Neutral Citation Number: [2021] EWHC 1413 (TCC)

Case No: HT-2018-000046

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
TECHNOLOGY AND CONSTRUCTION COURT

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 26/05/2021

Before :

MRS JUSTICE JOANNA SMITH

- -

Between :

DANA UK AXLE LTD	**Claimant**
- and -	
FREUDENBERG FST GMBH	**Defendant**

- -
- -

Geraint Webb QC and Harrison Denner (instructed by **Crowell & Moring**) for the **Claimant**
Luke Wygas and Rebecca Keating (instructed by **Fladgate LLP**) for the **Defendant**

Hearing date: 14 May 2021

- -

Judgment Approved by the court for handing down

Covid-19 Protocol: This judgment is to be handed down by the judge remotely by circulation to the parties' representatives by email and release to Bailii. The date for hand-down is deemed to be 26 May 2021.

Mrs Justice Joanna Smith :

Introduction

1. This claim arises out of the alleged premature failure of pinion seals ("**the Seals**") manufactured by the Defendant ("**FST**") and supplied to the Claimant ("**Dana**") during a period between about September 2013 to February 2016. The Seals were fitted by Dana, a manufacturer and supplier of automotive parts, onto vehicle rear axles which Dana then supplied to Jaguar Land Rover for installation into 9 different vehicle models.

2. The trial commenced on 5 May 2021 and the Court has heard from the parties' witnesses of fact and from Dana's three technical experts. However, in circumstances which I shall outline in more detail below, Dana now applies (on Day 7 of the trial) to exclude FST's technical expert evidence.

Procedural Background to the Application

3. By an order dated 15 February 2021, Jefford J varied the terms of the existing CMC Order so as to provide for the service of expert evidence in the fields of engineering and materials/polymer science by 26 February 2021. However, FST did not serve its technical expert evidence (from Professor Salant, Mr Jackowski and Professor Mead, together "**the Experts**") until 6 March 2021, 8 days late.

4. Notwithstanding FST's failure to file an application for relief from sanctions in advance of the Pre Trial Review on 19 March 2021, Dana indicated that it would not object to FST being granted such relief provided that various defects in the reports of FST's technical experts were remedied. Those defects were pointed out by Dana in its skeleton argument for the Pre Trial Review and, insofar as relevant to this application, may be summarised as follows:

    a. Contrary to paragraph 55 of the Guidance for the Instruction of Experts in Civil Claims 2014 ("**the 2014 Guidance**"), referenced in CPR PD35, none of the three technical expert reports served by FST identified the documents on which each of the Experts had relied. Whilst there was some reference to academic texts, none of the reports included a list of documents provided by FST or its solicitors, Fladgate LLP ("**Fladgate**") to each individual expert. Dana explained that this was of particular concern owing to the long history of difficulties in obtaining disclosure from FST of its relevant manufacturing processes and procedures. Indeed Dana had become aware that detailed material containing technical information had been made available to FST's experts long before it had been provided to Dana's experts and, further, that it had not been listed in the reports of FST's Experts. Dana pointed to paragraph 30 of the 2014 Guidance which provides that "*Experts should try to ensure that they have access to all relevant information held by the parties and that the same information has been disclosed to each expert in the same discipline*".

    b. It was apparent from the reports of Mr Jackowski and Professor Mead that they had undertaken site visits to factories operated by FST. Mr Jackowski had visited the FST plant in Kecskemet, Hungary, whilst Professor Mead had apparently visited a facility in Georgia, USA. Notwithstanding the terms of the TCC Guide at paragraphs 13.3.2 and 13.3.4, these visits had taken place without putting Dana on notice and so without affording Dana's technical experts a similar opportunity to inspect FST's operations. Mr Jackowski's report stated that he had "*examined all equipment, processes and procedures*" and that "*All FST personnel were openly communicative to all my questions, openly demonstrated and explained all their processes and manufacturing*

and test equipment and provided full cooperation and transparency in my investigation", but no photographs, notes of the visits, notes of interviews or other documents were provided with his report evidencing the information he had collected. Professor Mead's report also failed to provide any similar details of her site visit.

c. When referring to data or other information, the reports of FST's Experts did not always provide reference to the document or source of data relied upon, thereby causing prejudice to Dana's legal team in trying to read and understand those reports. FST had disclosed approximately 8,500 documents and it would not be reasonable or proportionate to expect Dana's legal team to search the entirety of the disclosure in order to try to identify specific documents on which FST's Experts intended to rely.

5. During the course of argument at the Pre Trial Review, Mr Wygas, on behalf of FST, made the point that "*Dana's experts had everything FST had*", a point that he repeated before me on the first day of the trial. By this I understood him to mean that it was his understanding that Dana's experts had been given access to the same documentation and information that had been made available to FST's Experts. As has now become abundantly clear, however, this was a point on which Mr Wygas was, regrettably, entirely mistaken.

6. The order made by O'Farrell J at the Pre Trial Review ("**the PTR Order**") granted relief from sanctions in respect of the late service of FST's three technical expert reports and permitted reliance on those reports at trial:

"provided that, by 5pm on 26 March 2021, it shall file and serve revised expert reports amended to comply fully with the Civil Procedure Rules and guidance by:

1.1 Providing full details of all materials provided to the Experts by the Defendant's solicitors and/or by the Defendant itself;

1.2 Disclosing all documents (including photographs) produced by or provided to each expert during any site visit, including any notes taken by the expert of information provided to the expert/seen by the expert during any such visit (including notes of statements from operators or other staff etc);

1.3 Identifying the source and details of the data and other information relied on in support of each proposition/opinion."

7. FST served revised expert reports for Mr Jackowski and Professor Salant on 26 March 2021 together with lists of documents on which each of its three Experts had relied. However, it was Dana's view that these failed to satisfy the conditions imposed by paragraphs 1.1 to 1.3 of the PTR Order. Professor Mead did not supply an updated report.

8. Dana was so concerned by what it considered to be an ongoing non-compliance that it filed and served further written submissions on 29 March 2021 addressing, in Part II, the reasons why the re-served reports remained in breach of the Civil Procedure Rules and guidance and/or the requirements of the PTR Order. In particular, Dana identified that there was a continuing failure:

a. to provide a list of materials sent by FST or Fladgate to its Experts. Dana noted that "*…it is a matter of real concern to the Claimant that the Defendant, or its solicitors, have passed material relating to the Defendant's processes and procedures to the three experts, which material was not otherwise contained in the disclosure documents*". Rather than providing a list of materials, Fladgate had simply asserted in an email of 26 March 2021 that "*The Defendant's experts had been provided with access to an/or copies of documents provided by the parties in disclosure as well as pleadings and*

witness statements", a response that failed to state whether FST's experts had been provided with anything else, in addition to the disclosure documents. The failure to include a list of the materials provided to each of the Experts in his or her report meant that the assertion from Fladgate was not verified by a statement of truth, as would have been the case had each of the reports been revised to address the issue, as had been required by the PTR Order.

b. to identify documents produced or provided to the Experts on site visits. Whilst Fladgate confirmed in its email of 26 March 2021 that images prepared by Mr Jackowski during his site visit had been provided as an annex to his report and that he had no further documents "*prepared during site visits in his possession*", this failed to address the question of whether any other documents had been produced by him or provided to him during his site visits and whether or not he had retained those documents. As for Professor Mead's site visit, FST did not confirm whether or not any other documents had been produced by or provided to Professor Mead during this (or any other) site visit or inspection.

c. to identify the data source or document relied upon in support of a particular statement or proposition.

9. On 6 April 2021, in an attempt to overcome some of these issues, Dana posed targeted CPR Part 35 Questions ("**the CPR Part 35 Questions**") to each of FST's Experts, pointing out in the preamble to its requests of Professor Salant and Mr Jackowski that "*the Claimant's position is that the revised report fails in material respects to comply with the Court's order*" and noting in the request to Dr Mead that she had not served an updated report. The Experts each responded on 20 April 2021 ("**the CPR Part 35 Responses**"). Insofar as relevant for present purposes, the questions to the Experts included the following matters:

a. detailed questions to Mr Jackowski about his site visit to the Hungary plant, including questions about the information he had obtained and whether any notes had been taken during the visit or record made after the visit. Mr Jackowski's response (at questions 4 and 5) recorded that the site visit had taken place on 2 days on 14 and 15 November 2019, identified various individuals to whom he had spoken together with 9 short questions he had raised and answers he had received. Mr Jackowski said that he had taken notes of the visit but that these had been "*discarded once the information was transferred to my report and its drafts*". At questions 14.1-14.6, Mr Jackowski was asked about a Finite Element Analysis referred to in paragraph 83 of his report which, from its context, can only have taken place in 2013 ("**the 2013 FEA**"). Further he was asked to identify the documents evidencing the 2013 FEA. Mr Jackowski's reply was "*I understand that the FEA data to which I had access has been disclosed*". At question 28, Mr Jackowski was asked about a statement he had made in paragraph 135 of his report to the effect that FST had conducted a Finite Element Analysis at his request. His responses made it clear that this was a request he had made verbally in December 2020. In response to a question asking for disclosure of this Finite Element Analysis ("**the 2020 FEA**") he responded "*I understand that it has been disclosed*".

b. questions to Professor Salant (in question 2) about the assertion in his report that he had designed and ordered a series of tests and measurements that were performed at the Institute of Machine Components ("**IMA**"), University of Stuttgart, including a request that he provide a copy of all communications between himself and the IMA in respect of those tests and measurements and the resulting IMA report (including documents by which he communicated his design and ordered the testing). Professor Salant responded "*See documents attached*". There were no documents attached and it is assumed that this is a reference to the documents attached to his report, which include the IMA report but no correspondence that was generated in commissioning or

designing the testing. At question 5, Professor Salant was asked to identify documents on which he had relied in making a statement at paragraph 69 of his report, to which he replied "*I believe that this information is based on the witness statements of Mr Bott and Mr Heldmann. I further believe that is (sic) was mentioned to me in a telephone call with FST on or around 5 May 2020*".

c. questions to each of the three Experts designed to identify documents provided to them by way of instructions including any documents by which information was provided to them in respect of FST's process and procedures or containing any analysis of or commentary on Dana's case and/or FST's case in the litigation and which had not already been disclosed. Mr Jackowski replied to this question in the following terms: "Save for privileged communications I have not received documents that fall within this category other than already disclosed in my report and/or in the list of documents and/or by way of additional disclosure". Albeit with slight variations to the language, both Professor Salant and Professor Mead replied in almost identical terms.

10. Dana took the view that these responses (which are of course to be treated as part of each Expert's report pursuant to CPR part 35.6(3) and are thus subject to the statement of truth contained in each report) took matters no further and, with the trial fast approaching, Dana's solicitors, Crowell & Moring, wrote to the Court on 28 April 2021 on the subject of its written submissions of 29 March 2021 as follows:

"*The Claimant maintains that the Defendant is not in compliance with the Order of Mrs Justice O'Farrell sealed on 26 March 2021…However, and without prejudice to that position, the Claimant does not now propose to take the matter further given the pending trial and the desire to avoid distractions in the short time remaining before trial*".

11. Nevertheless, Dana continued to put down markers in its written opening submissions for trial, repeating points it had made at the PTR and in its written submissions of 29 March 2121, together with pointing out that new disclosure had been provided by FST on 16 April 2021 ("**the April Disclosure**") which included documents that had been referenced in the Experts' reports. In particular, the April Disclosure included

a. documents regarding flow simulation. In its second letter of that date, Fladgate explained that "*due to an oversight, these documents were not provided as part of our clients' expert reports*"; and

b. documents regarding injection pressure which Fladgate explained had apparently not been collated during the initial disclosure exercise despite the fact that they responded to the key words used during that exercise.

12. Dana said that it had "*repeatedly emphasised its concern that the Defendant appears to have been providing documents to its experts without making those documents available to the Claimant and the experts instructed by the Claimant*". It also noted that it now transpired that the site visit referred to by Professor Mead in her report was in fact a "*virtual tour*" (information that had been provided by Fladgate in a letter of 30 March 2021) and pointed out that it remained the case that there was "*limited detail*" as to the testing commissioned by Professor Salant.

13. During oral opening submissions, Mr Webb QC, on behalf of Dana, developed this topic further, explaining that Dana remained concerned "*about the information that has been provided directly by [FST] to the experts instructed by Fladgate*" and that it was not clear whether that information had gone via Fladgate, or whether it had been provided direct, without any legal involvement. He referred to three examples of emails (including one email produced in the April Disclosure) which clearly showed information being provided by FST to various of the Experts without any oversight on the part of Fladgate and he submitted that absent a

definitive list of information received by FST's Experts, Dana could not be confident that all the material provided by FST to its Experts had been disclosed.

14. Further, Mr Webb made the point, which he continues to make in the context of the present application, that this issue is particularly acute in a case such as the present where Dana alleges a failure on the part of FST properly to manufacture the Seals and it is FST alone that has knowledge of its manufacturing processes and procedures. It is a feature of this litigation that FST has served no factual witness evidence regarding its operations at its factory in Weinheim, Germany (where the polymer compound that ultimately makes up the Seals is mixed) or at its plant in Kecskemet, Hungary, where the polymer compound is forced under high pressure by an injection moulding machine through a feed system (referred to in this litigation as a "cap") and into moulds (also referred to as cavities) in order to form the Seals. Dana and the experts for both parties are dependent upon the disclosure provided by FST as to its manufacturing processes and procedures, making it particularly important that a level playing field is maintained between the experts on both sides and that relevant information is not supplied unilaterally by FST to its Experts without providing such information at the same time to Dana's experts.

15. In light of these submissions, I directed that Fladgate should provide a witness statement "*setting out their understanding of all of the contact that [FST's] experts have had with the client and including any inspections, any oral conversations during which factual information was provided, any exchange of documentary information setting out information as to processes, maintenance, design etc. and any notes that were taken by the experts in relation to any of that*". Further to a suggestion from Mr Webb that there was a lack of clarity around the testing that had been commissioned by FST's Experts, I added to the information that was to be provided "*any documents relating to the commissioning of tests, including relating to the scope of those tests, who commissioned the tests [and] whose suggestion they were…*".

16. On the morning of 10 May 2021 (the fourth sitting day of the trial), Fladgate served a witness statement from Mr Alexander Wildschutz, a partner at Fladgate ("**the First Wildschutz Statement**"). Mr Wildschutz explained that the initial documents provided to the Experts had been taken from the disclosure platform. However, he said that he had been instructed by Dr Soren Neuberger and Mr Chad Bauer of FST (who he described as "*key contacts on the technical issues in the litigation*") that:

    "[12]…since autumn 2019 they had telephone calls from Mr Jackowski and Professor Salant. Those calls related to assistance with locating documents and technical information or logistical assistances. There is no record of these calls. Upon receipt of such request Mr Bauer and/or Dr Neuberger arranged for the provision of the requested information and documents.

    …

    [14] For the sake of completeness, although I do not consider such communications to constitute instructions, the Experts had communications with personnel of the Defendant regarding the commercial terms of their engagement and logistical support such [as] assistance with IT infrastructure…"

17. Mr Wildschutz went on to say that given the importance of the issue, he had requested sight of all correspondence which included FST and one or more of its Experts. He and a team of employees of Fladgate were in the process of reviewing these documents (amounting to approximately 2,500, as I was told by Mr Wygas on Day 4 of the trial) in detail. Mr Wildschutz said he was keen to provide all documents to Dana that were not privileged and he attached two emails to his statement which he said were indicative of the benign nature of the communications between FST and the Experts, namely that the communications were simply providing underlying information which had already been disclosed by FST. Mr Wygas

confirmed this in his submissions on Day 4, saying that the covering emails were devoid of substance and describing them thus: "*They can be described in the following way, as documents that attach the material document and that underlying material document has already been disclosed*".

18. Mr Webb's reaction to this statement was that the example emails attached to the First Wildschutz Statement were very far from being innocuous, that they illustrated a free flow of information between FST and its Experts without any gatekeeping role on the part of Fladgate and that this free flow of information appeared to have been taking place between the time of the joint expert meeting and the signing of the experts' Joint Statement ("**the Joint Statement**"), when the Experts should have been in "purdah" (as Mr Webb put it) and should not have been communicating directly with their client. Absent sight of all of the documents, Mr Webb was not able to take the matter further, but he put down "*the strongest possible marker that there may be some very serious repercussions from this*".

19. It is against this background (and the subsequent disclosure of approximately 175 new documents to Dana by FST (i.e. a subset of the 2,500 documents provided to Fladgate by FST) ("**the May Disclosure**") that Dana now invites the Court to exclude FST's technical expert evidence on the grounds that (i) FST has failed to satisfy the conditions imposed by the PTR Order; and (ii) FST has failed to comply with CPR Part 35, the Practice Direction to CPR 35 and the 2014 Guidance in respect of the instruction of its Experts and its interaction with those Experts. It is Dana's contention that the First Wildschutz Statement together with the May Disclosure "*has revealed significant, repeated and fundamental breaches of the CPR*" by FST. It is also Dana's contention that it is now clear that some of the responses provided by FST's experts to the CPR Part 35 questions were inaccurate and misleading in ways which disguised the true extent of FST's breaches of the CPR.

20. This application by Dana was made under considerable pressure of time; on Days 5 and 6 of the trial (12 and 13 May 2021) Dana called its three technical experts and Mr Wygas cross examined them. I agreed to sit on the afternoon of Friday 14 May 2021 to hear the application in advance of the planned start of the evidence of FST's technical experts on Monday 17 May 2021.

21. On the morning of 14 May 2021, Fladgate served a second statement from Mr Wildschutz ("**the Second Wildschutz Statement**"), addressing two specific issues to which I shall return later in this judgement. Shortly before lunch I received a skeleton argument from Mr Webb and a 35 page witness statement from Ms Nicola Phillips of Crowell & Moring ("**the Phillips Statement**") in support of the application. This timescale obviously did not give FST sufficient time to prepare a skeleton argument, or indeed to respond to the numerous detailed points raised in the Phillips Statement, including points that were critical of the conduct of FST, its Experts and Fladgate. In the circumstances I made it clear to Mr Wygas at the outset of the hearing that I would be prepared to adjourn the application so as to give him time to serve further evidence in response and then to prepare for the hearing. However, his response was that he did not want to take that opportunity but instead was prepared to "*play the cards that we've been dealt*". I can only infer from this that FST did not consider that its position would be improved by filing any further evidence.

22. The hearing went on beyond normal court hours and there was no time, nor would it have been possible, for me to give an extempore judgment. However, I was able to inform the parties that I intended to exclude FST's expert evidence and it was agreed that the existing trial timetable would thus continue, affording me time in which to prepare this judgment before hearing from German law experts for both parties.

Breach of the PTR Order

23. I turn then to consider whether FST has acted in breach of the conditions imposed in the PTR Order.

    Paragraph 1.1: the requirement to provide full details of all materials provided to the experts by FST's solicitors and/or by FST itself

24. In my judgment there has been a serious breach of this requirement, a breach which Mr Wygas could not, and did not, positively deny in his submissions. Instead when put on the spot, Mr Wygas said carefully that he did not say there had been no breach and that the points made by Dana in support of such a breach "*are not wrong. They are factually right*".

25. Whilst FST has provided Lists of Documents on which each of its Experts have relied on 26 March 2021, it has never identified (contrary to the terms of the PTR Order), whether in the form of a list or otherwise, all of the materials provided to the Experts.

26. In opening submissions for the trial, Mr Wygas suggested that this was because the experts had been given "*free rein through disclosure*" and so a list of all documents provided would be "*everything*", by which I understood him to mean the entirety of the disclosure.

27. The First Wildschutz Statement, on the other hand, says that the Experts were "*each provided with a set of documents selected by relevance for their expertise*". However it fails to provide details of any factual information provided orally by FST to its Experts and it fails otherwise to list all documents and information with which the Experts have been provided. I agree with Dana that this represents a failure fully to comply with my direction made on the first day of the trial.

28. The May Disclosure in fact demonstrates that a significant amount of information was provided to each of the Experts instructed by FST over a long period of time that has never been disclosed to Dana or otherwise identified. Indeed it is clear from the May Disclosure, as Dana has long suspected and the Phillips Statement records, that "*the Experts had unfettered and unsupervised access to the Defendant's personnel*" and that they were provided with information by FST during calls and virtual meetings. However, there is no record of any of these calls or meetings and no record of the precise nature of the information that was provided.

29. Thus by way of example,

    a. In an email dated 11 December 2019 that Mr Jackowski emailed to himself, Mr Bauer deals in some detail with the "Test Program for maiden head thickness study" (i.e. the cap thickness tests). Mr Bauer refers to "our meeting" at which this had been discussed. In a subsequent email dated 12 December 2019 to Mr Jackowski, Dr Neuberger attaches an analysis prepared by FST relating to this study and saying "*Markus [Dohner] created the first result regarding SEM Point 1. Are available. 1 seal of cav 1-0.3 and Cav 3-1.0 attached 2 cuts are made. Can you please confirm that this is the analysis you wanted and the format is suitable that you can report on that we can continue? If you have further questions or correction wishes please direct to us*."

    b. In an email dated 1 March 2020 addressed to Dr Neuberger and Mr Bauer, Mr Jackowski identifies numerous extremely detailed and technical questions concerning the cap thickness test program in respect of which he wants answers. There is no evidence as to how these questions were answered, but I infer from the extensive contact between FST and the Experts that answers were provided.

c. In an email chain dating from July and August 2020, Mr Jackowski writes to Dr Neuberger and Messrs Bauer and Lannert of FST, copying in Professor Mead and Professor Salant, on 25 July 2020, attaching his assessment of email correspondence and data provided to him. He states "*I also read through the numerous comments by Chad (Bauer) and Berthold (Lannert) which helped in forming my personal opinion without bias. Please review my comments and discussions and correct any mistakes or mis-informed opinions*". On 9 August 2020, Mr Jackowski seeks comments from Mr Bauer and Dr Neuberger on his report asking "*Is this the type of report that you were looking for?*". On 10 August 2020 Mr Jackowski asks Mr Bauer whether he has forwarded a copy of the report to Mr Wildschutz, saying "*I did not include him in my original email because I first wanted your feedback on the technology issues*". There are a number of issues with this email chain to which I shall return later in this judgment, but relevant for present purposes is the fact that Dana has had (i) no information about the "*feedback*" on technology issues and has seen no record of that feedback, suggesting that it was communicated orally or, if in an email, that it has not been disclosed; and (ii) no information about the "*numerous comments*" received from Messrs Bauer and Lannert.

d. In an email chain from November 2020, Professor Salant liaises with Dr Neuberger and Messrs Heldmann and Bauer of FST over issues in relation to the validation of the seal, asking various factual questions to which he wants an answer (in his email of 1 November 2020). Dr Neuberger responds indicating that he and his team will make themselves available for a Teams call. In an email of 25 November 2020 from Mr Heldmann of FST to (amongst others) Professor Salant, Mr Heldmann says "*please find attached the document files I was just presenting in our conference call*". Fladgate is not copied in to this email and no contemporaneous records or notes of this, or any other call taking place at around this time have been produced. On the same day, Professor Salant replies to Mr Heldmann (copying in Messrs Neuberger and Bauer) asking whether the E55551 seal (the Seal in issue in these proceedings) was for on road vehicles. On 26 November 2020, Dr Neuberger responds saying "*I have setted (sic) up a new meeting for today. I hope this timing suits you. Then we can clarify together*". Again, there appear to be no contemporaneous notes of this second meeting and Dana has not previously been made aware that information on this topic was being provided to FST's Experts by FST's in-house specialists.

e. In an email chain from November/December 2020, Mr Jackowski liaises with Dr Neuberger and Mr Bauer over the "*mold flow & control plan docs and time line*". Emails from 17 November to 2 December 2020 show that at least two meetings were set up to discuss this issue, that two FST technical specialists on, respectively, statistics and the tool and moulding process were asked to attend, together with a Quality Manager, and that Mr Jackowski was provided with detailed information including a mould flow analysis and filling video. These documents form part of the 2020 FEA analysis which was only disclosed to Dana in the April Disclosure. There appear to be no contemporaneous notes of these meetings, no clear indication as to what information Mr Jackowski was provided with and Dana were not informed that any information relating to the 2020 FEA was being provided to Mr Jackowski, notwithstanding that it related to what has become a central issue in the litigation as to the change in cap width (a point to which I shall return later in this judgment in the context of paragraph 1.3 of the PTR Order). The Second Wildschutz Statement explains that further to instructions from Dr Neuberger and Messrs Bauer, Dohner and Jackowski, a virtual meeting took place on 19 November 2020 which was arranged to address questions Mr Jackowski had in relation to an analysis which he had requested FST to undertake (i.e. the 2020 FEA). The statement goes on to say that the meeting was attended by Messrs Jackowski, Dohner, Hoffner, Cseh and Bauer and that the only record of the meeting is to be found in Dr Neuberger's email of 19 November. Mr Jackowski has informed

Mr Wildschutz that he did not take any notes himself and does not have a record of the meeting.

30. It is difficult to square the evidence in the First Wildschutz Statement that discussions between FST and the Experts were limited solely to telephone calls from Mr Jackowski and Professor Salant relating to "*assistance with locating documents and technical information or logistical assistance*" with (i) evidence that Mr Wildschutz already had available to him at the time of his statement in the form of an email dated 10 March 2020 disclosed to Dana in the April Disclosure. This email was from Mr Dohner of FST to Mr Jackowski referring to a discussion on the phone and sending detailed information seeking to explain the modification to the cap thickness; and (ii) the documents contained in the May Disclosure, which were in the process of being reviewed at the time of the First Wildschutz Statement.

31. Indeed, the email of 10 March 2020 and the emails referred to in paragraph 29 above, together with the evidence in the Second Wildschutz Statement, plainly evidence that (i) Mr Jackowski was seeking (and receiving) both guidance and approval from FST's in-house technical specialists on the content of his expert report. In particular he was involved in various telephone calls/videoconferencing calls, he commissioned FST to carry out the 2020 FEA "*on account of matters which were raised by the Claimant in relation to the adequate fill of the mould*" (as recorded at the expert's joint meeting) and he received technical information about mould flow and about modifications to the cap thickness, both central issues in the proceedings, from various in-house specialists at FST; (ii) Professor Salant was attending videoconferencing calls and receiving technical information about (amongst other things) the validation of the seal from in-house FST specialists. (I shall return to additional examples of such contact later in this judgment in the context of considering breaches by the Experts of the CPR and the 2014 Guidance).

32. These examples alone plainly go far beyond contact limited to locating documents or technical information, or the provision of logistical assistance and, as Mr Wildschutz confirms in the First Wildschutz Statement, there is no record of these calls/videoconferences (to which he was not a party) and Mr Wildschutz explains that he now regrets that he "*did not ask Mr Bauer to keep a note of these conversations*". It is most unfortunate, to say the least, that Mr Wildschutz does not appear to have considered it necessary to supervise the interactions that were quite clearly taking place on a regular basis between FST and its Experts.

33. Although only one of the examples I have referred to above involves Professor Mead, I should add that the May Disclosure contains other examples of information being provided to Professor Mead in conjunction with Mr Jackowski and Professor Salant. Furthermore, Professor Mead appears to have been provided with instructions directly by FST to which she has made no reference in her report and which were not identified as having been provided to her until she confirmed as much in her CPR Part 35 Response. No explanation for this failure has ever been provided. Again, I shall return to address the details of this later in this judgment.

34. Even now Dana may not have all of the documents that should have been disclosed owing to what I can only assume to be the different approaches that have apparently been taken by individual members of FST's legal team to the question of privilege when reviewing at speed the 2,500 documents provided to them by FST in response to my directions with a view to identifying which of those documents needed to be disclosed to Dana. During the course of Mr Webb's submissions, I was taken to duplicate versions of emails which showed varying degrees of redaction. Mr Wygas accepted in relation to at least one example of a redacted email that it should not have been redacted because it was obvious (from its unredacted duplicate) that privilege did not apply.

35. FST's failure to comply with paragraph 1.1 of the PTR Order is not just a technical or unimportant breach. It is essential for the Court to understand what information and instructions

have been provided to each side's experts, not least so that it can be clear as to whether the experts are operating on the basis of the same information and thus on a level playing field. Experts should be focussed on the need to ensure that information received by them has also been made available to their opposite numbers. As Fraser J said in *Imperial Chemical Industries Ltd v Merit Merrell Technology Limited* [2018] EWHC 1577 (TCC) at [237(1)]: "Experts of like discipline should have access to the same material. No party should provide its own independent expert with material which is not made available to his or her opposite number".

36. Similarly, the 2014 Guidance at paragraphs 30-32 provides as follows:

"[30] Experts should try to ensure that they have access to all relevant information held by the parties, and that the same information has been disclosed to each expert in the same discipline. Experts should seek to confirm this soon after accepting instructions, notifying instructing solicitors of any omissions.

[31] If a solicitor sends an expert additional documents before the report is finalised the solicitor must tell the expert whether any witness statements or expert reports are updated versions of those previously sent and whether they have been filed and served.

[32] Experts should be specifically aware of CPR 35.9. This provides that, where one party has access to information that is not readily available to the other party, the court may direct the party who has access to the information to prepare, file and copy to the other party a document recording the information. If experts require such information which has not been disclosed, they should discuss the position with those instructing them without delay, so that a request for the information can be made, and, if not forthcoming, an application can be made to the court".

37. Pausing there, it is worth recording that the notes to CPR 35.9 make clear that it is a particular application of the overriding objective's aim of securing equality of arms (CPR rule 1.1(2)(a)). Where experts are liaising directly with their clients to obtain information which is not recorded (because there is no legal involvement and no vigilance on the part of the expert in keeping detailed contemporaneous notes of such contact and in providing those notes to his or her instructing solicitor), there can be no transparency around the information to which they have been privy and no equality of arms with their opposing experts of like discipline.

38. This, of course, is also why CPR 35.10(3) requires an expert report to "state the substance of all material instructions, whether written or oral, on the basis of which the report is written" a requirement echoed by paragraph 3.2(3) of the Practice Direction to CPR 35 which requires the expert report to "contain a statement setting out the substance of all facts and instructions which are material to the opinions expressed in the report or upon which those opinions are based".

39. Equally, paragraph 55 of the 2014 Guidance is designed to ensure that instructions given to experts are not incomplete or prone to mislead:

"[55] The mandatory statement of the substance of all material instructions should not be incomplete or otherwise tend to mislead. The imperative is transparency. The term "instructions" includes all material that solicitors send to experts. These should be listed, with dates, in the report or an appendix. The omission from the statement of 'off-the-record' oral instructions is not permitted…"

40. In the context of this application it is worth noting that paragraph 55 of the 2014 Guidance specifically contemplates that instructions will be provided to experts by solicitors. However, it should go without saying that parties cannot get around this requirement for transparency by engaging directly with their experts and by-passing any involvement on the part of their solicitors.

41. FST should not have been in ignorance of the guidance and rules I have identified above, the need for compliance with which lay behind the terms of the PTR Order at paragraph 1.1. Crowell & Moring referred to them directly in letters dated 10 March 2021, 16 March 2021, 12 April 2021 and 19 April 2021. In a letter dated 30 March 2021, Fladgate asserted that "*all documents, which are the basis of our client's experts' opinions…have been disclosed*", an assertion it repeated in its letter of 6 April 2021 and which now seems to be entirely mistaken.

42. Mr Wygas sought to identify a distinction between material instructions (the substance of which must be set out in the expert's report pursuant to CPR 35.10 and paragraph 3.2(3) of CPR 35 PD) and non-material instructions or information which the expert may have received but need not refer to in his or her report. The First Wildschutz Statement sought to make the same distinction at paragraph 14. However, the contact between FST and its Experts in this case is clearly so extensive and so lacking in control that I cannot possibly determine that it involved nothing more than the provision of immaterial information. Indeed, on the face of the emails to which I have referred above, I do not accept that it can properly be said that the information being provided to the Experts was immaterial. The very fact that the provision of information appears to have been going on behind closed doors, without the involvement or oversight of Fladgate and without any adequate records being kept, tends to support the inference that the information being discussed was material. Neither the Court, nor Dana, can now know the nature and extent of the information in fact provided orally to the Experts by FST.

Paragraph 1.2 of the PTR Order: the requirement for disclosure of all documents (including photographs) produced by or provided to each expert during any site visit, including any notes taken by the expert of information provided to the expert/seen by the expert during any such visit (including notes of statements from operators or other staff etc.)

43. This order arose out of concerns regarding unilateral site visits undertaken by Mr Jackowski and Professor Mead without notifying Dana's experts. As I have already said, these site visits were said in their reports to have involved a trip to the FST plant in Hungary (Mr Jackowski) and a visit to an FST mixing facility in Georgia (Professor Mead). However, since the date of the reports and the PTR Order, further information has become available about these visits. Indeed it now appears from the First Wildschutz Statement that:

    a. Mr Jackowski in fact undertook two site visits in Europe – one to the production plant at Kecskemet in Hungary and one to FST's main location in Weinheim, Germany. These visits apparently took place on 14 and 15 November 2019, but only one of these visits is identified in Mr Jackowski's CPR Part 35 Response;

    b. Mr Jackowski also visited a plant in Cleveland, USA operated by FST's US affiliate;

    c. Professor Mead may in fact have attended at least two virtual site visits (although extraordinarily, this remains unclear): Professor Mead's CPR Part 35 Response to question 3.1 which asks about protocols used in Georgia and Weinheim refers to observations made during "virtual tours", thereby suggesting a second virtual tour of the Weinheim Plant. The First Wildschutz Statement refers to only one such virtual tour "of the Defendant's mixing facility on 2 June 2020" – it is however unclear which mixing facility he is referring to. Mr Wildschutz goes on to confirm that Professor Mead also visited (with Mr Jackowski) the plant in Cleveland USA operated by FST's US affiliate.

44. It is entirely unacceptable for Dana and the Court to discover during the course of the trial that FST's experts have not only engaged in site visits about which they did not inform Dana's experts at the time and in respect of which they have apparently kept no records, but also that there were, in fact, more site visits than had previously been disclosed in their reports. In the circumstances I am unsurprised that Dana's concern in respect of this paragraph of the PTR

Order again arises in the context of paragraph 30 of the 2014 Guidance and the requirement that experts on both sides should have access to the same information. It is patently clear that FST's Experts have had access to FST's various sites (the extent of which has only just been revealed) which has not been shared with Dana's experts and it is difficult to come to any conclusion other than that the guidance in the TCC Guide at 13.3.2 as to the need for experts to "*co-operate fully*" with one another, including in particular "*where tests, surveys, investigations, sample gathering or other technical methods of obtaining primary factual evidence are needed*" has been ignored. I note in this regard that in circumstances where FST served no factual evidence from its witnesses as to the manufacturing process at its various production sites, this was exactly the sort of case where one might have expected the experts on both sides to cooperate over obtaining the primary factual evidence that they needed in order to understand those processes.

45. Save for a few photographs, no disclosure has been provided in respect of the visits that were identified by Mr Jackowski and Professor Mead in their reports – Mr Jackowski's response to the CPR Part 35 Questions was that his notes had been "*discarded once the information was transferred to my report and its drafts*". Aside from wondering why Mr Jackowski could have thought it appropriate to discard his notes, it is clear that the information he is referring to can only be factual information he obtained on the site visit which he considered to be material to his report – information to which Dana's experts should plainly have had access. Furthermore, it is impossible to know whether Mr Jackowski chose only information that suited FST's case for transfer into his report. Insofar as he identified the names of individuals he met during his visit, it is now clear from documents provided in the May Disclosure that his list was incomplete. As for the 9 single sentence (and in some cases, single word) questions and answers that Mr Jackowski says in his responses that he posed to the various identified individuals, over the course of 2 days of site visits, I agree with Mr Webb's incredulity. I am very sorry to say that it is extremely difficult to accept that Mr Jackowski has been entirely candid in these responses.

46. No disclosure has been provided in relation to any of the visits that has just come to light, there is no information as to whom Mr Jackowski and Professor Mead spoke, what (if any) information they were provided with, and whether they have each retained any notes they may have taken (aside from the continuing confusion around the number of site visits that Professor Mead has undertaken). Mr Jackowski's CPR Part 35 Responses appear to address only his site visit to Hungary, but the Court and Dana remain in the dark about the information that may have been generated from his other site visits.

47. In my judgment, FST's failure even to disclose the existence of various site visits until the trial is evidence of a breach of this requirement. Mr Wygas sought to argue that as at 26 March 2021 all documents had been disclosed pursuant to the PTR Order, but I do not follow how he can say this with any degree of confidence. Even now, as I have said, it remains unclear what information was in fact provided to Mr Jackowski and Professor Mead at the various site visits they attended and I have no evidence from FST to verify Mr Wygas' submission.

Paragraph 1.3 of the PTR Order – the requirement to identify the source and details of the data and other information relied on in support of each proposition/opinion.

48. In paragraph 3.3 of a useful Appendix to its skeleton for this application, Dana relies on a number of examples in the technical expert reports of Mr Jackowski and Professor Mead, where there has been a breach of this paragraph. For present purposes I shall concentrate on two of these.

49. The first example is, to my mind, particularly striking and concerns Mr Jackowski's report. In Section VIII of Mr Jackowski's report he explains that modifications were made to the tooling for cavities 1 and 2 (the moulds into which the polymer was injected to create the pinion seals,

as I have explained above) in 2013. This involved trimming away the moulded rubber cap to which I have referred previously through which the polymer is injected from 1mm to 0.3 mm. Paragraph 83 of Mr Jackowski's report, reads as follows:

"[83] Before making this tooling modification, a computerized mold flow Finite Element Analysis (FEA) was conducted that revealed the viscous shearing of the elastomer flowing across the cap would increase the material temperature by 16.7 C. Thus, supplementing the mold heating during the cure cycle. To accommodate the thinner cap, the injection pressure was increased from 900 bars (13,500 psi) up to 1200 bars (18,000 psi) while keeping the injection time constant at 1.2 seconds".

50. Pausing there, any reader of this paragraph would assume that this reference to "the cap" is to the cap about which we are directly concerned in these proceedings: the cap to cavities 1 and 2 which was modified from 1mm to 0.3mm in 2013. Any reader would also in my judgment assume that this is a reference to a Finite Element Analysis (i.e. a software simulation reflecting aspects of the flow of the polymer into the cavity) taking place in 2013.

51. By letters dated 1 April 2021, 12 April 2021 and 19 April 2021, Crowell & Moring asked for the 2013 FEA to be disclosed, pointing out that it should have been provided long ago. In the 12 April 2021 letter at paragraph 13, Crowell & Moring said "*As things currently stand, our experts are unable to consider this analysis, which is entirely unacceptable. In addition there is no citation to it in the list of documents relied on in the report of Mr Jackowski, which you provided on 26 March 2021…*". In the 19 April 2021 letter, Crowell & Moring said that it was not clear to them that the 2013 FEA referred to in paragraph 83 of Mr Jackowski's report had been provided in the April Disclosure. They were right about this; the April Disclosure included only documents evidencing an FEA that had been undertaken in November 2020 – apparently the 2020 FEA referred to in Mr Jackowski's responses to the CPR Part 35 Questions.

52. The May Disclosure provided some additional insight into this issue in the form of an email from Mr Jackowski to Dr Neuberger (copying in Professor Mead and Professor Salant) dated 2 December 2020 raising:

"*a number of questions regarding the mold flow analysis supplied:*

1. Previously I was told that the injection pressure was raised from 900 bars to 1200 bars for the thin cap while keeping the injection time to 1.2 seconds which increased the material temperature by 16.7 C due to the increased viscous material shearing across the inner cap. This explanation was also included in my assessment report. However the attached videos during the fill cycles reveal a different result: The thin cap uses 638 bars of pressure to fill the cavity over a 2 second time frame, while for the thick cap only 153 bars are used to fill the cavity over 2 seconds. Also the static FEA model shows both mold configurations using 500 bars injection pressures?"

53. The discovery of this email led Mr Webb to raise a query in court on Day 5 of the trial which resulted in a letter from Fladgate dated 12 May 2021 which addressed "*The issue of a potentially undisclosed document provided to Mr Jackowski relating to a further Finite Element Analysis…prepared in 2013*". The letter said that Fladgate had taken instructions from FST and confirmed that "*the only documents relating to an FEA provided to Mr Jackowski are the documents relating to the FEA dated November 2020, disclosure of which was provided on 16 April 2021. Independently we have sought confirmation from Mr Jackowski as to whether he had been provided with any documents relating to an FEA other than the 2020 FEA. Mr Jackowski has confirmed that he has not received such document.*"

54. The Second Wildschutz Statement, filed and served on 14 May 2021, addressed this issue, acknowledging that from Mr Jackowski's report it appeared that FST had in its possession

documents relating to an FEA prepared in 2013 and that these documents had only been provided to FST's Experts. The statement went on to explain that Mr Jackowitz had confirmed that no 2013 FEA exists and that he had in fact only been provided with the 2020 FEA. Against that background, the statement acknowledged that the CPR Part 35 Responses from Mr Jackowski "*give the impression that there was an FEA analysis undertaken in 2013*" and went on to explain that Mr Jackowski had told Mr Wildschutz that the information in paragraph 83 of his report was based on information provided to him verbally at a meeting with Dr Neuberger and Messrs Bauer and Dohner on or about 14 November 2019 from which he understood that a 2013 FEA had been created.

55. The Second Wildschutz Statement went on to say that (notwithstanding the apparently clear reference to "the cap" in paragraph 83 of Mr Jackowski's report) Mr Jackowski was in fact never under the impression that FST had carried out a Finite Element Analysis specifically for the part E55551 (i.e. the Seals). Paragraph 10 of the statement said that in his answers to the CPR Part 35 Questions, Mr Jackowski was referring to the 2020 FEA carried out in November 2020 (although no explanation is provided as to how that can have been the case where the 2020 FEA was dealt with in an entirely separate set of questions). Paragraph 11 confirmed that Mr Wildschutz had taken instructions from Dr Neuberger and Messrs Bauer and Dohner who had confirmed that FST did not in fact carry out a Finite Element Analysis in 2013.

56. To my mind this is a paradigm example of what can go wrong if an expert is left to obtain information direct from his clients without legal involvement and, indeed, if that expert does not even require sight of the detailed information on which he then relies for the purposes of preparing his report – as seems to have been the case here. If Mr Jackowski had gone to the trouble of asking FST for sight of the 2013 FEA to which he understood FST's in-house specialists to be referring, he would (presumably) soon have discovered that it didn't exist. Instead, however, he has included paragraph 83 in his report which plainly gives the impression that a 2013 FEA was conducted relating specifically to the cap with which we are concerned in these proceedings. That was an impression which he did not seek to dispel by his responses to the CPR Part 35 Questions.

57. There remain, however, a number of unanswered questions – where did Mr Jackowski obtain the very detailed information that he provided in paragraph 83 of his report and why did no one at FST identify his mistake when they read his draft report? Why was he even referring to this information if he did not think that it concerned the cap on cavities 1 and 2 used for the manufacture of the Seal? Why did Mr Jackowski continue to include that information in his report when it would appear from the terms of his email dated 1 December 2020 that he was himself concerned as to the accuracy of the information that he had been given? Why did it take so long for the non-existence of a 2013 FEA to come to light, notwithstanding that Dana's solicitors had been asking questions about it from the date of receipt of Mr Jackowski's report? Why did Mr Jackowski not take the opportunity to correct the impression given in paragraph 83 of his report when he responded to the CPR Part 35 Questions, which he ought to have appreciated would be treated as part of his report and thus subject to a statement of truth? Why does the evidence now provided by Mr Wildschutz and Mr Jackowski (in his CPR Part 35 Responses) say that the 2020 FEA was commissioned by Mr Jackowski in order to respond to matters raised by Dana when the work order for that 2020 FEA (disclosed in the April Disclosure) appears to be dated 1 April 2020?

58. I cannot answer these troubling questions and I do not need to do so for the purposes of determining this application, but I agree with Mr Webb that it is extremely difficult not to arrive at the conclusion that FST and Mr Jackowski sought to disguise the absence of any 2013 FEA documentation in replies 14.1 to 14.6 to the CPR Part 35 Questions, which, in stating simply that "*the FEA data to which I had access has been disclosed*" gave the very strong impression that Mr Jackowski stood by the (misleading) content of paragraph 83 of his report. That

impression was further reinforced by the way in which he dealt with the 2020 FEA in his response to question 28 as if it were an entirely different Finite Element Analysis.

59. In his submissions Mr Wygas candidly described paragraph 83 of Mr Jackowski's report as "*nonsense*" and accepted that "*whatever has happened*" in obtaining Mr Jackowski's evidence it had clearly infected the whole report. There can be no doubt that, although it now appears that the 2013 FEA has never existed, FST failed to comply with paragraph 1.3 of the PTR Order in relation to the identification of information on which Mr Jackowski relied in paragraph 83 of his report until the May Disclosure was provided and it was forced to provide evidence from Mr Wildschutz. Even now, as I have made clear, that further evidence is very far from satisfactory in providing a clear explanation of what has really occurred.

60. The second example on which Dana relies is in Professor Mead's report at paragraph 38 and can be dealt with shortly. Professor Mead includes in paragraph 38 a proposition that she does not support by reference to any document, namely that the tensile strength and elongation of the mixed components for the seals are "above minimum requirements" – it is entirely unclear what the minimum requirements to which she is referring might be and where they have come from. Mr Wygas frankly accepted that this was a breach of paragraph 1.3 of the PTR Order, although he sought to argue that a decision to exclude Professor Mead's report on this basis alone would be overly harsh. Unfortunately for Mr Wygas, my decision to exclude Professor Mead's report hangs on a great deal more than this one particular point.

Conclusion on Breach of the PTR Order

61. I am amply satisfied for the reasons set out above that FST has acted in breach of the letter and spirit of paragraphs 1.1-1.3 of the PTR Order: all three Experts are in breach of paragraph 1.1, whilst Professor Mead and Mr Jackowski are also in breach of paragraphs 1.2 and 1.3. These breaches are all serious and unexplained.

62. Furthermore, on careful analysis I am inclined to agree with paragraph 7 of the Phillips Statement to the effect that "*it is now clear from the latest disclosure that the Defendant's failure to comply with paragraphs 1.1, 1.2 and 1.3 of the PTR Order was unlikely to have been inadvertent: the Defendant could not comply with those three paragraphs of the PTR Order without revealing the nature and extent of the direct and unrecorded communications between the Defendant's in-house technical specialists and those experts, which contact occurred largely without any supervision by any lawyer. In short, compliance with the PTR Order would have given the Court and the Claimant an insight into the multiple and serious breaches of CPR 35 which have occurred*". Mr Webb added during his oral submissions that if FST had complied with the PTR Order and disclosed the documents they have now provided in the May Disclosure, this application would have taken place prior to the trial. Again, I agree with this analysis. I repeat that, for whatever reason, FST has apparently decided against taking the opportunity to serve any evidence designed to counter these assertions.

63. Owing to the documents provided in the May Disclosure, the Court does finally have insight into FST's numerous breaches of CPR 35, breaches to which I shall return in the next section of this judgment.

64. For present purposes it is my judgment that the Court cannot condone the actions of FST and its multiple breaches of the PTR Order by permitting it to rely on its technical expert reports. FST's failures to meet the conditions imposed by the PTR Order mean that it does not have the court's permission to rely on those reports and I am not prepared to give it that permission.

Breach of CPR Part 35 and the 2014 Guidance

65. In light of my decision in relation to the PTR Order, it is not strictly necessary for me to address the other serious breaches on the part of FST of CPR 35 and the 2014 Guidance. However, I have had detailed evidence in the form of the Phillips Statement and, in circumstances where I consider those additional breaches to be of a particularly serious nature, I intend to deal with them, albeit as briefly as I can.

Experts' Duties

66. Before I turn to consider those breaches, however, I should reiterate what was said by Fraser J in *Imperial Chemical Industries Limited v Merit Merrell Technology Limited* [2018] EWHC 1577 at [237]:

"The principles that govern expert evidence must be carefully adhered to, both by the experts themselves, and the legal advisers who instruct them. If experts are unaware of these principles, they must have them explained to them by their instructing solicitors. This applies regardless of the amounts in stake in any particular case, and is a foundation stone of expert evidence. There is a lengthy practice direction to CPR Part 35, Practice Direction 35. Every expert should read it".

67. Fraser J went on to set out some examples of the application of the well-known principles in *The Ikarian Reefer* [1993] 2 Lloyds LR 68 (including the point that I have already identified above that experts of like discipline should have access to the same material). For present purposes, I note the first duty of an expert witness in a civil case as identified by Cresswell J (at page 81) in *The Ikarian Reefer*:

"Expert evidence presented to the Court should be, and should be seen to be, the independent product of the expert uninfluenced as to form or content by the exigencies of litigation (*Whitehouse v Jordan* [1981] 1 WLR 246 at 256, per Lord Wilberforce)".

68. This duty is echoed in paragraph 2 of Practice Direction 35:

"2.1 Expert evidence should be the independent product of the expert uninfluenced by the pressures of litigation.

2.2 Experts should assist the court by providing objective, unbiased opinions on matters within their expertise, and should not assume the role of an advocate."

69. CPR 35.3 makes clear that the expert's overriding duty is to the court and that this overrides any duty to his or her client.

Breaches of CPR Part 35 and the 2014 Guidance

70. The emails to which I have already referred, disclosed as part of the May Disclosure, have revealed serious flaws in the conduct of FST's experts, many of which were accepted by Mr Wygas in his submissions, during which he frankly acknowledged that FST had not met the appropriate standards:

"*The Defendant simply can't and doesn't shirk away from the fact that what has gone on does not comply with the standards that are set by the courts of England and Wales and it shouldn't have happened...if it happened because people have been overenthusiastic, or however it happened, is irrelevant, but it has happened and therefore the consequences have to follow from that*".

71. I have already relied on some of these failures in the context of the first part of this judgment, but for completeness I identify below all of the breaches of protocol that have been revealed.

72. First, as will already be clear from the earlier part of this judgment, there was a free flow exchange of information between the Experts and FST's employees and in-house technical specialists, through extensive email exchanges, numerous telephone and video conferences and at site visits, apparently with no, or very little, oversight from Fladgate. Mr Wildschutz explains in paragraph 14 of the First Wildschutz Statement that he was contacted "*numerous times*" by Mr Bauer of FST "*to seek confirmation as to whether or not he was permitted to provide logistical assistance to the experts*", however it would appear that Mr Wildschutz did not seek to have any involvement in these conversations and nor did he ask that they should be recorded. The emails reveal that communications between the Experts and FST's in-house specialists went far beyond mere "logistics" and it is inevitable that the Experts have been privy to information that was not shared with Dana's experts.

73. Accordingly, I accept Mr Webb's submission that I cannot now be satisfied that the requirements of CPR 35.10(3), Practice Direction 35, paragraph 3.2(3) and paragraphs 30 and 55 of the 2014 Guidance referred to earlier in this judgment have been complied with.

74. Second, it is clear from the date of the emails disclosed in the May Disclosure that this flow of information continued during the period between the joint expert meetings on 13 and 30 October 2020 and the signing of the experts' Joint Statement which took place between 9 and 14 December 2020. A number of the emails to which I have referred in detail above date from this period and it would appear that the Experts ultimately relied on information provided by FST at this time in the Joint Statement and in their reports.

75. This is expressly acknowledged by Mr Wildschutz in paragraph 11 of the Second Wildschutz Statement where he confirms, on instructions, that the 2020 FEA was undertaken on account of matters raised by Dana at the experts' joint meeting as recorded in section 3 of the experts' Joint Statement. This is borne out by the email chain from 17 November to 2 December 2020. I note in particular, an email from Mr Jackowski in this chain dated 19 November 2020 in which he specifically refers to a claim by Dr Yadav (one of Dana's experts) that the manufacturing process was "*out of control*" and received a response from Dr Neuberger on the same date expressly dealing with this. The email chain also evidences a joint Teams meeting held with the FST in-house specialists to discuss the mould flow study, control plan documentation and measurement data. There is no record of what was discussed at this meeting, which appears to have taken place on 19 November 2020.

76. Other email exchanges evidencing the extent of the contact in this period (which of course also evidence breach of paragraph 1.1 of the PTR Order) include:

    a. an email from Professor Salant to Dr Neuberger on 1 November 2020 asking for "*more of your help*" on the section of his report dealing with the validation of the seal;

    b. an email exchange from 4 November 2020 between Professor Salant and Dr Neuberger in which Professor Salant asks Dr Neuberger for assistance in relation to comments made by Mr Bennett (another of Dana's experts) in respect of the hardness specification at the experts' meeting; Dr Neuberger responds with the requested information, guiding Professor Salant to the relevant passage of the hardness standard DIN 3761 inviting further questions and copying in both Mr Jackowski and Professor Mead.

    c. an email dated 5 November 2020 from Dr Neuberger to all three Experts providing information described as "*some starting points which makes your digging easier*".

d. an email from Dr Neuberger directed to Professor Salant ("*Dear Richard*") dated 26 November 2020 saying "*attached you can find the charts you requested Point 3 based on the data already disclosed*". The email is copied to Professor Mead and Mr Jackowski expressly so that "*they can follow up as well*". Mr Webb informed me that to the best of his knowledge, Dana has never been provided with the "charts" referred to in this email, which appear to have been produced by one of FST's in-house specialists because the email continues: *"@Cseh,Laszlo thank you for the preparation*". The email is on the end of a chain which also involves an email dated 24 November 2020 from Dr Neuberger to Mr Jackowski referring to the fact that he would receive "*the first package of things you requested (simulation and charts)*" by Thursday together with a "*filling study*" the following week.

e. an email from Mr Dohner to Mr Jackowski on 2 December 2020 referring to a telephone call and sending pictures relating to the 2020 FEA.

f. an email dated 11 December 2020 from Mr Dohner emailing the results of a fill study to Mr Jackowski. Dr Neuberger then forwarded these results to Professor Salant and Professor Mead on the same day.

77. Mr Wygas accepted that contact between FST and its experts during this period simply should not have happened, that there was no excuse for it and that this was a "*freestanding matter which…the court has to take into account*". He was right to do so. Paragraph 13.6.3 of the TCC Guide makes it clear that legal advisers should not be involved in the negotiating or drafting of joint statements (as do the notes at CPR 35.12.2) and it must, in my judgment, follow that the same prohibition applies to the parties. I suspect that the only reason that the TCC Guide does not make this point expressly is that it does not anticipate that the parties themselves will ever be directly (and independently) in contact with the experts instructed on their behalf during this critical period.

78. In my judgment this breach was particularly serious in circumstances where Mr McAllister of Crowell & Moring raised concerns about the potential involvement of both Fladgate and FST in the period following the commencement of expert discussions in an email dated 28 October 2020. Having noted that Mr Wildschutz and Mr Bauer had both been copied in to an email concerning the agenda for an upcoming meeting of the experts, Mr McAllister said this: "*As the experts' discussions have now commenced, it is not appropriate for lawyers to be involved in the exchanges between experts. We would ask that you remind the experts instructed by your client of this. Furthermore it is entirely inappropriate for representatives of your client to have any involvement whatsoever in the experts' discussions and we do not consider that it is appropriate for there to be any contact between the experts and the clients during this period of expert discussions*". Mr McAllister asked for confirmation that since the expert discussions began on 13 October 2020 there had been no other communications or discussions relating to the litigation between FST's experts and representatives or consultants of FST.

79. Mr Wildschutz replied on 4 November 2020 saying: "…*we assure you that we are fully familiar with the process and procedural rules regarding the discussion between the respective parties' experts. Whilst we and a representative of our client had been copied into the email you refer to, we trust that you will be aware that neither this firm nor our client have been in any way involved in the communications between our client's experts and the experts instructed by your client*…".

80. However, whether Mr Wildschutz knew it or not (and he certainly appears to have been copied in to an email of 23 November 2020 from Dr Neuberger seeking to set up a Teams meeting with Professor Salant to discuss validation of the seal) FST's employees were in direct contact with the Experts during this critical period, the Experts were relaying information obtained from the joint meetings to those employees and they were seeking assistance in how to respond.

Most regrettably, the reassurance that Mr Wildschutz provided in his email appears to have been inaccurate.

81. Third, Professor Mead and Mr Jackowski attended site visits without informing Dana's experts and without giving them an opportunity to have access to the same information. Again, Mr Wygas accepted this should not have happened and that there was no excuse for it. He did not even try to explain why some site visits had only recently come to light and why no disclosure has been provided in respect of these recently identified site visits.

82. Fourth, the Experts' analyses and opinions would appear to have been directly influenced by FST. This is evidenced most clearly by the email chain dating from between 25 July 2020 and 10 August 2020 involving Mr Jackowski to which I referred above. The fact that Mr Jackowski has read through numerous comments from his client's in-house specialists before, as he puts it "*forming my personal opinion without bias*", the fact that he asks those in-house specialists to "*correct any mistakes or mis-informed opinions*" in his assessment and to let him know whether his draft report is "*the type of report that you were looking for*" casts very serious doubt over his independence and impartiality. Equally worrying is his decision not to include Mr Wildschutz in to email correspondence in circumstances where "*I first wanted your [i.e. FST's] feedback on the technology issues*". Indeed Mr Wygas was realistic enough to accept in his submissions that these remarks (which Mr Wygas described rather generously as "*unguarded comments*") gave him considerable difficulties.

83. Whilst Dana was unable to point to any email exchanges involving Professor Salant, Professor Mead and FST which evidenced a similarly blatant disregard for their duties as an independent expert, to my mind FST's direct influence over their respective reports is nevertheless clearly evidenced by their willingness to engage in the unrecorded communications to which I have already referred. Truly independent experts paying proper attention to their duties would not have attended site visits without first informing their opposite number (Professor Mead) and would not have felt comfortable receiving extensive information from their clients to which their opposite numbers were not privy (Professor Mead and Professor Salant). Email exchanges between Professor Salant and FST show him seeking "*more of your help*" on the section of his report relating to validation of the seal and information on the standard for hardness tolerance.

84. The conduct of all three Experts has (at the very least) called into question the independence of their reports and the extent to which they have provided objective and unbiased opinions in those reports. Indeed I think there is some justification for the suggestion in the Phillips Statement at paragraph 60 that FST has interposed itself in the Experts' reports to such a degree that they cannot confidently be said to be the result of the Experts' independent analysis.

85. During the course of his submissions, Mr Wygas sought to draw a distinction between the conduct of the three Experts, accepting that there might be a sliding scale, moving from (at the most egregious end of the scale) the conduct of Mr Jackowski, to (at the lowest end of the scale) the conduct of Professor Salant, no doubt hoping that he would persuade me to permit FST to rely upon at least some of its technical expert evidence. He submitted that it would be overly harsh and "*draconian*" to FST to exclude Professor Salant's evidence and he sought to downplay the significance of the contact that Professor Salant (in particular) had had with his clients.

86. Whilst I understood what lay behind these submissions, I am not in the least persuaded by them. It is true that Mr Jackowski's conduct appears to have been by far the worst of the three Experts, but that is not to say that either Professor Mead or Professor Salant conducted themselves appropriately, as the examples from the evidence that I have set out above establish. In any event it does not seem to me that I am in a position to draw any such distinction between the Experts where: (i) permission to rely upon expert evidence was conditional upon compliance with the conditions set forth in the PTR Order; (ii) I have found that FST and its Experts failed

to comply with those conditions in varying respects; and (iii) in any event the breaches of protocol identified above are serious and, with the exception of the site visits which concern only Professor Mead and Mr Jackowski, also involve each of FST's three Experts.

87. In my judgment, the breaches of CPR 35, its Practice Direction and the 2014 Guidance to which I have referred above would be sufficient in themselves to justify the refusal of permission by the Court to FST to rely on its technical expert reports.

The Experts responses to the CPR Part 35 Questions

88. Mr Wygas made no attempt to address the criticisms that were made of the Experts in respect of their responses to the CPR Part 35 Questions.

89. I have dealt with a number of Mr Jackowski's responses already in some detail. The Phillips Statement details additional concerns which appear also to be justified but which it is unnecessary for present purposes to address. However, I should add that Mr Jackowski, in common with the other Experts, saw fit to confirm in his response that save for privileged documents, he had not received any documents from FST or Fladgate falling within the category of instructions which had not already been disclosed. This was plainly inaccurate. Given the documentary evidence that I have now seen, I do not understand how (at least Mr Jackowski and Professor Salant) could possibly have been in a position to provide such confirmation.

90. In addition, I am not satisfied with various of the responses from Professor Salant and Professor Mead for the following reasons:

    a. In relation to Professor Salant, (i) the response at 2.1 ("*see documents attached*") to questions concerning documents generated in the context of the design and commissioning of the IMA testing is opaque and unhelpful. There were no such documents attached. Assuming that Professor Salant intended this to be a reference to documents attached to his report, there are also no documents attached to his report evidencing his assertion that he designed and commissioned the IMA Report. Professor Salant's reply does not suggest that there are no relevant documents falling within the terms of the question posed, but (aside from the IMA Report itself) they have still not been disclosed; (ii) the reference to a telephone call with FST on 5 May 2020 at response 5.1 is yet another example of the receipt of information by Professor Salant from FST in circumstances where no record of that call exists and no attempt was made by him at the time of the call or subsequently to share the information he received with Dana's experts.

    b. In relation to Professor Joey Mead, the CPR Part 35 Questions included a question at 1.1 about two documents which had been provided to Dana in May 2020 following a threatened application for specific disclosure, both of which appeared to fall within the category of "instructions" sent to Dr Mead. The first document was entitled "Questionnaire DANA ACM 121433" (ACM being the polymer compound from which the seals are formed) and appears to list questions posed by Professor Mead to FST together with FST's responses. The second document ("200316 Production&Mixing Data Dana part E55551 request Joey") is a detailed 31 page presentation which appears to date from 16 March 2020 setting out extensive information about FST's mixing and moulding processes. These documents were not referred to in Professor Mead's report and, as I have already mentioned, she did not re-serve her report following the PTR Order or provide a list of documents with which she had been provided. She did, however, provide a list of documents relied on which referred to these two particular documents. In response to a question asking her to confirm whether FST or Fladgate had provided these documents to her and on what

date, Professor Mead confirmed that she had received them and that (i) the Questionnaire document had been provided by FST by email on 21 December 2019 at her request for answers to questions she had raised; and (ii) the Presentation document had been provided to her by FST on 16 March 2020 by email "together with IRHD Summary Values TMPC and Tool Release (excel file)". These dates are of course several months prior to the documents being provided to Dana. The Phillips Statement confirms that as far as Ms Phillips has been able to ascertain in the time available there has still been no disclosure of any email or other communication evidencing how or when Professor Mead received these documents. It is unclear whether they were accompanied by, or followed on from oral explanations and presentations given by FST.

91. I accept Dana's submissions that the CPR Part 35 Responses from, at least Mr Jackowski and Professor Salant, were in certain respects inaccurate and misleading. I agree that they appear to have been prepared with a view to obfuscation. They certainly had the effect of disguising the full and startling extent of the Experts' breaches of CPR 35, the Practice Direction thereto and the 2014 Guidance.

92. In the case of Professor Mead, the responses reveal a failure properly to identify her instructions from FST in her report, or indeed to share the information she received about FST's manufacturing processes with Dana's experts at the time she received it. Given her involvement in the direct communications with FST, as set out above, I also consider that it is difficult to have any real confidence in her confirmation that, save for privileged documents, she has not been provided with any instructions by FST which have not been disclosed.

Conclusion

93. The establishment of a level playing field in cases involving experts requires careful oversight and control on the part of the lawyers instructing those experts; all the more so in cases involving experts from other jurisdictions who may not be familiar with the rules that apply in this jurisdiction. For reasons which have not been explained, there has been no such oversight or control over the Experts in this case.

94. The provision of expert evidence is a matter of permission from the Court, not an absolute right (see CPR 35.4(1)) and such permission presupposes compliance in all material respects with the rules. I agree with Mr Webb's submission that the use of experts only works when everyone plays by the same rules. If those rules are flouted, the level playing field abandoned and the need for transparency ignored, as has occurred in this case, then the fair administration of justice is put directly at risk.