

B. Working papers submitted to the Working Group on the New International Economic Order at its fifth session

Draft legal guide on drawing up international contracts for construction of industrial works: draft chapters: report of the Secretary-General (A/CN.9/WG.V/WP.11 and Add. 1 to 9)

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[A/CN.9/WG.V/WP.11]

Introduction

1. At its second session the UNCITRAL Working Group on the New International Economic Order decided to entrust the secretariat with the drafting of a legal guide on contracts for the supply and construction of large industrial works.¹ The Commission at its fourteenth session approved this decision by the Working Group and authorized the secretariat to draft the legal guide, which should identify the legal issues involved in contracts for the supply and construction of large industrial works and suggest possible solutions to assist parties, in particular from developing countries, in their negotiations.²

2. After having completed at its second³ and third⁴ sessions the consideration of a study submitted by the secretariat of clauses used in contracts for the supply and construction of large industrial works,⁵ the Working Group requested the secretariat to prepare a few sample chapters and an outline of the structure of the guide.⁶ In compliance with this request the secretariat submitted to the fourth session of the Working Group a draft outline of the structure of the legal guide and some sample draft chapters.

3. At its fourth session the Working Group discussed the draft outline of the structure of the guide and draft chapters on "Choice of contract type", "Exemptions" and "Hardship clauses"⁷ while the discussion on the chapter "Termination"⁸ was postponed to the fifth session. There was general agreement that the draft outline of the structure of the guide was on the whole acceptable. It was generally recognized that, as the work progressed, some rearrangement of chapters might become necessary and the secretariat was given the discretion to do so, if needed. While the draft chapters were on the whole considered to be acceptable, it was suggested that certain portions of the chapters needed rearrangement or redrafting in the light of the discussion. There was general agreement in the Working Group on the need to prepare the guide expeditiously.⁹ These conclusions of the Working Group were approved by the Commission at its sixteenth session.¹⁰

¹A/CN.9/198, para. 92 (*Yearbook 1981*, part two, IV, A).

²Report 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).

³A/CN.9/198 (*Yearbook 1981*, part two, IV, A).

⁴A/CN.9/217 (*Yearbook 1982*, part two, IV, A).

⁵A/CN.9/WG.V/WP.4 and Add. 1-8 (*Yearbook 1981*, part two, IV, B, 1), A/CN.9/WG.V/WP.7 and Add. 1-6 (*Yearbook 1982*, part two, IV, A).

⁶A/CN.9/217, paras. 132-133 (*Yearbook 1981*, part two, IV, A).

⁷A/CN.9/WG.V/WP.9 and Add. 1-4 (*Yearbook 1983*, part two, IV, B).

⁸A/CN.9/WG.V/WP.9/Add.5 (*Yearbook 1983*, part two, IV, B).

⁹A/CN.9/234 (*Yearbook 1983*, part two, IV, A).

¹⁰Report of the United Nations Commission on International Trade Law on the work of its sixteenth session, *Official Records of the General Assembly, Thirty-eighth Session, Supplement No. 17* (A/38/17), paras. 90-92 (*Yearbook 1983*, part one, A).

4. With regard to the question of title to be given to the legal guide, the sample chapters submitted to the fourth session were entitled "Legal Guide on drawing up contracts for construction of industrial works". The Working Group agreed that the term "international" should be added to in the title to qualify the term "contracts" and that the omission of the term "large" originally used in the title in connection with the term "industrial works" was justified. However, the issue whether the term "contracts for construction of industrial works" or the term "contracts for supply and construction of industrial works" should be used for the title remains open and it may be advisable to settle it in the future after the definition of the term "construction" has become well-settled as the preparation of the guide progresses.

5. The present report contains in its addenda the following draft chapters prepared by the secretariat: "Inspection and tests", Add.1; "Failure to perform: delay", Add.2; "Failure to perform: defective construction", Add.3; "Damages", Add.4; "Liquidated damages and penalty clauses", Add.5; "Variation clauses", Add.6; "Assignment", Add.7 and "Suspension of construction", Add.8 as well as a note on the format of the guide, Add.9.

[A/CN.9/WG.V/WP.11/Add.1]

Chapter XIII. Inspection and tests

Summary

The contract should specify clearly the requirements and procedures for inspection and tests, and their legal effects. Inspection and tests during production, building and erection (paragraphs 2, 3 and 7) should be distinguished from those upon completion.

Provisions on tests during production, building and erection should take into account inspection and tests required under national regulations in the countries where the works are being erected, and where equipment is produced (paragraphs 4-6).

Tests during production should be regarded as a part of the contractor's obligation of quality control. Therefore, an expression by the purchaser of satisfaction with such tests should not release the contractor from the obligation to demonstrate on completion that the works conform to the contract specifications (paragraph 10).

The purchaser's representatives should, to the extent possible, be assured a right of access to places where the plant and its components are produced, so that they can inspect them during production (paragraphs 12-14). The contractor should be obligated to give reasonable advance notice of the performance of tests (paragraphs 15 and 16). The contract should permit the purchaser to modify the tests to be performed by the contractor, or to require the contractor to perform tests not specified in the contract, and should establish who is to bear the

costs of such tests and whether they should entitle the contractor to additional time to perform the contract (paragraphs 18 and 19). Unsuccessful tests should be repeated at the contractor's expense, and without entitling the contractor to additional time to perform the contract (paragraph 20). The contract should contain provisions concerning the issuance, notification, and legal effects of reports and certificates of tests (paragraphs 21-23). The costs of inspection and tests during production should in principle be borne by the contractor (paragraph 24).

The contract should establish procedures concerning inspection and tests during building and erection (paragraphs 27-31).

Inspection and tests to be performed upon completion of the works should include mechanical completion tests (to demonstrate that the works has been properly completed), and performance tests (to determine whether the works meets the performance requirements stipulated in the contract). The contract should clearly set forth the steps to be included in the mechanical completion tests, and the procedures connected therewith (paragraphs 34-36). The contract should permit the purchaser to modify such tests and to require the performance of tests in addition to those specified in the contract (paragraph 37). The contract should establish procedures concerning the conduct of performance tests (paragraphs 39-43), and should establish which party is to bear costs associated with such tests (paragraph 44).

* * *

A. *General remarks*

1. It is important for a works contract to specify clearly the requirements and procedures for inspection and tests, and their legal effects. Procedures should be established to ascertain whether the works constructed conform to the contractual requirements. The procedures should relate not only to visual inspection of the works but should also provide for a variety of tests to be performed. The precise nature, scope and timing of the inspection and tests provided for by the contract will, of course, depend upon the nature of the works to be constructed. However, inspection and tests should normally be carried out not only upon completion of the work but throughout the construction process.

2. Inspection and tests during production, building and erection serve a purpose different from those upon completion. This difference should be borne in mind when drafting the corresponding contract provisions.

3. Tests during production, building and erection are not, in principle, conceived to demonstrate that the contractor has met his obligations. Consequently a failure of the purchaser to detect and notify a defect should not deprive him from relying later on such a defect. These tests rather constitute part of the contractor's obligations to construct the works and to observe certain rules on quality control. The purchaser may also wish to satisfy himself that production is proceeding in accordance with the agreed time-schedule.

4. A number of countries, especially those in which industry is highly developed, have issued legal regulations which require that industrial installations and many of their components be inspected and tested by public authorities or private institutions. In some areas, and in particular in the field of nuclear energy, such inspection and tests may also be prescribed at an international level.

5. Such inspection and tests prescribed by national legal regulations which relate primarily to safety, health and environmental standards in principle are applicable irrespective of whether they are provided for in the contract or not. Nevertheless, consideration should be given to them when drafting the contract. This applies first of all to inspection and tests required by national legal regulations at the place where the works is built (see chapter XXXIX, "Applicable law"). In addition, inspection and tests required in the countries where equipment and components are produced should also be considered. Where they apply to the production of equipment and components, the contractor has to provide such inspection and tests independently of any stipulation in the contract. It is, nevertheless, important for the purchaser to take account of them in specifying the contractual requirements for inspection and tests; in fact where certain quality control requirements have to be met under legal requirements in the producer's country, additional contractual provisions on testing such quality requirements may not be necessary, and it may be sufficient for the contractor to show that the inspection and tests required in the country of production have been properly performed.

6. On the other hand, where such inspection and tests are only required immediately prior to operating a plant or certain components, the legal regulations in the contractor's country may not be directly applicable. The purchaser may therefore wish to stipulate that these inspection and tests should also be performed in his own country. Some of the institutions carrying out inspection and tests under national legal regulations in countries with a high degree of industrial development can also perform these services abroad; in cases where a new industry is built up in the purchaser's country it may be preferable, at an initial stage, to have certain inspection and tests carried out by an experienced foreign institution. The necessary arrangements can be made directly between the purchaser and the institution, and in that case the contract should provide that the respective regulations on inspection and tests are to be observed as if they were regulations in the purchaser's country. Alternatively, the contract could provide that the necessary arrangements are to be made by the contractor.

7. In some cases inspection and tests may be required with respect to equipment and materials supplied by the purchaser. The contractor should be required to make such inspection and tests as soon as feasible after such equipment and materials have been supplied to him. The contract should deal with the consequences of the contractor's failure to discover defects (see chapter XXX, "Failure to perform").

8. Particular attention should be paid to specifying inspection and tests upon completion (see section D, below). With respect to tests during production and erection, a more flexible approach might be adopted. These latter tests may be regarded as a part of the contractor's own quality control system, and it may be sufficient for the purchaser to satisfy himself that this quality control system is adequate. Excessive inspection and testing requirements, like other interferences with the contractor's methods of production and work, are likely to increase the cost of the works.

9. However, not all testing requirements need to be specified expressly in the contract documents. A number of technical standards prepared by national or international standardization institutions also specify testing requirements. Consequently, before specifying the testing requirements in the contract documents it should be determined whether the technical standards which are made applicable already contain such requirements. The contract may also provide that certain requirements under national legal regulations of the contractor's country or a third country should be applied.

B. Inspection and tests during production

1. Function and effects

10. The contract should expressly state that the performance of tests during production, and an expression of satisfaction by the purchaser's representative during the course of such tests, do not release the contractor from the obligation to demonstrate by tests on completion that the works conform to the contract specifications (see chapter XXX, "Failure to perform").

11. Inspection during the production process may give to the purchaser's personnel an opportunity to acquaint themselves with certain aspects of the plant. If the purchaser wishes to secure this training effect, the contract should specify that the right to attend tests during production is not limited to the purchaser's engineer or other personnel supervising the construction of the plant, but also extends to other persons whom the purchaser may choose (see, however, paragraph 12, below).

2. Access for purchaser's representatives to places of production, and facilities to be provided by contractor

12. Because of the purchaser's interest in inspecting the plant and its components during production, it is usual for works contracts to provide that the purchaser's representatives should during working hours have access to all places where the plant or its components are produced. Difficulties in applying this principle arise primarily in two areas. One area relates to questions of confidentiality; the contractor may wish to protect the confidential know-how of certain production processes, or he may be under an obligation to preserve such confidentiality either under contractual arrangements with other firms, such as licensors, or under arrangements with certain clients, especially when he

also performs certain contracts for government authorities in sensitive areas. In such cases the only possibility for according to the purchaser some form of inspection might consist in retaining a specialized engineering firm in the contractor's country. Such a firm could provide the necessary guarantees of confidentiality.

13. The second area relates to subcontractors and suppliers. Not infrequently, the contractor's subcontractors and suppliers, in particular where they are specialists in high technology products, refuse to allow access to their premises to the purchaser. As subcontractors have no contractual relationship with the purchaser, the right of access may be provided through the main contract between the purchaser and the contractor, by requiring the contractor to include such a right of access in his contracts with subcontractors.

14. Where the purchaser has a right of access at least to the contractor's premises, the contract should also specify what facilities are to be provided to the purchaser's representatives to enable them to carry out their inspection. Such facilities may consist in particular of office space, and in the supply of samples for independent testing by the purchaser or institutions retained by him.

3. Time for tests and prior notification

15. Production tests form part of the contractor's manufacturing programme. Consequently, it is usual for the contractor to fix the times for these tests. However, it is rare for these times to be fixed in the schedule of the contract itself, except possibly in respect of some critical major items.

16. The contract should specify that the purchaser has the right to delegate a representative to observe the tests and their results. In order to enable the purchaser to exercise this right, the contractor should be obligated to advise him in advance of the time when certain tests will be performed. The contract should provide a reasonable period of notice to be given to the purchaser. In developed countries this period of notice normally is relatively short, i.e. a week or two. Where the purchaser is in a distant developing country, the period of notice might have to be longer, to allow the purchaser to make the necessary travel, visa and other arrangements for his representatives to attend the tests.

17. In the case of certain important parts of equipment, it might be advisable to allow the contractor to proceed with the work only after these parts have been inspected by the purchaser's representatives, subject, of course, to arrangements protecting the contractor's interests in case the purchaser unreasonably delays inspection.

4. Additional or modified test requirements

18. It may not be possible to set out in the contract all production tests required. Certain tests not specified in the contract may, for a variety of reasons (such as

technological developments subsequent to the conclusion of the contract), become necessary during the production process. The purchaser should therefore reserve for himself the right to require tests not specified in the contract, or require modifications to the test procedures. The contractor should be obliged to perform such additional or modified tests, but he should have the right to disclaim liability for damage to the equipment caused by such tests, where such tests create a risk for the equipment.

19. The contract should provide that the costs of such additional or modified tests, and whether they should give a right to the contractor to additional time to perform the contract, should be determined by reference to standard practice in the industry. The contractor should be paid his additional costs and be granted additional time only if such tests are not standard practice in the industry. When determining what is standard practice, account should also be taken of the particular conditions under which the plant will be operated in the purchaser's country (e.g. humid conditions).

5. *Unsuccessful tests*

20. If the tests have been unsuccessful they should be repeated. In structuring his time schedule the contractor should take into account the possibility or likelihood of having to repeat the tests. The contractor should not be granted additional time to perform the contract if unsuccessful tests have to be repeated, and he should be required to bear all costs of unsuccessful tests. For the purchaser's remedies in cases of defects discovered during production, see chapter XXX, "Failure to perform".

6. *Test reports and certificates*

21. The contract should require all tests to be recorded, and such records should include the procedures which were followed and the quantified test results. When a test has been attended by representatives of the purchaser, the test report should also be signed by these representatives. However, such signature should constitute only an acknowledgement that the test procedures and readings have been correctly recorded.

22. When a test is not attended by representatives of the purchaser, the contractor should be obligated to transmit the test reports immediately to the purchaser. If the purchaser has been given proper notice of the tests, the procedures and results recorded in the reports should in principle be deemed to be correct.

23. When inspection or tests are performed by an independent testing institution, the institution normally issues a certificate or a similar document. The contract should obligate the contractor to transmit such certificates to the purchaser either immediately after they have been issued or as part of the documentation submitted to the purchaser prior to take-over of the plant.

7. *Costs*

24. The costs of inspection and tests during production should in principle be borne by the contractor, except for the costs of the purchaser's representatives. The costs to be borne by the contractor should also include labour, materials, electricity, fuel and other items necessary for the proper conduct of such tests, as well as the costs of such tests performed by subcontractors.

C. *Inspection of shipments relating to payments and passing of risk*

25. There are certain inspection and tests which have a function in connection with payments and the passing of risk. This applies in particular to inspection prior to shipment. When certain payments are made upon shipment of the equipment, or where the risk in respect of such equipment passes at this stage, inspection is sometimes carried out by the purchaser's representatives. However, it is normally more economical for the inspection to be carried out by a specialized firm at the place of production or shipment.

26. Inspection of shipped equipment may also be made upon arrival of the shipment at the site. Again, this is done primarily for payment purposes. Such inspection may also be required in order to preserve possible claims against the carrier in case the equipment has been damaged during transport. The costs of such inspection and tests should in principle be borne in the same manner as the costs of inspection and tests during production.

D. *Inspection and tests during building and erection*

27. The discussion concerning inspection and tests during production also applies to a large extent to inspection and tests during building and erection on site. However, some additional aspects should be considered.

28. During building and erection, the purchaser will usually have appointed a representative to observe or supervise the work. Normally the problems of confidentiality to which reference has been made above (see paragraph 12) do not occur at this stage, and the period of notice to be given to the purchaser can be considerably shorter.

29. Even where the purchaser's representative regularly is present on the site, the contractor should be obligated to keep complete records of his work, and to produce them to the purchaser's representative upon request.

30. In addition, the purchaser or his representative should have the right during building and erection to inspect all work which cannot be inspected later. This applies in particular to work which is being covered up as building progresses.

31. When the works are to be erected not by the contractor but by the purchaser, and the contractor is to provide only assistance and supervision of erection, the contractor should be responsible for specifying and performing inspection and tests of the works. Here, too, the contract should be obligated to prepare and keep records of such inspection and tests.

E. Inspection and tests upon completion

1. Types of tests

32. The contract should provide for procedures by which the works are inspected and tested by the purchaser, so that the contractor can demonstrate, and the purchaser can satisfy himself before take-over, that the works have been constructed in accordance with the contract. These inspection and tests in all cases concern the proper mechanical operation of the works. Such tests are referred to herein as mechanical completion tests (see also chapter XIV, "Completion, take-over and acceptance of works").

33. For certain types of works, and in particular in the case of processing plants, the contract may provide for tests to be conducted to determine whether the works meet the performance requirements stipulated in the contract. In this Guide such tests are referred to as performance tests. The latter type of tests may be performed together with the mechanical completion tests before the purchaser takes over the works.

2. Mechanical completion tests

34. Since the objective of mechanical completion tests is to demonstrate that the works has been properly completed and that the component parts are in proper mechanical order, mechanical completion tests should be commenced only after construction has been completed and the contractor has notified the purchaser of this completion, and has requested that the purchaser initiate procedures to take over the works.

35. The mechanical completion tests consist of a variety of steps, and often may require a considerable amount of time. It is desirable that they be set out clearly in the contract. These tests should include such of the following as are appropriate in a particular contract:

- Visual inspection of the works and its components;
- Checking and calibration of instruments;
- Safety tests;
- Dry runs;
- Mechanical operation of the works and its various components;
- Inspection of the technical documentation which the contractor has to supply for operation and maintenance of the works, (e.g. as-built plans, reports and certificates, and list of spare parts);
- Inspection of the stock of spare parts and materials which the contractor may have to deliver with the works.

36. During mechanical completion tests, the contractor should normally remain responsible for the works (see chapter XIV, "Completion, take-over and acceptance of works"). Consequently, the tests should be conducted by the contractor, but in the presence of and in co-ordination with the purchaser or his engineer. The purchaser may undertake a number of responsibilities, such as supplying raw materials and utilities for consumption in the works during the tests. Moreover, where the works are connected to other installations of the purchaser, e.g. a power plant which feeds the purchaser's installations or transmission lines, the purchaser may undertake additional responsibilities for specifying and supervising those aspects of the mechanical completion tests which relate to these other installations. All these aspects should be clearly specified in the contract.

37. As in the case of tests during production, the purchaser may require additional or modified testing procedures, and the principles discussed above with respect to the costs of such procedures, and their effect on the time for the contractor's performance of the contract (see paragraphs 18-19, above) also apply here, as do the principles concerning repetition of tests (see paragraph 20, above). Thus, except as indicated in paragraph 19, above, the costs of the tests should be borne by the contractor. However, the purchaser should normally bear the costs of raw materials, utilities and fuel which he is obligated to supply, as well as the costs of his own personnel.

38. Particular problems may arise when the tests are delayed for causes not attributable to the contractor. As the tests are a prerequisite for the take-over of the works by the purchaser, and thereby affect such issues as payments to the contractor and acceptance of the works by the purchaser (see chapter XIV, "Completion, take-over and acceptance of works"), it is in the contractor's interest that take-over and acceptance not be held up by a delay in the tests. A provision may be included in the contract to the effect that if a delay exceeds a certain period of time, all those tests which can be performed should be carried out; others may be simulated.

3. Performance tests

39. Performance tests are of particular importance in works contracts. Their purpose is to show that the works meets the performance standards specified in the contract, not only with respect to the output and its qualities, but also for a number of other parameters, such as consumption of feedstock or other materials and energy, as well as with respect to the performance of the works under a variety of conditions. In view of the importance of these tests, the procedures to be followed should be described carefully in the contract documents. But, because of the variations which have to be allowed for, such description is particularly difficult.

40. The document describing performance test procedures should state the test procedures for the operation of the works as contemplated at the time when the contract is entered into. It should state the duration of the tests, the criteria for performance, the methods of measurement and analysis, the tolerances, and the number of times unsuccessful tests should be repeated.

41. However, it is not sufficient to specify the details for the performance tests in those cases in which the works operates as specified in the contract. In fact, it is not infrequent that, due to variations in the course of design and construction of the works, and due to differences in feedstock, materials and energy supply, the parameters for the performance of the works as finally constructed differ from those specified originally. For example, during the course of construction of the plant the purchaser may decide on a different source for raw materials and feedstock, or his own raw materials and feedstock may have characteristics different from those originally considered. Such differences obviously affect the performance and the output of the works, and the performance tests schedule, to the extent possible, should provide for adjustments in those cases.

42. For a number of reasons, it may occur that the tests do not proceed as scheduled. This may be due to defects in the works itself, in its design or in the technology used; it may be due to defects in design or construction of other parts of the works which have not been supplied by the contractor; it may be due to the feedstock, material or energy not conforming to contract specifications; or it may be due to differences in the conditions under which the works is operating, such as outside temperature or humidity. For these and similar reasons, the test procedures themselves may have to be modified.

43. Where such situations lead to short interruptions (e.g. where conditions of extreme humidity require a postponement of the tests), these interruptions should not normally extend the duration of the performance tests unless these tests and the process of the works make uninterrupted performance an absolute prerequisite. Where these situations lead to a longer interruption of the tests, the contract should provide for the duration of the tests to be adjusted accordingly or for all or part of the tests to be repeated. Such prolongation or repetition should normally be provided for irrespective of the cause of the interruption. However, this cause may be taken into account when dealing with the costs of the ensuing prolongation or repetition; thus the contractor should bear the costs if the cause is attributable to him, and otherwise should be reimbursed his costs by the purchaser.

44. With respect to other costs, their allocation should also generally depend on who has caused them. Accordingly, costs for corrections and adjustments which the contractor wishes to make before the performance tests are conducted should in principle be borne by the contractor, unless he shows that the need for such corrections or adjustments is due to some cause attributable to the purchaser.

45. The test procedures, readings and results should normally be recorded and evaluated jointly by the parties and form the subject of test reports. Any differences concerning the readings or the evaluation of the tests should be reflected in the report. In case of such differences, the contract should provide that either party may call immediately upon a neutral expert to make the necessary assessment of the facts.

46. If the contract is a product-in-hand contract (see chapter II, "Choice of contract type"), the testing procedures must be designed so as to reflect the nature of the obligations particular to this type of contract. The performance guarantees by the contractor in these contracts relate not only to the technical performance of the works, but also to the success of the training he is obligated to provide. As this latter aspect is determined primarily not by technical but by human capacities, appropriate test procedures should be specified (see chapter XXIII, "Training").

[A/CN.9/WG.V/WP.11/Add.3]

Chapter XXX. Failure to perform^a

Summary

Failure to perform covers two types of situations, i.e. delay and defective performance. Delay applies to situations where a party fails to perform his obligations under the contract in time. Defective performance applies to cases where the performance is effected with defects (paragraph 2).

In determining whether there is delay in the construction of the works on the part of the contractor it is useful for the contract to provide for a time-schedule and to indicate which periods for performance under the time-schedule are to be obligatory (paragraphs 6-8). The determination of defects should depend upon the quality of the work required by the contract, and upon the type of contract (paragraphs 10-18).

It is advisable to agree upon a quality guarantee (paragraphs 19-23). In principle, the contractor should be responsible for all defects discovered and notified during the guarantee period. It may be reasonable, however, to exclude certain defects from the scope of guarantee (paragraphs 19-26). The guarantee period should be long enough to enable discovery of all potential defects in the works (paragraphs 28-32). Its length should depend upon the nature of the works and the extent and character of the contractor's participation in the construction.

^aIt had originally been decided to divide chapter XXX into parts A "Failure to perform: delay" and B "Failure to perform: defective construction". As noted in document A/CN.9/WG.V/WP.11/Add.2 it was subsequently found preferable to deal with delay and defective construction in one chapter entitled "Failure to perform". That chapter (chapter XXX) was contained in addendum 3.

The remedies for delay to which the purchaser should be entitled may depend on whether the delay occurs before or after the construction commences, or after the scheduled date for completion. These remedies should include requiring performance by the contractor, termination, or completion of the works at the expense and risk of the original contractor. In requiring performance, the contractor should be given a reasonable or specified time to perform. If the contractor still fails to perform within the period of time, the purchaser should be entitled to terminate the contract (paragraphs 34-38).

The remedies for defective construction should depend upon the nature of the defects and the time when they are discovered. It is advisable to distinguish between defects discovered during construction of the works, defects discovered during taking over or notified during the guarantee period and defects notified after its expiration (paragraph 39).

During the construction of the works, the purchaser's remedies should in substance be limited to the right to stop defective construction and to claim cure of defects. In some exceptional cases, the purchaser may be entitled even to terminate the contract (paragraphs 41-49).

If serious defects (for example, those which prevent a proper operation of the works) are discovered at the time of taking over, the purchaser should be entitled to refuse to take over the works and he should have rights analogous to those he has when the contractor fails to complete the works in time. The defects which will entitle the purchaser to refuse to take over the works should be defined in the contract. If other defects are discovered or if the purchaser does not exercise his right to refuse to take over the works, the purchaser should be entitled to claim cure of defects by the contractor or an adequate price reduction if the defects are not curable. If the contractor fails to cure defects within a reasonable time or time specified in the contract, the purchaser should be entitled to do so through a new contractor reasonably employed by him at the expense and risk of the contractor, or to claim an adequate price reduction. In some situations the purchaser should be entitled to terminate the contract (paragraphs 50-69). The contractor should not generally be responsible for defects discovered or notified after the expiration of the guarantee period (paragraph 83).

The contractor should be obligated to cure even those defects for which he is not responsible at the expense of the purchaser, if the defects are notified during the guarantee period and the contractor is asked by the purchaser to cure the defects (paragraph 78).

In addition to the above-mentioned remedies, the purchaser may be entitled to damages, liquidated damages or penalties. The parties may wish to limit the liability of the contractor for loss of profits to certain instances of delay and defective performance.

If the purchaser fails to pay the contract price or any portion thereof on the date when it is due, the contractor should be entitled to require payment,

suspend the construction of the works or terminate the contract. In addition, the contractor should be entitled to interest.

The parties should agree upon an appropriate procedure to be followed for claims arising from defects, in order to facilitate a choice of remedy by the purchaser, to accelerate the cure of defects, and to prevent excessive loss being caused to either party (paragraphs 79-82).

* * *

A. *General remarks*

1. Strict adherence to contract terms relating to the performance of obligations is particularly important in works contracts, as the failure to adhere to these terms may have serious consequences. The issues of whether there is a failure of performance and, if so, what are the legal consequences of such failure, are frequently the cause of long and complicated disputes. It is therefore advisable to agree upon clear contractual stipulation relating to these issues.

2. Failure to perform covers two types of situations, i.e. delay and defective performance. Delay applies to situations where a party fails to perform his obligations under the contract in time. In such situations a party will be in delay until he performs at a later stage, or until the contract is terminated. Defective performance applies to situations where the performance is effected with defects.

3. This chapter deals only with the failure to perform the main obligations of the parties, i.e. the contractor's obligation to construct the works and the purchaser's obligation to pay the contract price. As regards the other main obligations of the purchaser, the obligation to take over the works is discussed in chapter XIV, "Completion, take-over and acceptance of works". The failure of the contractor to perform certain obligations after completion of the construction, e.g. to provide management services and technical advisory services and to maintain and repair, are discussed in the chapters dealing with these obligations, i.e. chapter XVIII, "Management services", chapter XIX, "Maintenance and repairs" and chapter XX, "Technical advisory services". In addition to the main obligations the parties have a number of auxiliary obligations (such as to notify certain events) and the legal effects of failures to perform such obligations are discussed in relevant chapters, e.g. chapter XXXII, "Exemptions" and chapter XXXVIII, "Termination".

4. Infringement of a right (in particular a right based on industrial property or other intellectual property) of a third party, which is characterized under some legal systems as a "legal defect" is dealt with in chapter XXII, "Transfer of technology" and chapter XXV, "Transfer of property".

5. The parties should agree in particular upon the defects in the works for which the contractor would be

responsible, the guarantee period for the quality of the works, the procedure for the notification of defects and the purchaser's remedies. The provisions on these issues should be carefully harmonized with the contractual provisions on the scope and quality of the works (see chapter IX, "Scope and quality of works"), on inspection and tests (see chapter XIII, "Inspection and tests"), as well as on completion, take-over and acceptance (see chapter XIV, "Completion, take-over and acceptance of works"). The contractual provisions on passing of risks (see chapter XXIV, "Passing of risks") and damages (see chapter XXXI, "Damages") should also be taken into consideration when drafting the provisions relating to defects.

B. Determination of failure to perform

1. Determination of delay

6. It is advisable for the parties to provide for a time-schedule for the overall progress of construction. The contract should indicate which periods for performance under the time-schedule are to be obligatory. Failure to comply with the obligatory periods as specified in the contract should constitute delay.

7. If the construction involves several contractors, the parties preparing a time-schedule should take into consideration the aspects of the works which required the co-ordination of the contractors. Where co-ordination among several contractors is required for the completion of a particular portion of the works, the time-schedule of the contractors applying to such portion should be made obligatory.

8. Although the time-schedule in a turnkey contract need not be as stringent as when separate contractors are employed, the timely performance of those portions of the works which are considered critical should be obligatory. For example, the purchaser may wish to obligate the contractor to complete a portion of the works at a specified date so that he can operate the completed portion profitably, independently of other uncompleted portions. If the contractor fails to perform in time there may be delay.

9. When the time for performance is postponed due to certain events, e.g. when a contractor fails to perform at the time originally fixed because the construction is varied or suspended, there should be no liability for delay (see chapter XXXV, "Variation clauses" and chapter XXXVII, "Suspension of construction"). There should also be no liability for delay when the failure of a party to perform in time is caused by the other party, e.g. where the performance of the contractor is dependent on the co-operation of the purchaser, and the purchaser fails to co-operate with him.

2. Determination of defective construction

10. Defective construction includes both cases where defects are discovered in works which are completed

and cases where, during the construction, it is discovered that there are defects in the equipment, material or plant, or that the contractor is using incorrect methods of construction which would result in defects.

11. The determination of defects in the works for which a contractor should be responsible under a works contract will depend on the nature of the particular contract and the performance due from the contractor under it. The contractor should be responsible only for the failure to perform his obligations in accordance with the terms of the contract. In this connection the extent of the responsibility for the construction assumed by the contractor may be relevant.

12. If the contractor assumes responsibility for the entire design and construction of the works, putting it into operation, and handing over to the purchaser works capable of operation in accordance with the contract (i.e. in a turnkey contract), the works should be considered defective in particular in all cases where the contractor fails to fulfil this obligation. All equipment and services needed for the completion and appropriate operation of the works in accordance with the contract, even if not expressly provided in the contract specifications, should be supplied by the contractor (see chapter II, "Choice of contract type").

13. A different situation may exist regarding the extent of the contractor's responsibility when two or more contractors participate in the construction, and the purchaser is to co-ordinate the construction of the works as a whole. A contractor who is not the supplier of the works design should assume responsibility for the proper functioning of equipment and the quality of materials which he supplies. Such a contractor should not, however, be responsible for the suitability of his supplies for integration within the works, so long as the equipment or materials conform to the contract specifications.

14. Since the existence of defects will be determined by reference to the contractual terms, it is advisable for the contract to stipulate as clearly as possible the standards for performance and functioning of the works to be supplied by the contractor, in particular in respect of the quantity and quality of expected production, and the consumption of power and raw materials (see chapter IX, "Scope and quality of works"). As regards the quality of the works, requirements should be specified in terms of operating capability rather than only design, materials or workmanship. By employing this functional approach, the contractor would be liable for a failure of the equipment or works to obtain this capability without a need for the purchaser to prove that the defects resulted from faulty design, material or workmanship. Even if the purchaser used the separate contracts approach (see chapter II, "Choice of contract type"), it may be necessary or advisable to require a certain operating capability if it is possible to do so with respect to that part of the works to be supplied by the separate contractor.

15. In respect of some supplies, however, this functional approach to the definition of defects may not be possible (for example, in case of supplies of materials to be used for construction). In such cases the responsibility of the contractor should be based upon the lack of conformity with the qualitative features described in the contract. Such qualitative features might include design, workmanship, material and fabrication. This responsibility should, however, be included even if the functional approach is used for the determination of defects (see second sentence of illustrative provision in footnote 1), as some defects may be irrelevant to the capability of the works to operate (e.g. lack of painting in administrative buildings, or low-grade metal used resulting in shortening of service life of the works).

16. The contractor should not be responsible for defects arising from a design or equipment or materials supplied or instructions given by the purchaser for the construction. The parties may, however, agree that the contractor's responsibility in these cases is to be excluded only if the contractor could not have been reasonably expected to discover the defective nature of the design or equipment or materials at the time when they were used by him or of the instructions at the time when they were followed by him, in constructing the works. If the latter approach is adopted the contractor should not be responsible if he discovers these defects in time, informs the purchaser immediately thereof and disclaims his responsibility for them. In such cases the contractor should be entitled to suspend the construction (see chapter XXXVII, "Suspension of construction") relating to the use of the design, equipment or materials or observance of the instructions, until the defects are cured by the purchaser, or until the purchaser notifies his decision that the design, equipment or materials should be used, or that instructions should be followed.

17. During the time when the contractor bears the risk of loss of or damage to equipment or materials or the works, he should be responsible for defects caused by events covered by this risk. The time when the risk passes may depend upon the type of works contract; in most cases the passing of risks occurs at the time of take-over (see paragraph 40, below, and chapter XXIV, "Passing of risks").

18. The complex and long-term nature of the execution of a works contract makes it advantageous to give the purchaser the right to check the quality of the equipment, materials or plant even before taking over the works (i.e. during construction), in order to prevent construction which would result in defective works (see paragraphs 41-49, below).

C. Quality guarantee

1. Defects covered by guarantee

19. All works contracts should include a quality guarantee under which the contractor assumes responsibility for defects discovered and notified before the

expiry of a guarantee period specified in the contract. In principle, the guarantee should cover all defects for which the contractor would have been responsible if they had been discovered during take-over of the works.¹ The parties may, however, wish to exclude from the guarantee the following defects.

20. *Defects as result of normal wear and tear:* The parties may wish to exclude from the guarantee defects which are the result of normal wear and tear, since the purpose of the quality guarantee is not to prolong the normal service life of the works.

21. *Defects caused by faulty use or maintenance:* Guarantees are usually given subject to the appropriate use and maintenance of the works by the purchaser, and in particular the scrupulous observance of instructions given by the contractor for the operation of the works. On the other hand, the instructions given by the contractor for use and maintenance should be sufficiently detailed, taking into account conditions in the purchaser's country and the training of the personnel who will operate and maintain the works. In addition, defects caused by faulty use or maintenance should not be excluded if the contractor trained the purchaser's personnel and assumed the responsibility for their ability to operate and maintain the works (see chapter XXIII, "Training").

22. *Defects caused by defective design, equipment or material supplied or defective instruction given by purchaser:* The guarantee should not cover defects which are a result of the defective nature of design, equipment or materials supplied or defective instructions given by the purchaser if the contractor fulfils his obligation to discover and notify their defective nature in time (see paragraph 16, above).

23. *Defects caused by improper repairs or alterations by purchaser or person employed by him:* The quality guarantee of the contractor should not operate if the quality of the works is changed by an improper repair or alteration carried out without the contractor's consent by the purchaser or by a person employed by him. A dispute may arise later whether defects occurring after the employment of such person are defects for which the contractor is responsible. Accordingly, the purchaser may find it advisable to choose the remedy of curing the defects at the expense and risk of the original contractor (see paragraphs 64-67, below).

24. However, if the purchaser chooses the remedy of curing the defects by a new contractor at the expense and risk of the original contractor defects which may be

¹Illustrative provision

"The contractor guarantees that at the time of take-over and during the guarantee period, the works will be capable of operation in accordance with the contract, and that all equipment, materials or other supplies used by him in constructing the works will conform with the drawings, specifications, plans and all other terms of the contract, and that all plans, technical data and documents supplied by him are correct and complete. In addition the contractor shall be responsible for any faulty or improper design, production, material or workmanship in the supplies effected by him."

the result of an improper repair by the new contractor should not be excluded from the guarantee.

25. *Defects in respect of which price reduction has been claimed:* If the purchaser is entitled to a price reduction, and claims this remedy, the defects in respect of which the reduction is claimed should be excluded from the guarantee after the time of notification of the choice of such remedy; by choosing this remedy, the purchaser accepts the works with the defects in return for the price reduction.

26. *Defects as result of risk borne by purchaser:* The guarantee should be excluded in respect of defects which are caused by events covered by the risk borne by the purchaser. This exclusion would operate in respect of all defects caused by an accidental event or by a third person for whom the contractor is not responsible after passing of the risk of loss of or damage to equipment, materials, plant or works to the purchaser. However, defects caused by the contractor or a person employed by him even after passing of the risk should of course not be covered by the risk borne by the purchaser, and should not be excluded from the guarantee (see chapter XIV, "Passing of risks").²

2. Guarantee period

27. The responsibility of the contractor for defects discovered after the take-over of the works by the purchaser should be limited to a specified period of time, i.e. to a guarantee period. While on the one hand the guarantee gives assurances and safeguards to the purchaser in regard to the quality of the work, on the other hand the specified period limits in a reasonable manner the time during which the contractor is responsible for the defects.

(a) Length of guarantee period

28. Several factors may be relevant in determining what length of time would be reasonable for the guarantee period, such as the extent and character of the contractor's participation in the construction (in

particular, whether the contractor was solely responsible for the construction, or whether his participation in the construction was limited), the nature of the works, in particular whether the equipment supplied is of a complex nature, and the difficulty of discovering defects. The guarantee period should be long enough to enable the purchaser to discover all defects for which the contractor may be responsible. On the other hand, it should not result in making the contractor responsible for the maintenance of the works, which may be the consequence of too long a guarantee period.

(b) Commencement of guarantee period

29. In cases where a single contractor is responsible for the construction of the whole works, the guarantee period should commence to run on the date when the works are taken over by the purchaser. However, if the purchaser breaches the contract by refusing to take over the works, and the contract in such circumstances provides for a presumed take-over, the guarantee period should start to run on the date of the presumed take-over. When the purchaser refuses to take over and the contract does not provide for a presumed take-over, the parties may wish to agree that the guarantee period commences to run from the date when the performance tests have been successfully carried out. For cases where the purchaser unjustifiably prevents the performance tests from being carried out, the contract may stipulate that the guarantee period will commence to run when a written notice to that effect has been sent by the contractor to the purchaser.

30. In cases where several contractors participate in the construction of the works and the equipment supplied by a contractor cannot be put into operation until the entire works are capable of operation, it is advisable to agree that the guarantee period will commence to run from the date when the works are capable of operation.

31. The contractor may, however, be reluctant to accept the putting into operation of the equipment at the commencement of the guarantee period. A long period may elapse between his performance and the performance of other contractors needed to put the works into operation together with the equipment. This may result in the contractor's responsibility existing for an unforeseeable period of time. One approach to resolve this difficulty may be to add to a normal guarantee period, which would commence to run at the date of putting the equipment into operation, an additional period of time during which the construction would be normally completed, and to provide for a guarantee period consisting of both these periods commencing to run from the date of take-over of the equipment. Even if the putting into operation of the works took longer than anticipated the guarantee period would not be extended and would expire within the specified period of time from the date of take-over. Another approach may be to specify that the guarantee period commences to run at the date of putting the equipment into operation, but cannot in any event exceed a specified longer period from the date of take-over of the equipment.

²Illustrative provision

"The guarantee shall not cover defects:

"(a) arising from normal wear and tear;

"(b) arising from the purchaser's faulty maintenance or from an alteration carried out by the purchaser or another person employed by him, without the contractor's consent in writing;

"(c) caused by the defective nature of design, equipment, or materials supplied, or instructions given, by the purchaser, if the contractor fulfils his obligation to discover and notify their defective nature in time;

"(d) caused by an improper repair by the purchaser or by a person employed by him; however, if the contractor is required to cure a defect, and fails to cure it within a reasonable time, and the purchaser employs a third person to cure the defects at the expense and risk of the contractor, the guarantee shall cover defects in the work executed by such third person;

"(e) for which a price reduction has been claimed by the purchaser; or

"(f) caused by an event covered by the risk of loss of or damage to the works borne by the purchaser."

(c) *Extension of guarantee period*

32. The guarantee period given by the contractor should be extended by any period of time during which the works could not be operated as a result of a defect covered by the guarantee. This extension should cover the whole works if no part thereof could be operated, or a part thereof if only that part could not be operated. In relation to defective supplies which have been repaired or replaced, a new guarantee period should commence from the time when the works can be operated after cure of defects. The length of such a period should in principle be the same as that originally applicable to the defective part.³ The parties may wish to consider whether it is advisable to agree upon a maximum guarantee period which would apply in any event, to be computed from the date of take-over or acceptance of the works.

3. *Manufacturer's guarantee*

33. If equipment to be used by the contractor in constructing the works is supplied by manufacturers or other persons to the contractor, guarantees are usually given by such suppliers. It is advisable to agree that the contractor should inform the purchaser of such guarantees after they have been granted and that he should assign to the purchaser all the rights which may arise from such guarantees, whenever possible. An alternative approach may be to agree that the guarantee given by the contractor will not expire in respect of equipment covered by a manufacturer's guarantee before the expiration of such guarantee.

D. *Remedies for failure to perform*

1. *Purchaser's remedies*

(a) *Delay in construction*

34. The purchaser's remedies for delay in construction should include requiring the contractor to perform, termination (see chapter XXXVIII, "Termination") and completion of the construction of the works by a new contractor at the expense and risk of the original contractor (see paragraph 38, below). In requiring the contractor to perform, a reasonable or specified period should be given to him. If the contractor still fails to perform within this period of time the purchaser should be entitled to terminate the contract. However, during this period the purchaser should not be entitled to terminate the contract.

³ *Illustrative provision*

"The guarantee period shall cease to run during any period during which the works are not capable of being operated due to a defect covered by the guarantee given by the contractor. If only a part of the works becomes incapable of being operated, the guarantee period shall cease to run only in respect of that part. If defective supplies are repaired or replaced by the contractor, or by a new contractor at the risk of the contractor, a new guarantee period of the same length as the original one shall commence in respect of these supplies from the time that the works can be operated after cure of the defects."

35. In addition to these remedies the purchaser may be entitled to damages (see chapter XXXI, "Damages"), or to liquidated damages or penalties (see chapter XXXIII, "Liquidated damages and penalty clauses"). However, the purchaser should be entitled to damages only if the contractor was not prevented from performing by an exempting impediment (see chapter XXXII, "Exemptions"). Other remedies (i.e. requiring performance, termination, completion of construction by employing a new contractor at the expense and risk of the original contractor) should be available even in cases where the contractor is in delay due to an exempting impediment.

(i) *Delay before scheduled date for completion*

a. *Delay before commencement of construction*

36. If the contractor fails to commence construction at the time stipulated in the contract, the purchaser should be entitled to require performance. If the contractor still fails to perform within a reasonable or specified period of time given, the purchaser should be entitled to terminate the contract (see chapter XXXVIII, "Termination"). If the contractor expresses his intention to abandon the contract the purchaser should be entitled to terminate the contract without giving the contractor an additional period for performance.

b. *Delay after commencement of construction*

37. If the contractor fails to meet the obligatory periods of time set out in the time-schedule, the purchaser should be entitled to require the contractor to perform and, if the contractor still fails to perform within a reasonable or specified period of time given, the purchaser should be entitled to terminate the contract in respect of the delayed portion. However, the parties may wish to permit the purchaser to terminate only in certain situations, e.g. when the contractor has, without justification, stopped work for a period of time (see chapter XXXVIII, "Termination"). If the contractor terminates the contract only in respect of the delayed portion of the construction, and employs a new contractor to complete that portion, the original and the new contractor would simultaneously be working at the site. This may lead to difficulties. Accordingly, the parties may wish to provide that the purchaser is also entitled to terminate the contract in respect of all portions of the construction not yet completed.

(ii) *Delay after scheduled date for completion*

38. If the contractor fails to complete the works on the date scheduled in the contract, the purchaser should be entitled to require the contractor to perform and complete the construction. If the contractor still fails to complete within a reasonable or specified period of time given, the purchaser should be entitled to terminate the contract in respect of the delayed portion. The parties may wish to stipulate, as an alternative, the right to complete the construction by employing a new contractor at the expense and risk of the original contractor. The consequences of this remedy should be the same as the consequences of the analogous remedy of cure of defects by employing a new contractor at the expense

and risk of the original contractor (see paragraphs 63-67, below).

(b) *Defective construction*

39. The purchaser's remedies for defective construction may depend on the stage when defective construction is discovered (i.e. during the construction, at taking-over and during the guarantee period, or after its expiration) and on the nature of the defects (i.e. defects preventing the works' operation in accordance with the contract, such as reducing their capacity, lowering the quality of products, increasing consumption of raw materials, or defects not preventing the works' operation in accordance with the contract). Depending on these factors, the purchaser's remedies may include the right to order stoppage of defective construction (see paragraphs 42 and 43, below), the right to refuse to take over defective works (see paragraphs 52 and 53, below), the right to require the contractor to cure defects at his expense by repair or replacement (see paragraphs 42, 54, 57 and 58, below), the right to cure defects by a new contractor employed by the purchaser at the expense and risk of the original contractor (see paragraphs 64-67, below) or the right to a price reduction (see paragraphs 59, 60 and 68, below). The contract may also be made terminable in certain situations (see paragraphs 48, 49, 55 and 69, below). In addition to these remedies the purchaser may be entitled to damages (see paragraphs 70-72, below), or to liquidated damages or a penalty (see chapter XXXIII, "Liquidated damages and penalty clauses").

40. During a certain period, the contractor will, under the contract or the applicable law, bear the risk of loss of or damage to equipment, materials, plant or the works. Such risk may include damage caused by accidental events, or the acts of a third party for whose acts the purchaser is not responsible. The consequences of the contractor bearing such risk is that, if an event covered by the risk occurs and causes damage resulting in a defect, the contractor must nevertheless effect performance free of defects (e.g. repair or replace defective equipment). If the contractor fails to effect performance free of defects, the purchaser would have all the remedies mentioned in the preceding paragraph even if the failure was due to an exempting impediment, with the important exception that he should not have the remedy of damages. The reason for this distinction is that the purpose of the remedies other than damages is to restore an equivalence between the price and the value of the performance effected by the contractor. Sums paid by the contractor to the purchaser in order to restore such an equivalence either directly or in the form of a set-off against the price to be paid by the purchaser, are considered to be price reduction and not damages.

(i) *Defects discovered during construction*

41. The purchaser should have the right during the construction to inspect the design and the equipment and materials to be used, and the way in which the erection and other services are effected (see chapter XIII, "Inspection and tests"). Even if such inspection is effected and defective construction is not discovered by

the purchaser, he should not lose any of his rights arising from the failure of performance by the contractor. If the purchaser waives his right of inspection, or if he inspects but has no objections to the quality of the inspected design, equipment, materials or services, he should not be deemed to have approved their quality, unless otherwise agreed.

42. If the purchaser discovers during the construction that the equipment being produced or services being effected do not conform to those required by the contract, he should be entitled to order stoppage of the defective construction and to demand that the construction be effected in accordance with the contract.⁴

43. If the purchaser asks the contractor to stop construction which the purchaser considers to be defective, the contractor should be obliged to do so even if he considers the construction to be in accordance with the contract. The purchaser should also be entitled to order stoppage of construction in cases where it may not be possible to discover defects without an interruption of the construction. If it turns out later that the construction is not defective, the contractor should have the same rights from the date of interruption of the construction as in cases where the purchaser suspends the construction for his convenience (see chapter XXXVII, "Suspension of construction").

44. Some contracts oblige the contractor to check the quality during the production of the equipment and the erection of the works. However, such provision may be important only in cases where the responsibility of the contractor for third persons employed by him for the construction is limited (e.g. only to an appropriate choice of subcontractors). It is, however, preferable to provide for the full responsibility of the contractor for persons employed by him for performance of his obligations (see chapter XXVIII, "Third parties employed in execution of contract"). If the latter approach is adopted such an obligation to check may not be necessary. However, such an obligation is of course different from an obligation of the contractor to procure a certificate of inspection issued by an inspection body (see chapter XIII, "Inspection and tests").

45. In some cases it may be advisable to agree that the contractor shall check whether the equipment, materials or services supplied by third parties employed by the purchaser are appropriate for the construction. If the contractor fails to discover and notify in time defects which he could reasonably be expected to discover, he should be liable for damages. In some kinds of works contracts (in particular semi-turnkey contracts), the parties may wish to agree that such failure may make the contractor liable to the same extent as for defects in

⁴*Illustrative provision*

"The purchaser shall be entitled to check the production of any equipment and the construction of the works and to order stoppage of any production or construction which results or would result in defects in the works. The contractor shall discontinue such production or construction, and shall expeditiously replace or repair any defective supplies already effected, or any defective part of the plant."

his performance. In such cases, the purchaser should, however, be obliged to assign to the contractor the rights the purchaser may have against third parties employed by him as a result of the failure of such third parties which the contractor was obliged to check.

46. If the purchaser exercises his right to order stoppage of defective construction the contractor should be obliged to proceed with proper construction. The contractor should not be entitled to any postponement of the time for his performance, and all costs connected with the interruption of the defective construction should be borne by the contractor.

47. The contractor should be free to choose the way in which the defects are to be remedied. He may either repair defective equipment or materials or replace them. The purchaser may wish to stipulate in the contract that defective equipment or material for which he has paid at least in part cannot be taken from the site without his approval or without being replaced by new equipment or materials.

48. If the contractor fails within a reasonable time to remedy defects which would prevent the works from operating in accordance with the contract, or if he declares that he will not cure them, or if the contractor persists with defective construction, the purchaser should be entitled to terminate the contract (see chapter XXXVIII, "Termination").

49. Special provisions may be required in some contracts in respect of defects in the design. Such provisions are advisable in contracts where a contractor supplies a design for the whole or part of the construction and both he and other contractors are to participate in the construction under that design. In these situations defects in the design may affect not only the construction to be executed by the supplier of the design, but also the construction to be executed by other contractors. The purchaser may suffer serious losses due to the need to suspend or vary contracts concluded with other contractors, and his remedies should be appropriate to cover these consequences. The contractor should expeditiously make good the defects in the design. If he fails to do so within a reasonable time the purchaser should be entitled to employ a new contractor to cure the defects at the expense and risk of the original contractor. Alternatively the purchaser should be entitled to terminate the contract.

(ii) *Defects discovered during take-over or notified during guarantee period*

50. When the contractor finishes the construction he should be entitled to have the works taken over by the purchaser. Before the take-over the purchaser should have the right to check the quality of the works and to have the contractor cure defects which are then discovered. For this purpose performance tests are usually carried out.

51. If defects are discovered during take-over the purchaser should have the remedies which are discussed

in paragraphs 52-69. The contractor should also have the same remedies in respect of defects notified during the guarantee period. However, after the works have been taken over, the purchaser should not be able to reverse the take-over.

a. *Refusal to take over*

52. If the contractor fails to demonstrate through a successful performance test that the works are free of serious defects, the purchaser should be entitled to refuse to take over the works. When a defect is to be considered serious should be defined in the contract. If the needs of the purchaser do not require a different approach, the parties may wish to define them as defects preventing the works from being capable of operation in accordance with the contract.⁵ Some defects which under this approach would entitle the purchaser to refuse to take over the works may, however, be acceptable to the purchaser if the price is adequately reduced. The parties may therefore stipulate that for such defects the purchaser's only remedy is to claim a price reduction (see paragraph 61, below).

53. Upon refusal by the purchaser to take over the works, his consequent remedies should be analogous to those which he has in cases where the contractor is in delay (see paragraph 38, above). This approach is based on the consideration that in both cases the purchaser is prevented from operating the works in accordance with the contract and that a precise borderline between delay in construction and defective construction may be difficult to draw. In case of refusal to take over the works the purchaser should have the following consequent remedies.

i. *Requiring performance without defects*

54. The contractor should be obliged to cure the discovered defects, and to prove through further performance tests stipulated in the contract that his performance is in accordance with the contract. If during the repeated performance tests the defects discovered during the previous performance tests or new defects of a serious character appear, the purchaser should again be entitled to refuse to take over the works and to require performance without defects.⁶ If no further performance tests are specified in the contract, additional tests should be held within a reasonable time.

⁵ *Illustrative provision*

"If the contractor fails to prove through a successful performance test that the works are capable of being operated in accordance with the contract, the purchaser shall be entitled to refuse to take over the works. After the take-over occurs, the purchaser shall not be entitled to reverse the take-over."

⁶ *Illustrative provision*

"If the purchaser refuses to take over the works, the contractor shall be obliged to cure the discovered defects expeditiously and to prove through new performance tests that the works are capable of operation in accordance with the contract. If during the repeated performance tests the same defects or new defects preventing the works from being operated in accordance with the contract appear, the purchaser shall again be entitled to refuse to take over the works."

ii. Termination of contract

55. If during the final performance tests provided for in the contract defects are discovered which entitle the purchaser to refuse to take over the works, he should, as an alternative to the right to require performance without defects, have the right to terminate the contract.⁷ The extent to which the contract may be terminated and the effects of termination are discussed in chapter XXXVIII, "Termination".

b. Remedies in respect of defects in works taken over

56. If the purchaser takes over the works because he was not entitled to refuse to do so, or if he has decided not to exercise his right of refusal, he should have the following remedies in respect of defects discovered during taking-over or notified before the expiration of the guarantee period.

i. Remedies at time of discovery or notification of defects in works taken over

aa. Cure of defects by contractor

57. In the first instance, the purchaser's sole remedy should be to require cure of the defects. The contractor should be obliged to cure the defects expeditiously after they are discovered during taking over, or after their notification during the guarantee period.⁸ Either the time-limit for curing defects should be specified in the contract, or the contract should provide that the defects are to be cured within a reasonable time. If the contractor fails to do so, within the time given to him by the purchaser, the purchaser should have the remedies mentioned in paragraphs 62-69, below.

58. If the contractor is obliged to cure the defects, he should be responsible for making an appropriate, complete and timely cure. He may repair or replace defective equipment. If the cause of the defects lies in a defective design supplied by the contractor, he should be obliged to cure the design and also to replace equipment which is not in accordance with a proper design. In order to protect adequately the purchaser's interest, it may be advisable to stipulate that equipment or material to be replaced by the contractor may be taken from the site only after having been replaced by new equipment or material without defects, or with the purchaser's consent.

⁷ Illustrative provision

"If the contractor fails to prove through the final performance test specified in the contract that the works are capable of being operated in accordance with the contract the purchaser shall be entitled either to claim that the defects be cured and performance without defects be proved through additional performance tests within a reasonable period of time or to terminate the contract. The remedy chosen by the purchaser shall not be changed without the consent of the contractor. The purchaser shall be entitled to such alternative remedies also in the case of a failure of any additional performance tests."

⁸ Illustrative provision

"If defects are discovered at the time of take-over and the purchaser does not refuse to take over the works, or defects covered by the guarantee are discovered and notified before the expiration of the guarantee period, the contractor shall be obliged to cure the defects expeditiously."

bb. Price reduction

59. The purchaser should have this remedy to the exclusion of the remedy of cure only in two cases. The purchaser should be entitled to a price reduction regardless of whether or not the price or any part of the price of the defective equipment or material has been paid.

60. Firstly, he should have it when the defects are not curable. An appropriate formula for calculating the price reduction may be to provide that it should be equal to the difference between the value which the works without defects would have had, and the value of the defective works at the time of discovery of the defects.⁹ The parties may wish to provide for the latter point of time in order to prevent the purchaser from delaying his choice of the remedy and speculating on possible changes in the values of the works. If the values prevailing at the time of the conclusion of the contract are adopted, changes in the price level occurring during the period of time which elapses till the discovery of defects would not be taken into account.

61. Secondly, the purchaser should have this remedy when the contract provides that for certain defects the purchaser's only remedy is price reduction. Such defects should be precisely defined in the contract (for example, in terms of a percentage of reduction production capacity). Furthermore, parties should agree upon a precise method of determining the price reduction, if possible by using a mathematical formula.¹⁰

ii. Remedies after expiration of time given to contractor for curing defects in works taken over

62. If the contractor is obliged to cure the defects, he should be entitled to a reasonable time to do so. If within such reasonable time given to him by the purchaser he fails to cure the defects, the purchaser should be entitled alternatively to do so through a new contractor employed by him at the original contractor's expense and risk (see paragraphs 64-67, below), to claim a price reduction (see paragraph 68, below), or to terminate the contract in certain situations (see paragraph 69, below). When, after the lapse of the reasonable time given for cure, the purchaser notifies the contractor of his choice of one of the latter remedies, the contractor should be obliged to discontinue his attempts to cure the defects.

⁹ Illustrative provision

"The purchaser who has taken over the works shall be entitled to a price reduction if the defects discovered during take-over cannot be cured. The price reduction shall be equal to the difference between the value which the works without defects would have had, and the value of the defective works, at the time of the discovery of the defects."

¹⁰For example, the parties may agree that the purchaser should take over the works with a lower production capacity if the difference does not exceed 5 per cent of the agreed capacity. In such a case the parties may agree that the purchaser should be entitled to the following price reduction:

Reduced production not exceeding	Price reduction
1 per cent	2 per cent
2 per cent	4 per cent
3 per cent	6 per cent
4 per cent	8 per cent
5 per cent	10 per cent

63. The purchaser should be permitted to change a choice of one of the latter remedies mentioned in the preceding paragraph for another of the latter remedies mentioned therein only with the consent of the contractor. However, in case the purchaser chooses the option of employing a new contractor to cure the defects at the expense and risk of the original contractor and the new contractor fails to cure the defects, the purchaser should be entitled to a price reduction or to terminate the contract.¹¹

aa. Cure of defects by employing new contractor

64. If the contractor fails to cure the defects, it may be advisable in some cases to use this remedy instead of price reduction or termination of the contract, in particular if a turnkey contract has been concluded. If price reduction is claimed, or if the contract is terminated in respect of a defective portion of the works, the original contractor would not be liable to cure the defects, and the purchaser must usually employ a new contractor to cure them. The new contractor may hesitate to assume responsibility for ensuring the proper operation of the works since he did not effect the entire construction and each contractor would only be responsible for the construction effected by him. Furthermore, defects resulting from improper construction by the new contractor would not be covered by the guarantee given by the original contractor. Such a division of responsibility between the original contractor and the new contractor may be avoided by employing the new contractor at the expense and risk of the original contractor.

65. If the purchaser chooses the remedy of curing defects by a new contractor at the expense and risk of the original contractor, he should be obliged to make a reasonable selection of a new contractor and to agree with him reasonable contractual terms. The original contractor should be obliged to pay all costs reasonably incurred by the purchaser, including the price to be paid to the new contractor. The risk connected with a failure by the new contractor reasonably chosen by the purchaser to perform his obligations should be borne by the original contractor. The guarantee for defects granted by the original contractor should cover not only defects not cured by the new contractor but also those caused by him. However, if the original contractor paid costs incurred by the purchaser in employing the new

contractor under this remedy, the purchaser should be obliged to assign to him rights he may have against the new contractor due to the failure of the latter to perform, and the purchaser should remain obliged to pay him the price agreed upon in the contract.¹²

66. If the purchaser chooses the remedy of curing the defects by a new contractor, the original contractor should be obliged to stop his efforts to cure the defects and to leave the site to enable the cure by the new contractor. The contract should stipulate when the original contractor is obliged to stop (for example, the day when the original contractor is notified of the choice of this remedy by the purchaser or a later date determined by the purchaser).

67. Before the cure of defects the contractor should be obliged not to remove any of his equipment or material which is at the site if it can be used in curing the defects. Reasonable use of such equipment and materials should be permitted in order to speed up the cure of the defects.

bb. Price reduction

68. The purchaser should be entitled to claim a price reduction as an alternative to the cure of the defects by a new contractor, or in cases where it turns out that defects were not cured by the new contractor. The price reduction should consist of the difference between the value which the works without defects would have had and the value of the defective works at the time the purchaser claims the price reduction. This approach also takes into consideration changes in the value of the works between the time of conclusion of the contract and the time of claiming the price reduction. If the defects are curable the price reduction should be equal to the costs which would normally be incurred in curing such defects.¹³

cc. Termination of contract

69. Termination of the contract should be available only in limited cases. Thus it may be available when the contractor fails to cure defects or when a new contractor employed by the purchaser to cure the defects at the expense and risk of the original contractor fails to do so, and as a result of the defects the works are unable to be operated in accordance with the contract (see

¹¹ *Illustrative provisions*

"(1) If the contractor fails to cure the defects in the works taken over by the purchaser [within a reasonable time] [within ... days] given to him by the purchaser, the purchaser shall be entitled:

"(a) to an adequate price reduction;

"(b) to cure the defects through a new contractor employed by him at the expense and risk of the contractor; or

"(c) to terminate the contract if the defects are incurable and the works are not capable of being operated in accordance with the contract.

"(2) The remedy chosen by the purchaser shall not be changed without the consent of the contractor. However, if the purchaser chooses to employ a new contractor to cure the defects at the expense and risk of the original contractor and the new contractor fails to cure them, the purchaser shall be entitled, either to terminate the contract if the works are not capable of being operated in accordance with the contract, or to a price reduction."

¹² *Illustrative provision*

"If the purchaser employs a new contractor to cure the defects, provided the selection of such new contractor and the terms of the contract with him are reasonable, the purchaser shall be entitled to all costs reasonably incurred by him. If the performance by the new contractor is defective, the contractor shall be responsible for such defects to the same extent as if he had effected such performance. To the extent to which the contractor paid costs incurred by the purchaser in employing the new contractor, the purchaser shall assign any rights he may have against the new contractor to the contractor."

¹³ *Illustrative provision*

"The price reduction shall be equal to the difference between the value which the works without defects would have had and the value of the defective works at the time the purchaser claims the price reduction. If the defects are curable the price reduction shall be equal to the cost which would normally be incurred in curing the defects."

footnote 11, above). The parties may even wish to limit this remedy to certain specified cases (for example, if the capacity of the works does not achieve a certain percentage of the capacity specified in the contract). The extent to which the contract may be terminated and the effects of termination are discussed in chapter XXXVIII, "Termination".

(c) *Damages for failure to perform*

70. In addition to the remedies discussed in the previous paragraphs, the purchaser should be entitled to be compensated for losses caused by his failure to perform, unless the failure was due to an exempting impediment (see chapter XXXI, "Damages" and chapter XXXII, "Exemptions"). The extent of damages may depend upon the other remedies chosen by the purchaser, and should of course not include compensation for losses covered by such remedies.

71. The purchaser may be entitled to be compensated for costs which he incurs as a result of delay (e.g. salaries paid to the purchaser's personnel) or the cure of defects by repair or replacement effected by the contractor (e.g. the cost of laying a new concrete platform where the contractor has to replace a defective machine and it is the purchaser's obligation to lay the new platform on which a new machine is to be installed). The purchaser may also recover damages for losses suffered through his liability to pay compensation to a third person which arises because of failure to perform by the contractor. Such compensation to a third person may take the form of damages payable to him (for example, due to breach of an obligation to enable the third person to start erection on a particular date) or compensation payable to the third person as the result of variation or suspension of the third person's obligations, or termination of a contract for the purchaser's convenience necessitated by the failure to perform by the contractor (see chapter XXXV, "Variation clauses", chapter XXXVII, "Suspension of construction" and chapter XXXVIII, "Termination").

72. The extent to which compensation should be paid for loss of profits is debatable. Compensation for loss of profits usually has no practical importance when delay occurs before the date scheduled for completion or when defects are discovered during construction since the loss of profits will be suffered by the purchaser only when the works cannot be operated properly on the date scheduled for completion. However, cure of defects discovered during construction may result in delay in the completion of the construction and loss of profits may be caused. The parties may wish to stipulate that the contractor is liable to the purchaser for loss of profits only in cases when the contractor intentionally causes the delay. In the case of defective construction the parties may wish to limit liability for loss of profits to cases where the contractor intentionally performed with defects, or where he constructed the works with knowledge that defects would result. The parties may also wish to use other approaches to limit liability for loss of profits (see chapter XXXI, "Damages").

(d) *Delay in payment by contractor*

73. The contractor may be obliged to pay a sum of money to the purchaser, e.g. to pay costs incurred by the purchaser in employing a new contractor for completion of the construction or cure of defects at his expense and risk (see paragraph 65, above). If the contractor fails to perform this obligation in time he should be liable to pay interest and damages to the same extent as the purchaser is liable when he fails to pay the price (see paragraphs 74-76, below).

2. *Contractor's remedies for purchaser's failure to pay*

74. The payment conditions in a contract will often determine when the contract price or a part thereof is to be paid. If the purchaser fails to pay the contract price or a part thereof on the date when it is due, the contractor should be entitled to require payment, suspend the construction of the works (see chapter XXXVII, "Suspension of construction") or terminate the contract (see chapter XXXVIII, "Termination"). In addition, the contractor should be entitled to interest in the event of the failure of the purchaser to make payment on the due date, if the applicable law permits. The parties should consider whether the interest payable by the purchaser should be governed by the applicable law or regulated in the contract. However, there may be mandatory rules under the applicable law with regard to interest, such as restrictions on the interest rate. If parties provide for the payment of interest in the event of failure to make payment by the purchaser, the contract should state the time during which interest is to be payable, for example, interest may be payable from the date of failure to make payment, as the money to be paid to the contractor could earn interest from that date. The parties should stipulate whether, in addition, damages should be payable for loss suffered which is not covered by the interest.

75. The parties may wish to consider whether interest should be due in cases where an exempting impediment prevents the purchaser from paying the contract price. Parties may wish to provide that interest is payable in such cases in order to prevent the purchaser from benefiting from the use of the money which should have been paid to the contractor. Damages for loss suffered which is not covered by the interest should not be payable if the delay in payment is caused by an exempting impediment (see chapter XXXII, "Exemptions").

76. The interest rate may be determined so as to safeguard against the fluctuation of interest rates in the market between the time payment is due and the actual time when payment is made. However, it may not be possible to predict accurately what the interest rate will be at the time payment becomes due. It is therefore not advisable to stipulate a specific rate of interest, but to provide for a formula. One approach is to base the interest rate on some banking rate (e.g. the London Inter-bank Offering Rate) at the time payment is due, without stipulating a particular rate in the contract. Other possible approaches to determining the interest rate include providing either the interest rate for the

time being prevailing in the purchaser's country, or that for the time being prevailing in the contractor's country, during the time when the purchaser is in delay in payment. If the rate prevailing in the contractor's country is to apply, the purchaser might be tempted to delay payment when the rate prevailing in his own country is higher than the rate prevailing in the contractor's country. If the rate prevailing in the purchaser's country is to apply, there would be no such inducement. However, if the latter approach is adopted, and the rate prevailing in the contractor's country is higher than the rate prevailing in the purchaser's country, the contractor might regard the approach as unfair. Such possible unfairness might be mitigated by permitting the contractor to sue for damages for the loss caused by the difference in interest rates. Yet another approach may be to link the interest rate to that prevailing in the country in whose currency the payment is to be made (see chapter XXXI, "Damages", paragraph 10). Parties must in any event agree on which of the many interest rates prevailing in a country is to apply. One rate which might be adopted is the official discount rate in a country.

77. The rules applicable to the obligation to pay interest and damages should apply also to the purchaser's failure to make payment other than payment of the price.

E. Purchaser's remedies in respect of defects not covered by contractor's liability

78. The parties may wish to agree that the contractor is obligated at the purchaser's request to cure as soon as possible defects for which he is not responsible, at the expense of the purchaser, if they are notified during the guarantee period. The extent to which the contractor may be obliged to cure, at the expense of the purchaser, defects which appear after the expiration of the guarantee period are dealt with in chapter XIX, "Maintenance and repairs".

F. Procedure for claims in respect of defects notified during guarantee period

79. This section deals only with the procedure for claims relating to defects discovered and notified during the guarantee period. The procedure to be followed during the construction period is discussed in chapter XIII, "Inspection and tests". The procedure relating to defects discovered at taking-over is dealt with in chapter XIV, "Completion, take-over and acceptance of works".

80. The purchaser should be obliged to notify the contractor as soon as possible in writing of any defect which may be discovered during the guarantee period. The failure to give such a notification, or to give it in time, should not result in a loss of the purchaser's rights arising from the defective performance. The purchaser should, however, be liable to compensate the contractor for losses caused by the non-receipt of such a notice.

81. The notice of defects should specify the defects and the date of their discovery. It should also specify the nature and extent of damage to the purchaser's property caused by the defects. The contractor should be given an opportunity of inspecting the defects notified.

82. The contractor should inform the purchaser in writing within a period of time to be stipulated in the contract whether he contests the existence of the defects or the coverage thereof under the guarantee. Even if the contractor denies his responsibility for the defects, he should be obliged to take immediate steps to cure the defects informing the purchaser of the time he needs to cure the defects if he is required by the purchaser to do so. If the contractor later proves that he is not responsible for the defects, he should be entitled to the costs reasonably incurred in curing the defects (see paragraph 78, above).

G. Defects notified after expiration of guarantee period

83. The contractor should not be responsible for any defects which are discovered or notified after the expiration of the guarantee period. Under the applicable law or where parties so provide in the contract, there may be some exceptions to this principle (for example, the contractor may be responsible for defects discovered by the purchaser after the expiration and the guarantee period if the contractor knew of these defects at the time of his performance, or if he fraudulently concealed the defects).

[A/CN.9/WG.V/WP.11/Add.4]

Chapter XXXI. Damages

Summary

The contract should provide that a party who has failed to perform any obligation under the contract is liable for damages unless the failure was due to an exempting impediment.

The contract should specify the types of losses to be compensated and the extent of damages to be paid. A determination of these factors should take into consideration the long term and complex nature of works contracts and the large losses which may be caused by the breach. The parties may also wish to provide for methods to reduce the scope or amount of damages payable, such as excluding compensation for losses which are unforeseeable, excluding compensation for indirect or consequential losses, and limiting the amount of damages. The extent of damages payable may also depend upon the nature of the breach and the time when it occurs. It is advisable to obligate the aggrieved party to mitigate his losses resulting from the breach through appropriate measures reasonable under the circumstances.

The issue of the liability to pay damages for personal injury and for damage caused to property of third persons need not be settled in the contract. The parties may, however, wish to agree upon the internal allocation of risks between them to be paid to third persons.

* * *

A. General remarks

1. An important consequence of a failure to perform which constitutes a breach of contract¹ is that the party in breach must pay damages to the other party to compensate him for losses suffered as a result of the breach. The applicable law will usually determine when a failure to perform constitutes a breach of contract, and under what circumstances the aggrieved party is entitled to damages. However, the approaches to these issues under various legal systems may differ. The legal rules on some matters relating to liability may be mandatory, while on other matters they may be capable of modification by the parties. Under some legal systems, mandatory rules may prevent the parties from excluding liability or reducing the extent of recoverable damages.

2. Damages as conceived in this Guide do not include compensation payable to the other party for reasons which do not constitute a failure to perform (see chapter XXXV, "Variation clauses", chapter XXXVII, "Suspension of construction", and chapter XXXVIII, "Termination"). Damages should also be distinguished from other remedies which the purchaser may have in case of defective construction, such as price reduction (see chapter XXX, "Failure to perform").

3. It may be noted that under some liquidated damages or penalty clauses the liability to pay an agreed sum may exist regardless of whether the failure constitutes a breach of contract (see chapter XXXIII, "Liquidated damages and penalty clauses"). The payment of interest arising from the failure of a party to make timely payment should also be distinguished from damages in that interest should be paid regardless of whether or not the failure was due to an exempting impediment (see chapter XXX, "Failure to perform").

B. Liability for damages

4. As a general principle, the contract should provide that the party who is in breach of contract is obligated to compensate the other party for losses suffered as a result of the breach. This rule should apply to the failure to perform any obligation by either party. However exceptions thereto may be agreed upon in the contract for some cases.²

5. The contract may provide that the aggrieved party is entitled to be compensated for all losses caused by the breach, except for certain losses which are excluded. A more restrictive approach may be to provide that the aggrieved party is entitled to be compensated only for certain types of losses expressly mentioned.

6. In determining what losses are to be compensated by damages the parties may wish to consider in particular the following types of losses:

(a) Diminution in the value of assets of the aggrieved party (e.g. damage to equipment owned by the purchaser as a result of defects in other equipment supplied by the contractor);

(b) Costs reasonably incurred by the aggrieved party as a result of a breach by the other party (e.g. wages and overhead expenses of the purchaser during the time when the works are not capable of being operated);

(c) Payments which the aggrieved party makes to a third party because of a liability to make such payments which arises due to the breach;

(d) Loss of profits which would have accrued to the aggrieved party if the contract had been properly performed (see paragraph 8, below).

7. When the aggrieved party is liable to pay compensation to a third party due to a breach by the other party, the payments to be made to the third party could be substantial. Therefore, when the aggrieved party is entitled to recover from the party in breach damages in respect of such payments, he may wish to obtain these damages before making payment to the third party. On the other hand, if the aggrieved party's actual payment to the third party is less than the amount of damages received from the party in breach the aggrieved party will be unjustly enriched. The parties should consider whether the rules of the law applicable to the contract or rules of procedure which will be applicable to the settlement of a dispute arising from the contract resolve these problems satisfactorily. If not, the parties may wish to provide for payment to be made directly by the party in breach to the third party in the name of the aggrieved party. Another approach may be to provide that the damages must be repaid to the extent to which the aggrieved party fails to prove within a certain period of time that he discharged his obligation towards the third party.

8. It may often be difficult to determine the amount of lost profits; furthermore, this amount could potentially be very large. As a result, contractors are reluctant to assume unlimited liability for lost profits. In addition, such unlimited liability may not be insurable. One approach to limiting liability may be to compensate for loss of profits under a liquidated damages or penalty clause. Another approach may be to restrict liability for lost profits only to certain cases of delay or defective performance (see chapter XXX, "Failure to perform"). Yet another approach may be for the contract to limit compensation for loss of profits to a certain amount or to loss of profits suffered during a limited period of

¹Failures to perform due to exempting impediments are not considered to be breaches of contract (see chapter XXXII, "Exemptions").

²*Illustrative provision*

"Unless otherwise provided in this contract, a party who fails to perform any obligation under this contract shall be liable for damages unless the failure was due to an exempting impediment."

time after a breach. Such limitation could result in a lower contract price since the contractor's liability insurance costs (which he would normally include in the price), or his financial reserves to cover liability risks could be lower.

9. A breach of contract may result in some benefits or savings to the aggrieved party (for example, he may save certain costs in the operation of the works which he would have incurred if there were no breach). These benefits and savings should be taken into account in determining the losses to be compensated. However, it may be noted that when the aggrieved party receives insurance indemnification for the losses suffered the claim for damages may be subjected to subrogation by or assignment to the insurer to the extent of losses indemnified.

10. The party in breach should generally be obliged to compensate the other party by paying a sum of money equivalent to the losses suffered. As a general principle, the contract may require damages to be paid in the same currency in which the price is to be paid. However, in some cases, in particular if the price is to be paid in a currency which is not freely convertible, the contract may provide for damages to be paid in the currency in which the loss has been suffered (e.g. if the aggrieved party is obliged to pay compensation to a third party in a freely convertible currency, the damages in respect of the payment of such compensation should be paid to the aggrieved party in the freely convertible currency).

C. *Extent of damages*

1. *Mitigation of losses*

11. The parties may wish to provide in the contract that the aggrieved party must endeavour to mitigate the losses resulting from the breach of contract. If the aggrieved party fails to fulfill his obligation to mitigate his losses he should not be entitled to compensation for losses which could have been prevented if he had fulfilled this obligation. However, the party should be obliged to take only measures which can reasonably be expected to mitigate the losses and which are reasonable for a party in his position to take (for example, he should not be obliged to take any measures which might endanger his own commercial reputation or which are too onerous). If the aggrieved party takes such measures he should be able to recover his losses in full including costs reasonably incurred in taking such measures, even if the measures were unsuccessful.³

³*Illustrative provision*

"A party who suffers losses as a result of a breach by the other party shall take all measures which he can reasonably be expected to take to mitigate the losses. If he fails to take such measures any losses which could have been prevented thereby shall not be recoverable. If he takes such measures he shall be entitled to recover the full extent of his losses, including costs reasonably incurred by him in taking such measures, even if such measures were not successful in mitigating the losses."

2. *Reduction of scope or amount of recovery*

(a) *Unforeseeable losses*

12. The contract may exclude recovery by the aggrieved party for losses which the party in breach could not have been expected to foresee. The relevant time for determining the foreseeability of a loss may be the time of the conclusion of the contract,⁴ or the date of the breach. Because of the long-term character of a works contract the parties may wish to stipulate that the date of the breach of contract is the relevant date to determine foreseeability. Such a stipulation would expand the scope of recovery since a particular type of loss may become foreseeable between the times of the conclusion and the breach of the contract.

13. If the parties provide that unforeseeable losses are not to be recoverable they should provide an objective test to determine unforeseeability, for example, losses which are not foreseeable by a reasonable person in the same position as the party in breach.⁵

(b) *Indirect or consequential losses*

14. Some works contracts exclude from recovery compensation for indirect or consequential losses. However, the terms "indirect" and "consequential" are vague and could give rise to differing interpretations. Therefore, these terms should be defined if they are to be used in the contract. The parties may wish to specify the types of losses which are not to be compensable, without using these terms. For example, the parties may wish to exclude from recovery losses suffered by the aggrieved party as a result of a liability which the aggrieved party has assumed towards a third person even in cases where no loss was caused (e.g. if the contractor undertakes to pay to a subcontractor an agreed sum as liquidated damages or a penalty if the erection of the equipment cannot be commenced in time due to the purchaser's failure to co-ordinate construction, and the sub-contractor did not suffer any loss). If the contract excludes from recovery losses which are unforeseeable, this will in many cases also exclude recovery for indirect or consequential losses, since such losses are often unforeseeable. In such cases an additional clause excluding indirect and consequential losses from damages may therefore be superfluous.

(c) *Damages limited by amount*

15. Some works contracts limit the extent of recoverable damages to a certain amount. Such an amount may be determinable as a percentage of the price of the works, or a sum may be specified in the contract. In contracts in which the exact price is not known at the

⁴This approach was adopted in the United Nations Convention on Contracts for the International Sale of Goods, Vienna (1980), annex I, article 74, (A/CONF. 97/18; *Yearbook* 1980, part three, I, B).

⁵*Illustrative provision*

"Unless otherwise provided in the contract, damages shall not exceed the amount of the loss which the party in breach foresaw or could have been reasonably expected to foresee at the time of [the conclusion of the contract] [the breach of the contract] in the light of the facts and matters of which he then knew or could reasonably have been expected to know."

time of the making of the contract (for example, in the case of a cost-reimbursable contract) a combination of these approaches may be used, for example, by limiting damages to the greater of the percentage or the specified sum. A liquidated damages or penalty clause can also serve as a limitation upon the extent of recovery (see chapter XXXIII, "Liquidated damages and penalty clauses"). Parties may, however, wish to exclude a limitation of the extent of recoverable damages in certain types of breach of the contract (e.g. in cases where a loss results from an act or omission of the party in breach done with the intent to cause such loss).

D. *Personal injury and damage to property of third persons*

16. Defective construction may result in death or personal injury to the employees of the purchaser or to other third persons, or in damage to their property. The issues concerning damages in such cases are complex, and may be governed not by the law applicable to the contract, but rather by other mandatory rules. The contract cannot affect the liability of the contractor or the purchaser to compensate third persons who are not parties to the contract. The parties may, however, wish to provide for the internal allocation of risks between them in respect of damages to be paid to third parties due to death or personal injury or damage to their property, and to provide for insurance against such risks (see chapter XXVI, "Insurance").

17. If a person suffers personal injury or damage to his property as a result of the construction, and brings a claim against the purchaser, the contract should obligate the contractor to indemnify the purchaser against such a claim to the extent of the purchaser's liability, if the injury or damage was caused by the contractor's failure to use proper skill and care in constructing the works. The contractor should also be obligated to indemnify the purchaser against claims arising from such a failure by persons employed by the contractor to perform the contractor's obligations under the works contract.

18. The purchaser against whom a claim is made in respect of injury or damage to property of a third person should be obligated to notify the contractor of such a claim, and to permit him, if he wishes, to participate in all negotiations for the settlement of the claim and to join in legal proceedings, to the extent permitted by the law of the country where the action is brought.

party is entitled to an agreed sum of money from the party failing to perform. Such clauses have certain advantages. Since the agreed sum is recoverable without the need to prove that losses have been suffered, the costs and uncertainty associated with the proof of losses are removed. The sum also often serves as the limit of liability of that party (paragraph 2).

Most legal systems have some mandatory rules on liquidated damages and penalty clauses. Under some systems, agreed sums intended to coerce performance are invalid. Under other systems, the agreed sum may be reduced in certain circumstances (paragraph 5). There are also rules, which are often not mandatory, on the following questions: whether damages can be recovered in addition to the agreed sum for losses not compensated by the agreed sum; and whether, in addition to recovering the agreed sum, there can be enforcement of the performance in respect of which there has been a failure (paragraphs 6 and 7). The normal rule under most legal systems is that, for an agreed sum to be payable by a party, that party must not only fail to perform, but such failure must constitute a breach of contract. However, the contract may provide that the agreed sum should be payable even if there is no liability for the failure of performance (paragraph 8).

Parties should decide upon the objectives which they wish to attain by these clauses, and fix the amount of the sum accordingly. Because of the long-term nature of works contracts, such objectives are more difficult to achieve in these contracts. A sum which may be of a sufficient amount to compensate for a particular failure in the light of conditions existing at the time the contract is made may be insufficient if the failure occurs after the lapse of a considerable period. When the applicable law so permits, parties may find it beneficial to provide for the payment of agreed sums which exert a moderate pressure on the contractor to perform. Harsh penalties may not be useful and under many legal systems such penalties are also likely to be set aside or reduced in legal proceedings (paragraphs 9 and 11). A technique often adopted to limit liability is to place a ceiling on the agreed sums payable. Parties may also decide that the limitation is to be excluded in defined circumstances (e.g. when the failure consists of an intentional or reckless act) (paragraphs 12 and 14).

The contract should also deal with means to obtain liquidated damages or penalties. In addition to entitling the purchaser to recover the agreed sum, he should be authorized to deduct the agreed sum from sums payable to the contractor (paragraph 15).

Liquidated damages and penalties are most often provided for delay in performance. The contract should clarify the rights of the parties where the failure consists not only of failure to perform in time but of complete failure of performance. Furthermore, the contract should contain mechanisms for fixing new dates for performance if the dates originally fixed for performance by the contractor become inoperative (e.g. owing to failures of performance by the purchaser) (paragraph 16).

[A/CN.9/WG.V/WP.11/Add.5]

Chapter XXXIII. Liquidated damages and penalty clauses

Summary

Liquidated damages and penalty clauses provide that, upon a failure of performance by one party, the other

The purchaser may wish to provide that liquidated damages or penalties are to be payable, not only when there is delay in completing the whole works, but even when there is delay in completing a specified portion of the works. In such cases the appropriate quantification of the agreed sum requires careful consideration (paragraphs 17 to 20).

The parties may wish to provide for the effect of termination on the right to recover the agreed sum, and on the effect that the provision of a ceiling on recovery should have on the right of termination (paragraph 21).

* * *

A. General remarks

1. Liquidated damages and penalty clauses provide that, upon a failure to perform a specified obligation by one party, the other party is entitled to an agreed sum of money from the party failing to perform. Such an agreed sum may serve as a penalty, or as compensation, or both.* Such clauses are inserted in respect of failures of performance other than failures to make payment, and therefore in works contracts such clauses are usually inserted in respect of failures of performance by the contractor. As regards failures to make payment, it is usual to stipulate for the payment of interest. Interest is dealt with in chapter XXX, "Failure to perform".

2. Liquidated damages and penalty clauses may be included in a works contract for the purpose of achieving one or more of the following purposes:

(a) The sum payable as compensation for failure of performance is agreed at the time the contract is made. Such an agreed sum eliminates the expenses incurred in the proof of loss. Furthermore, because of difficulties sometimes encountered in proving the extent of loss, the amount of damages which might be awarded in legal proceedings may be uncertain. An agreed sum is certain, and this certainty may be of benefit to both parties;

(b) Fixing the agreed sum at an amount higher than that which the contractor might save by not performing his obligations puts pressure on him to perform, rather than breach, his obligations;

(c) The agreed sum is often the limit of liability of the contractor. The contractor is assisted by knowing in advance the maximum liability to which he is likely to be exposed.¹

*In many civil law systems the term penalty describes not only an agreed sum intended to coerce performance but also a sum intended only to compensate, and a sum with both these purposes. Studies on the nature and operation of liquidated damages and penalty clauses in international contracts are contained in *Yearbook 1979*, part two, I, A, and *Yearbook 1981*, part two, I, B, 1. "Uniform rules on contract clauses for an agreed sum due upon failure of performance" adopted by the Commission are set forth in the Report of the United Nations Commission on International Trade Law on the work of its sixteenth session, *Official Records of the General Assembly, Thirty-eighth session, Annexes, annex No. I, document A/38/17 (Yearbook 1983, part one, A)*.

¹*Illustrative provision*

"(1) If the contractor fails to complete the works on the date fixed for completion, the purchaser shall be entitled to recover from the contractor [\$] for each day of delay which elapses from that date till the date of completion."

3. These considerations can be of special importance in international construction contracts. A purchaser who has to establish his loss in a foreign court, or in an arbitration held away from the country of construction, may incur considerable expenses, and may also be uncertain of the extent of his recovery. Furthermore, purchasers may find it advantageous to stimulate performance. The employment of alternative contractors to complete or cure performance may entail considerable time, expense and disruption. Stimulating performance through an agreed sum may also be advantageous where there are difficulties in the way of directly enforcing performance through court action. Stimulating performance may also be useful when the works form one item in a project, and non-completion or delayed completion of this item can adversely affect the entire project.

4. Liquidated damages and penalty clauses should be distinguished from two other types of clauses which are sometimes found in works contracts, i.e. clauses limiting the amount recoverable and clauses providing alternative obligations. A clause limiting the amount recoverable fixes a maximum amount payable if liability is proved, but not a minimum. A plaintiff must establish the amount of his loss, and if the loss falls below the maximum, only the loss proved is recoverable. In the case of a liquidated damages or penalty clause, in general the sum stipulated is recoverable, without proof of loss. A clause providing an alternative obligation in favour of a contractor gives him the option either of performing a specified obligation or paying an agreed sum. If he chooses to pay the agreed sum, performance cannot be enforced. Under a liquidated damages or penalty clause, however, the obligation to perform may not be discharged by paying the agreed sum.

B. Liquidated damages and penalty clauses and applicable law

5. Many legal systems have rules, which are sometimes mandatory, regulating liquidated damages and penalty clauses, and such rules will often restrict what the parties may achieve through such clauses. Under some legal systems, liquidated damages clauses, i.e. clauses by which the parties, at the time of contracting, fix an agreed sum payable as compensation for loss caused by a breach of contract, are valid. In contrast, clauses imposing a penalty are invalid, and the party who fails to perform is liable only for the damages recoverable under the general law. Under other legal systems, however, clauses providing for compensation, or imposing a penalty, or fixing a sum which has both these purposes, are in principle valid. The courts have the power to reduce the agreed sum in specified circumstances e.g. if the amount is grossly excessive in the circumstances, or there has been part performance. Parties by agreement cannot derogate from the power to reduce the agreed sum.

6. The applicable law also regulates the relationship between recovery of the agreed sum and recovery of damages. Since one of the objects of an agreed sum is

to avoid the difficulties of an inquiry into the extent of recoverable damages, most legal systems do not permit the purchaser, in cases where recoverable damages under the ordinary rules exceed the agreed amount, to waive the agreed amount and claim damages. Nor can the contractor, in cases where the amount recoverable as damages is less than the agreed amount, assert that he should only be liable for damages. Under some legal systems, however, where the loss exceeds the agreed sum, the purchaser can, in addition to the agreed sum, recover damages to the extent of the excess, either unconditionally or subject to satisfying certain conditions (for example, that the failure of performance was negligent, or was committed with an intention to cause loss, or that there was an express agreement that damages for such excess was to be recoverable). The purchaser may justify the maintenance of such claims on the ground that he is seeking only to be compensated for loss proved by him which would otherwise not be compensated. The contractor may seek to exclude such claims on the ground that they make his liability exposure uncertain. Parties may therefore wish to regulate these issues in the contract to the extent permitted by the applicable law.²

7. The applicable law also regulates, though generally by rules for interpreting the contract made by the parties, the relationship between recovery of the agreed sum and enforcement of performance. Under certain legal systems, enforced performance is not usually granted, and therefore the purchaser will be restricted to claiming the agreed sum. Where enforced performance is granted, however, the normal rules of interpretation are that, where an agreed sum is provided for delay in performance or defective performance other than delay, the purchaser can claim both performance and the agreed sum. It would be advisable for the contract clearly to affirm this rule.³ The agreed sum normally only compensates for the loss suffered by the purchaser during the period of delay, or during the period which elapses before the defect is cured. Accordingly, the purchaser must, in addition to the agreed sum, be able to claim performance or cure respectively. The provision of an agreed sum for complete non-performance of an obligation is very rarely found in works contracts, because complete non-performance is normally not envisaged by the parties. If such an agreed sum is provided, the contract should clarify its function.

8. The rule in many legal systems is that, for liquidated damages or a penalty to be due, there must not only be the specified failure of performance, but such failure must constitute a breach of contract. Thus, if the failure of performance was caused by an exempting impediment, or by the acts of the other

party, the liquidated damages or penalty would not be due. Parties may wish (e.g. in the interests of certainty) to change the incidence of risks resulting from this rule, and to provide that the contractor must pay liquidated damages or a penalty even if he is not liable for a failure. Such a change would, however, nearly always result in an increase in the price.

C. *Increasing effectiveness of liquidated damages and penalty clauses*

9. The effectiveness of such clauses depends on a number of factors. In a long-term contract, it is extremely difficult to estimate at the time of contracting the losses which will be suffered at the time of breach. Fluctuations, for example, in the prices of raw materials or feedstocks used for consumption, of markets for the finished products, or of the cost of labour or materials, may result in the agreed sum being over-compensatory or under-compensatory, or being an effective or ineffective deterrent to breach. From the point of view of the purchaser, the agreed sum should not be fixed at such a level that he will suffer serious uncompensated loss upon failure of performance. A sum which is too low will also reduce the inducement to the contractor to perform properly, or on time. An agreed sum will also be less effective as an inducement to proper or timely performance if the contractor has as a safety margin included in the price at the time of tendering a certain sum which he is prepared to pay by way of liquidated damages or a penalty. The effectiveness of the agreed sum as a remedy will also depend on the ease with which it can be recovered; if it can only be recovered after protracted legal proceedings, it will be less effective (see paragraph 15, below). From the point of view of the contractor, the effectiveness of the agreed sum in limiting his liability exposure will depend on the extent to which it constitutes an absolute limit of liability.

10. A very clear delimitation of the failure of performance for which the agreed sum constitutes compensation or a penalty would be in the interests of both parties. Thus where an agreed sum constitutes compensation for delay in performance by the contractor, the fact that this sum is not to be the purchaser's only compensation when the contractor completely fails to perform should be clarified. Again, as is common practice, when an agreed sum is payable on delay in completion, how delay and completion are defined for this purpose should be clarified. For example, a clear definition of completion is needed to determine the date from which the agreed sum becomes payable (see chapter XIV, "Completion, take-over and acceptance of works").

11. If the applicable law so permits, the purchaser may find it beneficial for the contract to fix an agreed sum for failure of performance by the contractor which both provides reasonable compensation to the purchaser and puts a moderate pressure on the contractor to perform. In determining what sum is reasonable, parties may consider such factors as the loss which might be

²*Illustrative provision*

"(2) Subject to the provision of paragraph (7) of this clause, and without prejudice to any right to recover the sum referred to in paragraph (1) of this clause, no damages are recoverable in respect of the delay in completion referred to in the latter paragraph."

³*Illustrative provision*

"(3) Without prejudice to any right to recover the sum referred to in paragraph (1) of this clause, the purchaser shall be entitled to require the contractor to complete the works."

caused to the purchaser by the failure, the effect of payment of the agreed sum on the financial position of the contractor, and the fact that the sum should be substantial enough to induce the contractor to perform. Harsh penalties should be avoided, as their stipulation in tender requirements may deter some reputable contractors from undertaking the construction, and may also have no special deterrent effect if it can be predicted that in all likelihood they will be reduced in legal proceedings. Furthermore, when accepting the provision of harsh penalties in the contract, contractors may as a counterbalance increase their safety margins in respect of the performances undertaken (e.g. by fixing later dates for completion, or lower guaranteed performance standards or by over-designing the works). Where a legal system permits an agreed sum only to serve as compensation, parties should attempt to estimate as accurately as possible the loss which the purchaser is likely to suffer. Any records relating to the basis of the estimate and the calculations should be preserved, as evidence that the sum was not fixed arbitrarily.

D. Ceiling on recovery of agreed sum

12. The liquidated damages or penalties are often fixed by way of increments, a fixed amount being due per unit of delay or per unit by which performance standards are not met. Very often, however, the function of liquidated damages or penalties as imposing a limitation on liability is emphasized by placing a ceiling on the amount to which the agreed sum can increase.⁴ A contractor may be unwilling to accept liability without a ceiling, and the provision of a ceiling may tend to a reduction of the price. A purchaser should, however, only agree to a ceiling after careful consideration, as he may suffer serious uncompensated loss after the ceiling is reached. Where a contractor insists on an unreasonably low ceiling, or on unreasonably low agreed sums, the purchaser should consider whether, despite the difficulties and costs associated with recovery under it, he would find it more beneficial to rely on the general law of damages.

13. In regard to a ceiling, parties may wish to consider whether the limitation created by the ceiling should be absolute, or be excluded in certain cases. Parties may wish to consider the insertion of a provision under which the ceiling is excluded, for example, where loss results from a failure committed with the intent to cause loss.⁵

14. What remedies the purchaser might have if delay continues after the ceiling is reached should also be

⁴Illustrative provision

"(4) The amount recoverable under paragraph (1) of this clause shall not exceed a maximum of [\$]."

⁵Illustrative provision

"(5) The maximum specified in paragraph (4) of this clause shall not apply to a failure to perform with the intent to cause loss."

(This approach to the exclusion of the limitation of liability is also adopted in the United Nations Convention on the Carriage of Goods by Sea, 1978, article 8 (1) (A/CONF.89/13; *Yearbook 1981*, part three, I, B).)

settled. If the legal system in question permits enforced performance, such a right would exist from the time delay commenced, and would continue even after the ceiling is reached. With respect to the right to recover damages, a possible approach is to provide that, after the ceiling is reached, the purchaser is entitled to recover damages for loss suffered by non-completion after the date on which the ceiling was reached. He should also be entitled to terminate the contract (see paragraph 21, below, and the illustrative provision appended thereto).

E. Obtaining agreed sum

15. The liquidated damages or penalty clause should entitle the purchaser to recover from the contractor the agreed sum in the event of failure of performance. Since legal proceedings for recovery entail time and expense, it is normal practice for the contract to authorize the purchaser to deduct the agreed sum from funds of the contractor in the hands of the purchaser (e.g. a deposit) or from funds due from the purchaser to the contractor (e.g. the price). The clause should clarify that deduction is an optional mode of obtaining the agreed sum. Where the same purchaser and contractor have entered into more than one contract with each other, each contract might authorize deduction from funds due under the other contract or contracts.⁶ The purchaser can enhance the certainty of obtaining the agreed sum through provisions in the contract that the contractor must arrange for a financial institution to open in favour of the purchaser a guarantee in respect of the performance for failure of which the sum is stipulated, and that in the event of a failure of performance the purchaser can claim the agreed sum from the financial institution.

F. Liquidated damages and penalty clauses for delay

16. In works contracts liquidated damages and penalties are most commonly stipulated for delay in performance by the contractor. In some cases, however, difficulties arise under some legal systems because the date originally fixed for performance may become inoperative. This can happen either because of a breach of obligation by the purchaser (e.g. he hands over the site late, or gives necessary drawings or specifications late), or through acts of the purchaser which are not breaches of obligation (e.g. ordering extra work under a variation clause), or through occurrences for which neither party is responsible (e.g. exempting impediments preventing the contractor from performing). The result is that the contractor is only bound to perform within a reasonable time, and the liquidated damages or penalty clause will also be inoperative by reference to the date

⁶Illustrative provision

"(6) Without prejudice to any other remedy to which the purchaser may be entitled for recovery of the sum mentioned in paragraph (1) of this clause, he shall be entitled to deduct such sum, in whole or in part, from any sums due to the contractor, either under this contract, or any other contract between the purchaser and the contractor."

originally fixed for performance. Accordingly the contract should contain a mechanism for fixing a new date for performance (see chapter XXXII "Exemptions", chapter XXXV "Variation clauses" and chapter XXXVII "Suspension of construction").

17. Parties may wish to consider in what circumstances liquidated damages or penalties are to be provided for delay in completion of a portion of the works by a contractor. The purchaser may wish to impose an obligation on the contractor to complete portions of the works by specified dates to ensure steady progress in the construction, even though delay in completion of the portion does not by itself cause him loss. He may also find it advantageous to impose an obligation to complete a particular portion by a specified date if he can enter and use that portion independently of the completion of the rest of the works. It may also be advantageous where one main contractor and some subsidiary contractors are employed. Failure to complete a portion on schedule by the main contractor may result in the purchaser having to pay damages to the subsidiary contractors whose work cannot as a result be started on schedule.

18. The quantification of the agreed sum in such circumstances should depend on the reason why the portion is required to be completed by the specified date. If the obligation is imposed only to ensure steady progress, the agreed sum will assume the character of a penalty, and, if the applicable law permits the imposition of penalties, may be based on a percentage of the value of the delayed portion. Where, however, the portion is required to be completed by the specified date for the other reasons noted in paragraph 17, above, the agreed sum may assume a compensatory character, and be quantified on the basis of the expected loss from the delay.

19. The parties may wish to provide that liquidated damages or penalties are provided both for delayed completion of a portion and for delayed completion of the whole works. In such a case, in order to quantify the agreed sums they would have to identify separately the loss caused by delay in completion of the portion, and delay in completion of the whole works.

20. A related problem arises when liquidated damages or penalties are only specified for delay in completion of the whole works, and on the date specified for completion certain portions are completed, although the whole is still incomplete. In such circumstances one approach may be for the parties to provide that the agreed sum is to be reduced if the contractor can prove that the purchaser's loss was less than the agreed sum. The contractor may be able to prove this, for example, if the purchaser has entered upon the completed portions and is using them. Another approach, however, is not to provide for any reduction of the agreed sum in such circumstances, since the quantification of the reduction may lead to those disputes and difficulties of proof which the agreed sum was intended to eliminate. Furthermore, if the agreed sum is to be reduced in such circumstances to accord with the actual loss suffered by

the purchaser, it might be suggested that it should also be increased if the actual loss suffered by the purchaser exceeds it. The possibility of both increasing and reducing the agreed sum could deprive it of much of its utility.

G. Termination of contract and liquidated damages and penalty clauses

21. Parties may wish to provide that, where liquidated damages or penalties are stipulated by way of increments with a ceiling on the amount recoverable, no termination by the purchaser is possible in respect of the failure for which liquidated damages or penalties are provided until the ceiling is reached. Parties should also specifically provide for the effect of termination upon the recovery of liquidated damages and penalties, and on the ceiling. It has been suggested that termination should not have a retrospective effect on the contract, and that parties should preserve certain rights and obligations in respect of performances due before termination (see chapter XXXVIII, "Termination"). Accordingly, if a ceiling has been reached, and termination occurs after the ceiling has been reached, the termination would have no practical effect on the operation of the liquidated damages or penalty clause. If, however, termination by the purchaser occurs before the ceiling is reached (e.g., if the purchaser terminates for a failure other than the one for which the agreed sum has been stipulated), the parties may wish to provide that the termination does not affect the right to recover the amount due on the date of termination, but puts an end to the right to recover the agreed sum after termination, and also makes the ceiling inoperative. However, the purchaser should of course be entitled to recover damages for loss suffered by non-performance after the termination.⁷

[A/CN.9/WG.V/WP.11/Add.6]

Chapter XXXV. Variation clauses

Summary

Variations are often necessary in an industrial works project. The contract should include a variation clause permitting variations and settling the substantive and procedural conditions under which they may be made. It is usually in the interest of the purchaser to be able to

⁷*Illustrative provision*

"(7) (a) The purchaser shall not be entitled to terminate the contract on the ground of the delay in completion for which the sum payable under paragraph (1) of this clause is provided, unless the maximum specified in paragraph (4) has been reached;

"(b) If the delay occurs for which the sum payable under paragraph (1) of this clause is provided, and the contract is terminated by the purchaser for reasons other than such delay before the date when the sums payable under paragraph (1) of this clause reach the maximum specified in paragraph (4), this clause shall not be operative after termination, and the purchaser shall be entitled to recover damages from the contractor for loss suffered after that date by failure of completion."

order variations, as long as the contractor is not unduly prejudiced by them (paragraphs 2 and 7). Variations which increase or reduce the equipment, materials or services to be supplied by the contractor should result in commensurate and reasonable adjustments in the contract price, time for performance and other terms as appropriate (paragraphs 4 and 5).

The clause should permit only variations which are within the overall scope of the work (paragraphs 8 and 9). The contractor should be able to object to a variation ordered by the purchaser if performance of it would cause him substantial prejudice (paragraphs 10 to 14).

The variation clause should settle various procedural matters in connection with variations.

- A variation ordered by the purchaser should be in writing (paragraph 16).
- An objection to a variation ordered by the purchaser, a proposed alteration to such a variation, or a contention concerning the consequences of the variation, should be made by the contractor in writing within a stipulated time period (paragraph 17). The parties should attempt to resolve between themselves any dispute concerning the variation or its consequences, failing which the dispute should be submissible for third-party settlement (paragraphs 19 and 20). If the parties disagree with respect to the consequences of the variation, but not its nature, the contractor should be obligated to perform the variation pending the resolution of the issue of the consequences (paragraph 19). If the contractor objects to the variation, or proposes an alteration to it, the variation clause should establish when the variation must be performed pending settlement of the dispute (paragraphs 21 and 22).
- Variations proposed by the contractor should not be executed unless they have been agreed to in writing by both parties (paragraphs 23 to 24).
- If an engineer is to be authorized to act on behalf of the purchaser to order, confirm or consent to variations, or to settle disputes between the parties concerning variations, this authority should be set forth in the variation clause (paragraphs 25 and 26).
- The variation clause should set forth guidelines for determining the effect of a variation upon the contract price. Factors to be taken into account in determining this effect should include increases or decreases in construction costs, overhead and profit, the effect of a variation on other aspects of the contract, and other losses and expenses of the contractor (paragraphs 27 to 31). The parties should be required to keep proper records of the cost and expenses associated with a variation (paragraph 32).

* * *

A. General remarks

1. During the course of construction of a complex industrial works project it is usual for situations to be

encountered which make it necessary or advisable to vary certain aspects of the work. These situations most often occur due to problems with the availability of feedstock or materials. They could also result from other unforeseen problems during construction requiring different equipment, materials, or services, from circumstances affecting the expected profitability of the works, or from technological innovation of which the purchaser or contractor wishes to take advantage. In addition, the contractor may seek variations to suit his construction techniques. Variations may be in the form of changes in the performance required under the contract as well as additions to or omissions from that performance.

2. In most cases it will be the purchaser who, upon his own initiative or the advice of his engineer, will seek variations. Two basic approaches are possible. First, variations sought by the purchaser could be permitted only with the consent of the contractor, with a possible exception for variations which do not affect the functioning of the works (e.g. the use of a different colour paint) which the purchaser might be permitted to order without the consent of the contractor. Second, the purchaser could be permitted to order all variations unilaterally, with some exceptions and subject to certain conditions designed to protect the contractor. It is usually in the interest of the purchaser, as the party for whom the works are being built and who is paying for them, to be able to order variations unilaterally. However, under most legal systems the purchaser will be unable to do so unless the contract expressly authorizes such unilateral variations.

3. To enable the purchaser to order variations, therefore, a clause permitting this must be included in the contract. As its essential elements, such a variation clause should authorize the purchaser to make variations, obligate the contractor to execute them, subject to the contractor's right to object in certain circumstances, and settle various procedural matters, such as the requirement that variations be ordered in writing. If an engineer is to have the power to order variations with which the contractor must comply, this authorization should also be set forth in the variation clause.

4. In addition, the variation clause should provide for adjustments in various terms of the contract as appropriate, such as the price and the time for performance by the contractor. The purchaser should be obligated to pay a higher price to compensate the contractor for additional work performed by him pursuant to the variation. Similarly, the purchaser should benefit financially from reductions in equipment, materials or services to be supplied by the contractor resulting from variations. It is important for the variation clause specifically to provide for adjustments of the contract price. This is particularly the case with lump-sum contracts, in which the contract price will remain unchanged notwithstanding variations unless the contract expressly provides for adjustments of the price. In unit-price contracts, variations which change only quantities of units used will automatically produce changes in the total price to be paid by the purchaser in accordance with the number of additional or fewer units used.

However, other expenses or losses accruing to the contractor would not affect the contract price unless the contract so provides. In a cost-reimbursable contract increases or decreases in construction costs will often, but not always, be reflected through commensurate changes in the total price paid by the purchaser. For example, if the contract imposes a price ceiling, increases in construction costs could not cause the total price to exceed the ceiling. Here, too, other expenses or losses of the contractor would not be reflected in price changes unless the contract so provides.

5. An increase or reduction in the equipment, materials or services to be supplied by the contractor may also make it reasonable to extend or reduce the time for performance of the contract by the contractor. Adjustments in other contract terms (e.g. payment conditions, insurance and guarantees) may also be warranted.

6. This chapter discusses clauses for variations which are within the overall scope of the works under the contract. Changes in the overall scope of the works itself, and alterations to the drawings and descriptive documents affecting the overall scope of the contract, are discussed in chapter IX, "Scope and quality of works". Changes in the price are dealt with in this chapter only in connection with variations; other price revisions are discussed in chapter XV, "Price". Renegotiation of the contract in cases of hardship is discussed in chapter XXXIV, "Hardship clauses". For termination by the contractor in cases of exempting impediments see chapter XXXVIII, "Termination".

B. Variations ordered by purchaser

7. It is usually advisable for the purchaser to be able to institute variations in respect of the equipment, materials or services to be supplied by the contractor regardless of whether or not the contractor agrees with the variations. However, the variations should be capable of being performed by the contractor, should not impair the performance by the contractor of his other obligations, and should not otherwise cause the contractor undue prejudice.

1. Scope of variations

8. The variation clause should define the scope of the variations which it governs. The following points should be considered in this regard. First, equipment, materials or services which are not specifically provided for in the contract but which the contractor is nevertheless obligated to supply (e.g. when they are ancillary to express contract specifications, necessitated by circumstances which are within the risk assumed by the contractor, or required as a result of the contractor having performed defectively) are not variations, and should therefore not be governed by the variation clause. Nor should the variation clause cover changes in performance which are already provided for in the contract price. In all of these cases, the contractor should be obliged to effect the necessary changes at his own expense and within the original time for performance.

9. Second, the variation clause should permit the purchaser to order only variations which are within the overall scope of the work. Variations which alter the nature of the contract should require the agreement of both parties. As a legal matter, under many legal systems such changes are not valid without mutual agreement. As a policy matter, the contractor should not be compelled to execute work which is fundamentally different from that which he originally agreed to perform.¹

2. Right of contractor to object to variations

10. There may be reasons why a contractor would not want to execute a variation ordered by the purchaser. For example, a variation which alters or adds to the work which the contractor originally undertook to perform may not be consistent with his usual construction practices, may unduly prolong the completion of the contract and thereby interfere with the performance of his obligations in other projects, or may affect the extent to which he can be bonded by a bonding company. If the contractor has supplied the design for the works and guarantees the output of the works he could be prejudiced if he is compelled to perform a variation which is inconsistent with the design. The contractor should be able to object to a variation if he would suffer substantial prejudice if he were compelled to perform it.

11. The grounds upon which the contractor may object to a variation, and the effect of such an objection, should be formulated so as to balance the right of the purchaser to have the work performed as he wishes with the necessity to protect the contractor from any undue prejudice which the variation may cause him, after taking into consideration the fact that a variation will result in adjustments in the price and time for performance.

¹Illustrative provisions

"(1) The term 'variation' as used in this clause means any alteration to the type or amount of the equipment, materials or services to be supplied by the contractor, whether an amendment of, omission from, or addition thereto.

"(2) This clause does not govern alterations which the contractor is otherwise obligated to execute.

"(3) The purchaser may order variations and the contractor shall execute them subject to the provisions of this clause.

"(4) No variation shall be made which by itself, or together with other variations at any previous time made, alters the general scope of the works under this contract, and in particular the character and nature of the works, without the written agreement of both parties.

"(5) For any variation which increases the equipment, materials or services which the contractor is obligated to supply under this contract, the contractor shall be entitled to a commensurate and reasonable increase in the contract price and in the time for performance of this contract; and for any variation which reduces such equipment, materials or services the purchaser shall be entitled to a commensurate and reasonable reduction in the contract price and in the time for performance of this contract. However, no such adjustment in the contract price or time for performance shall be made to the extent that such increases or reductions in equipment, materials or services have already been accounted for in the contract price or time for performance."

12. The grounds for objection can be formulated in various ways. One approach is to provide simply that the contractor may object to the variation if he would suffer substantial prejudice by performing the variation. For greater certainty, and to reduce the possibility of abuse of the clause by the contractor, the parties may prefer to refer to specific types of prejudice which would entitle the contractor to object.²

13. It is also possible to enable the contractor to object to a variation if it, together with all other variations which have previously been ordered, results in an increase or decrease of the contract price by a specified percentage.

14. With respect to the effect of an objection by the contractor, it would be inconsistent with the goal of balance described in paragraph 11, above, for the contractor's objection to constitute a veto. The preferable result is for the parties to discuss and attempt to agree on whether, in view of the prejudice claimed by the contractor, the variation should be required, or whether the variation ordered by the purchaser could be modified so as to take into account the interests of the contractor. If the parties fail to agree, the dispute should be submitted to an independent third party for settlement. The specific procedures to implement this mechanism are discussed in paragraphs 17-22, below.

3. Procedure

15. The variation clause should set forth procedural requirements in connection with variations ordered by the purchaser. These requirements should be designed to minimize ambiguities and disputes, minimize interruptions of the work, and protect the interests of both parties.

(a) Variations to be in writing

16. The variation clause should require variations governed by it to be in writing. The writing should also advise the contractor of any contention by the purchaser concerning the amount by which the contract price or

time for performance of the contract should be adjusted, or as to any other adjustments in the contract.³

(b) Response by contractor and ensuing procedure

(i) Notification by contractor

17. A contractor who objects or suggests alterations to a written variation ordered by the purchaser, or who disagrees with the purchaser's contentions concerning adjustments in the price, in the time for performance, or in any other terms of the contract, as a result of the variation, or who contends that adjustments should be made in the price, time for performance, or other contractual terms (e.g. guarantees) because of the variation, should be required so to notify the purchaser within a stipulated time period. The contractor should be required to include in this notification all pertinent information and data so that the purchaser can evaluate the contractor's contentions. If the contractor objects to the variation as ordered by the purchaser but considers that it could be altered so as to accommodate the interests of both parties, he should be required to make such a proposal in his notification, giving all pertinent information.⁴

(ii) Failure of contractor to notify

18. If the contractor fails to submit the required notification to the purchaser within the time specified, he should be obligated to perform the variation as ordered by the purchaser, with such adjustments in the price, the time to perform, or other contract terms, as are set forth in the purchaser's variation order.⁵

²Illustrative provision

"All variations ordered by the purchaser under this clause shall be in writing. Such writing shall contain any contention by the purchaser as to the amount by which the contract price or the time for performance of the contract by the contractor should be adjusted, or as to any other adjustments in the contract."

⁴Illustrative provision

"If the contractor objects to a variation ordered in writing by the purchaser, or disagrees with a contention by the purchaser concerning the effect of the variation on the contract price, time for performance, or other terms of the contract, or if as a result of the variation the contractor claims an increase in the contract price or an extension of time to perform the contract, or an adjustment in any other terms of the contract, then within [21] days after receiving a variation order from the purchaser, and before performing the variation, the contractor shall despatch to the purchaser notice in writing of such objection and claims. The notification shall include all information and data pertinent to the objection and claims asserted by the contractor in the notification. If the contractor proposes any alteration of the variation as ordered by the purchaser, this proposal, together with the effect of the variation as altered on the contract price, the time for performance of the contract, and any other terms of contract, and all information and data pertinent thereto, shall be included in the notification."

⁵Illustrative provision

"If the contractor fails to despatch to the purchaser a notification as provided in the preceding paragraph within the time provided therein, then upon the expiry of the said time period the contractor shall be obligated to perform the variation as ordered by the purchaser, and the contract price, time for performance of the contract and/or any other terms of the contract shall be adjusted in accordance with the contentions of the purchaser, if any, as set forth in the writing containing the variation."

²Illustrative provisions

"The contractor may object to a variation ordered by the purchaser:

"(a) if performance of the variations would prevent or substantially prejudice the contractor from or in fulfilling any of his other obligations under the contract;

"(b) if performance of the variation would require the contractor to act in breach of any enforceable undertaking or agreement with a third party or would cause him to infringe any patent, registered design, copyright or other protected right of any third party;

"(c) if performance of the variation would require the contractor to do work or to exercise skills which are not of the kind the contractor normally does or exercises, unless the variation may be performed by a subcontractor and under the effective supervision of the contractor; or

"(d) if the variation would prevent the achievement of output targets guaranteed by the contractor."

(iii) *Contractor's concurrence with variation but not its effects⁶*

19. When the contractor submits a timely notification to the purchaser a number of possibilities exist. If the contractor does not object or propose an alteration to the variation, but disagrees with the contentions by the purchaser concerning the effects of the variation on the price, time for performance or other contractual terms, or if the contractor claims an increase in the contract price, an extension of time to perform, or an adjustment in another term of the contract, he should be obligated to perform the variation, and the differences between the parties concerning the adjustments to be made should be settled by the parties, or, failing that, by dispute settlement proceedings.

(iv) *Contractor's objection to or proposal to alter variation*

20. If the contractor proposes an alteration to a variation ordered by the purchaser, the parties should endeavour to settle the variation and its effects, failing which the dispute should be referable for resolution by dispute settlement proceedings. An objection by the contractor to the variation should also be referable for resolution by dispute settlement proceedings.

(v) *Performance of variation pending settlement of dispute*

21. In order to prevent such proceedings from delaying the progress of the work, there should be some mechanism for requiring the contractor to perform the

variation as ordered by the purchaser pending settlement of the dispute. Either the contractor could always be obligated to perform the variation pending settlement of the dispute, or he could be required to do so if the arbitrators who are to resolve the dispute, or an independent engineer, if any, determine that a delay will prejudice the satisfactory completion of the work or will otherwise prejudice the purchaser.

22. However, in some cases it may be advisable for the purchaser not to insist upon performance of the variation until the disputes relating to the variation (e.g. concerning the price) have been settled. The contract should therefore permit the purchaser to order the contractor to postpone performance of the variation to some future date.⁶

C. *Variations proposed by contractor*

23. There may be cases in which the contractor will wish to propose variations in the work, in order, for example, to facilitate construction, to take advantage of price differentials in materials, or to incorporate innovations.

24. Variations proposed by the contractor should not be executed unless they have been agreed to in writing by both parties.⁷ Except in unusual cases the purchaser should be able to receive what he has contracted for even if the contractor considers that a variation would be preferable, and the purchaser should not be compelled to accept price increases or interruptions of the work because of changes in work to which he has not agreed. For those situations in which the contractor, for reasons which do not result from his breach and are not within the risks assumed by him, cannot perform the work as specified in the contract, or if he would be prejudiced if the work is not varied, he may rely on other mechanisms and remedies under the contract, such as exemption, renegotiation, or termination (for discussions of these mechanisms and remedies see chapters XXXII, "Exemptions"; XXXIV, "Hardship clauses"; and XXXVIII, "Termination").

D. *Role of engineer*

25. If an engineer is to play a significant role in the contract on behalf of the purchaser (see chapter XVII, "Consulting engineer"), one of his functions might be to determine the necessity for variation orders and to issue such orders on behalf of the purchaser, and to perform other acts in connection therewith, as described in the preceding paragraphs. The nature and extent of the engineer's authority should be specified in the variation clause in order to avoid questions and disputes about his authority. If any act, such as the

⁶*Illustrative provisions*

"(1) If the contractor does not object, or propose an alteration, to the variation ordered by the purchaser, but in a timely written notification to the purchaser disagrees with a contention by the purchaser concerning the effect of the variation on the contract price, time for performance or other terms of the contract, or claims an increase in the contract price, an extension of time to perform the contract, or an adjustment in any other terms of the contract, the contractor shall be obligated to perform the variation forthwith unless the purchaser orders the contractor to postpone such performance to some future date, and the parties shall endeavour to agree upon the effects of the variation on the contract price, the time for performance of the contract, or other contract terms as a result of the variation. Failing such agreement the dispute may be submitted by either party for resolution in accordance with [the dispute settlement provisions of the contract].

"(2) If the contractor proposes in his notification an alteration of the variation ordered by the purchaser, the parties shall endeavour to agree upon the variation and upon the effects of the variation on the contract price, time for performance of the contract or any other terms of the contract. Failing such agreement the dispute may be submitted by either party for resolution in accordance with [the dispute settlement provisions of the contract].

"(3) If the contractor objects to the variation, the dispute may be submitted by either party for resolution in accordance with [the dispute settlement provisions of the contract].

"(4) Pending settlement of a dispute concerning the nature or scope of a variation, and unless the purchaser orders the contractor to postpone such performance, the contractor shall be obligated to perform the variation forthwith [, if the [arbitrators] [engineer] determine that a delay will prejudice the satisfactory completion of the work or will otherwise significantly prejudice the purchaser]."

⁷*Illustrative provision*

"The contractor may propose variations to the purchaser. No such variation shall be executed unless it has been agreed to in writing by both parties."

signing or confirmation of variation orders, or deciding on variations proposed by the contractor, are to be performed by the engineer, the provisions dealing with such acts should make specific reference to the engineer.

26. In some contracts the engineer might be given an independent role (see chapter XVII, "Consulting engineer"). In such contracts certain functions which the parties consider appropriate for an independent entity might be delegated to the engineer. These might include determining whether the contractor should perform a variation pending the resolution of a dispute concerning the variation, or issuing rulings on objections by the contractor to variations or determining the effects of variations on the contract price, the time for performance, or on another contract term. Such rulings could be subject to review in accordance with the dispute settlement mechanism in the contract.

E. Guidelines for effect of variations on contract price

27. A variation should often result in a reasonable adjustment of the contract price. It would be useful for the contract to contain guidelines to assist in the determination of the required amount of adjustment of the contract price. These guidelines could assist the parties in reaching agreement on this issue, and could provide criteria to be applied by arbitrators or an engineer when the parties cannot agree.

28. Some contracts may contain a schedule of prices for particular types of work or materials. Such contracts might provide that increases or decreases in specified equipment, materials or services shall be valued in accordance with prices set forth in the schedule. However, it might not always be appropriate to use these prices. For example, prices specified for particular types of work may be based upon the work being performed in a particular sequence, and a variation in this sequence may make the prices inappropriate. In addition, the contractor's overhead and profit may be distributed unevenly among the prices designated for various items, and a valuation of variations in the quantities of particular items based on these prices may take excessive or insufficient account of overhead or profit. Therefore, if variations in items specified in a contract schedule are to be valued in accordance with prices designated in a schedule, provision should be made for departing from these prices in cases where, for reasons similar to those just discussed, these prices would be inappropriate.

29. If the contract contains a schedule of prices for equipment, materials and services and variations occur in items which are not specified in the schedule, the prices designated in the schedule could be used as a basis for the valuation of the variation if it is reasonable to do so (as when the items which are the subject of the variation are analogous to items specified in the schedule).

30. When the contract contains a schedule but it is not employed to determine the adjustment in the contract price, the adjustment should be based upon changes in costs, plus the following additional factors:⁸

(a) Increments for overhead and profit in respect of varied work should be added or deducted, as appropriate;

(b) A variation of one aspect of the contract may affect the prices of other aspects. For example, during an interruption of a particular construction process caused by a variation, the prices of materials to be used in connection with other elements of the work may rise. Such effects should also be taken into consideration;

(c) Other losses and expenses incurred by the contractor, such as losses resulting from an interruption of construction, and expenses incurred for terminating subcontractors if work is omitted, should be taken into consideration.

31. When the contract does not contain a schedule, the adjustment in the contract price should be based upon the factors referred to in paragraph 30, above.

32. In order to facilitate the determination of costs each party should be required to keep and produce appropriate accurate records relating to such costs incurred by him.⁹

⁸ Illustrative provisions

"(1) The following principles shall be applied by the parties, or, if the parties cannot agree, by the [engineer] [arbitrators], in determining the effect of a variation on the contract price.

"(2) If the equipment, materials or services which have been varied are identical in character to and supplied under the same conditions as equipment, materials or services specified in [the schedule], then the prices therein for such equipment, materials, or services shall be applied, unless a party proves that he would suffer substantial prejudice if such prices were applied, in which case the effect of the variation on the contract price shall be based upon such of the factors in paragraph (4), below, as may be appropriate.

"(3) If the equipment, materials or services which have been varied are not of such identical character or executed under such same conditions, the prices in [the schedule] shall be applied whenever reasonable. If a party proves that it is not reasonable to apply such prices then the effect of the variation upon the contract price shall be based upon such of the factors in paragraph (4), below, as may be appropriate.

"(4) The factors referred to in paragraphs (2) and (3), above, are the following:

"(a) the actual cost of varied equipment, materials or services (or, in the case of omitted equipment or materials, the market cost thereof);

"(b) reasonable profit;

"(c) any financial effects of a variation upon other aspects of the work to be performed by the contractor;

"(d) any costs and expenses accruing to the contractor from an interruption of work resulting from a variation;

"(e) any other costs and expenses accruing to the contractor as a result of the variation;

"(f) any other factors which it would be equitable to take into consideration with respect to the variation."

⁹ Illustrative provision

"Each party shall keep and present to the other party, when required, proper records of all costs and expenses incurred by him in connection with all variations."

[A/CN.9/WG.V/WP.11/Add.7]

Chapter XXXVI. Assignment*Summary*

An assignment clause should deal with assignment of the contract (substitution of a third party for a party to the contract), and assignment by a party of certain specific rights and obligations under the contract. Neither party should be able to assign the contract without the consent of the other (paragraph 3). The assignment of specific rights and obligations should in general also require the consent of the other party, but an exception may be made for assignments by the contractor of his right to receive payments from the purchaser (paragraph 6). If such an exception is made the interests of the purchaser may be protected by enabling him to prevent the assignment on reasonable and substantial grounds (paragraph 7).

The assignment clause should contain provisions to ensure that the contractual rights of the non-assigning party are not diminished or extinguished by the assignment. This should be done by making the assignee subject to the same obligations and remedies as was the contracting party (paragraph 9), and by enabling the non-assigning party to subject his consent to conditions (paragraph 10).

The assignment clause should also contain other provisions designed to safeguard the interests of the parties. Such provisions include the following:

- A requirement that a consent to an assignment be in writing (paragraph 11);
- A requirement that the assigning party notify the other party of an assignment (paragraph 12);
- A provision that in the event of violation of the clause the non-assigning party shall be able to disregard the assignment (paragraph 13).

* * *

A. General remarks

1. The concept of assignment as considered in this chapter covers both assignment of the contract in its entirety, whereby a new party is substituted for one of the original parties to the contract, and assignment of certain specific rights and obligations under the contract.¹

2. Most legal systems contain rules governing the right of a party to assign the contract and certain of his rights and obligations under the contract, as well as the legal effects of an assignment. However, it is usually possible for the parties to supersede these rules by stipulating in the contract the terms and conditions under which an assignment may be made.

¹Subcontracting, which, strictly speaking, is not an assignment of obligations, is discussed in chapter XXVIII, "Third parties employed in execution of contract".

B. Assignment of contract

3. Assignment of the contract by either party without the consent of the other should be prohibited. A contractual relationship between parties to a works contract is usually based upon mutual confidence between the parties. In particular, the purchaser normally selects a contractor because of the contractor's skill and experience, his reputation, his financial strength, and similar factors personal to the contractor. Significant problems could arise for the purchaser if, for example, the contractor were able to assign the contract to a third party which does not possess the same degree of skill and expertise as the contractor. Similarly, the purchaser could suffer if the contractor assigned the contract to a subsidiary which had no assets or financial resources of its own from which damages could be paid to the purchaser in the event of a breach. The substitution of a new party may result in significant disruption of the work programme, as well as of other aspects of the contract. For these reasons, an assignment of the contract should be permitted only with the consent of the non-assigning party.²

C. Assignment of specific contractual rights and obligations

4. There are a number of situations in which a party may wish to assign specific rights under the contract without assigning the contract in its entirety. For example, a purchaser may wish to sell his rights to the works to a third party prior to completion, under an arrangement in which the third party is to pay the purchase price to the purchaser, and the purchaser is to remain bound to pay the contract price to the contractor. A contractor may often wish to assign his rights to receive payments under the contract, in order to obtain financing.

5. The assignment of rights should entail that the assignee is subject to the rights and remedies of the non-assigning party affecting the rights assigned. For example, a sale of the plant by the purchaser prior to their completion should be subject to modifications in construction which may be provided for under the hardship or variation clauses of the contract; such sale should also be subject to the exemptions clause. Similarly, an assignment by the contractor of his right to receive payments from the purchaser should be subject to a right of the purchaser to set-off against such sums which the purchaser is to receive from the contractor.

6. For reasons similar to those discussed in connection with the assignment of a contract in its entirety, a party

²*Illustrative provisions*

"(1) For the purposes of the following paragraph an assignment of this contract shall mean an assignment by a party of all his rights and obligations under the contract.

"(2) Neither party to this contract shall assign this contract without the prior consent of the other party."

should not normally be able to assign specific rights and obligations under the contract unless the other party consents to the assignment. An exception to this principle may be made in the case of an assignment by the contractor of his right to receive payment from the purchaser. Contractors often find it necessary to make such an assignment in order to borrow funds or obtain financing needed to purchase equipment and supplies, to pay labour or cover other costs of performing the contract, or to benefit from an export credit guarantee scheme. The parties may consider it appropriate to permit such an assignment without requiring the consent of the purchaser. If so, in the case of assignments for the purpose of borrowing funds or obtaining financing, the parties should consider whether the requirement of consent should be dispensed with for assignments to creditors of all types, or whether it should be dispensed with only in the case of assignments to banks or similar institutions.

7. If such an assignment by the contractor is to be permitted without the consent of the purchaser, the parties may wish to provide a means of protecting the purchaser against substantial prejudice which could result from such an assignment. This could be accomplished by requiring the contractor to notify the purchaser of the proposed assignment, and allowing the purchaser to prevent the assignment if he has reasonable and substantial grounds for doing so.³ A dispute between the parties as to whether the grounds are reasonable and substantial would be settled under the general dispute settlement provisions of the contract.

D. Provisions to safeguard interests of parties

8. There are various provisions which could be incorporated in the assignment clause in order to safeguard the interests of the parties. Examples of such provisions are discussed in the following paragraphs.

1. Preservation of rights of non-assigning party

9. The contract should ensure that the contractual rights of the non-assigning party are not diminished or

³*Illustrative provisions*

"(1) Except as provided in the following subparagraphs, neither party shall assign any of his rights or obligations under this contract to a third party without the prior consent of the non-assigning party.

"(2) If the contractor desires to assign his right to receive payments from the purchaser under this contract for the purpose of borrowing funds or obtaining financing [from banks or similar institutions], or to benefit from an export credit guarantee scheme, or for similar purposes, he shall so notify the purchaser in writing, and shall specify in the notice the sums desired to be assigned and the name and address of the assignee.

"(3) The contractor shall be permitted to make the assignment as described in the notice after [14] days following delivery of the notice to the purchaser unless within such [14] day period the purchaser delivers to the contractor, in writing, an objection to the assignment which is based upon reasonable and substantial grounds."

extinguished by the assignment. Two types of provisions should be considered in this regard. First, the contract should ensure that within the scope of the rights assigned, the assignee will be subject to the same contractual obligations and remedies as was the assigning party. In particular, purchasers should be aware that if the contractor assigns his right to receive payments, the purchaser's right to set off sums which are due to him from the contractor against sums which he owes to the contractor and have been assigned to a third party will depend upon applicable law. Since the assignee is not a party to the works contract, under some legal systems he might not be directly bound by provisions in that contract. Therefore, the contract should provide that any assignment made by a party must subject the assignee to the same rights and remedies of the non-assigning party with respect to the subject-matter of the assignment as the latter had with respect to the assigning party.⁴

10. Second, when, as should usually be the case, an assignment is not permitted without the prior consent of the other party, the party giving consent may wish to subject his consent to certain conditions. For example, whether an assignment of the contract relieves the assigning party from the performance of his contractual obligations may vary depending upon the applicable law. A party consenting to an assignment of the contract may wish to do so only on the condition that the assigning party remains jointly and severally liable with the assignee for the performance of those obligations, or that he guarantees the performance of those obligations. Therefore, the contract should provide that an assignment must subject the assignee to any conditions contained in the consent of the non-assigning party.⁵

2. Consent to be in writing

11. The contract should require consent to an assignment to be given in writing. If the consent is subject to conditions, these conditions should also be required to be set forth in writing.⁶

⁴*Illustrative provision*

"Any assignment by a party of his rights under this contract shall be under the express condition that the assignee shall be bound by and subject to the same obligations and remedies under the contract with respect to the assigned rights as was the assigning party. In particular, and without limiting the generality of the foregoing, any assignment by the contractor of his right to receive payments under this contract shall be made subject to the express condition that any set-off which would have been available to the purchaser against such payments to the contractor shall also be available to the purchaser in respect of such payments to be made to the contractor's assignee."

⁵*Illustrative provision*

"When under this clause an assignment is not permitted without the consent of a party to this contract, the consenting party may make his consent subject to conditions, and the assignment must subject the assignee to such conditions."

⁶*Illustrative provision*

"Any consent pursuant to the provisions of this clause shall be given in writing. If a consent is subject to conditions, such conditions shall be set forth in the written consent."

3. Notification of assignment

12. It is important for the non-assigning party to know when an assignment has been executed. Even if he has consented to the assignment, it is advisable for him to receive confirmation that the assignment has in fact occurred. The contract should therefore require the assigning party to notify the non-assigning party of the assignment and the date at which it becomes effective, and identify the assignee. The assignee should not be entitled to rights under the contract which have been assigned until the non-assigning party has received such notification.⁷

E. Consequences of improper assignment

13. The contract should specify the consequences of an assignment which violates the provisions of the assignment clause. In such a case the non-assigning party should be able to disregard the assignment and continue to act, in relation to the contract and the assigning party, as if no assignment had been made.⁸

[A/CN.9/WG.V/WP.11/Add.8]

Chapter XXXVII. Suspension of construction

Summary

This chapter deals with situations where the purchaser may order suspension of the construction of works for convenience or on specified grounds and where the contractor may suspend the construction due to a failure of performance by the purchaser.

As no developed doctrine of suspension exists in most legal systems, parties should consider the nature of suspension, the circumstances in which suspension may be invoked and the legal effects of suspension.

The purchaser may be given a right to order suspension for convenience (paragraphs 6 and 7) or

only in certain exhaustively defined circumstances (paragraph 8). When the purchaser orders suspension of construction, the performance of all correlative obligations of the purchaser should be automatically suspended (paragraph 9).

A suspension clause for convenience may have the advantage of allowing the purchaser time to overcome any temporary difficulties he may have rather than resorting to the more drastic remedy of termination of the contract (paragraph 7). However, suspension may also have a disruptive effect on the construction of the works (paragraph 12). Thus, the contractor should be able to terminate the contract if the suspension or cumulative suspensions exceed a specified period (paragraph 14). The purchaser should also be accountable to the contractor for any losses suffered by the contractor, such as costs of rented equipment which are maintained at the site and costs incurred as a consequence of the postponement of the completion of the works (paragraph 12). The contractor should be entitled to an extension of time reasonably commensurate with the suspension period for the completion of works (paragraph 11).

With regard to the contractor, it may be advisable to give him a right of suspension in two circumstances. First, the contractor may be given the right to suspend construction as an alternative to the more drastic remedy of termination in cases where a failure of obligation by the purchaser is serious enough to justify unilateral termination on the part of the contractor (paragraph 16). The second instance is when a failure of performance on the part of the purchaser affects the construction of the works so as to make it unreasonable for the contractor to proceed with the construction (paragraph 17).

The parties may wish to consider whether the exercise of the right to suspend by the contractor for failure of performance by the purchaser should be conditioned upon a written notice being given to the purchaser requiring him to perform within a specified time. However, when a failure of obligation on the part of the purchaser makes it necessary to suspend the construction immediately, the contractor should be permitted to do so by giving written notice of suspension to the purchaser (paragraph 18).

* * *

A. General remarks

1. This chapter deals with situations where the purchaser¹ may order suspension of the construction of

⁷ Illustrative provisions

"(1) In the event of an assignment permissible under this contract, the assigning party shall notify the non-assigning party of the subject-matter of the assignment, the name and address of the assignee and the date at which the assignment becomes effective.

"(2) Until the non-assigning party receives the notification required in the foregoing subparagraph he shall remain entitled to treat only the assigning party as the party to receive the performance or to perform the obligations which are the subject of the assignment."

⁸ Illustrative provision

"If a party makes or purports to make an assignment in violation of any provision of this contract, the non-assigning party shall be entitled to disregard the assignment or purported assignment and to act in relation to the contract and to the assigning party as if the assignment or purported assignment had not been made."

¹Where reference is made to the purchaser, it should be noted that such a reference includes the engineer or any person to whom the purchaser has delegated his authority. If the engineer is to exercise an independent function, including the power of ordering suspension and settling ancillary matters, this power should be expressly conferred on him in the contract (see chapter XVII, "Consulting engineer").

works for convenience or on specified grounds and where the contractor may suspend the construction due to a failure of performance by the purchaser.

2. In view of the fact that no developed doctrine of suspension exists in most legal systems, it is important for parties to consider the nature of suspension, the circumstances in which suspension may be invoked and the legal effects of suspension.

3. Suspension may also occur in other contexts, and this is considered elsewhere in the Guide. In cases of exempting impediments, it may be necessary, as a practical measure, to provide for automatic suspension of the obligation to construct the works (see chapter XXXII, "Exemptions"). Where the contractor invokes a hardship clause the contract may be suspended by the mutual agreement of the parties (see chapter XXXIV, "Hardship clauses").

4. A distinction should be made with an order by the purchaser to the contractor to stop construction of work which is defective. Although both suspension and stoppage of construction involve a temporary interruption of construction, the legal effects of such interruptions are different. Stoppage of defective construction may occur where the purchaser orders the contractor to stop using defective materials for the construction of the works. The contractor may have to stop the construction for some time until appropriate materials are obtained. Since the obligation of the contractor to perform is not suspended, the purchaser is not liable to the contractor for losses suffered in the stoppage, and the contractor may be liable for damages resulting from delay in performance (see chapter XXX, "Failure to perform"). For the legal effects of suspension by the purchaser considered in this chapter, see section B, 3.

5. The mechanism of suspension involves a temporary interruption of the construction of the works. During suspension all construction activity to which the order of suspension relates should be temporarily interrupted. However, construction of other parts of the works not affected by the suspension should continue. As the construction is merely suspended and the contract is not terminated, the contractor is under an obligation to resume construction after the suspension period.

B. Suspension by purchaser

1. Suspension by purchaser for convenience

6. The parties may wish to consider whether the purchaser, as a matter of policy, should be given the right to order suspension of the construction of the works for any reason. For example, he may wish to order suspension because of a delay in obtaining credit from a financial institution, or because of a delay in obtaining a licence for the project. He may also wish to suspend for reasons which are too delicate to be revealed. Although the scope of a suspension for convenience clause is wide, it is unlikely that the

purchaser would order suspension capriciously, both because of the high costs ensuing to him of ordering suspension (see paragraph 12, below) and because the date for completion of the works may be postponed (see paragraph 11, below).

7. If the right to order suspension were not available, the purchaser might have to resort to the more drastic remedy of termination in situations where, for the moment, he would have no other choice but to interrupt the construction (see termination for convenience in chapter XXXVIII, "Termination"). On the other hand, suspension may give him time to overcome his difficulties even though at a high cost.

2. Suspension on specified grounds

8. The parties may, however, wish to narrow the scope of the purchaser's right to order suspension by providing only an exhaustive list of circumstances where the purchaser may order suspension. Unlike suspension for convenience where the purchaser does not have to state his reasons, under suspension on specified grounds, the purchaser should be required to state the ground justifying the suspension. Therefore, these circumstances must be clearly specified to avoid any uncertainties in interpretation. For example, in a contract where more than one contractor is involved, the delay in construction by one contractor may make it necessary for the purchaser to suspend construction by the other contractors.

3. Some suggestions on contents of suspension clause

9. Provision should be made to ensure that the contractor is not prejudiced by the suspension. Certain ancillary matters such as the protection and preservation of the equipment and materials should also be dealt with in the clause. When the purchaser orders suspension, the performance of all correlative obligations of the purchaser should be automatically suspended.

10. Suspension may be either for a definite or indefinite period. The purchaser should be entitled to cease the suspension by written notice to the contractor. Although the contractor is obliged to resume construction immediately the suspension is over, the immediate resumption of the construction may sometimes be difficult as, for example, where the suspension ceases by a notice from the purchaser to that effect. The contractor, for example, may have already cancelled an order for materials because of the prior order of suspension and may have to re-order them. Therefore, the parties may wish to stipulate in the contract for a reasonable time to be given to the contractor to resume work in such cases.

11. The suspension may affect the work schedule and, in some instances, the date of completion of the works. The contractor should be entitled to an extension of time reasonably commensurate with the suspension period for the completion of the works. The contractor

should notify the purchaser in writing of the period of time he considers necessary giving detailed particulars of the need for the extension to complete the works. Any dispute as to the extension of time shall be settled by the dispute settlement mechanism provided for in the contract.

12. While the mechanism of suspension could be useful, it may also have a disruptive effect on the construction of the works. For example, if the contractor employs several subcontractors in the construction of the works, suspension may prevent him from co-ordinating their work. The financial viability of a project may also be jeopardized due to the cost of shutting down and restarting the works. The purchaser should therefore be accountable to the contractor for any losses suffered. However, the determination of the losses could be complicated. The suspension clause may, therefore, include an illustrative list of the usual types of losses in this regard. Such an itemization would also assist the purchaser in determining beforehand the financial implications should he wish to order suspension. Such losses should include costs incurred for the maintenance and protection of the works, equipment and materials; costs in demobilization of personnel and subcontractors; increased costs of equipment and materials; costs of rented equipment which are maintained at the site; costs incurred for the resumption of work; additional overhead costs; and costs incurred as a consequence of the postponement of the completion of the works (for example, the contractor may have to employ another subcontractor at a higher cost to replace the one whose contract has come to an end and who does not wish to renew his service). The clause should also obligate the parties to consult each other on how to reduce the losses.

13. An extension of time to complete the works may prevent the contractor from performing other contracts. The parties should consider whether the purchaser should be obligated to compensate the contractor for profits which the contractor was unable to earn under those contracts.

14. The parties may further agree that if the suspension extends beyond a specified period, the contractor should be entitled to terminate the contract. Extension beyond the specified period may occur either through a single suspension, or through the cumulation of periods of suspension occurring at different times, whether such periods are in respect of the same portion of the construction or different portions. This specified period should not be unduly long. Even though the purchaser is liable for certain losses suffered by the contractor, he may still be prejudiced if he is required to maintain his commitment to the project indefinitely or for a long period. The purpose of stating a specified period is to empower the contractor to terminate the contract if the suspension exceeds this period. The contract should therefore provide the contractor with an option to terminate if the suspension or cumulative suspensions exceed this period. If the contract is terminated, the termination should be regarded as on the same basis as termination for the convenience of the purchaser in

respect of the liability for loss caused by the termination (see chapter XXXVIII, "Termination").²

²*Illustrative clause*

"(1) The purchaser may at any time order suspension of the construction of the works or any portion thereof by giving written notice to the contractor specifying the construction or any portion thereof to be suspended and the effective date of suspension. The purchaser is not required to state his reasons for the suspension. The suspension shall not affect the validity of the contract."

or

"(1) The purchaser may at any time on any of the grounds specified in the contract order suspension of the construction of the works or any portion thereof. He shall give written notice to the contractor specifying the construction or any portion thereof to be suspended and state the grounds for the suspension and the effective date of suspension. The suspension shall not affect the validity of the contract."

"(2) The contractor shall interrupt the construction or any portion thereof, from the effective date of suspension specified in the notice or as soon as possible. However, he shall continue to perform the unsuspended portion of the construction, if any."

"(3) When the construction of the works or any portion thereof is suspended, the performance of all correlative obligations of the purchaser shall automatically be suspended, and the purchaser shall not be obliged to perform such obligations during the period of suspension."

"(4) The contractor shall take necessary measures needed for the protection and preservation of the equipment and materials on the site during the suspension or, if the purchaser wishes to take such measures, shall inform the purchaser what measures should be taken by him. During the period of suspension, the contractor shall not remove from the site any of the equipment or materials without the consent of the purchaser."

"(5) Suspension may be either for a definite or indefinite period. Subject to paragraph (9), of this clause, the contractor shall resume construction of the suspended construction immediately, or, if that is not possible, within a reasonable time after the suspension ceases whether by the expiry of the specified period or by a written notice from the purchaser. The purchaser shall also resume the performance of his correlative obligations."

"(6) The contractor shall be entitled to an extension of time reasonably commensurate with the period of suspension for the completion of the works. The contractor shall notify the purchaser in writing of the extended period of time he considers necessary giving detailed particulars of the need for the extension to complete the works. Any dispute as to the extension of time shall be settled by [the dispute settlement mechanism provided for in the contract]."

"(7) The purchaser shall pay the contractor compensation for any losses suffered by the contractor. Such losses shall include in particular the following: costs incurred for the maintenance and protection of the works, equipment and materials; costs in demobilization of personnel and subcontractors; increased costs of equipment and raw materials; costs of rented equipment which is maintained at the site; costs incurred for the resumption of work; additional overhead costs; and costs incurred as a consequence of the postponement of the completion of the works. The parties shall consult each other regularly during the period of suspension on how to reduce the losses."

"(8) The purchaser shall not be liable to compensate the contractor for profits which the contractor was unable to earn under contracts which he was unable to perform as a result of the extended time needed to complete the works due to the suspension."

"(9) If the suspension or cumulative suspensions continue for a period exceeding [] days, the contractor is entitled to terminate the contract, and he is entitled to be compensated as in the case of termination of the contract for convenience by the purchaser for loss caused by the termination. Such cumulative suspensions shall consist of the totality of the periods of suspension occurring at different times, whether such periods are in respect of the same portion of the construction or different portions of construction."

15. The right of suspension for convenience should not be available to the contractor as he is in an entirely different position from that of the purchaser. The contractor is engaged by the purchaser to construct the works and he should complete it despite difficulties, financial or otherwise. Even where there is a failure of performance by the purchaser, it should in principle not be possible for the contractor to resort to suspension, as other remedies, such as damages, would ordinarily be adequate to compensate him for such failure. There are, however, two situations in which suspension may serve a useful function (see paragraphs 16 and 17, below).

C. *Suspension by contractor*

16. First, the contractor may be given the right to suspend construction as an alternative to the more drastic remedy of termination in cases where a failure of obligation by the purchaser is serious enough to justify unilateral termination on the part of the contractor. An example where suspension might be used as a remedy is a case of non-payment of a contract sum due from the purchaser. Such non-payment may be considered serious enough to justify termination. The parties may wish to provide for the option of suspension as a possible means of exerting pressure for performance before the contractor exercises the right of termination (see chapter XXXVIII, "Termination").

17. The second instance is when the failure of performance on the part of the purchaser affects the construction of the works or a portion thereof so as to make it unreasonable to proceed with the construction. For example, where the purchaser supplies a defective design and construction based on it endangers the safety of the works or the personnel, it may be necessary for the contractor to suspend the construction until the design is rectified.

18. The parties may wish to consider whether the exercise of the right to suspend should be conditioned upon the contractor giving notice to the purchaser to perform within a specified time the obligation which he has failed to perform. If so, the suspension would only be effected if the purchaser does not comply with the request within the time specified. If, however, a failure of performance on the part of the purchaser makes it necessary to suspend the construction immediately, the contractor should be permitted to do so by giving written notice of the suspension to the purchaser.

19. It would not be practical to require the contractor to specify the suspension period because such suspension should last as long as the failure of obligation of the purchaser persists. However, when the purchaser performs his obligation, the contractor should resume construction immediately or, if that is not possible, within a reasonable time.

20. With regard to the contractor's entitlement to an extension of time for the completion of the works and

the purchaser's obligation to compensate the contractor for losses because of the suspension, see paragraphs 11 and 12, above, respectively. The resort by the contractor to suspension should not deprive him of any other remedies he may have under the contract.³

[A/CN.9/WG.V/WP.11/Add.9]

Format of the legal guide

Introduction

1. At the fourth session of the Working Group on the New International Economic Order, suggestions were made relating to the format of the legal guide on drawing up international contracts for the construction of industrial works.¹ This note has been prepared in order to assist the Working Group in its consideration of these suggestions and other aspects of the format of the legal guide.

2. At the previous session of the Working Group it was suggested that the guide should be of practical value for at least two categories of persons involved in the negotiation and drafting of works contracts, i.e. lawyers who are involved in actual negotiation and

³*Illustrative clause*

"(1) Subject to paragraphs (2) and (3) of this clause, the contractor may suspend the construction of the works or any portion thereof when the purchaser fails to perform an obligation which justifies the termination of the contract, or when the failure of performance on the part of the purchaser affects the construction of the works or any portion thereof so as to make it unreasonable to proceed with the construction. The suspension shall not affect the validity of the contract.

"(2) Where the contractor intends to suspend the construction of the works or any portion thereof due to a failure of performance by the purchaser, the contractor shall give the purchaser notice in writing informing him of the failure of performance justifying suspension and requiring him to perform within a specified time. If the purchaser fails to perform within the specified time, the contractor may suspend the construction of the works or any portion thereof immediately by giving written notice of the suspension to the purchaser.

"(3) If, however, a failure of performance on the part of the purchaser makes it necessary to suspend the construction of the works or any portion thereof immediately, the contractor may do so by giving written notice of the suspension to the purchaser.

"(4) The suspension may last as long as the failure to perform the obligation persists. However, it shall in any event come to an end when the purchaser performs his obligation, and the contractor shall resume construction of the suspended construction immediately or, if that is not possible, within a reasonable time. The contractor shall give written notice to the purchaser of the resumption of the construction.

"(5) Identical to footnote 2, paragraph (6).

"(6) Identical to footnote 2, paragraph (7).

"(7) The resort by the contractor to suspension shall not deprive him of any other remedies he may have under the contract."

¹A/CN.9/234, paras. 15, 16, 25-28 (*Yearbook* 1983, part two, IV, A).

drafting, and businessmen or administrators who are responsible for initiating and carrying through a project. In order to enhance the practicality of the legal guide, the Working Group may wish to consider the elements of the format discussed below. In addition, it may be noted that the secretariat will consider the appropriate positioning of a glossary and consolidated index to the guide.

I. Chapter summaries

3. As requested by the Working Group, sample summaries have been included in the draft chapters which have been prepared for the current session.² Summaries could serve the needs of businessmen or administrators who need to be aware of the principal issues to be covered by a particular type of contract clause, but who do not require a discussion of the issues in the depth or detail contained in the text of a chapter. For such persons the summaries could set forth the principal issues which should be covered by a clause and the main solutions recommended in the text of the chapter. It is, of course, the lawyers involved in negotiating and drafting the contract for whom the chapter text itself is intended.

4. If the Working Group considers that summaries are useful, it may wish to consider whether they should appear at the beginning or at the end of each chapter. A reader of a chapter may be assisted in understanding the interrelationship among the issues and solutions discussed in the chapter by being presented with a summary of such issues and solutions before he reads the text of the chapter. By the inclusion in the summary of references to paragraphs in the chapter where such items and solutions are discussed, the summary could also assist the reader in locating in the chapter particular issues which are of interest to him. If such a summary is provided at the beginning of a chapter the Working Group may wish to consider whether a table of contents such as that described in paragraph 10, below, would be unnecessary.

5. On the other hand, a summary at the end of the chapter may provide a useful means of enabling one who has read the text to synthesize the information contained in it. Such a summary could also operate in the nature of a check-list of points to be dealt with in the course of negotiating or drafting a works contract. However, if a check-list is provided at the end of each chapter (see paragraph 8, below), a summary at that location may not be needed.

6. Summaries, may, however, have certain disadvantages. In the first place, the attempt to compress the often sophisticated discussion in the text of the chapter for the purposes of a summary may lead to a summary which does not adequately reflect the difficulties in the subjects dealt with. Furthermore, because of the simplification which has to be achieved for the purposes of a

summary, it may contain little that businessmen or administrators in the industrial sector of a country do not already know.

7. If the Working Group were to consider that summaries are not useful, it may wish to consider whether an outline of the contents of each chapter could be included immediately after the title of a chapter and before the main text commences. This approach is sometimes adopted in the "Licensing Guide for Developing Countries" of the World Intellectual Property Organization (WIPO).³ Such an outline may make unnecessary a table of contents for the chapter (see paragraph 10, below).

II. Check-list

8. The Working Group may wish to consider the desirability of providing a check-list at the end of each chapter. It could be helpful to lawyers, businessmen and administrators to have a check-list of the issues which should be dealt with in the clauses discussed in each chapter. The check-list could provide references to paragraphs in the chapter where a point mentioned in the check-list is discussed. In addition, cross-references to related matters in other chapters could assist the user of the guide in achieving necessary co-ordination among various provisions and clauses of the contract being negotiated or drafted. Such a check-list could also assist the reader of a chapter in synthesizing information which he has obtained from the chapter.

9. The Working Group may wish to consider whether it might be preferable to provide check-lists instead of summaries or a table of contents at the beginning of each chapter. Check-lists could serve the same purposes as summaries (i.e. to indicate the principal issues to be covered by a clause and the main solutions recommended, and to synthesize information). In addition, because of the concise, telegraphic style in which check-lists can be drafted, it may be possible both to deal with the issues in less space than would be taken by a summary, and also to focus the reader's attention on an issue in a more pointed manner.⁴

³The following example of such an outline is the heading to section D of "Part III: Explanatory notes and examples" of the WIPO Guide:

"D. SCOPE OF THE LICENCE OR AGREEMENT

"(Identification of the technology necessary for the manufacture of the product or the application of the process or for some other given purpose; description of the technology in terms of time or by reference to specified documentation or designated expertise; rights conferred under the law of industrial property and laws applicable to the use, disclosure and communication of know-how; field of use or activity for which the invention, the industrial design, the know-how, or the trademark may be applied; specification of the territory of manufacture, use or sale; exclusivity and non-exclusivity; acquisition or use of competing technology)."

⁴The WIPO Guide contains a check-list, in addition to outlines of the contents of each chapter (see footnote 3, above). Check-lists are also used in *Guidelines for Contracting for Industrial Projects in Developing Countries* (United Nations publication, Sales No. E.75.II.B.3) and in the *Guide for Drawing up International Contracts on Consulting Engineering, Including some Related Aspects of Technical Assistance* (ECE/TRADE/145).

²A/CN.9/WG.V/WP.11 and Add. 1-8.

III. *Table of contents at beginning of each chapter*

10. The Working Group may wish to consider whether, in addition to the master table of contents which will appear at the beginning of the legal guide, it would be helpful for each chapter to have its own table of contents immediately preceding the text of the chapter. Such an individual table of contents could assist the reader in obtaining a rapid overview of the issues covered by the chapter to which he has turned, as well as enable him to locate particular issues in the chapter. The individual table of contents could be identical to the master table; alternatively, it could be more detailed than the master table.

IV. *Possible arrangements*

11. In the light of the foregoing discussion, the following arrangements of the chapters appear to be reasonable:

(a) Outline of contents or table of contents at the beginning of each chapter, followed by the text of the chapter, followed by a check-list; or

(b) Outline of contents or table of contents at the beginning of each chapter, followed by the text of the chapter, followed by a summary; or

(c) Summary followed by the text of the chapter, or the text of the chapter followed by a check-list (the table of contents of each chapter being reflected in the master table of contents at the beginning of the legal guide).

V. *Illustrative and model provisions*

12. The draft chapters prepared for the current session of the Working Group contain illustrative provisions.⁵ The Working Group may consider such provisions to be useful as illustrations of issues referred to in the text. These provisions may also serve as examples of how certain solutions discussed in the text, particularly those that are complex or may otherwise present difficulties in drafting, might be structured.

13. The Working Group may consider it inadvisable for illustrative provisions to be drafted to illustrate every issue or represent every solution referred to in the text. Many issues and solutions may be sufficiently clear so as not to require illustration. Moreover, the text will in many cases discuss alternative, and in some cases

⁵As used in the chapters of the legal guide drafted thus far, the word "provision" refers to a portion or section of a contract clause which deals with a particular issue in the clause; "clause" refers to a collection of provisions which deal with a certain major topic under the contract.

conflicting, approaches and solutions. Presenting illustrative provisions for each such analysis or solution could hinder and confuse the reader, rather than assist him.

14. The Working Group may also wish to consider whether it is desirable to include model provisions in the legal guide. These are provisions which would be recommended by the Commission for actual use by parties in their contracts. There are, however, difficulties in drafting such model provisions. The content of a contract provision may depend upon the type of contract in which the provision appears, and on the subject-matter of the contract. In addition, the content may depend on the requirements of the parties with respect to a particular provision (e.g. the scope of an exemption clause may depend on the particular allocation of risks between the parties). The Working Group may therefore wish to authorize the secretariat to include model clauses only when the secretariat considers it feasible to draft such clauses.

15. If the Working Group considers illustrative or model provisions to be desirable, it may wish to consider where in the chapter they should be placed. In the draft chapters prepared for this session of the Working Group, illustrative provisions have been placed in footnotes. Another possibility is to place illustrative or model provisions in the text itself. A disadvantage to the latter approach may be that a provision appearing in the text could interrupt the progress of the reader through the discussion. Moreover, it may be necessary, for drafting reasons or for clarity, to present as a unit provisions on a particular group of issues which are discussed in various locations in the text. It would be undesirable to locate such a unit in all portions of the text in which the issues represented by the provisions are discussed. If, however, the unit is located in one place, the reader may be confused. Such a unit may, however, be located in a footnote after the conclusion of the discussion on the group of issues.

VI. *Space for notes by users of guide*

16. The Working Group may consider it desirable for each chapter of the legal guide to include blank spaces in which the user could, for example, insert his own notes concerning points to remember, cross-references to other clauses, and rules of law applicable to the contract being negotiated or drafted. To permit notes to be taken immediately adjacent to the relevant portion of the text, it may be desirable for each page of the guide to contain extra-wide margins. As an alternative or additional method of providing space for notes, blank pages could be provided at the end of each chapter.