to a manufacturing and procurement company, too. Local engineering firm Sothern Engineering helped with metal cutting and precision machining, but the vast majority of design, assembly and QA fell upon TTS. However, by April this year, more than one tonne of instrumentation, mechanical alignment rigs and electrical maintenance equipment was on its way to Nigeria.

"It was a nerve-racking week while we waited to hear whether the gear had arrived safely," comments co-director Dave Lerner. "We had packed everything carefully in ABS boxes, but electric motors and gearboxes don't bounce well." Thankfully, though, apart from some rain damage to mild steel power transmission components, caused when Nigerian customs ran checks at the airport, all the plant made it in a serviceable condition.

Catch 22

Then came the training – and this year's intake of oil and gas industry graduates hailed from all over Nigeria, because of the clear opportunity for work. Aged between 20 and 31, none of them had been employed, due to the old Catch 22 – that nobody wants to hire people, unless they have experience.

Last May, Lerner and colleague Martin Smith were the first TTS instructors in Port Harcourt for the initial 20-day phase of training at PetroSmart's new training centre, run by operations director Ihechi Ojukwu. By the end of July, phase two was underway, with the arrival of TTS finance director Shaun Coster, delivering the instrumentation courses. Apart from learning on the TTS/ PetroSmart plant, students were also encouraged throughout to practice maintenance skills on used plant and equipment – including pumps, pipework and valves – provided by oil companies via Aker Solutions.

"The skills these students have learnt and demonstrated on our standard mechanical and electrical courses have boosted their confidence to stratospheric levels," comments Lerner. "And because of our emphasis on British and European best practice, they will be able to tackle whatever tasks PetroSmart throws at them," he adds.

Aker Solutions general manager Anthony Okolo, and PetroSmart's Ihechi Ojukwu, both of whom visited the training facility, agree. "The quality of work these students are doing and the attention to safety being applied while training are just what the industry demands," states Okolo. **FE**

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