



**TANATHI WATER WORKS DEVELOPMENT
AGENCY**

VOLUME II

GENERAL CONDITIONS

REHABILITATION OF KILOMBO EARTH DAM

TENDER No: TAWWDA/030/2024-2025

DATE: JUNE 2025

Employer:
The Chief Executive Officer,
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FEDERATION INTERNATIONALE DES INGENIEURS-CONSEILS CONDITIONS OF CONTRACT FOR WORKS OF CIVIL ENGINEERING CONSTRUCTION

PART I GENERAL CONDITIONS WITH FORMS OF TENDER AND AGREEMENT FOURTH EDITION 1987 Reprinted 1988 with editorial amendments Reprinted 1992 with further amendments

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PART I: GENERAL CONDITIONS

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FOREWORD

The terms of the Fourth Edition of the Conditions of Contract for Works of Civil Engineering Construction have been prepared by the Federation Internationale des Ingenieurs Conseils (FIDIC) and are recommended for general use for the purpose of construction of such works where tenders are invited on an international basis. The Conditions, subject to minor modifications, are also suitable for use on domestic contracts.

The version in English of the Conditions is considered by FIDIC as the official and authentic text for the purpose of translation.

In the preparation of the Conditions it was recognised that while there are numerous Clauses which will be generally applicable there are some Clauses which must necessarily vary to take account of the circumstances and locality of the Works. The Clauses of general application have been grouped together in this document and are referred to as Part I - General Conditions. They have been printed in a form which will facilitate their inclusion as printed in the contract documents normally prepared.

The General Conditions are linked with the Conditions of Particular Application, referred to as Part II, by the corresponding numbering of the Clauses, so that Parts I and II together comprise the Conditions governing the rights and obligations of the parties.

Part II must be specially drafted to suit each individual Contract.

When dredging and certain types of reclamation work are involved special consideration must be given to Part II.

To assist in the preparation of Part II explanatory material and example clauses are published with the Conditions in a separately bound document entitled "Conditions of Contract for Works of Civil Engineering Construction, Part II - Conditions of Particular Application, with Guidelines for preparation of Part II Clauses, Fourth Edition"

FIDIC has published a "Guide to the Use of FIDIC Conditions of Contract for Works of Civil Engineering Construction" which includes comments on the provisions of the Fourth Edition of the Conditions. Users of the Fourth Edition may find it helpful to refer to this Guide.

It may also be helpful for users to refer to other FIDIC publications, such as:

Tendering Procedure (First Edition 1982)
Construction, Insurance and Law 1986

FIDIC gratefully acknowledges the suggestions and comments it has received during the preparation of this edition from European International Contractors (EIC) as mandatory of Confederation of International Contractors Associations (CICA) with participation of Associated General Contractors of America (AGC).

DEFINITIONS AND INTERPRETATION

1.1 Definitions

In the **Contract** (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them, except where the context otherwise requires:

(a)(i) "Employer" means the person named as such in Part II of these Conditions and the legal successors in title to such person, but not (except with the consent of the Contractor) any assignee of such person.

(ii) "Contractor" means the person whose tender has been accepted by the Employer and the legal successors in title to such person, but not (except with the consent of the Employer) any assignee of such person.

(iii) "Subcontractor" means any person named in the **Contract** as a Subcontractor for a part of the **Works** or any person to whom a part of the **Works** has been subcontracted with the consent of the Engineer and the legal successors in title to such person, but not any assignee of any such person.

(iv) "Engineer" means the person appointed by the Employer to act as Engineer for the purposes of the **Contract** and named as such in Part II of these Conditions.

(v) "Engineer's Representative" means a person appointed from time to time by the Engineer under **Sub-Clause 2.2**.

(b)(i) "Contract" means these Conditions (Parts I and II), the **Specification**, the Drawings, the **Bill of Quantities**, the **Tender**, the **Letter of Acceptance**, the **Contract Agreement** (if completed) and such further documents as may be expressly incorporated in the **Letter of Acceptance** or **Contract Agreement** (if completed).

(ii) "Specification" means the specification of the **Works** included in the **Contract** and any modification thereof or addition thereto made under **Clause 51** or submitted by the Contractor and approved by the Engineer.

(iii) "Drawings" means all drawings, calculations and technical information of a like nature provided by the Engineer to the Contractor under the **Contract** and all drawings, calculations, samples, patterns, models, operation and maintenance manuals and other technical information of a like nature submitted by the Contractor and approved by the Engineer.

(iv) "Bill of Quantities" means the priced and completed bill of quantities forming part of the **Tender**.

(v) "Tender" means the Contractor's priced offer to the Employer for the execution and

completion of the **Works** and the remedying of any defects therein in accordance with the provisions of the **Contract**, as accepted by the **Letter of Acceptance**.

- (vi) "Letter of Acceptance" means the formal acceptance by the Employer of the **Tender**.
- (vii) "Contract Agreement" means the contract agreement (if any) referred to in **Sub-Clause 9.1**.
- (viii) "Appendix to Tender" means the appendix comprised in the form of **Tender** annexed to these Conditions.
- (c)(i) "Commencement Date" means the date upon which the Contractor receives the notice to commence issued by the Engineer pursuant to **Clause 41**.
- (ii) "Time for Completion" means the time for completing the execution of and passing the **Tests on Completion** of the **Works** or any **Section** or part thereof as stated in the **Contract** (or as extended under **Clause 44**) calculated from the **Commencement Date**.
- (d)(i) "Tests on Completion" means the tests specified in the **Contract** or otherwise agreed by the Engineer and the Contractor which are to be made by the Contractor before the **Works** or any **Section** or part thereof are taken over by the Employer.
- (ii) "Taking-Over Certificate" means a certificate issued pursuant to **Clause 48**.
- (e)(i) "Contract Price" means the sum stated in the **Letter of Acceptance** as payable to the Contractor for the execution and completion of the **Works** and the remedying of any defects therein in accordance with the provisions of the **Contract**.
- (ii) "Retention Money" means the aggregate of all monies retained by the Employer pursuant to **Sub-Clause 60.2(a)**.
- (iii) "Interim Payment Certificate" means any certificate of payment issued by the Engineer other than the **Final Payment Certificate**.
- (iv) "Final Payment Certificate" means the certificate of payment issued by the Engineer pursuant to **Sub-Clause 60.8**.
- (f)(i) "Works" means the **Permanent Works** and the **Temporary Works** or either of them as appropriate.
- (ii) "Permanent Works" means the permanent works to be executed (including **Plant**) in accordance with the **Contract**.
- (iii) "Temporary Works" means all temporary works of every kind (other than **Contractor's Equipment**) required in or about the execution and completion of the **Works** and the remedying of any defects therein.

(iv) "Plant" means machinery, apparatus and the like intended to form or forming part of the **Permanent Works**.

(v) "Contractor's Equipment" means all appliances and things of whatsoever nature (other than **Temporary Works**) required for the execution and completion of the **Works** and the remedying of any defects therein, but does not include **Plant**, materials or other things intended to form or forming part of the **Permanent Works**

(vi) "Section" means a part of the **Works** specifically identified in the **Contract** as a **Section**.

(vii) "Site" means the places provided by the Employer where the **Works** are to be executed and any other places as may be specifically designated in the **Contract** as forming part of the Site.

(g)(i) "cost" means all expenditure properly incurred or to be incurred, whether on or off the **Site**, including overhead and other charges properly allocable thereto but does not include any allowance for profit.

(ii) "day" means calendar day.

(iii) "foreign currency" means a currency of a country other than that in which the **Works** are to be located.

(iv) "writing" means any hand-written, type-written, or printed communication, including telex, cable and facsimile transmission.

1.2 Headings and Marginal Notes

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

1.3 Interpretation

Words importing persons or parties shall include firms and corporations and any organisation having legal capacity.

1.4 Singular and Plural

Words importing the singular only also include the plural and vice versa where the context requires

1.5 Notices, Consents, Approvals, Certificate and Determinations

Wherever in the **Contract** provision is made for the giving or issue of any notice, consent, approval, certificate or determination by any person, unless otherwise specified such notice, consent, approval, certificate or determination shall be in **writing** and the words "notify", "certify" or "determine" shall be construed accordingly. Any such consent, approval, certificate or determination shall not unreasonably be withheld or delayed.

ENGINEER AND ENGINEER'S REPRESENTATIVE

2.1 Engineer's Duties and Authority

- (a) The Engineer shall carry out the duties specified in the **Contract**.
- (b) The Engineer may exercise the authority specified in or necessarily to be implied from the **Contract**, provided, however, that if the Engineer is required, under the terms of his appointment by the Employer, to obtain the specific approval of the Employer before exercising any such authority, particulars of such requirements shall be set out in Part II of these Conditions. Provided further that any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Engineer.
- (c) Except as expressly stated in the **Contract**, the Engineer shall have no authority to relieve the Contractor of any of his obligations under the **Contract**.

2.2 Engineer's Representative

The **Engineer's Representative** shall be appointed by and be responsible to the Engineer and shall carry out such duties and exercise such authority as may be delegated to him by the Engineer under **Sub-Clause 2.3**.

2.3 Engineer's Authority to Delegate

The Engineer may from time to time delegate to the **Engineer's Representative** any of the duties and authorities vested in the Engineer and he may at any time revoke such delegation. Any such delegation or revocation shall be in **writing** and shall not take effect until a copy thereof has been delivered to the Employer and the Contractor.

Any communication given by the **Engineer's Representative** to the Contractor in accordance with such delegation shall have the same effect as though it had been given by the Engineer. Provided that:

- (a) any failure of the **Engineer's Representative** to disapprove any work, materials or **Plant** shall not prejudice the authority of the Engineer to disapprove such work, materials or **Plant** and to give instructions for the rectification thereof;
- (b) if the Contractor questions any communication of the **Engineer's Representative** he may refer the matter to the Engineer who shall confirm, reverse or vary the contents of such communication.

2.4 Appointment of Assistants The Engineer or the **Engineer's Representative** may appoint any number of persons to assist

the **Engineer's Representative** in the carrying out of his duties under **Sub-Clause 2.2**. He shall notify to the Contractor the names, duties and scope of authority of such persons. Such assistants shall have no authority to issue any instructions to the Contractor save in so far as such instructions may be necessary to enable them to carry out their duties and to secure their acceptance of materials, **Plant** or workmanship as being in accordance with the **Contract**, and any instructions given by any of them for those purposes shall be deemed to have been given by the **Engineer's Representative**.

2.5 Instructions in Writing

Instructions given by the Engineer shall be in **writing**, provided that if for any reason the Engineer considers it necessary to give any such instruction orally, the Contractor shall comply with such instruction. Confirmation in **writing** of such oral instruction given by the Engineer, whether before or after the carrying out of the instruction, shall be deemed to be an instruction within the meaning of this Sub-Clause. Provided further that if the Contractor, within 7 days, confirms in **writing** to the Engineer any oral instruction of the Engineer and such confirmation is not contradicted in **writing** within 7 days by the Engineer.

The provisions of this Sub-Clause shall equally apply to instructions given by the **Engineer's Representative** and any assistants of the Engineer or the **Engineer's Representative** appointed pursuant to **Sub-Clause 2.4**.

2.6 Engineer to Act Impartially Wherever, under the **Contract**, the Engineer is required

to exercise his discretion by:

- (a) giving his decision, opinion or consent, or
- (b) expressing his satisfaction or approval, or
- (c) determining value, or
- (d) otherwise taking action which may affect the rights and obligations of the Employer or the Contractor

he shall exercise such discretion impartially within the terms of the **Contract** and having regard to all the circumstances. Any such decision, opinion, consent, expression of satisfaction, or approval, determination of value or action may be opened up, reviewed or revised as provided in **Clause 67**.

ASSIGNMENT AND SUBCONTRACTING

3.1 Assignment of Contract

The Contractor shall not, without the prior consent of the Employer (which consent, notwithstanding the provisions of **Sub-Clause 1.5**, shall be at the sole discretion of the Employer), assign the **Contract** or any part thereof, or any benefit or interest therein or thereunder, otherwise than by:

- (a) a charge in favour of the Contractor's bankers of any monies due or to become due under the **Contract**, or
- (b) assignment to the Contractor's insurers (in cases where the insurers have discharged the Contractor's loss or liability) of the Contractor's right to obtain relief against any other party liable.

4.1 Subcontracting

The Contractor shall not subcontract the whole of the **Works**. Except where otherwise provided by the **Contract**, the Contractor shall not subcontract any part of the **Works** without the prior consent of the Engineer. Any such consent shall not relieve the Contractor from any liability or obligation under the **Contract** and he shall be responsible for the acts, defaults and neglects of any Subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen.

Provided that the Contractor shall not be required to obtain such consent for:

- (a) the provision of labour, or
- (b) the purchase of materials which are in accordance with the standards specified in the **Contract**, or
- (c) the subcontracting of any part of the **Works** for which the Subcontractor is named in the **Contract**.

4.2 Assignment of Subcontractors' Obligations

In the event of a Subcontractor having undertaken towards the Contractor in respect of the work executed, or the goods, materials, **Plant** or services supplied by such Subcontractor, any continuing obligation extending for a period exceeding that of the **Defects Liability Period** under the **Contract**, the Contractor shall at any time, after the expiration of such Period, assign to the Employer, at the Employer's request and **cost**, the benefit of such obligation for the unexpired duration thereof.

CONTRACT DOCUMENTS

5.1 Language/s and Law

There is stated in Part II of these Conditions:

- (a) the language or languages in which the **Contract** documents shall be drawn up, and
- (b) the country or state the law of which shall apply to the **Contract** and according to which the **Contract** shall be construed.

If the said documents are written in more than one language, the language according to which the **Contract** shall be construed and interpreted is also stated in Part II of these Conditions, being therein designated the "Ruling Language".

5.2 Priority of Contract Documents

The several documents forming the **Contract** are to be taken as mutually **Contract** explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained and adjusted by the Engineer who shall thereupon issue to the Contractor instructions thereon and in such event, unless otherwise provided in the **Contract**, the priority of the documents forming the **Contract** shall be as follows:

- (1) The **Contract Agreement** (if completed);
- (2) The **Letter of Acceptance**;
- (3) The **Tender**;
- (4) Part II of these Conditions;
- (5) Part I of these Conditions; and
- (6) Any other document forming part of the **Contract**.

6.1 Custody and Supply of Drawings and Documents

The **Drawings** shall remain in the sole custody of the Engineer, but two copies thereof shall be provided to the Contractor free of charge. The Contractor shall make at his own **cost** any further copies required by him. Unless it is strictly necessary for the purposes of the **Contract**, the **Drawings, Specification** and other documents provided by the Employer or the Engineer shall not, without the consent of the Engineer, be used or communicated to a third party by the Contractor. Upon issue of the Defects Liability Certificate, the Contractor shall return to the Engineer all **Drawings, Specification** and other documents provided under the **Contract**.

The Contractor shall supply to the Engineer four copies of all **Drawings, Specification** and other documents submitted by the Contractor and approved by the Engineer in accordance with **Clause 7**, together with a reproducible copy of any material which cannot be reproduced to an equal standard by photocopying. In addition the Contractor shall supply such further copies of such **Drawings, Specification** and other documents as the Engineer may request in **writing** for the use of the Employer, who shall pay the **cost** thereof.

6.2 One Copy of Drawings to be Kept on Site

One copy of the **Drawings**, provided to or supplied by the Contractor as aforesaid, shall be kept by the Contractor on the **Site** and the same shall at all reasonable times be available for inspection and use by the Engineer and by any other person authorised by the Engineer in **writing**.

6.3 Disruption of Progress

The Contractor shall give notice to the Engineer, with a copy to the Employer, whenever planning or execution of the **Works** is likely to be delayed, or disrupted unless any further drawing or instruction is issued by the Engineer within a reasonable time. The notice shall include details of the drawing or instruction required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

6.4 Delays and Cost of Delay of Drawings

If, by reason of any failure or inability of the Engineer to issue, within a time reasonable in all the circumstances, any drawing or instruction for which notice has been given by the Contractor in accordance with **Sub-Clause 6.3**, the Contractor suffers delay and/or incurs costs then the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under **Clause 44**, and
- (b) the amount of such costs, which shall be added to the **Contract Price**, and shall notify the Contractor accordingly, with a copy to the Employer.

6.5 Failure by Contractor to Submit Drawings

If the failure or inability of the Engineer to issue any drawings or instructions is caused in whole or in part by the failure of the Contractor to submit **Drawings, Specification** or other documents which he is required to submit under the **Contract**, the Engineer shall take such failure by the Contractor into account when making his determination pursuant to **Sub-Clause 6.4**.

7.1 Supplementary Drawings and Instructions

The Engineer shall have authority to issue to the Contractor, from time to time, such supplementary **Drawings** and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the **Works** and the remedying of any defects therein. The Contractor shall carry out and be bound by the same.

7.2 Permanent Works Designed by Contractor

Where the **Contract** expressly provides that part of the **Permanent Works** shall be designed by the Contractor, he shall submit to the Engineer, for approval:

- (a) such drawings, specifications, calculations and other information as shall be necessary to satisfy the Engineer as to the suitability and adequacy of that design, and
- (b) operation and maintenance manuals together with drawings of the **Permanent Works** as completed, in sufficient detail to enable the Employer to operate, maintain, dismantle, reassemble and adjust the **Permanent Works** incorporating that design. The **Works** shall not be considered to be completed for the purposes of taking over in accordance with **Clause 48** until such operation and maintenance manuals, together with drawings on completion, have been submitted to and approved by the Engineer.

7.3 Responsibility Unaffected by Approval

Approval by the Engineer, in accordance with **Sub-Clause 7.2**, shall not relieve the Contractor of any of his responsibilities under the **Contract**.

GENERAL OBLIGATIONS

8.1 Contractor's General Responsibilities

The Contractor shall, with due care and diligence, design (to the extent provided for by the **Contract**), execute and complete the **Works** and remedy any defects therein in accordance with the provisions of the **Contract**. The Contractor shall provide all superintendence, labour, materials, **Plant, Contractor's Equipment** and all other things, whether of a temporary or permanent nature, required in and for such design, execution, completion and remedying of any defects, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the **Contract**.

The Contractor shall give prompt notice to the Engineer, with a copy to the Employer, of any error, omission, fault or other defect in the design of or **Specification** for the **Works** which he discovers when reviewing the **Contract** or executing the **Works**.

8.2 Site Operations and Methods of Construction

The Contractor shall take full responsibility for the adequacy, stability and safety of all **Site** operations and methods of construction. Provided that the Contractor shall not be responsible (except as stated hereunder or as may be otherwise agreed) for the design or specification of **Permanent Works**, or for the design or specification of any **Temporary Works** not prepared by the Contractor. Where the **Contract** expressly provides that part of the **Permanent Works** shall be designed by the Contractor, he shall be fully responsible for that part of such **Works**, notwithstanding any approval by the Engineer.

9.1 Contract Agreement

The Contractor shall, if called upon so to do, enter into and execute the **Contract Agreement**, to be prepared and completed at the **cost** of the Employer, in the form annexed to these Conditions with such modification as may be necessary.

10.1 Performance Security

If the **Contract** requires the Contractor to obtain security for his proper performance of the **Contract**, he shall obtain and provide to the Employer such security within 28 days after the receipt of the **Letter of Acceptance**, in the sum stated in the Appendix to **Tender**. When providing such security to the Employer, the Contractor shall notify the Engineer of so doing. Such security shall be in the form annexed to these Conditions or in such other form as may be agreed between the Employer and the Contractor. The institution providing such security shall be subject to the approval of the Employer. The **cost** of complying with the requirements of this clause shall be borne by the Contractor, unless the **Contract** otherwise provides .

10.2 Period of Validity of Performance Security

The performance security shall be valid until the Contractor has executed and completed the **Works** and remedied any defects therein in accordance with the **Contract**. No claim shall be made against such security after the issue of the Defects Liability Certificate in accordance with **Sub-Clause 62.1** and such security shall be returned to the Contractor within 14 days of the issue of the said Defects Liability Certificate.

10.3 Claims under Performance Security

Prior to making a claim under the performance security the Employer shall, in every case, notify the Contractor stating the nature of the default in respect of which the claim is to be made.

11.1 Inspection of Site

The Employer shall have made available to the Contractor, before the submission by the Contractor of the **Tender**, such data on hydrological and subsurface conditions as have been obtained by or on behalf of the Employer from investigations undertaken relevant to the **Works** but the Contractor shall be responsible for his own interpretation thereof.

The Contractor shall be deemed to have inspected and examined the **Site** and its surroundings and information available in connection therewith and to have satisfied himself (so far as is practicable, having regard to considerations of **cost** and time) before submitting his **Tender**, as to:

- (a) the form and nature thereof, including the subsurface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of work and materials necessary for the execution and completion of the **Works** and the remedying of any defects therein, and
- (d) the means of access to the **Site** and the accommodation he may require

and, in general, shall be deemed to have obtained all necessary information, subject as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect his **Tender**.

The Contractor shall be deemed to have based his **Tender** on the data made available by the Employer and on his own inspection and examination, all as aforementioned.

12.1 Sufficiency of Tender

The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the **Tender** and of the rates and prices stated in the **Bill of Quantities**, all of which shall, except insofar as it is otherwise provided in the **Contract**, cover all his obligations under the **Contract** (including those in respect of the supply of goods, materials, **Plant** or services or of contingencies for which there is a Provisional Sum) and all matters and things necessary for the proper execution and completion of the **Works** and the remedying of any defects therein.

12.2 Not Foreseeable Obstructions or Conditions

If, however, during the execution of the **Works** the Contractor encounters physical obstructions or physical conditions, other than climatic conditions on the **Site**, which obstructions or conditions were, in his opinion, not foreseeable by an experienced contractor, the Contractor shall forthwith give notice thereof to the Engineer, with a copy to the Employer. On receipt of such notice, the Engineer shall, if in his opinion such obstructions or conditions could not have been reasonably foreseen by an experienced contractor, after due consultation with the Employer and the Contractor, determine:

(a) any extension of time to which the Contractor is entitled under **Clause 44**, and

(b) the amount of any costs which may have been incurred by the Contractor by reason of such obstructions or conditions having been encountered, which shall be added to the **Contract Price**,

and shall notify the Contractor accordingly, with a copy to the Employer. Such determination shall take account of any instruction which the Engineer may issue to the Contractor in connection therewith, and any proper and reasonable measures acceptable to the Engineer which the Contractor may take in the absence of specific instructions from the Engineers.

13.1 Work to be in Accordance with Contract

Unless it is legally or physically impossible, the Contractor shall execute and complete the **Works** and remedy any defects therein in strict accordance with the **Contract** to the satisfaction of the Engineer. The Contractor shall comply with and adhere strictly to the Engineer's instructions on any matter, whether mentioned in the **Contract** or not, touching or concerning the **Works**. The Contractor shall take instructions only from the Engineer (or his delegate).

14.1 Programme to be Submitted

The Contractor shall, within the time stated in Part II of these Conditions after the date of the **Letter of Acceptance**, submit to the Engineer for his consent a programme, in such form and detail as the Engineer shall reasonably prescribe, for the execution of the **Works**. The Contractor shall, whenever required by the Engineer, also provide in **writing** for his

information a general description of the arrangements and methods which the Contractor proposes to adopt for the execution of the **Works**

14.2 Revised Programme

If at any time it should appear to the Engineer that the actual progress of the **Works** does not conform to the programme to which consent has been given under **Sub-Clause 14.1**, the Contractor shall produce, at the request of the Engineer, a revised programme showing the modifications to such programme necessary to ensure completion of the **Works** within the **Time for Completion**.

14.3 Cash Flow Estimate to be Submitted

The Contractor shall, within the time stated in Part II of these Conditions after the date of the **Letter of Acceptance**, provide to the Engineer for his information a detailed cash flow estimate, in quarterly periods, of all payments to which the Contractor will be entitled under the **Contract** and the Contractor shall subsequently supply revised cash flow estimates at quarterly intervals, if required to do so by the Engineer.

14.4 Contractor not Relieved of Duties or Responsibilities

The submission to and consent by the Engineer of such programmes or the provision of such general descriptions or cash flow estimates shall not relieve the Contractor of any of his duties or responsibilities under the **Contract**.

15.1 Contractor Superintendence

The Contractor shall provide all necessary superintendence during the execution of the **Works** and as long thereafter as the Engineer may consider necessary for the proper fulfilling of the Contractor's obligations under the **Contract**. The Contractor, or a competent and authorised representative approved of by the Engineer, which approval may at any time be withdrawn, shall give his whole time to the superintendence of the **Works**. Such authorised representative shall receive, on behalf of the Contractor, instructions from the Engineer.

If approval of the representative is withdrawn by the Engineer, the Contractor shall, as soon as is practicable, having regard to the requirement of replacing him as hereinafter mentioned, after receiving notice of such withdrawal, remove the representative from the **Works** and shall not thereafter employ him again on the **Works** in any capacity and shall replace him by another representative approved by the Engineer.

16.1 Contractor's Employees

The Contractor shall provide on the **Site** in connection with the execution and completion of the **Works** and the remedying of any defects therein

(a) only such technical assistants as are skilled and experienced in their respective callings and such foremen and leading hands as are competent to give proper superintendence of the **Works**, and

(b) such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely fulfilling of the Contractor's obligations under the **Contract**.

16.2 Engineer at Liberty to Object

The Engineer shall be at liberty to object to and require the Contractor to remove forthwith from the **Works** any person provided by the Contractor who, in the opinion of the Engineer, misconducts himself, or is incompetent or negligent in the proper performance of his duties, or whose presence on **Site** is otherwise considered by the Engineer to be undesirable, and such person shall not be again allowed upon the **Works** without the consent of the Engineer. Any person so removed from the **Works** shall be replaced as soon as possible.

17.1 Setting-out

The Contractor shall be responsible for:

(a) the accurate setting-out of the **Works** in relation to original points, lines and levels of reference given by the Engineer in **writing**,

(b) the correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of the **Works**, and

(c) the provision of all necessary instruments, appliances and labour in connection with the foregoing responsibilities.

If, at any time during the execution of the **Works**, any error appears in the position, levels, dimensions or alignment of any part of the **Works**, the Contractor, on being required so to do by the Engineer, shall, at his own **cost**, rectify such error to the satisfaction of the Engineer, unless such error is based on incorrect data supplied in **writing** by the Engineer, in which case the Engineer shall determine an addition to the **Contract Price** in accordance with **Clause 52** and shall notify the Contractor accordingly, with a copy to the Employer.

The checking of any setting-out or of any line or level by the Engineer shall not in any way relieve the Contractor of his responsibility for the accuracy thereof and the Contractor shall carefully protect and preserve all bench-marks, sight-rails, pegs and other things used in setting-out the **Works**.

18.1 Boreholes and Exploratory Excavation

If, at any time during the execution of the **Works**, the Engineer requires the Contractor to make boreholes or to carry out exploratory excavation, such requirement shall be the subject of an instruction in accordance with **Clause 51**, unless an item or a Provisional Sum in respect of such work is included in the **Bill of Quantities**.

19.1 Safety, Security and Protection of the Environment

The Contractor shall, throughout the execution and completion of the **Works** and the remedying of any defects therein:

(a) have full regard for the safety of all persons entitled to be upon the **Site** and keep the **Site** (so far as the same is under his control) and the **Works** (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons, and

(b) provide and maintain at his own **cost** all lights, guards, fencing, warning signs and watching, when and where necessary or required by the Engineer or by any duly constituted authority, for the protection of the **Works** or for the safety and convenience of the public or others, and

(c) take all reasonable steps to protect the environment on and off the **Site** and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

19.2 Employer's Responsibilities

If under **Clause 31** the Employer shall carry out work on the **Site** with his own workmen he shall, in respect of such work:

(a) have full regard to the safety of all persons entitled to be upon the **Site**, and

(b) keep the **Site** in an orderly state appropriate to the avoidance of danger to such persons. If under **Clause 31** the Employer shall employ other contractors on the **Site** he shall require them to have the same regard for safety and avoidance of danger.

20.1 Care of Works

The Contractor shall take full responsibility for the care of the **Works** and materials and **Plant** for incorporation therein from the **Commencement Date** until the date of issue of the **Taking-Over Certificate** for the whole of the **Works**, when the responsibility for the said care shall pass to the Employer. Provided that:

(a) if the Engineer issues a **Taking-Over Certificate** for any **Section** or part of the **Permanent Works** the Contractor shall cease to be liable for the care of that section or part

from the date of issue of the **Taking-Over Certificate** when the responsibility for the care of that **Section** or part shall pass to the Employer, and

(b) the Contractor shall take full responsibility for the care of any outstanding **Works** and materials and **Plant** for incorporation therein which he undertakes to finish during the **Defects Liability Period** until such outstanding **Works** have been completed pursuant to **Clause 49**.

20.2 Responsibility to Rectify Loss or Damage

If any loss or damage happens to the **Works**, or any part thereof, or materials or **Plant** for incorporation therein, during the period for which the Contractor is responsible for the care thereof, from any cause whatsoever, other than the risks defined in **Sub-Clause 20.4**, the Contractor shall, at his own **cost**, rectify such loss or damage so that the **Permanent Works** conform in every respect with the provisions of the **Contract** to the satisfaction of the Engineer. The Contractor shall also be liable for any loss or damage to the **Works** occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under **Clauses 49** and **50**.

20.3 Loss or Damage Due to Employer's Risks

In the event of any such loss or damage happening from any of the risks defined in **Sub-Clause 20.4**, or in combination with other risks, the Contractor shall, if and to the extent required by the Engineer, rectify the loss or damage and the Engineer shall determine an addition to the **Contract Price** in accordance with **Clause 52** and shall notify the Contractor accordingly, with a copy to the Employer. In the case of a combination of risks causing loss or damage any such determination shall take into account the proportional responsibility of the Contractor and the Employer.

20.4 Employer's Risks

The Employer's risks are:

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (b) rebellion, revolution, insurrection, or military or usurped power, or civil war,
- (c) ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,
- (d) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,
- (e) riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his Subcontractors and arising from the conduct of the **Works**,
- (f) loss or damage due to the use or occupation by the Employer of any **Section** or part of the **Permanent Works**, except as may be provided for in the **Contract**,
- (g) loss or damage to the extent that it is due to the design of the **Works**, other than any part

of the design provided by the Contractor or for which the Contractor is responsible,
(h) any operation of the forces of nature against which an experienced contractor could not reasonably have been expected to take precautions.

21.1 Insurance of Works and Contractor's Equipment

The Contractor shall, without limiting his or the Employer's obligations and responsibilities under **Clause 20**, insure:

- (a) the **Works**, together with materials and **Plant** for incorporation therein, to the full replacement **cost** (the term "cost" in this context shall include profit),
- (b) an additional sum of 15 per cent of such replacement **cost**, or as may be specified in Part II of these Conditions, to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the **cost** of demolishing and removing any part of the **Works** and of removing debris of whatsoever nature
- (c) the **Contractor's Equipment** and other things brought onto the **Site** by the Contractor, for a sum sufficient to provide for their replacement at the **Site**.

21.2 Scope of Cover

The insurance in paragraphs (a) and (b) of **Sub-Clause 21.1** shall be in the joint names of the Contractor and the Employer and shall cover:

- (a) the Employer and the Contractor against all loss or damage from whatsoever cause arising, other than as provided in **Sub-Clause 21.4**, from the start of work at the **Site** until the date of issue of the relevant **Taking-Over Certificate** in respect of the **Works** or any **Section** or part thereof as the case may be, and
- (b) the Contractor for his liability:
 - (i) during the **Defects Liability Period** for loss or damage arising from a cause occurring prior to the commencement of the **Defects Liability Period**, and
 - (ii) for loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under **Clauses 49** and **50**.

21.3 Responsibility for Amounts not Recovered

Any amounts not insured or not recovered from the insurers shall be borne by the Employer or the Contractor in accordance with their responsibilities under **Clause 20**.

21.4 Exclusions

There shall be no obligation for the insurances in **Sub-Clause 21.1** to include loss or damage caused by

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (b) rebellion, revolution, insurrection, or military or usurped power, or civil war,
- (c) ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,
- (d) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds.

22.1 Damage to Persons and Property

The Contractor shall, except if and so far as the **Contract** provides otherwise, indemnify the Employer against all losses and claims in respect of:

- (a) death of or injury to any person, or
- (b) loss of or damage to any property (other than the **Works**),

which may arise out of or in consequence of the execution and completion of the **Works** and the remedying of any defects therein, and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, subject to the exceptions defined in **Sub-Clause 22.2**.

- (c) any trespass to any adjoining property, any noise or any other nuisance insofar as such trespass noise or nuisance arises out of, or in the course of, or by reason of the carrying out of the **Works** and to the extent that the same is due to any negligence, breach of statutory duty, omission or default of the Contractor or any other person for whose actions the Contractor is liable under **Clause 4.1**.

22.2 Exceptions

The "exceptions" referred to in **Sub-**

Clause 22.1 are:

- (a) the permanent use or occupation of land by the **Works**, or any part thereof,
- (b) the right of the Employer to execute the **Works**, or any part thereof, on, over, under, in or through any land,
- (c) damage to property which is the unavoidable result of the execution and completion of

the **Works**, or the remedying of any defects therein, in accordance with the **Contract**,

(d) death of or injury to persons or loss of or damage to property resulting from any act or neglect of the Employer, his agents, servants or other contractors, not being employed by the Contractor, or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or, where the injury or damage was contributed to by the Contractor, his servants or agents, such part of the said injury or damage as may be just and equitable having regard to the extent of the responsibility of the Employer, his servants or agents or other contractors for the injury or damage.

22.3 Indemnity by Employer

The Employer shall indemnify the Contractor against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the exceptions defined in **Sub-Clause 22.2**.

23.1 Third Party Insurance (including Employer's Property)

The Contractor shall, without limiting his or the Employer's obligations and responsibilities under **Clause 22**, insure, in the joint names of the Contractor and the Employer, against liabilities for death of or injury to any person (other than as provided in **Clause 24**) or loss of or damage to any property (other than the **Works**) arising out of the performance of the **Contract**, other than the exceptions defined in paragraphs (a), (b) and (c) of **Sub-Clause 22.2**.

23.2 Minimum Amount of Insurance Such insurance shall be for at least the amount stated in the **Appendix to Tender**.

23.3 Cross Liabilities

The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Employer as separate insureds.

24.1 Accident or Injury to Workmen

The Employer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any Subcontractor, other than death or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, other than those for which the Employer is liable as aforesaid, and against all claims, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto.

24.2 Insurance Against Accident to Workmen

The Contractor shall insure against such liability and shall continue such insurance during the whole of the time that any persons are employed by him on the **Works**. Provided that, in respect of any persons employed by any Subcontractor, the Contractor's obligations to insure as aforesaid under this Sub-Clause shall be satisfied if the Subcontractor shall have insured against the liability in respect of such persons in such manner that the Employer is indemnified under the policy, but the Contractor shall require such Subcontractor to produce to the Employer, when required, such policy of insurance and the receipt for the payment of the current premium.

25.1 Evidence and Terms of Insurances

The Contractor shall provide evidence to the Employer prior to the start of work at the **Site** that the insurances required under the **Contract** have been effected and shall, within 84 days of the **Commencement Date**, provide the insurance policies to the Employer. When providing such evidence and such policies to the Employer, the Contractor shall notify the Engineer of so doing. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the **Letter of Acceptance**. The Contractor shall effect all insurances for which he is responsible with insurers and in terms approved by the Employer.

25.2 Adequacy of Insurances

The Contractor shall notify the insurers of changes in the nature, extent or programme for the execution of the **Works** and ensure the adequacy of the insurances at all times in accordance with the terms of the **Contract** and shall, when required, produce to the Employer the insurance policies in force and the receipts for payment of the current premiums.

25.3 Remedy on Contractor's Failure to Insure

If the Contractor fails to effect and keep in force any of the insurances required under the **Contract**, or fails to provide the policies to the Employer within the period required by **Sub-Clause 25.1**, then and in any such case the Employer may effect and keep in force any such insurances and pay any premium as may be necessary for that purpose and from time to time deduct the amount so paid from any monies due or to become due to the Contractor, or recover the same as a debt due from the Contractor.

25.4 Compliance with Policy Conditions

In the event that the Contractor or the Employer fails to comply with conditions imposed by the insurance policies effected pursuant to the **Contract**, each shall indemnify the other against all losses and claims arising from such failure.

26.1 Compliance with Statutes, Regulations

The Contractor shall conform in all respects, including by the giving of all notices and the paying of all fees, with the provisions of:

(a) any National or State Statute, Ordinance, or other Law, or any regulation, or bye-law of any local or other duly constituted authority in relation to the execution and completion of the **Works** and the remedying of any defects therein, and

(b) the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the **Works**,

and the Contractor shall keep the Employer indemnified against all penalties and liability of every kind for breach of any such provisions. Provided always that the Employer shall be responsible for obtaining any planning, zoning or other similar permission required for the **Works** to proceed and shall indemnify the Contractor in accordance with **Sub-Clause 22.3**.

27.1 Fossils

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the **Site** shall, as between the Employer and the Contractor, be deemed to be the absolute property of the Employer. The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging any such article or thing and shall, immediately upon discovery thereof and before removal, acquaint the Engineer of such discovery and carry out the Engineer's instructions for dealing with the same. If, by reason of such instructions, the Contractor suffers delay and/or incurs costs then the Engineer shall, after due consultation with the Employer and the Contractor, determine:

(a) any extension of time to which the Contractor is entitled under **Clause 44**, and

(b) the amount of such costs, which shall be added to the **Contract Price**,

and shall notify the Contractor accordingly, with a copy to the Employer.

28.1 Patent Rights

The Contractor shall save harmless and indemnify the Employer from and against all claims and proceedings for or on account of infringement of any patent rights, design trademark or name or other protected rights in respect of any **Contractor's Equipment**, materials or **Plant** used for or in connection with or for incorporation in the **Works** and from and against all damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, except where such infringement results from compliance with the design or **Specification** provided by the Engineer.

28.2 Royalties

Except where otherwise stated, the Contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials required for the **Works**.

29.1 Interference with Traffic and Adjoining Properties

All operations necessary for the execution and completion of the **Works** and the remedying of any defects therein shall, so far as compliance with the requirements of the **Contract** permits, be carried on so as not to interfere unnecessarily or improperly with:

- (a) the convenience of the public, or
- (b) the access to, use and occupation of public or private roads and footpaths to or of properties whether in the possession of the Employer or of any other person.

The Contractor shall save harmless and indemnify the Employer in respect of all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of, or in relation to, any such matters insofar as the Contractor is responsible therefor.

30.1 Avoidance of Damage to Roads

The Contractor shall use every reasonable means to prevent any of the roads or bridges communicating with or on the routes to the **Site** from being damaged or injured by any traffic of the Contractor or any of his Subcontractors and, in particular shall select routes, choose and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of materials, **Plant, Contractor's Equipment** or **Temporary Works** from and to the **Site** shall be limited, as far as reasonably possible, and so that no unnecessary damage or injury may be occasioned to such roads and bridges.

30.2 Transport of Contractor's Equipment or Temporary Works

Save insofar as the **Contract** otherwise provides, the Contractor shall be responsible for and shall pay the **cost** of strengthening any bridges or altering or improving any road communicating with or on the routes to the **Site** to facilitate the movement of **Contractor's Equipment** or **Temporary Works** and the Contractor shall indemnify and keep indemnified the Employer against all claims for damage to any such road or bridge caused by such movement, including such claims as may be made directly against the Employer, and shall negotiate and pay all claims arising solely out of such damage.

30.3 Transport of Materials or Plant

If, notwithstanding **Sub-Clause 30.1**, any damage occurs to any bridge or road communicating with or on the routes to the **Site** arising from the transport of materials or **Plant**, the Contractor shall notify the Engineer with a copy to the Employer, as soon as he becomes aware of such damage or as soon as he receives any claim from the authority entitled to make such claim. Where under any law or regulation the haulier of such materials or **Plant** is required to indemnify the road authority against damage the Employer shall not be liable for any costs, charges or expenses in respect thereof or in relation thereto. In other cases the Employer shall negotiate the settlement of and pay all sums due in respect of such claim and shall indemnify the Contractor in respect thereof and in respect of all claims, proceedings, damages, costs, charges and expenses in relation thereto. Provided that if and so far as any such claim or part thereof is, in the opinion of the Engineer, due to any failure on the part of the Contractor to observe and perform his obligations under **Sub-Clause 30.1**, then the amount, determined by the Engineer, after due consultation with the Employer and the Contractor, to be due to such failure shall be recoverable from the Contractor by the Employer and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. Provided also that the Employer shall notify the Contractor whenever a settlement is to be negotiated and, where any amount may be due from the Contractor, the Employer shall consult with the Contractor before such settlement is agreed.

30.4 WaterborneTraffic

Where the nature of the **Works** is such as to require the use by the Contractor of waterborne transport the foregoing provisions of this Clause shall be construed as though "road" included a lock, dock, sea wall or other structure related to a waterway and "vehicle" included craft, and shall have effect accordingly.

31.1 Opportunities for Other Contractors

The Contractor shall, in accordance with the requirements of the Engineer, afford all reasonable opportunities for carrying out their work to:

- (a) any other contractors employed by the Employer and their workmen,
- (b) the workmen of the Employer, and
- (c) the workmen of any duly constituted authorities who may be employed in the execution on or near the **Site** of any work not included in the **Contract** or of any contract which the Employer may enter into in connection with or ancillary to the **Works**.

31.2 Facilities for Other Contractors

If, however, pursuant to **Sub-Clause 31.1** the Contractor shall, on the written request of the Engineer:

(a) make available to any such other contractor, or to the Employer or any such authority, any roads or ways for the maintenance of which the Contractor is responsible, or

(b) permit the use, by any such, of **Temporary Works** or **Contractor's Equipment** on the **Site**, or

(c) provide any other service of whatsoever nature for any such,

the Engineer shall determine an addition to the **Contract Price** in accordance with **Clause 52** and shall notify the Contractor accordingly, with a copy to the Employer.

32.1 Contractor to Keep Site Clear

During the execution of the **Works** the Contractor shall keep the **Site** reasonably free from all unnecessary obstruction and shall store or dispose of any **Contractor's Equipment** and surplus materials and clear away and remove from the **Site** any wreckage, rubbish or **Temporary Works** no longer required.

33.1 Clearance of Site on Completion

Upon the issue of any **Taking-Over Certificate** the Contractor shall clear away and remove from that part of the **Site** to which such **Taking-Over Certificate** relates all **Contractor's Equipment**, surplus material, rubbish and **Temporary Works** of every kind, and leave such part of the **Site** and **Works** clean and in a workmanlike condition to the satisfaction of the Engineer. Provided that the Contractor shall be entitled to retain on **Site**, until the end of the **Defects Liability Period**, such materials, **Contractor's Equipment** and **Temporary Works** as are required by him for the purpose of fulfilling his obligations during the **Defects Liability Period**.

LABOUR

34.1 Engagement of Staff and Labour

The Contractor shall, unless otherwise provided in the **Contract**, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

35.1 Returns of Labour and Contractor's Equipment

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the **Site** and such information respecting **Contractor's Equipment** as the Engineer may require.

MATERIALS, PLANT AND WORKMANSHIP

36.1 Quality of Materials, Plant and Workmanship All

materials, **Plant** and workmanship shall be

(a) of the respective kinds described in the **Contract** and in accordance with the Engineer's instructions, and

(b) subjected from time to time to such tests as the Engineer may require at the place of manufacture, fabrication or preparation, or on the **Site** or at such other place or places as may be specified in the **Contract**, or at all or any of such places.

The Contractor shall provide such assistance, labour, electricity, fuels, stores, apparatus and instruments as are normally required for examining, measuring and testing any materials or **Plant** and shall supply samples of materials, before incorporation in the **Works**, for testing as may be selected and required by the Engineer.

36.2 Cost of Samples

All samples shall be supplied by the Contractor at his own **cost** if the supply thereof is clearly intended by or provided for in the **Contract**.

36.3 Cost of Tests The **cost** of making any test shall be borne by the Contractor

if such test is

(a) clearly intended by or provided for in the **Contract**, or

(b) particularised in the **Contract** (in cases only of a test under load or of a test to ascertain whether the design of any finished or partially finished work is appropriate for the purposes which it was intended to fulfil) in sufficient detail to enable the Contractor to price or allow for the same in his tender.

36.4 Cost of Tests not Provided for

If any test required by the Engineer which is

(a) not so intended by or provided for, or

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

(c) (though so intended or provided for) required by the Engineer to be carried out at any place other than the **Site** or the place of manufacture, fabrication or preparation of the

materials or **Plant** tested,

shows the materials, **Plant** or workmanship not to be in accordance with the provisions of the **Contract** to the satisfaction of the Engineer, then the **cost** of such test shall be borne by the Contractor, but in any other case **Sub-Clause 36.5** shall apply.

36.5 Engineer's Determination where Tests not Provided for

Where, pursuant to **Sub-Clause 36.4**, this Sub-Clause applies the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under **Clause 44**, and
- (b) the amount of such costs, which shall be added to the **Contract Price**, and shall notify the Contractor accordingly, with a copy to the Employer.

37.1 Inspection of Operations

The Engineer, and any person authorised by him, shall at all reasonable times have access to the **Site** and to all workshops and places where materials or **Plant** are being manufactured, fabricated or prepared for the **Works** and the Contractor shall afford every facility for and every assistance in obtaining the right to such access.

37.2 Inspection and Testing

The Engineer shall be entitled, during manufacture, fabrication or preparation to inspect and test the materials and **Plant** to be supplied under the **Contract**. If materials or **Plant** are being manufactured, fabricated or prepared in workshops or places other than those of the Contractor, the Contractor shall obtain permission for the Engineer to carry out such inspection and testing in those workshops or places. Such inspection or testing shall not release the Contractor from any obligation under the **Contract**.

37.3 Dates for Inspection and Testing

The Contractor shall agree with the Engineer on the time and place for the inspection or testing of any materials or **Plant** as provided in the **Contract**. The Engineer shall give the Contractor not less than 24 hours notice of his intention to carry out the inspection or to attend the tests. If the Engineer, or his duly authorised representative, does not attend on the date agreed, the Contractor may, unless otherwise instructed by the Engineer, proceed with the tests, which shall be deemed to have been made in the presence of the Engineer. The Contractor shall forthwith forward to the Engineer duly certified copies of the test readings. If the Engineer has not attended the tests, he shall accept the said readings as accurate.

37.4 Rejection

If, at the time and place agreed in accordance with **Sub-Clause 37.3**, the materials or **Plant** are not ready for inspection or testing or if, as a result of the inspection or testing referred to in this Clause, the Engineer determines that the materials or **Plant** are defective or otherwise not in accordance with the **Contract**, he may reject the materials or **Plant** and shall notify the Contractor thereof immediately. The notice shall state the Engineer's objections with reasons. The Contractor shall then promptly make good the defect or ensure that rejected materials or **Plant** comply with the **Contract**. If the Engineer so requests, the tests of rejected materials or **Plant** shall be made or repeated under the same terms and conditions. All costs incurred by the Employer by the repetition of the tests shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer and may be deducted from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

37.5 Independent Inspection

The Engineer may delegate inspection and testing of materials or **Plant** to an independent inspector. Any such delegation shall be effected in accordance with **Sub-Clause 2.4** and for this purpose such independent inspector shall be considered as an assistant of the Engineer. Notice of such appointment (not being less than 14 days) shall be given by the Engineer to the Contractor.

38.1 Examination of Work before Covering up

No part of the **Works** shall be covered up or put out of view without the approval of the Engineer and the Contractor shall afford full opportunity for the Engineer to examine and measure any such part of the **Works** which is about to be covered up or put out of view and to examine foundations before any part of the **Works** is placed thereon. The Contractor shall give notice to the Engineer whenever any such part of the **Works** or foundations is or are ready or about to be ready for examination and the Engineer shall, without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such part of the **Works** or of examining such foundations.

38.2 Uncovering and Making Openings

The Contractor shall uncover any part of the **Works** or make openings in or through the same as the Engineer may from time to time instruct and shall reinstate and make good such part. If any such part has been covered up or put out of view after compliance with the requirement of **Sub-Clause 38.1** and is found to be executed in accordance with the **Contract**, the Engineer shall, after due consultation with the Employer and the Contractor,

determine the amount of the Contractor's costs in respect of such of uncovering, making openings in or through, reinstating and making good the same, which shall be added to the **Contract Price**, and shall notify the Contractor accordingly, with a copy to the Employer. In any other case all costs shall be borne by the Contractor.

39.1 Removal of Improper Work, Materials or Plant

The Engineer shall have authority to issue instructions from time to time, for:

- (a) the removal from the **Site**, within such time or times as may be specified in the instruction, of any materials or **Plant** which, in the opinion of the Engineer, are not in accordance with the **Contract**,
- (b) the substitution of proper and suitable materials or **Plant**, and
- (c) the removal and proper re-execution, notwithstanding any previous test thereof or interim payment therefor, of any work which, in respect of
 - (i) materials, **Plant** or workmanship, or
 - (ii) design by the Contractor or for which he is responsible, is not, in the opinion of the Engineer, in accordance with the **Contract**.

39.2 Default of Contractor in Compliance

In case of default on the part of the Contractor in carrying out such instruction within the time specified therein or, if none, within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

SUSPENSION

40.1 Suspension of Work

The Contractor shall, on the instructions of the Engineer, suspend the progress of the **Works** or any part thereof for such time and in such manner as the Engineer may consider necessary and shall, during such suspension, properly protect and secure the **Works** or such part thereof so far as is necessary in the opinion of the Engineer. Unless such suspension is

- (a) otherwise provided for in the **Contract**, or
- (b) necessary by reason of some default of or breach of contract by the Contractor or for which he is responsible, or
- (c) necessary by reason of climatic conditions on the **Site**, or
- (d) necessary for the proper execution of the **Works** or for the safety of the **Works** or any part thereof (save to the extent that such necessity arises from any act or default by the Engineer or the Employer or from any of the risks defined in **Sub-Clause 20.4**),

Sub-Clause 40.2 shall apply.

40.2 Engineer's Determination following Suspension

Where, pursuant to **Sub-Clause 40.1**, this Sub-Clause applies the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under **Clause 44**, and
- (b) the amount, which shall be added to the **Contract Price**, in respect of the **cost** incurred by the Contractor by reason of such suspension, and shall notify the Contractor accordingly, with a copy to the Employer.

40.3 Suspension lasting more than 84 Days

If the progress of the **Works** or any part thereof is suspended on the instructions of the Engineer and if permission to resume work is not given by the Engineer within a period of 84 days from the date of suspension then, unless such suspension is within paragraph (a), (b), (c) or (d) of **Sub-Clause 40.1**, the Contractor may give notice to the Engineer requiring permission, within 28 days from the receipt thereof, to proceed with the **Works** or that part thereof in regard to which progress is suspended. If, within the said time, such permission is not granted, the

Contractor may, but is not bound to, elect to treat the suspension, where it affects part only of the **Works**, as an omission of such part under **Clause 51** by giving a further notice to the Engineer to that effect, or, where it affects the whole of the **Works**, treat the suspension as an event of default by the Employer terminate his employment under the **Contract** in accordance with the provisions of **Sub-Clause 69.1**, whereupon the provisions of **Sub-Clauses 69.2** and **69.3** shall apply.

COMMENCEMENT AND DELAYS

41.1 Commencement of Works

The Contractor shall commence the **Works** as soon as is reasonably possible after the receipt by him of a notice to this effect from the Engineer, which notice shall be issued within the time stated in the **Appendix to Tender** after the date of the **Letter of Acceptance**. Thereafter, the Contractor shall proceed with the **Works** with due expedition and without delay.

42.1 Possession of Site and Access Thereto

Save insofar as the **Contract** may prescribe:

(a) the extent of portions of the **Site** of which the Contractor is to be given possession from time to time, and

(b) the order in which such portions shall be made available to the Contractor and subject to any requirement in the **Contract** as to the order in which the **Works** shall be executed, the Employer will, with the Engineer's notice to commence the **Works**, give to the Contractor possession of

(c) so much of the **Site**, and

(d) such access as, in accordance with the **Contract**, is to be provided by the Employer as may be required to enable the Contractor to commence and proceed with the execution of the **Works** in accordance with the programme referred to in **Clause 14**, if any, and otherwise in accordance with such reasonable proposals as the Contractor shall, by notice to the Engineer with a copy to the Employer, make. The Employer will, from time to time as the **Works** proceed, give to the Contractor possession of such further portions of the **Site** as may be required to enable the Contractor to proceed with the execution of the **Works** with due dispatch in accordance with such programme or proposals, as the case may be.

42.2 Failure to Give Possession

If the Contractor suffers delay and/or incurs costs from failure on the part of the Employer to give possession in accordance with the terms of **Sub-Clause 42.1**, the Engineer shall, after due consultation with the Employer and the Contractor, determine:

(a) any extension of time to which the Contractor is entitled under **Clause 44**, and

(b) the amount of such costs, which shall be added to the **Contract Price**, and shall notify the Contractor accordingly, with a copy to the Employer.

42.3 Rights of Way and Facilities

The Contractor shall bear all costs and charges for special or temporary rights of way required by him in connection with access to the **Site**. The Contractor shall also provide at his own **cost** any additional facilities outside the **Site** required by him for the purposes of the **Works**.

43.1 Time for Completion

The whole of the **Works** and, if applicable, any **Section** required to be completed within a particular time as stated in the **Appendix to Tender**, shall be completed, in accordance with the provisions of **Clause 48**, within the time stated in the **Appendix to Tender** for the whole of the **Works** or the **Section** (as the case may be), calculated from the **Commencement Date**, or such extended time as may be allowed under **Clause 44**.

44.1 Extension of Time for Completion

In the event of

- (a) the amount or nature of extra or additional work, or
- (b) any cause of delay referred to in these Conditions, or
- (c) exceptionally adverse climatic conditions, or
- (d) any delay, impediment or prevention by the Employer, or
- (e) other special circumstances which may occur, other than through a default of or breach of contract by the Contractor or for which he is responsible,

being such as fairly to entitle the Contractor to an extension of the **Time for Completion** of the **Works**, or any **Section** or part thereof, the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount of such extension and shall notify the Contractor accordingly, with a copy to the Employer.

44.2 Contractor to Provide Notification and Detailed Particulars

Provided that the Engineer is not bound to make any determination unless the Contractor has

- (a) within 28 days after such event has first arisen notified the Engineer with the Employer, and
- (b) within 28 days, or such other reasonable time as may be agreed by the Engineer, after

such notification submitted to the Engineer detailed particulars of any extension of time to which he may consider himself entitled in order that such submission may be investigated at the time.

44.3 Interim Determination of Extension

Provided also that where an event has a continuing effect such that it is not practicable for the Contractor to submit detailed particulars within the period of 28 days referred to in **Sub-Clause 44.2(b)**, he shall nevertheless be entitled to an extension of time provided that he has submitted to the Engineer interim particulars at intervals of not more than 28 days and final particulars within 28 days of the end of the effects resulting from the event. On receipt of such interim particulars, the Engineer shall, without undue delay, make an interim determination of extension of time and, on receipt of the final particulars, the Engineer shall review all the circumstances and shall determine an overall extension of time in regard to the event. In both such cases the Engineer shall notify the Contractor accordingly, with a copy to the Employer. No final review shall result in a decrease of any extension of time already determined by the Engineer.

45.1 Restriction on Working Hours

Subject to any provision to the contrary contained in the **Contract**, none of the **Works** shall, save as hereinafter provided, be carried on during the night or on locally recognised days of rest without the consent of the Engineer, except when work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the **Works**, in which case the Contractor shall immediately advise the Engineer. Provided that the provisions of this Clause shall not be applicable in the case of any work which it is customary to carry out by multiple shifts.

46.1 Rate of Progress

If for any reason, which does not entitle the Contractor to an extension of time, the rate of progress of the **Works** or any **Section** is at any time, in the opinion of the Engineer, too slow to comply with the **Time for Completion**, the Engineer shall so notify the Contractor who shall thereupon take such steps as are necessary, subject to the consent of the Engineer, to expedite progress so as to comply with the **Time for Completion**. The Contractor shall not be entitled to any additional payment for taking such steps. If, as a result of any notice given by the Engineer under this Clause, the Contractor considers that it is necessary to do any work at night or on locally recognised days of rest, he shall be entitled to seek the consent of the Engineer so to do. Provided that if any steps, taken by the Contractor in meeting his obligations under this Clause, involve the Employer in additional supervision costs, such costs shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

47.1 Liquidated Damages for Delay

If the Contractor fails to comply with the **Time for Completion** in accordance with **Clause 48**, for the whole of the **Works** or, if applicable, any **Section** within the relevant time prescribed by **Clause 43**, then the Contractor shall pay to the Employer the relevant sum stated in the **Appendix to Tender** as liquidated damages for such default and not as a penalty (which sum shall be the only monies due from the Contractor for such default) for every **day** or part of a **day** which shall elapse between the relevant **Time for Completion** and the date stated in a **Taking-Over Certificate** of the whole of the **Works** or the relevant **Section**, subject to the applicable limit stated in the **Appendix to Tender**. The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies due or to become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the **Works**, or from any other of his obligations and liabilities under the **Contract**.

47.2 Reduction of Liquidated Damages

If, before the **Time for Completion** of the whole of the **Works** or, if applicable, any **Section**, a **Taking-Over Certificate** has been issued for any part of the **Works** or of a **Section**, the liquidated damages for delay in completion of the remainder of the **Works** or of that **Section** shall, for any period of delay after the date stated in such **Taking-Over Certificate**, and in the absence of alternative provisions in the **Contract**, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the **Works** or **Section**, as applicable. The provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

48.1 Taking-Over Certificate

When the whole of the **Works** have been substantially completed and have satisfactorily passed any **Tests on Completion** prescribed by the **Contract**, the Contractor may give a notice to that effect to the Engineer, with a copy to the Employer, accompanied by a written undertaking to finish with due expedition any outstanding work during the **Defects Liability Period**. Such notice and undertaking shall be deemed to be a request by the Contractor for the Engineer to issue a **Taking-Over Certificate** in respect of the **Works**. The Engineer shall, within 21 days of the date of delivery of such notice, either issue to the Contractor, with a copy to the Employer, a **Taking-Over Certificate**, stating the date on which, in his opinion, the **Works** were substantially completed in accordance with the **Contract**, or give instructions in **writing** to the Contractor specifying all the work which, in the Engineer's opinion, is required to be done by the Contractor before the issue of such Certificate. The Engineer shall also notify the Contractor of any defects in the **Works** affecting substantial completion that may appear after such instructions and before completion of the **Works** specified therein. The Contractor shall be entitled to receive such **Taking-Over Certificate** within 21 days of completion, to the satisfaction of the Engineer, of the **Works** so specified and remedying any defects so notified.

48.2 Taking-Over of Sections or Parts

Similarly, in accordance with the procedure set out in **Sub-Clause 48.1**, the Contractor may request and the Engineer shall issue a **Taking-Over Certificate** in respect of:

- (a) any **Section** in respect of which a separate **Time for Completion** is provided in the **Appendix to Tender**, or
- (b) any substantial part of the **Permanent Works** which has been both completed to the satisfaction of the Engineer and, otherwise than as provided for in the **Contract**, occupied or used by the Employer, or
- (c) any part of the **Permanent Works** which the Employer has elected to occupy or use prior to completion (where such prior occupation or use is not provided for in the **Contract** or has not been agreed by the Contractor as a temporary measure).

48.3 Substantial Completion of Parts

If any part of the **Permanent Works** has been substantially completed and has satisfactorily passed any **Tests on Completion** prescribed by the **Contract**, the Engineer may issue a **Taking-Over Certificate** in respect of that part of the **Permanent Works** before completion of the whole of the **Works** and, upon the issue of such Certificate, the Contractor shall be deemed to have undertaken to complete with due expedition any outstanding work in that part of the **Permanent Works** during the **Defects Liability Period**.

48.4 Surfaces Requiring Reinstatement

Provided that a **Taking-Over Certificate** given in respect of any **Section** or part of the **Permanent Works** before completion of the whole of the **Works** shall not be deemed to certify completion of any ground or surfaces requiring reinstatement, unless such **Taking-Over Certificate** shall expressly so state.

DEFECTS LIABILITY

49.1 Defects Liability Period

In these Conditions the expression "Defects Liability Period" shall mean the defects liability period named in the **Appendix to Tender**, calculated from:

- (a) the date of substantial completion of the **Works** certified by the Engineer in accordance with **Clause 48**, or
- (b) in the event of more than one certificate having been issued by the Engineer under **Clause 48**, the respective dates so certified

and in relation to the Defects Liability Period the expression "the **Works**" shall be construed accordingly.

49.2 Completion of Outstanding Work and Remedying Defects

To the intent that the **Works** shall, at or as soon as practicable after the expiration of the **Defects Liability Period**, be delivered to the Employer in the condition required by the **Contract**, fair wear and tear excepted, to the satisfaction of the Engineer, the Contractor shall:

- (a) complete the work, if any, outstanding on the date stated in the **Taking-Over Certificate** as soon as practicable after such date and
- (b) execute all such work of amendment, reconstruction, and remedying defects, shrinkages or other faults as the Engineer may, during the **Defects Liability Period** or within 14 days after its expiration, as a result of an inspection made by or on behalf of the Engineer prior to its expiration, instruct the Contractor to execute.

49.3 Cost of Remedying Defects

All work referred to in **Sub-Clause 49.2(b)** shall be executed by the Contractor at his own **cost** if the necessity thereof is, in the opinion of the Engineer, due to:

- (a) the use of materials, **Plant** or workmanship not in accordance with the **Contract**, or
- (b) where the Contractor is responsible for the design of part of the **Permanent Works**, any fault in such design, or
- (c) the neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the **Contract**.

If, in the opinion of the Engineer, such necessity is due to any other cause, he shall determine

an addition to the **Contract Price** in accordance with **Clause 52** and shall notify the Contractor accordingly, with a copy to the Employer.

49.4 Contractor's Failure to Carry Out Instructions

In case of default on the part of the Contractor in carrying out such instruction within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and if such work is work which, in the opinion of the Engineer, the Contractor was liable to do at his own **cost** under the **Contract**, then all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

50.1 Contractor to Search

If any defect, shrinkage or other fault in the **Works** appears at any time prior to the end of the **Defects Liability Period**, the Engineer may instruct the Contractor, with copy to the Employer, to search under the directions of the Engineer for the cause thereof. Unless such defect, shrinkage or other fault is one for which the Contractor is liable under the **Contract**, the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount in respect of the costs of such search incurred by the Contractor, which shall be added to the **Contract Price** and shall notify the Contractor accordingly, with a copy to the Employer. If such defect, shrinkage or other fault is one for which the Contractor is liable, the **cost** of the work carried out in searching as aforesaid shall be borne by the Contractor and he shall in such case remedy such defect, shrinkage or other fault at his own **cost** in accordance with the provisions of **Clause 49**.

DEFECTS LIABILITY

49.1 Defects Liability Period

In these Conditions the expression "Defects Liability Period" shall mean the defects liability period named in the **Appendix to Tender**, calculated from:

- (a) the date of substantial completion of the **Works** certified by the Engineer in accordance with **Clause 48**, or
- (b) in the event of more than one certificate having been issued by the Engineer under **Clause 48**, the respective dates so certified

and in relation to the Defects Liability Period the expression "the **Works**" shall be construed accordingly.

49.2 Completion of Outstanding Work and Remedying Defects

To the intent that the **Works** shall, at or as soon as practicable after the expiration of the **Defects Liability Period**, be delivered to the Employer in the condition required by the **Contract**, fair wear and tear excepted, to the satisfaction of the Engineer, the Contractor shall:

- (a) complete the work, if any, outstanding on the date stated in the **Taking-Over Certificate** as soon as practicable after such date and
- (b) execute all such work of amendment, reconstruction, and remedying defects, shrinkages or other faults as the Engineer may, during the **Defects Liability Period** or within 14 days after its expiration, as a result of an inspection made by or on behalf of the Engineer prior to its expiration, instruct the Contractor to execute.

49.3 Cost of Remedying Defects

All work referred to in **Sub-Clause 49.2(b)** shall be executed by the Contractor at his own **cost** if the necessity thereof is, in the opinion of the Engineer, due to:

- (a) the use of materials, **Plant** or workmanship not in accordance with the **Contract**, or
- (b) where the Contractor is responsible for the design of part of the **Permanent Works**, any fault in such design, or
- (c) the neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the **Contract**.

If, in the opinion of the Engineer, such necessity is due to any other cause, he shall determine

an addition to the **Contract Price** in accordance with **Clause 52** and shall notify the Contractor accordingly, with a copy to the Employer.

49.4 Contractor's Failure to Carry Out Instructions

In case of default on the part of the Contractor in carrying out such instruction within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and if such work is work which, in the opinion of the Engineer, the Contractor was liable to do at his own **cost** under the **Contract**, then all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

50.1 Contractor to Search

If any defect, shrinkage or other fault in the **Works** appears at any time prior to the end of the **Defects Liability Period**, the Engineer may instruct the Contractor, with copy to the Employer, to search under the directions of the Engineer for the cause thereof. Unless such defect, shrinkage or other fault is one for which the Contractor is liable under the **Contract**, the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount in respect of the costs of such search incurred by the Contractor, which shall be added to the **Contract Price** and shall notify the Contractor accordingly, with a copy to the Employer. If such defect, shrinkage or other fault is one for which the Contractor is liable, the **cost** of the work carried out in searching as aforesaid shall be borne by the Contractor and he shall in such case remedy such defect, shrinkage or other fault at his own **cost** in accordance with the provisions of **Clause 49**.

ALTERATIONS, ADDITIONS AND OMISSIONS

51.1 Variations

The Engineer shall make any variation of the form, quality or quantity of the **Works** or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any other reason it shall, in his opinion, be appropriate, he shall have the authority to instruct the Contractor to do and the Contractor shall do any of the following:

- (a) increase or decrease the quantity of any work included in the **Contract**,
- (b) omit any such work (but not if the omitted work is to be carried out by the Employer or by another contractor),
- (c) change the character or quality or kind of any such work,
- (d) change the levels, lines, position and dimensions of any part of the **Works**,
- (e) execute additional work of any kind necessary for the completion of the **Works**,
- (f) change any specified sequence or timing of construction of any part of the **Works**.

No such variation shall in any way vitiate or invalidate the **Contract**, but the effect, if any, of all such variations shall be valued in accordance with **Clause 52**. Provided that where the issue of an instruction to vary the **Works** is necessitated by some default of or breach of contract by the Contractor or for which he is responsible, any additional **cost** attributable to such default shall be borne by the Contractor.

51.2 Instructions for Variations

The Contractor shall not make any such variation without an instruction of the Engineer. Provided that no instruction shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an instruction given under this Clause, but is the result of the quantities exceeding or being less than those stated in the **Bill of Quantities**.

52.1 Valuation of Variations

All variations referred to in **Clause 51** and any additions to the **Contract Price** which are required to be determined in accordance with **Clause 52** (for the purposes of this Clause referred to as "varied work"), shall be valued at the rates and prices set out in the **Contract** if, in the opinion of the Engineer, the same shall be applicable. If the **Contract** does not contain any rates or prices applicable to the varied work, the rates and prices in the **Contract** shall be used as the basis for valuation so far as may be reasonable, failing which, after due consultation by the Engineer with the Employer and the Contractor, suitable rates or prices

shall be agreed upon between the Engineer and the Contractor. In the event of disagreement the Engineer shall fix such rates or prices as are, in his opinion, appropriate and shall notify the Contractor accordingly, with a copy to the Employer. Until such time as rates or prices are agreed or fixed, the Engineer shall determine provisional rates or prices to enable on-account payments to be included in certificates issued in accordance with **Clause 60**.

52.2 Power of Engineer to Fix Rates

Provided that if the nature or amount of any varied work relative to the nature or amount of the whole of the **Works** or to any part thereof, is such that, in the opinion of the Engineer, the rate or price contained in the **Contract** for any item of the **Works** is, by reason of such varied work, rendered inappropriate or inapplicable, then, after due consultation by the Engineer with the Employer and the Contractor, a suitable rate or price shall be agreed upon between the Engineer and the Contractor. In the event of disagreement the Engineer shall fix such other rate or price as is, in his opinion, appropriate and shall notify the Contractor accordingly, with a copy to the Employer. Until such time as rates or prices are agreed or fixed, the Engineer shall determine provisional rates or prices to enable on-account payments to be included in certificates issued in accordance with **Clause 60**.

Provided also that no varied work instructed to be done by the Engineer pursuant to **Clause 51** shall be valued under **Sub-Clause 52.1** or under this Sub-Clause unless, within 14 days of the date of such instruction and, other than in the case of omitted work, before the commencement of the varied work, notice shall have been given either:

- (a) by the Contractor to the Engineer of his intention to claim extra payment or a varied rate or price, or
- (b) by the Engineer to the Contractor of his intention to vary a rate or price.

52.3 Variations Exceeding 15 percent

If, on the issue of the **Taking-Over Certificate** for the whole of the **Works**, it is found that as a result of:

- (a) all varied work valued under Sub **Clauses 52.1** and **52.2**, and
- (b) all adjustments upon measurement of the estimated quantities set out in the **Bill of Quantities**, excluding Provisional Sums, dayworks and adjustments of price made under **Clause 70**,

but not from any other cause, there have been additions to or deductions from the **Contract Price** which taken together are in excess of 15 per cent of the "Effective **Contract Price**" (which for the purposes of this Sub-Clause shall mean the **Contract Price**, excluding Provisional Sums and allowance for dayworks, if any) then and in such event (subject to any action already taken under any other Sub-Clause of this Clause), after due consultation by the Engineer with the Employer and the Contractor, there shall be added to or deducted from the

Contract Price such further sum as may be agreed between the Contractor and the Engineer or, failing agreement, determined by the Engineer having regard to the Contractor's **Site** and general overhead costs of the **Contract**. The Engineer shall notify the Contractor of any determination made under this Sub-Clause, with a copy to the Employer. Such sum shall be based only on the amount by which such additions or deductions shall be in excess of 15 per cent of the Effective **Contract Price**.

52.4 Daywork

The Engineer may, if in his opinion it is necessary or desirable, issue an instruction that any varied work shall be executed on a daywork basis. The Contractor shall then be paid for such varied work under the terms set out in the daywork schedule included in the **Contract** and at the rates and prices affixed thereto by him in the **Tender**.

The Contractor shall furnish to the Engineer such receipts or other vouchers as may be necessary to prove the amounts paid and, before ordering materials, shall submit to the Engineer quotations for the same for his approval.

In respect of such of the **Works** executed on a daywork basis, the Contractor shall, during the continuance of such work, deliver each **day** to the Engineer an exact list in duplicate of the names, occupation and time of all workmen employed on such work and a statement, also in duplicate, showing the description and quantity of all materials and **Contractor's Equipment** used thereon or therefor other than **Contractor's Equipment** which is included in the percentage addition in accordance with such daywork schedule. One copy of each list and statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor.

At the end of each month the Contractor shall deliver to the Engineer a priced statement of the labour, materials and **Contractor's Equipment**, except as aforesaid, used and the Contractor shall not be entitled to any payment unless such lists and statements have been fully and punctually rendered. Provided always that if the Engineer considers that for any reason the sending of such lists or statements by the Contractor, in accordance with the foregoing provision, was impracticable he shall nevertheless be entitled to authorise payment for such work, either as daywork, on being satisfied as to the time employed and the labour, materials and **Contractor's Equipment** used on such work, or at such value therefor as shall, in his opinion, be fair and reasonable.

PROCEDURE FOR CLAIMS

53.1 Notice of Claims

Notwithstanding any other provision of the **Contract**, if the Contractor intends to claim any additional payment pursuant to any Clause of these Conditions or otherwise, he shall give notice of his intention to the Engineer, with a copy to the Employer, within 28 days after the event giving rise to the claim has first arisen.

53.2 Contemporary Records

Upon the happening of the event referred to in **Sub-Clause 53.1**, the Contractor shall keep such contemporary records as may reasonably be necessary to support any claim he may subsequently wish to make. Without necessarily admitting the Employer's liability, the Engineer shall, on receipt of a notice under **Sub-Clause 53.1**, inspect such contemporary records and may instruct the Contractor to keep any further contemporary records as are reasonable and may be material to the claim of which notice has been given. The Contractor shall permit the Engineer to inspect all records kept pursuant to this Sub-Clause and shall supply him with copies thereof as and when the Engineer so instructs.

53.3 Substantiation of Claims

Within 28 days, or such other reasonable time as may be agreed by the Engineer, of giving notice under **Sub-Clause 53.1**, the Contractor shall send to the Engineer an account giving detailed particulars of the amount claimed and the grounds upon which the claim is based. Where the event giving rise to the claim has a continuing effect, such account shall be considered to be an interim account and the Contractor shall, at such intervals as the Engineer may reasonably require, send further interim accounts giving the accumulated amount of the claim and any further grounds upon which it is based. In cases where interim accounts are sent to the Engineer, the Contractor shall send a final account within 28 days of the end of the effects resulting from the event. The Contractor shall, if required by the Engineer so to do, copy to the Employer all accounts sent to the Engineer pursuant to this Sub-Clause.

53.4 Failure to Comply

If the Contractor fails to comply with any of the provisions of this Clause in respect of any claim which he seeks to make, his entitlement to payment in respect thereof shall not exceed such amount as the Employer or any arbitrator or arbitrators appointed pursuant to **Sub-Clause 67.3** assessing the claim considers to be verified by contemporary records (whether or not such records were brought to the Employer's notice as required under **Sub-Clauses 53.2** and **53.3**).

53.5 Payment of Claims

The Contractor shall be entitled to have included in any interim payment certified by the Engineer pursuant to **Clause 60** such amount in respect of any claim as the Engineer, after due consultation with the Employer and the Contractor, may consider due to the Contractor provided that the Contractor has supplied sufficient particulars to enable the Engineer to determine the amount due. If such particulars are insufficient to substantiate the whole of the claim, the Contractor shall be entitled to payment in respect of such part of the claim as such particulars may substantiate to the satisfaction of the Engineer. The Engineer shall notify the Contractor of any determination made under this Sub-Clause, with a copy to the Employer.

CONTRACTOR'S EQUIPMENT, TEMPORARY WORKS AND MATERIALS

54.1 Contractor's Equipment, Temporary Works and Materials; Exclusive Use for the Works

All **Contractor's Equipment, Temporary Works** and materials provided by the Contractor shall, when brought on to the **Site**, be deemed to be exclusively intended for the execution of the **Works** and the Contractor shall not remove the; same or any part thereof, except for the purpose of moving it from one part of the **Site** to another, without the consent of the Engineer. Provided that consent shall not be required for vehicles engaged in transporting any staff, labour, **Contractor's Equipment, Temporary Works, Plant** or materials to or from the **Site**.

54.2 Employer not Liable for Damage

The Employer shall not at any time be liable, save as mentioned in **Clauses 20** and **65**, for the loss of or damage to any of the said **Contractor's Equipment, Temporary Works** or materials.

54.3 Customs Clearance

The Employer will use his best endeavours in assisting the Contractor, where required, in obtaining clearance through the Customs of **Contractor's Equipment**, materials and other things required for the **Works**.

54.4 Re-export of Contractor's Equipment

In respect of any **Contractor's Equipment** which the Contractor has imported for the purposes of the **Works**, the Employer will use his best endeavours to assist the Contractor, where required, in procuring any necessary Government consent to the re-export of such **Contractor's Equipment** by the Contractor upon the removal thereof pursuant to the terms of the contract.

54.5 Conditions of Hire of Contractor's Equipment

With a view to securing, in the event of termination under **Clause 63**, the continued availability, for the purpose of executing the **Works**, of any hired **Contractor's Equipment**, the Contractor shall not bring on to the **Site** any hired **Contractor's Equipment** unless there is an agreement for the hire thereof (which agreement shall be deemed not to include an agreement for hire purchase) which contains a provision that the owner thereof will, on request in **writing** made by the Employer within 7 days after the date on which any termination has become effective, and on the Employer undertaking to pay all hire charges in respect thereof from such date, hire such **Contractor's Equipment** to the Employer on the

same terms in all respects as the same was hired to the Contractor save that the Employer shall be entitled to permit the use thereof by any other contractor employed by him for the purpose of executing and completing the **Works** and remedying any defects therein, under the terms of the said **Clause 63**.

54.6 Costs for the Purpose of Clause 63

In the event of the Employer entering into any agreement for the hire of **Contractor's Equipment** pursuant to **Sub-Clause 54.5**, all sums properly paid by the Employer under the provisions of any such agreement and all costs incurred by him (including stamp duties) in entering into such agreement shall be deemed, for the purpose of **Clause 63**, to be part of the **cost** of executing and completing the **Works** and the remedying of any defects therein.

54.7 Incorporation of Clause in Subcontracts

The Contractor shall, where entering into any subcontract for the execution of any part of the **Works**, incorporate in such subcontract (by reference or otherwise) the provisions of this Clause in relation to **Contractor's Equipment**, **Temporary Works** or materials brought on to the **Site** by the Subcontractor.

54.8 Approval of Materials not Implied

The operation of this Clause shall not be deemed to imply any approval by the Engineer of the materials or other matters referred to therein nor shall it prevent the rejection of any such materials at any time by the Engineer.

MEASUREMENT

55.1 Quantities

The quantities set out in the **Bill of Quantities** are the estimated quantities for the **Works**, and they are not to be taken as the actual and correct quantities of the **Works** to be executed by the Contractor in fulfilment of his obligations under the **Contract**.

56.1 Works to be Measured

The Engineer shall, except as otherwise stated, ascertain and determine by measurement the value of the **Works** in accordance with the **Contract** and the Contractor shall be paid that value in accordance with **Clause 60**. The Engineer shall, when he requires any part of the **Works** to be measured, give reasonable notice to the Contractor's authorised agent, who shall:

(a) forthwith attend or send a qualified representative to assist the Engineer in making such measurement, and

(b) supply all particulars required by the Engineer.

Should the Contractor not attend, or neglect or omit to send such representative, then the measurement made by the Engineer or approved by him shall be taken to be the correct measurement of such part of the **Works**. For the purpose of measuring such **Permanent Works** as are to be measured by records and drawings, the Engineer shall prepare records and drawings as the work proceeds and the Contractor, as and when called upon to do so in **writing**, shall, within 14 days, attend to examine and agree such records and drawings with the Engineer and shall sign the same when so agreed. If the Contractor does not attend to examine and agree such records and drawings, they shall be taken to be correct. If, after examination of such records and drawings, the Contractor does not agree the same or does not sign the same as agreed, they shall nevertheless be taken to be correct, unless the Contractor, within 14 days of such examination, lodges with the Engineer notice of the respects in which such records and drawings are claimed by him to be incorrect. On receipt of such notice, the Engineer shall review the records and drawings and either confirm or vary them.

57.1 Method of Measurement

The **Works** shall be measured net, notwithstanding any general or local custom, except where otherwise provided for in the **Contract**.

57.2 Breakdown of Lump Sum Items For the purposes of statements submitted in accordance with **Sub-Clause 60.1**, the

Contractor shall submit to the Engineer, within 28 days after the receipt of the **Letter of Acceptance**, a breakdown for each of the lump sum items contained in the **Tender**. Such breakdowns shall be subject to the approval of the Engineer.

PROVISIONAL SUMS

58.1 Definition of "Provisional Sum"

"Provisional Sum" means a sum included in the **Contract** and so designated in the **Bill of Quantities** for the execution of any part of the **Works** or for the supply of goods, materials, **Plant** or services, or for contingencies, which sum may be used, in whole or in part, or not at all, on the instructions of the Engineer. The Contractor shall be entitled to only such amounts in respect of the work, supply or contingencies to which such Provisional Sums relate as the Engineer shall determine in accordance with this Clause. The Engineer shall notify the Contractor of any determination made under this Sub-Clause, with a copy to the Employer.

58.2 Use of Provisional Sums

In respect of every Provisional Sum the Engineer shall have authority to issue instructions for the execution of work or for the supply of goods, materials, **Plant** or services by:

(a) the Contractor, in which case the Contractor shall be entitled to an amount equal to the value thereof determined in accordance with **Clause 52**,

(b) a **nominated Subcontractor**, as hereinafter defined, in which case the sum to be paid to the Contractor therefor shall be determined and paid in accordance with **Sub-Clause 59.4**.

58.3 Production of Vouchers

The Contractor shall produce to the Engineer all quotations, invoices, vouchers and accounts or receipts in connection with expenditure in respect of Provisional Sums, except where work is valued in accordance with rates or prices set out in the **Tender**.

NOMINATED SUBCONTRACTORS

59.1 Definition of "Nominated Subcontractors"

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

59.2 Nominated Subcontractors; Objection to Nomination

The Contractor shall not be required by the Employer or the Engineer, or be deemed to be under any obligation, to employ any **nominated Subcontractor** against whom the Contractor may raise reasonable objection, or who declines to enter into a subcontract with the Contractor containing provisions:

(a) that in respect of the work, goods, materials, **Plant** or services the subject of the subcontract, the **nominated Subcontractor** will undertake towards the Contractor such obligations and liabilities as will enable the Contractor to discharge his own obligations and liabilities towards the Employer under the terms of the **Contract** and will save harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection therewith, or arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities, and

(b) that the **nominated Subcontractor** will save harmless and indemnify the Contractor from and against any negligence by the **nominated Subcontractor**, his agents, workmen and servants and from and against any misuse by him or them of any **Temporary Works** provided by the Contractor for the purposes of the **Contract** and from all claims as aforesaid.

59.3 Design Requirements to be Expressly Stated

If in connection with any Provisional Sum the services to be provided include any matter of design or specification of any part of the **Permanent Works** or of any plant to be incorporated therein, such requirement shall be expressly stated in the **Contract** and shall be included in any nominated Subcontract. The nominated Subcontract shall specify that the **nominated Subcontractor** providing such services will save harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities.

59.4 Payments to Nominated Subcontractors

For all work executed or goods, materials, **Plant** or services supplied by any **nominated Subcontractor**, the Contractor shall be entitled to:

- (a) the actual price paid or due to be paid by the Contractor, on the instructions of the Engineer, and in accordance with the subcontract;
- (b) in respect of labour supplied by the Contractor, the sum, if any, entered in the **Bill of Quantities** or, if instructed by the Engineer pursuant to paragraph (a) of **Sub-Clause 58.2**, as may be determined in accordance with **Clause 52**;
- (c) in respect of all other charges and profit, a sum being a percentage rate of the actual price paid or due to be paid calculated, where provision has been made in the **Bill of Quantities** for a rate to be set against the relevant Provisional Sum, at the rate inserted by the Contractor against that item or, where no such provision has been made, at the rate inserted by the Contractor in the **Appendix to Tender** and repeated where provision for such is made in a special item provided in the **Bill of Quantities** for such purpose.

59.5 Certification of Payments to Nominated Subcontractors

Before issuing, under **Clause 60**, any certificate, which includes any payment in respect of work done or goods, materials, **Plant** or services supplied by any **nominated Subcontractor**, the Engineer shall be entitled to demand from the Contractor reasonable proof that all payments, less retentions, included in previous certificates in respect of the work or goods, materials, **Plant** or services of such **nominated Subcontractor** have been paid or discharged by the Contractor. If the Contractor fails to supply such proof then, unless the Contractor

- (a) satisfies the Engineer in **writing** that he has reasonable cause for withholding or refusing to make such payments and
- (b) produces to the Engineer reasonable proof that he has so informed such **nominated Subcontractor** in **writing**,

the Employer shall be entitled to pay to such **nominated Subcontractor** direct, upon the certificate of the Engineer, all payments, less retentions, provided for in the nominated Subcontract, which the Contractor has failed to make to such **nominated Subcontractor** and to deduct by way of set-off the amount so paid by the Employer from any sums due or to become due from the Employer to the Contractor. Provided that, where the Engineer has certified and the Employer has paid direct as aforesaid, the Engineer shall, in issuing any further certificate in favour of the Contractor, deduct from the amount thereof the amount so paid, direct as aforesaid, but shall not withhold or delay the issue of the certificate itself when due to be issued under the terms of the **Contract**.

CERTIFICATES AND PAYMENT

60.1 Monthly Statements

The Contractor shall submit to the Engineer after the end of each month six copies, each signed by the Contractor's representative approved by the Engineer in accordance with **Sub-Clause 15.1**, of a statement, in such form as the Engineer may from time to time prescribe, showing the amounts to which the Contractor considers himself to be entitled up to the end of the month in respect of

- (a) the value of the **Permanent Works** executed
- (b) any other items in the **Bill of Quantities** including those for **Contractor's Equipment, Temporary Works**, dayworks and the like
- (c) the percentage of the invoice value of listed materials, all as stated in the **Appendix to Tender**, and **Plant** delivered by the Contractor on the **Site** for incorporation in the **Permanent Works** but not incorporated in such **Works**
- (d) adjustments under **Clause 70**
- (e) any other sum to which the Contractor may be entitled under the **Contract** or otherwise.

60.2 Monthly Payments

The Engineer shall, within 28 days of receiving such statement, deliver to the Employer an **Interim Payment Certificate** stating the amount of payment to the Contractor which the Engineer considers due and payable in respect of such statement, subject:

- (a) firstly, to the retention of the amount calculated by applying the Percentage of Retention stated in the **Appendix to Tender**, to the amount to which the Contractor is entitled under paragraphs (a), (b), (c) and (e) of **Sub-Clause 60.1** until the amount so retained reaches the limit of **Retention Money** stated in the **Appendix to Tender**, and
- (b) secondly, to the deduction, other than pursuant to **Clause 47**, of any sums which may have become due and payable by the Contractor to the Employer.

Provided that the Engineer shall not be bound to certify any payment under this Sub-Clause if the net amount thereof, after all retentions and deductions, would be less than the Minimum Amount of **Interim Payment Certificates** stated in the **Appendix to Tender**.

Notwithstanding the terms of this Clause or any other Clause of the **Contract** no amount will be certified by the Engineer for payment until the performance security, if required under the **Contract**, has been provided by the Contractor and approved by the Employer.

60.3 Payment of Retention Money

Upon the issue of the **Taking-Over Certificate** with respect to the whole of the **Works**, one half of the **Retention Money**, or upon the issue of a **Taking-Over Certificate** with respect to a **Section** or part of the **Permanent Works** only such proportion thereof as the Engineer determines having regard to the relative value of such **Section** or part of the **Permanent Works**, shall be certified by the Engineer for payment to the Contractor.

(b) Upon the expiration of the **Defects Liability Period** for the **Works** the other half of the **Retention Money** shall be certified by the Engineer for payment to the Contractor. Provided that, in the event of different **Defects Liability Periods** having become applicable to different Sections or parts of the **Permanent Works** pursuant to **Clause 48**, the expression "expiration of the **Defects Liability Period**" shall, for the purposes of this Sub-Clause, be deemed to mean the expiration of the latest of such periods. Provided also that if at such time, there shall remain to be executed by the Contractor any work instructed, pursuant to **Clauses 49** and **50**, in respect of the **Works**, the Engineer shall be entitled to withhold certification until completion of such work of so much of the balance of the **Retention Money** as shall, in the opinion of the Engineer, represent the **cost** of the work remaining to be executed.

60.4 Correction of Certificates

The Engineer may by any **Interim Payment Certificate** make any correction or modification in any previous **Interim Payment Certificate** which shall have been issued by him and shall have authority, if any work is not being carried out to his satisfaction, to omit or reduce the value of such work in any **Interim Payment Certificate**.

60.5 Statement at Completion

Not later than 84 days after the issue of the **Taking-Over Certificate** in respect of the whole of the **Works**, the Contractor shall submit to the Engineer six copies of a Statement at Completion with supporting documents showing in detail, in the form approved by the Engineer,

(a) the final value of all work done in accordance with the **Contract** up to the date stated in such **Taking-Over Certificate**

(b) any further sums which the Contractor considers to be due and

(c) an estimate of amounts which the Contractor considers will become due to him under the **Contract**.

The estimated amounts shall be shown separately in such Statement at Completion. The Engineer shall certify payment in accordance with **Sub-Clause 60.2**.

60.6 Final Statement

Not later than 56 days after the issue of the Defects Liability Certificate pursuant to **Sub-Clause 62.1**, the Contractor shall submit to the Engineer for consideration six copies of a draft final statement with supporting documents showing in detail, in the form approved by the Engineer,

- (a) the value of all work done in accordance with the **Contract** and
- (b) any further sums which the Contractor considers to be due to him under the **Contract** or otherwise.

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed (for the purposes of these Conditions referred to as the "Final Statement").

60.7 Discharge

Upon submission of the Final Statement, the Contractor shall give to the Employer, with a copy to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the **Contract**. Provided that such discharge shall become effective only after payment due under the **Final Payment Certificate** issued pursuant to **Sub-Clause 60.8** has been made and the performance security referred to in **Sub-Clause 10.1**, if any, has been returned to the Contractor.

60.8 Final Payment Certificate

Within 28 days after receipt of the Final Statement, and the written discharge, the Engineer shall issue to the Employer (with a copy to the Contractor) a **Final Payment Certificate** stating

- (a) the amount which, in the opinion of the Engineer, is finally due under the **Contract** or otherwise, and
- (b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, other than under **Clause 47**, the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer as the case may be.

60.9 Cessation of Employer's Liability

The Employer shall not be liable to the Contractor for any matter or thing arising out of or in

connection with the **Contract** or execution of the **Works**, unless the Contractor shall have included a claim in respect thereof in his Final Statement and (except in respect of matters or things arising after the issue of the Taking Over Certificate in respect of the whole of the **Works**) in the Statement at Completion referred to in **Sub-Clause 60.5**.

60.10 Time for Payment

The amount due to the Contractor under any **Interim Payment Certificate** issued by the Engineer pursuant to this Clause, or to any other term of the **Contract**, shall, subject to **Clause 47**, be paid by the Employer to the Contractor within 28 days after such **Interim Payment Certificate** has been delivered to the Employer, or, in the case of the **Final Payment Certificate** referred to in **Sub-Clause 60.8**, within 56 days, after such **Final Payment Certificate** has been delivered to the Employer. In the event of the failure of the Employer to make payment within the times stated, the Employer shall pay to the Contractor interest at the rate stated in the **Appendix to Tender** upon all sums unpaid from the date by which the same should have been paid. The provisions of this Sub-Clause are without prejudice to the Contractor's entitlement under **Clause 69** or otherwise.

61.1 Approval only by Defects Liability Certificate

Only the Defects Liability Certificate, referred to in **Clause 62**, shall be deemed to constitute approval of the **Works**.

62.1 Defects Liability Certificate

The **Contract** shall not be considered completed until a Defects Liability Certificate shall have been signed by the Engineer and delivered to the Employer, with a copy to the Contractor, stating the date on which the Contractor shall have completed his obligations to execute and complete the **Works** and remedy any defects therein to the Engineer's satisfaction. The Defects Liability Certificate shall be given by the Engineer within 28 days after the expiration of the **Defects Liability Period**, or, if different **defects liability periods** shall become applicable to different Sections or parts of the **Permanent Works**, the expiration of the latest such period, or as soon thereafter as any works instructed, pursuant to **Clauses 49** and **50**, have been completed to the satisfaction of the Engineer. Provided that the issue of the Defects Liability Certificate shall not be a condition precedent to payment to the Contractor of the second portion of the **Retention Money** in accordance with the conditions set out in **Sub-Clause 60.3**.

62.2 Unfulfilled Obligations

Notwithstanding the issue of the Defects Liability Certificate the Contractor and the Employer shall remain liable for the fulfilment of any obligation incurred under the provisions of the **Contract** prior to the issue of the Defects Liability Certificate which remains unperformed at the time such Defects Liability Certificate is issued and, for the

purposes of determining the nature and extent of any such obligation, the **Contract** shall be deemed to remain in force between the parties to the **Contract**.

REMEDIES

63.1 Default of Contractor

If the Contractor is deemed by law unable to pay his debts as they fall due, or enters into voluntary or involuntary bankruptcy, liquidation or dissolution (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or becomes insolvent, or makes an arrangement with, or assignment in favour of, his creditors, or agrees to carry out the **Contract** under a committee of inspection of his creditors, or if a receiver, administrator, trustee or liquidator is appointed over any substantial part of his assets, or if, under any law or regulation relating to reorganization, arrangement or readjustment of debts, proceedings are commenced against the Contractor or resolutions passed in connection with dissolution or liquidation or if any steps are taken to enforce any security interest over a substantial part of the assets of the Contractor, or if any act is done or event occurs with respect to the Contractor or his assets which, under any applicable law has a substantially similar effect to any of the foregoing acts or events, or if the Contractor has contravened **Sub-Clause 3.1**, or has an execution levied on his goods, or if the Engineer certifies to the Employer, with a copy to the Contractor, that, in his opinion, the Contractor:

(a) has repudiated the **Contract**, or

(b) without reasonable excuse has failed

(i) to commence the **Works** in accordance with **Sub-Clause 41.1**, or

(ii) to proceed with the **Works**, or any **Section** thereof, within 28 days after receiving notice pursuant to **Sub-Clause 46.1**, or

(c) has failed to comply with a notice issued pursuant to **Sub-Clause 37.4** or an instruction issued pursuant to **Sub-Clause 39.1** within 28 days after having received it, or

(d) despite previous warning from the Engineer, in **writing**, is otherwise persistently or flagrantly neglecting to comply with any of his obligations under the **Contract**, or

(e) has contravened **Sub-Clause 4.1**,

then the Employer may, after giving 14 days' notice to the Contractor, enter upon the **Site** and the **Works** and terminate the employment of the Contractor without thereby releasing the Contractor from any of his obligations or liabilities under the **Contract**, or affecting the rights and authorities conferred on the Employer or the Engineer by the **Contract**, and may himself complete the **Works** or may employ any other contractor to complete the **Works**. The Employer or such other contractor may use for such completion so much of the **Contractor's Equipment, Temporary Works** and materials as he or they may think proper.

63.2 Valuation at Date of Termination

The Engineer shall, as soon as may be practicable after any such entry and termination by the Employer, fix and determine ex parte, or by or after reference to the parties or after such investigation or enquiries as he may think fit to make or institute, and shall certify:

(a) what amount (if any) had, at the time of such entry and termination, been reasonably earned by or would reasonably accrue to the Contractor in respect of work then actually done by him under the **Contract**, and

(b) the value of any of the said unused or partially used materials, any **Contractor's Equipment** and any **Temporary Works**.

63.3 Payment after Termination

If the Employer terminates the Contractor's employment under this Clause, he shall not be liable to pay to the Contractor any further amount (including damages) in respect of the **Contract** until the expiration of the **Defects Liability Period** and thereafter until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any) and all other expenses incurred by the Employer have been ascertained and the amount thereof certified by the Engineer. The Contractor shall then be entitled to receive only such sum (if any) as the Engineer may certify would have been payable to him upon due completion by him after deducting the said amount. If such amount exceeds the sum which would have been payable to the Contractor on due completion by him, then the Contractor shall, upon demand, pay to the Employer the amount of such excess and it shall be deemed a debt due by the Contractor to the Employer and shall be recoverable accordingly.

63.4 Assignment of Benefit of Agreement

Unless prohibited by law, the Contractor shall, if so instructed by the Engineer within 14 days of such entry and termination referred to in **Sub-Clause 63.1**, assign to the Employer the benefit of any agreement for the supply of any goods or materials or services and/or for the execution of any work for the purposes of the **Contract**, which the Contractor may have entered into.

64.1 Urgent Remedial Work

If, by reason of any accident, or failure, or other event occurring to, in, or in connection with the **Works**, or any part thereof, either during the execution of the **Works**, or during the **Defects Liability Period**, any remedial or other work is, in the opinion of the Engineer, urgently necessary for the safety of the **Works** and the Contractor is unable or unwilling at once to do such work, the Employer will be entitled to employ and pay other persons to carry out such work as the Engineer may consider necessary. If the work or repair so done by the Employer is work which, in the opinion of the Engineer, the Contractor was liable to do at his own **cost** under the **Contract**, then all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be

deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. Provided that the Engineer shall, as soon after the occurrence of any such emergency as may be reasonably practicable, notify the Contractor thereof.

SPECIAL RISKS

65.1 No Liability for Special Risks

The Contractor shall be under no liability whatsoever in consequence of any of the special risks referred to in **Sub-Clause 65.2**, whether by way of indemnity or otherwise, for or in respect of:

- (a) destruction of or damage to the **Works**, save to work condemned under the provisions of **Clause 39** prior to the occurrence of any of the said special risks, or
- (b) destruction of or damage to property, whether of the Employer or third parties, or
- (c) injury or loss of life.

65.2 Special Risks

The special risks are:

- (a) the risks defined under paragraphs (a), (c), (d) and (e) of **Sub-Clause 20.4**, and
- (b) the risks defined under paragraph (b) of **Sub-Clause 20.4** insofar as these relate to the country in which the **Works** are to be executed

65.3 Damage to Works by Special Risks

If the **Works** or any materials or **Plant** on or near or in transit to the **Site**, or any of the **Contractor's Equipment**, sustain destruction or damage by reason of the said special risks, the Contractor shall be entitled to payment in accordance with the **Contract** for any **Permanent Works** duly executed and for any materials or **Plant** so destroyed or damaged and, so far as may be required by the Engineer or as may be necessary for the completion of the **Works**, to payment for:

- (a) rectifying any such destruction or damage to the **Works**, and
- (b) replacing or rectifying such materials or **Contractor's Equipment**

and the Engineer shall determine an addition to the **Contract Price** in accordance with **Clause 52** (which shall in the case of the **cost** of replacement of **Contractor's Equipment** include the fair market value thereof as determined by the Engineer) and shall notify the Contractor accordingly, with a copy to the Employer.

65.4 Projectile, Missile

Destruction, damage, injury or loss of life caused by the explosion or impact, whenever and

wherever occurring, of any mine, bomb, shell, grenade, or other projectile, missile, munition, or explosive of war, shall be deemed to be a consequence of the said special risks.

65.5 Increased Costs arising from Special Risks

Save to the extent that the Contractor is entitled to payment under any other provision of the **Contract**, the Employer shall repay to the Contractor any costs of the execution of the **Works** (other than such as may be attributable to the **cost** of reconstructing work condemned under the provisions of **Clause 39** prior to the occurrence of any special risk) which are howsoever attributable to or consequent on or the result of or in any way whatsoever connected with the said special risks, subject however to the provisions in this Clause hereinafter contained in regard to outbreak of war, but the Contractor shall, as soon as any such **cost** comes to his knowledge, forthwith notify the Engineer thereof. The Engineer shall, after due consultation with the Employer and the Contractor, determine the amount of the Contractor's costs in respect thereof which shall be added to the **Contract Price** and shall notify the Contractor accordingly, with a copy to the Employer.

65.6 Outbreak of War

If, during the currency of the **Contract**, there is an outbreak of war, whether war is declared or not, in any part of the world which, whether financially or otherwise, materially affects the execution of the **Works**, the Contractor shall, unless and until the **Contract** is terminated under the provisions of this Clause, continue to use his best endeavours to complete the execution of the **Works**. Provided that the Employer shall be entitled, at any time after such outbreak of war, to terminate the **Contract** by giving notice to the Contractor and, upon such notice being given, the **Contract** shall, except as to the rights of the parties under this Clause and **Clause 67**, terminate, but without prejudice to the rights of either party in respect of any antecedent breach thereof.

65.7 Removal of Contractor's Equipment on Termination

If the **Contract** is terminated under the provisions of **Sub-Clause 65.6**, the Contractor shall, with all reasonable dispatch, remove from the **Site** all **Contractor's Equipment** and shall give similar facilities to his Subcontractors to do so.

65.8 Payment if Contract Terminated

If the **Contract** is terminated as aforesaid, the Contractor shall be paid by the Employer, insofar as such amounts or items have not already been covered by payments on account made to the Contractor, for all work executed prior to the date of termination at the rates and prices provided in the **Contract** and in addition:

(a) The amounts payable in respect of any preliminary items referred to in the **Bill of Quantities**, so far as the work or service comprised therein has been carried out or

performed, and a proper proportion of any such items which have been partially carried out or performed.

(b) The **cost** of materials, **Plant** or goods reasonably ordered for the **Works** which have been delivered to the Contractor or of which the Contractor is legally liable to accept delivery, such materials, **Plant** or goods becoming the property of the Employer upon such payments being made by him.

(c) A sum being the amount of any expenditure reasonably incurred by the Contractor in the expectation of completing the whole of the **Works** insofar as such expenditure has not been covered by any other payments referred to in this Sub-Clause.

(d) Any additional sum payable under the provisions of **Sub-Clauses 65.3** and **65.5**.

(e) Such proportion of the **cost** as may be reasonable, taking into account payments made or to be made for work executed, of removal of **Contractor's Equipment** under **Sub-Clause 65.7** and, if required by the Contractor, return thereof to the Contractor's main plant yard in his country of registration or to other destination, at no greater **cost**.

(f) The reasonable **cost** of repatriation of all the Contractor's staff and workmen employed on or in connection with the **Works** at the time of such termination.

Provided that against any payment due from the Employer under this Sub-Clause, the Employer shall be entitled to be credited with any outstanding balances due from the Contractor for advances in respect of **Contractor's Equipment**, materials and **Plant** and any other sums which, at the date of termination, were recoverable by the Employer from the Contractor under the terms of the **Contract**. Any sums payable under this Sub Clause shall, after due consultation with the Employer and the Contractor, be determined by the Engineer who shall notify the Contractor accordingly, with a copy to the Employer.

RELEASE FROM PERFORMANCE

66.1 Payment in Event of Release from Performance

If any circumstances outside the control of both parties arises after the issue of the **Letter of Acceptance** which renders it impossible or unlawful for either or both parties to fulfil his or their contractual obligations, or under the law governing the **Contract** the parties are released from further performance, then the parties shall be discharged from the contract, except as to their rights under this Clause and Clause 67 and without prejudice to the rights of either party in respect of any antecedent breach of the contract, and the sum payable by the Employer to the Contractor in respect of the work executed shall be the same as that which would have been payable under **Clause 65** if the **Contract** had been terminated under the provisions of **Clause 65**.

SETTLEMENT OF DISPUTES

67.1 Engineer's Decision

If a dispute of any kind whatsoever arises between the Employer and the Contractor in connection with, or arising out of, the **Contract** or the execution of the **Works**, whether during the execution of the **Works** or after their completion and whether before or after repudiation or other termination of the **Contract**, including any dispute as to any opinion, instruction, determination, certificate or valuation of the Engineer, the matter in dispute shall, in the first place, be referred in **writing** to the Engineer, with a copy to the other party. Such reference shall state that it is made pursuant to this Clause. No later than the eighty-fourth **day** after the **day** on which he received such reference the Engineer shall give notice of his decision to the Employer and the Contractor. Such decision shall state that it is made pursuant to this Clause. Unless the **Contract** has already been repudiated or terminated, the Contractor shall, in every case, continue to proceed with the **Works** with all due diligence and the Contractor and the Employer shall give effect forthwith to every such decision of the Engineer unless and until the same shall be revised, as hereinafter provided, in an amicable settlement or an arbitral award.

If either the Employer or the Contractor be dissatisfied with any decision of the Engineer, or if the Engineer fails to give notice of his decision on or before the eighty-fourth **day** after the **day** on which he received the reference, then either the Employer or the Contractor may, on or before the seventieth **day** after the **day** on which he received notice of such decision, or on or before the seventieth **day** after the **day** on which the said period of 84 days expired, as the case may be, give notice to the other party, with a copy for information to the Engineer, of his intention to commence arbitration, as hereinafter provided, as to the matter in dispute. Such notice shall establish the entitlement of the party giving the same to commence arbitration, as hereinafter provided, as to such dispute and, subject to **Sub-Clause 67.4**, no arbitration in respect thereof may be commenced unless such notice is given.

If the Engineer has given notice of his decision as to a matter in dispute to the Employer and the Contractor and no notice of intention to commence arbitration as to such dispute has been given by either the Employer or the Contractor on or before the seventieth **day** after the **day** on which the parties received notice as to such decision from the Engineer, the said decision shall become final and binding upon the Employer and the Contractor

67.2 Amicable Settlement

Where notice of intention to commence arbitration as to a dispute has been given in accordance with **Sub-Clause 67.1**, the parties shall attempt to settle such dispute amicably before the commencement of arbitration. Provided that, unless the parties otherwise agree, arbitration may be commenced on or after the fifty-sixth **day** after the **day** on which notice of intention to commence arbitration of such dispute was given, even if no attempt at amicable settlement thereof has been made.

67.3 Arbitration

Any dispute in respect of which:

(a) the decision, if any, of the Engineer has not become final and binding pursuant to **Sub-Clause 67.1** and

(b) amicable settlement has not been reached within the period stated in **Sub-Clause 67.2**

shall be finally settled, unless otherwise specified in the **Contract**, under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed under such Rules. The said arbitrator/s shall have full power to open up, review and revise any decision, opinion, instruction, determination, certificate or valuation of the Engineer related to the dispute.

Neither party shall be limited in the proceedings before such arbitrator/s to the evidence or arguments put before the Engineer for the purpose of obtaining his said decision pursuant to **Sub-Clause 67.1**. No such decision shall disqualify the Engineer from being called as a witness and giving evidence before the arbitrator/s on any matter whatsoever relevant to the dispute.

Arbitration may be commenced prior to or after completion of the **Works**, provided that the obligations of the Employer, the Engineer and the Contractor shall not be altered by reason of the arbitration being conducted during the progress of the **Works**.

67.4 Failure to Comply with Engineer's Decision

Where neither the Employer nor the Contractor has given notice of intention to commence arbitration of a dispute within the period stated in **Sub-Clause 67.1** and the related decision has become final and binding, either party may, if the other party fails to comply with such decision, and without prejudice to any other rights it may have, refer the failure to arbitration in accordance with **Sub-Clause 67.3**. The provisions of **Sub-Clauses 67.1** and **67.2** shall not apply to any such reference.

NOTICES

68.1 Notice to Contractor

All certificates, notices or instructions to be given to the Contractor by the Employer or the Engineer under the terms of the **Contract** shall be sent by post, cable, telex or facsimile transmission to or left at the Contractor's principal place of business or such other address as the Contractor shall nominate for that purpose.

68.2 Notice to Employer and Engineer

Any notice to be given to the Employer or to the Engineer under the terms of the **Contract** shall be sent by post, cable, telex or facsimile transmission to or left at the respective addresses nominated for that purpose in Part II of these Conditions.

68.3 Change of Address

Either party may change a nominated address to another address in the country where the **Works** are being executed by prior notice to the other party, with a copy to the Engineer, and the Engineer may do so by prior notice to both parties.

DEFAULT OF EMPLOYER

69.1 Default of Employer

In the event of the Employer:

- (a) failing to pay to the Contractor the amount due under any certificate of the Engineer within 28 days after the expiry of the time stated in **Sub-Clause 60.10** within which payment is to be made, subject to any deduction that the Employer is entitled to make under the **Contract**, or
- (b) interfering with or obstructing or refusing any required approval to the issue of any such certificate, or
- (c) becoming bankrupt or, being a company, going into liquidation, other than for the purpose of a scheme of reconstruction or amalgamation, or
- (d) giving notice to the Contractor that for unforeseen economic reasons it is impossible for him to continue to meet his contractual obligations,

the Contractor shall be entitled to terminate his employment under the **Contract** by giving notice to the Employer, with a copy to the Engineer. Such termination shall take effect 14 days after the giving of the notice.

69.2 Removal of Contractor's Equipment

Upon the expiry of the 14 days' notice referred to in **Sub-Clause 69.1**, the Contractor shall, notwithstanding the provisions of **Sub-Clause 54.1**, with all reasonable despatch, remove from the **Site** all **Contractor's Equipment** brought by him thereon.

69.3 Payment on Termination

In the event of such termination the Employer shall be under the same obligations to the Contractor in regard to payment as if the **Contract** had been terminated under the provisions of **Clause 65**, but, in addition to the payments specified in **Sub-Clause 65.8**, the Employer shall pay to the Contractor the amount of any loss or damage to the Contractor arising out of or in connection with or by consequence of such termination.

69.4 Contractor's Entitlement to Suspend Work

Without prejudice to the Contractor's entitlement to interest under **Sub-Clause 60.10** and to terminate under **Sub-Clause 69.1**, the Contractor may, if the Employer fails to pay the Contractor the amount due under any certificate of the Engineer within 28 days after the expiry of the time stated in **Sub-Clause 60.10** within which payment is to be made, subject to

any deduction that the Employer is entitled to make under the **Contract**, after giving 28 days' prior notice to the Employer, with a copy to the Engineer, suspend work or reduce the rate of work.

If the Contractor suspends work or reduces the rate of work in accordance with the provisions of this Sub-Clause and thereby suffers delay or incurs **cost** the Engineer shall, after due consultation with the Employer and the Contractor, determine

(a) any extension of time to which the Contractor is entitled under **Clause 44**, and

(b) the amount of such costs, which shall be added to the **Contract Price**, and shall notify the Contractor accordingly, with a copy to the Employer.

69.5 Resumption of Work

Where the Contractor suspends work or reduces the rate of work, having given notice in accordance with **Sub-Clause 69.4**, and the Employer subsequently pays the amount due, including interest pursuant to **Sub-Clause 60.10**, the Contractor's entitlement under **Sub-Clause 69.1** shall, if notice of termination has not been given, lapse and the Contractor shall resume normal working as soon as is reasonably possible.

CHANGES IN COST AND LEGISLATION

70.1 Increase or Decrease of Cost

There shall be added to or deducted from the **Contract Price** such sums in respect of rise or fall in the **cost** of labour and/or materials or any other matters affecting the **cost** of the execution of the works as may be determined in accordance with Part II of these Conditions.

70.2 Subsequent Legislation

If, after the date 28 days prior to the latest date for submission of tenders for the **Contract** there occur in the country in which the **Works** are being or are to be executed changes to any National or State Statute, Ordinance, Decree or other Law or any regulation or bye-law of any local or other duly constituted authority, or the introduction of any such State Statute, Ordinance, Decree, Law, regulation or bye-law which causes additional or reduced **cost** to the Contractor, other than under **Sub-Clause 70.1**, in the execution of the **Contract**, such additional or reduced **cost** shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be added to or deducted from the **Contract Price** and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

CURRENCY AND RATES OF EXCHANGE

71.1 Currency Restrictions

If, after the date 28 days prior to the latest date for submission of tenders for the **Contract**, the Government or authorised agency of the Government of the country in which the **Works** are being or are to be executed imposes currency restrictions and/or transfer of currency restrictions in relation to the currency or currencies in which the **Contract Price** is to be paid, the Employer shall reimburse any loss or damage to the Contractor arising therefrom, without prejudice to right of the Contractor to exercise any other rights or remedies to which he is entitled in such event.

72.1 Rates of Exchange

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

72.2 Currency Proportions

Where the Employer has required the **Tender** to be expressed in a single currency but with payment to be made in more than one currency and the Contractor has stated the proportions or amounts of other currency or currencies in which he requires payment to be made, the rate or rates of exchange applicable for calculating the payment of such proportions or amounts shall, unless otherwise stated in Part II of these Conditions, be those prevailing, as determined by the Central Bank of the country in which the **Works** are to be executed, on the date 28 days prior to the latest date for the submission of tenders for the **Contract**, as has been notified to the Contractor by the Employer prior to the submission of tenders or as provided for in the **Tender**.

72.3 Currencies of Payment for Provisional Sums

Where the **Contract** provides for payment in more than one currency, the proportions or amounts to be paid in foreign currencies in respect of Provisional Sums shall be determined in accordance with the principles set forth in Sub **Clauses 72.1** and **72.2** as and when these sums are utilised in whole or in part in accordance with the provisions of **Clauses 58** and **59**.

Reference to Part II

As stated in the Foreword at the beginning of this document, the FIDIC Conditions comprise both Part I and Part II. Certain Clauses, namely **Sub-Clauses 1.1** paragraph (a) (i) and (iv), 5.1 (part), **14.1**, **14.3**, **68.2** and **70.1** must include additional wording in Part II for the Conditions to be complete. Other Clauses may require additional wording to supplement Part

I or to cover particular circumstances or the type of work (dredging is an example).

Part II Conditions of Particular Application with guidelines for the preparation of Part II are printed in a separately bound document.

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| Works, Remedying of Defects | 49.2 | |
| Works, Time for Completion of | 43.1 | |
| Works to be Measured | 56.1 | |
| Work, Suspension of | 40.1 | |
| Work to be in Accordance with the Contract | 13.1 | |

CONDITIONS OF PARTICULAR APPLICATIONS

1.1 Definitions

- i. The employer is the party stipulated in the appendix to bid.
- ii. The engineer is the party stipulated in the appendix to bid or any other person appointed by the Employer, and notified to the contractor, to act in the replacement of the Engineer.

2.1 Engineers' duty and Authority

The engineer shall obtain the specific approval of the employer before taking any of the following actions as specified in section 1

- a) Consenting to subletting of any part of the works.
- b) Certification of any additional cost determined under clause 12.
- c) Determining an extension of time under clause 44
- d) Issuing of variation under clause 51, except:
 - i. In emergency situations reasonably determined by the Engineer:
 - ii. ^{or} If such variation would increase the contract price by less than the amount sated in the appendix to Bid; or
- e) Fixing rates or prices under clause 52.

notwithstanding the obligation, as set out above ,to obtain approval if, in the opinion of the Engineer an emergency occurs affecting the safety of life or the works of the adjoining property ,he may ,without relieving the Contractor of any of his duties and responsibilities under the contract, instruct the contractor to executed all such works or to do all such things as may , in the opinion of the Engineer ,be necessary to abet or reduce the risk. The Contractor shall forthwith comply, despite the absence of the approval of the employer, with any such instruction of the Engineer. The Engineer shall determine the addition to the contract price, in respect of such instruction, in the accordance with clause 52and shall notify the Contractor accordingly, with a copy of the Employer.

5.1 Language and Law

- a) The language is stipulated in the appendix to Bid
- b) The Law is the Law stipulated in the appendix to bid.

5.2 Priority of Contract Documents

Delete the documents listed 1-6 and substitute:

1. The Contract Agreement
2. The Letter of Acceptance
3. The Bid and Appendix to Bid
4. The Contract Document, Part II
5. The Contract Document, Part I
6. Technical Specifications
7. The Drawings
8. The priced Bill of Quantities; and
9. Other documents as listed in the Appendix to Bid

8.1 Contractors Obligation

The Contractor will execute and complete the works shown upon the drawing and the set out on the accompanying schedule of prices to the reasonable satisfaction of Employer's Representative.

The Contract sum shall be deemed to have been calculated to exclude all duties and taxes on materials, labour and plant to be used in works.

8.5 Errors in Design

The Contractor shall promptly notify the Employer and the Engineer of any error, omission, fault and any other defect in the design of the specification for works which are discovered when reviewing the Contract Documents in the process of executing the works.

10.1 Performance Security

The Contractor shall provide, at his own expense, security for his proper performance of the contract to the employer within 28 days after the receipt of the Letter of Acceptance. The performance security shall be an unconditional bank guarantee in the form provided in section IX of the Tender Documents (Volume I). The amount of bank guarantee shall be 10(ten) percent of the Contract Price. The Contractor shall notify the Engineer when providing the Performance Security to the Employer.

Without limitation to the provision of the preceding paragraph, whenever the Engineer determines an addition to the Contract Price as a result of change in the cost and /or legislation or as a result of a variation amounting to more than 25%of the portion of the Contract Price payable, the Contractor, at the Engineer's written request, shall promptly increase the value of the Performance Security by an equal percentage. The Performance Security of a Joint Venture shall be in the name of the joint venture.

The cost of complying with requirement of this Clause shall be borne by the Contractor.

10.2 Validity of the Performance Security

The Performance Security shall be valid until a date 28 days from the date of issue of the Taking-Over Certificate. The security shall be returned to the Contractor within 14 days of expiration.

Notwithstanding the above, the Performance Security shall not be released until the time as all claims filed against the Contractor resulting from the performance of the Contract, have been settled by the Contractor.

14.1 Programme of Works

The Contractor shall submit to the Engineer not later than 21 days from the date of award of contract a general description of his proposed arrangement of methods for execution of works. During the execution of works, the contractor shall submit to the engineer full and detailed particulars of any proposed amendments to the arrangement of the methods submitted in accordance with the foregoing.

The various operations pertaining the works shall be carried out in such a progressive sequence as will achieve a continuous and consecutive output of fully completed works within the time limit specified in the Contract. Generally the Contractor shall start at one end of the pipeline and progress continuously towards the other without leaving any isolated section or sections of uncompleted pipelines provided always that the site of works has been acquired with entirety and the encumbrances and services thereon removed.

15.1 Contractor's Superintendence

The Contractor's superintendence shall not leave the site for a period of more than 24 hours without approval of the Engineer; such approval shall not be unnecessarily withheld.

The Contractor's Representative shall be competent in speaking, reading and writing English.

19.1 Safety, Security and Protection of the Environment

Notwithstanding the Contractor's obligation under sub-clause-paragraph (a).(b) and (c) of sub-clause 19.1 of the Conditions of the Contract, the Contractor shall observe the following measures with a view to reducing or eliminating of adverse environmental effects by the site works:

- i. All quarries and borrow pits shall be suitably back filled and landscaped with their original state after extraction of the construction material.
- ii. Soil erosion due to surface runoff or water from culverts or other drainage structures shall be avoided by putting in place proper erosion control measures that shall include, but not limited to grassing and planting of trees.
- iii. Spillage of oils, fuels and lubricants shall be avoided and if spilt, shall be collected and disposed off in such a way as not to adversely affect the environment.

22.1 Damage to Persons and Property

- a) Injury to Persons: The Contractor shall be liable and shall indemnify the Employer against any liabilities, loss, claims or proceedings whatsoever whether arising in common law or under any legal legislative Acts in respect of persons whether in his employment or not, arising out of or in course of execution of Contract and against all costs and charges incurred in relation to the investigations or settling of such claims.
- b) Damage to Property: The Contractor shall be liable for and shall indemnify the employer in respect to any liability, loss, claims and proceedings and for any injury or damage whatsoever arising out of or in the course of executions of Contract works to any property, real or personal, due to any negligence or omissions or default of himself, his agents or his servants or any Sub-Contractor or to any circumstances within his control.
- c) The Contractor shall secure the due performance of these indemnities by forthwith entering into proper and sufficient policies of insurance.

26.1 Notices and Fees

The Contractor shall comply with all rules, regulations and by-laws of any local authority, water or lighting companies and shall conform to provisions of any acts of parliament of the Government of Kenya, relating to the works and he must give all notices required by the said act, rules regulations and by-laws and pay all fees legally demanded.

41.1 Commencement of the Works

The Contract shall commence the Works on or about the date indicated in the Appendix to these Conditions as the date on which possessions of the site is given to the Contractor. For the purpose of this Contract that date shall be taken to the commencement date.

Time for completion 43.1 the contractor shall proceed with the works, complete the same within the time the completion stated in the Appendix and the Letter of Award, subject nevertheless to provisions for extension of the time herein contained.

44.1 Extension of Time

If in the opinion of the Employers' Representative the Works have been delayed through any cause not under control of the Contractor, the Employers Representative shall make a fair and reasonable extension of time for completion of the works.

47.1 Report of Delays

The Contractor shall promptly report in writing to the Engineer, the occurrence of any event or condition that delays or prevent completion of the works in the accordance with the approved schedule and to indicate steps being taken to minimize the effects or meet the situation.

49.2 Defects

The Contractors shall make good of his own expense any effect, shrinkage, and other faults, which may appear within months (12 months) from the completion of the works arising in the employer's representative from poor quality of materials or bad workmanship.

51.1 Variations

The Employer and Contractor agree that no variation required by the Employer's Representative shall vitiate the Contract but that all variations required or authorized by the Employer's Representative shall be measured valued by Employer's Representative in consultation with the Contractor. The amount to be allowed on either side in respect of the variations so ascertained shall be added to or deducted from the Contract sum as the case may be.

The term variation as used in these conditions means the alteration or modifications of the design, quality or the quantity of the works as shown upon the contract drawings and described by or referred to in the schedule of prices and includes the addition ,omissions or substitution of any work, the alternative of the kind or standard of any of the materials or goods to be used in the works and removal from the site of any work materials or goods executed or brought thereon by the Contractor for the purpose of the works other than work, materials or goods which are not in accordance with the Contract.

No change in the unit rates or prices quoted shall be considered for items included in the schedule of the day works rates, or provisional suns and items, or for any items in the Bill of Quantities.

52.3 Fluctuations

This is Fixed Price Contract and allowance is deemed to have been made in the contract rates for anticipated fluctuations of price of materials, labour or other elements required for the executions of the works. The Contract Sum is deemed to have been calculated to include all basic prices of materials inclusive of all duties on materials, the rate of wages and other emoluments and expenses. However, compensation for fluctuations of prices shall be made in the event of changes in the Government legislation leading to changes in taxes, levies and the like.

55.1 Omission of Quantities

Items of Works described in Bill of Quantities for which no rate or price has been entered in the Contract shall be considered as included in other rates and prices in the Contract and will not be paid for separately by the Employer.

57.2 Breakdown of Lump Sum Items

The Contractor shall submit, within 28 days after the receipt of Letter of Acceptance breakdown of each lump sum items contained in the tender. The breakdown shall identify the quantities and rates of the lump sum price corresponding to each component of work. The quantities and the rates shall be such that the products when totalled shall equal the lump sum price. This breakdown shall be used to for making progress payment and reporting progress.

60.1 Monthly Statement

The Contractor shall submit a statement to the Engineer at the end of each month, in tabulated form approved by the Engineer, showing the amount to which the Contractor considers himself to be entitled. The statement shall include the following items, as applicable:

- The Value of the Permanent Work executed up to the end of previous month. Such an amount (not exceeding 75% of the value) as the Engineer may consider proper account of materials of permanent work delivered by the Contractor to the site. Such amount as Engineer may consider fair and reasonable for any temporary works for which separate amounts are provided in the Bill of Quantities. Any other sum to which the Contractor may be entitled under the Contract.

If the Engineer disagrees or cannot verify any part of the statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such charges and corrections in the statement as may be directed by the Engineer. In cases where there is difference in opinion as the value of any item, the Engineers' view shall prevail.

60.2 Monthly Payment

Upon written application by the Contractor, at intervals of 28days, the Employer's Representative shall issue within a reasonable time a Certificate stating the amount due to the Contractor from the Employer, and Contractor shall, on presenting any such Certificate to the Employer, be entitled to payment therefore within fourteen (14) days from presentation. Interim valuations shall be made whenever the Design consultant considers them to be necessary for the purpose of ascertaining the amount to be stated as due in the Interim Certificate.

The Employer will pay the Contractor the amounts certified less 10% retention. Upon practical completion of the works the Employer shall pay the Contractor all the monies due less only 5% retention, which shall be retained as a retention fund and held until the Contractor has made good defects in accordance with Clause 10 herein or in any case no sooner than 6 months after practical completion of the works.

60.3 Payment of the Retention Money

Upon the issue of the Completion Certificate with respect to the whole of the works, one half Retention Money, or upon issue of Taking-Over Certificate with respect to a section or part of the Permanent Works only such proportions thereof as the Engineer determines having regard to relative value of such section or part of permanent works, shall be certified by the Engineer for payment to the Contractor. The Contractor may substitute the remaining Retention Money with an on-demand bank guarantee in a form, and from a source, acceptable to the Employer.

Upon the expiration of the defects liability period for the Works, the other half of the Retention Money shall be certified by the Engineer for payment to the Contractor (or return of the remaining security, which replaced the retention money). Provided that ,in the event of different defects liability periods being applicable to different sections or parts of the permanent works pursuant to clause 48, the expression `expiration of the defects liability period' shall for the purposes of this Sub-Clause, be deemed to mean the expiration of the of the latest of such periods.

Provided that if at such time that shall remain to be executed by Contractor any work instructed ,pursuant to clause 49 and 50, in respect of Works, the Engineer shall be entitled to withhold certification until completion of such work as so much of the balance of the retention money as shall, in the opinion of the of the Engineer, represent the work remaining to be executed.

60.4 Correction of Certificates

The Engineer may by any Interim Payment Certificate make any correction or modification in any previous certificate which has been issued by him, and shall have authority, if any work is not being carried out to his satisfaction, to omit or reduce the value of such works in any interim payment certified.

60.5 Statement at Completion

Not later than 60 days after the issue of Taking-Over Certificate in respect of the whole of the works, the Contractor shall submit to the Engineer a Statement at Completion in number of copies specified in the appendix to bid with supporting documents showing in details, in the form approved by the Engineer:

- a) The final value of all work done in accordance with the Contract up to the date stated in the Take-Over Certificate.
- b) Any further sums which the Contractor consider to be due.
- c) An estimate of amounts which the Contractor considers will be due to him under this Contract. Estimated amounts shall be shown separately in such Statement at Completion. The Engineer shall certify payment in accordance with sub-clause 60.2

60.6 Final Statement

Not later than 15 days after the issue of the Defects Liability, Contractor shall submit to the Engineer for consideration a draft final statement with supporting documents showing in detail, in the form approved by the Engineer:

- a) The final value of all work done in accordance with the
- b) Any ~~Contract~~ sums which the contractor considers to be due to him If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonable require and shall make such changes in the draft as may be required.

60.8 Final Certificate

Upon acceptance of Final Statement, the Engineer shall prepare a Final Payment Certificate which shall be delivered to the Contractors' authorized agent or representative for his signature. The Final Payment Certificate shall state:

- a) The final value of all work done in accordance with the
- b) ~~Contract~~ After giving credit to the Employer for all amounts previously paid by the Employer, the balance, if any, due from the Employer to the Contractor or Contractor to the Employer.

63.4 Termination of Contract by Either Party

Either party may give a 14 days written notice to terminate the Contract to the other party if:

- a) For whatever reason, it has become impossible for either party to perform its part of the Contract or;
- b) The other party has breached the Contract in a manner that entitles the aggrieved party to treat the Contract as repudiated by the party in breach or;
- c) There is war or hostile or kindred activity in the country that either:

- i. Make it impossible for either party or both to perform contractual obligation

- ii. Would subject either party to loss or expense or;

- d) Work is suspended for prolonged a period (exceeding 3 months) for reasons beyond the control of either party.

At the expiry of 28 days notice, the executions of the Contract shall be terminated and either party shall be entitled to payment to services rendered or compensation for damages due to breach of Contract, provided the loss or expense can be attributed to the breach of Contract by the party in breach.

67.1 Settlement of Disputes

The Employer's Representative shall in general, be responsible for administering and interpreting the Contract. In discharging that duty, the Employer's Representative shall be impartial, fair and reasonable.

If however, a dispute arises during or after the executing of the works in connection with any opinion, instruction, determination, certificate or variation of the Employer's Representative or any matter in relation with the executions of the works, the aggrieved party shall in the first place request the Employer's Representative to review the matter and make a decision.

If the Employer's Representative fails to review and make a decision or if either party is not satisfied with the decision of the Employer's Representative, the aggrieved party may seek the agreement of the other party to refer the matter in dispute to arbitration.

Consequently, the Employer and Contractor hereby agree that if any dispute or difference arises in connection to any matter concerning the works in the manner explained above, then either party shall forthwith give to the other a written notice of such disputes or difference and the same shall be referred to an arbitrator appointed by the Chairman of the Chartered Institute of Arbitrators (Kenya Branch) whose award shall be final and binding on all parties concerned.

The conduct of the arbitration shall be ad hoc though the arbitrator may elect to apply rules of any arbitral institution. The place of the arbitration shall be in Nairobi, Kenya.

The parties shall, however continue to pursue an amicable solution and may by agreement between them, seek the opinion or assistance of a mediator or disputes review expert as they deem necessary.

If an amicable solution is reached after the appointment of the Arbitrator, then the Arbitrator shall record the agreement reached by the parties, without having to give his reasons for the agreement.

67.3 Arbitration

Any dispute in respect of which either the decision of the Engineer has not become final and binding or amicable decision is not achieved shall be finally settled by an Arbitrator to be agreed upon between the parties or failing agreement to be nominated on the application of either party by the appointee designated in the Form of Tender for the purpose and any such reference shall be deemed to be a submission to arbitration within the meaning of the Arbitration Laws of the Republic of Kenya

70 Changes in Cost and Legislation

Delete Sub-clause 70.1 of part 1 in entirety and substitute the following:

“The contract price shall deemed to be calculated in the manner set below and shall be subject to the adjustment in the event specified hereunder:

a) The rates contained in the price Bills of the Bills of Quantities are based upon the rates of wages and other emoluments and expenses applicable at the site at the date of Bid pricing

b) If the said rates of wages and other emoluments shall be increased or decreased by the act, statute, decree, regulation and the like after the said date of bid pricing then the net amount of the increase or decrease the emolument and expenses shall, as the case may be, paid to or allowed by the contractor;

c) The rates contained in the priced Bills of Quantities are based upon the rates of the Contractor's compulsory contributions payable at the date of Bid under or by virtue of any act, statute, regulation and the like applicable at the site.

d) If any of the said rates of contribution shall be increased or decreased by any act, statute, decree, regulation and the like after the said date of Bid Pricing, or if any new statutory contributions becomes payable after the date then the net amount of the increase or decrease of the emolument and expenses shall, as the case may be, be paid or allowed by the contractors. The difference between what the contractor actually pays in respect of the works people engaged upon or in connection with the works and what he would have paid in respect to such persons had any of the aforesaid, shall as the case may be, be paid to or allowed by the contractor. Provided always the Engineer and the Contractor may agree a sum, which shall be deemed to be the net amount of which is paid to or allowed by the Contractor by virtue of this sub-paragraph.

e) The rate contained in the priced Bills of Quantities are based upon the market prices of the materials and goods specified in the Schedule of Basic Materials attached hereto and current at the date of Bid Pricing (hereinafter referred to as "the basic prices" and the Contractor shall state in the said schedule the basic prices of such materials and goods. Such prices shall be supported by bona fide quotations from suppliers.

