Case No: AD-2021-000079
[2022] EWHC 3169 (Admlty)

IN THE HIGH COURT OF JUSTICE
KING'S BENCH DIVISION
ADMIRALTY COURT

Rolls Building
7 Rolls Building
Fetter Lane
London
EC4A 1NL

BEFORE:

ADMIRALTY REGISTRAR DAVISON

BETWEEN:

DARREN HOADLEY **CLAIMANT**

- and -

SIEMENS GAMESA RENEWABLE ENERGY LTD (1)
SIEMENS GAMESA RENEWABLE ENERGY N/V (2) **DEFENDANTS**

Legal Representation
Mr David Cunnington (instructed by CFG Law) on behalf of the Claimant
Ms Linda Nelson (instructed by Clyde & Co) on behalf of the Defendants

Judgment

Judgment date: 11 October 2022
(start and end times cannot be noted due to audio format)

Reporting Restrictions Applied: No

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Admiralty Registrar Davison:

Introduction

1. This is a claim for damages for personal injury. The Claimant's injury, which was very severe, was sustained on 14 June 2018 on board the SEA INSTALLER, a jack up vessel then located in Belgian territorial waters in the North Sea and engaged in installing wind turbines within the area of the Rentel offshore windfarm. The Claimant was an offshore wind turbine technician and an employee of the First Defendant, Siemens Gamesa Renewable Energy Limited, which was a UK subsidiary of the parent company. The Second Defendant, Siemens Gamesa Renewable Energy N/V was the Belgian subsidiary and was in control of the Rentel Project. For the purposes of liability, it is agreed that no distinction needs to be drawn between them.

2. On 14 February of this year, I directed that liability should be tried as a preliminary issue. At that time there was, on the pleadings, an issue as to the applicability and effect of the Athens Convention. The Convention was abandoned as a defence (or partial defence) on the first day of the trial and I have been left with the simple issues of primary liability and, if relevant, contributory negligence. It is agreed that English law governs these issues.

3. The SEA INSTALLER departed port on 12 June 2018 and the Claimant joined the vessel on the evening of the 13th. There were two turbines aboard. These were "RB6" and "RC4". The work on RB6 had almost finished and RC4 required preparing for installation. This involved entering the nacelle of the turbine which housed, amongst other things, the generator, the brake disc, the horizontal single blade mounting tool, (the "HSBM tool"), and the slow speed turning device. The HSBM tool allowed the blades to be fitted to the turbine. The slow speed turning device was employed in that process and it also had the function of protecting the main bearing of the generator by slowly turning the generator, including the brake disc, in a back and forth motion.

4. The totality of the machinery within the nacelle was extensive and complex but for present purposes, it is only necessary to describe the parts the Claimant was working on or checking when he had his accident.

5. Under power from the slow speed turning device, the brake disc rotated and counter rotated against the HSBM tool, which was stationary and immediately behind the brake disc.

6. The HSBM tool had two guide pins which had locks to keep them in place. The locks were engaged immediately after the guide pins were inserted as part of the pre-assembly process. It ought never to have been necessary to check that these locks were engaged because in all cases that should have been done during pre-assembly. But if it became necessary to check (or, indeed, disengage) the locks, the lock on the bottom guide pin could only be checked or disengaged manually. This, unavoidably, required the technician concerned to reach through one of the holes in the brake disc and feel with his hand whether the lock was engaged or not. Because the brake disc was a moving part, this operation presented an obvious risk of entrapment and could only be performed safely if the brake disc had been locked by means of three rotor locks and the power had been isolated. There were safety procedures intended to ensure that those safeguards were implemented.

7. Unfortunately, in circumstances that are rather complex to unravel and which involved a certain amount of sheer bad luck, that did not happen.

The accident

8. It is convenient at this point to give an account of the accident. From the many that I have read, the most economical is that compiled by Helene Krogh-Pedersen in the preliminary notes she made as part of her investigation which commenced the day after the accident. On 28 June 2018, having spoken to the personnel who were working in the nacelle of RC4 that day, she made an entry in her notes headed "Time line", the material part of which was as follows:

> "IP [injured person] and two techs is working in RC4 prepping it for installation. Darren was inside the nacelle also to take pictures for a Q-sys report. Several techs were in the nacelle that morning, six to seven techs, Darren left. The team of three technicians left RC4 last. Kristian Laursen probably also started the idle pump and disengaged the rotor lock. In the office, IP was speaking to Henrik Kirkeby about the safety pins that were not correct on LO7. He was instructed to check these. IP goes to have lunch in the duty mess, eats alone. Other colleagues were in the duty mess, but they did not speak to each other.
>
> IP goes to the office to look for IL [installation lead] as he had a question regarding the Q-sys report. IL is not in the office and IP goes back into the nacelle to check the safety pins of the HSBM. He was confident that the rotor lock was still engaged. According to Darren, the door was open, and he did not check the idling tool. There were no chains on stairs/barriers/signs to warn of moving parts. There was no noise from the idle system. Normally it makes a lot of noise. IP first checked upper left cylinder and afterwards went to check the lower left cylinder, first visually using his touch. He could easily see the lock through the hole in the disc and proceeded to put his left arm through the brake disc and check the safety pin. It was OK. Torch was found next to the HSBM tool. Upon completion of the check, he could not retrieve his arm and he realised that the generator was moving, and he had no way to stop it."

What then happened was that the stationary HSBM tool, immediately behind the brake disc, acted as a guillotine which traumatically amputated his left arm.

9. On 20 June 2018, the Claimant made a statement to the police. This was his earliest account of what happened. I quote the material parts as follows:

> "I joined the vessel Sea Installer on 13 June. My job is to install wind turbine components. I started the job at 06.00 for tool box talk. From 06.15 to 10.00 we finished the turbine installation. I did reports until 10.00 to 11.30. I was tasked to check bearing pins by HSE (Henrik) to check pins were correctly locked. There is no set procedure for this. I had lunch and went to check the pins alone. I thought it was locked (the hub) as the chain across the entry was not locked and there was no noise coming from the idle system. Because of this, I thought there was no need to lock the hub. I thought it was locked and my colleagues had been inside prepping the hub for the next installation before lunch.

> Normally, there is no rule to say if you work on the deck alone but more emphasis on installation not preparations but good practice to work in pairs. Then went into the nacelle to complete the task thinking it was safe to work and proceeded to check the pins. I checked the locks on the top pin, it was fine. Then I proceeded to the bottom pin. I could easily see the lock from a hole in the disc, so I proceeded to check the lock by placing my left arm through the hole and check the lock. It was fine, but then I realised I could not move my arm. I then realised the disc was still moving slowly and I was going to lose my arm."

10. Only one aspect of the accident and the events leading up to it is in dispute, though that dispute first surfaced only when the Defence was served. That dispute is whether Henrik Kirkeby, who was the site inspector for health and safety, gave the Claimant an instruction to check the guide pin locks. I will have to come back to this dispute but everything else is, or is now, common ground.

11. The key features of the accident are that the Claimant thought that the brake disc was locked and immobilised and that the power was off. He therefore thought he was safe in what he was doing. But both assumptions were incorrect. He did not realise his mistake until his arm was already trapped and it was too late to do anything about it.

The inquiry

12. As already mentioned, the Defendants rapidly instigated an inquiry. The person appointed as investigation lead was Helene Krogh-Petersen, then an HSE manager in projects with 20 years of experience. She gave evidence and, despite the criticism that she has since diluted certain aspects of her report, she was a candid and impressive witness. She and her team interviewed relevant witnesses and produced a report within ten working days. The report was dated 29 June and was in a format which I take to be a standard one for this sort of investigation. It contained criticisms of the company and company personnel and also criticisms of the Claimant.

13. Dealing first with criticisms of the company or company personnel. These were essentially these (and in what follows, I have taken the liberty of rephrasing the language of the report and reordering the criticisms):

    1) there was no barrier as such to stop the Claimant from approaching the brake disc whilst the slow speed turning device was active.

    2) such system as there was to prevent access consisted of a chain with a red warning sign saying "turning of generator in progress". This was mandated by a work instruction, ZWI1051452: "Load out and sea fasten nacelle." But this chain and sign was "not implemented on the Rentel Project". It had not been placed or replaced across the access stairs by the morning team who had left the nacelle after the Claimant. The Claimant was unaware of this lapse in a very important safety precaution.

    3) the technicians entered the hub of the nacelle without an energy isolation procedure, or to give it its acronym, an EIP, having been issued. This was mandatory both for entering the hub and for: "Work on any rotating and moving parts."

4) the Claimant had been asked by Henrik Kirkeby, the HSE adviser, to inspect the GP locks without the installation lead, Mr Bruno Poulsen, knowing about it "thus, he was not able to ensure safe system of work and issuing EIP."

5) there was no work instruction, that is to say a properly risk assessed system of work, as to how to go about checking the guide pin locks when the nacelle was on board the installation vessel.

6) a system called "Take five", which functioned as a tool to encourage technicians to reflect on the task in hand and safety check it before commencing work, had been introduced on the Rentel project generally but not, at the time of the accident, on the vessel.

14. As Mr Cunnington pointed out (more than once) during the trial, these criticisms, found in the Defendants' own document, constitute the core particulars of negligence alleged in the Claimant's claim. The force of the submission is obvious.

15. The criticisms of the Claimant were as follows.

1) the Claimant re-entered the nacelle and commenced work on checking the guide pins without first checking that the slow speed turning device was isolated and locked off and the rotor locks were engaged and that an EIP was in place.

2) in doing so, or failing to do so, he was repeating the faults of the morning technicians and he was departing from the guidance in the work instruction which most closely approximated to the task he was performing. This was ZWI1051431 "Remove HSBM tool in nacelle" the relevant part of which stated: "Reach through hole in brake disc and unlock both pins by pulling out the lock. Rotor lock must be engaged in accordance with EIP."

3) the Claimant also contravened the work instruction ZWI1051452 which I have already referred to, which required a LOTO (lock and tag) procedure to be applied to the slow speed turning device before start of work in the nacelle.

4) the Claimant was working alone which was a contravention of the company's basic health and safety rules.

5) the Claimant had not informed Bruno Poulsen, the installation lead, of what he was doing and therefore, as already noted in the context of the company's faults, the installation lead was not able to ensure a safe system of work or issue an EIP.

16. Ms Nelson drew attention to these findings of the investigation. And in an efficient and at all times courteous and sensitive cross-examination of the Claimant elicited his acceptance to a greater or lesser degree of all these criticisms and various others. I will not reproduce all of the other criticisms. The main ones were (i) that he had contravened the basic health and safety rules by failing to treat the system as energised unless and until it had been verified to be in a zero energy state; (ii) that he had not followed the system for dealing with unplanned work; and (iii) that on his way to the relevant part of the nacelle, he had walked straight past the control panel for the slow speed turning device which would at a glance have indicated to him that the power was on and he had either walked past or failed to look for the LOTO box which, by its

absence of personal locks, would also have indicated that there was no EIP in place and the system was likely to be energised.

Instruction to the Claimant?

17. Given the extent of common ground, it was perhaps surprising that the Defendants fielded no fewer than 12 witnesses, 9 of whom gave oral evidence and were cross-examined. Despite the fact that they all signed confirmations of compliance in accordance with PD 57AC the witness statements contained whole swathes of evidence that consisted of impermissible opinion and comment. When confined to actual factual evidence, only one area of conflict emerged, as I noted earlier.

18. This was whether Henrik Kirkeby had in fact asked or instructed the Claimant to check the guide pin locks. He maintained that he had not done so, that he had no authority to give instructions and that the guide pin locks had been re-checked by the pre-assembly team so that no such instruction was in fact necessary. He said that the conversation that he had had with the Claimant was merely for his, the Claimant's, information. So far as the need to check the guide pin locks was concerned, he was supported by the evidence of Georg Horvath, the site manager, who said that the locks on all nacelles, both those waiting to be loaded and those already loaded on the SEA INSTALLER, which was still in port, had been checked.

19. The Claimant, by contrast, was emphatic that he had indeed been instructed by Mr Kirkeby to check the guide pin locks.

20. I would resolve this dispute in favour of the Claimant.

21. It is clear (and indeed accepted) that there was a conversation prompted by the email of 11 June 2018 from Mr Robertshaw. Mr Kirkeby had, in his response to that email, instructed Mr Robertshaw to take photos of the problem, and there is nothing improbable about his having made a request or given the Claimant an instruction to make his own checks.

22. Contrary to the evidence of Mr Horvath, the evidence indicates that the guide pins on RC4 had not been checked by pre-assembly because there would have had to have been an EIP in place and there was no record of that. Further, that evidence from Mr Horvath had been introduced very late by way of a correction to his statement at the outset of his oral evidence and it was to some extent in conflict with the evidence of Mr Kirkeby, who said that he had first spoken to Mr Horvath on 13 June by which time the vessel was at sea.

23. Looked at more generally, the evidence of Mr Kirkeby on the issue of whether he had made a request was vague. At one point when Mr Cunnington put it to him directly that "pre-assembly had indicated there was a concern and he, Mr Kirkeby, had said to the Claimant that the pins needed to be checked", Mr Kirkeby simply shrugged his shoulders and said he could not remember. This stood in sharp contrast to the evidence of the Claimant which on this point was quite definite and which had been consistently maintained from the outset.

24. Last but not least, Ms Krogh-Pedersen made a clear finding based on her contemporaneous discussions with the witnesses including Mr Kirkeby that Mr Kirkeby had asked the Claimant to check the guide pin locks. That a request had been

made also found its way into the narrative part of the safety alerts which were issued in the wake of the accident. That, evidently under some pressure from Mr Kirkeby and higher management, she sought to resile from or dilute this part of her report, cannot change what she recorded at the time. When pressed, she was unable to explain how she could have misrecorded or misrepresented Mr Kirkeby on what she acknowledged was a key issue. It is more likely that Mr Kirkeby did indeed tell her that he had asked the Claimant to check the guide pin locks, and I so find.

25. As a footnote to the above, I should mention that I do not attach quite the same importance to the issue as the parties, and in particular the Defendants, did. Even if Mr Kirkeby merely informed the Claimant of the situation with the guide pin locks, it would or ought to have been obvious to him that that would likely prompt the Claimant to check them. As Ms Krogh-Pedersen said in her report: "During blade installation, the pin has an essential function requiring the pin to be locked correctly. A qualified HSBM superuser [such as the Claimant] is aware of this and has a clear own interest in ensuring that the pin is locked according to procedure."

Discussion

26. I turn then to the issues I have to resolve, none of which requires recourse to or citation from the few familiar authorities I was referred to.

27. Were the Defendants in breach of duty? The answer to that must be, Yes. The technicians who were the last to leave the nacelle in the morning removed the rotor locks and reactivated the power without reinstating the chain and warning sign which were intended to and would have alerted incoming staff to the fact that the system was energised. They also left the door to the nacelle open, which was in apparent breach of the "load out and sea fasten" work instruction, which contributed to the false impression that the power was isolated and which had the unfortunate side effect of obscuring vision of the control panel for the slow speed turning device.

28. These actions combined with two things that were both happenstance and bad luck.

29. These were as follows. First, the slow speed turning device was, uniquely for this turbine, silent whereas for all others it produced a very distinctive and very audible sound. The Claimant was unaware this one was silent. Second, when he made a brief visual inspection of the brake disc, it was at the point in its cycle, lasting some 17 seconds, where it was aligned with access to the lower guide pin lock, and the HSBM tool, bright orange in colour, was not in view. He would have been looking into machinery at a time when it was difficult to discern motion. As Mr Strijbos put it: "because everything is grey, it can be hard to see movement."

30. Additionally to the negligent omission of the technicians, the system of work was defective in the respects identified by Ms Krogh-Pedersen of which the most noticeable example was the reliance on a chain rather than a key operated barrier such as was subsequently introduced. The chain was very susceptible to human error, as indeed happened in this case. It was not only with the benefit of hindsight that a barrier system conforming to the hierarchy of control measures set out in the European Directives (and indeed adopted by these Defendants) could be seen to be the primary measure needed adequately to address the risk presented by this very dangerous piece of moving machinery.

31. Were the breaches causative? I find that the breaches of duty led directly to the accident. Indeed, the failure to replace the chain and warning sign was a very proximate cause of the accident and, as it seems to me, by some distance the most potent of all the failings which have been identified on both the Defendants' and the Claimant's side. In those circumstances, and elegantly as it was done, it was not realistic for Ms Nelson to submit that causation was not made out or that the Claimant's failings broke the chain of causation or that his failings were so egregious as to eclipse those of the Defendants and render him, as the phrase goes, entirely the author of his own misfortune.

Contributory negligence

32. However, it is equally obvious, and was realistically conceded by Mr Cunnington, that the Claimant was contributorily negligent. On this occasion, he failed to live up to his reputation as "Mr Safety". I can summarise in the following way. He failed to involve his installation lead. He failed to plan. He was working alone when he should not have been (and having a radio with him was no answer to that when there was no one nearby to summon and no one to act as a second pair of eyes over what he was doing). Lastly, he assumed what he should not have assumed without checking.

33. Assessing the degree of contributory negligence is a matter of weighing the blameworthiness and the causative potency of the failings identified on both sides. In employer liability cases, that exercise must not overlook the fact that the onus is on the employer to devise, implement and police a safe system of work and the employer must, as part of that duty, anticipate that employees may sometimes be careless or inattentive or let their guard drop.

34. The Claimant was lulled into a false sense of security partly by the open door and the absence of the chain and warning sign which were the Defendant's fault, and partly by the lack of noise and the unlucky position in its cycle of the brake disc, which were no one's fault. But he still should have checked. And there are also his prior failings to take into account. On the other hand, the failure to reinstate the chain, (itself an insufficiently robust control measure), was a very serious failure and the most potent cause of the accident.

35. Doing the best I can to translate those factors into percentages, I find the Claimant to have been one third to blame.

Afterword

36. I would not like to part from the case without expressing my admiration for the Claimant's courage and presence of mind. After an accident like that, many people would have been simply unable to extricate themselves from the nacelle – with all that that implies. I also express my admiration for the way he has adapted to and coped with a very bad injury.

37. I would also like to commend the Defendants. Their reaction in the immediate aftermath of the accident was exemplary and served to avoid consequences which could have been much worse. They also carried out an exemplary investigation and implemented immediate and effective reforms to their equipment and procedures. If they have been more reluctant than they should have been to acknowledge liability, I would like to think that that reflects their surprise and disappointment that the health

and safety procedures to which they evidently attach so much importance were on this occasion inadequate.

38. Lastly, I express my thanks to Counsel for their very competent and sympathetic presentation of their respective cases.

This Transcript has been approved by the Judge.

The Transcription Agency hereby certifies that the above is an accurate and complete recording of the proceedings or part thereof.

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