Pre-Arbitration Dispute Resolution

- Harry L Arkin,
Attorney and Counselor at Law,
Denver, Colorado.

Amongst other methods of pre-arbitral dispute resolution, this article comments on the successful use of Dispute Review Boards in the United States and internationally.

Although of particular interest for international projects, the article also has domestic relevance; arguably, the Dispute Review Board concept has been under-utilised in Australia. Their success rate in resolving disputes (and thereby creating more harmonious contractual relationships) suggests Dispute Review Boards have a place in Australia, at least, for major engineering and building projects. There is no reason why Dispute Review Boards might not form part of a Partnering approach to contracting.

Mr Arkin will present a seminar on Dispute Review Boards in Sydney in October 1994 at a Forum convened by the New South Wales Chapter of The Institute of Arbitrators Australia. - JT

If arbitration is to be substituted for perceptibly more costly, more time consuming, less private, and less easily enforceable litigation, what relief is available when those involved in ongoing contracts believe they need immediate determinations without the delays involved in invoking ordinary arbitration. Pre-arbitration dispute resolution processes have been the solution advanced, in various forms, in the last few years. The question is properly asked, to what avail?

Urgency defines the need for a pre-arbitral process, in place, to resolve disputes as they arise in many construction, manufacturing, and other business situations. Mediation has not been, and is not, the solution apropos to these situations. Although mediation appears to be, increasingly, one frequent preliminary to arbitration, mediation involves a totally different process, is prospectively slower, and is often perceived as being less likely to result in a solution accepted by all, in the context of the needs which the new Pre-Arbitral Referee/Dispute Review/Resolution Advisor Boards/procedure are intended to be utilised. The same would be applied to that variation of mediation and, to some, indistinguishable process known and referred to as "conciliation".

As arbitration appears to increasingly take on the dilatory and costly characteristics of litigation, it is incumbent upon us to both vigorously oppose that tendency and to seek, encourage and utilise additional methods of dispute resolution, including pre-arbitration techniques. This is not the sole concern of lawyers, but also those in other professions, such as engineers, accountants, property surveyors, and government and corporate bureaucrats. All have an obligation to carry out the duty to serve those with whose interests they are entrusted, so the parties can "get on" with their business, contracts, and work. To that end, I suggest that pre-arbitral procedures such as those methods herein described have filled and will increasingly fill a significant role.

There is a growing perception in the international business, construction, and legal communities that at least two of the benefits of arbitration, (ie time and cost) vis-a-vis litigation, are being eroded to a point at which new solutions are necessary. Recognition of this situation and the need to assume a leadership role in finding necessary solutions, especially when an immediate resolution is required, was exemplified by the conference held in London in June 1989, sponsored by the Chartered Institute of Arbitrators, entitled "New Concepts in the Resolution of Disputes in International Construction Contracts".

The Conference devoted itself to discussing four critical aspects which defined the reason and the basis of both that conference and this paper, ie "What's Wrong Now", "A New Concept ... ", "Criteria and Consequences of Choice", and "The Way Forward". The difficulties with the principal alternative to litigation in the recent past, ie referring disputes immediately to arbitration, even as they arise, were discussed from the points of view of the contractor, the engineer, and the lawyer by speakers from Germany, Denmark and the United Kingdom respectively. The net result of such comments, to over-simplify, was that all perceived that some preliminary alternative to

direct referral to arbitration might be desirable, if not necessary in some instances, due to the difficulties presented as to timeliness and cost of arbitration - especially in the area of major international construction projects. Among the concerns were those relating to evidence being covered, destroyed or made unavailable for later inspection, testing, and/or verification, especially vis-a-vis an ongoing project, before the necessary prerequisites to an arbitration panel considering the same can be accomplished. For example, materials or workmanship claimed to be imperfect or not meeting specifications, might become concealed in the course of being incorporated into the final product.

A pre-arbitral procedure is provided for in the FIDIC Conditions of Contract[1] in which the Works Engineer is assigned a, purportedly independent, administrative, and certification role. The Engineer is, however, an employee of the Owner, who has designed the works to be constructed and supervises the construction itself. It would be difficult, if not impossible, for the Engineer, being an employee of the Owner, to be fully objective, even with the most honourable of intent. Nonetheless, under the FIDIC provisions (ie Clause 67 of the Contract), the decisions of the Engineer are binding until they are overturned by an arbitral award, if any. Even if the Engineer is an independent consulting firm of engineers or an independent consulting individual, the Engineer is nonetheless paid by the Owner. A party dissatisfied with the Engineer's decision may, under the FIDIC provisions, give notice of that party's intention to commence arbitration. By the time customary notice, appointments, meetings, and the opportunity to review evidence have occurred, the deficiency in the FIDIC pre-arbitral mechanism, ie the decision of the Engineer, has created problems which arbitration cannot subsequently adequately consider. No objective party has viewed and made an interim decision, much time has been taken going through a formality of asking the Engineer to prospectively criticise his "master", is not likely an arbitrator himself, and thus there is no effective pre-arbitral dispute resolution that is meaningful. The internationally well known Conseil Juridique, Sigvard Jarvin, has pointed this out in innumerable lectures and papers[2] and has discussed many of those pre-arbitral resolution methods which are also discussed in this paper.

Mr Kenneth Severn[3] was the Conference Chairman. He pointed out that the FIDIC, "Requires the parties to attempt an amicable settlement *before* the arbitration is commended ..." he suggested that a Dispute Resolution Agreement was an appropriate method to carry out such "amicable settlement". He went on to describe and chart this mechanism in significant detail.

The Dispute Resolution Agreement solution, presented at the 1989 London Conference, as propounded by Mr Severn, contemplates a separate agreement between the Employer (Owner) and Contractor, being separately negotiated after the issuance of a Letter of Intent and *before* signing the contract agreement. This approach thus involves the necessity of imposing further negotiations on and by the parties, with accompanying confrontations and disagreements, in order to arrive at the terms and conditions pursuant to which a Disputes Review Board or Disputes Advisor will carry out their responsibilities. This process of negotiating a separate Agreement being in addition to those negotiations which ordinarily arise in the course of modifying general conditions and arriving at variations of the particular contract terms as between the parties, with regard to the specifics of the works contract or other form of agreement. To such extent, this author suggests that such a bifurcated process is additionally costly, time consuming, and, potentially, unnecessarily adversarial. If, on the other hand, provisions for a Disputes Resolution Board or a Disputes Advisor were incorporated in the General Conditions of the Contract, whereby the parties merely need to nominate their member to the former or agree on the latter, the mechanism would thus already be in existence as part of the contract. In such instance a Dispute Resolution Agreement need not be the subject of conflicts that would potentially arise in the course of negotiating a separate and further agreement.

A similar, but single "Intervenor or Pre-arbitrator", designated as a Disputes Advisor, was proposed at the conference, and previously, by Mr Clifford J Evans, Past President of the Institution of Structural Engineers and a consulting engineer in the UK.

Mr Severn's proposal would provide the Disputes Review Board or Advisor as an alternative to the decision of the Engineer as presently provided for by Clause 67 of the FIDIC General Conditions as a preliminary to Arbitration. In a "major dispute", which any dispute becomes if the proposed resolution is not agreed to, the matter would be referred to conciliation or mediation. The critical point here, I suggest, is that time and almost immediate continuity of the work are sacrificed; in short the necessary and desired effects of interim binding relief provided by other mechanisms are not provided.

The difficulties of conciliation, mediation and minitrial are the time that they take and the lack of any, even temporarily, binding effectiveness to the orders originating therefrom, contrary to the binding, (though subject to be set aside or overruled, by a later arbitral panel), of the Dispute Review Board, Technical Expert and ICC Pre-Arbitral Referee procedures. In short, the latter and like methods permit the work to proceed, while the former methods do not.

Dr Igor Leto, a member of the Claims Review Board in the El Cajon Hydroelectric Project, (which was constructed between 1980 and 1986), was another speaker at the 1989 Chartered Institute Conference in London[4]. Dr Leto described a mechanism as a desirable pre-arbitral resolution procedure, being widely publicised by the American Society of Civil Engineers (ASCE) and herein after more fully described. The Dispute Review Board described by Dr Leto, is quite distinctive from that proposed by Mr Severn, and was an approach that had been first used in the construction of the second bore of the Eisenhower Tunnel under the Continental Divide in the State of Colorado, USA in 1975. The El Cajon project was the second use of the Review Board procedure and involved the construction of a concrete arch dam in Honduras. The final cost of the El Cajon project was $236

million, and the total cost of the Dispute Review Board utilised throughout that project was only $300,000. No matters considered by the Dispute Review Board in the El Cajon project went onto litigation or arbitration.

In the Eisenhower Tunnel project, (which cost $106 million), the previously unused Dispute Review Board concept resulted in part from the disputes and cost over runs involved in the construction of the first bore. The Board consisted of one member selected by the owner, in that case the Division of Highways of the State of Colorado, one by the Contractor, and the two thus designated selected a third member. The Dispute Review Board in the Eisenhower Tunnel project resolved appeals from decisions by the Engineer. The decision of the Review Board provision specified that the Board "shall govern unless the Chief Engineer shall determine that such decision is not in the best interests of the State and in such instance he may override the Board's decision". In such instance, the right to carry the matter to arbitration remained with the contractor.

A Dispute Review Board was then, and is now, conceived of as an entity which continues to exist throughout the life of the contract. It does not necessarily include a lawyer among its members, but such is not precluded, and I suggest that having one with arbitration and/or construction experience, perhaps as the third or non-party chosen member as chairman, presents a distinct advantage[5].

Mr A A Mathews, a Seattle, Washington based Consulting Engineer, who served as the Contractor's nominee to the Dispute Review Board on the Eisenhower Tunnel project, is one of the leading proponents of that type of Dispute Review Board procedure internationally. He was significantly involved in the original publication in 1988 of the Dispute Review Board procedure by a highly qualified American committee of engineering specialists (ASCE)[6] which outlines the uses through 1990. This booklet was completely revised then re-published in 1991 and is available from the ASCE[7]. Such actual use of that methodology has encompassed over 21 construction projects ranging from the second bore of the Eisenhower Tunnel to others including the El Cajon, factories, a performing arts centre and highway projects, the cost of which was over $1.1 billion according to the republished ASCE booklet. 64 disputes arose in the course of those 21 contracts, having been heard by Dispute Review Boards 63 were settled and only one was the subject of litigation and subsequently settled. Another 42 contracts were under construction as of 1991 in which the Dispute Review Board procedure had been provided for with 17 matters having been heard and 15 settled as of the end of 1990.

According to the ASCE publication[8], planned contracts which contemplate the ASCE promulgated form of Dispute Review Board being established either by the contract or bid documents, (incidentally, the bid documents are another place where such procedures can be made mandatory), totalled 45 as of the end of 1990, encompassing a value of $3.2 billion. These projects included the Ertan Project in Sichuan Province of the People's Republic of China. The Ertan Project has been in the planning stage for over 40 years; two major contracts will be let at a cost in excess of $1 billion, which will be incurred in the course of damming the Yalloo River, a tributary of the Yangtze River. World Bank loan approval was finally granted for the preliminary stages of this giant project just last year. The influence of advocates of the Dispute Review Board as a pre-arbitration procedure is demonstrated by the fact that Mr Mathews, referred to earlier, is a member of the Special Consulting Board directed by the World Bank to be retained to assist the People's Republic of China in the course of the latter's negotiating and administration of the contracts for the Ertan project.

The jurisdiction which has had the most experience (from the standpoint of number of instances where pre-arbitration dispute resolution has been utilised) is within the State of Washington in the Northwestern United States. An excellent article which appeared in "The Arbitration Journal"[9] was written by John D Coffee, then an area engineer for the Federal (US) Highway Administration. Mr Coffee points out that the use of the Dispute Review Board mechanism in the State of Washington had been successful in resolving *all* ongoing claims as of the time of his article. The article uses an actual case to illustrate the process. The model of Dispute Review Board used in the State of Washington, as Mr Coffee points out, "does not alter or eliminate any of the existing claim resolution procedures, including (even) litigation, though as hereinafter discussed, litigation has subsequently arisen in only one case".

The Washington Dispute Review Board procedure involves a three-person review panel of impartial persons with expertise in technical areas involved in the contract and the composition is selected as soon after the award of the contract "as possible". While one member of the board is selected by each of the owner and the contractor, and the third selected by the first two, both the owner and the contractor, in the Washington Model, must approve the other parties' member selection. This, in the opinion of the present author, presents merely another area for dispute and disagreement and is unneccssary as long as the member of the Dispute Review Board nominated by either the owner or the contractor is neither a member or employee nor partisan agent of the party appointing them.

In the State of Washington, as is otherwise contemplated by the Dispute Review Board procedure initiated in the United States, the Dispute Review Board meets on a regular basis throughout the life of the contract and on such other occasions as the needs and circumstances, including when disputes arise requiring such resolution. Mr Coffee's article tracks a specific delay claim submitted by a contractor resulting from owner-ordered shutdowns which claim was result by the Dispute Review Board. Subsequently, as Mr Coffee points out, the use of the Dispute Review Board mechanism has been made mandatory in all highway, bridge and tunnel contracts in the State of Washington.

In an article prepared for the 1992 Wiley *Construction Law Update* (by authors who are members of the Technical

Committee on Contracting Practices of the Underground Technology Research Council), it is reported that costs of using the Dispute Review Board Procedure over the life of contracts has ranged from 0.04 to 0.51 per cent of the total contract cost. The authors suggest that this expense, "has been more than offset by contractors' lowered bid prices which now do not need to include the contingencies to cover less effective and more expensive and less timely ADR or litigation proceedings".

The question of whether a Board's decision or recommendations should be admissible in subsequent adjudication proceedings is discussed from both points of view in the article and the points raised are worth noting. A decision on the admissibility of the Board's decision or recommendation should clearly be made in advance and included within the description of the Board procedure to avoid further dispute.

Technical Expertise is another pre-arbitral mechanism and has been specifically addressed by separate ICC Rules. These Rules permit an independent expert to resolve disputes relating to, eg, specifications. Ordinarily, however, an expert is not appointed until a disagreement arises, which I suggest is contrary to the best utilisation of this particular form. The 1976 ICC Rules for Technical Expertise[10] and the ICC Centre for Technical Expertise in Paris fulfill a method of utilising this particular pre-arbitral mechanism; however, again it appears to be also restricted to technical areas, and, if to be used, should be required under the Conditions of the Contract and an expert appointed in advance, or at least an appointing authority, eg the ICC or other appointive body designated to make such appointment immediately, rather than leaving the matter to discussion, if not argument, at the time one party perceives a need for such expertise.

Mr Humphrey Lloyd QC in a paper given last year in Paris[11] pointed out specifically how the use of Technical Expertise (including that contemplated under the separate ICC Rules of Technical Expertise) could provide another method of prompt resolution of disputes, or in anticipation of an arbitral resolution. In any event, it provides a mechanism for utilising a particularly qualified and independent expert in matters such as tests or specifications, quantities, timeliness, etc of workmanship of materials while the contract is being performed and before the allegedly defective work or product is carried out.

While orders of a Technical Expert or a Pre-Arbitral Referee, Dispute Review/Resolution Board or Advisor may be enforced in some instances by reliance on the local Court system, they are not binding on a tribunal which ultimately decides disputes under the contract, ie an arbitral panel or a Court.

Of course, a requirement of any successful pre-arbitral mechanism is, (in addition to time saved and at lower cost to the parties), the need that the awards be of "top quality". That criterion related as a further usual result of, and prerequisite to, successful arbitration. If that pre-requisite is fulfilled, such an award is even more likely to be upheld in a subsequent hearing of the matter before an arbitration panel or a court, as was pointed out by Hans Herrlin[12] of Sweden at the International Arbitration Congress in 1990 in Stockholm.

The issue of binding subcontractors to a pre-arbitration procedure, in conjunction with the previously discussed Dispute Review Board mechanism in the United States has been dealt with by the Courts in one case in the State of Washington. The matter involved a sub-contractor who was bound to the mechanism specified in the General Conditions to the prime contract and a specific provision in the sub-contract agreement. A "flow-down" provision was included in the prime contract, and in the subcontract provision a specific pre-arbitral provision read as follows:

> "Subcontractor shall be bound by all final decisions made by Architect and/or shall, in all cases, follow exclusively the procedure for determination of disputes as provided for herein and shall have no other procedure or claim against contractor, but the subcontractor retains the right to pursue damages caused by actions of the owner and the contractor shall submit and support reasonable claims against the owner within the procedures of the contract documents.
>
> This section applies only to claims arising from actions of the architect or owner."

In the subject case, it was a subcontractor, dissatisfied with the results of the Dispute Review Board's decision, who pushed the matter to litigation. In this case, the subcontractor has sued the prime contractor who, in turn, has joined the State of Washington (Owner) as a third party defendant. Mr John Tomlinson Jr of Seattle, one of the attorneys for the prime contractor, advises that the case is still pending in the trial court.

On the other hand, a United States Court of Appeals decision[13] dealt with the applicability of a purported "flow-through" clause in a subcontract, to compel arbitration pursuant to an arbitration clause. A Federal District Court decision was upheld in which the Court found that there was no incorporation by reference or the arbitration clause and refused to compel arbitration on the basis that there was no "express and specific agreement" by the subcontractor to "waive(d) its right to ordinary judicial process". The published decision of the Appellate Court does not contain the purported "flow through" clause so it cannot be compared; however, a witness in the District Court case, a retired engineer who had drafted the arbitration clause in the contract, testified that it was not intended to cause the "flow through" effect.

The European Space Agency (ESA) mandates a pre-arbitration procedure in an attempt to resolve disputes, which procedure is included in the General Conditions or ESA contracts[14]. As a result of which, in more than 20 years and some 10,000 contracts, the ESA has never had to resort to Clause 13 Of their General Conditions, which provide for arbitration in accordance with the ICC Rules. This experience of the ESA demonstrates the viability of a required pre-arbitration procedure. In the ESA scheme,

the Project Manager of the ESA acts as Chairman of a Change Review Board, (vis-a-vis any proposed modifications of a contract). Also the Board includes the particular contracts' officer of the Agency and the contractors' counterparts. If the members of the Board do not agree unanimously, then a required "Statement of Disagreement" is recorded and the matter is laid before a Change Appeal Board within six weeks. The Change Appeal Board consists of "high-level representatives of each party ... nominated by ... an exchange of letters" without a third or tie-breaking member. If they cannot reach agreement then the matter is referred to arbitration as referred to above. A key difference in the ESA's approach and that proposed by Mr Severn at the Chartered Institute "New Concepts" Conference, is the lack of necessity to negotiate a separate agreement.

Perhaps one of the newest but most widely publicised of the pre-arbitration procedures, is the Pre-arbitral Referee Procedure of the International Chamber of Commerce (ICC)[15]. This procedure had been the subject of over ten years work by a committee, which had included Mr Yves Derains, former Secretary General of the ICC Court of International Arbitration. An excellent article on the ICC Rules for Pre-arbitral Procedure was published by Jan Paulsson in the May 1990 edition of the *International Business Lawyer*[16]. That article includes, as an appendix, a copy of the Procedure itself in force as of I January 1990. Another excellent article compares the ICC Pre-Arbitral Referee Procedure to ICC Conciliation, its Rules of Technical Expertise and ICC Arbitration is to be found in a 1992 article by Benjamin Davis, in the Secretariat of the International Court of Arbitration of the ICC[17].

As set forth in the Procedure, its "Rules are designed to meet a specific need; that of having recourse at very short notice to a third party - the 'Referee' - who is empowered to order provisional measures needed as a matter of urgency". The ICC suggests that the Referee may be selected by the parties themselves or appointed by the International Court of Arbitration of the ICC.

Any orders reached by the Referee under the ICC procedure, "Remain in force unless and until the Referee or a competent jurisdiction has decided otherwise"[18]. Resort to the courts to enforce such order of the Referee which is provided for by the provisions of the Procedure at 6.6, that the parties waive their right to any opposition to a "request to a court or any other authority to implement the order, insofar as such waiver can validly be made". The order of the Referee must be reasoned and must be made within 30 days from the date from which the file was transmitted to him. What is significant is that the Referee's order "does not prejudge the substance of the case, nor ... bind any competent jurisdiction which may hear any question, issue or dispute in respect the order has been made... (It) shall remain in force unless and until the Referee or the competent jurisdiction has decided otherwise". While perhaps particularly designed for use in construction, such pre-arbitral provision and procedure permits immediate resolution of a problem which still preserves the right to proceed to have the matter ultimately determined by either arbitration or a national court.

While the ICC Pre-Arbitral Referee Procedure has been in force as from 1 January 1990, Mr Davis, whose article is cited above, recently advised that there have not yet been any cases brought to the attention of the Secretariat in which the ICC Procedure had been called upon to resolve disputes - at least none have reached the status of being the subject of arbitration referred to the Court or to the following step, ie arbitration.

The ICC Pre-Arbitral Referee Procedure, however, is a recognition by the ICC itself that in some instances, arbitration is either too expensive, too time consuming, but more specifically, too late to resolve a dispute which requires immediate, albeit potentially temporary, resolution. The goal being sought is to permit the parties to get on with their business - the latter being the purpose of all dispute resolution.

The Commercial Mediation & Arbitration Service, Ltd (CMA) of Hong Kong, with the assistance of Endispute Incorporated, a private corporation based in New York, have evolved a Dispute Resolution Advisor scheme which was incorporated in the 1991 General Conditions of the contract for the Queen Mary Hospital in Hong Kong[19]. This Dispute Resolution Advisor requisite drew upon the Dispute Review Board concepts utilised successfully in the United States, as herein before discussed. The primary difference being that under the ASCE Dispute Review Board approach, a separate contract to be negotiated to establish or create a Dispute Resolution Advisor. In the Queen Mary Hospital Contract, the Dispute Resolution Advisor mechanism was mandatory, as this author strongly recommends and urges with all contracts.

That pre-arbitral procedure which the author believes most calculated to be effective is one which would be included in the General Terms and Conditions of original contracts, whereby the only discretion left, in the event of a dispute, is the submission. In short, that procedure, adopted in the General or Required Conditions of the Contract, which establishes not only the mechanism, but provides for the procedure and appoints the Dispute Review Advisor or Board from the beginning, such as that provided in the Hong Kong CMA approach, is that which is preferable. Such approach avoids the time, cost and necessity of negotiating a separate agreement to provide for such a procedure. Arbitration or dispute resolution is not an end in itself, but a servant of the purpose of the contract. Thus, like the arbitration clause itself, the "best servant" must be mandatory, in place and immediately available; a goal fulfilled by a proper pre-arbitration dispute resolution procedure.

In conclusion, it is for those of us who are involved in arbitration to remember its initial purpose, ie the timely, cost effective, private, and enforceable resolution of disputes. It would appear from the statistical history of the ASCE form of Dispute Review Boards, that such procedures will accomplish the ends of our clients. It is then for us, the arbitrators, lawyers, engineers, and other professionals involved in arbitration to take the lead in helping assure these procedures are even more effective and useful

to those we serve. We will do so by providing and encouraging ever-improving mechanisms for their use. We must educate the users, and where such pre-arbitral methods are unsuccessful or unsatisfactory, continue to refine the alternative of arbitration; still a vastly more effective and desirable method of resolving disputes than litigation.

References

I. *The Conditions of Contracts,* Fourth Edition, published by the Federation Internationale des Ingenieurs-Conseils.

2 ICCA, Congress Series No 5, edited by Prof Albert Jan van den Berg, Kluwer, 1991, p353 et seq.

3 Past President of the Institution of Structural Engineers in the UK and Past Chairman of The Chartered Institute of Arbitrators.

4 Leto, "The Settlement of Disputes on Construction Contracts by Means of Claims Review Boards".

5 ICCA, Supra at p449, "Selecting Arbitrators for Construction Disputes", paper presented by Guillermo Aguilar Alvarez, then General Counsel, ICC Court of International Arbitration.

6 Committee on Contracting Practices of the Underground Technology Research Council, sponsored by the American Society of Civil Engineers (Construction Division) and the American Institute of Mining Engineers.

7 *Avoiding and Resolving Disputes During Construction - Successful Practices and Guidelines,* July 1991, American Society of Civil Engineers, 345 East 47th Street, New York, New York 10017-2398.

8 ICCA, supra.

9 American Arbitration Association, December 1988, Vol 43, No 4 at p58.

10 *1976 ICC Rules for Technical Expertise,* available from ICC Publishing SA, 38 Cours Albert 1, 75008 Paris.

11 "What is Pre-Arbitral Expertise and How Does it Differ from the Pre-Arbitral Referee Procedure?" Institute of International Business Law and Practice, Conference On "Arbitration and Expertise", Paris, 12 April 1991. Mr Lloyd is a Barrister in London, Editor-In-Chief of International Construction Law Review, and Senior Visiting Fellow at the Centre for Commercial Law Studies, Queen Mary & Westfield College, London.

12 ICCA, Congress Series No 5, edited by Prof Albert Jan van den Berg, Kluwer, 1991, p353 et seq.

13 *Case International Co v TL James & Co Inc 907* F2d 65 (8th Cir 1990).

14 Article 12 of the ESA Standard Contract provides for a Change Review Board and Change Appeals Board as a prerequisite to and an attempt to avoid the necessity of arbitration.

15 *ICC Pre-arbitral Referee Procedure* ICC Publication No 482, available from ICC Publishing SA, 38 Cours Albert 1, 75008 Paris.

16 *The International Business Lawyer,* published by the Section on Business Law of the International Bar Association, London, May 1990, Vol 45 No 3.

17 *The International Construction Law Review* Vol 9, Part 2, April 1992 (first presented at November 1991 London Seminar, "International Construction Contracts—Managing to Avert Cost Overruns".

18 Article 6.3, *ICC Pre-Arbitral Referee Procedure.*

19 See *World Arbitration and Mediation Report* published by BNA, September 1991, Vol 2, No 9, p227, and Vol 3, No 1, p5, 1992.

- Previously published in the International Business Lawyer.