Keppel FELS Limited v International Coatings Pte Ltd (formerly known as Courtaulds Coatings Singapore Pte Ltd) and Another
[2002] SGHC 115

Case Number : Suit 1595/1999

Decision Date : 28 May 2002

Tribunal/Court : High Court

Coram : Tay Yong Kwang JC

Counsel Name(s) : Goh Phai Cheng, SC, Goh Kok Leong, Dennis Tan and Mathiew Rajoo (Ang & Partners) for the plaintiffs; Michael Hwang, SC, Christopher Daniel and Sharon Lee (Allen & Gledhill) for the defendants

Parties : Keppel FELS Limited — International Coatings Pte Ltd (formerly known as Courtaulds Coatings Singapore Pte Ltd); International Coatings Ltd

Judgment

GROUNDS OF DECISION

1. The Plaintiffs' claim against the First and the Second Defendants is for damages, a declaration that they are entitled to an indemnity from the Defendants in respect of the whole or part of any sums which the Plaintiffs have paid or may be held liable to pay or may reasonably agree to pay to Hong Kong United Dockyard Ltd ("HUD") and in respect of their own costs in defending the arbitration proceedings brought by HUD and the costs of this action to the extent found to be just and equitable, interest and costs.

2. The Plaintiffs are shipbuilders and repairers. The First Defendants are manufacturers and suppliers of marine paints marketed under the "Courtaulds" and "International" trademarks owned by the Second Defendants. The First Defendants are wholly owned by the Second Defendants, a company incorporated in the United Kingdom.

3. In July 1993, the Plaintiffs agreed to build a 40,000 tonne floating dock for HUD for US$40.5 million. The floating dock was constructed in four separate modules at three locations in Singapore. Two modules were built at the Plaintiffs' Pioneer Yard at 50, Gul Road, one was constructed at the Plaintiffs' Main Yard at 31 Shipyard Road and the fourth one was built at the Singmarine Shipyard also at Gul Road. The floating dock was christened "The United" and was delivered to HUD on 9 January 1995.

4. The paints for the steel surfaces of the floating dock were supplied by the First Defendants. These protective coatings included shop-primer (Interplate NEA408/NEA409), holding primer (Intergard EGA088/089 Red) and coat tar epoxy (Intertuf JJA485/JJA486 and Intertuf JJA484/JJA486).

5. In July 1993, in response to the Plaintiffs' request, the First Defendants sent a quotation for the supply of paints for the construction of the floating dock. The Plaintiffs then asked for a further quotation based on a paint scheme provided by them. The paint scheme had the following specifications :

> "2.7 PAINTING
>
> General
> The paint throughout the dock to be of marine type approved by Buyer.
> All painting work to be executed in accordance with good marine practice and

paint manufacturer's recommendation.

...

Inspection of the film thickness
(1) General

> Each dry film thickness to be measured after painting for the areas specified, at Buyer's discretion. Any area found to be of insufficient thickness to be given an additional coating to meet the specified thickness.

...

2.9 CATHODIC PROTECTION

In order to protect the external surface of the caisson below the working draft, cathodic protection of the impressed current type is to be installed. Painting specification to be made available to manufacturer for the design of the cathodic system.

Suitable epoxy coating to be applied in the vicinity of anodes.

Sacrificial anodes to be provided in all water ballast tanks."

6. After the First Defendants submitted their final price list and painting specifications, the Plaintiffs placed various orders for the supply of marine coatings for the floating dock. The contracts for the sale and purchase of the said paints and the technical support for the proper use of the paints were contained in the Plaintiffs' Purchase Orders ("PO") from November 1993 to July 1994 to the First Defendants. The POs were printed and contained the following typewritten General Terms and Conditions :

> "5) you (ie the First Defendants) are to provide a full time technical representative on site throughout the project at no charge.
>
> ...
>
> 7) Normal warranty to apply twelve (12) months guarantee."

On the reverse side of the POs, there appeared the following printed terms and conditions :

> "7. Warranty
>
> (The First Defendants) warrant that all goods and services covered by this Purchase Order will conform to quantity and quality specifications, drawings, samples or other descriptions furnished or specified by (the Plaintiffs), that the goods will be merchantable, of good material and workmanship and free from all defects and that goods which are the product of (the First Defendants') specifications will be fit and sufficient for the use intended."

7. The painting specifications of the First Defendants dated 12 October 1993 required all surfaces which would be painted to be blasted to Swedish Standard SA 2.5 followed by the application of one

coat of iron oxide epoxy shop primer (Interplate NEA408/NEA409). They also required the internal bulkheads and the external side walls of the ballast tanks from the caisson to full loaded draft to be power tool cleaned of all rusted, damaged and welded areas to Swedish Standard SA 2.5, followed by the application of one coat of Intertuf JJA484/JJA486 coat tar epoxy (brown) at 250 microns dry film thickness ("DFT") for the internal bulkheads and 190 microns DFT for the external side walls. The specifications also stated :

> "General
>
> Where there is oil and grease, remove it with international GMA627 emulsifiable degreaser. High pressure freshwater wash 3,000 psi to remove the emulsified residue, salt dirt, soot and other contaminants etc.
>
> Allow surface to dry thoroughly."

8. The First Defendants' product data sheet for their coal tar epoxy had the following information under "Surface Preparation" :

> "Primed shop surface
>
> Intertuf high solids tar epoxy is compatible with most shop primers. If in doubt about a particular shop primer, contact local IP Technical Department for advice. Normal preparation – remove rust from areas of local breakdown by rotary disc cleaning, grit blast rusty welds and wash away any soluble salts present. If breakdown widely scattered overall sweep blasting will be necessary.
>
> Rusty Steel
>
> Heavy rust and/or millscale : Blast to SSPC-SPIO (SA 2.5 SIS 05 59 00).
> Light even coating of rust :
> - Formed in an aggressive environment – blast by wet or dry blasting to SA 2.5
> - Formed in non-aggressive environment (rural) clean to uniform SSPC-SP2/3. (St2/3 SIS 05 59 00) or SSPCSP2 (SA 2.5 SIS 05 59 00) exposure is to continue in a non-aggressive environment.
>
> Cathodic protection of immersed or buried steel
>
> Intertuf high build coat tar epoxy is an ideal choice for this situation but must be applied to SA 2.5 (SSPC-SPIO) blasted steel or selected shop primed surface."

9. In June 1995, HUD informed the Plaintiffs that there were defects in the coating of the internal bulkheads of the ballast tanks of the floating dock. Between 11 and 16 August 1995, a joint inspection of 15 ballast tanks was conducted by the representatives of the Plaintiffs, the First Defendants and HUD. There were blisters in the paint coating of the internal ballast tanks. The First Defendants' Technical Manager, Mathew Brown, stated in his report that there was sound argument in recommending no repair work be done. He was of the view that the area affected by blisters was only about 1% of the tanks and that equipment necessary to do any repair could lead to mechanical damage of the unaffected coating system. Further, he thought the blisters (of mainly 3 to 5 mm in diameter) were relatively small and contained an alkaline solution (pH 14) which would protect the steel from corroding. The examination of the steel beneath the blisters indicated no corrosion and unless the blisters were broken, the coating would still protect the steel. Mathew Brown went on to

say that the experience of the First Defendants showed that such blisters stabilized in the first six months and the coating could continue to protect the steel surface for many years unless the blisters were deliberately broken. He recommended that the condition of the tanks be monitored every six months to see if the blister size/density was changing. That would be preferable to risking damage to the unaffected 99% of the coating and would result in no interference with the operation of the floating dock.

10. Between 16 and 18 February 1996, a second joint inspection of the ballast tank coating was conducted. The First Defendants' representatives reported that the extent of the blistering had not increased significantly since August 1995 but that a few minor areas, which were in the initial stages of corroding at the time of the first inspection, had worsened and were more obvious at the second inspection. As the tanks were drier at the second inspection, more areas of corrosion could be seen. They felt that since the blistering/corrosion had not increased in area over the last six months, the extent of the area affected had probably reached a maximum. Blister fluid was shown to have a value of pH 13 and the steel beneath the intact blisters was not corroding. They recommended that the areas of repair be limited to those areas which had a density and size higher than 2 according to ISO 4628/2 : 1982 (E) and where the corrosion had reached a severity greater than Ri 2 according to ISO 4628/3 : 1982 (E) Part 3 : Designation of degree of rusting. Some bays of the ballast tanks would require staging for access but such staging should be kept to a minimum to minimize the risk of mechanical damage. They further recommended that each defined area of blistering be marked out, the blisters be broken by scraping and the areas be then washed thoroughly with high pressure freshwater which should remove any loosely adhering coating, soluble salts and fluid from the broken blisters.

11. A trial repair was agreed and carried out in bay 10 of number 7 port wing tank sometime in October 1996. The trial repair involved the slicing of blisters, high pressure washing, feathering of the edges and a touch up of the affected areas followed by the application of one coat of vinyl tar (JVA075).

12. By late 1997, however, blisters were seen in all 28 tanks of the floating dock and the owners, HUD, decided that it should be decommissioned for repair works. Tenders were called for and on 24 October 1997, the repair contract was awarded by HUD to Guangzhou Wenchong Shipyard with the First Defendants supplying some of the paints needed for the repairs. On 1 December 1997, the floating dock was towed from Hong Kong where it was operating to the said shipyard in mainland China.

13. There the ballast tanks were cleaned and grit blasted to SA 2.5 up to a height of 6 metres, with HUD reserving their right to repair above the 6 metre mark. Two coats of coal tar epoxy were then applied. The total area of the internal bulkheads of the ballast tanks involved was some 111,152 square metres. The areas which were not blasted were touched up and given one coating of vinyl tar. Repairs were also effected to the external underwater coating. However, no repair was carried out in bay 10 of number 7 port wing tank where the trial repair was done. The floating dock returned to Hong Kong around 11 March 1998. The Plaintiffs' insurers had a representative (Capt Clay Wild) and his assistants to witness the repair works for the entire period the floating dock was in Guangzhou.

14. On 5 January 1996, HUD served formal notice under clause 11 of the Building Contract they had with the Plaintiffs, alleging various defects in the paintwork said to have been caused by inadequate surface preparation and/or low DFT. On 19 July 1999, HUD commenced arbitration proceedings against the Plaintiffs in London. HUD claimed a further sum of HK$24,907,292.49 as costs of the repairs and a declaration that the Plaintiffs were liable to pay the further costs of rectifying the continuing defects in the coating in the ballast tanks.

15. On 29 April 2000, the Plaintiffs, upon counsel's advice, entered into a settlement agreement with HUD for the sum of US$7,550,000. The settlement amount included the following :

(1) HK$44,563,915.49 (about US$5,734,400) as the costs of repairs to the internal bulkheads and the external hull of the ballast tanks ;

(2) US$2,547,000 as the estimated costs of further repairs to the ballast tank coatings after the date of settlement.

16. The Plaintiffs also incurred GBP59,317.06 in legal costs in the arbitration proceedings in London.

17. The Plaintiffs claimed in this action that the blisters in the paint coating were caused by invisible soluble salts deposited on the steel surfaces during the primary surface preparation stage when the steel plates were blasted in the Plaintiffs' auto-blaster shop. Alternatively or in addition to the salt contamination during the shop process, such contamination occurred after fabrication when the steel surfaces were swept-blasted to prepare them for the final coat. Such contamination, the Plaintiffs contended, would have been eliminated if the First Defendants had given instructions for the steel surfaces to be cleaned by means of high pressure freshwater washing before blasting at both stages of surface preparation and the First Defendants were under a duty to advise the Plaintiffs on such technical aspects of the paint system by virtue of clause 5 in the POs. It was accepted by the First Defendants that they were aware of the risk of contamination by invisible soluble salts during the construction process. The First Defendants had, in breach of their duty, specified the need for high pressure freshwater washing only where there was oil and grease on the steel surfaces. As a result of their reliance on the First Defendants' specifications and advice, the Plaintiffs incurred the aforesaid liability to HUD.

18. Alternatively, the Plaintiffs alleged that the marine coatings supplied were not reasonably fit for use in the ballast tanks and the external hull if the defects were caused by cathodic blistering as contended by the First Defendants. This was because the coal tar epoxy had been stated to be an ideal choice for immersed steel.

19. Their claim against the Second Defendants was for breach of duty as the manufacturers of the paints supplied. The Second Defendants caused or permitted the use of their trademarks on paints sold by the First Defendants and were therefore liable as they had held themselves out as the manufacturers even if they were not.

20. The First Defendants were of the view that the blisters were caused by low DFT. If they were caused by inadequate steel surface preparation, that was not the responsibility of the First Defendants but of the Plaintiffs. They claimed that their paint or technical representatives were on site to carry out DFT checks on the steel surfaces with the representatives of the Plaintiffs and of HUD whenever the Plaintiffs indicated readiness for such inspection. They denied that the coal tar epoxy supplied was not fit for the purposes of the floating dock and that even if it was found to be unfit, their liability was limited by contract to the supply of free replacement paint to the Plaintiffs. In any event, they said, the Plaintiffs and HUD failed to mitigate their loss. In the event that they were found to be liable to the Plaintiffs and their claim to the limited liability failed, the First Defendants counterclaimed for the sum of S$355,852, the cost of the paint supplied to the Plaintiffs for the repairs in the shipyard in China, interest and costs.

21. The Second Defendants denied that they were the manufacturers of the paints in question or their components or that they owed the Plaintiffs any duty. They asserted in any event that the paints were reasonably fit for use on the floating dock.

22. The Plaintiffs relied essentially on the evidence of their expert witness, Kirt Smith, who testified that the most likely cause of the blisters in the paint coating was the presence of invisible soluble salts on the steel surfaces after blasting. Kirt Smith went on board the floating dock in Hong Kong in June 1997 to investigate the cause of the defects and to make recommendations for repair. He submitted a report on 28 July 1997. He was of the opinion that the blisters were caused by osmotic blistering which was the absorption of water by a coating and the formation of blisters where water soluble contaminants were present under the coated surface. Such contaminants could be dirt or salts left on the steel during surface preparation prior to painting. Where such water soluble contaminants were trapped under the coating, the thinner coating areas demonstrated increased blistering as these required less time to absorb water to the substrate surface and the coating itself was more flexible, thus allowing blisters to form more readily.

23. Kirt Smith's finding that there was soluble salt contamination was supported by a report from HUD which mentioned the presence of large quantities of salt under the coating system. He testified further that invisible soluble salts could only be removed by washing with water.

24. It appeared from the evidence of all the paint representatives of the First Defendants who were on site in the three shipyards where fabrication was taking place that there was no need to do washing of new steel unless there was visible dirt or other contaminants such as oil and grease. Some of them were of the view that blasting could remove salt from the steel surface. They testified that their duty was essentially to check the quality of the blasting of the steel surfaces and the DFT after the relevant paint had been applied at the respective stages. This was done with representatives of the Plaintiffs as well as those of HUD. There was a methodology in the random samples to be taken by the three representatives. It was plainly impossible that every square centimetre of paint be measured.

25. It was the opinion of the First Defendants' Managing Director, Colin Tan, that while it was possible to have invisible salt contamination on new steel, the fact that it was invisible meant that it was of a very low concentration. This, he said, was corroborated by the Bressler patch test on salt contamination that the First Defendants performed in Singapore during the course of the trial. Rain could also wash off the salt on the steel surfaces. He was of the view that salt contamination was not possible in an auto-blasting chamber where the steel used was new steel. There was no need to wash new steel where there was no visible contamination on the surface. He added that shop blasting plants in Taiwan did washing of steel plates because they were close to the coast and the steel plates could get contaminated in a typhoon. He accepted that the paint industry, including the First Defendants, was aware of the risk of invisible salt contamination at the material time.

26. One of the expert witnesses of the First Defendants was Dr Paul Philpot, who was one of the First Defendants' representatives at the second inspection of the floating dock in February 1996. He did not dispute the HUD report's finding that there were large quantities of salt under the paint coating. His opinion was that low DFT of the paint was the cause of the problem. That meant that the Plaintiffs had not applied the requisite thickness of paint to the steel surfaces. In his testimony in court, Dr Philpot mentioned for the first time the theory of cathodic disbondment as the probable cause of the blisters. He asserted that it was not something new that he was bringing up in court but that the theory was mere elaboration of what he meant by low DFT being the cause of the problem.

27. Dr Philpot explained that corrosion would begin in areas where there was low DFT. An anodic reaction would take place at the corrosion areas leading to a cathodic reaction elsewhere which would cause blistering. If they contained salts, there would have been corrosion evidenced by black spots. However, the blisters showed no sign of corrosion. One of the effects of cathodic blistering was that there would be loss of adhesion at the interface between the steel surface and the paint

coating. This reaction was termed cathodic disbondment. It would also cause "creep" back to an anode.

28. The Plaintiffs submitted that Dr Philpot, being a director of the Second Defendants, could not be regarded as a truly independent expert witness. They argued that his theory was an afterthought and was at odds with the known facts of the case. It contradicted the report of HUD's expert who stated that there was severe osmotic blistering caused by the high concentration of salts under the coating system which indicated that the salts were present before the coat tar epoxy was applied.

29. Kirt Smith was recalled to respond to this theory. He gave the following four reasons for disagreeing with the opinion that the blisters were cathodic rather than osmotic :

> (1) for cathodic blistering to have occurred, there must be areas of corrosion within 2 to 3 cm of, and not more than 10 cm away from, the blisters. He found widespread blistering with no corresponding pattern of corrosion. The rust stains in the photographs highlighted by the First Defendants in cross-examination did not represent corrosion areas ;
>
> (2) the blisters were not in a circular pattern which was typical of cathodic blistering ;
>
> (3) cathodic blistering was progressive and would not stabilize. The blisters in this case, in the opinion of the First Defendants' representatives, had stabilized ;
>
> (4) the coating used was supposed to be ideal for cathodic protection and therefore was resistant to cathodic blistering.

He added that oxygen was necessary for corrosion to take place and oxygen was not sufficiently present in the blisters because it would not pass through the coating membrane quite so quickly. That explained the absence of corrosion in the blisters. There was also no correlation between DFT and blistering as there were blisters in areas of high DFT and some areas of low DFT did not produce blisters.

30. Another of the First Defendants' expert witnesses, Trevor Jones, discussed the possibility of osmotic blistering in his evidence but made no mention of cathodic blisters. Trevor Jones pointed out that the block method of construction used by the Plaintiffs had a higher potential for coating failure as the shop primer steel could be allowed to weather in a corrosive marine atmosphere before painting and soluble salts could form on the surface which could then lead to osmotic blistering.

31. Looking at the evidence in totality, I found on a balance of probabilities that the blistering was osmotic rather than cathodic in nature and that it was due to salt being present before the paint was applied. I accepted the evidence of Kirt Smith as the more credible and logical opinion as to the cause of the blistering problem. It was the duty of the First Defendants to ensure that a proper paint system was in place and that included proper surface preparation without which the paint coating would be doomed from the beginning. The First Defendants failed in their duty. They acknowledged that the Plaintiffs were working in a marine environment. It would not require a typhoon to deposit salt in coastal areas. The First Defendants were aware of the risk of invisible salt contamination but took no steps to test for the presence of salt on the steel surfaces or to advise the Plaintiffs to do high pressure freshwater washing before the steel plates were blasted. Their specifications clearly contemplated washing only where there was visible contamination like oil and grease. The testimony of their paint/technical representatives also showed this was the indisputable meaning to be given to

the specifications concerning washing. They did not and would not have advised the Plaintiffs to do the washing when they quite plainly ought to have done so.

32. Having come to this conclusion, it followed that the fault did not lie in the paints supplied and that there was therefore no need to consider the case against the Second Defendants any further. There was no evidence to rebut that of the Second Defendants in any event that they were not the manufacturers of the paints in question or their components.

33. I now consider the extent to which the First Defendants should be held accountable to the Plaintiffs. Colin Tan testified on the meaning of the "normal warranty to apply twelve (12) months guarantee" referred to in the aforesaid clause 7 of the General Terms and Conditions in the Plaintiffs' POs. He said a warranty for free paint replacement only would be unwritten whereas one for free paint replacement coupled with labour costs would be in the form of a signed written agreement. This was the understanding, he said, between the Plaintiffs and the First Defendants who had a longstanding relationship. In this case, it was accepted that there was no signed warranty or performance guarantee. Accordingly, the First Defendants argued that their liability, if any, would be limited to the replacement of paint which had already been supplied for the repairs.

34. Insofar as the First Defendants were attempting to rely on the previous course of dealing to support their understanding of the said clause, that was not borne out by the evidence. There did not appear to have been any such "normal warranty" indicated by Colin Tan. I therefore did not think that their liability was limited in the way contended. In any case, such a warranty as contended by the First Defendants would only apply if the fault lay in the paints supplied and, as I have indicated above, it was not the paint that caused the blistering. The First Defendants also contended that if they should be found liable and their liability was not limited to the supply of the replacement paint, then they should succeed in their Counterclaim for the price of the replacement paint. As will appear at the end of this judgment, I held that if the replacement paint had not been supplied, HUD would have included such an amount in their total claim against the Plaintiffs. The First Defendants therefore failed in their Counterclaim for its price.

35. HUD did not proceed with the repair method suggested by the First Defendants which was said to be the cheaper method. HUD's representative was called by the Plaintiffs to testify and he said that if HUD adopted the method suggested by the First Defendants, the repairs would take an indefinitely long time and HUD would not know when and where blisters would next appear. Each time repairs became necessary, HUD would have to decommission their floating dock. HUD was also of the view that the trial repair in bay 10 of tank number 7 port wing using the First Defendants' preferred method did not solve the problem. The blistering was serious and widespread and they rejected the notion of having limited spot repairs.

36. In the course of the trial, a purported faxed quotation dated 6 May 1998 from a company called Jurong Clavon Pte Ltd was produced in evidence by Colin Tan which indicated that the company was willing to do the blasting and painting repairs for the floating dock in Singapore at the much lower cost of US$10 psm. This fax was not disclosed in discovery apparently on the advice of the First Defendants' solicitors. In my opinion, this so-called quotation was of little value anyway as the company's representative was not called to testify and to give further details about other relevant aspects which would have an important bearing on the costs, in particular, the length of time needed and the much higher costs in towage and insurance charges if the floating dock were to return to Singapore for repairs. HUD would not have accepted the proposed spot repair instead of full re-blasting at any rate.

37. The Plaintiffs were satisfied from Capt Clay Wild's reports that the costs of the repairs in

Guangzhou were reasonable. They had also verified with him the cost estimates of the future repairs put up by HUD and were satisfied that they were reasonable. They therefore accepted the estimates. They did their sums and concluded that their maximum liability would be in the region of US$10 million while HUD's reasonable claim for the repairs and the future repairs would be around US$9 million.

38. The Plaintiffs engaged Ince & Co and counsel in London for the purposes of the arbitration proceedings there.

39. In my opinion, the Plaintiffs did whatever could reasonably have been expected of them in mitigating the damages they would have to pay as a result of the paint fiasco. We should not weigh in nice scales the measures taken by a sufferer from a breach of contract to extricate himself (*Banco De Portugal v Waterlow & Sons Ltd* [1932] AC 452 at 506). A party which has breached its contractual duty to another could hardly be expected to dictate terms, especially those which do not appear to be reasonable, to the party suffering the consequences of the breach. Even if the repainting appeared to the First Defendants to be "extensive and expensive", the Plaintiffs certainly did not go about the repairs and subsequently the settlement agreement in a cavalier and carefree fashion in the way a less conscientious party, intending to dump all the consequences down the line to another, would have done. They made sure that HUD's repairs and demands for future costs of repairs were reasonable. They did their sums. They took legal advice. It is always tempting to reproach a party which has settled a claim on why he did not settle much earlier and thus save on legal and arbitration fees. There should be some latitude given to parties for reasonable posturing and for time to reconsider the strengths and the weaknesses of their case, especially in a situation like the present where millions of dollars are at stake.

40. The First Defendants also argued that it was "excessive and unreasonable" for the Plaintiffs to seek to pass on a loss of more than US$7 million to them when the contract between the parties was worth less than S$1 million. In my view, the situation was no different from a petrol station supplying $50 of defective petrol to a Rolls Royce and causing extensive damage to the luxury car's engine. The petrol station owner will not be able to contend that he should not be made to pay damages which amount to so many times more than the paltry $50 of petrol supplied.

41. The Plaintiffs were not obliged to inform the First Defendants of all the steps taken in the arbitration proceedings or of the negotiations as the First Defendants never accepted liability in full or in part for the blisters in the paint coating.

42. In the result, I gave judgment for the Plaintiffs against the First Defendants with costs and interest at 6% per annum on the aggregate amount due from the date of the writ to the date of payment. I dismissed the Plaintiffs' claim against the Second Defendants with costs. I dismissed the First Defendants' Counterclaim with costs. The computation of the amount of damages eventually awarded to the Plaintiffs appears in the notes of evidence which I repeat below. The amount of US$225,630 was deducted from the amount of the settlement agreement as that related to the repair of the bilge pump and had nothing to do with the breach by the First Defendants. I also deducted the amounts attributable to the external hull coating damage as it appeared that a claim in respect of this had not been notified by HUD to the Plaintiffs within the 12 month period after delivery of the floating dock provided for in the Building Contract. The Plaintiffs were therefore not liable to HUD in respect of this, as pleaded by them in the arbitration proceedings.

43. The following is reproduced from the notes of evidence at the time I saw counsel for the parties in chambers in order to work out the aggregate amount due to the Plaintiffs :

> "Court : I will deal with the pneumatic bilge amount at the end.

The amount of damages I award to the Plaintiffs against the First Defendant is computed as follows, with the intention that the portions relating to the external hull and the pneumatic bilge be excluded:

Total claim by HUD = US$9.1989 million.

Settlement Agreement = US$7.55 million.

Settlement Agreement divide by Total claim = 82.075%.

Total claim by HUD had the following components:

(1) External hull = US$0.7807 million.

(2) Internal painting expenses = US$4.9537 million.

(3) Interest for two years at 8% per annum on (1) and (2) = US$0.9175 million.

(4) Future repairs = US$2.547 million.

Total = US$9.1989 million.

External hull interest component is US$0.7807 million divide by [US$0.7807 million plus US$4.9537 million] = 13.61%.

13.61% of (3) above = US$0.1249 million.

Therefore external hull components in the total claim by HUD = US$0.7807 million and US$0.1249 million = US$0.9056 million.

External hull components as a percentage of the total claim is: US$0.9056 million divide by US$7.55 million = 9.84%.

Plaintiffs should therefore get 90.16% of their claim:

(1) 90.16% x US$7.55 million (Settlement Agreement amount) = US$6,807,080.

(2) 90.16% of 59,317.06 (Legal costs in arbitration) = 53,480.26.

First Defendant supplied S$355,852 in paint for the repairs. If this had not been supplied, HUD would have included such an amount in their total claim.

If HUD did, the Plaintiffs would in all probability have settled at 82.075% as in the rest of the total claim.

There should therefore be a discount of 17.925% of this amount from the Plaintiffs' damages against the First Defendant = S$63,786.47.

In summary, the Plaintiffs are awarded the following two amounts against the First Defendant:

(1) US$6,807,080 (Settlement amount)

(2) 53,480.26 (Legal costs in arbitration).

The following deductions should be made from the award:

(1) S$63,786.47 (paint)

(2) US$225,630 (pneumatic bilge).

Parties may write to me should they discover any arithmetic errors in the above."

Sgd:

TAY YONG KWANG
JUDICIAL COMMISSIONER