

Caution to the wind

Rebecca Williams and David Wright assess the impact of a decision on contractual obligations



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The recent decision of the Technology and Construction Court in the case of *Fluor Ltd v Shanghai Zhenhua Heavy Industries Ltd* [2016] contains important guidance on fitness-for-purpose obligations, particularly in relation to the offshore wind energy generation industry. The judgment of Edwards-Stuart J should also give parties careful pause for thought when considering entering into agreements to waive their rights to future claims.

Facts

Fluor Ltd (Fluor) entered into a contract (the BOP contract) with Greater Gabbard Offshore Winds Ltd (GGOWL), by which Fluor agreed to engineer, procure and construct the foundations and infrastructure necessary to support 140 wind turbine generators. The wind turbines were to be installed in the North Sea some 26km off the coast of Suffolk.

The foundations for each wind turbine consisted of a monopile as well as a transition piece. The monopile is a large steel structure comprising several individual rolled steel plates that are welded together to form a cylindrical column weighing up to 700 metric tonnes. Each monopile was to be driven around 32m into the seabed. The transition piece sat on top of each monopile and provided the connection between the monopile and the structure above.

For the fabrication of the monopiles and transition pieces, Fluor contracted with Shanghai Zhenhua Heavy Industries Ltd (ZPMC), a large and well-known steel manufacturer based in Shanghai.

The BOP contract contained a provision that required non-destructive

testing (NDT) to be carried out on the monopiles and transition pieces in order to ensure the quality of the welds. This NDT involved several different testing techniques known as 'scanning patterns'. These involved a probe being placed on the surface of the steel that transmitted an ultrasonic pulse that would detect any imperfections in the weld being tested.

Two different scanning patterns can be used, Scanning Pattern E (spE) and Scanning Pattern D (spD). The first is efficient at picking up some types of imperfections in a weld, while the second is more effective at picking up cracks that are transverse to the line of the weld. The NDT provisions in the BOP contract provided that spD was to be used when welds were ground flush, while spE was to be used when the welds were not ground flush. Similar provisions were contained in the contract between Fluor and ZPMC, save for a concession that an spD test would not need to be carried out on a ground weld if that same weld had previously been subject to an spE test prior to grinding.

The parties did not appreciate that spD was much more effective at identifying transverse cracks than spE testing, meaning many circumferential welds were passed as satisfactory when they in fact contained imperfections that would have been readily apparent from an spD scan. Therefore, the NDT procedures in place at ZPMC's facility, although performed according to the contractual requirements, resulted in monopiles that contained transverse cracks being shipped to the staging port in Vlissingen, in the Netherlands.

When the first of three shipments carrying the monopiles arrived in Vlissingen, a company employed by GGOWL carried out tests on some

of the monopiles and transverse cracking was detected, resulting in GGOWL issuing a non-conformance report (NCR). This NCR required Fluor to retest all monopiles in the first shipment, and repair any cracks found. Shipments two and three were also tested, transverse cracking was

unnecessary in terms of the structural integrity of the monopiles. Fluor and ZPMC therefore entered into an agreement recorded in two June 2010 letters that ZPMC would assign its claims for the costs of the additional testing to Fluor, Fluor would also waive its claims against ZPMC in respect of

a claim in the Technology and Construction Court against ZPMC for the costs incurred in performing the extra testing and repair work, which it said was necessary as a result of the monopiles not being fit for purpose.

The judge was asked to decide:

- whether the monopiles/transition pieces were fit for their purpose on arrival in Vlissingen;
- if not, whether that was caused by a breach or breaches of contract by ZPMC; and
- if ZPMC was in breach, if Fluor's claims were settled by way of the June 2010 agreement.

The purchase order made clear that the monopiles were being supplied to Fluor for onward supply to GGOWL and installation at its wind farm off the Suffolk coast.

detected and further NCRs were issued, requiring Fluor (assisted by ZPMC) to carry out an onerous programme of testing and repairing all of the monopiles.

After significant work, Fluor and ZPMC agreed that the testing required by GGOWL was unnecessary and more extensive than their respective contractual requirements, and was

additional costs it had incurred as a result of the NCRs issued by GGOWL, and ZPMC gave a warranty that the monopiles contained in shipments one to three would perform satisfactorily in service for 25 years.

The dispute

Following an arbitration between Fluor and GGOWL, Fluor brought

Fluor argued that the monopiles had to be 'fit and sufficient for the purposes' for which they were intended, which Fluor said was evidenced in a purchase order. The purchase order made clear that the monopiles were being supplied to Fluor for onward supply to GGOWL and installation at its wind farm off the Suffolk coast. Fluor contended, and it was not disputed, that those fitness-for-purpose obligations had to be met upon delivery in Vlissingen. It was also Fluor's position that the monopiles had to be:

- in a condition such that a reasonable buyer in the position of Fluor could load them out and install them in the seabed without further examination and remediation; and
- suitable for installation in the seabed thereafter to perform in service satisfactorily for 25 years.

However, ZPMC said that the test for fitness for purpose is objective. The intended purpose of the monopiles was to act as part of a foundation for offshore wind turbines for 25 years. Whether the buyer thought that the goods were fit for purpose was irrelevant: either they were fit or they were not. It was notable that Fluor did not advance any case that the monopiles could not achieve a 25-year service life.

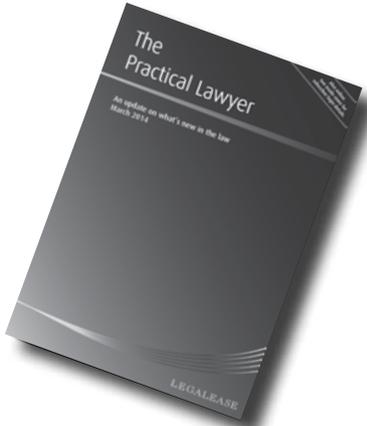
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Decision

After examining a considerable amount of evidence, factual and expert, Edwards-Stuart J concluded that the transverse cracking that was discovered by the spD scanning carried out in Vlissingen was largely a result of various failures by ZPMC to maintain the correct preheat temperature of the welds to the monopiles.

The judge noted that, surprisingly, there was very little case law on the point raised by ZPMC, namely the objective nature of the fitness-for-purpose test, with the two cases cited by ZPMC offering little assistance. The judge decided that ‘one must begin at the beginning’ and referred to *Australian Knitting Mills Ltd v Grant* [1933], in which the court approved the following test for ‘merchantability’:

The condition that the goods are of merchantable quality requires that they should be in such an actual state that a buyer fully acquainted with the facts and therefore knowing what hidden defects exist and not being limited to their apparent condition would buy them without abatement of the price obtainable for such goods if in reasonable sound order and condition and without special terms.

Edwards-Stuart J extrapolated from the above test the following question:

What is the position if the buyer knows of [the goods] true condition but is unable to discover, without lengthy investigation, whether or not that condition affects that use?

The answer to this, in the opinion of the judge, was that the buyer:

... would impose a condition that the necessary investigation is carried out before agreeing to buy the goods.

This effectively amounted to the imposition of a special term in the contract for purchase, namely the satisfactory outcome of the investigation.

In the view of the court, given the cracks that had been discovered by GGOWL in the first shipment,

the only reasonable course available to Fluor was to carry out an investigation into the true condition of the monopiles and establish the extent, if any, to which this might affect their performance in service.

Edwards-Stuart J decided that there was no doubt in his mind that as far as Fluor was concerned, the monopiles (and transition pieces) had to be in a condition at Vlissingen such that any reasonable purchaser

Although ZPMC had carried out testing to the standard required in its contract with Fluor, the monopiles nevertheless did contain cracks that were discovered upon testing by the ‘end user’, GGOWL.

in Fluor’s position could, without further inquiry or investigation, load them out onto the installation vessels and install them in the seabed. The judge held that:

... they were not delivered in such a condition and so in my judgment they were not fit for purpose...

and that as a result of the cracking discovered, which was attributable to breaches by ZPMC of its obligations, they could not be installed forthwith without further examination, testing and repair.

The judge went on to hold that, by waiving its rights in respect of additional costs it had incurred as a result of the NCRs issued by GGOWL, Fluor could claim only for the cost of inspections and repairs carried out on the second shipment prior to 29 July 2009 (the date it received the NCR for this shipment). This was because while Fluor had decided itself to test the second shipment, it had carried out all other inspections and repairs as a result of NCRs issued by GGOWL, any costs incurred arising out of which Fluor had waived its rights to claim in the June 2010 agreement.

Conclusion

The offshore energy industry has proved fertile ground for the creation of case law on fitness-for-purpose obligations. The decision of the very

same Edwards-Stuart J in *MT Højgaard als v E.ON Climate and Renewables UK Robin Rigg East Ltd* [2014], while not necessarily deciding new law, showed the court’s willingness to engage in the factual and commercial nexus of complex industry transactions. In that case, the court had no trouble finding that the parties had agreed both an absolute obligation to deliver works in accordance with a particular specification, and an obligation to carry

out design using a required level of skill and care.

In *Fluor*, the court waded with some dexterity through complex technical detail and industry practice to come to a reasonable outcome. Although ZPMC had carried out testing to the standard required in its contract with Fluor, the monopiles nevertheless did contain cracks that were discovered upon testing by the ‘end user’, GGOWL. Despite no argument being put forward by Fluor that the monopiles would, as a result of those cracks, be unable to meet the service life required of them, the court still found that they were not fit for purpose.

For both contractors manufacturing goods and those supplying them to an end user, this case contains important lessons, particularly if, as was the case here, the contractor is uncertain as to whether a flaw detected by the end user affects the use of the goods supplied in terms of ‘merchantability’ and fitness for purpose. ■

Australian Knitting Mills Ltd v Grant [1933] 50 CLR 387
Fluor Ltd v Shanghai Zhenhua Heavy Industries Ltd [2016] EWHC 2062 (TCC)
MT Højgaard als v E.ON Climate and Renewables UK Robin Rigg East Ltd [2014] EWHC 1088 (TCC)