Henry Boot Construction Ltd v. Alstom Combined Cycles Ltd [1999] ABC.L.R. 01/22

JUDGMENT : His Honour Judge Humphrey LLoyd QC : TCC. 22nd January 1999

1. Henry Boot Construction Limited (Boot) appeal by leave against an award of 14 September 1998 by Mr John A. Tackaberry QC, the arbitrator appointed to resolve disputes between Boot and Alstom Combined Cycles Limited (which was formerly GEC Alsthom Combined Cycles Limited and which has therefore been called GECA).

2. Boot entered into a contract with GECA for the civil engineering works required for the construction of a combined cycle gas turbine power station which was being built for PowerGen plc at Connah's Quay in Clwyd. The contract was therefore technically a sub-contract although it was let by GECA as if GECA were the employer under a main contract. It was made in March 1994. In GECA's subsequent contractual letter of notification of award the tender total was expressed as £24,195,082.77. In that letter GECA stated:

"Dear Sirs,

CONNAH'S QUAY CCPP

MAIN CIVIL WORKS

4. 1. This Notification hereby awards to Henry Boot Construction Limited a Contract (Reference CNC 73102) for the Main Civil Works including Steelwork and Cladding for the Connah's Quay Combined Cycle Power Plant to be located in Clwyd, Wales, all as detailed in Item 2 below and on the Terms and Conditions set forth or referred to herein. This Notification supersedes and replaces in its entirety our letter ref. PUR/ECPU/00045/3HEV dated 29 March 1994.

2. Documents Comprising this Contract:

5. Save where expressly amended by, or stated in this Notification, the following documents shall constitute this Contract:-

6.a) This Notification of Award.

7.b) The Conditions of Contract (Part A - reference ICE/CQA/11.93 and Parts B and C) as amended by written post-tender exchanges with modifications of a later date taking precedence over modifications of an earlier date together with all relevant attachments and the Appendix to the Form of Tender.

8.c) Modifications to any of the documents listed in d) to i) below agreed in written post-tender exchanges. Written post-tender exchanges shall include minutes/notes of meetings, facsimiles and letters with those exchanges bearing a letter date taking precedence over those of an earlier date, unless otherwise stated.

9. Minutes/notes of a meeting shall be deemed to bear date on the day such meeting was held notwithstanding the date of issue.

10.d) Henry Boot Construction Limited's responsive tender dated 3 February 1994.

11.e) The Geotechnical Interpretive and Factual Report Reference CNC/1MOL/ER/4/-----/00/003B.

12.f) The Tender Drawings.

13.g) The Specifications Reference CNC/1MOL/ER/4/-0110/00/ 01 Volumes 1 & 2 Rev. A and CNC/1MOL/TS/4/-0110/--/-11 Rev. A.

14.h) The Project Specifications.

15.i) The Bills of Quantity.

16. In the event of any conflict or ambiguity between the various documents stated above they shall take precedence in the order stated above.

3. Scope of Works

17. The Scope of Works shall be as detailed within the documents stated in Item 2e) to i) above together with any omissions, amendments or additions as agreed in written post-tender correspondence or minutes/notes of meetings as referred to in Item 2c) above."

3. The Conditions of Contract referred to in that letter were the ICE Conditions of Contract, 6th Edition, with some modifications as set out in the contract;

18. "These conditions are based upon the ICE Conditions of Contract 6th Edition (incorporating the August 1993 Corrigenda) the copyright of which belongs to the Institution of Civil Engineers, the Federation of Civil Engineering Contractors and the Association of Consulting Engineers. GEC ALSTHOM Combined Cycles Limited has been authorised by the copyright holders to reproduce and amend the ICE Conditions of Contract 6th Edition for its operational requirements.

19. Words in italics denote GEC ALSTHOM Combined Cycles Limited amendments and additions to the above-mentioned ICE 6th Edition."

(The italicised parts in the ICE Conditions to which I shall later refer are not in my view material changes.)

4. The civil engineering works included the installation of the pipework for the cooling water system (CWP). The pipes were supplied by Stanton Bonna. The power station was to comprise four sets of combined cycle turbines laid out in parallel. Each set comprised a Turbine Hall, a Heat Recovery Steam Generator (HRSG) and Cooling Towers. The area for the latter is separated by a road from the area occupied by the Turbine Hall and HRSG. The exhaust gases leave the gas turbine for the HRSG where they pass over banks of pipe filled with water which become steam. The steam is used to feed into the steam turbine and to accelerate the rotation of the gas turbine. The steam is thereafter cooled and the condensed water is then fed back into the HRSG to be heated into steam. Steam is then cooled and the condensed water passes through the cooling towers and back into the system.

5. Boot tendered on the basis that the cooling water pipe system would be installed throughout the site at a depth of 4.45m AOD. GECA however decided to lower the system to 3.35m AOD and so informed in Boot in February 1994. This change affected both the permanent works and the temporary works to be carried out by Boot. There was an exchange of faxes in March 1994 in which Boot submitted a price of £250,880 for additional and different temporary works and that price was accepted by GECA. In his first award of 24 December 1997 the arbitrator said:

20. "6 I have concluded that the answer to this issue was that on a proper construction of the relevant documents, the sum covered additional and different temporary works by way of sheet piling to the trench excavation for the CWP in the Turbine Hall area."

21. It is clear from the reasons appended to this award that the arbitrator considered that the exchange of faxes constituted a modification of Boot's tender and was thus a "post-tender exchange" for the purposes of para 2(c) of GECA's notification of award and so formed part of the contract which the parties had agreed was to be treated as made on 21 March 1994 (see for example paragraph 56 of the reasons).

6. He also decided that the contract was entered into on 21 March 1994; by that date the contract provided for the lowering of the CWP in the Turbine Hall and HRSG; the excavation for the trenches would be sheet piled in the Turbine Hall; protective trench sheeting was to be provided to the foundation piles in the HRSG and Cooling Towers areas; otherwise the CWP was to be excavated in open cut with battered sides; and, insofar as certain drawings called for further or other work, they constituted a variation. In his second award of 14 September 1998 (which is the subject of this appeal) the arbitrator dealt with the consequences of the decision that the price of £250,880 was solely for work in the Turbine Hall. For present purposes it is necessary only to consider the site in the two other areas: those for the HRSG and the Cooling Towers. The dispute does not concern any change to the permanent works occasioned by the lowering of the CWP nor does it involve any temporary works which were not altered by the introduction of sheet piling in the areas of the HRSG and Cooling Towers.

7. This appeal concerns the meaning of parts of the ICE Conditions, 6th ed. First, clause 55 provides:-

22. "(1) The quantities set out in the Bill of Quantities are the estimated quantities of the work but they are not to be taken as the actual and correct quantities of the Works to be executed by the Contractor in fulfilment of his obligations under the Contract.

23. (2) Any error in description in the Bill of Quantities or omission therefrom shall not vitiate the Contract nor release the Contractor from the execution of the whole or any part of the Works according to the Drawings and Specification or from any of his obligations or liabilities under the Contract. Any such error or omission shall be corrected by the Engineer and the value of the work actually carried out shall be ascertained in accordance with Clause 52. Provided that there shall be no rectification of any errors omissions or wrong estimates in the descriptions rates and prices inserted by the Contractor in the Bill of Quantities."

8. In the reasons attached to his second award the arbitrator noted that the Engineer had decided that there had been a omission from the Bill of Quantities in respect of laying the CWP at the revised depth in the HRSG. The arbitrator decided that there had been a omission from the Bill of Quantities in respect of the additional temporary works in the HRSG and that the additional temporary work in the area of the HRSG fell to be dealt with under clause 55(2).

9. The arbitrator also held that GECA had by issuing revised drawings varied the work in the area of the Cooling Towers so that Boot was entitled to be paid for the additional temporary works in that area pursuant to clause 52 of the ICE Conditions.

10. How therefore was the work in the two areas to be quantified? Boot's case was that a rate for the sheet piling of £88.93 per m² could be derived from the price of £250,880 for the Turbine Hall since the quantity of sheet piling required for the Turbine Hall was 2,821m². Comparing that rate to the quantity for the HRSG (2,600 m²) and to the Cooling Towers area, produced figures of £231,226 and £2,284,128 respectively. GECA had maintained that Boot had no entitlement at all but, if there were an entitlement, it contended that since Boot had intended that its price should cover both the Turbine Hall and the HRSG, so that for that and other reasons, a lower rate would be appropriate of say £55 or £35 per m². GECA's case was that Boot's claim, if allowed, would result in what is now frequently called, pejoratively, a "*windfall*" gain.

11. The arbitrator noted the absence of any authority and had therefore to apply the contract and basic principles. In addition to clause 55, the relevant contractual provisions include:-

24.11(3) The Contractor shall be deemed to have

25. (a) based his Tender on the information made available by the Employer and on his own inspection and examination all as aforementioned and

26. (b) satisfied himself before submitting his Tender as to the correctness and sufficiency of the rates and prices stated by him in the Bill of Quantities which shall (unless otherwise provided in the Contract) cover all his obligations under the Contract. ....

27. 52.(1) The value of all variations ordered by the Engineer in accordance with Clause 51 shall be ascertained by the Engineer after consultation with the Contractor in accordance with the following principles.

28. (a) Where work is of similar character and executed under similar conditions to work priced in the Bill of Quantities it shall be valued at such rates and prices contained therein as may be applicable.

29. (b) Where work is not of a similar character or is not executed under similar conditions or is ordered during the Defects Correction Period the rates and prices in the Bill of Quantities shall be used as the basis for valuation so far as may be reasonable failing which a fair valuation shall be made.

30. Failing agreement between the Engineer and the Contractor as to any rate or price to be applied in the valuation of any variation the Engineer shall determine the rate or price in accordance with the foregoing principles and he shall notify the Contractor accordingly.

31. (2) If the nature or amount of any variation relative to the nature or amount of the whole of the contract work or to any part thereof shall be such that in the opinion of the Engineer or the Contractor any rate or price contained in the Contract for any item of work is by reason of such variation rendered unreasonable or inapplicable either the Engineer shall give to the Contractor or the Contractor shall give to the Engineer notice before the varied work is commenced or as soon thereafter as is reasonable in all the circumstances that such rate or price should be varied and the Engineer shall fix such rate or price as in the circumstances he shall think reasonable and proper. ....

32. (4) (a) If the Contractor intends to claim a higher rate or price than one notified to him by the Engineer pursuant to sub-clauses (1) and (2) of this Clause or Clause 56(2) the Contractor shall within 21 days after such notification give notice in writing of his intention to the Engineer.

33. (b) If the Contractor intends to claim any additional payment pursuant to any Clause of these Conditions other than sub-clauses (1) and (2) of this Clause or Clause 56(2) he shall give notice in writing of his intention to the Engineer as soon as may be reasonable and in any event within 21 days after the happening of the events giving rise to the claim. Upon the happening of such events the Contractor shall keep such contemporary records as may reasonably be necessary to support any claim he may subsequently wish to make. ...

34. (e) If the Contractor fails to comply with any of the provisions of this Clause in respect of any claim which he shall seek to make then the Contractor shall be entitled to payment in respect thereof only to the extent that the Engineer has not been prevented from or substantially prejudiced by such failure in investigating the said claim or the Employer has not been prevented from or prejudiced in pursuing his own claim as a result of such failure."

35. In the arbitration and on the hearing of the appeal the valuation principles set out in clause 52(1) were referred as Rules 1, 2 and 3. Clauses 56 and 57 are also relevant to this appeal:

"56.(1) Where Clause 55(1) applies the Engineer shall except as otherwise stated ascertain and determine by admeasurement the value in accordance with the Contract of the work done in accordance with the Contract.

36. (2) Should the actual quantities executed in respect of any item be greater or less than those stated in the Bill of Quantities and if in the opinion of the Engineer such increase or decrease of itself shall so warrant the Engineer shall after consultation with the Contractor determine an appropriate increase or decrease of any rates or prices rendered unreasonable or inapplicable in consequence thereof and shall notify the Contractor accordingly.

37. 57. Unless otherwise provided in the Contract or unless general or detailed description of the work in the Bill of Quantities or any other statement clearly shows to the contrary the Bill of Quantities shall be deemed to have been prepared and measurements shall be made according to the procedure set out in the "Civil Engineering Standard Method of Measurement Second Edition 1985" approved by the Institution of Civil Engineers and the Federation of Civil Engineering Contractors in association with the Association of Consulting Engineers or such later or amended edition thereof as may be stated in the Appendix to the Form of Tender to have been adopted in its preparation."

12. The arbitrator's reasons were appended to the award. They included the following paragraphs (the original numbering of the footnotes has been retained):

"WHAT TO DO WITH OR ABOUT THE £250,880 ("Rules 1 and 2")

140 ***Mistakes in pricing.***

38. In the First Award I recorded the fact that the sum of £250,880.00 had been calculated by Boot by reference to the cost of providing sheet piling to the Turbine Hall and the HRSG See paragraph 56 of the Appendix to the First Award.. In making this calculation, no credit was given for any saving that might be effected by the substitution of the sheet piling for the battered trenches that had been the intention at the time of the bid. In addition, in the almost frenzied exchange of faxes that took place on the 18/MAR/1994, Boot erroneously limited this sum to the work in the Turbine Hall only See paragraph 84 of the Appendix to the First Award. The relevant exchange could hardly have been more specific. GECA's query was as follows (8/46):

Please confirm that the sum of £250,880 includes for all additional costs over those shown in the BQ for changing the depth of the CW pipework, ie notwithstanding a revised BQ section has not been made available please confirm that the sum of £250,880 includes both permanent of temporary works.

The Reply (8/47):

The sum of £250,880.00 was to allow for additional and different works only, required in the turbine hall due to the lowering of the Bonna Pipework in this area.. The result was that there was built into the contract between the parties a figure for work that could fairly be said to have not one but two mistakes in it.

39. *141 Both mistakes benefit Boot; and it is these errors that produce the large value of the current claim when the £250,880.00 is extrapolated to the HRSG and the very large value when it is extrapolated to the Cooling Towers. In the circumstances, it is not surprising that Boot sought to argue that the £250,880.00 was a contract price, from which it could extract a rate that was applicable to similar work under similar work executed under similar conditions and that it should therefore be applied to the work in the HRSG and the Cooling Towers. GECA equally naturally object strongly to this approach. There are numerous arguments that were addressed to me on this point, but it is convenient to start with the "mistake" aspect of the case.*
40. *142 The contract is quite clear on the subject of mistakes. Clause 55(2) is as follows: [the text was then set out in the award].*
41. *143 One possibility was, no doubt, that the draftsman was thinking that a contractor might have underbid some aspect of the project, and was seeking to avoid any retrospective upward adjustment of the prices To leave room for any such upward adjustment would obviously make a nonsense of the competitive tendering process, since careless underestimation would increase the chance of securing the award of the contract.. However, the wording is clear, and it seems to me that even if the mistake is in the Contractor's favour, there is to be no rectification of the relevant matters.*

    144 ***Status of the £250,880.00.***
42. *This leads on to these questions. First, is the particular description - "additional and temporary works ... in this area" See footnote 83 above for full quotation. - a "description ... inserted by the Contractor in the Bill of Quantities"? Second, is the sum of £250,880.00 a rate or price inserted in the Bill of Quantities? Third, if either the description or the sum does not fall within this description, is it open to correction? And if so, on what basis? What are the criteria by which one "corrects" either the description or the sum? Fourth, if the description or the sum does fall within the provisions of Clause 55(2), what consequences, if any, flow from this, other than that it is not permissible to try to change either the description or the sum - i.e. is it permissible to extrapolate from this figure without regard to the errors? Or is it the case that the "errors" disqualify either or both the description or the sum for the purposes of other work and other clauses; or are they usable with suitable adjustments?*
43. *145 Oddly, these questions do not seem to have come up for decision before, and accordingly the issues fall to be considered from first principles - which means the contract itself. Unfortunately the simplicity of such a proposition masks the complexity of the task. ....*
44. *148 I therefore conclude that the sum of £250,880.00 is a "price" and the "additional and different" work is a description inserted by Boot into the contract in a way that can only have been intended by both parties to be treated as comparable to items in the Bill of Quantities.*

    149 ***The nature of a "price" and the Rule 1 analysis***
45. *What then is a price? [The arbitrator then set out why he rejected the argument that Rule 1 (clause 52(1)(a)) applied.] ....*

    152 ***Rule 2.***
46. *If one is not seeking to apply the price directly to the work in question, then the work in question must, by definition, be different from the work included within the ambit of the price. If the work is sufficiently different to warrant an adjustment of the price, what one would expect to reach would be a modified price. But that would be satisfactory or "reasonable" (to use the phrasing of the Clause) only if one could be confident about the satisfactory nature of the route taken to the original price. That confidence is not available here. On the contrary, one knows that the route to the original price was flawed by at least one mistake. That seems to me to undermine the applicability of the price in any extended role in the contract. To put it another way, while one cannot change the mistake, I do not see it as "reasonable" to enlarge its ambit and thereby compound the effect of the error. I anticipate that a Contractor who had underestimated a price by error would see the force of the argument and would be as vehement in opposing its extension beyond the ambit of the original mistake, as GECA is vehement in opposing the use of the £250,880 in this case.*
47. *153 Given that the rule must be the same whichever way the error goes, it seems to me that it is "reasonable" not to use a price where the price has been reached by mistake or error.*
48. *154 I therefore see no role for a "modified" price based on the original price on a Rule 2 basis.*

    155 ***Rules 1 and 2 and the "rate extraction" process.***
49. *But Boot seeks to extract a rate from the price, rather than modify the price itself. One must ask the question, can a rate be derived from it? It seems to me that the answer to this, on first principles, should be "no". The purpose of having a price was to avoid utilising a number of rates when valuing work on site that might differ slightly from occasion to occasion but would be sufficiently similar to permit the use of the single calculation. Given that genesis, it would seem odd then to use the price to derive a rate or rates. If the work was to be valued by the application of rates, why have a price in the first place?*
50. *156 It seems to me that to the problem that one is expanding the ambit of a flawed price, the "rate extraction exercise" adds a misconceived process. I see no warrant in the contract for using rates to get prices, or for using prices to get rates. The fact that there are two different methods of evaluation presumably arises as a convenient method of dealing with different situations. Why therefore should there be a mingling of the methods when one is seeking to utilise Rule 2? It does not seem to me to be necessary; and to be difficult to qualify as reasonable.*
51. *157 But even if that were otherwise permissible, I think that there are difficulties is seeking to extract from the figure of £250,880 a rate which could be said with confidence to be directly relevant and applicable to the work in question.*

52. 158 One of those difficulties is the absence of much if not all of the detailed information as to how Boot calculated the rates for the pipework in the first place, which rates would or should have included for the necessary temporary works then planned. Another stems from the fact that Boot included a figure of £343,240 for further temporary works See e.g. 8/15, Boot's fax of the 17/MAR/1994. *but is it not possible, in my view, to work out precisely how this inclusion interrelates with the other elements of the Bill.*

53. 159 In sum, I consider that there is no route which permits the use of the price of £250,880.00 in the valuation of the relevant work in the HRSG and the Cooling Towers under Rules 1 and 2. Accordingly, I turn to Rule 3."

13. The arbitrator considered that Boot were entitled to be paid upon a fair valuation, (ie under Rule 3) and awarded Boot £74,460.83 for work in the area of HRSG and £500,474.59 for work for the Cooling Towers, ie a total of £574,935.42.

14. Boot appeals against these decisions since it maintains that the arbitrator erred in law in his reasoning that for the purposes of the first limb of clause 52(1)(b) (ie Rule 2) it was not reasonable to use the price of £250,880 as the basis for a valuation because it was a mistaken or flawed price in which there could be no confidence and that for that reason, and for other reasons, it was not possible to arrive at a rate which could be applied to the work which fell to be valued under clause 52(1)(b) (Rule 2) whether via clause 55 or via clause 51. In its Notice of Motion Boot sought opinions on the question of law as to whether the word "*reasonable*" in clause 52(1)(b) had been properly interpreted by the arbitrator and as to whether he had erred in that respect and in other matters. I considered that one question of law covered all the grounds in Boot's application for which leave should be granted. It was:

54. "Whether it is right not to make a valuation under clause 52(1)(b) of the ICE Conditions, 6th edition (which would otherwise have been based upon a rate or price) on extraneous grounds such as that it was not reasonable to use such a rate or price because it contained or was based upon a mistake or that it was not feasible on the information provided by the contractor to make a valuation based on the rate or price".

55. The reference to extraneous grounds comprehended Boot's attack on the arbitrator's reasons.

15. Mr Stephen Furst QC, for Boot, submitted that the arbitrator had wrongly interpreted "*reasonable*" in clause 52(1)(b). The contract was a remeasurement contract since the contractor was to be paid for the actual quantities of work executed by it applying the rates and prices inserted in the bill of quantities. By clause 11(3) of the ICE Conditions Boot was deemed to have satisfied itself as to the correctness and sufficiency of the rates and prices inserted in the Bill of Quantities and those rates and prices could not be altered even if it could be shown that the contractor had made *"errors omissions or wrong estimates in the descriptions rates and prices inserted by the Contractor in the Bill of Quantities"* (see clause 55(2)). Mr Furst submitted that if therefore by reason of a mistake a rate or price inserted in the Bill was too high the contractor was nevertheless entitled to be paid at that rate, even where the quantity of work actually carried out was greater than set out in the Bill of Quantities (unless the rate could be adjusted under clause 56(2)). However, an adjustment could not be made under clause 56(2) unless the increase in quantities in itself rendered an adjustment appropriate and in that event the adjustment was to be made only to the extent that the rate was thereby (ie in consequence of the decrease or increase in quantities) rendered *"unreasonable"* or "*inapplicable*". Mr Furst therefore argued that the reasonableness of applicability of the rate for the purposes of clause 52(1)(b) was to be gauged strictly by reference to the work carried out and not by reference to extraneous considerations such as how a rate or price was arrived at and whether it was too high or too low.

16. Accordingly, Mr Furst contended that since under clause 52(1)(a) the Engineer had no discretion, and the contractor had to be paid the applicable rate or price, however it might have been arrived at, the same approach should apply under clause 52(1)(b). The principle of valuation in this sub-clause (Rule 2) covered the situation where for some reason there was not a sufficient similarity of the character of the work or it was not executed under sufficiently similar conditions to justify retention of the original contractual rate or price. In that event, the rate or price was to be used as the basis of valuation to the extent that it might be "reasonable" to do so, ie to the extent that the relevant rates or prices in the Bill of Quantities properly related to the varied work or could properly be used as a basis of valuation. If on comparing the work described in the Bill with the varied work it was not possible to continue to use the price in the bill because the difference was so marked then a fair valuation might be made. On the other hand, if the work itself was not so greatly altered then a valuation had to be made on the basis of the contract rate or price. In summary both the Contractor and the Employer were "stuck" with the price or rate in the Bill for the measurement for the works and neither the Engineer nor the arbitrator was permitted to "look behind" a rate or price in order to discover how it was made up or to ascertain whether it was a fair and reasonable to apply the rate or price to the work or to the varied work. The arbitrator therefore had not adopted the correct approach in determining whether it was reasonable to use the price of which Boot was taken to have inserted in the Bill. Further, if GECA's case were correct, as upheld by the arbitrator, then it would enable either party to avoid the consequences of a contractual rate or price simply on the pretext that there was not a sufficient similarity in the varied work for the purposes of Rule 1. The result would be effectively to merge Rules 2 and 3. If Rule 2 could only be applied where the rate or price was in itself "*reasonable*" then that effectively meant that the exercise to be conducted was what would be fair, ie the principle required by Rule 3. If Rule 2 were to be extended so as to require an Engineer to investigate whether it was "*reasonable*" to apply a rate or price it would be necessary for the Engineer to investigate the relevant rates or price, to call for the tender make-up and to enter into discussions as to whether or not the contractor had priced that rate or price accordingly or whether indeed even if the rate or price was found to have been miscalculated whether or not

some other rate or price elsewhere in the Bill might have either intentionally or unintentionally redressed the disparity.

17. In addition, Mr Furst submitted that the arbitrator was also wrong in deciding that it was not reasonable to use a price to obtain a rate or rates without knowing precisely how the price was made up. A rate of £88.93 per m2 was easily derived from the price and to use it as the basis of a valuation would not be a "mingling of methods" (as described in paragraph 156 of the reasons). A valuation did not require further detailed information.

18. Mr Roger ter Haar QC, for GECA, submitted that the arbitrator had construed clause 51(1)(b) correctly. In paragraph 152 of the award he had said that it would not be reasonable to use a contract rate or price unless there was confidence in the nature of the valuation to do so. That lack of confidence was set out in paragraphs 155 to 156 of the award by the process to obtain a rate per m2, bearing in mind that the change from excavation in open cut (as envisaged for 4.45 AOD) to the use of sheet piling (for the new level) could produce additional factors which need to be taken into account in arriving at the valuation, especially where, as here, the price of £250,880 was for in the nature of an extra over item, ie for the additional or different work beyond the excavation which would in any event would have had to have been carried out, and for which provision was already made in the Bill of Quantities. The arbitrator was making a valuation which was ultimately a question of fact. The circumstances were unusual as they stemmed from the exchange of faxes and led to the creation of a figure for the cost of temporary work which would usually be included in the rates for pipelaying. Item C2 in Class I of the Civil Engineering Standard Method of Measurement (CESMM) provides:

56. *"Items for pipes in trenches shall be deemed to include excavation, preparation of surfaces, disposal of excavated material, upholding sides of excavation, backfilling and removal of dead services except to the extent that such work is included in clauses J, K and L."*

19. In addition, Mr ter Haar submitted arguments in support of a counter notice served by GECA which stated that:-

57. *"1. The Arbitrator would have been entitled to proceed to make a fair valuation of the work not only by reason of Clause 52(1) of the Conditions of Contract but also pursuant to:*

58. *(a) Clause 56(2) of the Conditions of Contract; and/or*

59. *(b) Clause 52(2) of the Conditions of Contract;*

60. *2. Contrary to the reasons given by the Arbitrator in paragraphs 144 to 148 of his Award, the sum of £250,880 was not a "price in the Bill of Quantities" because:*

61. *(a) the sum of £250,880 was not a sum in the Bill of Quantities as defined in Clause 1(1)(h) of the Conditions of Contract;*

62. *(b) even if the said sum fell to be treated as though it was inserted in the Bill of Quantities, the sum was not a "price" for the purposes of Clause 52(1)(b) of the Conditions of Contract.*

63. *3. Further or alternatively the said sum was not capable of being "used as the basis for valuation" within the meaning of Clause 52(1)(b) of the Conditions of Contract because the said sum was not a sum to which the Civil Engineering Standard Method of Measurement ("CESMM") could be applied in accordance with Clause 57 of the Conditions of Contract.*

64. *4. Accordingly for the reasons set out at paragraphs 2 and 3 above the Arbitrator was right to hold that "Rule 2" did not apply.*

65. *5. Further or alternatively because the said sum was not a sum to which CESMM could be applied, it was not reasonable to use the said sum as the basis for valuation and accordingly for this reason also the Arbitrator was right not to apply "Rule 2".*

20. He submitted that even if Boot were successful in contending that the arbitrator had misconstrued clause 52(1(b) the award should not be remitted if the arbitrator had reached the right result. Mr ter Haar relied on the dictum of Lord Donaldson MR in ***Ipswich Borough Council v Fisons plc*** [1990] Ch. 709 at page 726F-G:

66. *"It is not sufficient that [the Court] should have been left in real doubt whether the arbitrator was right. Nor, I would add, does it matter whether the arbitrator's reasons may have been faulty, unless this cast doubt upon his conclusions; it is always possible to arrive at the right answer for the wrong reasons and in such a case leave should never be given."*

21. Ground 2 was primarily concerned with the nature of the work the subject of the price of £250,880. GECA's argument was that clause 52(1)(a) referred to "*work priced in the Bill of Quantities*" and clause 52(1)(b) referred to "*rates and prices in the Bill of Quantities"*. Clause 1(1)(h) defined *"Bill of Quantities*" as *"the priced and completed Bill of Quantities"*. The figure of £250,880 did not appear in the priced Bill of Quantities so it could not therefore have been used as a price for the purposes of clause 52(1)(b).

22. Grounds 3 and 5 are linked and were a development of the previous ground and of the arbitrator's reasoning in paragraph 158. Clause 57 of the ICE Conditions requires compliance with the CESMM. Paragraph 2.3 of the CESMM records that the object of CESMM is "*to set forth the procedure according to which the Bill of Quantities shall be prepared and priced and the quantities of work expressed and measured"*. Paragraph 2.4 states:

67. "The objects of the Bill of Quantities are

68. *"(a) to provide such information of the quantities of work as to enable tenders to be prepared efficiently and accurately*

69. *(b) when a Contract has been entered into, to provide for the use of the priced Bill of Quantities in the valuation of work executed."*

70. *Section 5 deals with the preparation of the Bill of Quantities. It contains the following:*

"*5.10 All work shall be itemised and the items shall be described in accordance with Work Classification, but further itemization and additional description may be provided if the nature, location, importance or any other special characteristics of the work is thought likely to give rise to special methods of construction or considerations of costs.*

5.11 Descriptions shall identify the work covered by the respective items, but the exact nature and extent of the work to be ascertained from the Drawings, Specification and Conditions of Contract, as the case may be, read in conjunction with the Work Classification."

23. Section 7 of CESMM deals with Method-Related Charges:

71. *"7.1 For the purposes of this section the following words and expressions shall have the meanings hereby assigned to them.*

72. *(a) 'Method-Related Charge' means the sum for an item inserted in the Bill of Quantities by a tenderer in accordance with paragraph 7.2.*

73. *(b) 'Time-Related Charge' means a Method-Related Charge for work the cost of which is to be considered as proportional to the length of time taken to execute the work.*

74. *(c) 'Fixed Charge' means a Method-Related Charge which is not a Time-Related Charge.*

75. *7.2 A tenderer may insert in the Bill of Quantities such items for Method-Related Charges as he may decide to cover items of work relating to his intended method of executing the Works, the costs of which are not to be considered as proportional to the quantities of the other items and for which he has not allowed in the rates and prices for the other items.*

76. *7.3 Where possible the itemization of Method-Related Charges should follow the order of classification and the other requirements set out in class A of the Work Classification, distinguishing between Time-Related Charges and Fixed Charges. Method-Related Charges may be inserted to cover items of work other than those set out in class A.*

77. *7.4 Each item for a Method-Related Charge inserted in the Bill of Quantities shall be fully described so as to define precisely the extent of the work covered and to identify the resources to be used and the particular items of Permanent Works or Temporary Works, if any, to which the item relates.*

78. *7.5 The insertion by the Contractor of an item for a Method-Related Charge in the Bill of Quantities when tendering shall not bind him to adopt the method stated in the item description in executing the Works.*

79. *7.6 Method-Related Charges shall not be subject to admeasurement but shall be deemed to be prices for the purposes of clauses 52(1), 52(2) and 56(2).*

80. *7.7 Method-Related Charges shall be certified and paid pursuant to clauses 60(1)(d) and 60(2)(a) and a statement to this effect shall appear in the Preamble to the Bill of Quantities.*

..... ".

24. Mr ter Haar argued that compliance with CESMM was important since precision and accuracy were required in describing and quantifying items of work and in the amounts to be used in valuation. Boot's fax did not satisfy any of the criteria and so the sheet piling work and the figure of £250,880 could not be recognised as an item and a price for the purposes of CESMM or the contract conditions. Unless the work was recognisable as a measurable item its price could not be used under clause 52(1). The work in question ought either to have formed part of pipelaying work or would have been treated as Method-Related Charge. In either case there would have been no price in the Bill of Quantities which could have become the basis of a valuation under clause 52(1)(b). Thus the arbitrator could not have determined a new rate or price under clause 52(1)(b) and accordingly would have had to have made a fair valuation.

25. GECA's case under Ground 1 in part subsumed these grounds but was also independent of them in that it assumed that £250,880 could be a price. First, there had been an increase in the temporary works and under clause 56(2) it would have been open to the arbitrator to have decided (which he undoubtedly would have done) that the increase rendered the price "unreasonable or inapplicable" and thus he would have been entitled to take the course that he did under that condition by determining an appropriate amount in lieu. Secondly, clause 52(2) gives the Engineer power to determine that a rate or price is unreasonable or inapplicable if there has been a significant change in the works. Again, the arbitrator would have decided that the nature of the variation ordered to the area of the Cooling Towers and the nature of the increase in quantity in the HRSG rendered the price unreasonable or inapplicable (ie the price for the Turbine Hall temporary works, as opposed to another item of work).

Decisions

26. Whilst I can see why the arbitrator accepted that Boot had made two mistakes it could also be said that there was a third - GECA's error in not spotting that Boot's price of £250,880 was for the Turbine Hall only since as the

arbitrator observed in footnote 83 to his reasons: *"The relevant exchange [of faxes] could hardly have been more specific"*. Although the consequences are or may be striking such misunderstandings are commonplace. Sometimes the contract can be rectified; sometimes the effect can be avoided in other ways. Otherwise any solution must be found in the contract or in basic principle. I concur with the view of the distinguished editor of Keating on Building Contracts, 6th ed (at page 101) that the type of question raised by this appeal is a matter of the construction of the contract (here clause 52(1)) and not, as Mr Ter Haar's submissions suggested, a question of valuation or fact. The standard form contracts have evolved to deal with such situations so it is not therefore surprising that there are no immediately relevant decisions Some aspects of mistakes in rates and prices are however discussed in Hudson on Building Contracts, 11th ed, eg at para 8-047, in Keating on Building Contracts, 6th ed at pages 100 - 101 and in other works and their effects are considered in some commentaries, although somewhat surprisingly not in the commentary in Keating at pages 1051-1052, to which I was referred.. Before considering Boot's case I shall examine some of the arguments presented for GECA. I do so primarily in order to set the scene for Boot's arguments since the dictum of Lord Donaldson MR in ***Ipswich Borough Council v Fisons plc*** [1990] Ch. 709 (upon which Mr ter Haar relied) was concerned with an application for leave to appeal. Mr Furst said that some at least of the arguments had not been presented to the arbitrator. This is not accepted by GECA. It is not necessary to determine whether Mr Furst is correct although I question whether on an appeal under the Arbitration Act 1979 a respondent is entitled to rely on grounds which were not expressed in the award as they had not been raised before the arbitrator either further to justify the award or in support of a submission that no useful purpose would be served by a remission. I doubt if the right to argue that the award should be confirmed is intended to permit a party thereby to avoid the consequences of issue estoppel or of the arbitrator being otherwise *functus officio*.

27. First, the arbitrator was in my judgment right to hold that the sum of £250,880 was a price for the cost of work which, if GECA's decision had been known prior to the preparation of the Bill, might have been included in the Bill as an additional EO item for the additional and different temporary piling work required to lay the pipes at the site of the Turbine Hall. Normally the cost of such temporary works would be carried on the rates, as required by CESMM - see Coverage Rule C2 for Class I (quoted above). Paragraph 7.2 of CESMM might suggest that Boot might have been entitled to insert in the Bill of Quantities an item for this work if its costs were not considered to be proportional to the quantities of the other items and if no allowance had been made in the rates or prices for the other items. In such event, that item would not be subject to admeasurement but the costs would be deemed to be a price for the purposes of clauses 52(1) and (2) and 56(2) (see paragraph 7.6). However, I do not consider that, strictly speaking, the work would necessarily have been a Method-Related Charge under CESMM since it was evidently not entirely a voluntary contractor's decision to do the excavation by sheet piling, but one required of Boot by GECA's decision to lower the depth of the pipe. Had GECA made that decision at tender stage then the additional temporary works would inevitably have been part of the work of upholding sides of the excavation and their cost included in the rates or isolated and shown separately, if appropriate. In paragraphs 67 and following of the reasons to the first award the arbitrator does however record that the sheet piling emerged as a development of part of Boot's method statement so it may be that the cost would properly have been regarded as a Method-Related Charge. Since its status was not so clarified it is necessary to see what the contract says.

28. GECA's letter of award stated:-

> *81. "The Scope of Works shall be as detailed within the documents stated in Item 2e) to i) above together with any omissions, amendments or additions as agreed in written post-tender correspondence or minutes/notes of meetings as referred to in Item 2c) above."*
>
> *82. The arbitrator found in his first award that the faxes between Boot and GECA were post-tender correspondence. It is therefore clear that they had the effect of extending the Scope of the Works. In my judgment it must follow that it also had the effect of modifying not just Boot's tender but also the existing documents which dealt with the amounts payable to Boot, such as the Bill of Quantities, so that the Bill of Quantities was to be treated as if it had been written with an item descriptive of these temporary works. If the item were to be read as a Method-Related Charge, the Engineer might then have been precluded by paragraph 7.6 of the CESMM and by clause 56(1) from measuring the piling in the HRSG area and treating it as a correctable error under clause 55(2). If such an argument was presented to the arbitrator his decision deals with it for he found that the error was correctable under clause 55(2). If the argument was not presented to the arbitrator it is now too late to do so. (There would be no such difficulty in relation to the area of the Cooling Towers for the arbitrator found that work done by the contractor was ordered as a variation under clause 51.) In my judgment it would be artificial not to treat the sum as part of the priced Bill of Quantities, first because of the terms of the letter of award and secondly, because clause 1 (the definitions clause) is prefaced by the words "Unless where the context otherwise requires". The Works include the Permanent Works and the Temporary Works. The former are those required by the Contract; the latter are those required in and about the Permanent Works (see clause 1(1)(n) and (o)). The definition of "Contract" was also amended by GECA to include "any post-tender exchanges of correspondence" (clause 1(1)(e)). "Contract" in any event includes the Bill of Quantities. Accordingly the exchange of faxes in my judgment provides the "context" for modifying the definition of the Bill of Quantities to incorporate the contents of the exchange of faxes in so far as they introduced a new item of separately priced work. The function of a Bill is in part to provide for the measurement of the Works (see the restatement of its purposes which is conveniently set out in paragraph 2.4 of the CESMM quoted above). It is therefore both natural and right that this Bill should recognise that the sheet piling to the Turbine Hall was to be measured as a special item in the nature of an EO item to the general*

pipelaying item or items and paid for in the sizeable sum of £250,880. This sum was therefore a "price" in the Bill of Quantities both for its purposes and for the purposes of the remainder of the contract, including any applicable Condition.

29. Furthermore, the effect of incorporating the exchange of faxes in the contract must surely be that there has been a deviation from the CESMM which is permissible for the purposes of clause 57 since the opening words of that clause allow a departure: "*Unless otherwise provided in the Contract or unless general or detailed description of the work in the Bill of Quantities or any other statement clearly shows to the contrary.. ".* In my judgment the incorporation of the agreement in the faxes means that either that the contract read as a whole provides *"otherwise"* or that there is thereby a statement which clearly shows *"to the contrary",* namely that the Bill of Quantities in this respect was not prepared in accordance with CESMM to the extent that there was this special EO item for £250,880 which ought to have been included in the rate for pipelaying (or possibly as a Method-Related Charge). I reach these conclusions on the application of clause 57 on the basis that the documents would be so read by someone likely to handle them and to be familiar with them, eg the standard of clarity of expression envisaged will be less than legal boilerplate.

30. I reject GECA's argument that the CESMM can be used to prevent the figure of £250,880 becoming a price for the purposes of clause 52 or any other condition. I accept that a contractor is generally entitled to assume that the Bill of Quantities has been prepared in accordance with the CESMM (for that is the conventional meaning of the *"deeming"* provision in clause 55) and therefore that the items and quantities found in the Bill of Quantities are reasonably accurate descriptions and estimates of the work shown on the Drawings and described in the Specification. I also accept that clause 57 is intended also to secure that Bills of Quantities are prepared to a standard of uniformity acceptable to civil engineers and that measurements are similarly to be made to such a standard. In this way a criterion is established by which an error in description may be determined as needing correction under clause 55(2). But these are the general objectives from which there may be deviations as provided by the opening words of clause 57 so it does not follow that there will be an error requiring correction by way of a deemed variation simply because on measurement it is found that the Bill does not comply with CESMM. Thus the contractor (and the employer) must be satisfied that the rates and prices in the priced Bill of Quantities are sufficient, subject to the application of clause 56(2), for there can be no departure from the rates and prices inserted by the contractor in the Bill of Quantities - see the concluding words of clause 55(2): *"... there shall be no rectification of any errors omissions or wrong estimates in the descriptions rates and prices inserted by the Contractor in the Bill of Quantities".* GECA's argument attempts to make the CESMM govern the meaning of the contract. That is not its function which is to be a guide to the preparation of a Bill and to determining what may be measurable, subject to the opening words of clause 57.

31. Clause 55(2) does no more than restate (in a place where it may be particularly apposite) the fundamental proposition that the contract rates and prices are sacrosanct and not subject to correction. In the ICE Conditions the contractual foundation for the rule that the rates and prices are immutable even though they prove to be too profitable or uneconomic is to be found earlier in the Conditions in clause 11(3)(b): *" The Contractor shall be deemed to have ....(b) satisfied himself before submitting his Tender as to the correctness and sufficiency of the rates and prices stated by him in the Bill of Quantities which shall (unless otherwise provided in the Contract) cover all his obligations under the Contract."* One of the contractor's obligations there referred to is to accept payment at the contract rates and prices. Mr Max Abrahamson (upon whose opinion GECA relied in opposing leave to appeal) says at page 14 of his well-known commentary on the previous edition of the ICE Conditions:

83. "Mistakes in the rates themselves not found by or on behalf of the employer before acceptance of the tender bind the contractor for all work done, including variations unless they fall outside the variation clause in the original contract...".

84. It is in any event a basic principle of the law of contract that a party cannot avoid the effect of a unilateral mistake made prior to the making of the contract (subject to exceptions such as where the mistake was in fact known to the other contracting party). A mistake in a rate or price or in its application binds both parties. Mr Furst was therefore correct in his submission that a party to a construction contract is therefore stuck with a rate or price whether the contract price is expressed as a lump sum or subject to recalculation by adjustment or after remeasurement using the contract rates and prices which are constituent elements of the contract price or tender sum. So too is an employer stuck with the rates and prices which have been accepted by him as part of the contract. Unless the contract permits he cannot extricate himself from the bargain that has been made. Procedures have been developed within the construction industry to minimize the possibilities of such mistakes going undetected prior to contract and of tenders being unbalanced. It is one of the skills of tendering for a construction contract of this type (where the contract price is subject to recalculation) to anticipate where there may be departures from the estimated quantities or item descriptions which might prove to be the contractor's advantage. It equally behoves the employer to scrutinize the contractor's tender rates and prices with care to see that no such advantage is to be taken. The discovery of such errors at a later stage tends to produce friction. A contractor will be under pressure to cut corners to minimize losses that may be inevitably incurred or to make claims to compensate for the shortfall. An employer may be tempted to try to omit work which it thought to be "overpriced" in order to have it executed at lower prices once the contractor has left the site.

32. A Bill of Quantities in addition exists to provide the mechanism for valuing variations (see paragraph 2.4(b) of CESMM). In the context of clause 11(3)(b) another obligation of the contractor is to comply with orders for

variations given by the Engineer under clause 51. Accordingly, the contract rates and prices must be sufficient for that purpose since clause 52 states the principles upon which the Engineer is to act in valuing variations. If the work is of a similar character and executed under similar conditions to work priced in the Bill of Quantities then the parties to the contract accept that the valuation of the variation will be made in accordance with the contract rates and prices. The fact that the rate or price otherwise applicable may appear to be "too high" or "too low" is immaterial: the parties have agreed that such a rate or price is to be used to value variations or, if clause 55 is applicable, the correction of an error or omission. In his discussion at pages 185-186 of his commentary Mr Abrahamson rightly says of clause 52 (referring back to the passage that I quoted earlier):

85. "It is not unreasonable to apply rates as a basis for pricing varied work merely because the rates are mistaken (page 14) or uneconomic, certainly in relation to the normal type of variation which is endemic in civil engineering works. What is reasonable is to be decided purely by reference to the nature of the original and varied work, not extraneous considerations.

...

86. The basic consideration is that the contractor has agreed to do all work within the contract - original and varied - on the basis of his bill rates. Administration of this clause by engineers and arbitrators should not make it possible for a contractor to price work low and then by payment for normal variations escape out of that price level at which he obtained the work in competition. Nevertheless there is the subsidiary factor that a tender will almost always include some particularly good rates and a percentage of rates that are below cost. If a high proportion of either good or bad rates happens to apply to major variations the price for the varied work will be artificially low or high....."

87. Mr Abrahamson is of course here examining the more usual situation where a contractor is seeking to get away from "low" rates or prices but it is clear that the principle applies equally to the employer where the rate or price is "high".

33. The words *"executed under similar conditions"* do not of course refer to economic or financial conditions or considerations (a point which I understood Mr ter Haar to accept). Intrinsic profitability or otherwise of the rate or price is not therefore a relevant consideration to be taken into account in the application of the principle set out in clause 52(1)(a) (ie that called Rule 1 in the arbitration). The work is not executed under dissimilar conditions simply because the applicable rate may result in the contractor being paid markedly more or less than that which might be regarded as "fair", eg more or less than actual or reasonable cost plus profit and overheads. Neither the Engineer nor the arbitrator had therefore authority to apply any other method unless he is of the opinion that the work does not qualify to be valued under Rule 1.

34. In my judgment, the same approach must apply to Rule 2 for that is no more than a continuation of Rule 1 to deal with the position where the factors mentioned in Rule 1 are not present - similarity of work or conditions. If the varied work is work of a dissimilar character or to be executed under dissimilar conditions then the contract clearly maintains the principle that a valuation ought to be made if there is a contract rate or price applicable or which could be used as a basis for valuing the variation. The fact that the result of the use of the contract rate or price might not be reasonable is as irrelevant as it is under the first principle. In terms of the language used in clause 52(1)(b) the reason is simple: the contract rate or price is already unreasonable before the variation is ordered; it is not made unreasonable by the execution of the variation. The word "*reasonable*" in clause 52(1)(b) refers only to the extent to which it is feasible to use a given contract rate or price as the basis for the valuation, irrespective of its amount. Thus if the effect of the variation was that work took 25% more effort to carry out then one might normally expect there should be little difficulty in using the original contract rate or price and to adjust it to make appropriate allowances for the fact that the labour and plant elements included in it were or might be affected. Elements of the price though unaffected by the extra effort would not be changed. If therefore the contractor had mistakenly priced the contract under a misapprehension as to the capacity of the plant required for the operation in question, that mistake could not be rectified under clause 52(1)(b) however *"reasonable"* it might appear to the contractor to do so. The mistake could not be eliminated by adjustment in assessing the additional resources required and would have to be perpetuated to the potential detriment of one or other of the contracting parties. No adjustment could possibly be made under the first principle; no adjustment should be made under the second principle for it is to be assumed when using the rate or price as a basis that it is otherwise sufficient for the operations in question. To allow a variation falling within clause 52(1)(b) to be used as a pretext to unravel and correct mistakes made by a contractor in the pricing of a contract would, in my judgment, be completely inconsistent with the wording of such a contract and the philosophy to be derived from it. That is not to say that in practice an Engineer or an arbitrator may not very occasionally bend Rule 2. Mr Abrahamson says (at page 186):

88. "Further, the limitation that rates are to provide a basis for valuation only so far as is reasonable may in exceptional cases require the engineer to move towards a fair valuation giving the contractor a reasonable profit on the work done. It is impossible to be more precise on this matter which is for the judgment of the engineer, but it is suggested that it is only in exceptional cases that the basis of valuation from the contract rates should be abandoned, particularly as the power to order variations can no longer be exercised for the convenience of the employer but only for the satisfactory completion and functioning of the original project for which the contractor tendered."

89. I do not think that Mr Abrahamson is really here departing from his earlier view that "what is reasonable is to be decided purely by reference to the nature of the original and varied work, not extraneous considerations". If he is then in my judgment that is not the correct meaning of "reasonable" in this clause. In my view he is here speaking of those cases where it is not feasible to use the contract rates or prices as a basis of valuation. The reason that he gives - namely limitations on the power to vary - is interesting.

35. The object of the principle that rates and prices are sufficient for the purposes of clause 52 is also to enable the parties to know where they stand. Both will have a budget for the project. The contractor will be assessing revenue against costs to see whether he would come out on the right side. The employer will have embarked upon the project on the basis that the cost of the work is justifiable in business terms. They need to know with reasonable certainty what the effect of a proposed variation may be. It is particularly important for an employer who may take a decision to make a change on the basis of a forecast of its likely cost which in turn is based on the assumption that the contract rates and prices (or contractually permissible deviations from the contract rates and prices) will be all that he has to pay. It would be quite unacceptable if that expectation proved to be vitiated because under clause 52(1)(b) the valuation that would otherwise have been made on the basis of the rates or prices could be upset and replaced by one more costly to the employer and favourable to the contractor in order to extricate the latter from the consequences of his own misjudgment or other slip. Similarly, a contractor who priced the contract intelligently on the basis that the change was likely to be made would be justifiably irate if the Engineer or an arbitrator could operate clause 52(1)(b) to cut back the valuation that would otherwise be made under Rule 2 because it would produce an untoward "*windfall*" gain for it would be one which the contractor had counted on making, ie it was not a "*windfall*" at all but part of the risks of contracting which produce thrills as well as spills.

36. I agree also with Mr Furst's next submission that the effect of the arbitrator's interpretation and GECA's case is that it effectively merges Rules 2 and 3 since if the intrinsic "*reasonableness*" of a rate or price is an additional criterion to be satisfied (beyond the work or the conditions being dissimilar) then that is tantamount to enabling a fair valuation to be made whenever the first two criteria are met. The words in clause 52(1)(b) *"the rates and prices shall be used"* are clear and mandatory. There will be little point in such a clear statement if they are only to be used if it was otherwise *"fair to do so"*. A fair valuation when used as an alternative to a valuation by or by reference to contract rates and prices generally means a valuation which will not give the contractor more than his actual costs reasonably and necessarily incurred plus similar allowances for overheads and profit for anything more would confer on him an additional margin for profit and would not be fair to the employer. Fairness is an objective test which takes into account the position of both parties. It is surely not right to use a fair valuation to compensate a contractor for a loss suffered elsewhere and unconnected with the work in question.

37. The arbitrator also decided that it would be reasonable under clause 52(1)(b) not to use the price as a basis of valuation because of difficulties in extracting a rate because, for example, it would be necessary to arrive at a notional breakdown of the price. First, I leave aside recourse to clause 52(4)(c) which in many circumstances enables the Engineer or arbitrator to obtain information which would be material to arriving at the supposed breakdown of the price. A contractor is generally under no obligation to provide any information as to how a tender or contract rate or price was arrived at. The make-up of a tender is often commercially sensitive. In addition it is not a worthwhile exercise since assumptions made at tender stage, for example about the selection or the availability of plant, may not materialise in practice. Nevertheless the contract rate or price may be justifiable in terms of the plant actually used. In this case however, GECA introduced an additional particular condition of contract C5(1):

90. "New rates and prices hereafter referred to as star rates, shall be determined in accordance with the principles, if any, contained in the Conditions of Contract. In order that the Engineer may satisfy himself that star rates are analogous with the rates and prices upon which the Contract Price is based, the Contractor shall provide such information as the Engineer may require regarding the build up of the rates and prices contained in the Bill of Quantities or other pricing document.

91. The Contractor shall within 28 days of the occurrence of a star rate, submit in duplicate to the Engineer's Representative a detailed build up of the star rate together with copies of any necessary supporting invoices or quotations.

92. Each star rate shall be allocated a number which shall be prefixed by the letters SR. This number shall be used in each application for payment and the final account.

93. The work covered by a star rate shall be fully described the first time that the star rate is included in an application for payment. Thereafter an abbreviated description in the monthly statements will suffice.

94. The agreement of all star rates will be dealt with by the Engineer and until such time as a star rate is fixed by the Engineer it shall be marked on account (On a/c) in applications for payment."

(A "star rate" is a term commonly used to refer to a new rate, such as one claimed or established under clause 52(1)(b).) This clause therefore would provide the Engineer or the arbitrator with the mechanism for establishing how a contract rate might be used as a basis for a new rate. The clause applies also to prices. Contractors not infrequently do not put a rate against every item in a Bill of Quantity but put a price against one or more (particularly when bracketing items together). If this form of offer is in principle acceptable to the employer and no breakdown is required before the contract is entered into it may still be necessary to arrive at a notional build

up of the price. The clause therefore facilitates the exercise which an Engineer may well have to undertake. The commentary in Keating on Building Contracts (at page 1052 when dealing with clause 52(2)) rightly says:

95. "The contract gives no further guidance for the method of rate fixing. It will normally be necessary to break down the quoted rates into the elements of plant, materials, labour and overheads, in order to make the appropriate adjustments."

96. Clause 66 of the ICE Conditions in expressly stipulating that the arbitrator is to have "full power to open up, review and revise any decision opinion .... certificate or valuation of the Engineer" obviously envisages that an arbitrator will be appointed who will be as capable as the Engineer of carrying out the same exercise. In paragraph 167 of his reasons (in the section dealing with the application of Rule 3) the arbitrator, having noted clause C5, said:

97. "...the Engineer was (and is) entitled to call for details of the make up of the rates and prices which Boot had used to bid the contract. However, the amount of information relevant to the bidding of the CWP that was in fact available to the parties for the purposes of this arbitration was minimal. Such other information as might have been available had been lost or destroyed."

38. In my judgment clause 52(1)(b) by itself may require the Engineer (or an arbitrator) to derive a rate from a price (just as a sub-rate or other element of a rate has to be derived from a rate) in order to value work on the basis of the contract price or rate. In this contract that task was to be facilitated by the application of Special Condition C5 so any potential objections to that interpretation on the grounds of difficulty in obtaining information could not be raised. They would in my judgment have been unfounded even if the Special Condition had not existed since valuation under clause 52(1) clearly requires the Engineer to fix new rates without necessarily having any build-up of the rates upon which the new rate is based. I have already concluded that the fact that the rate that might be derived is unusually low or high does not mean that it is not to be used - indeed it has to be used, even though there may be a lack of confidence that it is realistic. The arbitrator's other reservation (in paragraph 158 of his reasons) about the figure of £343,240 for further temporary works may lead to a modification of the rate but that is an element of the valuation.

39. For these reasons I consider that the arbitrator misconstrued clause 52(1(b) and took into account matters which were not in law relevant and which were "*extraneous*", to adopt Boot's adjective. I have dealt with Grounds 2 - 5 of GECA's counter-notice. Clause 56(2) does not in my judgment apply. It is concerned only with a change in "*actual quantities executed in respect of any item*", ie an item in the Bill of Quantities. The only item in the Bill of Quantities was the EO or other item for work in the Turbine Hall. The increase in the quantities of piling work occurred elsewhere. I do not consider that clause 56(2) applies to work which is to be treated as a variation under clause 55(2) for that clause states that such work is to be valued as if it were a variation so a separate code applies to it. Secondly, and in any event, valuation under clause 56(2) operates in the same way as valuation under clause 52(1)(b), ie Rule 2. The test in clause 56(2) is whether the "increase or decrease of itself shall so warrant". This is in my judgment a clear reference to the need to look to the trigger of the work itself to decide whether that change - and not an error built into the rate or price - makes it reasonable to consider whether the rate or price should be altered. The rate or price is unreasonable in itself because of the error not because of the change. The words "*of itself*" thus also clearly mean that any error in the rate or price is not to be corrected. In addition clause 56(2) says that the alteration of the rate or price has to be done "in consequence thereof". This is a further indication that the causal chain starts with the change itself and ends at a revision of the existing rate and not with a revision of the constituent but erroneous elements of the rate itself before or in addition to any revision occasioned by the change in the increase or decrease. What has to be established is whether the increase or decrease in itself rendered unreasonable any rate or price for, if so, an appropriate increase or decrease in that rate or price has then to be made. Thirdly, a fair valuation cannot be made under this clause. There can be only an alteration in the rate or price. Indeed it would be very odd if there could in effect be a fair valuation under clause 56(2) for that would mean that there could be a different valuation for an increase of decrease under clause 56(2) which was not the result of an error or omission qualifying under clause 55 for valuation under clause 52(1)(b). The ICE Conditions, 6th ed, are a rational set of contractual provisions. They have been put together to be read as a whole. Any differences in treatment are clearly signalled. One has to take the obvious example of the definition of "cost" in clause 1(5) which does not permit a contractor to recover profit which would otherwise be recoverable under, for example, a valuation made under clause 52(1).

40. I similarly reject the GECA's case that the arbitrator's decision to value under Rule 3 could have been justified under clause 52(2). The purpose of clause 52(2) is plain: it supplements the principle set out in clause 52(1). There is however a clear distinction between the two sub-clauses. The valuation of the varied work itself is dealt with in sub-clause (1). Work which is not in itself varied pursuant to an order of the Engineer under clause 52(1) is the subject of sub-clause (2) if it is affected by the nature or amount of the varied work. However, sub-clause (2) first requires an investigation into the relationship of the nature or amount of the variation to the nature or amount of the whole of the contract work for it does not automatically follow that because an item of the work is affected by a change then the rate or price for that item is itself to be altered and replaced by a fair valuation (which is of course permissible under this sub-clause by its concluding words). That is only to be done if as a result of investigation of the relationship it is thought that the rate or price may be rendered unreasonable or inapplicable. (Under clause 52(2) notice has to be given presumably so that records may be kept as provided by clause 52(4)(c).)

41. I do not consider that clause 52(2) could have been operated so as to justify the arbitrator's award. First, clause 52(2) states plainly that the opinion that must be formed is that "*any rate or price contained in the Contract for any item of work is by reason of such variation rendered unreasonable or inapplicable*". For the reasons that I have already given the price of £250,880 is rendered not unreasonable or inapplicable by any variation so clause 52(2) cannot therefore apply. It would be odd if it could be used.

42. Secondly, the arbitrator decided that there had been an error or omission from the Bill in relation to the area of the HRSG. Although by clause 55(2) the value of that work is to be ascertained in accordance with clause 52 the work itself is not otherwise a variation under the contract. Clause 52(1) is concerned only with variations *"ordered by the Engineer in accordance with clause 51"*. Sub clause (2) must therefore also be concerned with variations ordered by the Engineer in accordance with clause 51. The correction of errors in or omissions from the Bill is not a variation of the Works since all that has happened is that the Works required to be executed in accordance with the other contract documents, primarily the Drawings and Specification, have not been fully or properly set out in the Bill. It is significant that in contrast the contract specifically makes increases and decreases in the original billed quantities variations (where the quantities may be greater or less than those stated in the Bill of Quantities) since clause 51(4) states, in effect as a proviso, that no order in writing is required for them. Accordingly the arbitrator could not for this reason have made a fair valuation of the works in the area of the HRSG under clause 52(2).

43. Thirdly, clause 52(2) might have been applied in relation to the variation which required sheet piling in the area of the Cooling Towers but GECA's case does not, in my view, fall within clause 52(2). The work itself will be valued under clause 52(1). It would only be if, for example, the execution of the sheet piling work in the Cooling Towers area had the effect of rendering the price for the sheet piling work in the Turbine Hall unreasonable or inapplicable that clause 52(2) might be applied to the latter work, eg the effect of having to carry out sheet piling work for the CWP near the Cooling Towers meant that, for example, there was a diversion of resources away from the Turbine Hall so that the Turbine Hall work was carried out uneconomically so that the price for the Turbine Hall work might be thereby rendered unreasonable and inapplicable (assuming always that the balancing or relationship exercise so justified). The commentary in Keating says: "This is equivalent to a "fair valuation" under sub-clause (1) but applied to other work" [my emphasis]. This reason also would apply also the work for the HRSG if, contrary to my earlier reasons, it might in principle fall to be considered under clause 52(2).

44. Fourthly, CEGA's case seems to assume that, having established a rate or price under clause 52(1)(b), that self same rate or price could be varied or displaced under clause 52(2) and result in a fair valuation. However clause 52(2) only applies to "any rate or price contained in the contract". It therefore does not apply to rates or prices established under, for example, clause 52(1). Accordingly if the varied work is not eligible for a fair valuation under clause 52(1) the applicable rate or price arrived at under that sub-clause cannot be replaced by a fair valuation under clause 52(2).

45. Therefore the arbitrator erred in his decision that Rule 2 did not apply because it was reasonable not to use a price where the price has been reached by mistake or error and for the other reasons that he gave. The grounds relied on by GECA in its counter notice do not justify the award. It does not seem to be necessary to hear Boot's application for further reasons which concerns another part of the award. The orders will be:

98. 1. The answer to the question of law raised by the appeal is: No;

99. 2. The award of 14 September 1998 will be remitted to the arbitrator with the opinions of the court as set out in this judgment to enable him to make a valuation pursuant to clause 52(1)(b) of the Conditions of Contract of the additional and temporary sheet piling work in the areas of the HRSG and the Cooling Towers on the basis of the price of £250,880 for such work in the Turbine Hall.

Stephen Furst QC appeared for the plaintiff, Boot, instructed by Taylor Joynson Garrett.
Roger ter Haar QC appeared for the defendant, GECA, instructed by Lovell White Durrant.