Case study







Cementation Skanska on track for nuclear fabrication opportunities

Cementation Skanska, an internationally recognised piling and ground engineering subcontractor with a growing fabrication business, is now targeting opportunities in the nuclear sector after being granted Fit For Nuclear status

The Doncaster-based business has provided piling services for complex construction projects for over 100 years.

Leading construction and development company Skanska acquired the business in 2001, and developed it as its national hub for groundworks. When they're not working on major projects such as installing 2,000 piles for the London tunnels section of HS2, Skanska's huge piling rigs are stored and maintained at the Bentley Works facility in Doncaster.

Skanska has invested heavily in Bentley Works, which is now one of its most environmentally friendly sites in the UK – energy use in its 5,000m² of workshops has been cut by 40 per cent, and in the offices by a quarter.

"We're recognised as a leading piling and ground engineering subcontractor and, increasingly, for our manufacturing capabilities and expertise," says business development manager David Taylor. "From our Bentley Works facility in Doncaster, we have the people and expertise to design and manufacture large high-integrity steel fabrications such as bridges and highways gantries.

"The amount of fabrication we do for ground engineering is only about 25 per cent of our work — the rest is for other sectors like construction, highways and offshore."

Taylor joined the business in 2019 from another fabrication company which he'd helped secure Fit For Nuclear (F4N) status. Arriving at Cementation Skanska, he immediately saw the potential to grow the business in nuclear across both piling and fabrications.

"Due to our Skanska culture and values — we're very strong on people and process — I thought we would tick a lot of the boxes already. It was a no-brainer to put us forwards for this," he says.



"Fabrications was on this journey of growing internally and, although the procedures and requirements were already strong, I thought we could improve further. If I'd thought we weren't anywhere near F4N, we wouldn't have started, but a lot of the same values and ways of thinking were here already."

Taylor's confidence was confirmed by the initial site assessment by F4N industrial advisor Kevin Ross. "Their verification score was one of the highest I've given – 92 per cent on health and safety," Ross recalls. "Their journey to granting was easier than some others. When you have a senior management team dedicated to continuous improvement, you're onto a winner."

Fabrication director Steve Joynson says the assessment was an eye-opener for the business: "The questions were different to a standard audit – they asked similar quality questions, but there's some different targets like 55." In many areas, it was a case of "we do that, but we should look more at what we do with it," he notes.

The assessment identified a few areas for further development, primarily around better embedding processes for a wider range of work. "We're on a journey," says Taylor. "Anything that improves us or gets us there quicker can only be a good thing."

As part of its F4N action plan, the team introduced a cost of quality measure to identify the root causes and costs of process failures, and drive continuous improvement to ensure that problems don't reoccur.

"That's been enlightening in itself," Joynson says. "We kicked off in October, and just this year we've identified things in a different way which has opened up new doors for improvement."

For a typical fabrication business, around 90 per cent of cost-incurring quality problems are shopfloor-related. Over the past year, the proportion for Cementation Skanska has been just 10 per cent of a remarkably small total, with minimal cost impact. "That's one example of where it's made us think in a different way," says Joynson.

Cementation Skanska was granted F4N at the end of 2020, within a year of starting its journey. The business has also expanded its qualifications with the ISO 3834 certification for welding, and is one of the first companies to secure the new UKCA EN 1090 standard for structural steel.

The fabrications business has touched on nuclear projects before with work for the ESS proton collider in Sweden, and is now engaged with a top tier contractor for Hinkley Point C. The team say that they'll start to really focus on winning nuclear opportunities from 2022.

"Having gone through that process, hopefully in the future we're going to bring some work in," Joynson says. "This isn't some short-term fix, it's something which will open up other ways to help us do things differently."

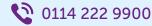
www.skanska.co.uk September 2021



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