

131. The Working Group briefly considered the possible structure of the legal guide⁴¹ and decided to examine this topic at its next session. In this connection it was suggested that the subject of scheduling also be considered for inclusion in the legal guide. Under one view the guide should not quote clauses from existing forms and models.

132. The Secretary of the Commission suggested that the next session of the Working Group might be of one week's duration and should be devoted to deciding on the structure of the guide and the approach to be adopted in its drafting. For this purpose, a few sample draft chapters and an outline of the structure of the guide would be submitted

⁴¹ A proposal for a possible structure was submitted by the German Democratic Republic: [A/CN.9/WG.V/III] CRP.3.

to the Working Group. Early decisions on structure and approach would prevent the waste of time and resources.

133. There was general agreement with this suggestion. It was observed, however, that the Governments of developing countries were unlikely to send delegates only to attend a session of one week's duration, and it was recognized that it was extremely important that developing countries should be adequately represented at the session. It was accordingly agreed that the Commission should be requested to decide that the next session of the Working Group should be held at Vienna in the week immediately preceding the commencement of the Commission's sixteenth session. It was recognized, however, that the decision of the Commission on the scheduling of the session of the Working Group might be affected by the Commission's decision as to the length of the sixteenth session.

B. Working paper submitted to the Working Group on the New International Economic Order at its third session (New York, 12-23 July 1982): Study II of the Secretary-General: clauses related to contracts for the supply and construction of large industrial works (A/CN.9/WG.V/WP.7 and Add. 1 to 6)

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Part One

[A/CN.9/WG.V/WP.7*]

INTRODUCTION

1. The present study (hereinafter referred to as "this study") is a supplement to the one submitted to the second session of the Working Group on clauses related to contracts for the supply and construction of large industrial works¹ (hereinafter referred to as "Study I"). The present study has been prepared in conformity with a request by the Working Group which was later endorsed by the Commission.²

2. The general observations contained in the Introduction to Study I³ equally apply to this study and the same approach has been used in preparing it. The discussion of the Working Group on the issues presented in Study I and this study will be taken into account in the drafting of a legal guide by the Secretariat.

3. This study is divided into three parts: introduction (Part One), analysis of topics covered (Part Two) and list

* 15 April 1982.

¹ A/CN.9/WG.V/WP.4 and Adds. 1-8 (Yearbook ... 1981, part two, IV, B, 1).

² A/CN.9/198, paras. 89-91; Report of the United Nations Commission on International Trade Law on the work of its fourteenth session, *Official Records of the General Assembly, Thirty-sixth Session, Supplement No. 17* (A/36/17), para. 84 (Yearbook ... 1981, part one, A).

³ A/CN.9/WG.V/WP.4, paras. 1-38 (Yearbook ... 1981, part two, IV, B, 1).

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of questions on these topics (Part Three). Part Two is contained in Addenda 1-5 and Part Three in Addendum 6 to this document.

4. The same general conditions and model works contracts (hereinafter referred to as "the forms under study") used for Study I are also used as the basis for this study. However, this study further takes into consideration the fact that some issues are also regulated by the following general conditions agreed upon by member countries of the Council for Mutual Economic Assistance (CMEA) and refers to them in analyzing such issues:

(a) General Conditions of Delivery of Goods between Organizations of the Member Countries of the Council for Mutual Economic Assistance, hereinafter referred to as GCD-CMEA;

(b) General Conditions of Assembly and Provision of other Technical Services in connection with Reciprocal Deliveries of Machinery and Equipment between Foreign Trade Organizations of Member Countries of the Council for Mutual Economic Assistance, hereinafter referred to as GCA-CMEA;

(c) General Conditions for Technical Servicing of Machinery, Equipment and other Items Delivered between Foreign Trade Organizations of Member Countries of the Council for Mutual Economic Assistance, hereinafter referred to as GCTS-CMEA.

5. It may be noted that since the completion of Study I the UNIDO International Group of Experts has completed the work on the Model Form of Turnkey Lump Sum Contract for the construction of a fertilizer plant (UNIDO/PC.25), hereinafter referred to as UNIDO-TKL, and the Model Form of Cost Reimbursable Contract for the construction of a fertilizer plant (UNIDO/PC.26), hereinafter referred to as UNIDO-CRC. As the UNIDO Model Form of Semi-Turnkey Contract for the construction of a fertilizer plant is still in a draft form (ID/WG.318/2) and its final form may be adapted in future to the provisions of UNIDO-TKL and UNIDO-CRC, reference to this draft is limited only to issues connected with its semi-turnkey character.

Part Two

[A/CN.9/WG.V/WP.7/Add.1*]

I. FEASIBILITY STUDIES

1. The term "feasibility studies" as commonly used refers to pre-project analyses designed to assist the purchaser in determining whether a contemplated project would be technically and economically viable.¹

2. Contracts for the supply and construction of large industrial works usually do not provide for feasibility studies in this sense. Normally, by the time a purchaser is ready to enter into such a contract these studies will already have been performed, either by the purchaser or by someone engaged to do it for him. In the latter event certain types of studies may be performed by an engineer or other consultant under a contract which is wholly separate from the works contract.

3. However, information obtained during feasibility studies will serve as a basis for the implementation of the supply and construction contract. Moreover, it is not uncommon for the purchaser to provide to the contractor certain data derived from these studies for use in the performance of his obligations. Such contracts often contain provisions allocating as between the parties responsibility for errors and inadequacies in this information, and establishing the extent to which the contractor must control or verify the information obtained or supplied by the purchaser. Some contracts require the contractor to obtain for himself whatever data and information he requires in order to perform the contract, even though this may duplicate some of the studies already performed by the purchaser.

4. The ECE Guide states, in paragraph (iv):

"If the initial studies which culminate in the planning of a project and in the survey and selection of the site are carried out by the *client himself* or by a *design bureau* or by a *consulting engineer*, the client assumes the

responsibility for this preliminary work *vis-à-vis* the supplier of the industrial plant and *vis-à-vis* the building or civil engineering contractor; the contract may also specify that the building or civil engineering contractor is obliged to check the project data concerning the site on his own responsibility."

5. Some contracts assume that, if the purchaser has obtained information during pre-contract feasibility studies, the purchaser must have provided such information to the contractor before the formation of the contract, and provide that the tender is deemed to be based on such information. They also provide that the contractor is deemed to have obtained all the necessary information which might influence his tender. For example, clause 11 of FIDIC-CEC provides:

"The Employer shall have made available to the Contractor with the Tender documents such data on hydrological and sub-surface conditions as shall have been obtained by or on behalf of the Employer from investigations undertaken relevant to the Works and the Tender shall be deemed to have been based on such data, but the Contractor shall be responsible for his own interpretation thereof.

"The Contractor shall also be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself, so far as is practicable, before submitting his Tender, as to the form and nature thereof, including the sub-surface conditions, the hydrological and climatic conditions, the extent and nature of work and materials necessary for the completion of the Works, the means of access to the Site and the accommodation he may require and, in general, shall be deemed to have obtained all necessary information, subject as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect his Tender."

6. Clause 10.1 of FIDIC-EMW is identical to the first paragraph of clause 11 of FIDIC-CEC (quoted in paragraph 5, above). Clause 10.2 of FIDIC-EMW provides:

"The Contractor by tendering shall be deemed to have satisfied himself as to all the conditions and circumstances affecting the Contract Sum, as to the possibility of executing the Works as shown and described in the Contract, as to the general circumstances at the site of the Works, if access thereto has been made available to him, and as to the general labour position at the Site, and to have determined his prices accordingly. The Contractor shall be responsible for any misunderstanding or incorrect information however obtained except information given in writing by the Employer or the Engineer."

7. The UNIDO model contracts call upon the purchaser to supply certain information to the contractor,

* 12 February 1982.

¹ See United Nations Industrial Development Organization (UNIDO), *Manual for the Preparation of Industrial Feasibility Studies* (ID/206) (1978).

much of which might well have been obtained during the purchaser's feasibility studies. In any event the contractor is obliged to obtain all the information necessary to execute the contract. Article 4.4 of UNIDO-CRC provides:

"The PURCHASER shall provide the CONTRACTOR with information pertaining to the suitability of the Site, the applicable laws, rules and regulations, or import restrictions in (PURCHASER's country) that are [sic] available to the PURCHASER. The CONTRACTOR shall review all such information, and obtain such other information as he may consider necessary to carry out his work under the Contract, particularly those bearing on transportation, disposal, handling and storage of Equipment and Materials, availability of water and power for construction purposes, approach roads, physical condition of Site, uncertainty of weather and ground conditions. It shall be the responsibility of the CONTRACTOR in any event to obtain all information required for him to carry out his obligations under the Contract."

8. UNIDO-TKL contains two alternative formulations of a clause dealing with these issues. One of these (article 4.4, Text B) is substantially the same as article 4.4 of UNIDO-CRC. The other one (article 4.4, Text A) is as follows:

"The CONTRACTOR acknowledges that he has fully satisfied himself as to the nature and location and suitability of the Site, the applicable laws, agreements and regulations, the general and local conditions applicable to the CONTRACTOR's works, particularly those bearing upon transportation, disposal, handling and storage of materials, availability of labour, water, electrical power, approach roads and uncertainties of weather or similar physical conditions at Site, the conformation and conditions of the ground and the sub-surface, the character of the Equipment and facilities needed preliminary to, and during the progress of the work and all other matters which can in any way affect the CONTRACTOR's work, Services, obligations, or the costs thereof to the CONTRACTOR under this Contract. The CONTRACTOR further acknowledges that subject to the provisions of Article 4.4.2. he has satisfied himself as to and assumes all risks relating to the quantity and quality of all surface and sub-surface materials, including ground water to be encountered. The CONTRACTOR has reviewed all exploratory work done by or for the PURCHASER and information presented by the drawings and technical specifications and other documentation. Any failure of the Contractor to acquaint himself with all the necessary data and information will not relieve him from his ultimate responsibilities under the Contract, and in any event shall not be cause for any claims for increases in the payments pursuant to the Contract."

9. Under article 5.2 of UNIDO-CRC, the purchaser is to supply data for the "design basis" for the works: much

of this data might well come from information obtained from his prior feasibility studies. The contractor is obligated "to examine the information and data for the design basis so specified, and shall expeditiously advise the PURCHASER on the adequacy and relevance of the information and data provided"

10. In addition, article 4.4.1 of UNIDO-CRC requires the contractor to review the design basis after the conclusion of the contract, and if the review shows "differences in the design basis", then "the PURCHASER and CONTRACTOR shall meet to discuss changes in the Contract specifications and the changes in the CONTRACTOR's obligations or price, if any. These changes will be embodied in a change order . . ."

11. UNIDO-TKL contains two alternative clauses dealing with the provision of and responsibility for the design basis. Article 3.2.2, text A, contrasts with the approach adopted by UNIDO-CRC. This provision is as follows:

"Unless otherwise agreed the CONTRACTOR shall be responsible for the design basis . . . and the CONTRACTOR also agrees and acknowledges that he shall accept final responsibility for the accuracy, suitability and adequacy of the information supplied by the PURCHASER, and shall ensure that the operational characteristics of the Plant are secure and guaranteeable."

Text B of this article states merely that the contractor shall "review the design basis".

12. Other contracts reviewed for this discussion provide additional examples of how contracts may deal with the issue of responsibility for data contained in the purchaser's feasibility studies. As an example, a turnkey contract for the supply of a steel rolling mill by a consortium of companies from a developed country to a developing country holds the contractor responsible for information supplied by him. But he is not responsible for discrepancies, errors and omissions in drawings or other information supplied by him if they arose out of incorrect information or particulars furnished by the purchaser, unless the contractor "could have known or discovered the said discrepancies, errors and omissions". The contract adds that the contractor "shall verify and satisfy himself of any data/information submitted by the [purchaser] of which he has any doubts about its correctness".

II. FORMATION OF CONTRACT

A. General remarks

13. The rules relating to the formation of works contracts are not different from the rules relating to the formation of other types of contracts. Most rules governing the formation of contracts have a mandatory character, and cannot be altered by agreement of the parties. Accordingly, many issues relating to the formation of a works contract

will be determined by the applicable law. A comparative study of the laws relating to the formation of the contract is beyond the scope of this study. It may be noted, however, that parties are free to stipulate certain requirements which must be complied with before the operative part of the contract becomes effective. For example, UNIDO-CRC provides as follows in article 8:

"8.1. The Contract shall become valid upon the formal execution (signing) by duly authorized officers of the Purchaser and Contractor in accordance with the applicable law. The Effective Date of the Contract shall be the date on which the Purchaser's definitive advice to proceed is received by the Contractor which shall occur when the last of the following requirements has been fulfilled:

"8.1.1. Approval of the Contract by the Government of () where the plant is to be located, such approval to be obtained by the Purchaser, if required.

"8.1.2. Approval of the Government of () where the Contractor resides and has his principal place of business, such approval to be obtained by the Contractor, if required.

"...

"8.2. In case the conditions of Article 8.1 hereabove are not fulfilled within () days following the date of signature of the Contract, the Contract execution time and the Contract Price shall be reconsidered and modified by mutual agreement to take into account variations of economic conditions in Contractor's or Purchaser's countries during the delayed period."

A footnote to article 8.2 states that this provision can be used in specific cases.

14. Certain characteristics of works contracts influence the manner in which they are formed. Such contracts are complex, and cover a long-term undertaking. Accordingly, it is necessary to settle more issues than in other types of contracts if the legal position of the parties is not to be uncertain. Furthermore, such contracts are often financed by national or international lending institutions, and these institutions often set terms which affect the formation of the contract. Sometimes approval by a specified governmental authority in the country of construction has to be obtained.

15. As in other areas of international trade, general conditions and model forms have been developing to simplify the formation of works contracts. Because of the unique character of each contract, however, these conditions and models have to be adapted and supplemented by negotiation between the parties.

B. Procedures leading to formation

16. There are currently two procedures used in connection with the formation of works contracts. One consists

of inviting tenders from enterprises interested in contracting with the purchaser, and the other of negotiating the contract with potential contractors or their agents without previously requiring competitive bids from them. The contracts examined assume that a contract has been formed through one or other of these procedures, and also assume that legal issues relating to formation, if they arise, (e.g. when the offer may be revoked, how acceptance must take place) will be regulated by the applicable law.

17. As regards tender procedure, the first stage is usually the invitation to tender. The purchaser may choose the system of open bidding under which the invitation is addressed to all contractors interested in supplying and constructing the required works, or he may prefer a closed bidding system under which the invitation is addressed only to a limited number of potential contractors whom he considers eligible.

18. The tender invitation will describe the works to be supplied and constructed. Tenderers are often requested to include specifically drafted conditions of contract defining the contractual obligations which the contractor is prepared to assume. The invitation will also contain information relating to such matters as the date of opening tenders, the documents to be completed by the tenderers, and special arrangements for visiting and inspecting the site.

19. Tender procedures can give rise to several difficult legal issues. Since such procedures are pre-contractual, contract clauses rarely deal with these issues. Some of the important issues which may arise are:

The circumstances, if any, in which the contractor can withdraw his tender;

The point of time at which a tender is accepted so as to form a valid contract;

The length of time a tender remains open.

20. Only two of the forms examined contained clauses specifically dealing with tenders. Clause 12 of FIDIC-CEC provides:

"The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his Tender for the Works and of the rates and prices stated in the priced Bill of Quantities and the Schedule of Rates and Prices, if any, which tender rates and prices shall, except insofar as it is otherwise provided in the Contract, cover all his obligations under the Contract and all matters and things necessary for the proper execution and the maintenance of the Works..."

The article requires that the scope of the offer to construct the works made in the tender should be in conformity with the tender invitation.

21. Clause 2.2 of ECE 188A/574A deals with the period of time within which a tender must be accepted, and provides as follows:

"If the Contractor, in drawing up his tender, has fixed a time-limit for acceptance, the Contract shall be deemed to have been entered into when the Purchaser has sent an acceptance in writing before the expiration of such time-limit, provided that there shall be no binding contract unless the acceptance reaches the Contractor not later than one week after the expiration of such time-limit."

22. It may be recalled that, since contracts for the supply and construction of large industrial works are frequently concluded on the basis of public tenders, it had been suggested that the drafting of procurement regulations might be a useful and promising approach for UNCITRAL, and that as the work progressed to a mature stage, such an undertaking may also become a relatively easy task (A/CN.9/WG.V/WP.4, Introduction, paragraph 45, footnote 20).^{*} The legal issues involved in tender procedure may appropriately be considered at a later stage.

III. VARIATIONS

A. General remarks

23. Due to the complex nature of works contracts, and the fact that the time during which they are to be executed is usually long, it may become necessary to make variations more frequently than in respect of other types of contracts.

24. It is understandable that as the works progress the parties, and the engineer, may find that the original drawings need to be varied or modified in order to conform to the quality standards imposed by the contract.² Modifications or variations can also be required because of an error or an omission in the drawings or because the parties decide by mutual agreement that modifications or variations are appropriate in order to achieve the purpose of the project.

25. The applicable law provides under what conditions the contract may be varied. Some of the legal rules on this subject are of a mandatory nature in order to maintain a proper balance in the legal positions of both parties to the contract. Within the limits imposed by the law, the parties are free to agree in the contract on the conditions and the procedure concerning variations. Some of the forms under study contain provisions on these issues. Under most legal systems, a contract may be varied by mutual agreement of the parties. A party can vary the contract unilaterally only in cases permitted by the law.

B. Variation by mutual agreement

26. UNIDO-TKL deals with the case where the contract is varied by mutual agreement following a proposal for variation made by the contractor. Article 15.4 provides:

^{*} Yearbook . . . 1981, part two, IV, B, 1.

² See A/CN.9/WG.V/WP.4/Add.2, VII, *Quality* (Yearbook . . . 1981, part two, IV, B, 1).

"The CONTRACTOR may at any time during his performance of the Contract submit to the PURCHASER for his approval written proposals for a modification of the work to be performed under the Contract. The CONTRACTOR, in connection with any proposal he makes pursuant to this Article . . ., shall furnish the reasons for his proposal and a breakdown in sufficient details to permit an analysis of all material, labour, equipment, sub-contracts and the estimated project time schedule, overruns and design changes, and shall include in such proposal or report all work involved in the modification, whether such work was to be deleted, added or changed. Any request for time extension shall be supported by such justification as may be required."

27. In this case, the variation is effected only if the purchaser approves the contractor's proposal. In certain circumstances, UNIDO-TKL obliges the purchaser to approve. Article 15.6 provides as follows:

"If the PURCHASER approves the CONTRACTOR's proposal, . . ., the CONTRACTOR shall make the variation so approved. The PURCHASER shall not refuse to approve any variation which is necessary to correct any defect in the Works which has occurred or which would otherwise occur if the CONTRACTOR's proposal is not accepted, . . . In all other cases, the PURCHASER may give or refuse his approval as he thinks fit and his decision shall be final."

28. An agreement on variation should cover all the related terms of the contract involved in the variation (e.g. scope of work, time schedule, price).

C. Variation required by the engineer

1. Extent of engineer's authority

29. Under clause 34.1 of FIDIC-EMW the contractor cannot alter any of the works except as directed in writing by the engineer. The engineer is entitled from time to time during the execution of the contract to direct the contractor to alter, amend, omit, add to or otherwise vary the works. The contractor is obliged to carry out such variations and is bound by the same conditions, as far as applicable, as though the variations were stated in the specification attached to the contract. However, if such variations would involve a net addition to or deduction from the contract sum (less provisional sums) of more than 15 per cent thereof, the written consent of the contractor and the purchaser is needed.³

30. Under clause 51(1) of FIDIC-CEC the engineer has even greater authority. He is entitled to make any variation of the form, quality or quantity of the works or any part thereof that may, in his opinion, be necessary, and

³ See A/CN.9/WG.V/WP.4/Add.2, *Quality*, para. 69 (Yearbook . . . 1981, part two, IV, B, 1).

may increase or decrease the quantity of any work included in the contract, omit any such work, change the character or quality or kind of such work, and change the levels, lines, position and dimension of any part of the works. He may also order the contractor to execute additional work of any kind necessary for the completion of the works. The value, if any, of such variations must be taken into account in ascertaining the amount of the contract price.⁴

2. Procedure for variation

31. The procedure for variation to be followed under FIDIC-EMW is described in clause 34.2 which provides as follows:

"If the Engineer shall make any variation in any part of the Works such reasonable notice in writing shall be given to the Contractor as will enable him to make his arrangements accordingly. In cases where Plant is already manufactured or in the course of manufacture, or any work done or Drawings or patterns made require to be altered, a reasonable sum in respect thereof shall be allowed by the Engineer. If, in the opinion of the Contractor, any variation is likely to prevent or prejudice the Contractor from or in fulfilling any of his obligations under the Contract, he shall notify the Engineer thereof in writing and the Engineer shall decide forthwith whether or not the same shall be carried out. If the Engineer confirms his instructions in writing the said obligations shall be modified to such an extent as may be justified. Until the Engineer so confirms his instructions they shall be deemed not to have been given."

32. The procedure to be followed under FIDIC-CEC is provided for in clause 51(2):

"No such variations shall be made by the Contractor without an order in writing of the Engineer. Provided that no order in writing shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an order given under this Clause, but is the result of the quantities exceeding or being less than those stated in the Bill of Quantities. Provided also that if for any reason the Engineer shall consider it desirable to give any such order verbally, the Contractor shall comply with such order and any confirmation in writing of such verbal order given by the Engineer, whether before or after the carrying out of the order, shall be deemed to be an order in writing within the meaning of this Clause. Provided further that if the Contractor shall within seven days confirm in writing to the Engineer and such confirmation shall not be contradicted in writing within fourteen days by the Engineer, it shall be deemed to be an order in writing by the Engineer."

3. Effects of variation

33. Where the contractor disagrees with a decision by the engineer to vary the contract, under clause 49.1 of FIDIC-EMW the contractor has the right to refer such a decision to arbitration. However, the contractor is obliged to proceed in accordance with the decision until it is reversed or varied in arbitration proceedings. Under clause 67 of FIDIC-CEC, the contractor loses his right to refer the engineer's decision to arbitration if he does not communicate to the engineer his claim to arbitration within a period of ninety days after receipt of notice of the engineer's decision. The legal position of the parties in this respect is analysed in Part Two, XXI, *Settlement of disputes*.

34. The variation of the scope of the works may have consequences on the price of the contract. FIDIC-EMW at clauses 34.3 and 34.5 makes a distinction between modified payments resulting from variations which exceed 15% and which do not exceed 15% of the contract sum. If the modified payment does not exceed 15%, the engineer is entitled to authorize payment.

35. When the written consent of the contractor and the purchaser is required for a variation (see paragraph 26, above) the amount of the modified payment shall be agreed upon between the engineer and the contractor. If they cannot come to such an agreement, the engineer is entitled to fix the amount unilaterally (clause 34.5).

36. In FIDIC-CEC, the question of the valuation of the variations is dealt with in clause 52(1), which provides:

"All extra or additional work done or work omitted by order of the Engineer shall be valued at the rates and prices set out in the Contract if, in the opinion of the Engineer, the same shall be applicable. If the Contract does not contain any rates or prices applicable to the extra or additional work, then suitable rates or prices shall be agreed upon between the Engineer and the Contractor. In the event of disagreement the Engineer shall fix such rates or prices as shall, in his opinion, be reasonable and proper."

37. In the event the variations exceed 10% of the contract sum, the revision of the contract sum is dealt with by clause 52.3 of FIDIC-CEC which provides:

"If on certified completion of the whole of the Works it shall be found that a reduction or increase greater than ten per cent of the sum named in the Letter of Acceptance, excluding all fixed sums, provisional sums and allowance for dayworks, if any, results from:

- (a) The aggregate effect of all Variation Orders, and
- (b) All adjustments upon measurement of the estimated quantities set out in the Bill of Quantities, excluding all provisional sums, dayworks and adjustment of price made under Clause 70(1) hereof

⁴ *Ibid.*, para. 70.

but not from any other cause, the amount of the Contract Price shall be adjusted by such sum as may be agreed between the Contractor and the Engineer or, failing agreement, fixed by the Engineer having regard to all material and relevant factors, including the Contractor's Site and general overhead costs of the Contract."

D. *Variation required by the purchaser*

38. In UNIDO-TKL, article 15.1 entitles the purchaser to vary the scope of the works in the following manner:

"The PURCHASER shall have full powers, subject to this Article and other provisions of the Contract from time to time during the execution of the Contract by notice in writing to direct the CONTRACTOR to alter, amend, omit, change, modify, add to or otherwise vary any of the work under the Contract and the CONTRACTOR shall carry out such work and be bound by the same conditions, so far as applicable, as though the said variations were stated in the Contract."

39. Under article 15.2, when in the opinion of the contractor the variation involves a change in the contract price, he must notify the purchaser. The amount of the difference is to be agreed between the contractor and the purchaser, and in the event of a failure to reach agreement is to be settled in accordance with the procedure for the settlement of disputes (article 37).

40. A different procedure is adopted in UNIDO-CRC. Whenever the purchaser makes a request to the contractor for change in design, or where services are required to be performed by the contractor which in his opinion are in addition to services agreed upon or which in the contractor's opinion require additional payment, the contractor is obliged to advise promptly the purchaser of the costs of such services (article 15.1). If the purchaser agrees that such services are in addition to the contractor's obligation under the contract, the purchaser is obliged to pay for them (article 15.2). In addition, UNIDO-CRC specifies certain cases in which the contractor is entitled to claim for additional costs (article 15.3).

41. The contractor must furnish a breakdown in sufficient detail to permit an analysis of factors (e.g. material, labour) involved in the variations (article 15.4) and must also furnish a cost and execution time estimate of the modifications (article 15.5). The purchaser is obliged to agree or to disagree within a certain period of time on the adjustment proposed by the contractor (article 15.5). If the purchaser agrees on the costs, execution time and modified performance guarantees, the contract is considered to be modified accordingly. If the parties do not agree on any of these items, the purchaser has the right to request the contractor to proceed to execute the work pending settlement of the dispute. Article 15.6 of UNIDO-CRC provides a procedure for the settlement of such disputes by indepen-

dent experts without prejudice of the right of either party to submit the dispute to arbitration.

42. Any variation of the contract terms are to be incorporated in a written change order which is to be signed by the purchaser (article 15.7). However, if in the opinion of the contractor such variations are likely to prevent or prejudice the contractor from fulfilling any of his obligations under the contract, he is obliged to notify the purchaser thereto in writing and the purchaser must decide forthwith whether or not the variations are to be carried out. If the purchaser re-confirms in writing his intention to carry out the variations, then the contractual obligations of the contractor are modified to such an extent as may be justified.

E. *Variation required by the contractor*

43. The contractor is not entitled unilaterally to vary contract is not varied unless the purchaser agrees to the variation. However, under certain circumstances, the purchaser is obliged to agree (see paragraphs 26 and 27, above).

IV. INTERPRETATION OF CONTRACTS

A. *General rules on interpretation*

44. Although a contract has been concluded, there may be uncertainty as to the scope of the agreement between the parties. Rules for resolving such uncertainty are found in the applicable law and may be found in usages or in the contract itself.

45. The Sales Convention* provides in article 8 as follows:

"(1) For the purposes of this Convention statements made by and other conduct of a party are to be interpreted according to his intent where the other party knew or could not have been unaware what that intent was.

"(2) If the preceding paragraph is not applicable, statements made by and other conduct of a party are to be interpreted according to the understanding that a reasonable person of the same kind as the other party would have had in the same circumstances.

"(3) In determining the intent of a party or the understanding a reasonable person would have had, due consideration is to be given to all relevant circumstances of the case including the negotiations, any practices which the parties have established between themselves, usages and any subsequent conduct of the parties."

46. This provision applies to any statement or other conduct which falls within the scope of the Sales Convention, including statements and conduct relevant to the con-

* Yearbook . . . 1980, part three, I, B.

clusion of a contract and its content. Under paragraph (3) of article 8 of the Sales Convention even statements made in the course of negotiations may be relevant to the interpretation of the contract.

47. GCD-CMEA has, however, a different approach, as it provides in article 4 as follows:

"From the moment the contract is concluded all previous correspondence and negotiations for the contract shall become null and void."

48. It might be argued from this stipulation that an exchange of views in correspondence in respect of the content of the contract effected before the conclusion of the contract may not be used for the interpretation of the contract.

49. A similar approach may be found in article 38.1 of UNIDO-TKL which states:

"This Contract supersedes all communications, negotiations, and agreements, either written or oral, relating to the Work and made prior to the date of this Contract."

50. UNIDO-TKL continues in article 38.2:

"The express covenants and agreements herein contained and made by the PURCHASER and the CONTRACTOR are and shall be the only covenants and agreements upon which any rights against the PURCHASER or the CONTRACTOR are to be founded."

Provisions with the same wording are contained in articles 38.1 and 38.2 of UNIDO-CRC and UNIDO-STC.

51. How the parties denominate the contract may be relevant to its interpretation. Certain types of contracts have been developed in the course of international trade. They are not defined by any particular rules but they may be characterized by certain features which they have in common.

52. For example, in determining the extent of responsibility in connection with the supply and construction of large industrial works it may be relevant that the parties denominate the contract as a "turnkey contract". In international trade practice this type of contract may be characterized by an obligation on the contractor to supply all equipment and construction works capable of operating in accordance with the contract terms. Thus, in article 2.1 of UNIDO-TKL the object of the turnkey contract is characterized as follows:

"The object of the Contract is to establish a modern, reliable, efficient and integrated Plant, suitable to the location, for the production of . . . The scope of the Contract covers a turnkey supply, which includes the grant of licence and know-how, to provide basic and detailed engineering to supply all the Plant and Equipment, to design and construct all Civil Works, to erect the Plant and Equipment, to commission and start-up the Plant and

to demonstrate the ability of the Plant to continuously produce . . ."

53. Accordingly, in the absence of a clear limitation of the contractor's responsibility, in a contract denominated as a turnkey contract the contractor is responsible for all documentation and for all persons employed for construction of the works and for co-ordination of activities. The contractor can avoid this responsibility only by proving that the failure to perform was due to a breach of obligation by the purchaser or to exonerating circumstances.⁵

54. In connection with the determination of the price to be paid a distinction may be drawn between "a lump-sum contract" and "cost-reimbursable contract". Normally a lump-sum contract provides that the price stipulated in the contract is to remain applicable under all circumstances regardless of the extent of the work and the costs connected therewith. In a cost-reimbursable contract the price is normally considered in substance to be determined on the basis of costs paid by the contractor. These principles, however, are often modified to a certain extent in both kinds of contracts. In the absence of such modifications, however, where a contract denominated as "lump-sum" or "cost-reimbursable" contains unclear provisions as to the price, such provisions will be interpreted as incorporating the price terms normal to such contracts.

B. Annexures and general conditions

55. The rights and duties of the parties may arise directly from contract provisions or from annexures attached to a contract or from general conditions referred to by a contract. Annexures attached to a contract as well as general conditions referred to in a contract would ordinarily be considered parts of the contract. Contract provisions, the provisions of annexures and general conditions are applied concurrently and are considered to be complementary to each other.

56. However, questions may arise as to the relevance and mutual relationship of contract provisions, annexures and general conditions, particularly in cases where there is a conflict between them.

57. If there is a conflict between contract provisions and the provisions of the annexures article 38.3 of UNIDO-TKL provides that the contract provisions prevail over the contents of annexures:

"The provisions of the Articles of this Contract and the contents of the Annexures shall be complementary to each other, but in the event of any conflict, the provisions of the Articles shall prevail."

The same rules are contained in article 38.3 of UNIDO-CRC and UNIDO-STC.

⁵ See ECE Guide, para. 25.

58. The prevalence of written contract provisions over general conditions in case of their conflict is provided for in clause 1 of ECE 188A/574A. A similar approach may be found to a certain extent in the CMEA General Conditions. The preamble to the General Conditions provides that, in those instances when the parties in making a contract come to the conclusion that because of the specific nature of the goods and/or special characteristics of their delivery a departure from particular provisions of the present General Conditions of Delivery is required, they may so agree in the contract.

C. *Relevance of headings for interpretation*

59. Some forms under study also contain rules on the relevance of the headings of contract provisions, chapters or parts for the interpretation of the contract. FIDIC-CEC in clause 1(3) states:

"The headings and marginal notes in these Conditions of Contract shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or of the contract."

The same provision is contained in clause 1.4 of FIDIC-EMW.

60. A rule that the headings are not to be used for the interpretation of contract provisions is contained in article 38.5 of UNIDO-TKL which states:

"Article headings appearing herein are included for convenience only and shall not be deemed to be a part of this Contract."

D. *Definitions in contracts*

61. The meaning to be given to some terms used in works contracts is very important for the interpretation of such contracts. These terms are defined in the contract itself for various reasons e.g. because these terms are not defined in the applicable law, or because a special meaning is assigned to the term distinct from the meaning in ordinary usage. It may be useful to note some of the important definitions given in the forms under study.

1. "Contract"

62. In article 1.3 of UNIDO-CRC and UNIDO-TKL the term "contract" is defined as follows:

"Contract" shall mean this Contract (together with the Annexures) entered into between the PURCHASER and the CONTRACTOR for the execution of the work howsoever made, together with all of the documents to which reference has been made in the Contract documents, including such amendments and/or changes properly made from time to time by mutual agreement between the parties) to the documents constituting this Contract."

63. The FIDIC Conditions introduce a definition of "contract" which is adapted to their nature and contents. FIDIC-EMW defines it in clause 1.1 as follows:

"(g) 'Contract' means the Conditions of Contract, Specification, Drawings, Schedules, Tender, the Letter of Acceptance and the Contract Agreement (if completed)."

64. A similar definition is contained in clause 1(1) of FIDIC-CEC:

"(f) 'Contract' means the Conditions of Contract, Specifications, Drawings, priced Bill of Quantities, Schedule of Rates and Prices, if any, Tender, Letter of Acceptance and the Contract Agreement, if completed."

65. The purpose of all these definitions is to determine what documents are to be taken into consideration in connection with the interpretation of the contractual rights and duties of the parties.

2. "Writing"⁶

66. Most general conditions require works contracts and some legal acts connected with their execution to be in writing. Most of them, however, do not contain a definition of the writing. Only FIDIC-EMW states in clause 1.1 (v):

"Writing" means any manuscript type-written or printed statement."

67. The Sales Convention* states in article 13:

"For the purposes of this Convention 'writing' includes telegram and telex."

3. "Contractor"

68. In most forms under study the party who is to supply and construct works is called the "contractor". GCD-CMEA and GCTS-CMEA use the term "seller" and GCA-CMEA the term "supplier".

69. In article 1.2 of UNIDO-TKL and UNIDO-CRC the term "contractor" is defined as follows:

"CONTRACTOR" shall mean the party named as such in this Contract or his successors or permitted assigns."

70. FIDIC-EMW and FIDIC-CEC define the term "contractor" in clause 1.1:

"b. 'Contractor' means the person or persons, firm or company, whose tender has been accepted by the Employer and includes the Contractor's personal representatives, successors and permitted assigns."

71. A significant result of the definitions is that they permit certain categories of persons other than the original contractor to take his place. Assignment must, however, be effected in accordance with the contract.

* Yearbook, . . . 1980, part three, I, B.

⁶ See Part Two, XX, *Notification*, B.

4. "Purchaser"

72. There is no uniformity in the denomination of the person for whom works are to be supplied and constructed. In most forms under study the term "purchaser" is used. The FIDIC Conditions, however, call this person the "employer". GCD-CMEA and GCTS-CMEA prefer the term "buyer" and GCA-CMEA the term "client".

73. UNIDO-TKL and UNIDO-CRC define the term "purchaser" in article 1.1 as follows:

"PURCHASER' shall mean the party named as such in this Contract or his successors or permitted assigns."

74. In FIDIC-EMW and FIDIC-CEC the definition of "employer" is contained in clause 1.1:

"a. 'Employer' means the party named in Part II who will employ the Contractor and the legal successors in title to the Employer, but not, except with the consent of the Contractor, any assignee of the Employer."

75. These definitions have the result mentioned in paragraph 71.

5. "Sub-contractor"⁷

76. Under clause 1.1 of FIDIC-EMW the term "sub-contractor" is defined as follows:

"c. 'Sub-Contractor' means any Nominated Sub-Contractor (as defined in Clause 39.1) or any person firm or company (other than the Contractor) named in the Contract for any part of the Works or any person to whom any part of the Contract has been sub-let with the consent in writing of the Engineer, and the Sub-Contractor's legal personal representatives, successors and permitted assigns."

77. Clause 39.1 of FIDIC-EMW referred to in clause 1.1. includes persons employed by the contractor for execution of any work or supplying any goods, materials or services and who have been nominated, selected or approved by the employer or the engineer.⁸

78. The term "sub-contractor" is defined in article 1.32 of UNIDO-CRC and in article 1.34 of UNIDO-TKL as follows:

"Sub-Contractor' shall mean any person or firm to whom any part of the CONTRACTOR's Services or the execution of any part of the Contract is sub-contracted by the CONTRACTOR."

6. "Engineer"

79. The legal position of a consulting engineer is different in the various forms under study.⁹ Under article 1.17 of UNIDO-TKL the term "engineer" is defined as follows:

"Engineer' shall mean the person(s) or firm(s) appointed from time to time and designated by the PURCHASER as its representative with specified authority to review all work on the PURCHASER's behalf and to give such instructions and/or grant such approvals as may be necessary for the purposes of this Contract."

80. In UNIDO-CRC the technical advisor has a similar legal position as the engineer in UNIDO-TKL. Article 1.17 of UNIDO-CRC states:

"Technical Advisor' shall mean the person(s) or firm(s) appointed from time to time by the PURCHASER as his representative with the specified authority to review all work on the PURCHASER's behalf and give such instructions and/or grant such approvals as may be necessary for the purposes of this Contract."

81. FIDIC-EMW contains definitions of the terms "engineer" and "engineer's representative" in clause 1.1 which provides:

"d. 'Engineer' means the person firm or company appointed by the Employer to act as Engineer for the purposes of the Contract and designated as such in Part II.

"e. 'Engineer's Representative' means any resident engineer or assistant of the Engineer appointed from time to time by the Employer or the Engineer to perform the duties set forth in Clause 2 hereof whose authority shall be notified in writing to the Contractor by the Engineer."

82. A similar definition is contained in clause 1(1) of FIDIC-CEC:

"(c) 'Engineer' means the Engineer designated as such in Part II, or other the Engineer appointed from time to time by the Employer and notified in writing to the Contractor to act as Engineer for the purposes of the Contract in place of the Engineer so designated.

"(d) 'Engineer's Representative' means any resident engineer or assistant of the Engineer, or any clerk of works appointed from time to time by the Employer or the Engineer to perform the duties set forth in . . . whose authority shall be notified in writing to the Contractor by the Engineer."

83. Some functions of the engineer under the FIDIC Conditions are performed to a certain extent by a "neutral independent person" or an "independent consultant" under the UNIDO model contracts. The manner of their appointment, however, is different as the appointment must be agreed upon by both parties. A definition of these terms is contained in article 1.23 of UNIDO-CRC and article 1.23 of UNIDO-TKL:

"Neutral Independent Person' or 'Independent Consultant' shall mean a third party selected by the CONTRACTOR and PURCHASER by mutual agreement to carry out functions in accordance with the Contract, . . ."

⁷ See Part Two, VI, *Sub-contracting*.

⁸ *Ibid.*, para. 18, for clause 39.1 of FIDIC-EMW.

⁹ See Part Two, VIII, *Engineer*.

7. "Works", "plant", and "equipment"

84. In connection with the interpretation of the provisions concerning the execution of the works contract, some forms under study contain definitions of the term "works", the term "plant", the term "equipment" and other terms connected with the scope of the contract.

85. In clause 3.2 containing the expression "construction or erection of the Works", ECE 188A/574A refer to a footnote in which definitions of the terms "plant" and "the works" are given. Under these definitions, the term "plant" means all machinery, apparatus, materials and articles to be supplied by the contractor under the contract and the term "the works" means all plant to be supplied and work to be done by the contractor under the contract.

86. Similar definitions of the terms "plant" and "works" are contained in clause 1.1 of FIDIC-EMW which states:

"e. 'Plant' means machinery, apparatus, materials, articles and things of all kinds to be provided under the Contract other than Contractor's equipment.

"f. 'Works' means all Plant to be provided and work to be done by the Contractor under the Contract."

87. Definition of the terms "works" and "plant" in FIDIC-CEC are adapted to the subject of these Conditions, i.e. civil engineering construction. Clause 1(1) contains the following definitions:

"(e) 'Works' shall include both Permanent Works and Temporary Works.

"...

"(h) 'Constructional Plant' means all appliances or things of whatsoever nature required in or about the execution or maintenance of the Works but does not include materials or other things intended to form or forming part of the Permanent Works.

"(i) 'Temporary Works' means all temporary works of every kind required in or about the execution or maintenance of the Works.

"(j) 'Permanent Works' means all the permanent works to be executed and maintained in accordance with the Contract."

88. Under UNIDO-TKL the term "works" is used as a broad notion which includes the term "plant". In article 1.38 the term "works" is defined as follows:

"'Work(s)' shall mean the whole of the Work(s) equipment, Plant (as defined in this Article) and matters and things to be done, furnished, performed, accomplished and provided by the CONTRACTOR (inclusive of his services under this Contract)."

89. Furthermore, article 1.28 of UNIDO-TKL, taking into consideration that this model contract is to be used only for construction of a fertilizer plant, defines "plant" as follows:

"'Plant' shall mean the Ammonia plant, the Urea plant, the Off-sites and the administrative, maintenance, laboratory and other facilities as defined in this Sub-article and in the Annexures, to be supplied by the CONTRACTOR under the terms of this Contract, to be constructed at the Site and in respect of which the CONTRACTOR's Services are provided.

"1.28.1 'Ammonia Plant' shall mean the facilities for the production of ammonia, as described in Annexure ...

"1.28.2 'Urea Plant' shall mean the facilities for the production of Urea as described in Annexure ..."

90. UNIDO-CRC does not use the term "works" in determining the object of the contract and defines only the term "plant" in article 1.27:

"'Plant' shall mean the Ammonia Plant, the Urea Plant and the Off-Sites, as defined in this Sub-Article and in the Annexures, to be constructed at the Site, and in respect of which the CONTRACTOR's Services are provided.

"1.27.1 'Ammonia Plant' shall mean the facilities for the production of ammonia, as described in Annexure ...

"1.27.2 'Urea Plant' shall mean the facilities for the production of urea as described in Annexure ...

"1.27.3 'Off-Sites' shall mean the facilities demarcated and indicated in the Annexures and the plot plan attached to Annexure ..."

91. In UNIDO-CRC there is a definition of the term "equipment". Article 1.18 states:

"'Equipment' shall mean all the equipment, machinery, instruments, commissioning equipment and spares, and all the other items required for incorporation in the Plant, or required to operate the Plant in order for the Plant to be built and operated in accordance with the Contract, and in respect of which the CONTRACTOR has provided procurement services."

92. Taking into account the obligation of the contractor to supply the equipment in a turnkey contract, article 1.18 of UNIDO-TKL provides:

"'Equipment' shall mean all the equipment, machinery, instruments, commissioning equipment and spares, and all the other items to be supplied by the CONTRACTOR for incorporation in the Plant, or

required to operate the Plant in order for the Plant to be built and operated in accordance with the Contract."

93. In connection with the work to be done by the contractor the UNIDO model contracts also contain definitions of the term "contractor's services" and the term "civil works". Under article 1.13 of UNIDO-TKL and UNIDO-CRC the term "contractor's services" is defined as follows:

"CONTRACTOR's Services' shall mean the services to be provided and the work to be done by the CONTRACTOR in the execution of the works, as set out in the Contract."

94. The term "civil works" is defined in article 1.8 of UNIDO-TKL and UNIDO-CRC as follows:

"Civil Works' shall mean all the buildings, roads, foundations and any other work requiring Civil Engineering."

8. "Contractor's equipment"

95. A distinction is drawn in the UNIDO model contracts and FIDIC-EMW between the term "equipment" and the term "contractor's equipment". The definition of "contractor's equipment" can be found in article 1.11 of UNIDO-CRC and UNIDO-TKL.¹⁰

96. A similar definition is contained in clause 1.1 of FIDIC-EMW which states:

"k. 'Contractor's Equipment' means all appliances or things of whatsoever nature required for the purpose of the Works but does not include plant, materials or other things intended to form or forming part of the Works."

9. "Site"

97. UNIDO-TKL and UNIDO-CRC define the term "site" as a land upon which the works are to be constructed and presuppose that a specification thereof is to be contained in an annexure to the contract.

98. FIDIC-EMW defines the term "site" in clause 1.1 as follows:

"q. 'Site' means the lands and other places on, under, in or through which the Works are to be executed or carried out, and any other lands and places provided by the Employer for the purposes of the Contract, with such other places as may be specifically designated in the Contract as forming part of the Site."

99. A similar definition is contained in clause 1(1) of FIDIC-CEC:

"(m) 'Site' means the land and other places on, under, in or through which the Permanent Works or

Temporary Works designed by the Engineer are to be executed and any other lands and places provided by the Employer for working space or any other purpose as may be specifically designated in the Contract as forming part of the Site."

E. Language

100. A works contract is sometimes concluded in several languages as its provisions and annexures are to be applied by personnel of more than one nationality. In this connection the parties may agree which language is to be authentic for the interpretation of the contract provisions.

101. Article 35.1 of UNIDO-TKL and UNIDO-CRC states:

"The governing language of the contract shall be (), and the definition in such language shall be final in the use and interpretation of the terms of the Contract."

102. Clause 4.1 of FIDIC-EMW states:

"The language or languages in which the Contract documents shall be drawn up shall be stated in Part II of these Conditions and if the said documents are written in more than one language the language according to which the Contract is to be construed and interpreted shall also be designated in Part II, being therein designated the 'Ruling Language'."

103. In particular annexures to the contract and the documentation attached thereto are used by personnel employed by each party and clarification may be needed as to the language to be used. UNIDO-TKL and UNIDO-CRC stipulate in article 35.2:

"All correspondence, information, literature, data, manuals etc. required under the Contract shall be in the () language."

104. The problem of languages also arises in connection with personnel used for co-ordinating the work and training the purchaser's personnel. Article 35.3 of UNIDO-TKL and UNIDO-CRC provides:

"All expatriates sent by the Contractor to the Site, and all personnel sent by the Purchaser for training shall be conversant in the () language."

[A/CN.9/WG.V/WP.7/Add.2*]

V. ASSIGNMENT OR TRANSFER OF CONTRACT

A. General remarks

1. Under most legal systems, a party to a contract may not, without the consent of the other party, validly assign the contract to a third party, substituting for himself the

¹⁰ See A/CN.9/WG.V/WP.4/Add.1, III, *Erection*, para. 75 (Yearbook ... 1981, part two, IV, B, 1).

* 12 February 1982.

third party as a party to the contract.¹ In addition, a party is usually not permitted to avoid specific obligations under the contract by unilaterally assigning them to a third party. On the other hand, many legal systems recognize the right of a party to assign his benefits under the contract. These general principles may be modified by the terms of the contract.

B. Assignment of contract

2. The UNIDO model contracts permit the parties to assign the contract under certain conditions. For an assignment by the contractor, the written consent of the purchaser is required (article 9.2 of both UNIDO-TKL and CRC). The purchaser may assign the contract without having to obtain the contractor's consent,

"provided that such assignment does not increase the CONTRACTOR's liabilities over what they would have been if such assignment or transfer had not been made, and provided that the obligations of the PURCHASER are binding upon the assignee, . . . with assured guarantees for payment(s) under the Contract." (Article 9.3 of both UNIDO-TKL and CRC).

3. In the event of an assignment of the contract either by the contractor or by the purchaser, the UNIDO model contracts expressly provide (in article 9.1. of both UNIDO-TKL and CRC) that:

"This Contract shall inure to the benefit of and be binding upon the parties hereto and each of their executors, administrators, curators, successors and assigns . . ."

4. The FIDIC Conditions also require the written consent of the purchaser for an assignment of the contract by the contractor, but stipulate that this consent "shall not be unreasonably withheld" (clause 3.1 of FIDIC-EMW and clause 3 of FIDIC-CEC). No provision is made for assignment by the purchaser.

C. Assignment of contractual benefits

5. The FIDIC Conditions require the purchaser's written consent ("which shall not be unreasonably withheld") for an assignment by the contractor of "the Contract or any part thereof or any benefit, or interest therein or thereunder" (clause 3 of FIDIC-CEC; clause 3.1 of FIDIC-EMW), with certain exceptions.

6. Under both FIDIC Conditions, the contractor may, without having to obtain the purchaser's consent, assign any monies due or to become due under the contract by a charge in favour of the contractor's bankers (clause 3 of FIDIC-CEC and clause 3.1 of FIDIC-EMW). It is normal for contractors to finance their execution of the works by way of bank loans given on the security of payments to

be received under the contract. The ability of the contractor to assign such payments is thus necessary in order to obtain such financing.

7. In addition, clause 3.1 of FIDIC-EMW permits the contractor to subrogate insurers to his rights under the contract, without having to obtain the consent of the purchaser. Such subrogation will ordinarily be required under the insurance policies covering the contractor and his work. This provision does not appear in FIDIC-CEC.

VI. SUB-CONTRACTING

A. General remarks

8. Generally, in the context of the supply and construction of large industrial works, a sub-contracting relationship exists when a party to the main contract engages a third party to perform certain of the former's obligations under the contract. Some of the forms under study include in their concept of sub-contracting the procurement of materials and equipment in connection with the contract.²

9. Although it is more common in industrial works projects for the contractor to perform his obligations vicariously through third parties, in some situations the purchaser may also do so (see paragraph 34, below). In this chapter, such vicarious performance by the purchaser will also be considered.

10. The liability of parties for the acts of sub-contractors, and persons employed by sub-contractors, is considered in IX, *Parties' Liabilities in Respect of Third Parties*.

B. Sub-contracting by contractor

1. Selection of sub-contractor

11. The selection of a sub-contractor is a matter of interest to both the contractor and to the purchaser. The contractor bears ultimate responsibility for the quality of the work to be performed under the contract, and is ordinarily liable to the purchaser for defective work of the sub-contractors. It is important to him that a sub-contractor be chosen who possesses the technical and financial capabilities to perform the work satisfactorily. The purchaser's interest in the capabilities of the sub-contractor are less concrete than that of the contractor. A major reason for a purchaser's employment of a main contractor, rather than himself letting out individual contracts to specialists, is to benefit from the contractor's expertise in investigating potential sub-contractors and soliciting and evaluating tenders from them and co-ordinating their work. The purchaser customarily relies to a large extent on the ability of

¹ Such an assignment may also be described as a transfer of the contract, though the forms under study do not use this term.

² See UNIDO-CRC, article 4.12, quoted in para. 35, below; for the definition of "sub-contractor" in the forms under study, see Part Two, IV, *Interpretation of Contract*, paras. 76-78.

the contractor to identify qualified sub-contractors. The purchaser's ability to hold the contractor responsible for faulty performance by the sub-contractor makes this reliance possible.

12. In the case of a cost-reimbursable contract, the interest of the purchaser in the selection of a sub-contractor arises more from his concern to secure a competitive price for the work to be performed by the sub-contractor. Often, when a main contractor submits a tender to the purchaser for the contractor, the sums contained in the tender price for work to be sub-contracted are only provisional. This is because a contractor will not usually have enough time during the tender period to investigate and evaluate tenders from potential sub-contractors. These provisional sums are subject to variation in accordance with the actual extent and cost of the work sub-contracted. The purchaser therefore has an interest in seeing that the sub-contractor ultimately selected is one who can perform the work at a competitive price.

13. In the forms under study, the interests of both parties in the selection of a sub-contractor are accommodated by having both parties participate in the selection process. The degree of each party's participation varies. In some contracts, the contractor is free to choose his own sub-contractors, being required merely to inform the purchaser of sub-contracting. In others, sub-contracts may be concluded by the contractor only with the approval of the purchaser or his engineer. Finally, some contracts allow the contractor to sub-contract only with sub-contractors designated by the purchaser or engineer. In such instances the contractor is normally able to object to such a designation, particularly if the sub-contractor will not or cannot assume the same obligations and give the same warranties to the contractor as the contractor must give to the purchaser.

14. It is emphasized that even though a purchaser may participate in selecting a sub-contractor, even to the extent of designating sub-contractors, the purchaser does not normally thereby assume liability for the performance or conduct of the sub-contractor. The sub-contracts are usually concluded by and in the name of the contractor, and no contractual obligations normally exist between the purchaser and the sub-contractor. The contractor remains liable for the work of the sub-contractor.

15. The FIDIC Conditions contain general provisions requiring the prior written consent of the engineer for most sub-contracting by the contractor, and confirming the liability of the contractor for the performance and conduct of the sub-contractor. Clause 3.2 of FIDIC-EMW and clause 4 of FIDIC-CEC contain the following language:

"The Contractor shall not sub-let the whole of the Works. Except where otherwise provided by the Contract, the Contractor shall not sub-let any part of the Works without the prior written consent, of the Engineer (which shall not be unreasonably withheld). Any

such consent, if given, shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any Sub-Contractor, his agents, servants or workmen as fully as if they were acts defaults or neglects of the Contractor, his agents, servants or workmen . . ."

16. Clause 3.2 of FIDIC-EMW states, however, that the restrictions on sub-contracting do not apply to "sub-contracts for materials, for minor details or for any part of the Works of which the makers are named in the Contract." FIDIC-CEC does not contain this exception. Rather, it excludes from the operation of its clause 4 "the provision of labour on a piece-work basis".

17. In addition to the general requirement of the engineer's consent, the FIDIC Conditions grant to the engineer specific powers in respect of work or supplies for which a "provisional sum" is designated in the contract. As explained in paragraph 12 above, certain sums comprising the contractor's tender price are only provisional, and are subject to modification depending upon the extent to which the work is actually performed, and the price actually charged by the sub-contractor ultimately selected.

18. The sub-contractors who supply the materials or services for which provisional sums are included in the contract price are termed by the FIDIC Conditions "nominated sub-contractors". Specifically, "nominated sub-contractors" are defined as follows: (FIDIC-EMW, clause 39.1; FIDIC-CEC, clause 59.1):

"All specialists, merchants, tradesmen and others executing any work or supplying any goods, materials or services for which Provisional Sums are included in the Contract, who may have been or be nominated or selected or approved by the Employer or the Engineer, and all persons to whom by virtue of the provisions of the Contract the Contractor is required to sub-let any work shall, in the execution of such work or the supply of such goods, materials or services, be deemed to be Sub-Contractors employed by the Contractor and are referred to in this Contract as Nominated Sub-Contractors."

19. The FIDIC Conditions also provide that the contractor is not obligated to employ any nominated sub-contractor against whom he raises a reasonable objection, and who declines to undertake, and to indemnify the contractor with respect to, the same obligations and liabilities arising from the sub-contracted work as the contractor owes to the purchaser, and to indemnify the contractor against the negligence or misuse of the contractor's equipment or constructional plant or works by the sub-contractor. Clause 39.2 of FIDIC-EMW provides:

"The Contractor shall not be required by the Employer or the Engineer or be deemed to be under any obligation to employ any Nominated Sub-Contractors whose

performance warranties are not acceptable to the Contractor or against whom the Contractor may raise reasonable objection, or who shall decline to enter into a sub-contract with the Contractor containing provisions:

“(a) that in respect of the work, goods, materials or services the subject of the Sub-Contract the Nominated Sub-Contractor will undertake towards the Contractor the like obligations and liabilities as are imposed on the Contractor towards the Employer by the terms of the Contract and will save harmless and indemnify the Contractor from and against the same and from all claims, proceeding, damages, costs, charges and expenses whatsoever arising out of or in connection therewith, or arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities. Provided that nothing in this paragraph shall entitle the Contractor to object to a Nominated Sub-Contractor who requires that the liabilities and indemnities to the Contractor shall be limited pro rata to the Sub-Contract price.³

“(b) that the Nominated Sub-Contractor will save harmless and indemnify the Contractor from and against any negligence by the Nominated Sub-Contractor, his servants or agents, and from and against any misuse by him or them of any Contractor's Equipment⁴ provided by the Contractor for the purposes of the Contract and from all claims as aforesaid.”

20. Clause 59 (2) of FIDIC-CEC contains comparable provisions, the major differences being noted in the footnotes to the above paragraph.

21. UNIDO-TKL differentiates between types of work which may not be sub-contracted without the written consent of the purchaser, and work which may be sub-contracted merely by advising the purchaser of such sub-contracts.

22. With respect to sub-contracting requiring the purchaser's written consent, article 9.4 provides:

“The CONTRACTOR shall not sub-contract the whole or any part of the Work and/or services relating to the design of the Plant, procurement of the Equipment, start-up, operation or any tests of the Plant and the Equipment (as defined in the Contract) with respect to the Works, without the written consent of the PURCHASER...”

23. As to some of the equipment to be procured from sub-contractors subject to the purchaser's consent under article 9.4 (paragraph 22 above), the contract itself identifies the sub-contractors from whom this equipment is to be procured. Article 12.1.7 provides:

³ The last sentence is omitted from FIDIC-CEC (clause 59 (2) (a)).

⁴ For the words “Contractor's Equipment” FIDIC-CEC substitutes “Constructional Plant or Temporary Works” (clause 59 (2)(b)).

“The PURCHASER and CONTRACTOR agree that certain items of Equipment shall be obtained by the CONTRACTOR from selected Vendors only. The list of these items and the selected sub-contractors from whom they shall be procured are provided in Annexures ... The Contractor shall procure these items from such sub-contractors only, unless otherwise agreed in writing between the CONTRACTOR and PURCHASER.”

As to these items, therefore, the specific vendors will have been selected by the agreement of the contractor and purchaser.

24. With respect to the procurement of equipment for which a specific vendor is not designated in the contract, articles 10.1.3 through 10.1.7 of UNIDO-TKL specify the bidding procedure to be followed. The contractor must prepare bid documents on the basis of the technical specifications prepared by him and submit them to the purchaser for his approval. They are then issued to prospective vendors who are listed in a “Vendor's list” which has been previously agreed to by the parties. The contractor must use his best endeavours to obtain a minimum of three competitive offers. The offers received from the vendors are evaluated by the contractor, who makes the final selection of the vendor.

25. UNIDO-TKL makes special provision for the procurement of spare parts by the contractor.⁵

26. Under UNIDO-TKL, the contractor need not obtain the consent of the purchaser in order to sub-contract for work other than that specified in article 9.4 (see paragraph 22, above). He must merely advise the purchaser of such sub-contracts. Article 9.5 provides:

“The CONTRACTOR may sub-contract any other work or services under the Contract, provided the PURCHASER is advised of all such sub-contracts. Where sub-contracts are to be awarded to firms or individuals in (PURCHASER's country), the PURCHASER shall have the right to pre-qualify all firms or persons bidding for such sub-contracts. If the CONTRACTOR so desires, the PURCHASER shall pre-qualify such firms or persons at the time of signing of the Contract.”

2. *Compatibility of sub-contract with main contract*

27. Very often a contractor will cover his liabilities to the purchaser in respect of the sub-contractor by requiring the sub-contractor to indemnify him against these liabilities. This is done by including such indemnity provisions in the contract between the contractor and the sub-contractor. The FIDIC Conditions contain clauses concerning such provisions. Clause 39.3 of FIDIC-EMW provides:

“If in connection with any Provisional Sum the services to be provided include any matter of design or speci-

⁵ See Part Two, XI, *Maintenance and Spare Parts*, paras. 42-49.

fication of any part of the Works or Plant to be incorporated therein, such requirement shall be expressly stated in the Contract and shall be included in any Nominated Sub-Contract. The Nominated Sub-Contract shall specify that the Nominated Sub-Contractor providing such services will save harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities, but not so as to impose upon the Sub-Contractor any greater liability to the Contractor than the Contractor has to the Employer under these Conditions."

FIDIC-CEC, clause 59(3), contains a comparable provision.

28. Such a provision in the main contract cannot itself create obligations for the sub-contractor, who is not a party to the main contract. Its purpose, however, is two-fold. First it is designed to incorporate within the main contract the specifications of the work to be performed by the sub-contractor and any warranties, guaranties and other obligations in respect of this work which the sub-contractor owes toward the contractor. This will ensure that for a failure by the sub-contractor in respect of a particular specification or obligation contained in the sub-contract, the purchaser will be able to claim against the contractor. In addition, the provision is designed to ensure that after incorporation of the specifications and the indemnity in the sub-contract if liabilities are enforced by the purchaser against the contractor in respect of work performed by a sub-contractor, the contractor will, in turn, be able to recover against the subcontractor. However, the sub-contractor is not to be subject to greater liabilities to the contractor than the contractor has to the purchaser.

3. *Payment for sub-contracted work*

29. As explained in paragraph 12 *above* the contract price under the FIDIC conditions includes "provisional sums" for work to be sub-contracted. These forms provide that the costs actually incurred by the contractor in respect of his sub-contracts shall be included in the price to be paid to him by the purchaser:

"For all work executed or goods, materials or services supplied by any Nominated Sub-Contractor or purchased by the Contractor . . . , there shall be included in the sums paid to the Contractor:

"(a) the actual price paid or due to be paid by the Contractor, on the direction of the Engineer, and in accordance with the Sub-Contract;

"(b) in respect of all other charges a sum being a percentage of the actual price paid or due to be paid calculated at the rates inserted by the Contractor in the Appendix to the Tender." (FIDIC-EMW, clause 39.4.)

FIDIC-CEC, clause 59(4), contains comparable provisions.

30. Under the FIDIC Conditions, as in most contracts, the purchaser does not normally pay the sub-contractor directly; he is paid by the contractor. There may be instances, however, in which the purchaser wishes to pay a sub-contractor directly, as when the contractor has failed to pay previous sums due to the sub-contractor and the smooth progress of the contract programme is threatened by a reluctance of the sub-contractor to continue to work. Unless the main contract expressly authorizes the purchaser to pay a sub-contractor directly and deduct the sums so paid from payments due to the contractor, a purchaser who does pay a sub-contractor directly places himself in peril, since he will remain liable to pay the same sum to the contractor.

31. The FIDIC Conditions deal with this situation by permitting the purchaser to pay a sub-contractor directly if the contractor without reasonable cause has failed to make payments previously due to the sub-contractor, and authorizing the purchaser to deduct such payments from amounts due to the contractor. Clause 39.5 of FIDIC-EMW provides:

"Before issuing any certificate, which includes any payment in respect of work done or goods, materials or services supplied by any Nominated Sub-Contractor, the Engineer shall be entitled to demand from the Contractor reasonable proof that all payments, less retentions, included in previous certificates in respect of the work or goods, materials or services of such Nominated Sub-Contractor have been paid or discharged by the Contractor, and unless the Contractor shall:

"(a) satisfy the Engineer in writing that he has reasonable cause for withholding or refusing to make payments and

"(b) produce to the Engineer reasonable proof that he has so informed such Nominated Sub-Contractor in writing;

"the Employer shall be entitled to pay such Nominated Sub-Contractor direct, upon the certificate of the Engineer, all payments, less retentions, provided for in the Sub-Contract, which the Contractor has failed to make to such Nominated Sub-Contractor and to deduct by way of set-off the amount so paid by the Employer from any sums due or which may become due from the Employer to the Contractor.

"Provided always that, where the Engineer has certified and the Employer has paid direct as aforesaid, the Engineer shall in issuing any further certificate in favour of the Contractor deduct from the amount thereof the amount so paid direct as aforesaid but shall not withhold or delay the issue of the certificate itself when due to be issued under the terms of the Contract."

Clause 59(5) of FIDIC-CEC contains comparable provisions.

C. *Sub-contracting by or on behalf of purchaser*

32. In many types of works projects, the purchaser

is responsible for the supply of certain materials or equipment or the performance of certain work. He does not always perform these obligations himself. In some cases, he directly engages third parties to perform certain of his contractual obligations; in others the contractor is obligated to procure supplies or services from third parties on behalf of the purchaser.⁶

33. The purchaser under UNIDO-CRC has substantial responsibilities in connection with the supply and construction of the works. This model contract contains provisions dealing with sub-contracting in respect of two of these responsibilities — erection of the plant, and supply of equipment and materials. The model contemplates that the purchaser will contract directly with third parties for services in connection with erection of the plant. Procurement of equipment and materials is to be done by the contractor on behalf of the purchaser.

1. *Direct sub-contracting by purchaser*

34. With respect to the purchaser's obligations regarding erection of the works, article 5.13 of UNIDO-CRC states that sub-contractors are to be appointed by the purchaser from a list of firms agreed to by the contractor and the purchaser:

"The Plant shall be erected by the PURCHASER or by such other party/parties appointed by the PURCHASER (from a list of pre-qualified parties mutually agreed between the CONTRACTOR and the PURCHASER), under the supervision of the CONTRACTOR's personnel."

2. *Procurement by contractor on behalf of purchaser⁷*

35. Unlike UNIDO-TKL, according to which the contractor is obliged to supply equipment and materials for the works, under UNIDO-CRC the contractor procures equipment and materials "on behalf of the PURCHASER" and "on the PURCHASER's account" (article 4.12). The full text of this article is as follows:

"The CONTRACTOR will procure all Equipment and Materials on behalf of the PURCHASER in accordance with the procurement provisions and procedures laid down in the Contract . . . Notwithstanding the fact that the purchase is ultimately to be made on the PURCHASER's account, the CONTRACTOR shall be obligated to ensure that all procurement is accomplished so as to enable the Plant to meet the [contract] objectives . . ., subject to the PURCHASER carrying out his obligations. The CONTRACTOR shall also assist the PURCHASER

in obtaining remedial action from Vendors (where such is necessary) and the CONTRACTOR's Services for any required procurement and/or inspection shall be discharged free of additional costs to the PURCHASER. However, this Article shall not be construed as imposing a liability on the CONTRACTOR for non-fulfilment of the obligations of Vendors, except where such non-fulfilment is due to incorrect or inappropriate instructions issued by the CONTRACTOR, or to a defect in the purchase orders issued to Vendors by the CONTRACTOR, or issued with his approval."

36. Article 10.2 of UNIDO-CRC specifies the procedure to be followed for the procurement of equipment and materials:

(a) The purchaser and contractor pre-qualify vendors (a minimum of three and a maximum of eight, unless the parties agree otherwise) in the following manner. The contractor submits to the purchaser a list of companies pre-qualified by him, indicating his reasons for rejecting any prospective vendors. The purchaser may add to or subtract from this list.

(b) The contractor prepares the bid documents on the basis of the technical specifications prepared by him. If the purchaser's representatives are available at the contractor's offices, they shall approve such specifications. The contractor then submits the bid documents to the purchaser or engineer for approval.

(c) Once the bid documents have been approved, the contractor sends them to the vendors listed in the list of vendors. The contractor must use his best endeavours to obtain a minimum of three competitive offers, except for "critical items".

(d) The contractor evaluates the offers received and makes appropriate recommendations to the purchaser. It is the purchaser who makes the final selection of a vendor.

37. Article 10 also deals with the selection by the purchaser of a vendor who is not acceptable to the contractor:

"The PURCHASER shall endeavour to preclude the selection of Vendors who are unacceptable to the CONTRACTOR. The CONTRACTOR shall, however, substantiate the reasons for such unacceptability (if any) so as to enable the PURCHASER to re-evaluate the choice of such Vendor(s). The CONTRACTOR agrees and acknowledges that guarantee provisions and other criteria established by this Contract shall not be prejudiced as a result of any difference arising between the PURCHASER and the CONTRACTOR as regards the final selection of the Vendor(s), however, that the CONTRACTOR has the right to request for modifications to the Performance Guarantee requirements of the Contract reasonably commensurate with the circumstances." (Article 10.2.5)

⁶ The liabilities of the parties in respect of the purchaser's sub-contractors are discussed in Part Two, IX, *Parties' Liabilities in Respect of Third Parties*.

⁷ Procurement of equipment and materials is considered to constitute sub-contracting by some of the forms under study (see para. 8 above).

"In case the PURCHASER intends to select a Vendor who is not acceptable to the CONTRACTOR, the CONTRACTOR shall indicate the specific changes in his guarantee or other obligations, if any, which would result from such selection. The PURCHASER shall thereafter still have the choice of purchasing the equipment from the selected Vendor subject to the reservations of, and modifications of the obligations of the CONTRACTOR." (Article 10.2.6)

38. Under UNIDO-TKL, most procurement is to be done by the contractor in his own name. However, spare parts are to be procured by the contractor on behalf of the purchaser. These provisions are discussed in Part Two, XI, *Maintenance and Spare Parts*, paragraphs 42-47.

D. Joint and several liability of contractors

39. Distinct from the legal relationship described in the foregoing paragraphs is the situation in which the purchaser concludes works contracts with two or more contractors. If separate contracts are concluded with each contractor it is clear that each contractor is obliged to perform only what he undertook in his contract. If the purchaser concludes only one contract with two or more contractors questions would arise as to whether the contractors are jointly liable to the purchaser for the performance of all of the contractors' obligations, or whether each contractor is liable only in respect of his own obligations. In both cases, this question would depend upon the terms of the contracts concerned and the applicable law.

40. If due to the nature of the work to be performed under a contract it can be effected only through the joint action of the contractors, or if joint liability of contractors is stipulated in the contract, the contractors are jointly liable under most legal systems and the purchaser may demand the entire performance to be effected by any of them.

41. On the other hand, if each contractor is obliged to perform a distinct and separate portion of construction of the works then he is not responsible for the performance of other contractors even if they are all parties to the same contract.

VII. CO-ORDINATION AND LIAISON AGENTS

A. General remarks

42. On account of the complexity and long duration of works contracts, and the fact that they resemble a "joint-venture", co-ordination of the performances of the two parties to the contract is essential. To ensure this co-ordination both parties retain the services of different persons (herein called liaison agents) to act for them during the execution of the contract. The nomenclature and the role of these persons may vary. Some have full legal powers to

represent the party in whose name they are acting. Others have limited powers and functions, and are employed to ensure communication and co-operation between the parties in the execution of the contract.

B. Co-ordination procedures

43. Article 6.1 of UNIDO-TKL describes the duty to co-ordinate as follows:

"The parties to this Contract hereby agree to undertake all reasonable co-operation to implement the Works as stipulated in the Contract. The parties to the Contract through their designated representatives will meet periodically to take stock of the progress of the Work, and suggest ways and means to improve the operations and to expedite the Work and resolve outstanding issues between the parties. Minutes of meetings shall be recorded and circulated for confirmation and necessary action."

Article 6.1 of UNIDO-CRC has a similar content.

44. Co-ordination procedure is dealt with in article 6.5 and 6.6 of UNIDO-TKL which provides that:

"6.5 Within 30 days from the Effective Date of the Contract a meeting shall be held in (*PURCHASER's country*) between the CONTRACTOR and the PURCHASER and/or the Engineer to discuss all matters of common interest, including but not restricted to the finalization of co-ordination procedure . . .

"6.6 The co-ordination procedure (which shall be prepared in accordance with accepted international practice) shall become part of the Contract by reference, following agreement and respective approval by the CONTRACTOR and the PURCHASER."

Article 6.5 of UNIDO-CRC has a similar content to article 6.5 of UNIDO-TKL quoted above.

45. Article 6.7 of UNIDO-TKL provides that the co-ordination procedure shall cover many matters incidental to execution of the contract (e.g. giving instructions; decisions and approvals; submission of documents; drawings and documents distribution; invoicing of payments).

C. Duties and powers of liaison agents

46. The general duty of a liaison agent is to be present on site during working hours, to establish contact with his counterpart appointed by the other party and in general to check performance of the contract and to ensure smooth progress. The exact scope of his authority to act for the party he represents will vary with the role assigned to him. Thus clause 13 of ECE 188A/574A only gives the liaison agent the function of communication:

"13.1 The Contractor and the Purchaser shall each designate in writing a competent representative to be his channel of communication with the other party on the day-to-day execution of the works on the site.

"13.2 Each such representative shall be present on or near the site during working hours."

47. In contrast, article 13.2 of UNIDO-TKL gives extensive powers to the contractor's representative:

"13.2 The CONTRACTOR (as represented by a duly authorized person on its behalf) shall be constantly on Site during working hours, until Provisional Acceptance of the Works has been issued and such person shall devote its (*sic*) entire time to the superintendence of this work. Such authorized person shall have appropriate authority to act for and bind the CONTRACTOR . . ."

48. Article 13.4 provides for representatives of the purchaser to be vested with similar powers.

49. Various provisions in the forms under study envisage the appointment of agents with limited powers for specific purposes:

(a) Representatives appointed by the employer for inspection of equipment and materials (UNIDO-TKL, article 14.11);

(b) Representatives of either the purchaser or the contractor authorized to sign a change order (UNIDO-TKL, article 15.12);

(c) Representatives of the purchaser appointed to review the civil works, and to assure themselves that the work is being conducted with suitable materials and in the approved manner (UNIDO-TKL, article 25.4);

(d) Engineers to represent the purchaser to examine and approve procurement procedures, and to be present during the detailed design of the plant, and the procurement of equipment and materials (UNIDO-CRC, article 6.10 and 6.13);

(e) Project managers appointed by each party to co-ordinate and monitor the work (UNIDO-TKL, article 6.2).

VIII. ENGINEER

A. General remarks

50. The complex character of a works contract and its execution makes the services of technical experts essential. Such services will be needed at the various stages of the project e.g. the design stage, the negotiating stage or the execution stage. The services needed may be of various kinds e.g. drawing up of project programmes, evaluation of tenders, supervision of erection and co-ordination of activities. The forms under study provide for the supply of these services by a consulting engineer.

51. Most forms under study provide that the engineer is to be employed by and is to represent the purchaser. Where, however, the contractor is under a duty to co-ordinate the supply of equipment and services, the services of

an engineer may be used by the contractor as well. Furthermore, under the FIDIC Conditions, the engineer is given, to some extent, the role of a person independent of the contracting parties and with authority to decide on certain questions which may involve a conflict of interests between the parties, and affect their rights and obligations.

B. Engineer as purchaser's representative⁸

52. Under UNIDO-TKL, the engineer is a representative of the purchaser. Thus article 1.17 defines "engineer" as a person or firm appointed and designated by the purchaser as his representative. The "technical advisor" envisaged in UNIDO-CRC has a similar role to the engineer under UNIDO-TKL. Article 1.17 of UNIDO-CRC provides that he is authorized to review all work on the purchaser's behalf and give instructions and grant approvals which may be necessary for the purposes of the contract.⁹

53. The FIDIC Conditions also contain a number of provisions under which the engineer acts as the purchaser's representative. Thus clause 2.1 of FIDIC-EMW states:

"The Engineer shall carry out such duties in issuing decisions, certificates and orders as are specified in the Contract. If the Engineer is required under the terms of his appointment by the Employer to obtain the specific approval of the Employer for the execution of any part of his duties under the Contract, this shall be set out in Part II of these Conditions."

54. Under FIDIC-EMW the engineer may to a limited extent delegate his functions to a representative (clause 2.2 and 2.3).

C. Engineer's functions as representative of purchaser

55. Several articles in UNIDO-TKL determine the engineer's functions and scope of authority. Thus he is entitled:

(a) To give technical approvals or instructions on behalf of the purchaser (article 6.3);

(b) To authorize third parties to check the work of the contractor under certain conditions (article 13.14);

(c) To have access to the works and to be provided with full information concerning the progress and execution of the work (article 13.6).

56. Some of the functions conferred on the engineer by FIDIC-EMW are the following:

(a) Documents and programme

Approval of drawings (clause 5.1)

Inspection of drawings (clause 5.3)

⁸ For the definition of "engineer" in the forms under study, see Part Two, IV, *Interpretation of Contracts*, paras. 79, 81-82.

⁹ See Part Two, IV, *Interpretation of Contracts*, para. 79.

Setting out of the works in relation to original points, lines and levels of reference (clause 7.2)

Approval of programme (clause 12.1)

Revision of programme (clause 12.3)

Verification of insurance policies covering loss or damage to the works (clause 17.1)

(b) *Execution of the works*

Power to object to the contractor employing any persons for the execution of the works who, in the opinion of the engineer, is negligent or incompetent (clause 13.2)¹⁰

Instructions and orders as to proceeding with the works (clause 11)

Authorization of deliveries of the plant and equipment to the site (clause 26.1)

Order to suspend and to resume works (clause 27.1 and 27.3)

Grant of an extension of time to complete (clause 30)

Consent to the removal of contractor's equipment (clause 36.1).

(c) *Inspection and tests*

Inspection and testing of material and workmanship (clause 25.1)¹¹

Attendance at tests on completion (clause 29)

Inspection of repairs (clause 15.1 (a))

(d) *Failure of performance by contractor*

Notify contractor of existence of defects or damage appearing during the defects liability period (clause 33.3)

Consent to the removal from the site of a defective or damaged portion of the works or plant (clause 33.6)

57. FIDIC-CEC contains provisions conferring on the engineer similar functions.

D. *Engineer's decisions as independent person*

58. The FIDIC Conditions empower the engineer to make decisions on certain issues affecting the parties as an independent person (see paragraph 51, above).

(a) *Variation and change in scope of work*

59. The engineer may authorize a variation of the works where such variation does not involve an addition to or deduction from the contract sum of more than 15% (clause 34.1).¹²

(b) *Authorization of payment*

60. Under clause 34.4, the engineer is entitled to authorize payment to the contractor for additional work. Under clause 34.5 he is entitled to fix the sum owed to or by the contractor where the variation made requires an additional payment, or a deduction in payment, of more than 15% of the contract sum.¹³ Under clause 38.1 and 38.2 he is entitled to decide how the provisional sum (a sum designated for the execution of work or the supply of goods, materials or services at the discretion of the engineer) is to be used. He also issues interim and final certificates of payment (clause 37.1, 37.3, 37.8 and 37.9).

61. The engineer is further entitled to determine the amount to be paid to the contractor for making good damage to the works caused by special risks (clause 47.2). If the cost of performance to the contractor is increased or decreased by a change in laws or regulations in the country of the manufacture of the plant or the country where the site is located, such increase or reduction may be added to or deducted from the contract sum on certification by the engineer (clause 52.2).

(c) *Certification of performance*

62. The engineer bears the responsibility of evaluating the performance of the contract, and issuing or withholding certain certificates relating thereto. Thus he may certify the existence of adverse physical conditions and artificial obstructions encountered by the contractor (clause 24), or that the contractor is defaulting in performance (clause 44.1).

63. FIDIC-CEC contains similar provisions empowering the engineer to make decisions on certain issues as an independent person.

64. The role of the engineer in adjudicating on actual disputes between the parties is considered in Part Two, XXI, *Settlement of Disputes*.

E. *Engineer's obligations when making decisions*

65. Under the FIDIC Conditions, whenever the engineer is required to exercise a discretion he is required to observe certain standards in reaching his decision. Thus clause 2.4 of FIDIC-EMW provides:

"Whenever by these Conditions the Engineer is required to exercise his discretion, by the giving of a decision, opinion, consent or to express satisfaction or approval, or to determine value or otherwise take action which may affect the rights and obligations of either the Employer or the Contractor the Engineer shall exercise such discretion fairly within the terms of the Contract and having regard to all the circumstances. If either party disagrees with the action taken by the Engineer he shall

¹⁰ See A/CN.9/WG.V/WP.4/Add.1, III, *Erection*, para. 92 (Year-book ... 1981, part two, IV, B, 1).

¹¹ *Ibid.*, VIII, *Inspection and Tests*, para. 10.

¹² See Part Two, III, *Variation*, paras. 29-30.

¹³ *Ibid.*, para. 35.

be at liberty to refer the matter to Arbitration in accordance with these Conditions."

66. The FIDIC Conditions do not deal with the consequences of a failure by the engineer to perform his duties, either as the representative of the purchaser, or when acting as an independent person.

IX. PARTIES' LIABILITIES IN RESPECT OF THIRD PARTIES

A. General remarks

67. It is common in contracts for the supply and construction of large industrial works for the parties to perform many of their contractual obligations through the use of third parties. Due to the complexity and specialized nature of large industrial works projects, the parties often engage sub-contractors to perform much of the work.¹⁴ Moreover, materials, equipment and supplies required in the performance of the contract are usually procured from third-party vendors.

B. Contractor's liabilities to purchaser in respect of performance by third parties

68. Work performed by all third parties engaged by a contractor, whether categorized as employees, sub-contractors, or vendors, is usually deemed to be performed by the contractor himself, and the contractor is fully liable to the purchaser in respect of this work.

69. Conceptually, sub-contracting by the contractor constitutes the vicarious performance of the contractor's obligations under the contract. As a general proposition, therefore, the contractor is liable to the purchaser for work performed by the sub-contractor, as he would have been had he performed this work himself.

70. The UNIDO model contracts confirm this general principle:

"The CONTRACTOR shall ensure that every sub-contracting by the CONTRACTOR shall comply with all terms and conditions of this Contract." (UNIDO-TKL, article 9.6, UNIDO-CRC, article 9.5.)

71. The liabilities imposed by the contract upon the contractor towards the purchaser for quality and guarantees as to equipment and materials apply irrespective of whether the equipment and materials are supplied by the contractor himself or by vendors engaged on his behalf.¹⁵

C. Contractor's indemnities to purchaser for damage to other persons and their property

72. In addition to holding the contractor liable for the performance of his employees and sub-contractors, some of the forms under study require the contractor to indemnify the purchaser against liability for damage caused in connection with the execution of the contract by them to others for which the purchaser must pay compensation.

73. In some forms this indemnity is limited to damage caused by negligence. Article 22.1 of UNIDO-CRC provides:

"The CONTRACTOR shall indemnify and hold harmless the PURCHASER and anyone employed by him from and against all claims, demands, losses, costs, damages, actions, suits, expenses (including legal fees) or proceedings by whomsoever made for personal injuries, death or third party property damage, brought or prosecuted in any manner based upon, arising out of, related to, or occasioned by the negligent act or omission of the CONTRACTOR or his Sub-Contractors and their employees in connection with this Contract."

74. FIDIC-EMW also imposes on the contractor liabilities for personal injury or property damage caused in connection with the execution of the contract by the negligence of his sub-contractors. The relevant clauses are as follows:

"The Contractor shall . . . indemnify the Employer in respect of death or injury to any person and of all damages to any property (other than property forming part of the Works not yet taken over) occurring before all the Works shall have been taken over and against all actions, suits, claims, demands, costs, charges and expenses arising in connection therewith that shall be occasioned by the negligence of the Contractor or any Sub-Contractor or by defective design . . . materials or workmanship but not otherwise. Provided that the Contractor shall not be liable by virtue of this Sub-Clause in respect of damage or injury attributable to defects in any Section or Portion of the Works taken over." (Clause 15.3.)

"If there shall occur any loss of or damage or injury to any property (other than property forming part of the Works not yet taken over) or person while the Contractor is on the Site for the purpose of making good a defect in any Section or Portion of the Works . . . or for the purpose of carrying out Tests on Completion of any such Section during the Defects Liability Period . . . the Contractor shall be liable . . . as follows:

"...

"(b) In respect of damage or injury to any other property or to any person and of any actions, claims, demands, costs, charges and expenses arising in connection therewith the Contractor shall be liable to the ex-

¹⁴ See Part Two, VI, *Sub-contracting*.

¹⁵ This is also the approach adopted in article 79 of the Sales Convention (Yearbook . . . 1980, part three, I, B). These relevant provisions are quoted in A/CN.9/WG.V/WP.4/Add.5. XIII, *Exoneration*, paras. 19-21 (Yearbook . . . 1981, part two, IV, B, 1). See also A/CN.9/WG.V/WP.4/Add.2, VII, *Quality*, para. 46 (Yearbook . . . 1981, part two, IV, B, 1).

tent that such damage or injury was caused by the negligence of the Contractor or a Sub-Contractor while on the Site as aforesaid or by defective materials or workmanship used in making good the said defect but not otherwise . . ." (Clause 15.4.)

"If there shall occur, after the commencement of the Defects Liability Period in respect of any Section or Portion of the Works, any loss of or damage or injury to any property (other than property forming part of the Works not yet taken over) or person as a result of a cause occurring prior to the commencement of the Defects Liability Period the Contractor's liability . . . shall be as follows:

" . . .

"(b) In respect of damage or injury to any property or to any person and of any actions, claims, demands, costs, charges and expenses arising in connection therewith the Contractor shall be liable to the extent that such damage or injury was caused by the negligence of the Contractor or a Sub-Contractor or by defective design . . . materials or workmanship but not otherwise." (Clause 15.5)

75. In UNIDO-TKL negligence is not mentioned. Article 22.1 of that form provides:

"The CONTRACTOR shall indemnify and hold harmless the PURCHASER and anyone employed by him from and against all claims, demands, losses, costs, damages, actions, suits, expenses (including legal fees) or proceedings by whomsoever made, brought or prosecuted in any manner based upon, arising out of, related to, occasioned by or attributable to the activities of the CONTRACTOR under or in connection with this Contract.

"22.1.1 For the purpose of Article 22.1 above, 'activities' includes an act improperly carried out, an omission to carry out an act and a delay in carrying out an act."

D. Contractor's responsibility for safety

76. UNIDO-TKL imposes on the contractor responsibility for compliance with safety regulations by third parties engaged by him, and for the safety of persons employed by him and by his sub-contractors. Article 4.33 provides:

"Throughout the execution of the Work(s), the CONTRACTOR shall ensure that he, his employees, agents and invitees and his Sub-Contractors, their employees, agents and invitees while upon the Site comply with all applicable safety laws, rules and regulations. The conduct and safety of all persons employed by the CONTRACTOR and his Sub-Contractors on the PURCHASER's premises for reasons relating to this Contract, shall be the sole responsibility of the CONTRACTOR."

Article 4.24 of UNIDO-CRC contains comparable provisions.

E. Contractor's responsibility for sub-contracting on behalf of purchaser

77. Under UNIDO-CRC the contractor procures equipment and materials from third party vendors on behalf of the purchaser.¹⁶ In this situation there exists a contractual relationship between the vendor and the purchaser, and the vendor is directly responsible to the purchaser for the quality and performance of the equipment and materials. The contractor's responsibility to the purchaser in this regard is limited to endeavouring to obtain adequate warranties from the vendor, and assisting the purchaser in obtaining remedial action from the vendor. Unless there is an error or defect on his part, the contractor is not liable to the purchaser for non-fulfilment of the obligations of the vendor. This is confirmed by articles 4.12¹⁷ and 28.1. The latter article provides:

"In inviting bids for the Equipment and Materials, the CONTRACTOR shall use his best endeavours to ensure that adequate warranties for mechanical soundness and guarantees for performance are given to the PURCHASER by the successful Vendor. The PURCHASER acknowledges that the Equipment purchased from the Vendors is not warranted by the CONTRACTOR. However, the CONTRACTOR shall assist the PURCHASER in obtaining and enforcing warranties and guarantees to ensure satisfactory performance of the Equipment supplied by the Vendors, if (*sic*) when (a) issuing the purchase order(s), (b) during inspection of the Equipment, (c) on completion and during test running in Vendor's shops (if any), (d) at the time of taking delivery of the Equipment and (e) operating the Plant; provided the deficiency, inadequacy or defects are noticed within the period of warranty."

78. Similarly, article 29.9 of UNIDO-CRC provides, with respect to equipment, materials and parts obtained on behalf of the purchaser:

"If any defect is found during inspection (before despatch) of Equipment or Materials of Vendor, or during erection or pre-commissioning tests at the Site of the Plant, the CONTRACTOR shall immediately advise the PURCHASER as to what action should be taken to have the Vendors replace defective equipment, defective parts, or inadequate Material in the shortest possible time. The CONTRACTOR shall assist the PURCHASER in facilitating any action which may be necessary in such circumstances. If any defect is found in the Vendor's equipment, machinery, spare parts or Materials within the period when the guarantee is valid, the CON-

¹⁶ See Part Two, VI, *Sub-Contracting*, paras. 35-38.

¹⁷ Quoted in Part Two, VI, *Sub-Contracting*, para. 35.

TRACTOR shall assist the PURCHASER in immediately undertaking the necessary measures to have the Vendor(s) replace the defective Equipment, Material, machinery or spare parts within the shortest possible time, including the air freighting of the equipment or parts etc. at Vendor's cost."

F. *Purchaser's indemnities to contractor against liabilities to others*

79. Under UNIDO-CRC the purchaser must indemnify the contractor with respect to liabilities arising out of his and his sub-contractor's negligence, and that of their employees. Article 22.2 provides:

"The PURCHASER shall indemnify and hold harmless the CONTRACTOR, his employees and agents from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the CONTRACTOR's activities under this Contract for personal injuries, death (other than to CONTRACTOR's personnel) and property damage (other than to the Plant) arising out of the PURCHASER's and his Sub-Contractors' and their employees' negligence."

[A/CN.9/WG.V/WP.7/Add.3*]

X. TECHNICAL ASSISTANCE

A. *General remarks*

1. The expression "technical assistance" is not a term of art and is used to cover different types of services rendered in the field of works contracts. In its narrow connotation it involves the training of personnel and management. In a broader context, it covers assistance in not only commercial but also general matters pertaining to the efficient organization of the works.¹

2. Because of the skills and knowledge that are invariably needed to ensure the proper functioning and maintenance of a large industrial plant, provision is often made for technical assistance. Indeed, such assistance is vital to the fulfilment of the objectives of works contracts. The degree of technical assistance required depends on the type of industry and the state of technological services available in the purchaser's country.

B. *Technical assistance*

3. The types of technical assistance to be rendered pursuant to the objectives of a works contract vary in detail in each particular contract. However, there are two aspects of technical assistance which are commonly found in works contracts, i.e. training and management.

1. *Training*

4. The crucial period to begin training should be before the start-up of production as the purchaser's personnel should be familiar with all the operational and technical aspects of production.

5. Both UNIDO-TKL and UNIDO-CRC contain only a general provision on training. The training of the purchaser's personnel by the contractor must be of a standard which is adequate for operating and maintaining the plant (UNIDO-TKL, articles 4.30 and 16.4; UNIDO-CRC, articles 4.19 and 16.4). It is the responsibility of the contractor to prepare a plan for technical training (UNIDO-TKL, annexure XVIII; UNIDO-CRC annexure XVIII) and also arrange for overseas training of the purchaser's personnel (UNIDO-TKL, article 16.3, annexure XVIII; UNIDO-CRC, article 16.3, annexure XVIII). The details of such training, however, are to be agreed upon at a future date. Article 16.4 of UNIDO-TKL reads:²

"The PURCHASER and the CONTRACTOR shall agree at the first co-ordination meeting contemplated under Article 6.8, the time, place and details to be established for the training of the PURCHASER's personnel and final details for training shall be forwarded to the PURCHASER within () months following the Effective Date."

6. According to the UNIDO model contracts the purchaser is to provide personnel to be trained, with qualifications and experience recommended by the contractor and agreed to by the purchaser (UNIDO-TKL, article 16.5; UNIDO-CRC, article 16.5). Provision is also made for the specific type and duration of training (UNIDO-TKL, article 16.2, annexure XVIII; UNIDO-CRC, article 12.3 and 16.2, annexure XVIII).³

2. *Management services*

7. To fulfil the objectives of the contract, provision is usually made for management services. The kind and extent of such services would again depend on the particular type of contract.

8. UNIDO-TKL provides an example of management services for a particular type of turnkey works contract. Two stages of management services are envisaged. In the first stage the contractor manages the operations of the plant following the mechanical completion stage. This management ceases upon the successful completion of the performance guarantee tests and provisional acceptances of the works by the purchaser (UNIDO-TKL, article 17.1).

9. At the second stage, i.e. from provisional acceptance until final acceptance of the works, the type of

* 12 February 1982.

¹ See A/CN.9/191, para. 79 (Yearbook . . . 1980, part two, V, B); Trade/GE.1/R.22/Rev.1, paras. 8-9.

² A similar provision is contained in article 16.4 of UNIDO-CRC.

³ The cost of training is dealt with in Part Two, XIII, *Price*.

management services provided by the contractor is called "management assistance services" (UNIDO-TKL, article 17.2).

10. In contrast to the first stage, during the second stage the contractor does not manage the operations himself but only assists the purchaser and provides such personnel as is necessary. Article 17.3 provides for the number and type of staff required and stipulates that the number and type of the contractor's personnel to be maintained at site for the purposes of management assistance must, as far as practicable, be selected by the contractor and the purchaser from the category of personnel who have been responsible for the actual start-up and operation of the plant up to and including the performance guarantee tests.

11. As this is a period (before final acceptance) during which the plant must reach a certain standard before it will be finally accepted, certain obligations are imposed on the contractor in regard to management assistance. Article 17.4 UNIDO-TKL provides:

"The CONTRACTOR's obligations pursuant to the requirements of Article 17.2 shall be as follows:

"17.4.1 Provide Management Assistance to the PURCHASER to ensure maintenance of production levels at optimum capacity, and with maximum efficiency.

"17.4.2 Provide Management Assistance to the PURCHASER to assure maintenance of the Plant and the Equipment to enable operations to be kept at design levels of production, and efficiency ratios.

"17.4.3 Provide Management Assistance to the PURCHASER through in-plant training of PURCHASER's personnel."

12. Provision is also made for the purchaser to retain part or all of the personnel covered by article 17.3 (paragraph 10, above) for an extended period on terms and conditions to be mutually agreed in advance and upon the payment of additional fees to the contractor (UNIDO-TKL, article 17.6).

13. UNIDO-CRC contains a similar management services provision. However, it is an optional clause at the instance of the purchaser. The purchaser is given the option to obtain management assistance following provisional acceptance of the plant until final acceptance (UNIDO-CRC, articles 3.1.31 and 17).

3. *Other technical assistance*

14. Since technical assistance must be tailored to each individual contract it is beyond the scope of this study to consider the particular kinds of technical assistance required for each contract.

15. It is important that even after final acceptance the efficiency of the operations of the plant be maintained and

that any improvements that could subsequently be made to the plant be implemented.

16. In UNIDO-TKL the purchaser has the option, after final acceptance, of entering into a separate agreement with the contractor for the provision of technical advisory services "upon mutually agreed terms" including the following matters: provision of senior advisory personnel to conduct half-yearly review of plant and efficiency of its operations; recommendations as to improvement of plant operations; and provision of answers to technical queries related to plant operations (UNIDO-TKL, article 17.7, 17.7.1, 17.7.2, and 17.7.3; UNIDO-CRC, articles 4.28 and 17.3).

17. Questions may arise as to the legal validity of such an option on the ground of certainty of terms. The option is to be "upon mutually agreed terms" and this may be too vague under some legal systems.

18. The technical advisory services agreement is to become effective immediately following final acceptance of the plant if the option is exercised (UNIDO-TKL, article 17.7; UNIDO-CRC, article 17.3). The purchaser may exercise the option not later than one month following provisional acceptance (UNIDO-TKL, article 17.7). In UNIDO-CRC, the option must be exercised not later than the expiry of one month before final acceptance (UNIDO-CRC, article 17.3).

19. The rights and obligations envisaged in such an agreement for technical advisory services are to be considered wholly separate and distinct from the liabilities and responsibilities contained in the main contract (UNIDO-TKL, article 17.7; UNIDO-CRC, article 17.4).

C. *Confidential information*

20. The nature of a technical assistance contract may be such that technical information of a confidential nature may be communicated to the purchaser. Where this is envisaged, there is usually a clause against the disclosure of such information to a third party without the written consent of the contractor not only during the term of the agreement but also thereafter. Problems connected therewith are similar to those concerning transfer of technology, which has been dealt with in Study I.⁴

21. There is usually a provision that all inventions and technical information communicated by the contractor to the purchaser will remain the property of the contractor and that the purchaser is to use such inventions and technical information in accordance with the contract provisions.

XI. MAINTENANCE AND SPARE PARTS

A. *Maintenance and repairs*

22. The proper maintenance of a plant will ensure its effective operation and optimum life. Maintenance con-

⁴ See A/CN.9/WG.V/WP.4/Add.2, VI, *Transfer of Technology*, paras. 19-26 (Yearbook . . . 1981, part two, IV, B, 1).

siderations include repairs and an adequate support for spare parts. We are here concerned with maintenance repairs which the contractor undertakes although not in breach of any of his obligations.

23. Thus clause 49(2) of FIDIC-CEC provides that, during the period of maintenance or within fourteen days after its expiration, the contractor can be required to rectify defects. As these defects do not result from a breach of obligation by the contractor, clause 49(3) of FIDIC-CEC provides that the value of the repair work is to be ascertained and paid for as if it were additional work. Furthermore, clause 50 of FIDIC-CEC provides that the contractor can be required to search for the cause of any defect appearing during the period of maintenance, and if the defect is one for which the contractor is not liable under the contract, the cost of search is to be borne by the employer.⁵

24. The maintenance of a plant after taking over may be problematical, particularly where there is a scarcity of skilled personnel and spare parts. Also, if many large items of equipment are obtained from a number of different sources, the problem may be further aggravated.

B. Spare parts

1. General remarks

25. The question of spare parts requires careful consideration by parties to a works contract as the operation of a plant is expected to last over a period of time, and replacements may be necessary.

26. Not every works contract contains a provision on spare parts (hereinafter referred to as "spares provision"). Even where such a provision exists, it would appear that the types of problems that may arise have not always been fully explored or provided for by the parties. In recent years, however, there seems to be a growing realization of the importance of a spares provision. At least three documents published by UNIDO raise this question.⁶ It is also noteworthy that in a recent publication by FIDIC entitled *Notes on Documents for Electrical and Mechanical Works Contracts* (1980),⁷ which "have been produced during the process of reviewing the Conditions of Contract (International) for Electrical and Mechanical Works"⁸ (FIDIC-EMW) it was recommended that the subject "[s]pecification' should deal with the provision of spare parts for the Plant."⁹

⁵ See Part Two, XIV, *Revision of Price*, para. 49.

⁶ *Contract Planning and Organization* (United Nations publication, Sales No. E.74.II.B.4), pp. 38-40; *A Guide to Industrial Purchasing* (United Nations publication, Sales No. E.72.II.B.19), p. 42; *Guidelines for Contracting for Industrial Projects in Developing Countries* (United Nations publication, Sales No. E.75.II.B.3), pp. 27-28, 161-163.

⁷ Published by the International Federation of Consulting Engineers, The Hague, Netherlands.

⁸ *Notes on Documents for Electrical and Mechanical Works Contracts*, note 7 above, Foreword.

⁹ *Ibid.*, p. 40.

2. Some problem areas

27. Some of the problems that may be encountered in regard to the question of spare parts are:¹⁰

Long delivery periods for spare parts;

Non-availability of spare parts from the contractor during the anticipated working life of the plant;

Changes in design which might lead to uncertainty of obtaining identical components at some future date, after initial purchase of the plant;

Methods of ensuring that the contractor would undertake to provide spare parts that are compatible with the equipment originally provided and that the spare parts will not downgrade the system or equipment performance;

Assurance of early information to the purchaser regarding future development of component parts which would render certain parts of the plant obsolete;

Whether spare parts can or should be obtained from a third source;

Whether the contractor should object to the purchaser buying spare parts directly from, say, the manufacturer instead of through the contractor;

Determination of the cost of spare parts over a period of time;

Determination of "spares scaling" i.e. what scales of spare parts should be ordered initially and at a given period;

Possibility that the owner of the proprietary rights might licence the production and sale of the plant or equipment to another supplier;

Position where large items of plant or equipment are obtained from a number of different sources;

"Non-standard" spare parts — the need to procure production drawings to enable the local manufacturer to produce such non-standard spare parts;

Restriction on obtaining spares from others;

Allied problem of maintenance and training programmes.

28. Apart from the UNIDO model contracts, none of the forms under study contains spares provisions. Of the works contracts in the Secretariat's collection only a few were found to contain spares provisions. It may be noted that the spares provisions under study do not deal with all the problems stated in paragraph 27. This is not to say that these problems exist in every contract. However, it is not clear from the provisions examined whether the parties have considered the whole gamut of problems that may arise in their particular contract.

29. The spares provisions under study, however, reveal a number of areas which appear to merit some attention.

30. It may be desirable to classify various types of spare parts since special provisions may be made in regard

¹⁰ Some of these problems are mentioned in some UNIDO publications. See note 6 above.

to certain types of spares. For example, a contractor may be asked to guarantee the availability of certain important spare parts or a special procedure may be required for the procurement of certain critical items.

31. Broadly, spares may be divided into those of normal wear and tear; those of extra wear and tear; those which have no or little wear but should be kept on stock because of their vital function; those which are critical and subject to wear and tear.

32. Special provision is made in UNIDO-TKL and UNIDO-CRC for the purchase of spare parts which are "critical items" (UNIDO-TKL, annexures VIII and X; UNIDO-CRC annexures VIII and X). "Critical items" are defined in article 1 of UNIDO-TKL to mean all the equipment specifically designated as such in annexure VIII, which include synthesis reactor, boilers and turbo-generators (see UNIDO-CRC, article 1 and annexure VIII). These items are so classified because they tend to change technologically due to process and market developments.

33. Special provision is made in UNIDO-TKL and UNIDO-CRC for procuring these critical items. These items are to be purchased only from a list of prequalified vendors (UNIDO-TKL, annexures VIII and XII; UNIDO-CRC, annexures VIII and XII). Pre-qualified vendors are intended to be those manufacturers of equipment who are dependable and have sufficient experience of those items (see paragraphs 47 and 49, below).

34. The supply of spares may constitute one of the important sources of income for the contractor who may be the manufacturer himself. The contractor may phase the technology transfer in such a way as to ensure a purchaser's dependence on him for spares for as long as possible.

35. It is not uncommon for a contractor to insist on a tie-in clause providing that the purchaser shall obtain some or all spares from the contractor. To avoid allowing the contractor to enjoy a monopolistic position in the supply of spares, it is desirable for the purchaser to ensure that provision is made for obtaining some spares from a third source. Where spares are to be obtained from a third source, the contractor could obtain them as agent for the purchaser, i.e. on behalf and on the account of the purchaser.

3. *Other aspects of spares provisions*

36. Brief mention may be made of some of the more common types of spares provisions found in works contracts.

37. The contractor is generally required to supply a list of spare parts for the purchaser within a certain period after the effective date of the contract together with an estimate of cost. The details to be included depend on the availability of information and the types of spare parts. The purpose of obtaining early information regarding spares is to ensure delivery before, say, the start of commissioning of the plant.

38. A contractor may be required under a works contract to supply spare parts for a certain period. The cost of spare parts may be borne by the contractor. This is usually the case where spare parts are needed until completion of the guarantee tests. The cost is then included in the contract price. Annexure X, section 6 of UNIDO-TKL provides such an example:

"The CONTRACTOR is required to ensure that the quantity of spare parts used by him until he completes his guarantee tests are replaced by him at his own cost . . ."

39. Sometimes a works contract may contain a provision requiring the contractor to guarantee the supply of spare parts to the purchaser for a certain period.

4. *Procurement procedures*

40. Both UNIDO-TKL and UNIDO-CRC contain substantially similar procedures for the procurement of certain types of spare parts by the contractor on behalf of the purchaser. These procedures are designed to enable the purchaser to obtain from reliable vendors competitive offers of spare parts in an expeditious manner.

41. In both the UNIDO model contracts the services of the contractor are required for the procurement of spare parts. Depending on the types of spare parts, certain procedures have to be followed by the contractor.

42. Article 10.1.2 of UNIDO-TKL provides that in the case of spare parts of a proprietary nature, the contractor is to obtain from the suppliers directly in the name of, and for, the purchaser a list of two-years supply of spare parts as recommended by the supplier, for approval of the purchaser. Annexure XXVI, section 11 provides:

"Purchase of spare parts for proprietary items of equipment for which quotations shall be obtained by the CONTRACTOR at the time of purchase by him of the equipment shall be in accordance with a separate protocol between the PURCHASER and the CONTRACTOR, (but in all cases where procedures of the financing agency are required these shall be followed)."

43. In respect of spare parts which are not of a proprietary nature the contractor is to prepare bid documents on the basis of the technical specifications prepared by him and submit the same to the purchaser for approval. On approval the list is sent by the contractor on behalf of the purchaser to the respective vendors which have been previously agreed to by both the contractor and the purchaser (UNIDO-TKL, article 10.1.3, 10.1.4 and 10.1.5).

44. The contractor is to obtain from the vendors a minimum of three competitive offers (UNIDO-TKL, article 10.1.5). This will assist in obtaining lower cost supplies. The offers received from the vendors are to be evaluated by the contractor who is to submit the bid evaluation with appropriate recommendations to the purchaser for the relevant

final selection. The purchaser's final selection of the vendor will be communicated to the contractor within twenty days from the date of the contractor's submission of the bid tabulation (UNIDO-TKL, article 10.1.6). The contractor is to purchase the spare parts or other equipment, after the selection of the vendors by the purchaser (UNIDO-TKL, article 10.1.7).

45. Further details regarding the mode of procurement relating to bidding are set out in an annexure of UNIDO-TKL. These include the issue of tender specifications and bid tabulations.

46. Some purchasers¹¹ may require a list of "prequalified" vendors. Special procedure is made in an annexure of UNIDO-TKL for the purchase of spare parts from vendors who are to be "pre-qualified". The contractor is to issue pre-qualifying notices for all groups of spare parts (other than proprietary equipment spare parts) inviting potential vendors for pre-qualification. The contractor is responsible for submitting to the purchaser a list of companies pre-qualified by him for the purchase of different types of spare parts, indicating reasons for rejection of any vendor. The purchaser has the right to add to or subtract from such list of pre-qualified vendors. The contractor has to bear the cost of satisfying himself on the competence of any bidders (UNIDO-TKL, annexure XXVI).

47. Spare parts of critical items are to be procured only from a list of pre-qualified vendors for critical items to be listed in an annexure of UNIDO-TKL.

48. In UNIDO-CRC, spare parts are to be procured in accordance with the procedures for the procurement of equipment and materials generally as set out in article 10 and annexures.¹²

49. As in UNIDO-TKL, the purchase of spares which are critical items are to be purchased from a list of pre-qualified vendors for critical equipment to be listed in an annexure. In addition, annexure XXVI, section 11 of UNIDO-CRC provides:

"For purchase of critical items of equipment quotations shall be obtained promptly after the effective date by the CONTRACTOR and purchase shall be in accordance with a separate protocol between the PURCHASER and the CONTRACTOR. Separate protocols between the PURCHASER and the CONTRACTOR may also be made for specialised proprietary equipment, but in all cases where procedures of the financing agency are required these shall be followed."

XII. STORAGE ON SITE

A. General remarks

50. It is essential for the efficient implementation of

an industrial works contract that the required materials and equipment be available at the site when the construction schedule calls for their incorporation in the works. They must therefore be procured and delivered to the site in advance of the time when they are due to be used. At the site, facilities are needed to store these items and to protect them against loss and damage.

51. Some of the issues which arise in connection with storage on site concern the provision of storage facilities, the security and safety of the facilities, the obligations to arrange for storage of materials and equipment as they are delivered to the site and responsibility for the stored items. These issues are dealt with in many works contracts.

B. Responsibility for storage

52. The UNIDO model contracts contain clauses assigning general responsibility for the storage of equipment and materials to one of the parties. Under UNIDO-TKL, the contractor is "responsible for storage at Site" (article 4.2.1). UNIDO-CRC on the other hand, states that it is the purchaser who must "arrange for storage of Equipment and Materials" (article 5.8).

53. Both UNIDO model contracts obligate the contractor to investigate and familiarize himself with circumstances bearing on the storage of equipment and/or materials. UNIDO-TKL contains two alternative texts of article 4.4. Under Text A the contractor acknowledges that he has fully satisfied himself as to the general and local conditions applicable to the contractor's work, particularly those bearing upon the handling and storage of materials.

54. Text B of UNIDO-TKL, article 4.4, requires the contractor to obtain such information as he may consider necessary to carry out his work under the contract, particularly that bearing on the handling and storage of materials.

55. Article 4.4 of UNIDO-CRC contains language similar to that in Text B of UNIDO-TKL, article 4.4, but refers to the handling and storage of both equipment and materials.

56. Under both UNIDO model contracts, the overall responsibilities of the respective parties for storage include the obligation to provide suitable storage facilities. Article 12.4.1 of UNIDO-TKL states:

"The CONTRACTOR shall be obliged to arrange for and have ready adequate warehouse facilities at the Site to receive packages. In the event that permanent facilities are not ready or available, the CONTRACTOR shall provide adequate temporary facilities at his cost in good time at the Site."

57. However, the purchaser must provide the land on which these facilities are to be located. Article 5.3 provides:

"The PURCHASER shall secure and make available to the CONTRACTOR not later than the Effective Date of

¹¹ See UNIDO-TKL, annexure XXVI, note 1 where it is stated that some governments and agencies require prequalification.

¹² See Part Two, VI, *Sub-contracting*, paras. 35-37.

the Contract: the land indicated on the lay-out and plot plan for construction of the Works, free of all encumbrances, including the necessary right of way. The PURCHASER shall also make available adequate space for storage depots at or near the Site."

58. On the other hand, according to the provisions of UNIDO-CRC, under which the purchaser is responsible for storage (see paragraph 52, above) the obligations of the contractor for the provision of land and storage facilities are limited. He must merely (through his appointed "site representative") "advise the PURCHASER on storage at Site" (article 4.15). The land and facilities for storage must, presumably, be provided by the purchaser.

59. Under ECE 188A/574A, although the contractor is apparently responsible for storing materials and equipment, the purchaser must provide the storage facilities. According to clause 6.1(d) the purchaser must provide the contractor (free of charge, unless otherwise agreed) with closed or guarded premises on or near the site as a protection against theft and deterioration of the plant to be erected, of the tools and equipment required therefor, and of the clothing of the contractor's employees.

60. With limited exceptions, FIDIC-EMW does not deal expressly with issues of storage on site. It does, however, impose general responsibilities upon the contractor with respect to fencing, lighting and guarding the works. Clause 14.2 states that:

"Unless otherwise agreed the Contractor shall be responsible for the proper fencing, lighting, guarding and watching of all the Works on the Site until taken over. . ."

Under this form, "Works" is defined to include "all Plant to be provided . . . by the Contractor under the Contract" (clause 1.1(f)); and "Plant" means "machinery, apparatus, materials, articles and things of all kinds to be provided under the Contract other than Contractor's Equipment" (clause 1.1(c)).¹³ Accordingly, the contractor's obligations with respect to fencing, lighting, guarding and watching the works extend to materials and equipment stored on site.

61. Some of the forms under study contain special provisions dealing with the storage of materials or equipment, the delivery, acceptance or use of which, in the works, is delayed. FIDIC-EMW applies these provisions to "delayed Plant", which is defined as follows:

"For the purposes of this Clause only: 'delayed Plant' means either (a) Plant which by delay or failure on the part of the Engineer to give such authorisation as is mentioned in Sub-Clause I of this Clause¹⁴ or from any cause for which the Employer or some other contractor

employed by him is responsible the Contractor is prevented from delivering to the Site at the time specified for the delivery thereof or, if no time is specified, at the time when it is reasonable for it to be delivered having regard to the date by which the Works ought to be completed; or (b) Plant which has been delivered to the Site but which by delay or failure on the part of the Engineer or from any cause for which the Contractor is not responsible the Contractor is for the time being prevented from erecting . . ." (Clause 26.2)

62. Under certain circumstances, the Contractor must store, protect and preserve the "delayed Plant", and provide insurance coverage for it. First, the contractor must under clause 26.3 notify the purchaser and the engineer of readiness for delivery. Thereafter, clause 26.4(a) provides as follows:

"There shall be included in the Contract Price a sum . . . for storing and taking reasonable measures to protect and preserve the delayed Plant from and insuring it (to the extent that it can be insured) against loss, deterioration and damage however caused from the date of the said notice or the normal delivery date if this shall be later until the Contractor shall no longer be prevented from delivering the delayed Plant or (as the case may be) erecting it . . ."

63. However, after receipt of the notice referred to in clause 26.3 (see paragraph 62, above) the purchaser may assume responsibility for storing, protecting and preserving the "delayed plant". And the purchaser must assume this responsibility after receiving further notices from the contractor:

"The Employer may at any time after receipt of the notice referred to in Sub-Clause 3 of this Clause assume responsibility for storing, protecting and preserving the delayed Plant. If at any time after the expiration of 12 months from the date of the said notice or at any time after the delayed Plant has been delivered to the Site the Employer shall not have assumed such responsibility the Contractor may by a further notice in writing expiring 30 days after receipt thereof by the Employer require the Employer to assume the responsibility aforesaid and upon the expiration of the last mentioned notice the Employer shall assume such responsibility provided always that, if notice to proceed¹⁵ shall be given within 30 days after receipt by the Employer of the last mentioned notice given by the Contractor, this paragraph of this Sub-Clause shall not operate." (Clause 26.5)

64. It is clear from further provisions in FIDIC-EMW that storage and protection of the "delayed Plant" by the contractor is obligatory, and not optional. After receiving notice to proceed, clause 26.6 requires the contractor to

¹³ For the definition of "works" and "plant" in the forms under study, see Part Two, IV, *Interpretation of Contracts*, paras. 84-94.

¹⁴ Sub-clause 1 provides, *inter alia*, that "Plant or Contractor's Equipment shall be delivered to the Site only upon an authorisation in writing applied for and obtained by the Contractor from the Engineer."

¹⁵ "Notice to proceed" means notice in writing from the engineer to the contractor that delayed plant may forthwith be delivered or erected (clause 26.2).

examine the "delayed Plant", and remedy any deterioration and defects:

"After receipt of notice to proceed the Contractor shall after due notice in writing to the Engineer and if required by the Engineer, in his presence, examine the delayed Plant, . . . and make good any deterioration or defect therein that may have developed or loss thereof that may have occurred after the normal delivery date or (if later) the date when the Contractor was by such delay, failure or other cause as before-mentioned first prevented from erecting the delayed Plant."

65. The next provision (clause 26.7) states that the costs of this examination and repair work is to be included in the contract price to be paid by the purchaser to the contractor, unless the loss was caused, *inter alia*, by a failure of the contractor to store and preserve the "delayed Plant":

"There shall be included in the Contract Price a reasonable sum for making the examination referred to in Sub-Clause 6 of this Clause and in making good any deterioration, defect or loss as therein mentioned except insofar as the same was caused by faulty workmanship or materials or by the Contractor's failure to take the measures referred to in paragraph (a) of Sub-Clause 4 of this Clause or in Clause 15.1(a) (Care of the Works) . . ."

66. Thus, if the contractor fails to take appropriate measures to store and protect the "delayed Plant", he must remedy at his own expense any deterioration or defects caused to the "delayed Plant" by such failure.

67. Under ECE 188A/574A the contractor must arrange for the storage of equipment of which the purchaser fails to accept delivery on the due date, "at the risk and cost of the Purchaser". Clause 10.1 provides:

"If the Purchaser fails to accept delivery of the Plant on due date, he shall nevertheless make any payment conditional on delivery as if the Plant had been delivered. The Contractor shall arrange for the storage of the Plant at the risk and cost of the Purchaser. If required by the Purchaser, the Contractor shall insure the Plant at the cost of the Purchaser. Provided that if the delay in accepting delivery is due to one of the circumstances mentioned in Clause 25 and the Contractor is in a position to store it in his premises without prejudice to his business, the cost of storing the Plant shall not be borne by the Purchaser."

C. Access to storage facilities

68. In the course of implementing the contract, the contractor will require access to the storage facilities. The UNIDO model contracts contain provisions specifically authorizing such access. Article 13.6 of UNIDO-CRC provides:

"The CONTRACTOR and his authorized personnel shall have free access to the Site, storage yards, fabrica-

tion shops, facilities for the supply of utilities and laboratories, which are set up or intended for use for establishing the Plant."

69. UNIDO-TKL contains a comparable provision (article 13.11)

[A/CN.9/WG.V/WP.7/Add.4*]

XIII. PRICE

A. General remarks

1. The determination of the price to be paid by the purchaser in a works contract is important for both parties. The purchaser must know at the conclusion of the contract how much the project will cost him, and the financial resources he must obtain. The contractor must be able to estimate his profits. Both parties are interested in minimizing the possibility of later disputes on this issue.

2. The price in a works contract covers not only the supply of plant and machinery, but also the provision of different services connected with the works and the transfer of technology. A considerable period of time may elapse between the drawing up of plans and specifications, and the supply and erection of the plant, and accordingly there is a risk of price increases of the materials and services to be supplied. The quantity of the work to be done and the quality of the material to be supplied cannot be exactly determined at the time of conclusion of the contract. Accordingly, determination of the price is more difficult than in simpler types of contracts.

3. In view of the fact that the price in a works contract will consist of a large sum of money, parties will normally agree on the price of most items at the conclusion of the contract. As regards the supply of services, if the price is not fixed at the time of concluding the contract, it may under most legal systems be determined later on the basis of trade usage or price lists approved by public authorities. Under some legal systems, however, it is essential that as regards goods to be supplied the price, or a method for determining it, is agreed at the time of concluding the contract. It may be noted, however, that article 55 of the Sales Convention provides:

"Where a contract has been validly concluded but does not expressly or implicitly fix or make provision for determining the price, the parties are considered, in the absence of any indication to the contrary, to have impliedly made reference to the price generally charged at the time of the conclusion of the contract for such goods sold under comparable circumstances in the trade concerned."

* 22 February 1982.

4. In international trade three methods of pricing a works contract have been developed:

(a) The price may be a lump-sum. The price thus stipulated is, in general, to remain constant even though the cost of performance by the contractor turns out to be higher than anticipated;

(b) The price may be determined on the basis of schedules or tariffs of cost for work or time units, taken together with an estimate made of the anticipated extent of work. The final price to be paid will be definitely known only at the conclusion of performance;

(c) Parties may agree on a cost reimbursable price. In this case the purchaser is to pay all costs incurred by the contractor in connection with the anticipated work, together with a fee for the procurement of supplies and services effected by third parties, and for co-ordination and inspection of the work.

5. While most contracts will reflect preponderantly one of the above-mentioned approaches to pricing, it is unlikely that one approach will be adopted for all items under the contract. For in every contract it will be more convenient to price a few items on other bases other than the main one that is adopted. Techniques may also be adopted to offset the disadvantages of each method of pricing, e.g. the uncertainty created by pricing on the basis of schedules and tariffs may be mitigated by fixing a ceiling price of the contract.

6. Under most legal systems the principle of "nominalism" is applied to currency questions, i.e. the price to be paid is not automatically increased or decreased in case the value of the money has changed between the time of the conclusion of the contract and the time of payment in terms of its exchange rate in relation to other currencies or in its purchasing power. In works contracts, there may, therefore, be clauses aimed at the protection of the parties against the effects of currency fluctuations, and dealing with the rate of exchange to be applied. In the forms under study only the FIDIC Conditions deal with these problems. Clause 72 of FIDIC-CEC provides in this respect as follows:

"(1) Where the Contract provides for payment in whole or in part to be made to the Contractor in foreign currency or currencies, such payment shall not be subject to variations in the rate or rates of exchange between such specified foreign currency or currencies and the currency of the country in which the Works are to be executed.

"(2) Where the Employer shall have required the Tender to be expressed in a single currency but with payment to be made in more than one currency and the Contractor has stated the proportions or amounts of other currency or currencies in which he requires payment to be made, the rate or rates of exchange applicable for calculating the payment of such proportions or

amounts shall be those prevailing, as determined by the Central Bank of the country in which the Works are to be executed, on the date thirty days prior to the latest date for the submission of tenders for the Works, as shall have been notified to the Contractor by the Employer prior to the submission of tenders or as provided for in the tender documents.

"(3) Where the Contract provides for payment in more than one currency, the proportions or amounts to be paid in foreign currencies in respect of Provisional Sums items shall be determined in accordance with the principles set forth in sub-clause (1) and (2) of this Clause as and when these sums are utilised in whole or in part in accordance with the provisions of Clause 58 and 59¹ hereof."

A similar provision is contained in clause 43 of FIDIC-EMW.

B. Methods of pricing work

1. Lump-sum price

7. A significant factor in determining the most appropriate method of fixing the price is the nature of the contract. A lump-sum price is usually provided in projects where significant changes in the extent and design of the work are not envisaged. Thus a lump-sum price is likely to be stipulated in a turnkey contract, where the contractor bears the total responsibility for carrying out and completing a clearly identified project. However, a lump-sum price may be used in other types of works contracts as well, in particular in fixing the price of plant and machinery to be supplied.

8. UNIDO-TKL provides for a fixed price for the plant and machinery and for most of the services connected with the execution of a works contract. Under article 20.1² of UNIDO-TKL a fixed price is stipulated for the following items:

(a) The supply of plant, equipment, and materials on-site (inclusive of the complete engineering and related services);

(b) The granting of the licences and know-how for the plant;

(c) The detailed civil engineering design work, and completion of all civil works, including road, (rail) and telephone connections and related services;

(d) The complete erection of plant and equipment including the supply of erection materials and hire of erection equipment and related services;

(e) Services related to management, operation and supervision, and

¹ See Part Two, VI, *Sub-contracting*, paras. 18-19.

² For the reimbursable price element in this model contract, see para. 21 below.

(f) The provision of training facilities for the purchaser's personnel.

9. UNIDO-CRC provides for a combination of a fixed and reimbursable price, but the categorization of the items of the contract are different from that under UNIDO-TKL. Under article 20.1³ of UNIDO-CRC a fixed lump-sum price is stipulated for the following items:

- (a) The granting of the licences and know-how for the plant;
- (b) The supply of basic and detailed engineering;
- (c) The supply of procurement, inspection and expediting services; and
- (d) The provision of training and training facilities.

10. Under article 20.1 of UNIDO-STC a fixed lump-sum price is stipulated for the following items:

- (a) The supply of the equipment (FOB or FOR);
- (b) The transport of the equipment (optional only);
- (c) The procurement of spare parts and the purchase of specialized equipment, such as erection equipment, or other materials;
- (d) The granting of the licences, know-how and the supply of basic and detailed engineering for the plant; and
- (e) The provision of training and training facilities.

11. A footnote to article 20.4 of UNIDO-CRC states that the price for the supply of the plant, equipment and materials could be partly in the form of a firm price and partly in the form of reimbursable price.

12. Clause 7.2 of ECE 188A/574A provides that the price for the erection may be partly in the form of a lump-sum and partly in the form of a reimbursable price.

2. *Pricing on basis of time incurred and work done*

13. If the extent of the work cannot be determined accurately in advance, a practicable method for pricing is to record the hours spent on work by the contractor and his personnel, the quantities of any materials supplied, and the extent of work done, and to pay the contractor in accordance with the record.

14. ECE 188A/574A makes provision for pricing on a daywork basis in respect of the erection of a plant. Clause 7.1 states that when erection is carried out on a time basis certain items shall be separately charged: the living expenses of the contractor's employees; the time worked, which is to be calculated by reference to the number of hours certified as worked in the time-sheets signed by the purchaser; and time necessarily spent on preparation for journeys; journeys themselves; daily travel between lodgings and site; and waiting when work is prevented by circumstances for which the contractor is not responsible.

³ *Ibid.*

15. Under FIDIC-CEC the engineer has the power to order additional or substituted work to be done. Such work is to be priced on a time basis. Clause 52.4 provides:

"The Engineer may, if, in his opinion it is necessary or desirable, order in writing that any additional or substituted work shall be executed on a daywork basis. The Contractor shall then be paid for such work under the conditions set out in the Daywork Schedule included in the Contract and at the rates and prices affixed thereto by him in his Tender."

16. Pricing on the basis of time spent on the work, and measurement of the work done, requires agreement on procedures for the computation of time and the measurement of work. Thus, clause 52.4 of FIDIC-CEC (see paragraph 15, above) provides that the contractor must deliver each day to the engineer's representative a statement of the names, occupation and time of all workmen employed, and of the description and quantity of all materials used, while clause 56 provides a procedure for the measurement of work.

17. It may not be possible to make an exact advance assessment of the duration of the work required of certain categories of personnel, and pricing their services on a time basis may be convenient. Thus, in regard to payment of expatriate personnel, article 20.7 of UNIDO-CRC provides:

"The PURCHASER will pay to the CONTRACTOR daily rates in accordance with the schedule of charges . . . for each Day of absence from the (respective) normal place of work in (country) of the specified expatriate personnel supplied by the CONTRACTOR."

18. Article 20.8 of UNIDO-CRC deals with overtime of expatriate personnel and states:

"The daily rates . . . shall be related to a normal working week of (48) hours, with, at least, one Day included as a holiday. In the event of any overtime for expatriate staff (excluding engineers, and any other staff who would not normally be paid overtime in their home country), or for work on weekly holidays or public holidays in (PURCHASER's country) the expatriate personnel shall be paid overtime charges at the rates contained in Annexure . . ."

3. *Reimbursable price*

19. Like pricing on the basis of time incurred and work done, pricing on a reimbursable basis will be convenient when the extent of the work cannot be accurately determined in advance. In addition, the fixing of schedules or tariffs of cost may be difficult e.g. where a major part of the work is to be done by sub-contractors, and the rates to be charged by them are unknown at the time of the conclusion of the contract. Again, the contractor may require the high degree of protection from loss which a reimbursable contract affords.

20. FIDIC-CEC provides that the contract price shall include the price paid by the contractor to nominated sub-contractors.⁴ Clause 59(4) provides:

"For all work executed or goods, materials, or services supplied by any nominated Sub-Contractor, there shall be included in the Contract Price:

"(a) the actual price paid or due to be paid by the Contractor, on the direction of the Engineer, and in accordance with the Sub-Contract;

"(b) the sum, if any, entered in the Bill of Quantities for labour supplied by the Contractor in connection therewith, or if ordered by the Engineer . . . ;

"(c) in respect of all other charges and profit, a sum being a percentage rate of the actual price paid or due to be paid calculated (at a specified rate) . . ."

FIDIC-EMW contains a comparable provision in clause 39.4.

21. In article 20.1, UNIDO-TKL expressly stipulates a reimbursable price for the supply of spare parts, and in article 10 provides a procedure for their purchase. Under article 20.6 of UNIDO-CRC, services related to management and supervision are priced on a reimbursable basis.

22. The uncertainty as to amount inherent in a reimbursable price may be mitigated by the parties agreeing on an estimate of cost without any undertaking by the contractor to guarantee the correctness of the estimate. Article 2.5 of UNIDO-CRC, for example, provides for estimated costs of supplies and services connected with the project, including know-how and basic engineering, procurement, inspection and expediting, training, site supervision, and materials and equipment, and provides that the parties acknowledge that the estimate shall not constitute a guarantee of project cost. Article 2.6 of UNIDO-CRC states:

"It is acknowledged that the estimate of the cost of all Equipment and Materials, FOB/FOR . . . is an estimated amount . . . The CONTRACTOR shall submit to the PURCHASER within four (4) months of the Effective Date of the Contract a revised estimate of the FOB/FOR cost of all Equipment and Materials to be procured under this Contract. The estimates shall be broken up by Plants and by sections thereof, to the extent practicable."

23. Like a contract priced on a time and measurement basis, a cost reimbursable contract necessitates an extensive record keeping which may place a special responsibility on the contractor. Article 23.1 of UNIDO-CRC provides:

"The CONTRACTOR shall keep adequate books of accounts and time-logs in accordance with the form and procedure required by the PURCHASER with regard to charges incurred and purchases made/payments effected

on behalf of the PURCHASER up to a period of two years following Final Acceptance of the Plant, if:

"23.1.1 any price or part of a price under provisions of Article 20 is based on time charges;

"23.1.2 provision has been made in the Contract for the CONTRACTOR to make purchases/effect payments up to a prescribed value on behalf of the PURCHASER."

4. Price currency

24. The contract price must be fixed in a currency. In principle it must be paid in that currency unless otherwise provided by the parties or the applicable law. The purchasers from a country which does not have a freely convertible currency, in particular, from developing countries or countries which have imposed currency restrictions, may have an interest in ensuring that a part of the price should be paid in the currency of their country. In practice such a contract provision may be stipulated for performance of work the cost of which the contractor must bear in local currency. Article 20.9 of UNIDO-TKL, for example, provides that payment for management and training, which is to be on site, shall be made partly in local currency.

XIV. REVISION OF PRICE

A. General remarks

25. Even if the price is fixed and firm, the parties may agree that it be revised in specific circumstances. Such a revision may increase or reduce the price.

26. Provisions on price revision are agreed upon by the parties because of the complex nature of a works contract and the long-term character of its execution. There are a number of such provisions in the forms under study. They provide for revision mainly in the following circumstances: changes in the extent and scope of the contract, furnishing of additional supplies and services, and incurring of additional costs in performance.

27. Under some provisions in the forms under study, the contractor is entitled in certain circumstances to claim payment of costs incurred by him. Such provisions of a cost reimbursable nature can be found even in contracts with a lump-sum price. In some cases where the purchaser is obliged to pay costs connected with his failure to perform an obligation, it may, however, not be quite clear whether such costs are to be considered as damages or an additional price. The provisions are regarded as relating to price revision, and are considered in this chapter, where it appears that the obligation to pay costs is not dependent on absence of exonerating circumstances or fault on the part of the purchaser.

⁴ As to the meaning of "nominated sub-contractor", see Part Two, VI, *Sub-contracting*, para. 18.

B. *Changes in extent and scope of work*

28. During performance, the contractor or the purchaser may find that due to certain factors it is impossible to carry out the work exactly as planned. In the forms under study, it is noted that the following factors may require a deviation from strict performance in accordance with the contract and thereby necessitate a proportionate adjustment of the price.

1. *Incorrect data supplied by engineer or by purchaser*

29. Clause 6.3 of FIDIC-EMW states that the purchaser has to pay the contractor for alterations of the work necessitated by reason of incorrect drawings or information in writing supplied by the purchaser or engineer.⁵

30. Under clause 17 of FIDIC-CEC incorrect data supplied in writing by the engineer or his representative can obligate the purchaser to pay costs connected with the rectification of errors based on such data.⁶

2. *Uncertainty in contract documents*

31. Where the documents forming the contract contain ambiguities or discrepancies which are resolved through instructions issued by the engineer, and compliance with such instructions involves costs for the contractor which he could not reasonably have foreseen, clause 5(2) of FIDIC-CEC requires the purchaser to pay the contractor additional sums.

3. *Change in physical conditions*

32. Clause 12 of FIDIC-CEC provides that additional costs are to be paid if the contractor encounters on the site physical conditions (other than climatic conditions) or artificial obstructions which an experienced contractor could not reasonably have foreseen. The engineer decides whether the physical conditions could not reasonably have been foreseen by an experienced contractor and certifies the additional cost to be paid by the purchaser. FIDIC-EMW contains a similar provision in clause 24.

4. *Changes in local laws*

33. Subsequent changes in administrative legislation of the country where the works are to be constructed can substantially affect the scope and cost of works contracts.⁷ Most of the forms under study contain provisions designed to safeguard the contractor, to a certain extent, against unforeseen contingencies of this kind.

34. Thus under clause 70(2) of FIDIC-CEC, if after the date thirty days prior to the latest date for submission

⁵ See A/CN.9/WG.V/WP.4/Add.1, I, *Drawings and Descriptive Documents*, para. 23 (Yearbook . . . 1981, part two, IV, B, 1).

⁶ See A/CN.9/WG.V/WP.4/Add.2, VII, *Quality*, para. 55 (Yearbook . . . 1981, part two, IV, B, 1).

⁷ See A/CN.9/WG.V/WP.4/Add.7, XVIII, *Applicable Law*, paras. 95-100 (Yearbook . . . 1981, part two, IV, B, 1).

of the tenders there occur in the country where the works are to be executed changes in local laws which cause additional or reduced cost to the contractor, such cost is to be certified by the engineer and paid by or credited to the purchaser. FIDIC-EMW contains a similar provision in clause 52.2.⁸

35. UNIDO-TKL deals with the adverse impact on the parties' obligations due to changes in local laws in article 36.2, which provides:

" . . . In the event that any code, law or regulations are enacted after the Effective Date of the Contract (which are proven to the satisfaction of the PURCHASER), to have adverse effect on the CONTRACTOR's obligations, scope of work, prices and/or time schedule under this Contract, the PURCHASER shall either:

"36.2.1 obtain appropriate exemption(s) from the relevant authorities on the CONTRACTOR's behalf; or

"36.2.2 negotiate with the CONTRACTOR for commensurate change(s) in the scope of the work to be performed under the Contract, together with such changes in price as properly reflect the actual increased costs that are anticipated. The increased amount shall be subject to full audit by the PURCHASER . . ."

36. Article 15.3 of UNIDO-CRC specifies the circumstances in which the contractor is entitled to claim additional payment in the event that observance of local laws results in additional costs. This article provides:

"The CONTRACTOR shall be entitled to claim for additional costs . . . when a modification, change or variation occurs in the event of any one of the following:

"1. . . .

"2. Any additional engineering/re-engineering required for compliance with applicable laws and in conformity with local statutes consequent on changes in such laws/statutes enacted after the signing of the Contract.

"3. Any additional engineering/re-engineering required for compliance with local statutes consequent on changes in environmental protection standards . . ."

5. *Variation of work*

37. Revision of the price required by variation of the work by the parties is dealt with in Part Two, III, *Variation*.

6. *Technological innovations*

38. A works contract may provide that the contractor is to carry out the mechanical work in accordance with additional superior standards which become known to him after the conclusion of the contract. In that event one of

⁸ *Ibid.*, para. 107.

the questions that arises is which party will pay for the use of the new superior standards which become known to the contractor.

39. Under UNIDO-TKL and UNIDO-CRC the contractor is obliged to make available to the purchaser new improved standards that may become available. Article 7.3 provides:

"The CONTRACTOR shall ensure that the Process Licensors and the CONTRACTOR shall make available to the PURCHASER . . .

"7.3.1 . . .

"7.3.2 On payment, at a reasonable cost, and on agreed terms, including extension of secrecy agreements, rights to use proprietary processes developed or acquired by the CONTRACTOR including patented processes which could result in significant improvements in the capacity, reliability and efficiency of the Plant, and quality of the Products."

40. Under UNIDO-TKL and UNIDO-CRC the purchaser and the contractor are, however, obliged under certain conditions to exchange at no extra charge information on any new and improved operating techniques and preventive maintenance. Article 7.3.1 states:

"The CONTRACTOR shall ensure that the Process Licensors and the CONTRACTOR shall make available to the PURCHASER. . .

"7.3.1 Free of charge, developments and improvements in operating techniques, preventive maintenance and safety measures applicable to the Plant, and other relevant technical data and information which is made available free of cost by the Process Licensors to other licencees within the same period. The PURCHASER will also make available to the Process Licensor and CONTRACTOR, free of charge, any improvements in operating techniques which the PURCHASER shall have made in the same period."

C. *Furnishing of additional supplies and services*

41. In some cases although there may be no change in the extent and scope of the work itself, certain factors may necessitate the furnishing of additional supplies and services in connection with the work. Under certain conditions the contractor is entitled in such cases to claim payment of costs connected therewith. In the forms under study the following categories of cases are found in which the contractor is entitled to claim additional payment.

1. *Protection of highways and bridges*

42. Clause 30(2) of FIDIC-CEC states:

"Should it be found necessary for the Contractor to move one or more loads of Constructional Plant, machinery or pre-constructed units . . . over part of a

highway or bridge, the moving whereof is likely to damage any highway or bridge unless special protection or strengthening is carried out, then the Contractor shall before moving the load on to such highway or bridge give notice to the Engineer . . . of . . . his proposals for protection or strengthening the said highway or bridge. Unless within fourteen days of the receipt of such notice the Engineer shall by counter-notice direct that such protection or strengthening is unnecessary, then the Contractor will carry out such proposals . . . and, unless there is an item . . . in the Bill of Quantities for pricing by the Contractor of the necessary works for the protection or strengthening aforesaid, the costs thereof shall be paid by the Employer to the Contractor."

2. *Additional tests*

43. Under some works contracts the purchaser or a person authorized by him may check the quality of the equipment or the plant even during its production and erection. In such cases clause 36(4) of FIDIC-CEC provides that the costs connected with quality tests that are not provided for by the contract are to be paid by the purchaser unless the tests show lack of conformity with the contract:

"If any test is ordered by the Engineer which is either

"(a) not so intended⁹ by or provided for, or

"(b) (in the cases above mentioned) is not so particularised, or

"(c) though so intended or provided for is ordered by the Engineer to be carried out by an independent person at any place other than the Site or the place of manufacture or fabrication of the materials tested,

"then the cost of such test shall be borne by the Contractor, if the test shows the workmanship or materials not to be in accordance with the provisions of the Contract or the Engineer's instructions, but otherwise by the Employer."

3. *Inspection during erection*

44. The engineer or purchaser may find it advisable to send a representative or technical consultant during the erection to enter the site to check the contractor's compliance with his obligations. Such inspection may, however, entail the provision of additional services by the contractor. Under UNIDO-TKL the contractor shall be entitled to additional payment for such services unless the inspection arose from a non-fulfilment of the contractor's obligations. Article 13.15 states:

"If the sending on the Work and/or the Site of a third party under article 13.14 does not arise from any

⁹ Under the contract.

non-fulfilment of the CONTRACTOR's obligations and, in addition, could not have been reasonably foreseen or anticipated by the CONTRACTOR when entering into this CONTRACT, and, if proven to the reasonable satisfaction of the PURCHASER, the CONTRACTOR has incurred expense in complying with article 13.14 in respect of such third party, the PURCHASER . . . shall pay to the CONTRACTOR the necessary cost of any services provided by the CONTRACTOR."

45. Article 13.8.1 of UNIDO-CRC provides:

"If the sending of such a technical consultant under Article 13.8 above involves delays and/or entails expenses incurred by the CONTRACTOR, the PURCHASER shall pay to the CONTRACTOR these expenses and the contractual time schedule shall be adjusted accordingly."

4. *Samples*

46. Clause 36(2) of FIDIC-CEC states that all samples shall be supplied by the contractor at his own cost if the supply thereof is clearly intended by or provided for in the contract, but if not, then at the cost of the purchaser.

5. *Uncovering works and making openings*

47. Clause 38(2) of FIDIC-CEC deals with the uncovering of the civil engineering work. If this work is uncovered at the request of the engineer, costs connected therewith must be borne by the purchaser provided that the covering up was done with the approval of the engineer and the parts covered up are found to be properly executed.¹⁰

6. *Repairs during maintenance period*

48. With regard to the execution of repairs to the work during the maintenance period, clause 49(3) of FIDIC-CEC stipulates that the purchaser is obliged to pay for repairs which do not result from a breach of obligation by the contractor.¹¹

7. *Detection of defects*

49. Clause 50 of FIDIC-CEC states:

"The Contractor shall, if required by the Engineer . . . search . . . for the cause of any defect . . . appearing during the progress of the Works or in the Period of Maintenance. Unless such defect . . . shall be one for which the Contractor is liable under the Contract, the cost of the work carried out by the Contractor in searching . . . shall be borne by the Employer."

8. *Services or facilities to other contractors employed by purchaser, or to workmen of purchaser*

50. Where the contractor, on the request of the engineer, provides any facilities, services or plant to other contractors employed by the purchaser or to workmen employed by the purchaser, under clause 31 of FIDIC-CEC the purchaser must pay the contractor a reasonable sum for the provision of such facilities, services or plant.

9. *Exploratory excavations*

51. Clause 18 of FIDIC-CEC provides:

"If, at any time during the execution of the Works, the Engineer shall require the Contractor . . . to carry out exploratory excavations, such requirement . . . shall be deemed to be an addition . . . unless a provisional sum in respect of such anticipated work shall have been included in the Bill of Quantities."

D. *Additional costs*

52. Even if the contractor is not called upon to provide additional supplies and services there are certain factors such as delay or disruption of the contractor's arrangements or methods of work which may cause additional expenses to him in performing the contract. Some provisions of the forms analysed deal with the increase of price in such cases.

1. *Prolongation or suspension of work*

53. The ECE General Conditions contain express provision for revising the contract price in cases where the erection is delayed for a cause for which the purchaser or engineer is responsible. Clause 7.2 of ECE 188A/574A provides:

"When erection is carried out for a lump sum, the quoted price includes all the items above mentioned. Provided that if the erection is prolonged for any cause for which the Purchaser or any of his contractors other than the Contractor is responsible and if as a result the work of the Contractor's employees is suspended or added to, a charge will be made for any idle time, any extra work, any extra living expenses of the Contractor's employees and the cost of any extra journey."

54. The purchaser or engineer is sometimes entitled to suspend the performance of the work when, in his opinion, it is necessary to do so, even in the absence of breach of contract by the contractor. In such cases the contractor is entitled to payment of additional costs caused by the suspension. Article 32.4 of UNIDO-CRC provides that the contractor, upon the expiration of the period of suspension, shall be reimbursed for his reasonably justified additional costs evidenced by necessary documentation. Clause 40(1) of FIDIC-CEC stipulates that the contractor is entitled to payment of extra cost connected with the suspension of the

¹⁰ See A/CN.9/WG.V/WP.4/Add.3, VIII, *Inspection and Tests*, para. 47 (Yearbook . . . 1981, part two, IV, B, 1).

¹¹ See A/CN.9/WG.V/WP.4/Add.6, XVI, *Rectification of Defects*, para. 97 (Yearbook . . . 1981, part two, IV, B, 1).

work ordered by the engineer, unless the suspension is necessary by reason of some default on the part of the contractor, or due to climatic conditions on the site or necessary for the proper execution or the safety of the works insofar as such necessity does not arise from any act or default by the engineer or the purchaser or from any of the excepted risks.¹²

2. Circumstances beyond control

55. According to the UNIDO model contracts the contractor is entitled, *inter alia*, to compensation for additional costs arising out of specified occurrences (e.g. vandalism) beyond his control which damage or delay the work required to be undertaken under the contract. (UNIDO-TKL, article 19.1, Text B, and UNIDO-CRC, article 19.1, Text B.)

56. Under clause 65(4) of FIDIC-CEC, the contractor is entitled to any increased cost of execution of the work resulting from special risks. Special risks are defined in clause 65(5) to include rebellion, revolution, insurrection, civil war, and commotion or disorder not solely restricted to the employees of the contractor or sub-contractor.

3. Delay in giving possession of site

57. If the contractor incurs costs from failure on the part of the purchaser to give possession of the site in accordance with the contract, the engineer is, under clause 42(1) of FIDIC-CEC, to certify the sum to be paid by the purchaser to the contractor to cover the costs incurred.

4. Delay in issuing drawings or orders

58. Under clause 6(4) of FIDIC-CEC the contractor is entitled to be paid the reasonable amount of costs incurred due to any failure of the engineer to issue within a reasonable time any drawing or order requested by the contractor in accordance with the contract terms.

5. Failure to issue interim certificates or make payment

59. Clause 41.2 of FIDIC-EMW provides:

"If the Engineer fails to issue an interim certificate . . . or if the Employer fails to make any payment . . . the Contractor shall be entitled to stop the Works after giving 14 days' notice in writing to the Employer and the Engineer of his intention so to do, until the said certificate be issued or payment be made as the case may be, in which case the expenses of the Contractor occasioned by the stoppage and the subsequent resumption of work shall be included in the Contract Price."

6. Delayed delivery caused by engineer or purchaser

60. Under clause 26.1 of FIDIC-EMW a written authorization by the engineer is required before the plant or the

contractor's equipment can be delivered to the site. If the engineer fails to give such authorization in time for reasons for which he or some other contractor employed by him is responsible and the contractor is prevented from delivering in accordance with the contract terms, the contract price is to include certain resulting costs incurred by the contractor (clauses 26.2, 26.3 and 26.4).

7. Purchaser elects to use higher cost materials

61. In a works contract, the purchaser, particularly in a developing country, may have a right to decide that materials and equipment of a local origin shall be used when available. A problem can arise in the event of an increase in the cost of local materials subsequent to the conclusion of the contract. In a cost reimbursable contract the contractor would be reimbursed the cost of the higher priced local materials. In respect of a lump-sum contract, a question that arises is which party will bear the additional cost of local materials. Article 12.6.2 of UNIDO-TKL provides:

"... The PURCHASER shall have the right to decide whether materials of local (indigenous) origin shall be used when available provided that they are in conformity with the specification . . . and in conformity with the time schedules. In the event that the use of local materials result in higher delivery costs at Site (even though imported materials are freely available), the CONTRACTOR shall so advise the PURCHASER together with an estimate of the increased costs. The PURCHASER at his discretion may decide to use the higher-cost local materials, in which event an adjustment of price shall be made as necessary."

E. Currency fluctuations

62. The parties may agree on a currency fluctuation clause (a monetary clause or a purchasing value maintenance clause) to be included in the contract.¹³ In the forms under study only the FIDIC Conditions deal with this problem. Clause 70(1) of FIDIC-CEC contains a provision which may be considered as an index clause. Under this provision adjustment of the price is to be made in respect of the rise or fall in some costs of the execution of the works. Clause 70 of Part II of FIDIC-CEC, to which clause 70(1) refers, provides:

"This clause should cover such matters as: Adjustment of Contract Price, in both local and foreign currency expenditure, by reason of alteration in rates of wages and allowances payable to labour and local staff, changes in cost of materials for permanent or temporary works, or in consumable stores, fuel and power, variation in freight and insurance-rates, Customs or other import duties, the operation of any law, statute, etc; price adjustment formula to be used, if any."

A similar provision is contained in clause 52.1 of FIDIC-EMW.

¹² See A/CN.9/WG.V/WP.4/Add.6, XVI, *Rectification of Defects*, para. 83 (Yearbook . . . 1981, part two, IV, B, 1).

¹³ See Part Two, XIII, *Price*, para. 6.

XV. PAYMENT CONDITIONS

A. General remarks

63. Payment conditions express, in time sequence, the relationship of the obligations to be performed by the parties, i.e. the supply and construction of the works by the contractor and payment of the price by the purchaser. Thus payment of the price may precede performance by the contractor (advance payment) or may be made during performance, or may be made immediately after or within a certain period of time after the completion of the works or after the expiration of the guarantee period. Payment conditions will also usually stipulate the modalities of payment (e.g. the documents against which payment is to be effected). Each party understandably prefers payment conditions which require his performance after performance by the other party; in addition to financial advantages the risk connected with failure to perform the contract by the other party is reduced in such cases as the party required to perform subsequently may suspend his performance if the other party fails to perform. Some legal systems even permit a party to suspend performance or to avoid the contract in cases of anticipatory breach of contract. Article 71 of the Sales Convention* in this connection provides:

“(1) A party may suspend the performance of his obligations if, after the conclusion of the contract, it becomes apparent that the other party will not perform a substantial part of his obligations as a result of:

“(a) a serious deficiency in his ability to perform or in his creditworthiness; or

“(b) his conduct in preparing to perform or in performing the contract.

“(2) If the seller has already dispatched the goods before the grounds described in the preceding paragraph become evident, he may prevent the handing over of the goods to the buyer even though the buyer holds a document which entitles him to obtain them. The present paragraph relates only to the rights in the goods as between the buyer and the seller.

“(3) A party suspending performance, whether before or after dispatch of the goods, must immediately give notice of the suspension to the other party and must continue with performance if the other party provides adequate assurance of his performance.”

64. If there are no payment conditions in a contract, the applicable law determines when the price is to be paid. Article 58 of the Sales Convention* in this connection provides:

“(1) If the buyer is not bound to pay the price at any other specific time, he must pay it when the seller places either the goods or documents controlling their

disposition at the buyer's disposal in accordance with the contract and this Convention. The seller may make such payment a condition for handing over the goods or documents.

“(2) If the contract involves carriage of the goods, the seller may dispatch the goods on terms whereby the goods, or documents controlling their disposition, will not be handed over to the buyer except against payment of the price.

“(3) The buyer is not bound to pay the price until he has had an opportunity to examine the goods, unless the procedures for delivery or payment agreed upon by the parties are inconsistent with his having such an opportunity.”

65. Payment conditions in works contracts are usually drafted with great care, and in most cases the types of payment terms mentioned above are combined. Whether and to what extent advance and credit payment conditions are required will depend upon the kind of commercial operation, the nature of the work and the amount of the price.

66. As noted in Part Two, XIII, *Price*, a single price may not have been fixed for the total performance to be made under the contract; the price may be divided into several parts and each part allocated against a different item of performance (such as supply of equipment, granting of licence and know-how, erection of the equipment, training, management). The payment conditions may be different in respect of each of these items.

67. In some works contracts the price is not fixed as a lump-sum at the time of the conclusion of the contract but is determined at a later stage on the basis of the extent of the work executed and costs connected therewith.¹⁴ The payment conditions must be adapted to the method of pricing used in the contract.

68. The place of payment is another aspect of payment conditions which has important implications for the parties' legal positions and it may also be important in the event of currency restrictions. FIDIC-EMW deals with currency restrictions in clause 42 which provides:

“If, after the date thirty days prior to the latest date for submission of tenders for the Works, the Government or authorised agency of the Government of a country from which any payments under the Contract are to be made imposes currency restrictions and/or transfer of currency restrictions in relation to the currency or currencies in which the Contractor is to be paid, the Employer shall reimburse any loss or damage to the Contractor arising therefrom, without prejudice to the right of the Contractor to exercise any other rights or remedies to which he is entitled in such event.”

* Yearbook . . . 1980, part three, I, B.

¹⁴ See Part Two, XIII, *Price*, para. 4.

A similar provision is contained in clause 71 of FIDIC-CEC.

B. Time of payment

1. Advance payment

69. Provisions for advance payment are usually inserted in a works contract to cover the contractor's working capital and other expenses in the initial stages of the project, and to provide some protection in the event of premature termination of the contract by the purchaser.

70. FIDIC-EMW contains a provision on advance payment before or during manufacture of the plant at the contractor's works. Clause 37.6 states:

"If the Contract provides for progress payments or other payments in advance, before or during manufacture . . . details shall be given in Part . . . and any amounts becoming due to the Contractor in respect thereof shall be included in interim certificates. The making of payments pursuant to this Sub-Clause shall be subject to the Contractor procuring financial assurance by means of the bond or guarantee of an insurance company or bank or other securities approved by the Employer, the details and terms of which shall be stated in Part . . ."

71. The UNIDO model contracts stipulate for advance payment in respect of various items of the work. Under UNIDO-TKL advance payment is stipulated in respect of the following items:

(a) For the granting of licences and know-how, in the amount of 25% of the contract price¹⁵ (article 20.10);

(b) For the supply of plant, equipment, materials ex-site (inclusive of the complete engineering and related services), in the amount of 10% (article 20.11). Another 10% is to be paid under certain conditions at the end of six months from the effective date of the contract;

(c) For the detailed civil engineering design work, and completion of all civil works and other services connected therewith, in the amount of 10% (article 20.12); and

(d) For complete erection of the plant and equipment including the supply of erection materials and hire of erection equipment and related services, in the amount of 10% (article 20.13).

72. UNIDO-CRC provides for the following amounts of advance payment in respect of various items of the work:

(a) The granting of the licences and know-how for the plant, in the amount of 25% (article 20.10.1);

(b) The supply of basic and detailed engineering and the supply of procurement, inspection and expediting services, in the amount of 15% (article 20.11.1); and

(c) The provision of training and training facilities, in the amount of 15%, upon agreement of the programme of training (article 20.13).

73. UNIDO-STC contains the following provisions for advance payment:

(a) The granting of licences, know-how and the supply of basic and detailed engineering for the plant, in the amount of 50% (article 20.13.1); and

(b) The supply of equipment, in the amount of 15% (article 20.14.1).

74. Article 20.17 of UNIDO-TKL provides that advance payment in respect of the items mentioned in paragraph 71 above, shall be made upon the provision of the performance bond or bank guarantee by the contractor as provided for in the contract. Article 20.14 of UNIDO-CRC contains an identical provision.

2. Payment during execution of work

75. Works contracts normally provide for payments to be made during the course of the work at specified stages of the work. Such payments may be based on the value of the work done and equipment supplied at the date of payment, or they may be fixed periodical payments representing a percentage of the price.

76. FIDIC-EMW provides for payment against certificates issued by the engineer. Clause 40 provides that the purchaser shall, during the progress of the work, pay to the contractor within one month from the issue of each interim certificate a sum equal to 50 per cent of the amount certified therein. Under clause 60(1) of FIDIC-CEC payments are to be made, unless otherwise provided, at monthly intervals.

77. The UNIDO model contracts contain detailed provisions setting forth the events in which payment is to be due and the amounts of such payments. UNIDO-TKL contains the following provisions for payments during the execution of the work:

(a) For the granting of licences and know-how, in the amount of 50% of the price on receipt by the purchaser of all the documents concerning know-how and basic engineering (article 20.10);

(b) For the supply of plant, equipment, materials ex-site (inclusive of the complete engineering and related services), 60% of the price to be paid *pro rata* on shipments of the equipment and materials (article 20.11);

(c) For the detailed civil engineering design work, and completion of all civil works and other services connected therewith, 10% of the price to be paid on completion of the design work for the main buildings and structures of the plant, and 65% of the price to be paid as progressive payments in monthly instalments against actual progress of work on site as reported and approved by the engineer (article 20.12);

¹⁵ The percentage is of the contract price for the items in question.

(d) For complete erection of the plant and equipment including the supply of erection materials and hire of erection equipment and related services, 15% of the price to be paid on the arrival of an agreed quantity of the contractor's erection equipment at the site. An additional 50% of the price is to be paid progressively in monthly instalments against actual progress of erection work on site as reported in the contractor's monthly progress report and certified by the engineer (article 20.13);

(e) For services related to management operations and supervision, 25% of the price to be paid on the mechanical completion of the plant, 25% on the first input of feedstock and 25% on commercial production of specification grade urea (article 20.14);

(f) For providing training and training facilities for the purchaser's personnel, 15% of the price to be paid upon agreement of the programme of training and 60% during the training stipulated in the contract. It is further provided that 25% is to be paid on completion of the overseas training of the purchaser's personnel as provided for in the contract (article 20.15); and

(g) For procurement and supply of spare parts, and services related thereto, 15% of the price to be paid on approval by the purchaser of the list of spare parts, and 75% *pro rata* on shipment of the spare parts (article 20.16).

78. UNIDO-CRC also specifies when payments are to be made during the execution of the work. UNIDO-CRC provides as follows:

(a) For the granting of the licences and know-how, in the amount of 50% of the price on receipt by the purchaser of all the documents concerning know-how and basic engineering (article 20.10);

(b) For the supply of basic and detailed engineering and the supply of procurement, inspection and expediting services, the payment is to be made as follows:

- (i) Upon the completion of the meetings stipulated in the contract and upon the issue of purchase orders for all critical items, 10% of the price;
- (ii) On the issue of bid specifications for all process equipment (excluding certain items), 15% of the price;
- (iii) On the issue of purchase orders for all process equipment, 10% of the price;
- (iv) On the issue of purchase orders for 95% (by value) of the equipment, 10% of the price;
- (v) On the issue of inspection certificates for 50% (by value) of the equipment, 5% of the price;
- (vi) On the shipment FOB of 50% (by value) of the equipment, 5% of the price;
- (vii) On the issue of inspection certificates for 95%

(by value) of the equipment, 5% of the price; and;

(viii) On the shipment FOB of 95% (by value) of the equipment, 5% of the price (article 20.11);

(c) For the provision of training and training facilities, 15% of the price to be paid upon agreement of the programme of training, 65% *pro rata* during the training as stipulated in the contract and 25% on completion of the overseas training of the purchaser's personnel (article 20.13).

79. UNIDO-STC contains the following provisions for payment during execution of the work:

(a) For granting of licences, know-how and the supply of basic and detailed engineering for the plant, 25% of the price to be paid on receipt of all the documents (article 20.13);

(b) For the supply of the equipment together with other goods, 75% of the price to be paid on *pro rata* shipment of goods FOB (port) or FOR (rail) as the case may be, subject to the deduction of liquidated damages for late deliveries (article 20.14);

(c) For the procurement of spare parts, 90% of the CIF price to be paid *pro rata* shipment to site (article 20.16); and

(d) For the provision of training and training facilities the price to be paid on completion of the overseas training of the purchaser's personnel (article 20.17).

3. *Payment after completion of works*

80. Payment after completion is usually dependent on the issue of a certificate of proper performance. Under UNIDO-TKL the following provisions are made for payment after completion of the work:

(a) For the granting of licences and know-how, 25% of the price is to be paid on completion of the performance guarantee tests of the plant and issuance of the provisional acceptance certificate by the purchaser (article 20.10.3);

(b) For the supply of plant, equipment, materials ex-site (inclusive of the complete engineering and related services), 10% of the price is to be paid on completion of the performance guarantee test of the plant and issuance of the provisional acceptance certificate by the purchaser, and 10% on the issuance of the final acceptance certificate by the purchaser (article 20.11);

(c) For the detailed civil engineering design work, and completion of all civil works and other services connected therewith, 15% of the price is to be paid on completion of the performance guarantee tests of the plant and issuance of the provisional acceptance certificate by the purchaser (article 20.11);

(d) For complete erection of the plant and equipment including the supply of erection materials and hire of

erection equipment and related services, 15% of the price is to be paid on mechanical completion of the plant and issuance of a mechanical completion certificate, and 10% of the price on completion of the performance guarantee tests of the plant and issuance of the provisional acceptance certificate by the purchaser;

(e) For services related to management operations and supervision, 25% of the price is to be paid on completion of the performance guarantee tests of the plant and issuance of the provisional acceptance certificate by the purchaser (article 20.14.14); and

(f) For procurement and supply of spare parts and services related thereto, 10% of the price is to be paid on the successful completion of the performance guarantee tests of the plant and issuance of a provisional acceptance certificate by the purchaser after deducting the value of the spare parts consumed by the plant before the guarantee tests have been completed, unless such spare parts have been fully replaced by the contractor (article 20.16.3).

81. UNIDO-CRC contains the following provisions for payment after completion of the work:

(a) For the granting of the licences and know-how, 25% of the price is to be paid on completion of the performance guarantee tests of the plant, and issuance of a provisional acceptance certificate by the purchaser (article 20.10.3); and

(b) For the supply of basic and detailed engineering and the supply of procurement, inspection and expediting services, 7% of the price is to be paid on the mechanical completion of the plant, 10% on the issue of the provisional acceptance certificate of the plant, and 3% on the final acceptance of the plant (article 20.11).

82. UNIDO-STC also contains similar provisions on payment after the completion of the work in article 20.13.3, 20.14.3 and 20.16.2.

83. FIDIC-EMW contains provisions for the payment of a large part of the contract price on the taking over of the work. Clause 40 states that unless otherwise agreed the purchaser shall pay to the contractor 95 per cent of the contract sum adjusted within one month from the date certified in the taking over certificate.

4. Bonus payment

84. Sometimes it is in the interest of both parties to advance the completion of the work. As an inducement to the contractor to speed up the work, a bonus payment may be made for saved time. Article 20.29 of UNIDO-TKL and article 20.26 of UNIDO-CRC provide for such bonus payments.

5. Payment after expiration of guarantee period

85. Works contracts usually provide for payment of a percentage of the price after the expiration of the guarantee

period. The purpose is to guarantee rectification of defects which may appear during the guarantee period.

86. Article 40 (c) of FIDIC-EMW provides for the payment of the balance of the price within one month after the issue of the final certificate.

87. Clause 60 of Part II of FIDIC-CEC provides as follows:

"Not later than . . . months after the issue of the Maintenance Certificate the Contractor shall submit to the Engineer a statement of final account . . . showing . . . the value of the work done in accordance with the contract together with all further sums which the Contractor considers to be due to him under the Contract. Within . . . months after receipt to this final account . . . the Engineer shall issue a final certificate stating

"(a) the amount which in his opinion is finally due under the Contract . . .

"(b) the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer as the case may be. Such balance shall . . . be paid to or by the Contractor as the case may require within twenty-eight days of the Certificate."

C. Payment documents

88. Payment conditions normally also stipulate what documents are required in connection with payments. Most payments are to be effected on the basis of an invoice, which is required usually by banks in connection with payment arrangements. There are often provisions in works contracts requiring approval or certification of the invoice by the purchaser's site representative or by the engineer as a precondition to payment. In addition to the invoice other documents may be required by works contracts in connection with payment procedure, such as certificates of performance, bills of lading, certificates of origin, inspection certificates, packing lists.

89. The UNIDO model contracts contain detailed provisions stating the documents that are required for payment. Article 20.26 of UNIDO-TKL provides that any payment due under the contract not being secured by a letter of credit shall be made to the contractor within 8 weeks of receipt by the purchaser of invoices duly certified by the purchaser's site representative. For instalment payments for the detailed civil engineering design work and other civil work, article 20.19.5 of UNIDO-TKL requires a monthly invoice from the contractor indicating the percentages of civil work completed. Article 20.20.2 of UNIDO-CRC provides that payments for daily rates and overtime of the contractor's expatriate personnel shall be effected upon presentation to the purchaser of monthly invoices supported by time-logs of each of the contractor's expatriate personnel, duly countersigned by the purchaser's representative at the site. Under 20.19.7 of UNIDO-TKL an invoice

for payment for the erection of plant and equipment must indicate that the percentage of progress in the erection of equipment as indicated in the monthly progress reports has not been previously compensated and the invoice must be duly certified by the purchaser or his representative.

90. Under FIDIC-EMW payments are effected after the issue of interim certificates by the engineer (clause 40). Applications for interim certificates may be made by the contractor in respect of each shipment of plant and from time to time as work on the site progresses. Each such application in respect of shipment shall identify the plant shipped, state the amount claimed and must be accompanied by such evidence of shipment and of payment of freight and insurance and such other documents as the engineer may reasonably require. Application for interim certificates other than in respect of shipment must set forth in detail particulars of the work executed on site and the plant delivered to the site (clause 37.2).

D. Letters of credit

91. Some payments are secured and payable on the basis of letters of credit. UNIDO-TKL required the purchaser to establish a letter of credit for the purpose of making all payments required during the execution of the work. Article 20.18 provides as follows:

"For the purpose of making payments . . . other than the advance payments . . . and final payments . . . the PURCHASER shall establish in favour of the contractor at a specified Bank in (*the CONTRACTOR's country or as agreed otherwise*) an irrevocable transferable and divisible Letter of Credit providing for payments, in accordance with the scope and schedule laid down . . . in conjunction with the documents-supply specified . . ."

Article 20.15 of UNIDO-CRC contains similar provisions with regard to the form of the letter of credit.

92. For payment of costs connected with the provision of expatriate personnel for management assistance and supervisory services, article 20.20.1 of UNIDO-CRC provides that the purchaser shall establish with a specified bank irrevocable letters of credit in favour of the contractor for an amount to be mutually negotiated between the parties. These letters of credit are to be established one month before the commencement of services by the contractor. UNIDO-STC contains a similar provision in article 20.26.

XVI. PERFORMANCE GUARANTEES

A. General remarks

93. A purchaser planning a large-scale industrial project will want to be assured that the project will be completed in accordance with the specifications and within the time period to be set forth in the contract. Accordingly,

the purchaser will seek a contractor who possesses the financial as well as the technical and operational resources needed to complete the work. Often, however, a purchaser will not have sufficiently thorough information concerning a prospective contractor's finances, the extent of his other work commitments (which could interfere with his performance or completion of the project), his prior performance record, or other factors bearing on the contractor's ability to see the project through to completion. Performance guarantees¹⁶ are therefore often required in works contracts as a means of ensuring that funds will be available to complete the work if the contractor fails to do so. In essence, a performance guarantee is an undertaking given to the purchaser, at the request of the contractor, by a third party — the guarantor — in which the guarantor undertakes to make payment to the purchaser, or arrange for performance of the contract.¹⁷

B. Necessity for performance guarantees

94. Not all works contracts require a performance guarantee. In some cases the purchaser may have full confidence in the contractor and the likelihood that he will complete the work in accordance with the terms of the contract. In addition, the purchaser may not expect the project to present difficult technical problems or other unusual factors, and he may be satisfied that any work left defective or unfinished by the contractor can be completed with a minimum of delay and expense. In such situation, the purchaser might conclude that the risks associated with the project do not justify the expense of requiring a performance guarantee. It should be noted that where a guarantee is required, even if the contractor initially pays the cost of the guarantee, he will in many cases pass this cost on to the purchaser by including it in his price.

95. UNIDO-TKL requires a performance bond in article 21.1 as follows:

"Upon the execution of the Contract, the CONTRACTOR shall provide to the PURCHASER a Performance Bond guaranteed by a First Class Bank in the form given in Annexure XXII A or approved Bonding Institution in the form given in Annexure XXII B for the amount of (*amount*) in favour of the PURCHASER. The PERFORMANCE Bond shall be valid for the period required under the Contract and such extensions thereof, and the CONTRACTOR shall take any and all actions including renewals at the appropriate time to keep the said Bond current and valid for the said period. Fifty per cent of the Performance Bond shall be released upon Mechanical Completion of the Plant, and the balance on Provisional Acceptance of the Plant."¹⁸

¹⁶ Performance guarantees are sometimes called performance bonds.

¹⁷ See para. 110 below.

¹⁸ Under the UNIDO form of bank guarantee, the obligation of the bank is to pay money up to a specified limit. Under the bond,

Article 21.1 of UNIDO-CRC contains a comparable provision, and the bank guarantee and bond required under that article and set forth in Annexures XXII A and XXII B to UNIDO-CRC are in identical terms to those required in UNIDO-TKL, article 21.1.

96. FIDIC-CEC deals with performance guarantees in clause 10 which states:

"If, for the due performance of the Contract, the Tender shall contain an undertaking by the Contractor to obtain, when required, a bond or guarantee of an insurance company or bank, or other approved sureties to be jointly and severally bound with the Contractor to the Employer, in a sum not exceeding that stated in the Letter of Acceptance for such bond or guarantee, the said insurance company or bank or sureties and the terms of the said bond or guarantee shall be such as shall be approved by the Employer. The obtaining of such bond or guarantee or the provision of such sureties and the cost of the bond or guarantee to be so entered into shall be at the expense in all respects of the Contractor, unless the Contract otherwise provides."

FIDIC-EMW contains substantially similar provisions (clause 9.1).

C. Time for submitting guarantee

97. Clause 21.1 of UNIDO-TKL and UNIDO-CRC specify that the contractor shall obtain the bond "[u]pon the execution of the Contract." This provision is to be interpreted in conjunction with article 8.1 of the UNIDO model contracts, according to which "the Contract shall become valid upon the formal execution (signing) by the duly authorized officer of the PURCHASER and CONTRACTOR in accordance with the applicable law."¹⁹ The FIDIC Conditions leave the time for submitting the performance guarantee to the agreement of the parties.

D. Relationship between performance guarantee and contract

1. Character of guarantor's obligation

98. The treatment of many issues which arise in connection with performance guarantees reflects differing approaches to the relationship between the guarantee and the contract in connection with which it is issued. While the contract between the contractor and the purchaser can prescribe the nature and terms of the guarantee which the contractor is obligated to provide, it is the guarantee itself which establishes the juridical link between the guarantor and the purchaser. Therefore, the rights and obligations of

the purchaser and guarantor *inter se* are governed in the first instance by the provisions of the guarantee and its applicable law, which may be different from the law applicable to the contract.

99. In form, a performance guarantee is closely connected with a works contract i.e. the guarantor has to pay upon failure of performance by the contractor under the works contract. The terms of the guarantee, however, may make the guarantee independent of the works contract, or accessory to it.

100. The guarantee would be independent when the obligation of the guarantor to pay, or arrange for performance, is independent of the liability of the contractor under the works contract for failure to perform. An example of an independent guarantee would be a so-called first demand guarantee, under which the guarantor has to make payment on demand by the purchaser. The contractor's failure to perform is proved by the bare assertion to that effect of the purchaser. Whether in fact there is a failure in terms of the works contract, or whether there is liability for such failure on the part of the contractor, is irrelevant to the guarantor's liability.

101. The guarantee would be accessory when the obligation of the guarantor is linked to liability under the works contract for failure of performance by the contractor. The nature of the link may vary under different guarantees e.g. the purchaser may have to establish the contractor's liability, or the guarantor may be entitled to establish the contractor's absence of liability, or entitled to rely on certain defences which the contractor may have in respect of his failure of performance.

102. Guarantees may be so drafted that their categorization into independent and accessory assumes lesser importance. Thus an accessory guarantee, under which the guarantor can only resist a claim to payment on the basis of one or two restricted defences to failure of performance available under the works contract to the contractor, may in practice operate as an independent guarantee.

103. Both independent and accessory guarantees may be either subsidiary or not subsidiary. Where a bond is subsidiary, the purchaser must notify the contractor and give him an opportunity to remedy his failure before claiming under the guarantee. The nature of the notification, and the extent of the opportunity given to remedy the failure may differ under various guarantees. An example is contained in clause 9.2 of FIDIC-EMW:

"If the Employer shall consider himself entitled to any claim under the bond or guarantee he shall forthwith so inform the Contractor specifying the default of the Contractor upon which he relies. Should the Contractor fail to remedy such default within 40 days after the receipt of such notice the Employer shall be entitled to require the bond or surety to be forfeit to the extent of the loss or damage incurred by reason of the default."

the obligation of the bonding institution is either to remedy the contractor's default, or to complete the contract, or to arrange for its completion.

¹⁹ See Part Two, II, *Formation*, para. 13.

104. The UNIDO form of performance bank guarantee has a non-subsidiary character, as the bank must undertake to pay to the purchaser "on demand by the PURCHASER and without prior recourse to the CONTRACTOR" such sum, not exceeding a specified amount, "as may be demanded by the PURCHASER simply stating that the CONTRACTOR has failed to fulfil his obligations." (UNIDO model contracts, Annexure XXII A.)

105. Where an accessory guarantee requires the purchaser to establish the contractor's failure of performance, it will prescribe the method to be used. Some guarantees only require certification of failure by the engineer or a third party, while others require the purchaser to obtain a judicial decree or arbitral award establishing the contractor's failure to perform.

106. A contract between an international organization and a contractor from an industrialized country for the supply of iron plant in a developing country requires a guarantee which is conditioned on the contractor's non-performance of his obligations. Proof of the contractor's non-performance would be established either by

(a) A protocol signed by both the international organization and the purchaser stating the amount to be paid by the guarantor; or

(b) A copy of a judgment of an arbitral tribunal.

107. Article 9 of the ICC Rules for Contract Guarantees,²⁰ if incorporated in a guarantee, would require (unless the guarantee otherwise specified),

"... either a court decision or an arbitral award justifying the claim, or the approval of the [contractor] in writing to the claim and the amount to be paid."

2. *Reduction in amount of guarantee*

108. The liability of the guarantor under a performance guarantee is limited to an amount specified therein. Some contracts enable the contractor to perform the works by portions, or are otherwise divided into distinct stages of completion.²¹ The amount of the guarantee may be reduced as portions of the work are completed by the contractor and accepted or taken over by the purchaser. An example of a provision to that effect is provided by FIDIC-EMW, which under clause 32.2 enables the purchaser to take over the work in stages. This form requires that as each section of the works is taken over the guarantee shall be reduced proportionately (clause 9.3).

109. The guarantee required in a contract between an international organization and a contractor from an industrialized country for the supply of iron plant in a developing country provides that:

²⁰ See Uniform Rules for Contract Guarantees, ICC Publication No. 325.

²¹ See A/CN.9/WG.V/WP.4/Add.3, IX, *Completion*; X, *Take-over and Acceptance* (Yearbook ... 1981, part two, IV, B, 1).

"... the amount of this guarantee shall decrease automatically according to the value of supplies provided and/or services performed by the contractor upon submission to the international organization by the contractor of sufficient documentary evidence, such as progress reports and invoices."

3. *Nature of guarantor's obligations*

110. In most cases, whether the guarantee or bond is accessory to or independent of the works contract, the obligation of the guarantor is simply to pay a sum of money to the purchaser under the circumstances provided in the guarantee. Some bonds, however, may impose additional obligations, including the obligation to take certain measures toward the completion or remedy of the contractor's failure to perform. The bond required by the UNIDO model contracts²² contains such obligations:

"Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly

"1. Complete the Contract in accordance with its terms and conditions, or

"2. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as work progresses (even though there should be default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term 'balance of the contract price', as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less amount properly paid by Owner to Contractor."

4. *Period covered by guarantee*

111. The period of validity of a guarantee is normally stipulated therein and in most cases is linked to the duration of the contractor's obligations. UNIDO-TKL and UNIDO-CRC in article 21.1 express this requirement in general terms:

"The Performance Bond shall be valid for the period required under the Contract and such extensions thereof ..."

²² See para. 95, above.

Under the FIDIC Conditions this issue is a matter for agreement of the parties. (See paragraph 96 above; FIDIC-EMW, clause 9.1.)

112. A guarantee may specify a time limit for the submission of claims by the purchaser against the guarantor and this limit will often be related to the time of final completion of the contract. For example, in a guarantee incorporating the ICC Rules for Contract Guarantees, unless some other date is specified in the guarantee, a claim would have to be "received by the guarantor . . . six months from the date specified in the contract for delivery or completion or any extension thereof, or one month after expiry of any maintenance period (guarantee period) provided for in the contract if such maintenance period is expressly covered by the performance guarantee . . ." (Article 4(b)).

5. *Effect of variation of contract*

113. A significant issue in connection with guarantees is the effect of a variation or extension of the contract on the obligations of the guarantor under the guarantee. It is not uncommon in large scale industrial projects for the contract specifications or the completion date to be modified as the work progresses.²³ Since these variations will change the contractor's obligations under the contract, they will be of concern to the guarantor, particularly if the guarantor's obligations are linked to those of the contractor. A substantial extension or increase of the contractor's responsibilities will increase the risk to which the guarantor is exposed. In some legal systems, unless otherwise provided in the guarantee, an alteration of the underlying contract could operate to release the guarantor; or the guarantor may be obligated only to the extent of the contractor's obligations at the date of issuance of the guarantee.

114. For these reasons, guarantees frequently contain provisions stipulating that the guarantee will not cover variations increasing the contractor's responsibility, or that it will cover such variations only upon approval of the guarantor, or that the guarantor will automatically cover such variations. Guarantees may also deal with the issue of whether the amount of the guarantee is to be increased or the period covered by it extended as a result of variations in the contract.

115. An example of such provision is contained in article 7.2 of the ICC Rules on Contract Guarantees which would apply to a guarantee to which the Rules apply:

"A performance guarantee . . . may stipulate that it shall not be valid in respect of any amendment to the contract, or that the guarantor be notified of any such amendment for his approval. Failing such a stipulation, the guarantee is valid in respect of the obligations of

the principal as expressed in the contract and any amendment thereto. However the guarantee shall not be valid in excess of the amount or beyond the expiry date specified in the guarantee or provided for by these Rules, unless the guarantor has given notice in writing or by cable or telegram or telex to the beneficiary that the amount has been increased to a stated figure or that the expiry date has been extended . . ."

116. The performance guarantee required by the UNIDO model contracts states:

"The surety hereby waives notice of any alteration or extension of the time made by the Owner."

[A/CN.9/WG.V/WP.7/Add.5*]

XVII. INSURANCE

A. *General remarks*

1. A project as complex as the supply and construction of large industrial works has numerous risks associated with it. Due to the potential loss from these risks, it is common for the parties to the contract to require that many of them be covered by insurance.

2. Both parties to the contract have an interest in providing for protection against risks connected with the execution of the contract. Accordingly works contracts usually include provisions relating to

(a) *Property insurance* which insures the works and other types of property against loss or damage from specified events;

(b) *Liability insurance* which covers the liability of a party for a failure to perform his obligations under the contract and for injury or damage caused in connection with his execution of the contract.

3. It should be noted that the fact that a party has provided insurance covering certain risks — even if the contract requires him to insure those risks — will not normally constitute a limitation on obligations under that contract.

4. Indeed, most of the forms under study contain express provisions to this effect. FIDIC-CEC stipulates that fulfilment of the insurance requirement does not limit the contractor's obligations and responsibilities for the care of the works (clause 21). FIDIC-EMW provides that receipt by the purchaser of insurance proceeds "shall not affect the Contractor's liabilities under the Contract" (clause 17.1). The UNIDO model contracts contain the provision that the contractor's obligation to provide insurance shall not restrict "the generality of any other provision of the Contract, and in particular any such provision as pertaining to the liability or responsibility of the CONTRACTOR . . ." (article 24.1 of UNIDO-TKL and CRC).

²³ See Part Two, III, *Variation*.

* 19 April 1982.

B. General insurance clauses

5. In addition to special provisions dealing with particular risks, contracts typically contain general clauses covering both property and liability insurance. FIDIC-CEC provides in clause 21:

"Without limiting his obligations and responsibilities under Clause 20¹ hereof, the Contractor shall insure in the joint names of the Employer and the Contractor against all loss or damage from whatever cause arising, other than the excepted risks, for which he is responsible under the terms of the Contract and in such manner that the Employer and Contractor are covered for the period stipulated in Clause 20(1) hereof and are also covered during the Period of Maintenance for loss or damage arising from a cause, occurring prior to the commencement of the Period of Maintenance, and for any loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 49² and 50³ hereof:

"(a) The Works for the time being executed to the estimated current contract value thereof, or such additional sum as may be specified . . . together with the materials for incorporation in the Works at their replacement value.

"(b) The Constructional Plant and other things brought on to the Site by the Contractor to the replacement value of such Constructional Plant and other things.

"Such insurance shall be effected with an insurer and in terms approved by the Employer, which approval shall not be unreasonably withheld, and the Contractor shall, whenever required, produce to the Engineer or the Engineer's Representative the policy or policies of insurance and the receipts for payment of the current premiums."

6. Clause 17.1 of FIDIC-EMW provides:

"Unless the Employer shall have approved in writing other arrangements the Contractor shall, in the joint names of the Contractor and the Employer, insure so far as reasonably practicable the Works and keep each part thereof insured for the Contract Sum or such other value as may be mutually agreed between the Employer and the Contractor against all loss or damage from whatever cause arising, other than the excepted risks, from the date of shipment or the date on which it becomes the property of the Employer, whichever is the earlier,

¹ I.e. the obligation to care for the works. See A/CN.9/WG.V/WP.4/Add.1, IV, *Passing of Risk*, paras. 121-122 and 127 (Yearbook . . . 1981, part two, IV, B, 1).

² I.e. the execution of repairs to the work during the maintenance period. See Part Two, XIV, *Revision of Price*, para. 48.

³ I.e. searching for the cause of any defect appearing during the progress of the works or in the maintenance period. See *ibid.*, para. 49.

until it is taken over by the Employer. The Contractor shall so far as reasonably practicable insure against the Contractor's liability in respect of any loss or damage occurring whilst the Contractor is on Site for the purpose of making good a defect or carrying out the Tests . . ."

7. Article 24.4 of UNIDO-TKL provides:

"The Insurance Policies . . . required to be taken out by the CONTRACTOR shall be as follows:

"24.4.1 'Construction All Risks' (C.A.R.) liability or 'Erection All Risks' (E.A.R.) policy (inclusive of third party cover) in the name of the PURCHASER and the CONTRACTOR to insure the Plant, while at the Site from the start of work until Provisional Acceptance of the Plant. Endorsements to the policy shall include coverage for E.A.R., 'faults in design', requiring the replacement and repair of damaged equipment due to faults in design, faulty workmanship and faulty material, up to the Performance Guarantee tests. Specific insurances for bodily injury and personal liability insurance, (excluding that to third parties) and endorsements for such items as elevator and hoist liability, shoring, blasting, excavating shall also be included.

"24.4.2 'Loss of Advanced Profits Insurance' (otherwise called 'Machinery Consequential Loss (Interruption) Insurance') to cover consequential loss amounting up to (amount) to the PURCHASER, which may arise following any damage to the Plant during testing and maintenance periods for a total period of (months) providing extended cover to that already provided by the C.A.R./E.A.R. policy.

"24.4.3 'Machinery Breakdown Policy' (if not included in 24.4.1) to cover the breakdown of machinery during testing, Initial Operation and operation of the Plant, including boilers, pressure vessels, turbines, etc., and explosion risks incidental thereto."

UNIDO-CRC (article 24.5) contains substantially similar provisions. One exception is that the limitation in article 24.4.1 of UNIDO-TKL, requiring coverage of the plant "while at the Site", does not appear in UNIDO-CRC.

C. Property insurance

8. Several types of property will be involved in a large works project, including the erected works themselves, equipment and materials to be incorporated in the works, and construction machinery and equipment. Most of the contracts considered for this study distinguish among various types of property in their treatment of issues dealt with by insurance clauses.

1. *Insurance of materials and equipment to be incorporated in works*

9. In a typical situation, materials and equipment which will become part of the works are shipped to the site

(often through different carriers and modes of transportation) and stored at the site until they are incorporated in the works. The materials and equipment are subject to risks of loss or damage throughout this period. If they do suffer loss or damage, it may be impossible to determine at which stage the loss or damage occurred. Because of this, some contracts require the contractor to provide insurance for materials and equipment covering the period as a whole, without distinguishing among the various stages. This approach is adopted by clause 17.1 of FIDIC-EMW (see paragraph 6, above) which requires the contractor to keep the machinery, apparatus and materials insured "from the date of shipment or the date on which it becomes the property of the Employer, whichever is the earlier, until it is taken over by the Employer." Providing insurance coverage for the period as a whole avoids the necessity of identifying the point at which the loss occurred.

10. Under article 24.1 of UNIDO-TKL the contractor is obligated to take out and keep in force, *inter alia*, transport insurance. This is required by article 24.4.4 to include "Marine Insurance" or "Cargo Insurance" to cover the transit of equipment and materials from the shops to the site. Under article 24.7 of UNIDO-CRC the purchaser is obliged to take out this insurance.

2. Insurance of works

(a) Works covered by insurance

11. Some forms specify that the works to be covered by the insurance include both permanent and temporary works (e.g. FIDIC-CEC, clause 1(1)(e)), and structures ancillary to the main works, such as off-sites and administrative, maintenance, laboratory and other facilities (e.g. UNIDO-TKL, article 1.29).

(b) Risks covered

12. According to FIDIC-EMW, the insurance for the project is to cover "all loss or damage from whatever cause arising, other than the excepted risks" (clause 17.1 (paragraph 6, above)). The excepted risks are defined in clause 15.1 (b) as follows:

"(i) (Insofar as they relate to the country where the Works are to be erected) war, hostilities (whether war be declared or not), invasions, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, or unless solely restricted to employees of the Contractor or of his Sub-Contractors and arising from the conduct of the Works, riot, commotion or disorder, or use or occupation by the Employer of any part of the Works; or

"(ii) A cause due to a design furnished or specified by the Employer or the Engineer for which the Contractor has disclaimed responsibility in writing within a

reasonable time after the receipt of the Employer's or Engineer's instructions; or

"(iii) Ionising radiations or contamination by radio-activity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive, nuclear assembly or nuclear component thereof; or

"(iv) Pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds; or

"(v) Any occurrences that an experienced contractor could not foresee, or if foreseeable could not reasonably make provision for or insure against."

13. The UNIDO model contracts, as seen in paragraph 7 above are specific as to the types of insurance required. The precise scope of coverage provided by "construction all risks" and "erection all risks" policies may vary depending upon the particular insurer and policy. However, the fundamental purpose of such policies is to pay the cost of repairing or replacing any physical loss or damage to the works, including materials for incorporation in them.

14. According to the FIDIC Conditions, the contractor must provide insurance covering the works from the commencement of the works until the date(s) specified in the Certificate(s) of Completion in respect of work covered by the certificates. In addition, the FIDIC Conditions specify that the insurance must cover the post-completion maintenance period for loss or damage arising from a cause occurring prior to completion or take-over (FIDIC-CEC, clauses 20(1) and 21; FIDIC-EMW, clause 17.1).⁴

15. In the UNIDO model contracts, the basic "C.A.R./E.A.R." (see paragraph 7 above) insurance is to cover the period from the start of the work until provisional acceptance by the purchaser (UNIDO-TKL, article 24.4.1 and UNIDO-CRC article 24.5.1).

3. Insurance of contractor's equipment

16. FIDIC-CEC requires insurance coverage for "[t]he Constructional Plant and other things brought on to the Site by the Contractor to the replacement value of such Constructional Plant and other things" (clause 21). This insurance is to be provided by the contractor and is to insure the same risks and cover the same period as the insurance of the works themselves (see paragraph 5 above).

D. Liability insurance

1. General liability insurance

17. FIDIC-CEC contains a very broad clause requiring the contractor to insure against his liabilities toward the

⁴ See para. 6 above.

purchaser and toward third parties arising out of the execution of the works under the contract. Clause 23 provides as follows:

“(1) Before commencing the execution of the Works the Contractor, but without limiting his obligations and responsibilities under Clause 22 hereof, shall insure against his liability for any material or physical damage, loss or injury which may occur to any property, including that of the Employer, or to any person, including any employee of the Employer, by or arising out of the execution of the Works or in the carrying out of the Contract, otherwise than due to the matters referred to in the proviso to Clause 22 (1) hereof.⁵

“(2) Such insurance shall be effected with an insurer and in terms approved by the Employer, which approval shall not be unreasonably withheld, and for at least the amount stated in the Appendix in the Tender. The Contractor shall, whenever required, produce to the Engineer or the Engineer's Representative the policy or policies of insurance and the receipts for payment of the current premiums.

“(3) The terms shall include a provision whereby, in the event of any claim in respect of which the Contractor would be entitled to receive indemnity under the policy being brought or made against the Employer, the insurer will indemnify the Employer against such claims and any costs, charges and expenses in respect thereof.”

18. The general liability insurance provision in FIDIC-EMW is somewhat more specific as far as the period of coverage is concerned. FIDIC-EMW requires the contractor to “insure against his liability for damage or injury occurring before all the Works have been taken over”, and against his liability for any loss or damage while he is on the site after take-over to remedy a defect or carry out tests during the Defects Liability Period, or for the purpose of completing outstanding work (clause 17.2). FIDIC-EMW excludes from the liability insurance liability for damage to property forming part of the works (clause 17.2) as damage to the works is to be covered by the property insurance concerning the works (see paragraph 6 above).

19. Article 24.5.1 of UNIDO-CRC and article 24.4.1 of UNIDO-TKL provide that “endorsements to the policy shall include coverage for E.A.R., ‘faults in design’, requiring the replacement and repair of damaged equipment due to faults in design, faulty workmanship and faulty materials, up to the Performance Guarantee Tests. Specific insurances for bodily injury and personal liability insurance (excluding that to third parties) and endorsements for such items as elevator and hoist liability, shoring, blasting, excavating may

also be included”. Article 24.5.3 of UNIDO-CRC and article 24.4.3 of UNIDO-TKL require “machinery breakdown policy” to cover the breakdown of machinery during testing, initial operation and operation of the plant, including boilers, pressure turbines etc. and explosion risks incidental thereto.

2. *Liability arising from use of transport vehicles*

20. The UNIDO model contracts require liability for the use of “automobiles, trucks, aircraft, launches, tugs, barges etc.” (UNIDO-TKL, article 24.4.5 and UNIDO-CRC, article 24.5.5). Under article 24.6 of UNIDO-TKL the contractor is responsible for taking out this insurance except for vehicles of which the purchaser is owner. Under article 24.7 of UNIDO-CRC the purchaser is responsible for it except vehicles of which he is owner.

3. *Liability for injury to workmen*

21. Workmen on the site and other employees of the parties run the risk of injury in the course of employment. Many legal systems have statutory schemes to provide compensation for such injuries to workers, some requiring employers to compensate employees directly for work-related injuries and others requiring employers to provide and pay for insurance covering these risks. In other legal systems, workers may be left to their remedies under general legal principles governing injury and damages. Contracts for industrial projects frequently contain provisions requiring insurance to cover these risks.

22. UNIDO-TKL (article 24.4.6) requires the contractor to take out, in the joint names of the contractor and the purchaser (article 24.7), liability insurance for payments under workmen's compensation acts, as required under legislation in the purchaser's country. The purchaser is to be the beneficiary of this policy (article 24.7). The purchaser is also obligated to carry accident insurance for his own personnel at the site (article 24.6.1).

23. The situation is reversed in UNIDO-CRC. There, the workmen's compensation insurance is to be taken out by the purchaser (article 24.5.6), and the contractor must carry accident insurance for his personnel at the site unless otherwise agreed by the parties (article 24.7.2). This presumably reflects the fact that under UNIDO-CRC, the erection of the plant is to be done by the purchaser under the supervision of the contractor's personnel (article 5.13), while under UNIDO-TKL the contractor performs the construction and erection himself (article 4.9).

24. The subject of insurance for workers is treated somewhat differently in the FIDIC Conditions. In these forms, the contractor is obligated to indemnify the employer against claims and damages arising from injuries to employees of the contractor or any sub-contractor, other than injuries arising from an act or default of the employer, his agents or servants (clause 24.1 of FIDIC-CEC and clause 15.7 of FIDIC-EMW). The FIDIC Conditions require the contractor

⁵ See A/CN.9/WG.V/WP.4/Add.4, XII, *Damages and Limitation of Liability*, para. 52 (Yearbook . . . 1981, part two, IV, B, 1).

to provide insurance to cover this obligation of indemnity (clause 24.2 of FIDIC-EMW and clause 17.3 of FIDIC-EMW).

E. Proof of insurance

25. The FIDIC Conditions obligate the contractor to produce to the engineer, when required to do so, the insurance policies and the receipts for payment of the premiums (FIDIC-EMW adds the words "or satisfactory evidence of insurance cover") (clauses 21, 23(2), 24(2) of FIDIC-CEC and clauses 17.1, 17.2, 17.3 of FIDIC-EMW).

26. UNIDO-TKL requires that within thirty days after obtaining each policy, the contractor must deposit an authenticated copy of the policy with the purchaser (this requirement does not apply to the general corporate and professional indemnity insurance). The purchaser is entitled to ask for up-to-date proof that the policies are in force (article 24.2).

27. To avoid any unintended implication arising from the purchaser's receipt of the copies, article 24.2 further provides that "receipt by the PURCHASER of any such copy shall not be construed as an acknowledgement by the PURCHASER that the insurance is adequate in nature, amount and/or scope."

28. The requirements in UNIDO-CRC are more general than those of UNIDO-TKL. Furthermore, unlike UNIDO-TKL, UNIDO-CRC imposes obligations on both parties:

"Whenever required from time to time, the CONTRACTOR and the PURCHASER shall submit to the other party adequate proof that the insurance(s) . . . to be in his responsibility has been taken and remains in force. The parties hereto shall also provide each other with certified documentation with regard to the coverage and value of the policies." (article 24.2)

F. Consequences of failure to provide insurance

29. The FIDIC Conditions provide that if the contractor fails to provide and keep in force any required insurance, the purchaser may do so, and deduct the amounts paid from any sums due to the contractor. Alternatively, the purchaser may recover such amounts paid as a debt due to the contractor (clause 25 of FIDIC-CEC and clause 17.4 of FIDIC-EMW).

30. The UNIDO model contracts would permit the purchaser to "take out insurance(s) considered appropriate and necessary in the circumstances". The premiums paid by the purchaser would constitute a debt due from the contractor to the purchaser which the latter could deduct from sums due to the contractor (article 24.3 of UNIDO-TKL and UNIDO-CRC).

31. UNIDO-CRC contains an additional provision permitting the contractor to take out "appropriate and necessary" insurance if the purchaser fails to comply with his insurance obligation. The premium paid by the contractor

would constitute a debt due from the purchaser (article 24.4).

XVIII. CUSTOMS DUTIES AND TAXES

A. General remarks

32. The economic aspect of works contracts covers, *inter alia*, customs duties and taxes. Problems relating to customs duties are analogous to those in the context of sales of goods. However, questions relating to taxes on items such as erection of equipment or other services, and transfer of technology raise special problems. The question of double taxation and the resulting question of who should ultimately bear the financial burden of taxation may become acute, particularly when the amount involved is substantial.

B. Customs duties

33. Generally, customs duties are imposed on imported goods. However, in some countries, some goods exported are also subject to such duties. Moreover, in some countries even goods in transit may be liable to customs duties. The question then arises which party is to pay such customs duties. This question may be solved by special contract provisions or by applying international trade terms (e.g. INCOTERMS).

34. Clause 53.1 of FIDIC-EMW contemplates that the obligations of the contractor and the purchaser concerning customs and import duties are to be settled by the parties. Clause 53.2 of FIDIC-EMW only stipulates that the purchaser is to assist the contractor where required in obtaining clearance through the customs of all plant and contractor's equipment and in procuring any necessary Government consent to the re-export of contractor's equipment upon removal from the site.

35. UNIDO-TKL states in clause 4.13:

" . . . The CONTRACTOR shall be responsible for clearance of Equipment and Materials at the port of entry, but the PURCHASER will provide all necessary import permits and authorizations required for this purpose and shall be responsible for demurrage and charges arising out of his failure to provide such permits. The PURCHASER shall be responsible for the payment of customs duties at port of entry."

36. This provision takes into consideration the nature of the performance by the contractor under a turnkey contract and provides for the duty of the purchaser to pay customs duties at the port of entry.

37. Clause 5.6 of UNIDO-CRC provides for the duties of parties in a different way:

"The PURCHASER shall be responsible (unless otherwise agreed) for the transportation of Equipment and

Materials from the port of dispatch (FOB) to the entry port (CIF/FOR) in the PURCHASER's country, for clearance at the entry port and for transportation of the Equipment to the Site."

38. It follows from this provision that in case of doubt the purchaser is to arrange clearance of the equipment and materials at the entry port. Such clearance may include payment of import customs duties.

39. Export and transit customs are dealt with indirectly in clause 31.1 of UNIDO-TKL which provides that the price quoted or contemplated by the contract includes, *inter alia*, customs duties outside the purchaser's country.⁶ Clause 31.1 of UNIDO-CRC contains an identical provision.

C. Taxes and levies

40. Under the tax regulations of most countries, the economic activity connected with the execution of works contracts, in particular income arising from such activity, is liable to taxes or levies. Under some legislation the payer is obliged to reduce payment effected in this connection by the extent of taxes due and to pay such taxes on the account of the foreign tax-payer. Parties therefore would usually agree upon all questions concerning the taxes and levies to be paid in connection with the execution of the works.

41. Clause 26(1) of FIDIC-CEC provides that the contractor has to give all notices and to pay all fees "required to be given or paid by any National or State Statute, Ordinance, or other Law, or any regulation, or by-law of any local or other duly constituted authority in relation to the execution of the Works and by the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the Works."

42. Under clause 26(2) of FIDIC-CEC the contractor is obliged to conform in all respects with the provisions mentioned in clause 26(1) and to keep the purchaser indemnified against all penalties and liabilities for breach of such provision.

43. Article 31 of UNIDO-TKL provides:

"31.1 Except as otherwise specified in this Contract, each and every price cited in or contemplated by this Contract . . . includes and covers all patent royalties, and all taxes, rates, charges and assessments of any kind whatsoever (whether Federal, State or Municipal, and whether or not in the nature of excise taxes/duties, customs tariffs, sales taxes, land taxes, license fees or otherwise) outside the PURCHASER's country pertinent to the equipment and material and CONTRACTOR's services provided with respect to the Works pursuant to this Contract, and/or to the performance of the

work, and all other costs and charges whatsoever relevant to such equipment, material, services and/or to such performance of the work by the CONTRACTOR."

An identical provision is included in clause 31.1 of UNIDO-CRC.

44. This provision should not be interpreted as providing that all taxes and levies imposed on the contractor in the purchaser's country are to be paid by the purchaser in all cases. A footnote to clause 31.2, which is left blank, states that parties should agree, according to the circumstances of each case, on a clause as to the payment of income tax, other taxes, imports and levies imposed on the contractor, his sub-contractors or on their employees in the purchaser's country. In determining the payment of such taxes and levies the law of the purchaser's country, including any relevant agreements for the avoidance of double taxation, is to be taken into consideration. The agreed clause may enable the contractor to receive payments from the purchaser free of the above taxes and levies or to have them considered when fixing the amounts to be received by the contractor. Under the agreed clause the contractor may be obliged in case of any of his taxes having been assumed by the purchaser to co-operate with him to minimize the tax burden and to reimburse him with any tax savings which the contractor may have from tax payments effected by the purchaser.

XIX. BANKRUPTCY

A. General remarks

45. The bankruptcy of a party to a contract may affect contractual obligations. This issue is of particular importance with respect to works contracts, taking into consideration their long term character and the considerable amount of money to be paid during their execution.

46. Under most legal systems, the main effect of bankruptcy is to bring the property of the bankrupt, including both the rights and the obligations under the contracts to which he is a party (except some contracts of a personal character), into the custody and control of the trustee in bankruptcy.

47. The bankruptcy of one of the parties to a contract may not, in itself, have the effect of terminating the contract or constituting a breach of it, since the trustee may, to a certain extent, have the power to carry on the business of the debtor so far as it may be necessary for the purpose of the bankruptcy proceedings. Under some legal systems, bankruptcy may, however, constitute an anticipatory breach of the contract entitling the party who is not bankrupt to suspend the performance of his obligations or even to declare the contract avoided. Under article 71 of the Sales Convention, a party may be entitled to suspend the perform-

⁶ See paras. 43 and 44 below.

ance of his obligations in case of bankruptcy of the other party.⁷

48. In some cases a party may even be entitled to declare the contract avoided if the other party becomes bankrupt prior to the date for performance. This right may arise under article 72 of the Sales Convention* which states as follows:

"If prior to the date for performance of the contract it is clear that one of the parties will commit a fundamental breach of contract, the other party may declare the contract avoided."

49. Some of the complex issues arising from the bankruptcy of one of the parties are the validity of payments made by the bankrupt, the possibility of set-off by the party not in bankruptcy, the legal position of the bankrupt in respect of his obligations, the effects on contracts entered into prior and subsequent to the bankruptcy. Most of the questions related to bankruptcy are closely connected to bankruptcy proceedings which are outside the scope of this study.

B. Provisions on bankruptcy in forms under study

50. FIDIC-EMW deals with bankruptcy in clause 45 which reads as follows:

"45. If the Contractor shall become bankrupt or insolvent, or have a receiving order made against him, or compound with his creditors, or being a corporation commence to be wound up, not being a members' voluntary winding up for the purpose of amalgamation or reconstruction, or carry on its business under a receiver for the benefit of its creditors or any of them, the Employer shall be at liberty

(a) To terminate the Contract forthwith by notice in writing to the Contractor or to the receiver or liquidator or to any person in whom the Contract may become vested, and to act in the manner provided in Clause 44 (Contractor's Default) as though the last-mentioned notice had been the notice referred to in such Clause and the Works had been out of the Contractor's hands; or

(b) To give such receiver, liquidator or other person the option of carrying out the Contract subject to his providing a guarantee for the due and faithful performance of the Contract up to an amount to be agreed."

51. The recourses provided for in paragraph (a) and (b) of clause 45 are not exhaustive and they do not seem to affect the other remedies available to the purchaser under the applicable law.

52. FIDIC-CEC deals with bankruptcy in clause 63(1) which reads as follows:

"If the Contractor shall become bankrupt, or have a receiving order made against him, or shall present his petition in bankruptcy, or shall make an arrangement with or assignment in favour of his creditors, or shall agree to carry out the contract under a committee of inspection of his creditors or, being a corporation, shall go into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), . . . or shall have an execution levied on his goods . . . then the Employer may, after giving fourteen days' notice in writing to the Contractor, enter upon the Site and the Works and expel the Contractor therefrom without thereby voiding the Contract, or releasing the Contractor from any of his obligations or liabilities under the Contract, or affecting the rights and powers conferred on the Employer or the Engineer by the Contract, and may himself complete the Works or may employ any other contractor to complete the Works. The Employer or such other contractor may use for such completion so much of the Constructional Plant, Temporary Works and materials, which have been deemed to be reserved exclusively for the execution of the Works, under the provisions of the Contract, as he or they may think proper, and the Employer may, at any time, sell any of the said Constructional Plant, Temporary Works and unused materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to him from the Contractor under the Contract."

53. The bankruptcy of the purchaser is dealt with in clause 69(1) of FIDIC-CEC. If the purchaser becomes bankrupt or, being a company, goes into liquidation other than for the purpose of a scheme of reconstruction and amalgamation, the contractor is entitled to terminate his employment under the contract after giving fourteen days' prior written notice to the purchaser with a copy to the engineer. FIDIC-EMW has a similar provision (clause 51.1).

54. Where the contractor has become insolvent or has "committed an Act of Bankruptcy" the purchaser is entitled under article 33.7 both of UNIDO-TKL and UNIDO-CRC to cancel the contract.

XX. NOTIFICATION

A. General remarks

55. This chapter considers the modes of notification, time when notice takes effect, functions and effects of notices in the various forms under study. It is not intended to deal exhaustively with these topics, but only to give some illustrative examples. When a "request" is made, or an "advice", an "approval" or a "consent" is sought, notification is required.

* Yearbook . . . 1980, part three, I, B.

⁷ See Part Two, XV, *Payment Conditions*, para. 63.

B. Modes of notification

56. There are two main modes of notification, i.e. oral and written. The latter is more commonly required in the forms under study. The means of communication regarding a notice to be given are specifically indicated in most of the forms under study. However, article 27 of the Sales Convention* speaks of "means appropriate in the circumstances."⁸

57. The UNIDO model contracts set out the means by which notices are to be served. Thus, article 39.1 of both UNIDO-CRC and UNIDO-TKL provides:

"Any notice to be given to or served upon either party under this Contract shall be deemed to have been properly served in the following circumstances:

39.1.1: Provided that:

"39.1.1.1: Any notice to be given to the CONTRACTOR is to be conveyed by registered airmail post, or left at the address stated below, followed thereafter by the transmission of the same notice by cable or telex with a copy to be delivered to the CONTRACTOR's office at (town). (CONTRACTOR's address, cable address and telex number) (marked for the attention of (designation)).

"39.1.1.2: In the case of a notice to be served on the PURCHASER it is to be sent by registered airmail post to or left at the address stated below, followed thereafter by the transmission of the same notice by cable or telex. (PURCHASER's address, cable address and telex number) (marked for the attention of (designation)).

"39.1.1.3: In the case of a notice of information to be sent to the Technical Advisor by the CONTRACTOR, or to be sent by the Technical Advisor to the CONTRACTOR, such notice shall be delivered to the respective Site offices at (town)"

58. Under article 39.1.1.1 and 39.1.1.2, unlike 39.1.1.3, two notices are required. The first is to be conveyed by registered airmail post or left at the address. The second is the transmission of the same notice by cable or telex. A notice conveyed by post would not be deemed to have been "properly served" if it is not followed by cable or telex.

59. Both FIDIC-CEC and FIDIC-EMW also lay down the means of communication to be used in all written notices. Clause 68 of FIDIC-CEC provides:

"68(1) All . . . , notices . . . to be given by the Employer or by the Engineer to the Contractor under the terms of the Contract shall be served by sending by post to or delivering the same to the Contractor's principal place of business, or such other address as the Contractor shall nominate for this purpose.

(2) All notices to be given to the Employer or to the Engineer under the terms of the Contract shall be served by sending by post or delivering the same to the respective addresses nominated for that purpose in Part II of these Conditions."

60. Unlike the UNIDO model contracts there is no general requirement that the notice be sent by registered airmail. A similar provision is contained in clause 50 of FIDIC-EMW. However, in addition to post as a means of communication, cable and telex are expressly provided. It may be noted that article 13 of the Sales Convention states that "writing" includes telegram and telex.

61. Most of the notices that are to be given in ECE 188A/574A are required to be in writing. However, the actual means of communication, for example, whether it is to be by registered post, cable or telex, are not expressly set out.

C. Time notice takes effect

62. Some forms under study expressly link the question as to when notice takes effect with the means of communication. In this connection it may be noted that article 27 of part III of the Sales Convention* reads:

"Unless otherwise expressly provided in this Part of the Convention, if any notice, request or other communication is given or made by a party in accordance with this Part and by means appropriate in the circumstances, a delay or error in the transmission of the communication or its failure to arrive does not deprive that party of the right to rely on the communication."

63. Under the approach in article 27, a notice is effective if it is despatched provided the means of communication is "appropriate in the circumstances"; a delay or error in the transmission of the communication or its failure to arrive would still entitle the addressor to rely on the communication.

64. Some exceptions to article 27, where the receipt rather than despatch approach is envisaged, are to be found in a number of provisions in the Sales Convention.

65. For example, article 48 of the Sales Convention* provides that a request or notice from the seller is not effective unless received by the buyer — where the seller requests the buyer to make known whether he will accept performance by the seller to remedy his failure to perform.

66. Similarly, article 79 (4), which requires notification to be given by a party who fails to perform on account of an impediment, envisages the receipt approach to the extent that he is liable for damages resulting from the non-receipt of such a notice.

* Yearbook . . . 1980, part three, I, B.

⁸ See para. 62 below.

* Yearbook . . . 1980, part three, I, B.

67. It may also be noted that a number of provisions in Part II (Formation of Contract) of the Sales Convention* adopt the receipt approach for notification of an intention, and article 24 provides:

"For the purposes of this Part of the Convention, an offer, declaration of acceptance or any other indication of intention 'reaches' the addressee when it is made orally to him or delivered by any other means to him personally, to his place of business or mailing address or, if he does not have a place of business or mailing address, to his habitual residence."

68. Article 39.1.2 of both UNIDO-CRC and UNIDO-TKL deals with the time when notice is deemed to take effect.

"When any such notice is sent by registered mail post it shall be deemed to have been duly served⁹ following the expiration of () days following the date of posting and in proving such services it shall be sufficient to show that the letter containing the notice was properly addressed and conveyed to the postal authorities for transmission by registered airmail."

69. ECE 188A/574A do not appear to provide expressly for the time when notice takes effect.

D. Functions of notification

70. The main purpose of notification is to communicate with the other party, often in order to provide him with information. An analysis of the various provisions on notices found in the forms under study shows that in many instances, apart from simply providing information, a notice may serve a particular function. The function of a notice is often dependent on the kind of situation in which the notice is required. An attempt is made to classify these functions. But the functions may overlap in some of the categories suggested.

1. Notification to enable co-operation and execution of contract.

71. The co-operation of the other party to a works contract may be required for its due execution. The party whose co-operation is sought must then be provided with the necessary information so that he can act upon it. There are many instances where a party's co-operation is required. Below are some examples.

(a) Approval of drawings, equipment specifications and other documents

72. Documents drawn up in a works contract such as drawings, equipment specifications and instructions are necessary for determining the scope of the work, its proper

and adequate execution and maintenance. Thus, approval of the purchaser to such documents is often required.¹⁰ Most of the forms under study require the contractor to submit such documents for approval by the purchaser requiring the latter to respond with such approval or disapproval.

(b) Inspection and tests

73. In all works contracts, there are to be found provisions that give the purchaser a right of participation in the inspection and tests of the plant.¹¹ The contractor is required to notify the purchaser or his agent as to when the inspection and tests are to take place. This is to enable the purchaser to make arrangements to participate in them.

74. In the forms under study, a notice informing the purchaser or the contractor of inspection and tests must be given in sufficient time. Some forms specify the minimum number of days' notice which the contractor must give to the purchaser. Other forms simply require that notice be given within a reasonable time.

(c) Laws and regulations

75. The contractor has to comply with the laws and regulations affecting the performance of his obligations under the contract, and is generally liable to indemnify the purchaser against all penalties and liability for all statutory breaches. Where the works contract is carried out in the country of the purchaser, it is reasonable to expect the purchaser to inform the contractor of the relevant laws or to assist him in ascertaining the nature and extent of the laws and regulations that govern the contract.

76. Some forms under study require the purchaser to inform the contractor of the provisions of local laws and regulations while others do not.¹² In addition, clause 15.1 of ECE 188A/574A requires the purchaser to notify the contractor in full of the safety regulations which the purchaser imposes on his own employees. Clause 15.2 provides that if breaches of these regulations come to the notice of the purchaser, he must inform the contractor in "writing forthwith".

2. Notification to enable a party to take action

77. In certain situations the other party to a contract, be he purchaser or contractor, has to be notified before a certain course of action can be taken. These are usually situations which affect the liabilities of the parties.

¹⁰ See A/CN.9/WG.V/WP.4/Add.1, I. *Drawings and Descriptive Documents*, para. 12 (Yearbook . . . 1981, part two, IV, B, 1).

¹¹ See A/CN.9/WG.V/WP.4/Add.3, VIII, *Inspection and Tests*, paras. 21-22, 27-28 and 63-65 (Yearbook . . . 1981, part two, IV, B, 1).

¹² See A/CN.9/WG.V/WP.4/Add.7, XVIII, *Applicable Law*, paras. 101-104 (Yearbook . . . 1981, part two, IV, B, 1).

* Yearbook . . . 1980, part three, I, B.

⁹ This article speaks of a notice being "duly served" whereas article 39.1, "properly served" (see para. 57 above).

(a) *Assignment of contract*

78. In some forms under study, the written consent of the purchaser is required for an assignment by the contractor of the liabilities of a contract.¹³ It follows that the purchaser has to have prior notification of the intended assignment.

(b) *Defects*

79. The contractor is required to notify the purchaser of defects due to his fault requiring repair, rectification or modification, before taking over.¹⁴ Where the purchaser is in a position to know of the defects, then he must notify the contractor so that the defects can be remedied.¹⁵

80. The purpose of notification is to give the contractor an opportunity of remedying the defects. If the contractor fails to remedy the defects, the purchaser may do so himself and recover the expenses incurred, or terminate the contract.¹⁶

(c) *Claim based on industrial or other intellectual property*

81. Where a third party makes a claim against the purchaser based on infringement of industrial or other intellectual property rights, notice to the contractor of such claim may assist the contractor to conduct negotiations for the settlement of the claim and to act on behalf of the purchaser, or to the extent permitted by the applicable law, to join in such litigation.

3. *Notification as prerequisite to exercise of a right*

82. In some circumstances notification of certain events is considered of such importance that it is a prerequisite to the acquisition of a right. However, the approaches in the forms under study are not uniform.

(a) *Claim for personal injury and damage to property*

83. Where an injured person brings a claim in respect of personal injury against the purchaser or the contractor, or a third party brings an action in respect of damage to his property against either party, clause 24.1(c) and (d) of ECE 188A/574A, depending on the circumstances, gives one party a right to indemnity from the other party. However, clause 24.2 provides that:

"In order to avail himself of his rights under subparagraphs (c) and (d) of paragraph 24.1 the party against whom a claim is made must notify the other of such claim . . ."

(b) *Right to rely on exonerating event*

84. Not all provisions on exoneration in the forms under study require notifications as a prerequisite to reliance on it, although all require prompt notice to be given. However, the UNIDO model contracts make notification a prerequisite to exemption from liability as a result of *force majeure*.¹⁷ Article 34.2 of UNIDO-TKL reads:

"If either party is prevented or delayed in the performance of any of his obligations under this Contract by circumstances of *Force Majeure*, and if the affected party has given written notice thereof to the other party within (15) days of the happening of such event, specifying the details constituting *Force Majeure*, with necessary evidence that a contractual obligation is thereby prevented or delayed, and that the anticipated period (estimated) during which such prevention, interruption or delay may continue, then the affected or obligated party shall be excused from the performance or punctual performance (as the case may be) of such obligation as from the date of such notice for so long as may be justified."

(c) *Termination of contract*

85. In most provisions on the termination of a contract based on breaches of contract such as delay in completion and non-conformity of work two notices are required. The first notice is to give an opportunity to the party in breach to remedy it.¹⁸ Where the breach is not or cannot be remedied a second notice is required to declare the contract avoided or terminated, if the injured party so wishes to terminate.

86. As termination is considered a remedy of last resort every effort is to be made to rescue the contract. Although the additional period for the rectification of defects is to enable the party to make good the defects, there is, nevertheless, a breach of contract which at the time of the first notice does not justify termination but only gives rise to an action for damages. The first notice serves as a prerequisite to the acquisition of the right to terminate.¹⁹

87. In the case of an exonerating event, the party wishing to claim relief must notify the other party of the event. If the event subsequently makes it impossible to perform the contract within a given time, either party is entitled to terminate by giving notice to the other party.

¹⁷ See A/CN.9/WG.V/WP.4/Add.5, XIII, *Exoneration*, para. 36 (Yearbook . . . 1981, part two, IV, B, 1). A similar provision is contained in the ICC *force majeure* clause. *Ibid.*, para. 38. But compare art. 79 of the Sales Convention (Yearbook . . . 1980, part three, I, B) (see para. 66 above).

¹⁸ See A/CN.9/WG.V/WP.4/Add.7, XVII, *Termination*, paras. 7-9 and 14-15 (Yearbook . . . 1981, part two, IV, B, 1).

¹⁹ The same approach has been adopted as regards non-delivery of the goods in the Sales Convention (art. 49 (1) (b); see, however, art. 49 (1) (a)) (Yearbook . . . 1980, part three, I, B).

¹³ Part Two, V, *Assignment or Transfer of Contract*, paras. 1-4.

¹⁴ See A/CN.9/WG.V/WP.4/Add.6, XVI, *Rectification of Defects*, paras. 78, 92 and 107 (Yearbook . . . 1981, part two, IV, B, 1).

¹⁵ *Ibid.*, paras. 75-77, 86, 95 and 103-106.

¹⁶ *Ibid.*, paras. 110-114.

88. Only in exceptional cases, such as bankruptcy, may a party terminate a contract by serving only one notice.²⁰

4. Notification of variation

89. Variation of a contract may involve additions or reductions to the work, and may therefore result in a change of the contract price, construction schedule or contract guarantees. Generally a variation would require mutual agreement, and notices of variation given by one party to the other may precede the reaching of such mutual agreement.²¹ These notices have the character of an offer and acceptance for the variation of the contract.

90. However, some provisions analysed in this study seem to enable the purchaser or the engineer to vary the contract unilaterally.²²

E. Legal effects of failure to notify

91. The legal effects of failure to notify are often dependent on the purpose of the duty to notify in the specific circumstances. The following are the main effects.

1. Loss of right

92. A right may be lost if no notice is given²³ within a certain period of time.

2. Liability for damages resulting from failure to notify

93. Failure to notify may result in liability for damages resulting from such failure.²⁴

94. Article 69(3) of the GCD-CMEA provides another example where a party is liable to pay damages caused by failure to notify the other party of an exonerating event.²⁵

F. Failure to respond to notice

95. Failure to respond to a notice given by a party may result in certain consequences. For example, where a purchaser is required to approve or disapprove documents drawn up by the contractor and he does not respond within a given period of time after he has been notified of the documents, a presumption of approval may be raised.²⁶ Such

a case, however, must be distinguished from the foregoing (section E above) as the consequences do not arise from the notification but from the failure to respond to it.

XXI. SETTLEMENT OF DISPUTES

A. General remarks

96. The comprehensive and complex nature of works contracts, their long-term character and the fact that disputes often concern technical issues, require the parties to pay special attention to the way in which disputes are to be settled. If a dispute arises before the construction of the works is completed, the work should continue to prevent damages which may be caused by any interruption of the construction. Parties are therefore interested in a speedy settlement of disputes.

97. In most cases, the first step in the settlement of such disputes is to endeavour to resolve them by negotiation and agreement. In some contracts there are procedures provided for in this respect, in particular a requirement that the parties are not to initiate legal proceedings without attempting first to settle their disputes or differences by an amicable arrangement.

98. Article 37.1 of UNIDO-TKL provides:

"In the event of any dispute, difference or contention in the interpretation or meaning of any of the Articles to this Contract or reasonable inference therefrom, both parties shall promptly make endeavour to resolve the dispute or differences by mutual discussion and agreement."

99. And article 37.3 of UNIDO-TKL further provides:

"Subject to the provisions of this Article, either the PURCHASER or the CONTRACTOR may demand Arbitration with respect to any claim, dispute or other matter that has arisen between the parties.

"37.3.1 However, no demand for Arbitration of any such claim, dispute or other matter shall be made until the later of (a) the date on which the PURCHASER or the CONTRACTOR, as the case may be, has indicated his final position on such claim, dispute or matter, or (b) the twentieth Day after the CONTRACTOR or PURCHASER, as the case may be, has presented his grievance in written form to the other, and no written reply has been received within twenty Days after such presentation of the grievance.

"37.3.2 No demand for Arbitration shall be made after the () Day following the date on which the PURCHASER or the CONTRACTOR, as the case may be, has rendered his written final decision in respect of the claim, dispute or other matter as to which Arbitration is sought. The PURCHASER or CONTRACTOR, as the case may be, shall be obliged to specify that the written

²⁰ See Part Two, XIX, *Bankruptcy*, para. 50.

²¹ See Part Two, III, *Variations*, paras. 26-27 and 43.

²² See Part Two, III, *Variations*, paras. 29-30 and 38-42.

²³ See A/CN.9/WG.V/WP.4/Add.5, XIII, *Exoneration*, paras. 33 and 38 (Yearbook . . . 1981, part two, IV, B, 1). See also, articles 39 (1) and 43 of the Sales Convention (Yearbook . . . 1980, part three, I, B); A/CN.9/WG.V/WP.4/Add.2, VI, *Transfer of Technology*, para. 35 (Yearbook . . . 1981, part two, IV, B, 1); and clause 19.2 of FIDIC-EMW.

²⁴ See A/CN.9/WG.V/WP.4/Add.5, XIII, *Exoneration*, para. 37 (Yearbook . . . 1981, part two, IV, B, 1).

²⁵ See also, para. 66 above.

²⁶ See A/CN.9/WG.V/WP.4/Add.1, I, *Drawings and Descriptive Documents*, para. 12 (Yearbook . . . 1981, part two, IV, B, 1). See also, articles 5.6, 6.12 and 27 of UNIDO-TKL. See also, A/CN.9/WG.V/WP.4/Add.3, VIII, *Inspection and Tests*, paras. 49 and 89 (Yearbook . . . 1981, part two, IV, B, 1).

decision is in fact the final decision within the meaning of this Sub-Article. Failure to demand Arbitration within said () Days period shall result in the decision being final and binding upon the other party."

Similar provisions are contained in article 37.1 and 37.3 of UNIDO-CRC.

100. The purpose of article 37.3 of UNIDO-TKL is evidently to speed up the settlement of disputes. The failure to demand arbitration within the time-limit agreed upon under article 37.3 is perhaps regarded as a consent of one party with the proposal made by the other party.²⁷

101. A provision for amicable settlement of disputes is also contained in clause 49.2 of FIDIC-EMW which provides that no dispute between the contractor and the purchaser shall be referred to arbitration unless an attempt has first been made to settle the dispute amicably.

102. Many disputes between parties to works contracts arise from disagreement concerning quality and other technical questions. It is advisable to settle these differences as soon as possible and not to wait for an arbitration award or a court decision. Technical questions in legal proceedings come before the arbitrators or judges long after the technical differences arose. This may have an undesirable influence on the implementation of a contract and even if technical experts are called upon to give their opinion in such proceedings the on-the-spot verification may become more difficult.

103. A technical expert may be appointed directly by the parties, or by a special institution selected by agreement between the parties, to give an opinion on a technical dispute. The parties may specify in their contract whether such a technical opinion should be considered as binding, or whether they should merely constitute evidence to which an arbitrator or judge should attach a certain weight without being bound by it. In clause 49.2 of FIDIC-EMW there is a reference to technical expertise to be used in connection with an amicable settlement of disputes. The engineer's position in settlement of disputes is dealt with in paragraphs 138-143.

B. Conciliation

104. If the parties fail to settle their dispute by themselves they may attempt to settle it by conciliation. As the parties are interested in solving their dispute without having to resort to costly and time-consuming proceedings they may agree upon conciliation before commencing court or arbitration proceedings.

105. The purpose of conciliation is to achieve an amicable settlement of the dispute with the assistance of an independent third party. The settlement of the dispute is based on the agreement of the parties as conciliators do not

adjudicate but only assist the parties in an impartial manner in their attempt to reach an agreement.

106. Taking into consideration the value of conciliation as a method of amicable settlement of disputes arising in the context of international commercial relations, UNCITRAL adopted at its thirteenth session, after consideration of the observations of Governments and interested organizations, the Conciliation Rules of the United Nations Commission on International Trade Law.²⁸ The use of these Rules was recommended by resolution 35/52 adopted by the General Assembly on 4 December 1980.²⁹

107. The UNCITRAL Conciliation Rules are designed to give guidance and settle problems arising in conciliation proceedings, in particular as regards the commencement of conciliation proceedings, appointment of conciliators, role of conciliators, settlement agreement and termination of conciliation proceedings. Under article 16 of these Rules the parties undertake not to initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject of the conciliation proceedings, except that a party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights.

108. There is a model conciliation clause by which the parties would agree on the application of the UNCITRAL Conciliation Rules. This clause reads:

"Where, in the event of a dispute arising out of or relating to this contract, the parties wish to seek an amicable settlement of that dispute by conciliation, the conciliation shall take place in accordance with the UNCITRAL Conciliation Rules as at present in force."

109. The UNCITRAL Conciliation Rules are suitable for all kinds of contracts in international trade, including works contracts.

110. In some general conditions and model contracts analysed in this study there are clauses which envisage conciliation without solving questions connected with conciliation proceedings.

111. Article 37.1.1 of UNIDO-TKL and UNIDO-CRC provides:

"Should the dispute or differences continue to remain unresolved both parties may each nominate a person to negotiate and reconcile the dispute or differences to resolve thereby the matter of contention between the parties arising out of the Contract. In the event that these two persons referred to cannot agree, they shall nominate a third Neutral Person to reconcile the dispute or difference. In case the two persons cannot agree on

²⁸ *Official Records of the General Assembly, Thirty-fifth Session, Supplement No. 17 (A/35/17)*, paras. 105 and 106 (Yearbook ... 1980, part one, II, A).

²⁹ The Resolution and the Rules are set out in *UNCITRAL Conciliation Rules* (United Nations publication, Sales No. E.81.V.6).

²⁷ See Part Two, XX, *Notification*, para. 95.

a third Neutral Person or in case the efforts of the Neutral Person nominated by the two parties fail to resolve the difference within (6) months, both parties to the Contract shall proceed to Arbitration as provided for herein."

C. Arbitration

112. Works contracts like other contracts in international trade often contain an arbitration clause. International commercial arbitration is today a preferred method of settling disputes arising out of international trade. It is widely assumed that arbitration proceedings offer advantages over judicial proceedings as they are better adapted to the specific features of international trade. On the basis of international conventions, in particular the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards of 1958, the arbitral awards can be recognized and enforced abroad often more easily than court decisions.

113. Two kinds of international commercial arbitration are used in practice. The parties may choose either a permanent arbitration institution or an *ad hoc* arbitration. All arbitration institutions have rules according to which they become seized, the arbitrators are appointed, the arbitration proceedings are conducted and the awards are made. If the parties submit their dispute to an arbitration institution they are considered to agree upon the application of rules of such an institution.

114. Difficulties may arise if an *ad hoc* arbitration is chosen by the parties and they have not solved questions concerning arbitration proceedings in their arbitration agreement. A similar situation may also arise in cases where such questions are not settled in the rules of arbitration institutions. National legislation and international treaties may help to overcome some of those difficulties. The European Convention on International Arbitration of 1961 makes provisions for the regulation of various aspects of arbitration proceedings, including appointments of arbitrators, the procedure to be followed, the conflict of law rules to be applied and the recognition and enforcement of the award.

115. In 1966, the United Nations Economic Commission for Europe and the United Nations Economic Commission for Asia and the Far East (now the United Nations Economic and Social Commission for Asia and the Pacific) developed rules providing answers to most questions concerning arbitration proceedings. Particularly important and widely used are, however, the UNCITRAL Arbitration Rules, the use of which was recommended by the General Assembly in its resolution 31/98 of 15 December 1976.*³⁰

116. Arbitration proceedings can be effected in most cases only on the basis of a valid arbitration clause. However, disputes between organizations of the member countries of the Council for Mutual Economic Assistance (CMEA), arising in the international trade, are settled in arbitration proceedings without the need to conclude individual arbitration agreements. Such disputes are subject to arbitration, in an arbitration tribunal established for such disputes in the country of the defendant or, by agreement of the parties, in a third member-country of the CMEA. A counter-claim or set-off based on the same relationship as the original suit is subject to consideration in the same arbitration tribunal in which the original suit is considered. Arbitration awards are final.

117. These consequences follow from GCD-CMEA, GCA-CMEA and GCTS-CMEA. In 1972, Member States of the CMEA concluded a Convention on the Settlement by Arbitration of Civil Law Disputes Arising out of Relations Concerned with Economic, Scientific and Technological Co-operation, which requires, generally, obligatory arbitration proceedings for settlement of all disputes arising between organizations of CMEA countries from commercial relationships aimed at international economic, scientific and technical co-operation.

118. The parties when drafting an arbitration clause shall take into consideration the form of arbitration to be chosen (i.e. institutional arbitration or *ad hoc* arbitration) and determine which disputes are to be covered by the clause. The arbitration clause recommended for the application of the UNCITRAL Arbitration Rules reads as follows:

"Any dispute, controversy or claim arising out of or relating to this contract, or the breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force."³¹

119. It appears that this clause covers disputes concerning questions as to

- (a) Whether the contract is valid or not;
- (b) What are the legal consequences of invalidity of contract;
- (c) The interpretation of the contract, in particular determining what are the duties and rights of the parties;
- (d) What are the legal consequences of the breach of contract including questions concerning exonerating circumstances;
- (e) When the contract is terminated (in cases where a party declares the contract avoided or where the con-

* Yearbook . . . 1976, part one, II, A).

³⁰ The Resolution and the Rules are set out in *UNCITRAL Arbitration Rules* (United Nations publication, Sales No. E.77.V.6).

³¹ *Official Records of the General Assembly, Thirty-first Session, Supplement No. 17 (A/31/17), Chap. V., para. 57* (Yearbook . . . 1976, part one, II, A).

tract is terminated *ipso iure*) and what are the legal consequences thereof; and

(f) Other issues relating to the contract.

120. The attention of the parties is drawn to the possibility of inclusion, in the arbitration clause, of the appointing authority, the number of arbitrators, the place of arbitration and the language to be used in the arbitral proceedings. But if the parties fail to solve these questions in the arbitration clause, the UNCITRAL Arbitration Rules* provide for ways of settling these issues.

121. The scope and nature of the arbitration clauses, contained in the forms analysed in this study, are varied and some of them do not cover all disputes to which the UNCITRAL model arbitration clause applies.

122. Clause 28.1 of ECE 188A reads:

"Any dispute arising out of the contract shall be finally settled in accordance with the Rules of Conciliation and Arbitration of the International Chamber of Commerce, by one or more arbitrators designated in conformity with those Rules."

It may be doubtful whether this clause covers disputes concerning the validity of the contract and what the legal consequences of its invalidity are, as well as the legal consequences of its termination.

123. ECE 574A deals with settlement of disputes in arbitration proceedings in clause 28.1 which provides:

"Any dispute arising out of or in connection with the contract shall be finally settled by arbitration without recourse to the Courts. The procedure shall be such as may be agreed between the parties."

124. The scope of this clause is broader than that in clause 28.1 of ECE 188A as it covers not only disputes arising out of the contract but also disputes which arise in connection with the contract. The clause seems to include disputes relating to the breach of the contract, but the question remains open, whether it also covers disputes concerning the validity of the contract and legal consequences of the invalidity. This clause unlike that of ECE 188A does not refer to a set of arbitration rules so that the parties would still have agreed on the arbitration procedure (see paragraph 114 above).

125. In FIDIC-EMW and FIDIC-CEC there are arbitration clauses formulated in connection with the legal position of a consulting engineer in the settlement of disputes. Disputes may be referred to arbitration if the consulting engineer fails to solve them.

126. Under clause 67 of FIDIC-CEC (see paragraph 142 below) such disputes are to be settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce. This clause covers "any dispute or difference

of any kind whatsoever between the Employer and the Contractor or the Engineer and the Contractor in connection with, or arising out of the Contract, or the execution of the Works." The clause also relates to disputes between the engineer and the contractor though the engineer does not seem to be a party to the contract.³²

127. Clause 67 of FIDIC-CEC also covers disputes arising in connection with the execution of the works in addition to disputes connected with the contract. The question may arise whether this clause also includes disputes of an extra-contractual nature, such as disputes concerning accidents occurring in connection with the construction of the works.

128. In FIDIC-EMW the settlement of disputes by arbitration proceedings is dealt with in clause 49.3 which reads:

"If at any time any question, dispute or difference shall arise between the Employer and the Contractor in connection with or arising out of the contract or the carrying out of the Works (whether during the progress of the Works or after their completion, and whether before or after the termination, abandonment or breach of contract) which cannot be settled amicably either party shall, as soon as reasonably practicable, but not earlier than three months after a request made to settle the dispute amicably has been made to the other party, give to the other notice in writing of the existence of such question, dispute or difference specifying the nature and the point at issue, and the same shall be finally settled by Arbitration under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more Arbitrators appointed in accordance with those Rules."

129. In UNIDO-TKL and UNIDO-CRC arbitration is dealt with in article 37.4 which provides:

"All claims, disputes and other matters in question arising out of or relating to this Contract or the breach thereof which cannot be resolved by the parties shall be decided by arbitration in accordance with the terms contained in Annexure () attached hereto.³³ This agreement so to arbitrate shall be enforceable under the prevailing arbitration law. The award rendered by the arbitrator shall be final and judgements may be entered upon it in any court having jurisdiction thereof."

130. Under article 37.3.1 (see paragraph 99 above) demand for arbitration can be made by either party only after the date on which the other party has indicated its final position on such dispute. In this provision there is another period of time during which arbitration proceedings cannot be initiated, namely the period of 20 days after the date

³² See Part Two, VIII, *Engineer*.

³³ According to the UNIDO model contracts, this annexure is to be agreed upon by the parties.

* Yearbook . . . 1976, part one, II, A.

on which a party has presented his grievance in written form to the other party and provided no written reply is received within this period.

131. The parties agreeing to an arbitration clause normally intend their dispute to be settled by arbitration instead of by a court. Some contracts contain provisions to this effect.

132. Clause 28.1 of ECE 574A states that the disputes are to be finally settled by arbitration without recourse to the courts.

133. The parties may, however, agree upon an option to the claimant to initiate either court or arbitration proceedings.

134. Such an option seems to be included in the UNIDO model contracts. Article 37.5 of UNIDO-TKL and UNIDO-CRC appears to allow the initiation of court proceedings even during the period of time when the initiation of arbitral proceedings is possible. This article reads:

"Notice of the demand for arbitration shall be filed in writing with the other party to the Contract in accordance with the conditions contained in the Annexure referred to in Article 37.4 above.³⁴ The demand for arbitration shall be made within the period specified in Article 37.3,³⁵ after the claim, dispute or other matter in question has arisen, and in no event shall the demand for arbitration be made after institution of legal or equitable proceedings based on such claim, dispute or other matter in question if it would be barred by the applicable statute of limitations."

135. It should be noted that not all provisions of the forms under study are considered. For example, article 37.7 of UNIDO-TKL and UNIDO-CRC provides that arbitrators shall have unrestricted access to the plant (notwithstanding secrecy provisions) for the purpose of arbitration.

D. Court proceedings

136. In some works contracts there are exclusive jurisdiction clauses in which the parties determine the court of a particular place to which the parties should submit their disputes. The laws of most countries give effect, though under varying conditions, to such agreements in international trade contracts.

137. The certainty of the court which is to have jurisdiction in the dispute is useful for determining contractual rights and duties of the parties. Courts of all countries apply in principle conflict rules of their country and, in agreeing on the jurisdiction of the court, the parties indirectly determine what conflict of law rules are to apply to their contract. This is important even in the case of the choice by the parties of the applicable law as the extent of the admissibility of such a choice is to be judged on the basis of the

private international law of the country where the legal proceedings are taking place.

E. Engineer in settlement of disputes

138. Some works contracts provide that the consulting engineer may make observations or technical approvals or even take decisions on certain issues without prejudice to subsequent arbitration or other legal proceedings.

139. The procedure concerning the engineer's decision is provided for in clause 11 of FIDIC-EMW:

"The contractor shall proceed with the Works in accordance with the decisions, instructions and orders given by the Engineer in accordance with these conditions, provided always that:

"(a) if the Contractor shall, without undue delay after being given any decision, instruction or order otherwise than in writing, require it to be confirmed in writing, such decision, instruction or order shall not be effective until written confirmation thereof has been received by the Contractor, and

"(b) if the Contractor shall by written notice to the Engineer within 21 days after receiving any decision, instruction or order of the Engineer in writing or written confirmation thereof, dispute or question the decision, instruction or order, giving his reasons for so doing, the matter shall be referred to the Engineer who shall within a further period of 21 days by notice in writing, with reasons therefor, to the Contractor and the Employer, confirm, reverse or vary such decision."

140. In FIDIC-EMW, the legal nature of the engineer's decision is provided for in clause 49.1, which is as follows:

"If either the Employer or the Contractor is dissatisfied with a decision, instruction or order of the Engineer as confirmed, reversed or varied in accordance with Clause 11 (Engineer's Decisions) either party may subject to Sub-Clause 2³⁶ of this Clause refer the matter to arbitration pursuant to Sub-Clause 3 of this Clause,³⁷ but such reference shall not relieve the Contractor of his obligation to proceed with the Works in accordance with the decision, instruction or order as so confirmed, reversed or varied nor relieve the Employer of any of his obligations under the Contract. The Contractor shall be at liberty in any such Arbitration to rely on reasons additional to the reasons stated in the written notice given pursuant to Clause 11."

141. It would therefore appear that:

(a) The engineer is entitled to interpret the contract in connection with its implementation;

(b) Such an interpretation is binding on both parties, if the procedure provided for in the general conditions is

³⁴ Article 37.4 is quoted in para. 129.

³⁵ Article 37.3 is quoted in para. 99.

³⁶ Sub-clause 2 is quoted in para. 101.

³⁷ Sub-clause 3 is quoted in para. 128.

complied with until such an interpretation is changed by an arbitral award.

142. In FIDIC-CEC, the legal position of the engineer is dealt with in clause 67, which is as follows:

"If any dispute or difference of any kind whatsoever shall arise between the Employer and the Contractor or the Engineer and the Contractor in connection with, or arising out of the Contract, or the execution of the Works, whether during the progress of the Works or after their completion and whether before or after the termination, abandonment or breach of the Contract, it shall, in the first place, be referred to and settled by the Engineer who shall, within a period of ninety days after being requested by either party to do so, give written notice of his decision to the Employer and the Contractor. Subject to arbitration, as hereinafter provided, such decision in respect of every matter so referred shall be final and binding upon the Employer and the Contractor and shall forthwith be given effect to by the Employer and by the Contractor, who shall proceed with the execution of the Works with all due diligence whether he or the Employer requires arbitration, as hereinafter provided, or not. If the Engineer has given written notice of his decision to the Employer and the Contractor and no claim to arbitration has been communicated to him by either the Employer or the Contractor within a period of ninety days from receipt of such notice, the said decision shall remain final and binding upon the Employer and the Contractor. If the Engineer shall fail to give notice of his decision, as aforesaid, within a period of ninety days after being requested as aforesaid, or if either the Employer or the Contractor be dissatisfied with any such decision, then and in any such case either the Employer or the Contractor may within ninety days after receiving notice of such decision or within ninety days after the expiration of the first-named period of ninety days, as the case may be, require that the matter or matters in dispute be referred to arbitration as hereinafter provided. All disputes or differences in respect of which the decision, if any, of the Engineer has not become final and binding as aforesaid shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed under such Rules. The said arbitrator/s shall have full power to open up, revise and review any decision, opinion, direction, certificate or valuation of the Engineer. Neither party shall be limited in the proceedings before such arbitrator/s to the evidence or arguments put before the Engineer for the purpose of obtaining his said decision. No decision given by the Engineer in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator/s on any matter whatsoever relevant to the dispute or difference referred to the arbitrator/s as aforesaid. The reference to arbitra-

tion may proceed notwithstanding that the Works shall not then be or be alleged to be complete, provided always that the obligations of the Employer, the Engineer and the Contractor shall not be altered by reason of the arbitration being conducted during the progress of the Works."

143. The consequences of the engineer's decision under the clause quoted in the previous paragraph are similar to those mentioned in paragraph 141. However, in addition, the parties seem to be limited in respect of initiating arbitration proceedings by time-limits stipulated therein.

F. *Effect of resort to dispute settlement proceedings on duty to perform*

144. The mere fact that the parties have commenced negotiations for the settlement of disputes, or arbitral or court proceedings does not by itself relieve either party from his contractual obligations or justify a postponement of performance. Moreover, in some contracts it is stressed that in case of a dispute both parties are obliged to continue with the performance of their obligations.

145. Article 37.2 of UNIDO-TKL and UNIDO-CRC stipulates in this respect:

"Notwithstanding the existence of a dispute, the CONTRACTOR and PURCHASER shall continue to carry out their obligations under the Contract, and payment(s) to the CONTRACTOR shall continue to be made in accordance with the Contract that in the appropriate cases qualify for such payment(s)."

146. Article 37.6 of UNIDO-TKL and UNIDO-CRC provides as follows:

"The CONTRACTOR and the PURCHASER shall continue the work and undertake their obligations under the Contract in accordance with Article 37.2 and the Contractor shall maintain the progress schedule during any arbitration proceedings, unless otherwise agreed by the PURCHASER in writing.

37.6.1 Before commencement or continuation of the work which is the subject of the dispute under arbitration, the CONTRACTOR may request, at his discretion, a bank guarantee from the PURCHASER to cover the CONTRACTOR's estimate of the additional costs involved. The bank guarantee shall be payable in part or in full only as a result of Arbitration proceedings in favour of the CONTRACTOR, and shall be valid until 30 days after the Arbitration Award."

147. Another provision concerning this subject is obtained in article 37.1.2. of UNIDO-TKL and UNIDO-CRC which reads:

"Pending resolution of any such claim or dispute pursuant to Article 37.1.1 the Contractor shall perform in accordance with the Contract without prejudice to

any claim by the CONTRACTOR for additional compensation and/or time to complete the work if such instructions (are in his opinion) above and beyond the requirements of the Contract."

148. Clause 49.4 of FIDIC-EMW, which deals with a relationship between the obligation to perform in case of arbitration and suspension of contract, reads:

"Performance of the Contract shall continue during Arbitration proceedings unless the Employer shall order the suspension thereof, and if any such suspension shall be ordered the reasonable expenses of the Contractor occasioned by such suspension shall be included in the Contract Price if the Arbitrators so decide. No payments due or payable by the Employer shall be withheld on account of pending reference to Arbitration."

149. It seems to follow from this provision that the obligation to proceed with the performance of the contract (by the contractor) does not apply if the purchaser suspends the performance of the contract irrespective of whether or not he was entitled to do so.

Part Three

[A/CN.9/WG.V/WP.7/Add.6*]

LIST OF QUESTIONS FOR CONSIDERATION BY THE WORKING GROUP

A. Introduction

The Working Group may wish to consider the questions listed below in its discussion of the topics in the light of Study II. As in Study I, the list is not intended to be exhaustive.

B. Questions

I. Feasibility studies

1. Should the contractor be obliged to verify the accuracy and adequacy of

(a) Feasibility studies, or

(b) Information on which these studies are based supplied to him by the purchaser? (See also question 55).

2. If question 1 is answered in the affirmative, should this obligation be limited to the discovery of evident errors or defects, or should it be wider?

3. If question 1 is answered in the affirmative, should this obligation be limited to feasibility studies and information which are to be used as a basis for the work to be performed by the contractor?

4. Should the contractor be obliged, independently of studies or information supplied by the purchaser, to make studies and obtain information necessary for him to carry out his obligations under the contract?

5. If question 1 or 4 is answered in the affirmative, how should the legal implications arising from a discrepancy between verification, studies made and information obtained by the contractor, and studies and information supplied by the purchaser, be settled?

6. When physical conditions are dealt with in feasibility studies, to what extent should the contractor be responsible for his performance under the contract when a change of physical conditions affects such performance?

7. If the contractor is to bear some responsibility in respect of feasibility studies or information supplied to him by the purchaser who had obtained them from a third party, should the purchaser be obliged to assign to the contractor his rights arising from a breach of obligation by the third party in preparing such study or obtaining such information?

II. Formation of contract

(Questions on the legal issues involved in tender procedure have not been formulated for the reasons indicated in A/CN.9/WG.V/WP.7/Add.1, paragraph 22**.)

8. Should the legal guide analyse legal problems connected with contractual terms which under the works contract are to be agreed upon in the future by the parties?

9. Should the legal guide analyse legal problems connected with contracts subject to condition (e.g. entry into force subject to condition)?

III. Variation

10. Should the purchaser be entitled unilaterally to vary the scope of the work undertaken by the contractor, if so, under what circumstances, and to what extent?

11. Should the contractor be entitled unilaterally to vary the scope of the work undertaken by him, and if so, under what circumstances, and to what extent?

12. If question 10 or 11 is answered in the affirmative, by what procedure should the scope of consequent variations in other contractual provisions (e.g. price, time schedule, performance guarantees) be determined?

IV. Interpretation

13. Should the contract include a provision on general rules of interpretation? If so, what principles should be reflected in these rules?

14. To what extent should the negotiations be taken into consideration in interpreting a contract (e.g. views

* 27 April 1982.

** Reproduced in this volume, part two, IV, B.

exchanged, statements made, or conduct during negotiations)?

15. Should the legal guide recommend definitions of certain terms often used in works contracts? Which terms should be defined?

16. Should the legal guide recommend rules to resolve conflicts between the contract, annexures thereto, and general conditions incorporated by reference?

V. *Assignment*

17. Should either party be allowed to assign the contract as a whole, and if so, under what conditions?

18. Should either party be allowed to assign his rights under the contract, and if so, to what extent?

19. Should either party be allowed to assign his obligations under the contract, and if so, to what extent?

VI. *Sub-contracting*

20. Should the ability of the contractor to sub-contract be restricted, and if so, to what extent?

21. When sub-contracting is permitted, to what extent should the purchaser participate in the selection of a sub-contractor by the contractor? (See also question 35).

22. To what extent should the terms of the sub-contract be determined in the main contract?

23. If the contractor is obliged to procure equipment or services for the purchaser, should he be obliged

(a) To conclude contracts with a third party in his own name on account of the purchaser; or

(b) To conclude contracts with a third party on behalf of the purchaser; or

(c) To assist the purchaser in his negotiations with a third party? (See also question 36).

24. Should the purchaser be entitled to pay the sub-contractor if the contractor fails to pay him, and if so, under what conditions?

25. Should the legal guide deal with contracts entered into by the purchaser with third parties in connection with the execution of the works?

26. If question 25 is answered in the affirmative, should the sub-contractors to be employed by the purchaser be agreed upon between the contractor and the purchaser, and if so, in which cases?

27. Should the legal guide deal with the consequences of failure of performance by the purchaser's suppliers affecting the execution of the contract by the contractor?

VII. *Co-ordination and liaison agents*

28. Should a liaison agent be designated by each party in the contract, and if so, should the scope of the agent's

authority be determined in the contract by the party designating him?

29. Should the contract include a provision on the duty of the parties to co-operate in the execution of the contract, and if so, how should this duty be defined?

30. What co-ordination procedure should be agreed upon in the contract?

VIII. *Engineer*

31. What should be the main functions and scope of authority of the engineer as the purchaser's representative?

32. In addition to his functions as the purchaser's representative, should the engineer be given the function of deciding certain issues affecting the parties as an impartial person? (See also questions 92 and 93).

33. If the answer to question 32 is in the affirmative, how should his duty to be impartial be defined?

IX. *Liabilities in respect of third parties*

34. In what cases, if any, should the contractor be fully responsible for failure to perform by a third party (e.g. employee, sub-contractor) whom the contractor has engaged for the fulfilment of his obligations under the contract and in what cases, if any, should the contractor's responsibility be limited?

35. Should the responsibility of the contractor for sub-contractors employed by him differ, depending on whether they have been chosen solely by the contractor, or on whether the purchaser has participated in their selection?

36. What should be the responsibility of the contractor

(a) If he concludes contracts as described in question 23 (a)?

(b) If he concludes contracts as described in question 23 (b)?

(c) If he assists in negotiations as described in question 23 (c)?

37. Should the legal guide deal with loss or damage caused to the purchaser in connection with the execution of the contract by employees or sub-contractors of the contractor, or loss or damage caused to the contractor in connection with the execution of the contract by employees or sub-contractors of the purchaser?

X. *Technical assistance*

38. What issues should be addressed in connection with the provision of training (e.g. place of training, payment conditions, type of training)?

39. What issues should be addressed in connection with the provision of management services (e.g. payment conditions, type of management, responsibility for operation of the works)?

40. What kinds of technical assistance other than the provision of training and management services should be dealt with in the legal guide?

41. If technical assistance other than training and management services are to be dealt with, what issues should be addressed in connection therewith?

42. Are there any special problems (other than those involved in the transfer of technology) in protecting confidential information conveyed through technical assistance? If so, how should such problems be solved?

XI. *Maintenance and spare parts*

43. Should the legal guide deal with the contractor's obligation to maintain the works?

44. If question 43 is answered in the affirmative, what should be the scope of the main obligations of the contractor in regard to the maintenance of the works after the expiry of the guarantee period?

45. What should be the obligations of the contractor in regard to the supply of spare parts manufactured by him? (See also question 8.)

46. Should the contractor be obliged to procure spare parts manufactured by third parties? (See also question 23.)

47. If question 46 is answered in the affirmative, what should be the extent of his obligation in connection with such procurement? (See also questions 23 and 26.)

XII. *Storage on site*

48. To what extent should either of the parties be obliged to provide storage facilities and to store materials and equipment on site?

49. Who should bear the costs connected with such provision of storage facilities and storing?

50. Who should bear the risks in respect of materials and equipment stored on site, and to what extent?

XIII. *Price*

51. What factors favour the adoption of

(a) A lump-sum price, or

(b) A price on the basis of time incurred and work done, or

(c) A reimbursable price for a works contract, or certain items herein?

52. If the price is to be determined on the basis of time incurred and work done, what procedures are appropriate for measuring the time incurred and work done?

53. In the case of a reimbursable price, what procedures are appropriate for determining the price payable?

54. Should the legal guide deal with issues concerning price currency, and if so, which issues?

XIV. *Revision of price*

55. Should the contractor be entitled to an increase in price if the scope of the work has to be changed owing to the discovery of errors in the data supplied by the purchaser?

56. Should there be a revision of the price when a change in the laws in force on the site requires an alteration of the works? (See also question 12.)

XV. *Payment conditions*

57. How should the due date of an advance payment be determined?

58. What conditions should be required for payments to be made during the course of the execution of the contract?

59. What conditions should be required for payments to be made after completion of the works?

60. What conditions should be required for payments to be made after the expiration of the guarantee period?

61. Should the legal guide deal with issues relating to bonus stipulated for completion of the work by the contractor before the due date?

62. When the contractor has granted credit to the purchaser, should issues relating to the credit terms be analysed?

XVI. *Performance guarantees*

63. What should be the legal nature of the performance guarantee (e.g. independent, accessory, subsidiary)?

64. At what time should the performance guarantee be provided?

65. Should the contract provide for a reduction in the amount of the performance guarantee? If so, under what circumstances and to what extent should the amount of the guarantee be reduced?

66. When the performance guarantee is subsidiary, what steps should the purchaser take before he is entitled to claim under the guarantee?

67. Should the guarantor's obligations be limited to the payment of a sum of money, or might it also include other obligations?

68. What should be the effect upon the performance guarantee of variation of the contract?

69. Should the legal guide deal with the period to be covered by a performance guarantee?

XVII. *Insurance*

70. What risks should be covered by insurance of the materials and equipment to be incorporated in the works, and who should provide such insurance?

71. What period of time should be covered by the insurance mentioned in the previous question?

72. Should insurance of the materials and equipment cover the time during which the contractor bears the risks in respect of such materials and equipment?

73. What risks should be covered by insurance of the works during the construction, and who should provide such insurance?

74. Should the contractor's equipment be covered by insurance?

75. Should the legal guide deal with liability insurance of the purchaser and contractor?

76. What should be the consequences of failure to provide insurance in accordance with the contract?

XVIII. *Customs duties and taxes*

77. Should the legal guide deal with issues relating to customs duties?

78. Should the legal guide deal with issues relating to taxes and levies?

XIX. *Bankruptcy*

79. Should the bankruptcy of either party be dealt with only in chapters dealing with other topics when bankruptcy is relevant to such topics?

80. What should be the rights under a works contract of the purchaser on the bankruptcy of the contractor, and vice versa?

XX. *Notices*

81. In what contexts in works contracts should the despatch theory under article 27 of the Sales Convention be adopted?

82. In what circumstances should notice constitute a pre-requisite to the exercise of a right?

83. Should a failure to notify within a time-limit result in the loss of a right, and if so, in what circumstances?

84. In what situations, if any, should a presumption of approval or consent be raised upon failure to respond to a notice within a time-limit?

85. What consequences should the failure to notify have in cases not covered by questions 82 and 83 above?

XXI. *Settlement of disputes*

86. Should the parties be obliged to attempt to settle their disputes by negotiation before instituting legal proceedings?

87. If question 86 is answered in the affirmative, what procedure should be provided for such negotiation?

88. For the settlement of disputes concerning technical issues, should the parties be obliged to refer such disputes to a technical expert for his opinion prior to instituting legal proceedings?

89. Should the legal guide deal with conciliation as a means of dispute settlement?

90. In relation to the use of arbitration as a means of dispute settlement, should the legal guide only recommend the use of the UNCITRAL Arbitration Rules, or in addition analyse the special problems connected with the use of arbitration in works contracts?

91. Should the legal guide deal with clauses on court jurisdiction?

92. Should the engineer be authorized to settle disputes between the contractor and the purchaser and, if so, should such an authorization be limited to technical issues?

93. If question 92 is answered in the affirmative, what should be the legal nature of the engineer's decision given in the settlement of a dispute?