

UTOC Engineering Pte Ltd v ASK Singapore Pte Ltd
[2017] SGHC 259

Case Number : Suit No 449 of 2013 (Assessment of Damages No 8 of 2017)
Decision Date : 19 October 2017
Tribunal/Court : High Court
Coram : Lee Seiu Kin J
Counsel Name(s) : M K Eusuff Ali, Chan Xian Wen Zara, and Yap En Li (Tan Rajah & Cheah) for the plaintiff; Lee Hwee Khiam Anthony and Clement Chen (Bih Li & Lee LLP) for the defendant.
Parties : UTOC ENGINEERING PTE LTD — ASK SINGAPORE PTE LTD

Damages – Assessment

Damages – Measure of damages – Settlement sum

19 October 2017

Lee Seiu Kin J:

Introduction

1 This is assessment of damages no 8 of 2017 (“AD 8”) in suit no 449 of 2013 (“Suit 449”). The trial was bifurcated with the trial on liability heard in January 2016. On 27 April 2016, I gave judgment on liability in favour of the plaintiff and ordered damages to be assessed. The defendant’s appeal against this finding was dismissed by the Court of Appeal on 1 December 2016. The trial in AD 8 was heard on 11 and 12 April 2017. On 24 May 2017, after hearing submissions from both counsel, I assessed the damages at \$5,024,732.85 and gave judgment for that sum. I now give my reasons.

Facts leading up to AD 8

2 The plaintiff is a Singapore company with its principal business in plant construction for petrochemical, chemical, and pharmaceutical industries. The defendant is also a Singapore company and its principal business is the installation of thermal insulation and refractories. The plaintiff was engaged by Shell Eastern Petroleum Pte Ltd (“Shell”) as main contractor to carry out mechanical, piping and equipment works for ten furnaces at Shell’s complex in Pulau Utar, Singapore (“the ten furnaces”). As part of its works, Shell required the plaintiff to install the refractory lining in the ten furnaces (“the Refractory Works”). This required the plaintiff to lay refractory bricks on the inside walls of the furnaces in order to allow the furnace to be heated up to 1,000 degrees Celsius. Because the bricks would expand due to the heat, pins were attached to the furnace walls to prevent the bricks from shifting inwards. The pins were hooked to grooves in the bricks at several levels of the walls.

3 The plaintiff engaged the defendant as a specialist contractor to carry out the Refractory Works in around July 2008. After the works were completed in around July 2009, the furnaces were fired in 2010 and failures were found in all ten furnaces. Various panels of bricks were separated from the furnace walls and from their pins, and as a result, those walls were no longer insulated. Rectification works on all ten furnaces were completed by November 2013.

4 As a result of the need for rectification works, Shell claimed against the plaintiff for costs and expenses that it incurred. The plaintiff negotiated with Shell to reduce its claim and eventually reached a settlement with Shell in December 2011 (“the Settlement Agreement”).

Parties’ submissions

5 The plaintiff’s claims and the defendant’s response to each head of claim are encapsulated in the following table:

Description of claim	Plaintiff’s position	Defendant’s position
Payment to Shell under Settlement Agreement	\$3,738,834.37	Reduce plaintiff’s claim by \$467,794.89 as it falls outside the scope of the Settlement Agreement
Manpower costs for nine furnaces	\$560,068.55	Disallow claim for lack of evidence
Other expenses (non-manpower) for nine furnaces	\$814,031.87	Reduce plaintiff’s claim by \$131,289.74 because the expenses were not incurred for rectification works
Expenses for furnace F-10400	\$30,293.31	Disallow claim for lack of evidence
Additional overall reduction	-	Reduce plaintiff’s overall claim by \$61,823.25 for money spent on design enhancements during rectification works
Total allowable claim	\$5,143,228.10	\$3,891,958.36

Settlement Agreement

6 Both parties agreed that the Settlement Agreement was reasonably reached and reasonable in nature. But they disagreed as to whether this meant that the court could take a line-by-line analysis of the sums the plaintiff claimed against the defendant pursuant to the Settlement Agreement the plaintiff reached with Shell.

7 The plaintiff submitted that the court could not do so and was bound by the settlement sum that Shell had quantified by applying the formula in the Settlement Agreement. It relied on the Court of Appeal decision in *Britestone Pte Ltd v Smith & Associates Far East, Ltd* [2007] 4 SLR(R) 855 (“*Britestone*”) which was affirmed by the subsequent Court of Appeal decision in *Anwar Patrick Adrian and another v Ng Chong & Hue LLC and another* [2015] 5 SLR 1071 (“*Anwar Patrick*”). Both cases established that where a settlement agreement between a plaintiff and a downstream claimant (in this case, Shell) was reasonably reached and reasonable in nature, the settlement sum would be regarded as accurately reflecting the loss that the plaintiff could claim against the defendant (*Britestone* at [41]; *Anwar Patrick* at [44]-[50]). The plaintiff submitted that even though there was no settlement sum that was fixed in the Settlement Agreement, *Britestone* nevertheless applies such that the court is bound by the settlement sum quantified by Shell.

8 The defendant agreed that *Britestone* and *Anwar Patrick* applied, but not in the manner that

the plaintiff contended. In *Britestone*, the settlement agreement involved a fixed sum which was arrived at after a negotiating process between the plaintiff and the downstream claimant, and in which the defendant was invited to participate. The defendant submitted that in those circumstances, the court could refer to the settlement sum as it was part of the terms of the settlement agreement. But in this case, where the terms of the Settlement Agreement do not provide for a specific settlement sum, then the defendant is not bound by the settlement sum quantified by the downstream claimant because it is not part of the agreement. Instead, the defendant's position was that what the plaintiff and Shell had agreed to was a formula for determining the damages. The defendant contended that the *Britestone* principle applied to that formula and the defendant was not entitled to challenge it. However, the defendant submitted that it was entitled to challenge any misapplication of the formula by the plaintiff and Shell, such that the defendant would not be liable for any payment made by the plaintiff to Shell that the court finds does not comply with the formula.

9 Accordingly, the defendant submitted that three invoices fell outside the scope of the formula in the Settlement Agreement (totalling \$467,794.89):

(a) Invoices issued by DHL Global Forwarding (Singapore) Pte Ltd to Shell for transporting and storing bricks for the rectification works, totalling \$199,907.73 ("DHL Invoices"). The defendant said that these invoices fell outside the Settlement Agreement, which only permitted "material cost for the re-lining of the furnace walls" and not the costs of transporting materials for the re-lining.

(b) Invoices issued by Mun Siong Engineering Ltd to Shell for welding cleats, totalling \$98,561.00 ("Mun Siong Invoices"). The defendant said that the invoices were for welding additional cleats, which was expressly not allowed under para 4 of the Settlement Agreement. To establish this, the defendant relied on the Mun Siong Invoices themselves, which stated that they were for "welding cleats", and the fact that under cross-examination, the plaintiff's construction manager, Lim Teng Liang Nelson ("Nelson Lim"), could not say which Mun Siong Invoices were for welding damaged cleats and which were for welding additional cleats.

(c) Invoices for blankets (from France and USA) and refractory anchor pins, totalling \$169,326.16. The defendant said that the plaintiff did not show how they were used for the rectification works. Specifically in relation to the anchor pins, Nelson Lim conceded under cross-examination that he could not remember how many of the existing anchor pins were used. The defendant submitted that if the existing anchor pins could be used then there was no reason to charge the cost of new anchor pins to the defendant as they were not used for rectification.

10 The plaintiff's response to the three invoices was that the defendant should have raised these objections when the plaintiff negotiated the Settlement Agreement with Shell. The defendant was invited to participate in the negotiations and indeed had participated initially, before pulling out subsequently. Having refused to participate, it could not now complain. As for Nelson Lim's concessions in cross-examination, the plaintiff said that Nelson Lim was not a refractory specialist and his task was only to ensure that Shell charged the plaintiff for matters pertaining to the rectification works. If the defendant, a refractory specialist, wanted to challenge the specifics, it should have done so during the negotiation process.

11 The plaintiff said that since the defendant refused to participate, it could not use its expertise as a refractory specialist with the benefit of hindsight to assess whether the plaintiff should have accepted the invoices. The plaintiff relied on the English cases of *General Feeds Inc Panama v Slobodna Plovidba Yugoslavia* [1999] 1 Lloyd's Rep 688 and *Siemens Building Technologies FE Ltd v Supershield Ltd* [2009] EWHC 927 for the proposition that the relevant facts are those that the

plaintiff could have been expected to rely on at the time it entered into the Settlement Agreement.

Manpower costs for nine furnaces

12 The plaintiff tendered a Table of Manpower Costs which showed that this sum was for the salaries of nine of the plaintiff’s staff. The nine staff were involved during the rectification works as supervisors. Hence, the plaintiff claimed for both their supervision of the rectification works as well as the equipment which they had to wear to do so.

13 The defendant said that the plaintiff’s Table of Manpower Costs was not sufficient evidence to support the plaintiff’s claim because it did not specify precisely what work was done by each staff member and how their shift to the rectification works from their normal jobs was a “ **significant** disruption” to the plaintiff’s business [emphasis in original]. The defendant derived these requirements from the English Court of Appeal decision in *Aerospace Publishing Ltd & anor v Thames Water Utilities Ltd* [2007] EWCA Civ 3 (“*Aerospace*”), which was applied by the High Court in *Astro Nusantara International BV and others v PT Ayunda Prima Mitra and others and another matter* [2016] 2 SLR 737 (“*Astro*”) at [66]. According to the defendant, *Aerospace* stood for the proposition that the defendant could only claim for manpower costs if it produced evidence to properly establish “[t]he fact and ... the extent of the diversion of staff time” and that “the diversion caused significant disruption to its business” (at [86]).

Non-manpower costs for nine furnaces

14 The plaintiff tendered a Table of Expenses to support its claim and also relied on Nelson Lim’s testimony that the expenses were incurred during the course of the rectification works. The plaintiff also tendered a table comparing these expenses with similar expenses claimed by the defendant, to show that the plaintiff’s claims were reasonable.

15 The defendant did not challenge all the expenses incurred by the plaintiff, but only challenged the following sums (amounting to \$131,289.74):

Item	Amount	Reason
Supply of overalls, masks, respirators, gloves, harnesses, and other tools	\$11,098.04	Plaintiff did not prove they were used for rectification works
Gifts, drinks, groceries, travel expenses to Thailand, and expenses incurred on clients	\$3,300.25	No reason why defendant should pay for what plaintiff spent on its own clients, as conceded by Nelson Lim during cross-examination
Purchase of camera	\$337.00	Not returned to defendant
Medical costs for one of the plaintiff’s staff members	\$156.35	Same reasons for challenging manpower costs
Legal advice rendered by M/s Robert KB Teo & Co	\$6,000.00	Should be included in costs order following AD 8, since the bill stated that it was for a claim against the defendant
Purchase of entry permits	\$663.40	No proof that they were used for rectification works

Telecommunications charges	\$2,866.24	No proof that they were used for rectification works
Purchase of laser printer	\$297.00	Not returned to defendant
Purchase of stationery	\$426.25	No proof that they were used for rectification works
Guarantee fee for a standby letter of credit	\$106,145.21	Shell did not request the plaintiff to give one (conceded by Nelson Lim during cross-examination)
Total amount challenged	\$131,289.74	

Costs for furnace F-10400

16 The plaintiff claimed this sum for the last furnace, F-10400, which could be broken down into manpower costs for three staff members' allowance for one and a half months (totalling \$29,813.31), and the costs of ten sets of gas masks and filters for \$480.00.

17 The defendant again challenged the manpower costs for the same reasons (see above at [13]). It said that there were no receipts exhibited in the affidavits for the gas masks and filters.

Additional overall reduction

18 In addition to each of these individual heads of claim, the defendant asked the court to reduce the plaintiff's overall claim by \$61,823.25. The defendant said that Shell carried out its own "design enhancements" alongside the rectification works, and that the defendant should not have to pay for these enhancements as they were not caused by the defendant's acts. Specifically, this could be seen in three areas:

- (a) Shell welded additional cleats into the furnaces which increased the number of pins used by 15.38%, or 930 pins.
- (b) The mortar type was changed from powder to pre-mixed, resulting in additional costs from mistakes in using pre-mixed mortar.
- (c) One additional expansion joint was required per furnace, increasing costs to install these expansion joints.

19 The plaintiff's response was that it was purely speculative that the enhancements had led to increased costs. Nelson Lim testified that any increase in costs would have been negligible and even the defendant's own witness, Kageyama Shigeru ("Kageyama"), accepted during cross-examination that any increased costs could have been due to the rectification works as well. In any case, the plaintiff said that to the extent that Kageyama's testimony supported the defendant's case, his testimony was only based on examining the documents and not based on any personal knowledge. This was why Kageyama could not explain during cross-examination how an increase in pins of 15.38% (or 930 pins) could result in a 125% increase in costs. Finally, the plaintiff said that Kageyama could have raised this issue to the plaintiff at any time during the rectification works but did not. The plaintiff submitted that this showed that the defendant's argument was clearly an afterthought.

My decision

Settlement Agreement

Whether Britestone applied

20 This issue turned on the scope of the *Bristone* principle, *ie*, whether and how it applies to a settlement agreement which provides for a formula to determine the settlement sum instead of providing for the settlement sum itself.

21 In *Bristone*, the respondent bought capacitors from the appellant and sold them to a third party, who then installed the capacitors for a fourth party. It was later discovered that the capacitors were counterfeit. The third party negotiated a settlement agreement with the respondent for US\$300,000. The appellant was notified about the negotiations but did not reply. The question before the court was whether the sum reached in the settlement agreement could be used as evidence of the actual loss suffered by the respondent. The court found that the settlement agreement was reasonably entered into and reasonable in nature. Hence, the settlement sum that was fixed in the terms of the settlement agreement was regarded as accurately reflecting the respondent's loss for which the appellant would be liable in damages.

22 In coming to this conclusion, the court examined the authorities on this issue and noted, citing Judge Peter Bowsher QC's observations in *P & O Developments Ltd v Guy's and St Thomas' National Health Service Trust* (1998) 62 Con LR 38 at [38], that a settlement of a third party claim made with a person not a party to the action may still be relevant and admissible as there is a policy of the court in encouraging settlements (*Bristone* at [43]). However, the court also noted that such settlement agreements can arise by a variety of methods, ranging from formal judicial determinations to informal negotiations and meetings. Hence, in deciding whether the settlement is relevant to the ultimate claim and admissible as proof of the quantification of damages, the court will need to consider proof of the settlement, how the parties arrived at it, and whether the parties considered the agreed sum to be close to the true value of the third party claim (*Bristone* at [43]). The court stated that this was a question of whether the settlement agreement was reasonable in nature and reasonably entered into. It laid down a number of factors to determine whether the settlement agreement was reasonable, including whether the ultimate payor was given the opportunity to participate in the negotiations, whether there were sufficient details pleaded about the methodology and process of arriving at the settlement, and the duration and content of the negotiations between the parties (*Bristone* at [54]).

23 *Bristone* was followed by *Anwar Patrick*. In the latter case, the appellants owed money to a bank under a credit facility. When the appellants defaulted, the bank took out a claim against them. In the midst of trial preparations, the appellants wrote to the respondents to claim the sum that the bank had claimed against them. Eventually the appellants settled with the bank for US\$1m before the trial. The respondents were not notified of the negotiations and therefore did not participate. When the appellants sought to recover, *inter alia*, the settlement sum of US\$1m from the respondents, the court had to consider the principle it first laid down in *Bristone*. The court approved of the factors that it had first laid down in *Bristone* (see *Anwar Patrick* at [43]) but noted at [44] that:

44 ... As was highlighted in *Bristone*, each settlement must be assessed on its own merits to ascertain if it is reasonable, and, therefore, *may be relied upon as a measure of the plaintiff's loss*.

[emphasis added]

24 The factors which were first laid down in *Britestone* and then subsequently approved in *Anwar Patrick* (to determine whether a settlement agreement is reasonable) are not in dispute in this case since both parties had accepted that the Settlement Agreement was reasonable and reasonably entered into. However, the court's observations that the ultimate inquiry was whether the contents of the settlement agreement may be relied on as a measure of the plaintiff's loss is relevant in resolving the issue of whether *Britestone* applies to a situation where the settlement agreement does not specify a fixed settlement sum, but only a formula which can be used to calculate a settlement sum.

25 I did not see any difference in principle between the parties agreeing to a fixed settlement sum and a *formula to determine* a settlement sum. In both cases, as long as sufficient factors (that were outlined in *Britestone*) are satisfied such that the court can conclude that the sum is the parties' estimate of the true value of the claim (as noted in *Anwar Patrick*), then the court would want to encourage this settlement. Indeed, the factors elucidated by *Britestone* apply with equal force to a settlement agreement in which the parties only stated a formula for determining the final sum, such as whether the parties had legal advice and whether the settlement agreement was negotiated at arm's length. In fact, some of the *Britestone* factors are even more suited to settlement agreements that only specify a formula, such as the methodology and process of arriving at the settlement sum – which is, in fact, just the formula that the parties apply.

26 Accordingly, I found that the *Britestone* principle applies to settlement agreements such as that in the present case, where the settlement agreement provides for a formula to calculate the settlement sum, although it does not fix the settlement sum itself. The next question to be determined is *how* this principle would apply.

27 In this regard, the plaintiff submitted that the *Britestone* principle would apply in that the quantification that Shell arrived at by *applying* the formula in the Settlement Agreement would bind the defendant. In contrast, the defendant submitted that what is binding upon it is only the formula itself, and not the quantification that Shell arrived at using the formula. I accepted the defendant's submission. The policy behind the decision in *Britestone* is that the court would take cognisance of and accept the terms of the settlement agreement between the parties so as to encourage such settlements. In this case, only the formula is contained within the terms of the Settlement Agreement, and hence it is this formula that attracts the policy concern spelt out in *Britestone*. The quantity that Shell arrived at was a unilateral application of the formula agreed between the parties. This sum may have been inaccurate for a number of reasons, including the fact that there may be clerical errors or that Shell had misinterpreted one of the parts of the formula. If Shell had then put the sums that it arrived at after applying the formula to both parties and they had agreed to it, then the plaintiff would have a stronger case that the defendant is bound by the sums, because the defendant had *agreed* to those sums and so the policy of encouraging settlements would apply. But where, as in this case, Shell's quantification was never made known to the defendant, there is no reason to take it into account as representing what the parties thought was the true value of the claim against Shell.

28 I therefore held that *Britestone* could apply to the present situation where only the formula is specified in the Settlement Agreement which is reasonable and reasonably arrived at. But in such a case, only the formula is binding upon the parties. The court will, however, look at whether the damages that the plaintiff claims falls within this formula. It is to this question that I now turn.

Whether the plaintiff's claims fall within the Settlement Agreement

29 The formula that the parties had agreed to are found in the terms of the Settlement

Agreement. The relevant terms are as follows:

1. All direct and indirect costs incurred by [the plaintiff] for the purpose of the defect correction works shall be fully borne by [the plaintiff].
2. The material cost for the re-lining of the furnace walls will be back charged to [the plaintiff] based on actual quantities used.
3. Spare bricks leftover from Project Phase that were used for the defect correction works will be back charged to [the plaintiff].
4. [Shell] agrees that the additional welding of cleats and the materials used for the design enhancement and all cost associated in this work will not be charged to [the plaintiff].
5. [Shell] agrees that the indirect Staff cost incurred in the defect correction works will not be charged to [the plaintiff].
6. Cost for the collection and disposal of waste materials associated with the rectification works will be charged to [the plaintiff].
7. [The plaintiff] agrees to reimburse [Shell] the cost of materials for the rectification of six and half furnaces by 31 December 2011. [Both parties] agree that the provisional sum for each furnace will be USD 249,507.00 ... The total sum for six and a half furnaces will be USD 1,621,795.50 ... a breakdown of this sum is attached as Annex 1 ... This amount is provisional and will be reconciled with the actual costs incurred by [the plaintiff] at the end of the defect correction works. For clarity, the difference between the actual costs incurred by [Shell] and this provisional sum shall be further payable by [the plaintiff] immediately upon such reconciliation.

30 In its written submissions, the defendant challenged three sets of invoices: the DHL Invoices, the Mun Siong Invoices, and the invoices relating to blankets and refractory anchor pins. During the oral hearing, the defendant informed me that it would no longer be contesting the third set of invoices. Hence I only dealt with the other two objections. I disagreed with the defendant on the DHL Invoices but agreed with its objections to the Mun Siong Invoices.

31 Whether the DHL Invoices were allowed turned on whether the plaintiff could only claim for the actual costs of the materials for the rectification works, or whether it could also claim for the costs of transporting those materials. The defendant relied on para 2 of the Settlement Agreement for the phrase "material cost for the re-lining of the furnace". While para 2 appears to only cover costs of materials, it must be read in light of para 7 of the Settlement Agreement. Paragraph 7 provides for a provisional claimed sum which would later be reconciled with the "actual costs incurred" by the relevant parties. This provisional sum is broken down in Annex 1 to the Settlement Agreement (which is referred to in para 7). The breakdown is as follows:

Materials [US\$]214,580.80

~ Refractory Bricks (86,208 pcs) US\$3.30 Per Piece

~ Blankets, Fire

Labour

~ Scaffolding [US\$]24,735.50

~ Miscellaneous Expenses [US\$]10,000.00

[emphasis in original]

As can be seen, quite apart from the costs of the actual materials, the parties contemplated that there would be "miscellaneous expenses" for labour that was unrelated to the actual scaffolding as well. I accepted the plaintiff's submission that these miscellaneous expenses include transportation costs.

32 The next step was to determine whether the DHL Invoices pertained to these transportation costs. I found that they did since the invoices referred to hiring "prime mover[s]" and "trailers" and delivering fire bricks. Although Nelson Lim admitted during cross-examination that the invoices did not say whether the fire bricks were delivered for the rectification works or for other projects, the defendant did not cross-examine Nelson Lim on the existence of other projects nor did the objective evidence show that there were any other projects that the DHL Invoices could have referred to. On a balance of probabilities I found that the DHL Invoices referred to the rectification works. Hence, I rejected the defendant's objections to the DHL Invoices and allowed the plaintiff's claim.

33 I accepted the defendant's objections to the Mun Siong Invoices. Paragraph 4 of the Settlement Agreement makes clear that costs relating to the welding of additional cleats were not covered. The issue was whether the Mun Siong Invoices pertained to additional cleats or merely to repairing damaged cleats. The Mun Siong Invoices themselves do not shed light on this issue as they only provide for cleats generally, for instance, to "Fab & weld cleats inside furnace" or for "Hot Work to Cleat Welding". But Nelson Lim conceded during cross-examination that the invoices did not differentiate between the two and neither could he differentiate between the two types of cleats:

Q: ... So if there are invoices rendered by Mun Siong for the fixing of additional cleats, do you agree that Shell is also not entitled to claim for this item of work?

A: Now he put that as additional cleats. But it is not add in additional cleats.

Q. No I'm -- I -- then what is it? Are you able to tell the Court, okay, the purchase order to Mun Siong, the invoices by Mun Siong to Shell, that these are not in respect of additional cleats, then what is it?

A: I can't tell the Court that it's -- it's --

Q: You have no personal knowledge, right?

A: I can't tell the Courts that it's additional or not additional.

34 Indeed, Nelson Lim confirmed that the relevant workers did not work on the additional cleats and the original damaged cleats separately. Rather, they were sent in to do both tasks together:

Court: You go in, it's that you go and repair, you go and put in these additional cleats in this thing, along the way you check on the original cleats, if any original cleat is damaged, you go and repair it.

Witness: Yes, Your Honour. That's --

Court: That will be how they did it, right?

Witness: That's how they did it, and by man hour. And only certain period of time they are allowed, because if they are doing well, they --

Court: I understand, understand. So then the problem is, how would you know in relation to all these invoices? Which is for the damaged cleat and which work is for the new cleat?

Witness: Yes, Your Honour, I can't differentiate.

In other words, it was unsurprising that the Mun Siong Invoices could not differentiate between the two because the work done between the two was not differentiated to begin with.

35 Because the plaintiff bore the burden of proof to show that it was entitled to the damages that it claimed, I accepted the defendant's objections to the Mun Siong Invoices. It was not established on a balance of probabilities that the Mun Siong Invoices pertained to damaged cleats and the defendant could not be charged for additional cleats. I reduced the plaintiff's claim under the Settlement Agreement by \$98,561.00 to \$3,640,273.37.

Manpower costs for nine furnaces

36 I rejected the defendant's submissions on the manpower costs for the nine furnaces and allowed the plaintiff's claim. The defendant based its argument on *Aerospace* and said that the plaintiff did not prove that its staff members were diverted from profit-generating work which caused significant disruption to the plaintiff's business (see above at [13]).

37 The relevant portions of *Aerospace* provide as follows (at [86]):

(a) The fact and, if so, the extent of the diversion of staff time have to be properly established and, if in that regard evidence which it would have been reasonable for the claimant to adduce is not adduced, he is at risk of a finding that they have not been established.

(b) The claimant also has to establish that the diversion caused significant disruption to its business.

(c) Even though it may well be that strictly the claim should be cast in terms of a loss of revenue attributable to the diversion of staff time, nevertheless in the ordinary case, and unless the defendant can establish the contrary, it is reasonable for the court to infer from the disruption that, had their time not been thus diverted, staff would have applied it to activities which would, directly or indirectly, have generated revenue for the claimant in an amount at least equal to the costs of employing them during that time.

According to this passage, the claiming party must establish that the staff were diverted from their ordinary activities. But once the diversion is established, the court can infer from the diversion that their ordinary activities would have generated revenue for the claiming party had they not been diverted.

38 I found that the plaintiff had established that their staff were diverted from their ordinary activities. The plaintiff's submissions were not mere assertions; its Table of Manpower Costs gave a breakdown as to when the nine staff were diverted and how much their previous salaries were.

Although the defendant submitted that Nelson Lim's affidavit did not mention that the staff were diverted from their previous activities, there is no magic in the word "diverted". All that is required is evidence on a balance of probabilities that the nine staff were in substance diverted from their original activities. I found that the diversion was established. I then drew the inference that the nine staff were diverted from profit-generating activities. Their previous salaries were *prima facie* evidence that they had been involved in generating profits for the plaintiff. The defendant did not adduce any other evidence that suggested otherwise.

39 Accordingly, I rejected the defendant's objections to the manpower costs. I allowed the plaintiff's manpower claims for the nine furnaces for \$560,068.55.

Non-manpower costs for nine furnaces

40 As noted above at [15], the defendant only challenged some entries in the plaintiff's Table of Expenses. I set out the challenged entries and my decision in the following table:

Item	Amount	Decision
Supply of overalls, masks, respirators, gloves, harnesses, and other tools	\$11,098.04	Claim allowed. They were miscellaneous expenses pertaining to labour (see [31] above).
Gifts, drinks, groceries, travel expenses to Thailand, and expenses incurred on clients	\$3,300.25	Claim not allowed. They were unrelated to the rectification works.
Purchase of camera	\$337.00	Claim not allowed. The plaintiff did not suffer loss as it still possessed the camera.
Medical costs for one of the plaintiff's staff members	\$156.35	Claim allowed. The staff worked in Pulau Bukom and this was the fee for the health check before working there.
Legal advice rendered by M/s Robert KB Teo & Co	\$6,000.00	Claim not allowed. This should be claimed under the costs component of this hearing.
Purchase of entry permits	\$663.40	Claim allowed. These were entry permits for personnel and lorries made to enter the worksite.
Telecommunications charges	\$2,866.24	Claim allowed. These were charges for special phones needed for personnel working on Pulau Bukom. They were not used for other projects.
Purchase of laser printer	\$297.00	Claim not allowed. The plaintiff did not suffer loss as it still possessed the printer.
Purchase of stationery	\$426.25	Claim allowed. These were office stationery used during the rectification works.

Guarantee fee for a standby letter of credit	\$106,145.21	Claim allowed. It was required by Shell to cover the period of the rectification works.
Total claim disallowed	\$9,934.25	

41 On the entries challenged by the defendant in the Table of Expenses, I reduced the plaintiff's claim by \$9,934.25. This is subject to the additional overall reduction that the defendant asked for, which I explain at [43]-[46] below.

Costs for furnace F-10400

42 The plaintiff explained that these costs could be broken down into manpower costs for the relevant staff and the cost of ten sets of gas masks and filters (see above at [16]). I rejected the defendant's objections for the same reasons as I have stated thus far: I was satisfied that the staff were diverted and I inferred that they were diverted from profit-generating activities; and the gas masks and filters were miscellaneous expenses required for the rectification works. I allowed the plaintiff's claim for \$30,293.31 under this head of claim.

Additional overall reduction

43 The defendant asked for an additional overall reduction of the plaintiff's claim by \$61,823.25, which it said was due to the work done for "design enhancement[s]", rather than for rectifying existing defects. I agreed that the defendant should not be made to pay for Shell's design enhancements that had nothing to do with rectifying the damage the defendant caused. But upon closer examination, this claim could be divided into two parts: manpower used for design enhancements, and additional materials used for design enhancements. They required distinct analysis and I dealt with each in turn.

44 Manpower was needed for the design enhancements. But the manpower that the plaintiff provided (the nine staff for the nine furnaces and the relevant staff for F-10400) did not actually conduct the rectification works but only supervised the works. Whether there were additional enhancements done by Shell's workers would not affect their presence. Hence, I did not reduce the plaintiff's claim in relation to manpower.

45 On the other hand, I found that there should be a reduction for the materials because additional materials were required for design enhancements. During the oral hearing, the defendant narrowed its objections to only the 930 additional pins used per furnace and not the mortar type or additional expansion joints (see above at [18(b)]-[18(c)]). The defendant relied on Kageyama's affidavit evidence that 930 additional pins were used per furnace and Nelson Lim was prepared to accept this during cross-examination. I compared the 930 additional pins against the 62,560 bricks used per furnace. This is because although not all the bricks required pins, the rectification works pertained not only to the bricks which required pins but also to the bricks which did not require pins. I therefore reduce the plaintiff's claim by 930 pins for every 62,560 bricks. This worked out to a reduction of \$10,000 on the plaintiff's claim.

46 But as I have explained, this reduction is not strictly speaking an overall reduction of the plaintiff's claim. The additional pins only pertained to the materials used for design enhancements and there was no reduction for the manpower costs. This reduction was better placed under the reduction of non-manpower costs for the nine furnaces, which was originally a reduction of \$9,934.25 (see

above at [41]). The total reduction of this head of claim was therefore \$19,934.25, making the plaintiff's claim on the non-manpower costs for nine furnaces \$794,097.62.

Orders

47 I therefore ordered the defendant to pay the plaintiff \$5,024,732.85 which comprised the following sums:

- (a) Payment that the plaintiff made to Shell for the settlement sum assessed at \$3,640,273.37 (see above at [35]);
- (b) The plaintiff's manpower costs for the rectification works for nine furnaces assessed at \$560,068.55 (see above at [39]);
- (c) The plaintiff's expenses (other than the manpower costs) for the rectification works for nine furnaces assessed at \$794,097.62 (see above at [46]); and
- (d) The plaintiff's expenses for the rectification works for F-10400 assessed at \$30,293.31 (see above at [42]).

48 As for costs, I ordered the defendant to pay the plaintiff the costs of the trial in Suit 449 fixed at \$274,000 plus reasonable disbursements to be fixed or taxed. For AD 8, pursuant to the Costs Guidelines in the Supreme Court Practice Directions, I awarded costs fixed at \$24,000 plus disbursements fixed at \$26,000 for a total of \$50,000.