

## **DEFINITIONS AND INTERPRETATIONS**

### **Clause-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:

- i) 'PHPA-II'/ 'Purchaser' / 'Project Authority' means the Punatsangchhu-II Hydroelectric Project Authority and the legal successor in title to the PHPA-II who will employ the Contractor.
- ii) "RGoB" means the Royal Government of Bhutan.
- iii) 'Contractor'/ 'Supplier' means the person or persons, firm or company, group of firms or Joint Venture, whose bid has been accepted by the PHPA-II and includes the Contractor's personal representatives, successors and permitted assigns.
- iv) "Engineer-in-Charge" means the Engineer-in-Charge appointed from time to time by the PHPA-II and notified in writing to the Contractor to act as the Engineer-in-Charge for the purposes of the Contract.
- v) "Engineer-in-Charge's Representative" means any Resident Engineer or assistant of the Engineer-in-Charge appointed from time to time by the PHPA-II or the Engineer-in-Charge to perform the duties set forth in Clause-2 hereof, whose authority shall be notified in writing to the Contractor by the Engineer-in-Charge.
- vi) "Works" shall include both Permanent Works and Temporary Works.
- vii) "Temporary works" means all temporary works of every kind required in or about the execution or maintenance of Works.
- viii) "Permanent Works" means the permanent works to be executed and maintained in accordance with the Contract.

- ix) “Contract” means the Conditions Governing the Contract, Technical Specifications, Drawings, priced Bill of Quantities, Letter of Award and the Contract Agreement.
- x) “Contract Price” or “Contract value” means the sum indicated in the Letter of Award. During execution, the Contract Price when exceeds the awarded value (without escalation), it shall be revised at 6 (six) monthly intervals comprising BoQ items actually executed plus the extra/deviated items valued at base date without escalation for the purpose of regulating percentage based issues.
- xi) “Constructional Plant”, “Plant and Equipment” or “Machinery” means and include plant, equipment, machinery, tools, appliances, other implements of all description or things of whatsoever nature required in or about the execution, or maintenance of the Works but does not include materials or other things intended to form or forming part of the Permanent Works.
- xii) “Specifications” means the Technical Specifications and other Specifications referred to in the Bidding Documents and any modification thereof or addition thereto or deduction therefrom as may, from time to time, be furnished/decided by PHPA-II and/or submitted by the Contractor and approved in writing by the Engineer-in-Charge.
- xiii) “Drawings” means the drawings referred to in the Specifications and any modification of such drawings approved in writing by the Engineer-in-Charge and such drawings, as may, from time to time, be furnished by PHPA-II and/or submitted by the Contractor and approved in writing by the Engineer-in-Charge.
- xiv) “Site” means the land and other places on, under, in or through which the Permanent Works or Temporary Works, designed by the Engineer-in-Charge are to be executed and any other lands and places provided by the PHPA-II for the purposes of working space or any other purpose as may be specifically designated in the Contract or subsequently approved as forming part of site.

- xv) “Approved” means approved in writing, including subsequent written confirmation of previous verbal approval and “approval” means approval in writing, including as aforesaid.
- xvi) “Consultant” means WAPCOS Ltd., its legal successors or permitted assigns.
- xvii) “Chief Engineer” means the Chief Engineer-in-Charge of the Works or his successor and to whom the Engineer-in-Charge reports.
- xviii) “Managing Director” means the Technical and Administrative head of the Project.
- xix) “GoI” means Government of India.
- xx) “Sub-Contractor” means the party or parties having direct contract with the Contractor and to whom any part of the Contract has been sublet by the Contractor with the consent, in writing, of the Engineer-in-Charge.
- xxi) “Manufacturer” means the party proposing to design and/or manufacture the equipment and materials as specified complete or in part.
- xxii) “Letter of Award” means the letter from the PHPA-II conveying acceptance of the bid subject to such reservations as may have been stated therein.
- xxiii) “Tonne or Metric Tonne” means 1,000 kgs (one thousand kilograms). Metric system shall be followed in all interpretation and execution of Works under this Contract. Any conversion found necessary shall be in accordance with the figures given in ‘Indian Standard’, IS 786-1967 and subsequent revision(s) of this Standard.
- xxiv) “I.S” means Indian Standard Specifications with latest amendments or revisions as currently in force at the time of execution of the Works.
- xxv) “Day” means a day from midnight to midnight.

- xxvi) “Month” means from the beginning of a given date of a calendar month to the end of the preceding date of the next calendar month.
- xxvii) “Week” means seven consecutive days.
- xxviii) “Quarter” means a period of three consecutive months starting from January, April, July and October i.e. January to March, April to June, July to September and October to December.
- xxix) “C.W.C” means Central Water Commission, Government of India.
- xxx) “C.E.A” means Central Electricity Authority, Government of India.
- xxxi) “Near Relative” means wife/husband, parents and grandparents, children, first cousins, brothers-in-law, sisters-in-law and parents-in-law.
- xxxii) “Rupees” means Rupees in Indian Currency.
- xxxiii) “Ngultrum” means Ngultrum in Bhutanese Currency.
- xxxiv) Words in singular number shall include the plural number and vice-versa where the context so requires. “He” shall include “She” and vice-versa.
- xxxv) “Cost” mean all expenditure properly incurred or to be incurred whether on or off the site including overhead and other charges allocable thereto but does not include any allowance for profit.
- xxxvi) The “Goods” means all the gates, hoists, equipment, machinery and/or other materials which the Contractor is required to supply to PHPA-II under the Contract.
- xxxvii) “Services” means services ancillary to the supply of Goods such as transportation and insurance and any other incidental services such as installation, performance of onsite erection, testing, painting, commissioning for the supplied goods, training and other such obligations of the Contractor covered under the Contract.

xxxviii) “Project Manager” means the person appointed from time to time by the Contractor and notified in writing to the PHPA-II to act as the in-charge for the purpose of the Contract.

The headings in these conditions of the Contract shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or of the Contract.

## **ENGINEER-IN-CHARGE AND ENGINEER-IN-CHARGE’S REPRESENTATIVES(S)**

### **Clause- 2 Duties and powers of Engineer-in-Charge and Engineer-in-Charge’s Representative(s)**

- i) The Engineer-in-Charge shall carry out such duties in issuing decisions, certificates and orders as are specified in the Contract.
- ii) The Engineer-in-Charge’s representative(s) shall be responsible to the Engineer-in-Charge, and his duties are to watch and supervise the works and to test and examine any materials to be used or workmen employed in connection with the Works. He shall have no authority to relieve the Contractor of any of his duties or obligations under the Contract nor, except as expressly provided hereunder or elsewhere in the Contract, to order any Work involving delay or any extra payment by the Engineer-in-Charge, nor to make any variation of or in the Works.
- iii) The Engineer-in-Charge may, from time to time in writing, delegate to the Engineer-in-Charge’s Representative(s) any of the powers and authorities vested in the Engineer-in-Charge and shall furnish to the Contractor a copy of all such written delegations of Powers and authorities. Any written instructions or approval given by the Engineer-in-Charge’s Representative(s) to the Contractor within the terms of such delegation, but not otherwise, shall bind the Contractor as though it had been given by the Engineer-in-Charge. Provided always as follows:
  - a) Failure of the Engineer-in-Charge’s Representative(s) to disapprove any Work or materials shall not prejudice the powers of the Engineer-in-

Charge thereafter to disapprove such Work or materials and to order the pulling down, removal or breaking up thereof.

- b) If the Contractor shall be dissatisfied by reason of any decision of the Engineer-in-Charge's Representative(s), he shall be entitled to refer the matter to the Engineer-in-Charge, who shall thereupon confirm, reverse or vary such decision.

**Clause-3 Assignment**

The Contractor shall not assign the Contract or any part thereof, or any benefit or interest therein or thereunder, otherwise than by a charge in favour of the Contractor's bankers of any money due or to become due under this Contract, without the prior written consent of the PHPA-II.

**Clause-4 Sub-letting**

The Contractor shall not sub-let the whole of the Works. Except where otherwise provided by the Contract, the Contractor shall not sub-let any part of the Works without the prior written consent of the Engineer-in-Charge, which shall not be unreasonably withheld, and such consent, if given, shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any sub-contractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen. Provided always that the provision of labour on a piece work basis shall not be deemed to be a sub-letting under this Clause.

**CONTRACT DOCUMENTS**

**Clause-5 Language and Law**

- i) a) The Contract documents shall be drawn up in English. All correspondence and documents relating to the bid, exchanged by the bidder and the PHPA-II, shall be submitted in the prescribed form in English. All supporting documents and printed literature in connection with the bid shall be preferably in English.

- b) The law to which the Contract is to be subject and according to which the Contract is to be construed shall be the law for the time being in force in Bhutan and within the jurisdiction of Thimphu courts.
- ii) Documents Mutually Explanatory
- Several documents forming the Contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies, the documents shall take precedence in the order in which they are set out in the Proforma of Agreement (Annex-III).

#### **Clause-6 Drawings**

- i) Custody of Drawings

The drawings shall remain in the sole custody of the Engineer-in-Charge, but two copies thereof shall be furnished to the Contractor free of charge. The Contractor shall provide and make, at his own expense, any further copies required by him. At the completion of the Contract, the Contractor shall return to the Engineer-in-Charge all drawings provided under the Contract.

- ii) One copy of drawings to be kept on site.

One copy of the drawings, furnished to 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-in-Charge and the Engineer-in-Charge's Representative and by any other person authorized by the Engineer-in-Charge in writing.

- iii) The Contractor shall be responsible for the design of Hydro-mechanical Works and submit drawings alongwith design calculations to the Engineer-in-Charge for his approval. The approval by the Engineer-in-Charge shall not absolve the Contractor of

his responsibility for meeting all the requirements of specifications and stability & safety of the Works.

**Clause-7 Further Drawings and Instructions**

The Engineer-in-Charge shall have full power and authority to supply to the Contractor from time to time, during the progress of the Works, such further drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of the Works. The Contractor shall carry out and be bound by the same.

**GENERAL OBLIGATIONS**

**Clause-8 Contractor's General Responsibilities**

- i) The Contractor shall, subject to the provisions of the Contract, and with due care and diligence, execute and maintain the Works and provide all labour, including the supervision thereof, materials, constructional plant and all other things, whether of a temporary or permanent nature, required in and for such execution and maintenance, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract.
- ii) 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 may be expressly provided in the Contract, for the design or specification of the Permanent Works, or for the design or specification of any Temporary Works prepared by the Engineer-in-Charge.
- iii) The Contractor shall promptly inform the Engineer-in-Charge of any error, omission, fault and other defect in the design of or specifications for the Works which are discovered when reviewing the Bidding Documents or in the process of execution of the Works.
- iv) Where no specifications have been laid down, the materials used and the Work done shall conform to the relevant I.S. Code or any internationally accepted Standards or as directed by the Engineer-in-Charge.



- v) All instructions and orders given by the Engineer-in-Charge at Site are to be maintained in the Site Instruction Book and shall be taken to have been conveyed to the Contractor for his compliance.
- vi) The Contractor must have a site office to receive normal correspondence between 10 AM and 5 PM on working days and urgent correspondence at any time on all days.

**Clause-9 Contract Agreement**

The Contractor Shall, when called upon so to do, enter into and execute a Contract Agreement, to be prepared and completed at the cost of the PHPA-II in the Proforma annexed, with such modification as may be necessary.

**Clause-10 Performance Security**

- i) For the due performance of the Contract, the Contractor shall furnish to the PHPA-II a performance security in the form of bank guarantee. The amount of the bank guarantee shall be 2.5% (two point five percent) of the Contract Price. The bank guarantee shall be issued by the Bank of Bhutan or State Bank of India or any Schedule Bhutanese/Indian Bank. The cost of complying with the requirements of this Clause shall be borne by the Contractor unless the Contract otherwise provides.
- ii) The proceeds of the performance security shall be payable to PHPA-II as compensation for any loss, resulting from Contractor's failure to complete his obligation under the Contract.
- iii) The performance security shall be valid until 30 days after the date of issue of Maintenance Certificate.
- iv) Should the Contract period, for whatever reasons be extended, the Contractor, on receipt of written request from the Engineer-in-Charge, shall at his own cost get the validity period of Bank Guarantee in respect of Performance Security furnished by him extended and shall furnish the extended/revised Bank Guarantee to the Engineer-in-Charge before the expiry date of the Bank Guarantee originally

furnished. However, the Bank Guarantee charges for the extended period will be reimbursed at actuals if the Bank Guarantee period is extended for execution of BoQ amount due to the reasons not attributable to the Contractor.

- v) The Performance Security will be released by **the PHPA-II, after** the issue of the Maintenance Certificate.

**Clause-11 Inspection of Site**

- i) The PHPA-II shall have made available to the Contractor with the Bidding Documents such data on subsurface conditions as shall have been obtained by or on behalf of the PHPA-II from investigations undertaken relevant to the Works and the Bid shall be deemed to have been based on such data, but the Contractor shall be responsible for his own interpretation thereof.
- ii) The Contractor shall also be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself, so far as is practicable, before submitting his Bid, as to the form and nature thereof, including the subsurface conditions, the hydrological and climatic conditions, the extent and nature of work, and materials necessary for the completion of the Works, 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 Bid.

**Clause-12 Sufficiency of Bid**

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

### **Clause-13 Works to be to the Satisfaction of Engineer-in-Charge**

Save in-so-far as it is legally or physically impossible the Contractor shall execute and maintain the Works in strict accordance with the Contract to the satisfaction of the Engineer-in-Charge and shall comply with and adhere strictly to the Engineer-in-Charge's instructions and directions on any matter whether mentioned in the Contract or not, touching or concerning the Works. The Contractor shall take instructions and directions only from the Engineer-in-Charge, or, subject to the limitations referred to in Clause- 2 hereof, from the Engineer-in-Charge's Representative.

### **Clause-14 Programme to be Furnished**

- i) Within a period of thirty days, the Contractor shall, after the acceptance of his Bid, submit to the Engineer-in-Charge for his approval, two copies of a construction programme showing the order of procedure in which he proposes to carry out the Works. The Contractor's programme shall conform to the milestones indicated on the construction schedule included in Volume-IV of these documents.
- ii) The detailed construction programme submitted by the Contractor for orderly completion of the Works, shall show planned sequence of operations and the dates for commencement and completion of all salient feature of the Works.
- iii) The programme shall cover activities on the Site and procurement and delivery activities.
- iv) The programme shall be orderly and realistic, and shall be revised at three monthly intervals or as necessary, as the work progresses to meet this requirement and should include a chart of the principal quantities of Work forecast for execution monthly, and a schedule of payments expected to be made to the Contractor by the PHPA-II.

The Contractor shall promptly advise the Engineer-in-Charge of any occurrence requiring substantial revision of the programme, giving a detailed explanation of

the cause of the revision, and shall furnish a revised programme within 15 days of such occurrence.

- v) If at any time it should appear to the Engineer-in-Charge that the actual progress of the Works does not conform to the approved programme, the Contractor shall produce, at the request of the Engineer-in-Charge, a revised programme showing the modifications to the approved programme necessary to ensure completion of the Works within the time for completion as defined in Clause – 43 hereof.
  
- vi) The construction programme shall be of the critical path method, or equivalent, in the form of a network diagram and activity listing. The network diagram shall show in detail and in orderly sequence all activities, their descriptions, durations, and dependencies or precedencies, necessary to the completion of the Works. The activity listing shall show the following information for each activity on the network diagram:
  - a) Identification by activity number and description
  - b) Duration
  - c) Earliest start and finish dates
  - d) Latest start and finish dates
  - e) Total float time
  
- vii) Code numbers for critical path method type schedules shall consist of not more than four digits.
  
- viii) The construction programme and each revision thereof shall be subject to review and approval by the Engineer-in-Charge for conformity with the requirements of this clause. The Contractor shall assist the Engineer-in-Charge in reviewing and evaluating each programme furnished. Disapproved programmes will be returned to the Contractor which shall be revised by him to correct the defects noted, and shall be resubmitted to the Engineer-in-Charge within 15 days after receipt by the Contractor.

- ix) The submission to and approval by the Engineer-in-Charge or Engineer-in-Charge's Representative of such programmes or the furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the Contract.
- x) The Contractor shall, whenever required by the Engineer-in-Charge or Engineer-in-Charge's Representative also provide in writing, for his information a general description of the arrangements such as deployment of modern and efficient machinery, skilled and unskilled labour and methods, which the Contractor proposes to adopt for the execution of Works.
- xi) The Contractor shall have to obtain prior approval of the Engineer-in-Charge for the sequence of construction which he proposes to adopt.

**Clause-15 Contractor's Superintendence**

The Contractor shall give or provide all necessary superintendence during the execution of the Works and as long thereafter as the Engineer-in-Charge may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract. The Contractor, or a competent and authorized agent or representative approved in writing by the Engineer-in-Charge, which approval may at any time be withdrawn, is to be constantly on the Works and shall give his whole time to the superintendence of the same. If such approval shall be withdrawn by the Engineer-in-Charge, the Contractor shall, as soon as is practicable, having regard to the requirement of replacing him as hereinafter mentioned, after receiving written notice of such withdrawal, remove the agent from the Works and shall not thereafter employ him again on the Works in any capacity and shall replace him by another agent approved by the Engineer-in-Charge. Such authorized agent or representative shall receive, on behalf of the Contractor, directions and instructions from the Engineer-in-Charge or subject to the limitations of Clause 2 hereof, the Engineer-in-Charge's Representative.

**Clause-16 Contractor's Employees**

- i) The Contractor shall provide and employ on the Site in connection with the execution and maintenance of the Works:

- a) only such technical assistants as are skilled and experienced in their respective trades and such sub-agents, foremen and leading hands as are competent to give proper supervision to the work they are required to supervise, and
  - b) Such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of the Works.
  - c) Experienced Safety Officer to maintain and supervise safety requirements at the site of Works. Safety standards shall be followed as provided in these documents.
- iii) The Engineer-in-Charge shall be at liberty to object to and require the Contractor to remove forthwith from the Works any person employed by the Contractor in or about the execution or maintenance of the Works who, in the opinion of the Engineer-in-Charge, misconducts himself, or is incompetent or negligent in the proper performance of his duties, or whose employment is otherwise considered by the Engineer-in-Charge to be undesirable and such persons shall not be again employed upon the Works without the written permission of the Engineer-in-Charge. Any person so removed from the Works shall be replaced as soon as possible by a competent substitute approved by the Engineer-in-Charge.

**Clause-17     Setting out**

The Contractor shall be responsible for the true and proper setting out of the works in relation to original points, lines and levels of reference given by the Engineer-in-Charge in writing and for the correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of the Works and for the provision of all necessary instruments, appliances and labour in connection therewith. If, at any time during the progress of Works, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required so to do by the Engineer-in-Charge or the Engineer-in-Charge's Representative, shall at his own cost, rectify such error to the satisfaction of the Engineer-in-Charge or the Engineer-in-Charge's Representative, unless such error is based on incorrect data supplied in writing by the Engineer-in-Charge or the Engineer-in-Charge's Representative, in which case the expense

of rectifying the same shall be borne by the PHPA-II. The checking of any setting out or of any line, alignment, grade, dimensions or level by the Engineer-in-Charge or the Engineer-in-Charge's Representative shall not in any way relieve the Contractor of his responsibility for the correctness thereof and the Contractor shall carefully protect and preserve all bench marks, pegs and other things used in setting out the Works.

**Clause-18 Boreholes and Exploratory Excavation**

If, at any time during the execution of the Works, the Engineer-in-Charge shall require the Contractor to make boreholes or to carry out exploratory excavation, such requirement shall be ordered in writing and shall be deemed to be an addition ordered under the provisions of Clause-51 hereof, unless a provision in respect of such anticipated work shall have been included in the Bill of Quantities.

**Clause-19 Watching and Lighting**

- i) The Contractor shall, in connection with the Works, provide and maintain at his own cost, all lights, guards, fencing and watching when and where necessary or required by the Engineer-in-Charge or the Engineer-in-Charge's Representative, or by any duly constituted authority, for the protection of the Works, or for the safety and convenience of the public or others.
  
- ii) The Contractor shall also be responsible for temporary roadways, footways, guards, fences, caution notices etc. as far as the same may be rendered necessary by reason of the Work for the pedestrians or other traffic and of owners and occupiers of the adjacent property and of the public and shall remain responsible for any accidents that may occur on account of his failure to take proper and timely precautions. In default thereof, the Engineer-in-Charge may provide such fencing, lights, ventilation and watchmen as he may deem necessary and charge the cost thereof to the Contractor.

**Clause-20 Care of Works**

- i) The Contractor shall take full responsibility for the care of the Works from the date of Commencement of Works until the date of issue of the Completion Certificate for the whole of the Works when the responsibility for the said care shall pass to the PHPA-II.
- ii) In the event of any loss or damage to the Works or any part thereof, during the period for which the Contractor is responsible for the care thereof, from any cause whatsoever, other than the risks defined in Sub-Clauses (v) & (vi) of this Clause, the Contractor, at his own cost, shall 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-in-Charge. The Contractor shall also be liable for any loss or damage to the Works occasioned by him in the course of any operation carried out by him for the purpose of complying with his obligations under Clause – 49 & 50.
- iii) In the event of any loss or damage to the Permanent Works which may occur or arise out of any of the Risks defined in Sub-Clause(v) of this Clause, the same shall be made good/rectified by the Contractor, if and to the extent required by the Engineer-in-Charge, at the cost of the PHPA-II which sum shall be determined by the Engineer-in-Charge in accordance with Clause -51 and Clause -52.
- iv) In the event of any loss or damage which may occur or arise out of any of the risks defined in Sub-Clause (vi) of this Clause, neither party to the Contract shall be liable to the other for any such loss or damage. However, in the event of any loss or damage to the Permanent Works arising as a consequence of the risk(s) defined in Sub-Clause (vi) of this Clause the same shall be made good/rectified by the Contractor at the cost of the PHPA-II which sum shall be determined by the Engineer-in-Charge under the provisions of the Contract.



- v) The PHPA-II's risks are as under;
- a) loss or damage due to the use or occupation by the PHPA-II of any section or part of the Permanent Works except as may be provided for in the Contract.
  - b) 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.
- vi) Force Majeure/Excepted risks are as under:
- a) War, hostilities (whether war be declared or not), invasion, act of foreign enemies, act of public enemies.
  - b) ionizing, radiations or contamination by radio activity from any nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly.
  - c) Pressure waves caused by aerial devices traveling at supersonic speeds.
  - d) Riot, commotion, disorder, strike or lockout by persons other than the Contractor's personnel.
  - e) Any operation of the forces of nature against which an experienced Contractor could not reasonably have been expected to take precautions.

**Clause-21 Insurance of Plant & Equipment**

The Contractor shall take insurance cover to the replacement value, for the Constructional Plant, equipment and other things brought on to the site by him or acquired by him against the amount advanced by the PHPA-II for such Constructional Plant, equipment and other things naming PHPA-II as the beneficiary.

## **Clause-22 Damage to persons and Property**

The Contractor shall, except if and so far as the Contract provides otherwise, indemnify the PHPA-II against all losses and claims in respect of injuries or damage to any persons or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the Works and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation or damages for or with respect to injuries or damage to persons or property resulting from any act or neglect of the PHPA-II, his agent, servants, or other Contractors, not being employed by the Contractor, or for 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 compensation as may be just and equitable having regard to the extent of the responsibility of the PHPA-II, its servants or agents or other Contractors for the damage or injury.

## **Clause – 23 Third Party Insurance**

- i) Before commencing the execution of the Works the Contractor, but without limiting his obligations and responsibilities under Clause – 22 hereof, shall insure against his liability for any material or physical damage, loss or injury which may occur to any property, including that of the PHPA-II, or to any person, including any employee of the PHPA-II, by or arising out of the execution of the Works or in the carrying out of the Contract, otherwise, than due to the matters referred to in the proviso to Clause – 22 hereof.

- ii) Amount of Third Party Insurance

Such insurance shall be effected with an insurer and in terms approved by the PHPA-II which approval shall not be unreasonably withheld, and for an amount of Nu./Rs. 0.5 (one half) million for any one loss on reinstatement basis but in total not exceeding Nu./Rs. 5 (Five) million and if this ceiling is touched, the Contractor shall take a policy for the Third Party Insurance for an amount to be decided by the

Engineer-in-Charge and the premium for such an additional insurance policy will be reimbursed by the PHPA-II to the Contractor as per actual.

The Contractor shall, whenever required, produce to the Engineer-in-Charge or the Engineer-in-Charge's Representative the original policy or policies of insurance and the receipts for payment of the current premiums and furnish attested copies thereof.

iii) Provision to Indemnify PHPA-II

The terms shall include a provision whereby, in the event of any claim in respect of which the Contractor would be entitled to receive indemnity under the policy being brought or made against the PHPA-II, the insurer will indemnify the PHPA-II against such claims and any costs, charges and expenses in respect thereof.

**Clause – 24 Accident or Injury to Workmen**

- i) The PHPA-II shall not be liable for or in respect of any damages or compensation payable according to law in respect or in consequence of any accident or injury to any workman or other person in the employment of the Contractor or any sub-Contractor, save and except an accident or injury resulting from any act or default of the PHPA-II, its agents, or servants. The Contractor shall indemnify and keep indemnified the PHPA-II against all such damages and compensation, save and except as aforesaid, and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.
- ii) On the occurrence of accident arising out of the Works which result in death, or which is so serious as to be likely to result in death, the Contractor shall, within twenty four hours of such accident, report in writing to the Engineer-in-Charge and other statutory bodies of the Government the facts stating clearly and in sufficient details the circumstances of such accident and the subsequent action. All other accidents on the Works involving injuries to persons or damage to property other than that of the Contractor shall be promptly reported to the Engineer-in-Charge and other statutory bodies of the Government stating clearly and in sufficient details of

the facts and circumstances of the accidents and the action taken. In all cases the Contractor shall indemnify the PHPA-II against all loss or damage resulting directly or indirectly from the Contractor's failure to report in the manner aforesaid. This includes penalties or fines, if any, payable by the PHPA-II as a consequence of failure to give notice or failure to conform to the provisions of any Act in regard to such accidents.

iii) Insurance against Accident, etc. to Workmen

The Contractor shall insure against such liability with an insurer approved by the PHPA-II, which approval shall not be unreasonably withheld, and shall continue such insurance during the whole of the time that any persons are employed by him on the Works and shall, when required, produce to the Engineer-in-Charge or the Engineer-in-Charge's Representative such policy of insurance and the receipt for payment of the current premium. Provided always that, in respect of any persons employed by any sub-contractor, the Contractor's obligation to insure as aforesaid under this sub-clause shall be satisfied if the sub-contractor shall have insured against the liability in respect of such persons in such manner that the PHPA-II is indemnified under the policy, but the Contractor shall require such sub-contractor to produce to the Engineer-in-Charge or the Engineer-in-Charge's Representative, when required, such policy of insurance and the receipt for the payment of the current premium.

**Clause – 25 Remedy on Contractor's Failure to Insure**

If the Contractor shall fail to affect and keep in force the insurances referred to in Clauses – 21, 23 and 24 hereof, or any other insurance which he may be required to affect under the terms of the Contract, then and in any such case the PHPA-II may affect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the PHPA-II as aforesaid from any money due or which may be become due to the Contractor, or recover the same as a debt due from the Contractor.

Failure of the Contractor to maintain adequate insurance cover as set out under Clause – 21, 23 and 24 hereof or any other insurance which he may be required to affect under the terms of the Contract, shall not relieve him of any Contractual responsibility.

**Clause – 26 Giving of Notices, Payment of Fees and Compliance with Statutes and Regulations etc.**

i) Giving of Notices and Payment of Fees

The Contractor shall give all notices and pay all fees required to be given or paid by any Statute, Ordinance, or other Law, or any regulation, or bye-law of any local or other duly constituted authority in relation to the execution of Works and by the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the Works.

ii) Compliance with Statutes, Regulations etc.

The Contractor shall conform in all respects with the provisions of any such Statute, Ordinance or Law as aforesaid and the regulations or bye-laws of any local or other duly constituted authority which may be applicable to the Works and with such rules and regulations of public bodies and companies as aforesaid and shall keep the **PHPA-II** indemnified against all penalties and liability of every kind for breach of any such Statute, Ordinance or Law, regulation or by-law.

iii) The PHPA-II will repay or allow to the Contractor all such sums as the Engineer-in-Charge shall certify to have been properly payable and paid by the Contractor in respect of such fees.

**Clause – 27 Fossils etc.**

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site of the Works shall, as between the PHPA-II and the Contractor, be deemed to be the absolute property of the PHPA-II/RGoB. 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-in-Charge or the Engineer-in-Charge's Representative of such discovery and carry out, at the expenses of the PHPA-II, the Engineer-in-Charge's or the Engineer-in-Charge's Representative's orders as to the disposal of the same.

**Clause – 28 Patent Rights and Royalties**

- i) The Contractor shall save harmless and indemnify the PHPA-II from and against all claims and proceedings for or on account of infringement of any patent rights, designs, trademark or name or other protected rights in respect of any Constructional Plant, machine, work, or material used for or in connection with the Works or any of them and from and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. Except where otherwise specified, the Contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay, timber or other construction materials required from Bhutan for the Project.
  
- ii) In the event of any claims made under or action brought against the PHPA-II in respect of any such matters as aforesaid, the Contractor shall be immediately, notified thereof and the Contractor shall be at liberty, at his own expense, to settle any disputes or to conduct any litigation that may arise therefrom. Provided that the Contractor shall not be liable to indemnify the PHPA-II if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

**Clause – 29 Interference with Traffic and Adjoining Properties**

All operations necessary for the execution of the Works shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with the convenience of the public, or the access to, use and occupation of public or private roads and footpaths to or of properties whether in the possession of the PHPA-II or of any other person. The Contractor shall save harmless and indemnify the PHPA-II in respect of all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of, or in relation to, any such matters in-so-far as the Contractor is responsible there for.

### **Clause – 30 Extraordinary Traffic**

i) Protection of Highways and Bridges

The Contractor shall use every reasonable means to prevent any of the highways 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 sub-contractors 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 plant and material 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 highways and bridges.

ii) Special Loads

Should it be found necessary for the Contractor to move one or more loads of Constructional Plant, machinery or pre-constructed units or parts of units of work over part of a highway or bridge, the moving whereof is likely to damage any highway or bridge unless special protection or strengthening is carried out, then the Contractor shall, before moving the load on to such highway or bridge, give notice to the Engineer-in-Charge or Engineer-in-Charge's Representative of the weight and other particulars of the load to be moved and his proposals for protecting or strengthening the said highway or bridge. Unless within fourteen days of the receipt of such notice, the Engineer-in-Charge shall, by counter-notice, direct that such protection or strengthening is unnecessary, then the Contractor will carry out such proposals or any modification thereof that the Engineer-in-Charge shall require and, unless there is an item or are items in the Bill of Quantities for pricing by the Contractor of the necessary works for the protection or strengthening aforesaid, the costs thereof shall be paid by the PHPA-II to the Contractor.

iii) Settlement of Extraordinary Traffic Claims

If during the execution of the Works or at any time thereafter the Contractor shall receive any claim arising out of the execution of the Works in respect of damage or injury to highways or bridges, he shall immediately report the same to the Engineer-in-Charge and thereafter the PHPA-II 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 always that if and so far as any such claims or part thereof shall, in the opinion of the Engineer-in-Charge, be due to any failure on the part of the Contractor to observe and perform his obligations under sub-clauses (i) and (ii) of this Clause, then the amount certified by the Engineer-in-Charge to be due to such failure shall be paid by the Contractor to the PHPA-II.

### **Clause – 31 Opportunities for other Contractors**

The Contractor shall, in accordance with the requirements of the Engineer-in-Charge, afford all reasonable opportunities for carrying out their works to any other Contractors employed by the PHPA-II and their workmen and to the workmen of the PHPA-II and of any other 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 PHPA-II may enter into in connection with or ancillary to the Works.

### **Clause – 32 Contractor to keep Site clear**

- (i) During the progress of the Works, the Contractor shall keep the site reasonably free from all unnecessary obstructions and shall store or dispose of any Constructional plant and surplus materials and clear away and remove from the site any wreckage, rubbish or Temporary Works no longer required.
- (ii) In case the Contractor does not keep the area clean and if found necessary to get the area cleaned, the Engineer-in-Charge shall issue a notice of forty eight hours, and in the event of non-compliance by the Contractor, get the area cleaned by some other agency. The cost of such cleaning shall be borne by the Contractor. In case of rubbish accumulating due to deposition by more than one Contractor, the share of charges to be borne by the Contractors as indicated by the Engineer-in-Charge shall be final.

### **Clause – 33 Clearance of Site on Completion**

On the completion of the Works, the Contractor shall clear away and remove from the Site all Constructional Plant, surplus materials, rubbish and Temporary Works of every kind, and leave



the whole of the site and Works clean and in a workman like condition to the satisfaction of the Engineer-in-Charge.

## **LABOUR**

### **Clause – 34 Labour**

(i) Engagement of Labour

The Contractor shall make his own arrangements for the engagement of all labour local or otherwise, and, save in-so-far as the Contract otherwise provides, for the transport housing, feeding and payment thereof. The Contractor shall not employ in connection with the Works any person who has not completed 18 years of age. No female labour shall be employed in night shifts. The Contractor shall have to arrange permits for the labour/staff for their entry into Bhutan, at his own cost. The recruitment of labour force, technical, administrative and other personnel of the contractor engaged on the project will be confined to nationals of Bhutan and India. However, the Contractor shall recruit local manpower (skilled and unskilled) and use local resources to the extent possible

(ii) Supply of Water

The Contractor shall, having regard to local conditions, provide on the Site, to the satisfaction of the Engineer-in-Charge or his Representative, an adequate supply of drinking and other water for the use of the Contractor's staff and workmen.

(iii) Alcoholic Liquor & Drugs

The Contractor shall not, otherwise than in accordance with the Statutes, Ordinances and Government Regulations or orders for the time being in force, import, sell, give, barter or otherwise dispose of any alcoholic liquor, or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by his Sub-Contractors, agents or employees.

(iv) Disorderly Conduct, etc.

The Contractor shall, at all times, take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his employees and for the preservation of peace and protection, of persons and property in the neighbourhood of the Works against the same.

(v) Contractor to Follow Labour Laws and Chathrim

The Contractor shall, in respect of labour employed by him, comply with the provision of the various labour laws, Minimum Wages as per Chathrim issued by Ministry of Home Affairs, RGoB and shall indemnify the PHPA-II in respect of all claims that may be made against the PHPA-II for non-compliance thereof by the Contractor.

Notwithstanding anything contained herein, the Engineer-in-Charge may take such actions as may be necessary for compliance of the various labour laws and recover the costs thereof from the Contractor.

(vi) Observance by Sub-Contractors

The Contractor shall be responsible for observance by his Sub-Contractors of the foregoing provisions.

**Clause – 35 Returns of labour etc.**

The Contractor shall, deliver to the Engineer-in-Charge or his Representative, a return in detail in such form and at such intervals as the Engineer-in-Charge may prescribe showing the supervisory staff and the number of the several classes of labour from time to time employed by the Contractor on the site and such information in respect of constructional plant as the Engineer-in-Charge may require.

## **MATERIALS AND WORKMANSHIP**

### **Clause – 36 Materials and Workmanship**

- i) Materials and Workmanship
  - a) The Contractor shall be responsible for arranging all the materials required for the construction of the Works from the source(s) acceptable to the PHPA-II. He shall also be responsible for proper transportation and storage of these materials to the satisfaction of the Engineer-in-Charge and shall bear all related costs.
  - b) The Engineer-in-Charge shall be entitled at any reasonable time, to inspect or examine all such materials. The Contractor shall provide reasonable assistance for such inspection or examination as may be required.
  - c) The Contractor shall initiate timely action to procure the materials well in advance so as to ensure that the progress of Works does not suffer for want of the materials on the site at least thirty days before these are intended to be used on Works. Any setback to the progress of the Works and consequent delay in completion of the Works on account of non-availability of materials on Site shall be the sole responsibility of the Contractor.
  - d) Any assistance that the Engineer-in-Charge can give to the Contractor for arranging the materials shall be provided on a “no responsibility basis”.
- (ii) Quality of materials and Workmanship and Tests
  - (a) The Contractor shall, provide the materials of the quality, kind and specifications as provided in the Contract. The Contractor shall produce to the Engineer-in-Charge, certified quality test reports in respect of the materials procured by him.
  - (b) In case the materials procured by the Contractor are not to the satisfaction of the Engineer-in-Charge and do not conform to the specifications laid in the Contract,

such materials shall be rejected by the Engineer-in-Charge and the cost incurred on such procurement shall be responsibility of the Contractor.

- (c) The Bidders shall specify, in their Bid, the source of supply of the key materials to satisfy the PHPA-II that the materials of standard quality and specifications are procured. In case the source specified by the Bidder is not acceptable to the PHPA-II, the Bidder shall be required to substitute the source by an acceptable source. Additional suppliers and change of suppliers shall be subject to the approval of the Engineer-in-Charge.
  - (d) The workmanship shall be of the kind described in the Contract and in accordance with the Engineer-in-Charge's instructions.
  - (e) All the materials and the workmanship shall be subjected, from time to time, to such tests as the Engineer-in-Charge may require at the place of manufacture, fabrication or preparations, or on the Site or at such other place or places as may be specified in the Contract, or at all of any of such places. The Contractor shall provide such assistance, instruments, machines, labour and materials as are required for examining, measuring and testing any material and shall supply samples of materials, before incorporation in the Works, for testing, as may be selected and required by the Engineer-in-Charge.
- (iii) Cost of Samples

All samples shall be supplied by the Contractor at his own cost.

- (iv) Cost of Tests

The cost of making any test intended by or provided for in the Contract shall be borne by the Contractor.

- (v) Cost of Tests not provided for etc.

If any test is ordered by the Engineer-in-Charge which is either:

- (a) Not so intended by or provided for, or

- (b) (In the cases above mentioned) is not so particularized, or
- (c) (though so intended or provided for) is required by the Engineer-in-Charge to be carried out at any place other than the site or the place of manufacture or fabrication or preparation, of the materials tested, shows the workmanship or materials not to be in accordance with the provisions of the Contract or the satisfaction of the Engineer-in-Charge, then the cost of such test shall be borne by the Contractor.

**Clause – 37 Inspection of Operations**

The Engineer-in-Charge or any person authorized by him shall, at all times, have access to the Works and to all workshops and places where the Work is being prepared or from where materials, manufactured articles or machinery are being obtained for the Works and the Contractor shall afford every facility for and every assistance in or in obtaining the right to such access.

**Clause – 38 Examination of Work before covering up**

- i) No Work shall be covered up or put out of view without the approval of the Engineer-in-Charge or his Representative and the Contractor shall afford full opportunity for the Engineer-in-Charge or the Engineer-in-Charge’s Representative to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereof. The Contractor shall give due notice whenever any such work or foundations is or are ready or about to be ready for examination and the Engineer-in-Charge or the Engineer-in-Charge’s Representative shall, without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such work or of examining such foundations.
- ii) Uncovering and making Openings

The Contractor shall uncover any part or parts of the Works or make openings in or through the same as the Engineer-in-Charge or Engineer-in-Charge’s Representative may, from time to time, direct and shall reinstate and make good such part or parts to the

satisfaction of the Engineer-in-Charge and all such costs shall be borne by the Contractor.

**Clause – 39 Removal of Improper Work and Materials**

- i) The Engineer-in-Charge shall have power 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 instructions, of any materials which, in the opinion of the Engineer-in-Charge, are not in accordance with the Contract,
  - b) the substitution of proper and suitable materials, and
  - c) the removal and proper re-execution, notwithstanding any previous test thereof or interim payment there for, of any work which in respect of materials or workmanship is not, in the opinion of the Engineer-in-Charge, in accordance with the Contract.
  
- ii) Default of Contractor in Compliance

In case of default on the part of the Contractor in carrying out such instruction, as specified in sub-clause (i) of this clause, the Engineer-in-Charge shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental thereto shall be recoverable from the Contractor by the Engineer-in-Charge or may be deducted from any money due or which may become due to the Contractor.

**Clause – 40 Suspension of Work**

- i) The Contractor shall, on the written order of the Engineer-in-Charge, suspend the progress of the Works or any part thereof for such time or times and in such manner as the Engineer-in-Charge 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-in-Charge. The extra cost incurred by the Contractor in giving effect to the instructions of the Engineer-in-Charge under this Clause shall be borne and paid by the PHPA-II 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
- c) necessary by reasons 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 in so far as such necessity does not arise from any act or default by the Engineer-in-Charge or from any of the risks defined in Sub-Clause – 20(vi) hereof.

Provided that the Contractor shall not be entitled to recover any such extra cost unless he gives written notice of his intention to claim to the Engineer-in-Charge within twenty eight days of the order of the Engineer-in-Charge. The Engineer-in-Charge shall settle and determine such extra payment and/or extension of time under Clause-44 hereof to be made to the Contractor in respect of such claim as shall, in the opinion of the Engineer-in-Charge be fair and reasonable.

- ii) Suspension lasting more than 90 days

If the progress of the Works or any part thereof is suspended on the written order of the Engineer-in-Charge and if permission to resume work is not given by the Engineer-in-Charge within a period of ninety days from the date of suspension, then, unless such suspension is within paragraph (a), (b), (c) or (d) of sub-clause (i) of this Clause, the Contractor may serve a written notice on the Engineer-in-Charge requiring permission within twenty eight days from the receipt thereof to proceed with the Works, or that part thereof in regard to which progress is suspended and if such permission is not granted within that time, the Contractor by a further written notice so served may, but is not bound to, elect or treat the suspension where it affects part only of the Works as an omission of such part under Clause – 51 hereof, or, where it affects the whole Works, as an abandonment of the Contract by the PHPA-II.

## **COMMENCEMENT AND DELAYS**

### **Clause – 41 Commencement of Works**

The Contractor shall commence the Works on Site within a period of thirty days from the issue of the Letter of Award to him to this effect by the PHPA-II and shall proceed with the Works with due expedition and without delay.

### **Clause – 42 Possession of Site**

- i) Save insofar as the Contract may prescribe, the extent of portions of the Site of which the Contractor is to be given possession from time to time, and the order in which such portion 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 Engineer-in-Charge will after issuing written order to commence the Works, give to the Contractor possession of so much of the Site 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 hereof, if any, and otherwise in accordance with such reasonable proposals of the Contractor as he shall, by written notice to the Engineer-in-Charge, make and will, from time to time as 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 despatch in accordance with such programme or proposals, as the case may be. If the Contractor suffers delay or incurs cost from failure on the part of the Engineer-in-Charge to give possession in accordance with the terms of this Clause, the Engineer-in-Charge shall grant an extension of time for the completion of the Works and certify such sum as, in his opinion, shall be fair to cover the cost incurred, which sum shall be paid by the PHPA-II.

The Contractor shall not be allowed to occupy other Government and/or PHPA-II land for temporary uses or otherwise without the prior consent of the Engineer-in-Charge.

- ii) 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 purpose of the Works.

**Clause – 43 Time for Completion**

The period of completion of the whole of the Work shall be 66 months or such extended time as may be allowed under Clause – 44 hereof. The period of completion shall be reckoned from the thirtieth day of issue of the Letter of Award to the Contractor by the PHPA-II. A drawing indicating Construction Schedule is enclosed in Volume – IV of these documents.

**Clause – 44 Extension of Time for Completion**

Should the amount of extra or additional work of any kind or any cause of delay referred to in these Conditions, or exceptional adverse climatic conditions, or other special circumstances of any kind whatsoever which may occur, other than through a default of the Contractor, be such as fairly to entitle the Contractor to an extension of time for the Completion of the Works, the Engineer-in-Charge shall determine the period of such extension and shall notify the Contractor accordingly. Provided that the Engineer-in-Charge is not bound to take into account any extra or additional or other special circumstances unless the Contractor has, within 28 days after such work has been commenced, or such circumstances have arisen, or as soon thereafter as is practicable, submitted to the Engineer-in-Charge, full and 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. The Contractor shall not be entitled to any payment for the time related costs incurred by him, if any, except those provided under the Contract, during the extended period for completion of Works.

**Clause – 45 Shift Works**

- i) To achieve the required progress, the Work may be required to be carried out round the clock. The period of completion and number of working days shall not be affected by the number of shifts each day. No extra amount on account of any shift work is payable to the Contractor.
- ii) Whenever the Work is carried out at night, adequate lighting of working areas and access paths shall be provided by the Contractor at his cost. Sufficient notice shall be

given by the Contractor to the Engineer-in-Charge regarding details of Works in shifts so that necessary supervision could be provided.

**Clause – 46 Rate of Progress**

- i) To ensure proper progress during the execution of the Works, the Contractor shall complete 1/8<sup>th</sup> of the Works before 1/4<sup>th</sup> of the whole time allowed in the Contract has elapsed, 3/8<sup>th</sup> of the Works before one half of such time has elapsed and 3/4<sup>th</sup> of Works before 3/4<sup>th</sup> of such time has elapsed.
  
- ii) If for any reason, which does not entitle the Contractor to an extension of time, the rate of progress of the Works of any section at any time is not commensurate with the rate of progress stipulated in Sub-clause (i) of this Clause and in the opinion of the Engineer-in-Charge does not ensure completion by the prescribed time or extended time for completion, the Engineer-in-Charge shall so notify the Contractor in writing and the Contractor shall thereupon take such steps as are necessary and the Engineer-in-Charge may approve to expedite progress so as to complete the Works or such section by the prescribed time or extended time. The Contractor shall not be entitled to any additional payment for taking such steps.

**Clause – 47 Liquidated Damages for Delay**

- i) If the Contractor shall fail to achieve completion of the Works within the time prescribed by Clause – 43 hereof, then the Contractor shall pay to the PHPA-II, the sum stated in sub-clause (iii) of this Clause as liquidated damages for such default for every day or part of a day which shall elapse between the time prescribed by Clause – 43 hereof and the date of certified completion of the Works. The PHPA-II may without prejudice to any other method of recovery, deduct the amount of such damages from any money in its hands, due or which may 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.

ii) Deduction of Liquidated Damages

If, before the Completion of the whole of the Works, any part or section of the Works has been certified by the Engineer-in-Charge as completed, pursuant to Clause-48 hereof, and occupied or used by the PHPA-II, the liquidated damages for delay shall, for any period of delay after such certificate and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part or section so certified bears to the value of the whole of the Works.

- iii) Pursuant to sub-clauses (i) and (ii) of this Clause, should the Contractor fail to complete the separable portions of the Work identified below or to complete the whole of the Work within the periods and dates specified under the Contract, the Contractor shall pay to the PHPA-II as fixed liquidated damages the sums shown below for any calendar day or a part of a calendar day of delay under the Contract.

Mile- Stone No.	Description	Time of completion (months)	Amount of Liquidated damages per day
1)	Construction of all adits complete	18	Rs. 1.30 (one point three) million subject to a maximum of Rs. 130 (one thirty) million.
2)	-Excavation of Pilot Hole for Pressure Shaft complete and enlargement to full section 50% complete. -Excavation of Machine Hall Cavern 50% complete. -TRT Excavation 50% complete -HRT Excavation 50% complete	33	Rs. 4.00 (four) million subject to a maximum of Rs. 400 (four hundred) million including Rs. 130 (one thirty) million as at (1) above.

3)	-Erection of Steel Liner of Pressure Shaft 75% complete. -Machine Hall Cavern Excavation complete and concreting for equipment 40% complete -TRT Excavation complete -HRT Excavation complete -Concreting lining 10% complete and Surge Shaft excavation complete.	48	Rs. 8.0 (eight) million subject to a maximum of Rs. 800 (eight hundred) million including Rs. 400 (four hundred) million as at (2) above.
4)	All Works Complete	66	Rs. 10.0 (ten) million subject to a maximum of 10% of the Contract Price.

If the liquidated damages are levied on any items of work on account of delay in some Milestone and if, the Contractor achieves the next Milestone within specified time, the liquidated damages already levied for that item of work shall be refunded.

iv) The aggregate of the liquidated damages payable to the PHPA-II under this clause shall be subject to a maximum of ten percent of the Contract Price.

#### **Clause – 48 Certification of Completion of Works**

When the whole of the Works have been substantially completed and have satisfactorily passed any final test that may be prescribed by the Contract, the Contractor may give a notice to that effect to the Engineer-in-Charge or to the Engineer-in-Charge's Representative(s) accompanied by an undertaking to finish any outstanding work during the Period of Maintenance. Such notice and undertaking shall be in writing and shall be deemed to be a request by the Contractor for the Engineer-in-Charge to issue a Certificate of Completion in respect of the Works. The Engineer-in-Charge shall, within twenty-one days of the date of delivery of such notice either issue to the Contractor, a Certificate of Completion stating the date on which, in his opinion, the Works are substantially completed in accordance with the Contract or give instructions in writing to the Contractor specifying all the Works which, in the Engineer-in-Charge's opinion, are required to be done by the Contractor before the issue of such Certificate. The Engineer-in-Charge 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 Certificate of Completion within twenty-one days of completion to the satisfaction of the Engineer-in-Charge of the Works so specified and making good any defects so notified.

## **MAINTENANCE AND DEFECTS**

### **Clause – 49 Maintenance and Defects**

i) Period of Maintenance

In these Conditions, the expression “Period of Maintenance” shall mean a period of thirty six months calculated from the date of completion of the Works, certified by the Engineer-in-Charge in accordance with Clause – 48 hereof.

ii) Execution of Work of Repair, etc.

To the intent that the Works shall, at or as soon as practicable after the expiration of the Period of Maintenance be delivered to the PHPA-II in the condition required by the Contract, fair wear and tear excepted, to the satisfaction of the Engineer-in-Charge, the Contractor shall complete the work, if any, outstanding on the date of completion, as certified under Clause – 48 hereof, as soon as practicable after such date and shall execute all such work of repair, amendment, reconstruction, rectification and making goods defects, imperfections, shrinkages or other faults as may be required of the Contractor in writing by the Engineer-in-Charge during the Period of Maintenance or within fourteen days after its expiration, as a result of an inspection made by or on behalf of the Engineer-in-Charge prior to its expiration.

iii) Cost of Execution of Works of Repair, etc.

All repair works shall be carried out by the Contractor at his own expense if the necessity thereof shall, in the opinion of the Engineer-in-Charge, be due to the use of materials or workmanship not in accordance with the Contract, or due to 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-in-Charge such necessity shall be due to any other cause, the value of such work shall be ascertained and paid for as if it were additional work.

iv) Remedy on Contractor's Failure to carry out Work Required

If the Contractor shall fail to do any such work as aforesaid required by the Engineer-in-Charge, the PHPA-II shall be entitled to employ and pay other persons to carry out the same and if such work is the work which, in the opinion of the Engineer-in-Charge, the Contractor was liable to do at his own expense under the Contract, then all expenses consequent there on or incidental thereto shall be recoverable from the Contractor by the Engineer-in-Charge from any money due or which may become due to the Contractor.

**Clause – 50 Contractor to Search**

The Contractor shall, if required by the Engineer-in-Charge in writing, search under the directions of the Engineer-in-Charge for the cause of any defect, imperfection or fault appearing during the progress of the Works or in the Period of Maintenance. Unless such defect, imperfection or fault is one for which the Contractor is liable under the Contract, the cost of work carried out by the Contractor in searching as aforesaid shall be borne by the PHPA-II. If such defect, imperfection or fault shall be one for which the Contractor is liable as aforesaid, the cost of the work carried out in searching as aforesaid shall be borne by the Contractor and he shall in such case repair, rectify and make good such defect, imperfection or fault at his own expense in accordance with the provisions of Clause – 49 hereof.

**ALTERNATIONS, ADDITIONS, OMISSIONS AND EXTRA ITEMS**

**Clause – 51 Variations**

- i) The Engineer-in-Charge shall make any variation in the form, quality or quantity of the Works or any part thereof or substitution for original specifications, design, drawings and instructions 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 power to order the Contractor to do and the Contractor shall do any or all of the following:

- a) increase or decrease the quantity of any work included in the Contract,
- b) omit or substitute any such work,
- c) change the character or quality or kind of any such work
- d) change the levels, lines, positions and dimensions of any part of the works
- e) execute, additional work of any kind necessary for the completion of the Works, and
- f) Change any specified sequence, or timing of construction of any part of the Works.

No such variations 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 hereof.

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. Any altered, additional or substituted work which the Contractor may be directed to do in the manner above specified as part of the Work, shall be carried out by the Contractor on the same conditions in all respects on which he agreed to do the main Work.

- ii) The Unit Rates entered in the Bill of Quantities for the individual items shall apply for the quantities of Work increased or decreased by not more than thirty percent (30%) for each item except for the item of road maintenance. Should the quantity of Work actually executed under any item exceed by more than thirty percent (30%) of the quantity provided in the Bill of Quantities for that item, the rate for such excess over 130% quantity under the item may be revised in accordance with the procedure indicated under Clause – 52 hereof. Should the quantity of work actually involved under any item, get reduced by more than 30% of the quantity provided in the Bill of Quantities for that item, the rate for that item may be revised in accordance with the procedure indicated in Clause – 52. The payment for this item will continue to be made at the original rate till revised rate is decided.

However, the total payment for the reduced quantity of the item which is less than 70% of the quantity provided in the Bill of Quantities for that item, at the revised rate when compared at base date shall be subject to a maximum of total payment for the 70%

quantity of the item provided in the Bill of Quantities at the rate provided in the Bill of Quantities. Price adjustment will be applicable as per Clause-70 of this Document.

**Clause – 52 Extra Items**

The rates for such items of Work as are required to be executed due to variations, as stated in Clause – 51 above shall be payable in the manner as stated hereunder:

- i) The rates already provided in the Bill of Quantities, shall apply in respect of the same item(s) of Works to be executed due to variation subject to provisions of Clause – 51 (ii) above.
- ii) For the variation in quantities in respect of item(s) exceeding the prescribed limits of  $\pm$  30% as aforesaid, the rates for such item(s) and the rates for extra items not existing in the Bill of Quantities for the respective sub-head shall be determined by the Engineer-in-Charge on the basis of actual analysed cost comprising of the cost of materials to be supplied by the Contractor (including transportation and taxes, levies if paid), wages of labour actually engaged for the particular work and 80% (skilled labour) & 55% (unskilled labour) thereof on the cost of such labour component so as to cover the fringe benefits and other indirect/incidental expenses required to be actually incurred on the labour by the Contractor including cost on account of compliance with all the Acts, Laws, Statutes, Regulations or Bye Laws pertaining to labour, cost of ownership and operation and maintenance of plant and machinery used for the work plus 25% to cover the Contractor's overheads, profits, supervision and other charges. The above indirect labour charges are as per CWC guide lines (Committee on cost control of river valley project Report Volume-II). If, as and when, there is any revision of the CWC guidelines in these percentages of hidden charges, such revised percentages shall be made applicable. The profit element shall be 10 (ten) percent. The hourly use rate of equipment shall be worked out as per latest CWC guidelines.

For the purpose of Price adjustment, the rates analysed as above will be de-escalated to base date and Price adjustment will be applied as per Clause-70.



The decision of Engineer-in-Charge in deriving rates as aforesaid, shall be conclusive and binding on the Contractor.

- iii) If requested by the Contractor the time for completion of the work shall, in the event of any variation resulting in additional cost over the Contract Price, be extended in the proportion which the altered, additional or substituted work bears to the original Contract Price plus such further additional time as may be considered reasonable by the Engineer-in-Charge whose decision shall be conclusive as to such provision.
- iv) Under no circumstances, the Contractor shall at any stage suspend the work on account of non-settlement of rates of such varied Work.

## **PLANT, TEMPORARY WORKS AND MATERIALS**

### **Clause – 53 Plant, Temporary Works and Materials**

- i) Contractor to Provide Plant

The Contractor shall provide at his own expense all Constructional Plant, Temporary Work and materials including Equipment, Materials and Camps specified under para 1.2 of Chapter I of this document required for the execution of the Works. He shall furnish alongwith the bid a list of items of all Constructional Plant and machinery which he shall be deploying on the particular job. He shall also make necessary arrangements for supplementing them at his own expense, if required to do so by the Engineer-in-Charge at the time of award of the Contract, or later on as the Work progresses.

Within thirty days after the issue of the Letter of Award, the Contractor shall submit a Schedule of the mobilization of the Constructional Plant conforming with the plant list submitted with his bid. He shall also indicate whether he owns the Constructional Plant or he proposes to purchase or hire the same and shall furnish proof that he shall be able to arrange this Constructional Plant whether from his own resources or on hire. He shall also submit a list of the Constructional Plant required during the first year along with a list of the orders for purchase/hire of this Constructional Plant.

ii) Plant etc., Exclusive Use for the Works

All Constructional Plant, 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 Work 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, in writing, of the Engineer-in-Charge.

iii) Removal of Plant etc.

Upon completion of the Works, the Contractor shall remove from the Site all the said Constructional Plant and Temporary works remaining thereon and any unused materials provided by the Contractor.

iv) PHPA-II not Liable for Damage to Plant etc.

The PHPA-II shall not at any time be liable for the loss of or damage to any of the said Constructional Plant, Temporary Works or materials save as mentioned in Clause – 20 and Clause – 65 hereof.

v) Customs Clearance

The PHPA-II will assist the Contractor where required, in obtaining import license and import duty exemption certificate for third country imports of Constructional Plant and other things required for the works. The Contractor shall be responsible for customs clearance at the port of destination and payment of customs fee and customs clearance charges etc.

vi) Definitions

For the purpose of sub Clause (vii) and (viii) the following expressions shall have the meanings hereby assigned to them.

- a) the expression “Equipment” shall mean any Constructional Plant, Equipment, Temporary Works and materials for Temporary works, and includes vehicles engaged in transporting these and supervisory staff and materials for the Permanent Works on the Site, but shall exclude any vehicles engaged in transporting any labour, Constructional Plant, Equipment, Temporary Works and materials for the permanent Works to or from the Site.
  - b) the expression “agreement for hire” shall be deemed not to include an agreement for hire purchase.
- vii) Conditions of Hire of Equipment

With a view to securing, in the event of a forfeiture under Clause-63 hereof, the continued availability, for the purpose of executing the works, of any hired Equipment, the Contractor shall not bring on to the Site any hire Equipment unless there is an agreement for the hire thereof which contains a provision that the owner thereof will, on request in writing made by the PHPA-II within seven days after the date on which any forfeiture has become effective, and on the PHPA-II undertaking to pay all hire charges in respect thereof from such date, hire such equipment to the PHPA-II on the same terms in all respects as the same was hired to the Contractor save that the PHPA-II shall be entitled to permit the use thereof by any other Contractor employed by it for the purpose of completing and maintaining the Works under the terms of said Clause – 63.

- viii) In the event of the PHPA-II entering into any agreement for the hire of Equipment pursuant to sub-clause (vii) of this Clause, all sums properly paid by the PHPA-II under the provisions of any such agreement and all expenses incurred by it (including stamp duties) in entering into such agreement shall be deemed for the purpose of Clause – 63 to be part of the cost of completing and maintaining the Works.
- ix) If the Contractor requires any item of Constructional Plant on hire from the PHPA-II, the Engineer-in-Charge shall, if such item is available and is spare, hire it to the Contractor who shall ascertain the rate of hire charges and the terms and conditions from the Engineer-in-Charge in writing before taking delivery of the Constructional Plant.

The recoveries of hire charges of the Constructional Plant shall be effected in full from the Contractor's interim payments and from the final account, if necessary.

Non-availability of such Constructional Plant shall not be accepted either as a reason for delay in completion of Work under this Contract or as a ground for extension of time for completion of such Works.

**Clause – 54 Approval of Materials etc. not implied**

The operation of Clause – 53 hereof shall not be deemed to imply any approval by the Engineer-in-Charge of the materials or other matters referred to there-in nor shall it prevent the rejection of any such materials at any time by the Engineer-in-Charge.

**MEASUREMENT**

**Clause – 55 Quantities**

The quantities set out in the Bill of Quantities are the estimated quantities of the Work, but they are not to be taken as the actual quantities of the Works to be executed by the Contractor in fulfillment of his obligations under the Contract.

**Clause – 56 Works to be measured**

The Engineer-in-Charge shall, except as otherwise stated, ascertain and determine by measurement the value in terms of the Contract of work done in accordance with the Contract. He shall, when he requires any part or parts of the Works to be measured, give notice to the Contractor's authorized agent or representative, who shall forthwith attend or send a qualified agent to assist the Engineer-in-Charge in making such measurement, and shall furnish all particulars required by either of them. Should the Contractor not attend, or neglect or omit to send such agent, then the measurement made by the Engineer-in-Charge or approved by him shall be taken to be the correct measurement of the work. For the purpose of measuring such permanent work as it to be measured by records and drawings, the Engineer-in-Charge's Representative shall prepare records and drawings month by month of such work and the Contractor, as and when called upon to do in writing, shall, within fourteen days, attend to

examine and agree such records and drawings with the Engineer-in-Charge's Representative and shall sign the same when so agreed. If the Contractor does not so 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 with the same or does not sign the same as agreed, they shall nevertheless be taken to be correct, unless the Contractor shall, within fourteen days of such examination, lodge with the Engineer-in-Charge's Representative for decision by the Engineer-in-Charge, notice in writing of the respects in which such records and drawings are claimed by him to be incorrect.

**Clause-57 Method of Measurement**

The Works shall be measured net, notwithstanding any general or local custom, except where otherwise specifically described or prescribed in the Contract.

**Clause-58 Security Rules**

The Project shall be a protected Area. The Contractor, his employees and labourers shall have to follow the Security Rules as may be imposed from time to time by the Engineer-in-Charge. If the Contractor, his employees or labourers are found to be reluctant to follow the Rules, the Engineer-in-Charge will have the right to prohibit such persons from entering into the Project Area.

**Clause-59 Indian Personnel**

- i) The Contractor shall submit to the PHPA-II, the details and bio-data of all personnel he proposes to bring into Bhutan for the performance of the Works under the Contract. Such data for each person shall, besides the proof of his Indian citizenship, contain the name, his present address, his assignment and responsibility in connection with the Works, and a short resume of his qualifications, experience etc. in relation to the Works to be performed by him.
  
- ii) Any person unsuitable and unacceptable to the PHPA-II shall not be brought to Bhutan. Any person, if found unsuitable or unacceptable to the PHPA-II on a later date, shall

- within a reasonable time, be repatriated by the Contractor, who shall make alternative arrangements for providing a suitable replacement
- iii) No person brought to Bhutan for the purposes of the Works shall be repatriated without the consent of the PHPA-II in writing, which shall be based on a written request from the Contractor for such repatriation giving reasons for such an action to the Engineer-in-Charge. The PHPA-II may give permission for such repatriation provided it is satisfied that the progress of Works shall not suffer due to such repatriation/replacement.
- iv) The Contractor and his expatriate personnel shall observe/respect all Bhutanese Acts, Laws, Rules and Regulations and shall not in any way interfere with Bhutanese political and religious affairs and shall meticulously follow any other Rules and Regulations which the RGoB, the PHPA-II and the Engineer-in-Charge may impose on them from time to time. The Contractor's expatriate personnel shall work and live in close co-operation with their co-workers and the community and shall not engage themselves in any other employment either part time or full time nor shall they take part in any local politics.
- v) The PHPA-II will assist the Contractor, to the extent possible, in obtaining necessary permits to travel to Bhutan and back by issue of necessary certificates and other information needed by the RGoB and other agencies.

## **CERTIFICATES AND PAYMENT**

### **Clause – 60 Certificates and Payment**

- i) Interim Payment Certificate
- I. The Contractor shall submit an application for interim payment, in duplicate, to the Engineer-in-Charge at the end of each month in a Proforma approved by the Engineer-in-Charge. The application shall include the following items, as applicable, which shall be taken into account in the sequence listed.

- a) the estimated Contract value of the Permanent Works executed upto the end of the month in question, obtained by applying the base unit rates and prices in the Bill of Quantities to the quantities measured by the Engineer-in-Charge pursuant to Clause – 56, hereof.
- b) The estimated Contract value of the Permanent Works obtained as in (a) above, executed upto the end of the previous month.
- c) the estimated Contract value at base unit rates and prices, of the Permanent Works for the month in question obtained by deducting (b) from (a).
- d) An amount reflecting any changes pursuant to Clause – 70 hereof.
- e) any amount to be withheld under the retention provisions of sub-clause (iii) of this Clause, determined by applying the percentage set forth in paragraph (iii) (a) of this Clause to the sum of the amounts under sub-clauses (c), and (d).
- f) Any credit or debit for the month in question in respect of materials on Site intended for, but not yet incorporated in, the Permanent Works in the amount and under the conditions set forth in sub clause (ii) of this Clause;
- g) Any amount to be deducted on account of the repayment of Advances under the provisions set forth in sub-clause (vi) of this Clause, and
- h) Any other sum to which the Contractor may be entitled under the Contract.

II. Within twenty eight days of receipt of the said applications for interim payment, it shall be approved or amended such that, in the Engineer-in-Charge’s opinion, the certificate reflects the amount due to the Contractor in accordance with the Contract. In cases where there is difference of opinion as to the value of any item, the Engineer-in-Charge’s view shall prevail. When the Engineer-in-Charge

has determined the amount due to the Contractor, he shall issue to the Contractor a certificate hereinafter called “Interim Payment Certificate” certifying the amount due to the Contractor, and

III. No Interim Payment Certificate shall be issued for a sum less than one percent of the Contract Price.

ii) Materials for the Permanent Works

The Contractor shall be entitled to such sum as the Engineer-in-Charge may consider proper in respect of materials including Gates, Gate parts and embedments intended for but not yet incorporated in the Permanent Works provided that;

- a) the materials are in accordance with the Specification for the Permanent Works,
- b) Such materials have been delivered to site, and are properly stored and protected against loss or damage or deterioration to the satisfaction of the Engineer-in-Charge.
- c) the Contractor’s records of the requirements, orders, receipts and use of materials are kept in a form approved by the Engineer-in-Charge and such records shall be available for inspection by the Engineer-in-Charge,
- d) the Contractor shall submit with his monthly statement the estimated value of the materials on Site together with such documents as may be required by the Engineer-in-Charge for the purpose of valuation of the materials and providing evidence of ownership and payment therefor;
- e) ownership of such materials shall be deemed to vest in the PHPA-II, and
- f) The sum payable for such materials on Site shall not exceed 75 percent of the exfactory/exwarehouse price of manufactured materials or stockpile value of locally produced materials such as sand, aggregates and crushed stone.



iii) Retention Money

- a) A retention amounting to 5% (five percent) of the amount included in any monthly Interim Payment Certificate pursuant to sub-clause (i) of this Clause due to the Contractor on account of Permanent Works executed by him shall be made by the Engineer-in-Charge in the first and following Certificates until such time as the cumulative total of such deductions (herein referred to as the Retention Money) shall amount to 2.5% (two and half percent) of the Contract Price.
- b) The Retention Money shall be certified due for payment after the expiration of the Period of Maintenance, notwithstanding that at such time there may be outstanding claims by the Contractor against the PHPA-II. Provided always that, if at such time there shall remain to be executed by the Contractor any Works ordered during such period pursuant to Clause – 49 and 50 hereof, the PHPA-II shall be entitled to withhold payment until the completion of such Works or so much of the Retention Money as shall, in the opinion of the Engineer-in-Charge represent the cost of the Works so remaining to be executed, and
- c) If the Contractor expressly requests in writing, he will be permitted to convert the Retention Money recovered from his Interim Payment Certificates into interest bearing Government Securities of interest-bearing deposits with a Scheduled Bhutanese/Indian Bank taken out in the name of Engineer-in-Charge or into Bank Guarantee in installments of Rs. One million in favour of the Punatsangchhu-II Hydroelectric Project Authority issued by the Bank of Bhutan or State of India or any Scheduled Bhutanese/India Bank. The Bank Guarantee shall be on the Proforma attached at Annex – IV.
- d) The Bank Guarantee, the interest bearing PHPA-II Securities and the interest bearing deposits shall remain valid for at least thirty six months after the date of the completion of the Works.

iv) Interest

Payment to the Contractor of the amount due under each of the Interim Payment Certificate shall be made by the PHPA-II within sixty days of such certificate being issued by the Engineer-in-Charge.

In the event of non-payment within the said period, interest shall accrue to the Contractor on a daily basis at a simple rate of ten percent per annum (365 days) commencing ninety days after the date on which the Contractor submitted the application for payment.

v) Corrections

The Engineer-in-Charge may, by any Interim Payment Certificate, make any corrections or modifications in any previous Certificate (other than one purporting to be Final Payment Certificate) which shall have been issued by him and shall have power to modify or withhold any Interim Certificate if the Works or any part thereof are not being carried out to his satisfaction.

vi) Advances

Advances for execution of the Works, if required by the Contractor, will be granted in the following cases provided that the advances given or taken for particular Work are spent only for that Work.

I. Advance for Mobilisation

A) Advance to the extent of 5% (five percent) of the Contract Price can be granted for the following preliminary and enabling Works;

a) Construction of colonies, store and workshops etc. including camps, labour sheds and stores etc. provided to the Contractor by the PHPA-II on cost recoverable basis pursuant to provisions under para 1.2.3 of Chapter I of this document.

- b) Mobilisation of labour
  - c) Overhaul, dismantling and transportation of Contractor's Constructional Plant to the Site including procurement of spare parts.
  - d) Construction of enabling Works and foundations for the Constructional Plant etc.
- B) The release of this advance shall be regulated and governed by the following conditions:
- a) The advance shall be interest free.
  - b) The advance to the extent of half of total value admissible will be released within one month of the date of signing of Agreement. The rest of the advance will be released in two equal installments commensurate with the progress of above cited preliminary and enabling Works on the certificate of the Engineer-in-Charge.
  - c) The advance will be disbursed on production of the irrevocable Bank Guarantee on the Proforma at Annex-V from the Bank of Bhutan or State Bank of India or any other Scheduled Bhutanese/Indian Bank.
  - d) The advance is recoverable and the deduction of the advance shall be made on prorata percentage basis from the interim payments certified by the Engineer-in-Charge under the Contract. The deduction shall commence in the next Interim Payment Certificate following that in which the total of all such payments to the Contractor has reached 10% (ten percent) of the Contract Price until such time as the advance has been fully repaid, provided always that the entire amount of advance shall be completely deducted by the time the total of all payments to the Contractor has reached 80% (eighty percent) of the Contract Price.

II. Advance for Constructional Plant.

A. Advance to the extent of 90% (ninety percent) of the cost of new Constructional Plant paid by the Contractor for which the Contract shall produce satisfactory evidence, and the cost of the Equipment provided to the Contractor by the PHPA-II on cost recoverable basis pursuant to provisions of para 1.2.1 of Chapter I of this document subject to a maximum of 15% (fifteen percent) of the Contract Price will be granted on the following Conditions;

- a) The Constructional Plant for which advance is required shall be approved by the Engineer-in-Charge.
- b) The advance shall be interest free.
- c) The advance against new indigenous Constructional Plant will be released after the equipment has reached the Site and is duly hypothecated in favour of the PHPA-II on the Proforma at Annex-VI.
- d) The advance against imported Constructional Plant will be released when the Constructional Plant reaches Indian Port of destination and on production of documents as a proof thereof, provided the Constructional Plant is fully insured from the port to the Site and hypothecated in favour of the PHPA-II on Proforma at Annex – VI.
- e) The advance to the extent of 90% against the new Constructional Plant can also be released to the Contractor against invoice, at his request, on production of Bank Guarantee for an amount equal to the amount of advance. This bank guarantee shall be released after the equipment reaches the site, is duly hypothecated in favour of the PHPA-II and such plant and equipment is insured for its full value against all risks at the Contractor's cost.

f) The Constructional Plant so purchased shall be insured for its full value by the Contractor on the Proforma at Annex-VII.

B) The advance is recoverable and the deduction of the advance shall be made on prorate percentage basis from the interim payments certified by the Engineer-in-Charge under the Contract. The deduction shall commence in the next Interim Payment Certificate following that in which the total of all such payments to the Contractor has reached 10 (ten) percent of the Contract Price until such time as the advance has been fully repaid, provided always that the entire amount of advance shall be completely deducted by the time the total of all payments to the Contractor has reached 80% (eighty percent) of the Contract Price.

vii) Final Account

a) Not later than two months after the date of issue of the Maintenance Certificate, the Contractor shall submit a draft statement of Final Account and supporting documentation to the Engineer-in-Charge showing in detail the value of the work done in accordance with Contract, together with all further sums which the Contractor considers to be due to him under the Contract upto the date of Maintenance Certificate (Hereinafter called the “Contractor’s Draft Final Account”).

b) Within four months after receipt of the Contractor’s Draft Final Account and of all information reasonably required for its verification, the Engineer-in-Charge shall determine the value of all matters to which the Contractor is entitled under the Contract. The Engineer-in-Charge shall then issue to the Contractor a statement (hereinafter called the “Engineer-in-Charge’s Draft Final Account”) showing the final amount to which the Contractor is entitled under the Contract. The Contractor shall sign the Engineer-in-Charge’s Draft Final Account as an acknowledgement of the full and final value of the Work performed under the Contract and shall promptly submit a signed copy (hereinafter called the “Final Account”) to the Engineer-in-Charge.

viii) Final Certificate

On receipt of the Final Account, the Engineer-in-Charge shall promptly prepare and issue to the Contractor a Final Payment Certificate certifying any further money due to the Contractor in respect of the Contract. Payment to the Contractor of the amount due under Final Payment Certificate shall be made by the PHPA-II within sixty days of such Certificate being issued. In the event of non-payment within the said period, no interest shall accrue to the Contractor.

ix) Income Tax

Deduction towards income tax shall be made from every Interim Payment Certified by the Engineer-in-Charge in terms of Bhutan Income Tax Rules as in force from time to time.

**Clause – 61 Approval only by Maintenance Certificate**

No certificate other than the Maintenance Certificate referred to in Clause – 62 hereof shall be deemed to constitute approval of the works.

**Clause – 62 Maintenance Certificate**

i) The Contract shall not be considered as completed until a Maintenance Certificate shall have been signed by the Engineer-in-Charge stating that the Works have been completed and maintained to his satisfaction. The Maintenance Certificate shall be given by the Engineer-in-Charge within twenty eight days after the expiration of the Period of Maintenance, or, if different periods of maintenance shall become applicable to different sections or parts of the Works, the expiration of the latest such period, or as soon thereafter as any works ordered during such period, pursuant to Clause – 49 and 50 hereof, shall have been completed to the satisfaction of the Engineer-in-Charge and full effect shall be given to this Clause, notwithstanding any previous entry on the Works or the taking possession, working or using thereof or any part thereof by the PHPA-II.

Provided always that the issue of the Maintenance Certificate shall not be a condition precedent to payment to the Contractor of the retention money in accordance with the conditions set out in Clause – 60 hereof.

ii) Cessation of PHPA-II's Liability'

The PHPA-II shall not be liable to the Contractor for any matter or thing arising out of or in connection with Contract or execution of the Works unless the Contractor shall have made a claim in writing in respect thereof before the giving of the Maintenance Certificate under this Clause.

iii) Unfulfilled Obligations

Notwithstanding the issue of Maintenance Certificate, the Contractor and, subject to sub Clause (ii) of this Clause, the PHPA-II shall remain liable for the fulfillment of any obligation incurred under the provisions of the Contract prior to the issue of the Maintenance Certificate which remains unperformed at the time such Certificate is issued and, for the purpose of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force between the parties hereto.

## **REMEDIES AND POWERS**

### **Clause – 63 Remedies and Powers**

i) Default of Contractor

If the Contractor shall become bankrupt, or have a receiving order made against him, or shall present his petition in bankruptcy, or shall make an arrangement with or assignment in favour of his creditors, or shall agree to carry out the Contract under a committee of inspection of his creditors or, being a corporation, shall go into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or if the Contractor shall assign the Contract, without the consent in writing of the PHPA-II first obtained, or shall have an execution levied on his goods, or if the Engineer-in-Charge shall certify in writing that, in his opinion, the Contractor;

- a) has abandoned the Contract, or
- b) without reasonable excuse has failed to commence the Works or has suspended the progress of the Works for twenty-eight days after receiving, from the Engineer-in-Charge, written notice to proceed, or
- c) has failed to remove materials from the site or to pull down and replace work for twenty eight days after receiving from the Engineer-in-Charge's written notice that the said materials or work had been condemned and rejected by the Engineer-in-Charge under these conditions, or
- d) despite previous warnings by the Engineer-in-Charge's in writing, is not executing the Works in accordance with the Contract, or is persistently or flagrantly neglecting to carry out his obligations under the Contract, or
- e) has, to the detriment of good workmanship, or defiance of the Engineer-in-Charge's instruction to the contrary, sub-let any part of the Contract;

then the Engineer-in-Charge may, after giving fourteen day's notice in writing to the Contractor, enter upon the Site and Works and expel the Contractor, from the entire Works or part thereof, without thereby voiding the Contract, or releasing the Contractor from any of his obligations or liabilities under the Contract, or affecting the rights and powers conferred on the PHPA-II or the Engineer-in-Charge by the Contract, and may itself complete the entire Work or part thereof as the case may be or may employ any other Contractor to complete the Works. The PHPA-II or such other Contractor may use for such completion so much of the Constructional Plant, Temporary works and materials, which have been deemed to be reserved exclusively for the execution of the works, under the provisions of the Contract, as he or they may think proper, and the PHPA-II may, at any time, sell any of the said Constructional Plant, Temporary works and unused materials and apply the proceeds of sales in or towards the satisfaction of any sums due or which may become due to him from the Contractor under the Contract.



ii) Valuation at Date of Forfeiture

The Engineer-in-Charge shall, as soon as may be practicable after any such entry and expulsion by the PHPA-II, fix and determine ex-party, 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 what amount, if any, had at the time of such entry and expulsion been reasonably earned by or would reasonably accrue to the Contractor in respect of work actually done by him under the Contract and the value of any of the said unused or partially used materials, any Constructional Plant and any Temporary Works.

iii) Payment after Forfeiture

If the PHPA-II shall enter and expel the Contractor under this Clause, it shall not be liable to pay to the Contractor any money on account of the Contract until the expiration of the Period of Maintenance and thereafter until the costs of execution and maintenance, damages for delay in completion, if any, and all other expenses incurred by the PHPA-II have been ascertained and the amount thereof certified by the Engineer-in-Charge. The Contractor shall then be entitled to receive only such sum or sums, if any, as the Engineer-in-Charge may certify would have been payable to him upon due completion by him after deducting the said amount. If such amount shall exceed the sum which would have been payable to the Contractor on due completion by him, then the Contractor shall, upon demand, pay to the PHPA-II the amount of such excess and it shall be deemed a debt due by the Contractor to the PHPA-II and shall be recoverable accordingly.

In the event of the above course being adopted by the Engineer-in-Charge, the Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any Constructional Plant, material or entered into any agreements or made any advances on account or with a view to the execution of the Works or the performance of the Contract.

#### **Clause – 64 Urgent Repairs**

If, by reasons 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 Period of Maintenance, any remedial or other work or repair shall, in the opinion of the Engineer-in-Charge or the Engineer-in-Charge's Representative, be urgently necessary for the safety of the Works and the Contractor is unable or unwilling at once to do such Work or repair, the PHPA-II may employ and pay other persons to carry out such work or repair as the Engineer-in-Charge or the Engineer-in-Charge's Representative may consider necessary. If the work or repair so done by the PHPA-II is work which, in the opinion of the Engineer-in-Charge, the Contractor was liable to do at his own expense under the Contract, all expenses properly incurred by the PHPA-II in so doing shall be recoverable from the Contractor by the PHPA-II, or may be deducted by the PHPA-II from any money due or which may become due to the Contractor. Provided always that Engineer-in-Charge or the Engineer-in-Charge's Representative, as the case may be, shall, as soon after the occurrence of any such emergency as may be reasonably practicable notify the Contractor thereof in writing.

### **SPECIAL RISKS/TERMINATION**

#### **Clause – 65 Special Risks/Termination of Contract**

i) Special Risks

The special risks are war, hostilities (whether war be declared or not), invasion, act of foreign enemies, the nuclear risks described in Clause – 20 (vi) hereof.

ii) Termination of the Contract

If, during the currency of the Contract any of the Special Risks mentioned hereinabove 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 always that the PHPA-II shall be entitled at any time after occurrence of such Special Risks to terminate the Contract by giving written notice to the Contractor and,

upon such notice being given, this Contract shall, except as to the right of the parties under this Clause and to the operation of Clause – 67 hereof, terminate, but without prejudice to the rights of either party in respect of any antecedent breach thereof.

iii) Removal of Plant on Termination

If the Contract shall be terminated under the provisions of the last preceding sub-clause, the Contractor shall, with all reasonable despatch, remove from the Site all Constructional Plant and shall give similar facilities to his sub-Contractors to do so.

iv) Payment if Contract Terminated

If the Contract shall be terminated as aforesaid, the Contractor shall be paid by the PHPA-II, in so far as such amounts or items shall not have already been covered by payments on account made to the Contractor, for all works 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, so far as the work or service comprised therein has been carried out or performed, and a proper proportion as certified by the Engineer-in-Charge of any such items, the work or service comprised in, which has been partially carried out or performed.
- b) The cost of materials or goods reasonably ordered for the works which shall have been delivered to the Contractor or of which the Contractor is legally liable to accept delivery, such materials or goods becoming property of the PHPA-II upon such payments being made by it.
- c) A sum to be certified by the Engineer-in-Charge, 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 shall not have been covered by payments in this sub-clause before mentioned.
- d) The reasonable cost of removal of Constructional Plant under sub-clause (iii) of this Clause.

Provided always that against any payments due from the PHPA-II under this sub clause, the PHPA-II shall be entitled to be credited with any outstanding balances due from the Contractor for advances in respect of Constructional Plant and materials and any other sums which at the date of termination were recoverable by the PHPA-II from the Contractor under the terms of the Contract.

## **FRUSTRATION**

### **Clause – 66 Payment in Event of Frustration**

If a war, or other circumstances outside the control of both parties, arises after the Contract is made so that either party is prevented from fulfilling its Contractual obligations, or under the law governing the Contract, the parties are released from further performance, then the sum payable by the PHPA-II to the Contractor in respect of the work executed shall be the same as that which would have been payable under Clause – 65 hereof if the Contract had been terminated under the provisions of Clause – 65 hereof.

## **SETTLEMENT OF DISPUTES**

### **Clause – 67 Arbitration**

Except where otherwise provided in the Contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the Work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the Contract, design, drawings, specifications, estimates, instructions, orders to these conditions or otherwise concerning the Works or the execution or failure to execute the same whether arising during the progress of the Work or after the cancellation, termination completion or abandonment thereof shall be dealt with as mentioned hereinafter.

- i) If the Contractor considers any work demanded of him to be outside the requirements of the Contract, or considers any decision of the Engineer-in-Charge on any matter in connection with or arising out of the Contract or carrying out of Work to be unacceptable, he shall promptly ask the Engineer-in-Charge in writing, for written

instructions or decision. There upon the Engineer-in-Charge shall give his written instructions or decision within a period of thirty days of such request.

Upon receipt of the written instructions or decision, the Contractor shall promptly proceed without delay to comply with such instructions or decision.

If the Engineer-in-Charge fails to give his instructions or decision in writing within a period of thirty days after being requested for or if the Contractor is dissatisfied with the instructions or decision of the Engineer-in-Charge, the Contractor may within thirty days after receiving the instructions or decision file a written appeal to the Managing Director, PHPA-II who will constitute a Committee of which the Director (Technical) will be convenor, to resolve the dispute. The Committee shall afford an opportunity to the Contractor to be heard and to offer evidence in support of his appeal within forty five days of the receipt of the appeal by the Director (Technical). The Director (Technical) shall give a decision on behalf of the Committee within a period of thirty days after the Contractor has been heard and the Contractor has given evidence in support of his appeal. If the Director (Technical) does not give a decision within thirty days, the Contractor will have the right to refer the dispute to arbitration.

If the Contractor is dis-satisfied with the decision of the Director (Technical), the Contractor, within a period of thirty days from receipt of the decision, shall indicate his intention to refer the dispute to arbitration failing which the said decision shall be final and conclusive.

- ii) Except where the decision has become final, binding and conclusive in terms of Sub Para (i) above disputes or difference shall be referred for adjudication through arbitration to an Arbitral Tribunal of three arbitrators appointed jointly by the PHPA-II and the Contractor. Where the mandate of an arbitrator terminates a substitute arbitrator shall be appointed according to the rules that were applicable to the appointment of the arbitrator being replaced.

In the absence of an Arbitration Act in Bhutan, the Arbitral Tribunal shall follow/be guided by the basic principles and procedures as contained in the Indian Arbitration and Conciliation Act 1996. The parties shall be free to agree on a procedure for appointing

the Arbitrators. Failing any agreement for appointment of Arbitrators, each party shall appoint one Arbitrator and the two appointed Arbitrators shall appoint the third Arbitrator, who shall act as the presiding Arbitrator.

- iii) The said arbitrators shall have full power to open up, revise and review any decision, opinion, direction, certificate of valuation of the PHPA-II.
- iv) If either of the parties fail to appoint its arbitrators in pursuance of sub-clause (ii) above, within 30 days after receipt of the notice of the appointment of its arbitrators or the two appointed Arbitrators fail to agree on third Arbitrator within thirty days from the date of their appointment then the appointment shall be made, upon request of a party, by the Chief Justice, Delhi High Court, India / Thimphu High Court, Bhutan or any person or institutions designated by him.
- v) Neither party shall be limited in the proceedings before such arbitrators to the evidence or arguments put before any authority herein above for the purpose of obtaining its said decision. No decision given by any authority in accordance with the foregoing provisions shall disqualify it from being called as a witness and giving evidence before the arbitrators on any matter what-so-ever relevant to the dispute or difference referred to the arbitrators as aforesaid.
- vi) The reference to arbitration may proceed notwithstanding that the works shall not then be or be alleged to be complete, provided always that the obligations of the PHPA-II, and the Contractor shall not be altered by reason of the arbitration being conducted during the progress of the Works. Neither party shall be entitled to suspend such Work to which the dispute relates and payment to the Contractor shall be continued to be made in terms of the Contract.
- vii)
  - a) All arbitration shall be held at New Delhi, India / Thimphu, Bhutan.
  - b) The language of the arbitration proceedings and that of all documents and communications between the parties shall be English.

- viii) The decision of the majority of arbitrators shall prevail.
- ix) The cost of the arbitration as fixed by the arbitrators shall be borne equally by the parties unless the settlement agreement provides for a different apportionment. However, the expenses incurred by a party in connection with the preparation, presentation etc. of its cases prior to, during and after the arbitration proceedings shall be borne by that party.
- x) All awards of arbitration shall be in writing and shall state reasons for the amount awarded.

## **NOTICES**

### **Clause – 68 Notices**

- i) Service of Notices on Contractor

All certificates, notices or written orders to be given by the Engineer-in-Charge to the Contractor under the terms of the Contract shall be served either by sending by post or delivering the same to the Contractor's office on Site or his principal place of business, or such other address as the Contractor shall nominate for this purpose.

- ii) Service of Notices on PHPA-II or Engineer-in-Charge

All notices to be given to the PHPA-II or to the Engineer-in-Charge under the terms of the Contract shall be served by sending by post or delivering the same to the respective addresses given below:

- a) To the PHPA-II – Managing Director, PHPA-II , Post Box No. 908, Thimphu, Bhutan.
- b) To the Engineer-in-Charge – Superintending Engineer (Civil), PHPA-II, Lobeyasa, Bhutan.

iii) Change of Address

Either party may change a nominated address to another address by prior written notice to the other party.

## **DEFAULT OF PHPA-II**

### **Clause – 69 Default of PHPA-II**

- i) In the event of the PHPA-II failing to pay to the Contractor the amount due under any certificate of the Engineer-in-Charge within ninety days after the same shall have become due under the terms of the Contract, subject to any deduction that the PHPA-II is entitled to make under the Contract, the Contractor shall be entitled to issue a notice to the Engineer-in-Charge stating that he shall be terminating his Works after thirty days from the issue of such notice, for the reasons stated therein. However, if within the said period of thirty days, the Engineer-in-Charge notifies the Contractor that the reasons stated in the notice of the Contractor are not valid or that the alleged event of default of the PHPA-II has been remedied or no longer exists, then the Contractor shall not be entitled to terminate the Contract.
- ii) If the Contractor becomes entitled to terminate the Contract in terms of sub clause (i) of this Clause, after expiry of the notice of thirty days, he may, notwithstanding the provisions of Clause – 53 (ii) hereof, remove from the Site all Constructional Plant brought by him.
- ii) In the event of such termination, the PHPA-II shall be under the same obligations to the Contractor in regard to payment as if the Contract had been terminated under the provisions in Clause – 65 hereof, but in addition to the payments specified in Clause – 65 (iv) hereof, the PHPA-II shall pay to the Contractor the amount of any loss or damage to Contractor arising out of or in connection with or by consequence of such termination.



## CHANGES IN COSTS AND LEGISLATION

### Clause – 70 Increase or Decrease of Costs

#### A. Price Adjustment for Civil Works

i) The amount payable to the Contractor and valued at base rates and prices in the Interim Payment Certificates issued by the Engineer-in-Charge pursuant to sub clause- 60 (i) hereof shall be adjusted in respect of the increase or decrease in the indexed costs of labour, materials and fuel and lubricants in accordance with the following principles and procedures:

- a) Price adjustment shall apply only for Work carried out within the stipulated time or extensions granted by the PHPA-II and shall not apply to work carried out beyond the stipulated time for reasons attributable to the Contractor;
- b) The price adjustment shall be determined during each quarter from the formulae as detailed hereinafter under sub clause (iii) of this Clause.

ii) Other Changes in Cost

To the extent that full compensation for any increase or decrease in costs to the Contractor is not covered by the provisions of this or other Clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other increase or decrease in cost.

iii) Formulae for Price Adjustment

I. Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:

$$VL = 0.85P_i/100 \times R^{(i-i_0)/i_0}$$

VL = increase or decrease in the cost of work during the quarter under consideration due to changes in rates for labour.

$i_0$  = the average consumer price index number for all India industrial workers General Index (base 2001 = 100) for the quarter preceding the latest date of submission of bids, as published by Labour Bureau, Ministry of Labour, GoI.

$i$  = the average consumer price index number for all India industrial workers General Index (base 2001=100) for the quarter under consideration as published by Labour Bureau, Ministry of Labour, GoI.

$P_i$  = percentage of labour component i.e 30% (thirty percent)

$R$  = Total Value of Work done during the quarter

II. Price adjustment for increase or decrease in cost of materials procured by the Contractor other than fuel and lubricants shall be paid in accordance with the following formula:

i) Cement

$V_c$  =  $0.85 P_c/100 \times R (c-c_0)/c_0$

$V_c$  = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates for Cement.

$c_0$  = the average index number of wholesale prices of Slag Cement (Base 2004-05 = 100) for the quarter preceding the latest date of submission of bids, as issued by Economic Advisor, Ministry of Industry, GoI.

$c$  = the average index number of wholesale prices of Slag Cement for the quarter under consideration as issued by Economic Advisor, Ministry of Industry, GoI.

$P_c$  = Percentage of Cement component i.e., 15% (fifteen) percent.

ii) Steel

$V_s$  =  $0.85 \times P_s/100 \times R \times (s-s_0)/s_0$

$V_s$  = Increase or decrease in the cost of work during the quarter under consideration due to change in rate for Steel.  
 $s_0$  = the average index number of wholesale prices of Steel (base 2004-05 = 100) for the quarter preceding the latest date of submission of bids as issued by Economic Advisor, Ministry of Industry, GoI.  
 $s$  = the average index number of wholesale prices of Steel for the quarter under consideration as issued by Economic Advisor, Ministry of Industry, GoI.  
 $P_s$  = Percentage of steel component i.e., 10% (ten) percent.

iii) Materials other than Cement, Steel and Fuel & Lubricants

$$V_m = 0.85 P_m/100 \times R (m-m_0)/m_0$$

$V_m$  = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates for materials other than Cement, Steel and fuel & lubricants.

$m_0$  = the average index number of wholesale prices of all commodities (Base 2004-05 = 100) for the quarter preceding the latest date of submission of bids as issued by Economic Advisor, Ministry of Industry, GoI.

$m$  = the average index number of wholesale prices of all commodities for the quarter under consideration, as issued by Economic Advisor, Ministry of Industry, GoI.

$P_m$  = Percentage of material component other than Cement, Steel fuel and lubricants i.e., 30% (Thirty) percent.

III. Price adjustment of increase or decrease in cost of fuel and lubricants shall be paid in accordance with the following formula:

$$V_f = 0.85 P_f / 100 \times R (1 - 1_0) / 1_0$$

$V_f$  = increase or decrease in the cost of work during the quarter under consideration due to changes in rates for fuel and lubricants.

$1_0$  = the average official retail price of High Speed Diesel Oil (H.S.D) as per list prices of Indian Oil Corporation, Siliguri on the date thirty days prior to the latest date of submission of bids.

$1$  = the average official retail price of High Speed Diesel Oil (H.S.D) as per list prices of Indian Oil Corporation, Siliguri for the 15<sup>th</sup> day of the middle calendar months of the quarter under consideration .

$P_f$  = percentage of fuel and lubricants i.e. 15% (fifteen percent)

For the application of this clause the price of H.S.D is chosen to represent fuel and lubricants group.

iv) At the end of each quarter defined by the months March, June, September and December of each year, the Contractor shall submit to the Engineer-in-Charge, a claim, if any, on account of Price Adjustment for the completed quarter in accordance with the provisions of the Contract. However, interim payments for Price Adjustments shall be certified every month on the basis of indices of the preceding quarter and adjustment that may be necessary after the indices for the corresponding quarter are available shall be made in the next immediate Interim Payment Certificate of the quarter.

#### **B. Price Adjustment for Hydro-mechanical Works**

i) Adjustment in the price of equipment / erection and commissioning portion on account of changes in material and labour rates shall be computed in accordance with the conditions and formulae prescribed hereinafter.

- ii) The ex-factory / FOB price of equipment and services stated in the Contract shall be the base price and shall be subjected to price adjustment.
- iii) The various items of equipment shall be grouted into assemblies for the purpose of dispatch and billing during the execution of the Contract. The national prices of these assemblies shall be made available to the PHPA-II. The price adjustment shall be made for each assembly separately.

In case, any assembly is despatched in more than one consignment and is completed in more than one calendar month, the price adjustment shall be done monthly on pro-rata basis.

- iv) The total adjustment of price component for which price adjustment is allowed under this clause shall be the total price for Hydro-mechanical Works minus transportation charges and insurance charges.
- v) The base data for indices used in price variation calculations shall be one month prior to the latest date of submission of bids.
- vi) Price adjustment shall apply for the delivery made / work carried out within the stipulated time or extension granted by the PHPA-II for delay attributable to PHPA-II and shall not apply to delivery made / work carried out beyond the stipulated time for reasons not attributable to the PHPA-II.

I. Price adjustment formula in respect of Supply of Gates & Hoists and associated auxiliaries etc. shall be as follows;

$$\Delta P = P_0 (0.20 + 0.50 S_1/S_0 + 0.30 L_1/L_0) - P_0$$

II. The price adjustment formula for the services i.e. erection, testing and commissioning shall be as follows;

$$\Delta E = E_0 (0.20 + 0.8 L_1/L_0) - E_0$$

Where :

- $P_0$  - Original prices of Gates & and associated auxiliaries, on Ex-factory basis or FOB basis as given in the Bill of Quantities.
- $\Delta P$ - Increase or decrease in the cost of Gates & Hoists and associated auxiliaries due to change in rates of labour & materials.
- $E_0$  - Original prices of the erection work done during the month.
- $\Delta E$  - Increase or decrease in the cost of the Service i.e. Erection, Testing & commissioning due to change in rates of labour.
- $S_0$  - Wholesale price Index Number for Steel (base 2004-05=100) published by the Office of Economic Advisor, Ministry of Industry, Govt. of India and as circulated by IEMA, for the week ending 1<sup>st</sup> Saturday of the calendar month, one month prior to latest date of submission of bids.
- $S_1$  - Wholesale price Index Number for Steel (base 2004-05=100) published by the Office of Economic Advisor, Ministry of Industry, Govt. of India and as circulated by IEMA, for the week ending 1<sup>st</sup> Saturday of the month, in which the 2/3<sup>rd</sup> of the period from the effective date of Contract to the date of dispatch falls.
- $L_0$  - All India average Consumer Price Index Number for Industrial workers (base 2001=100) as published by Labour Bureau and as circulated by IEMA for the preceding month, one month prior to the latest date of submission of bids.
- $L_1$  - All India average Consumer Price Index Number for Industrial Workers published by Labour Bureau and as circulated by IEMA.

- i) For the month, 3 months prior to date of the dispatch for supplies and,
- ii) For the month of work done for services.

**C. Subsequent Legislation**

If, after the date thirty days prior to the latest date of submission of bids for the Works there occur in Bhutan/India changes to any Statute, Ordinance, Decree or other Law or any regulation or by-law of any local or other duly constituted authority, or the introduction of any such Statute, Ordinance, Decree, Law, Regulation or bye-law which causes additional or reduced amount to the Contractor, other than under A and B of this Clause, in the execution of the Works, such additional or reduced amount shall be certified by the Engineer-in-Charge after examining the record provided by the Contractor and shall be paid by or credited to the PHPA-II. Notwithstanding the foregoing, such additional or reduced amount shall not be separately paid or credited if the same shall already have been taken into account in the indexing of any input to the price adjustment formulae in accordance with sub-clause A and B of this clause.

**D. Compliance with Statutes, Regulations, Acts, Laws etc.**

The Contractor shall conform in all respects, with the provisions of all Acts, Laws, Statutes, Regulations, Ordinance etc. of the RGoB which may be applicable to the Works and with such rules and regulations of Public bodies or other duly constituted authority and shall keep the PHPA-II indemnified against all penalties and liability of every kind for breach of any such Act, Law, Statute, Regulation or bye-law etc.

**ADDITIONAL CLAUSES**

**Clause – 71 Taxation**

- i) The price bid by the Contractor shall include all duties, levies and taxes, that may be levied according to the laws and regulations, save, as provided under Para 1.11.4 of Information and Instructions for Bidders (Chapter-I), of the date thirty days prior to the

closing date for submission of bids, on the Constructional Plant, materials and supplies (permanent, temporary and consumable) acquired for the purpose of the Contract and on the services performed under the Contract. Nothing in the Contract shall relieve the Contractor from his responsibility to pay any tax that may be levied in Bhutan on profits made by him in respect of the Contract.

ii) Income Tax

The Contractor's staff, personnel and labour will be liable to pay personal income tax in Bhutan in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

**Clause – 72 Bribery and Collusion**

i) The PHPA-II shall be entitled to terminate the Contract and recover from the Contractor the amount of any loss resulting from such termination if the Contractor shall have offered or given to any person any consideration of any kind as an inducement or reward for doing, forbearing to do, any action in relation to obtaining, or in the execution of the Contract or any other Contract with the PHPA-II, or for showing favour to any person in relation to the Contract or any other Contract with the PHPA-II, or if any of the like acts shall have been done by any person employed by the Contractor or acting on his behalf (whether with or without the knowledge of the Contractor), or if the Contractor shall have come to any agreement with another Contractor or number of Contractors whereby an agreed quotation or estimate shall be offered as a bid to the PHPA-II by one or more Contractor(s).

ii) In the event of such termination, the Contractor shall:

- a) Proceed as provided in Clause – 65 (iii) hereof;
- b) Be paid by the PHPA-II as provided in Clause – 65 (iv) hereof, provided that any loss referred to in sub clause (i) of this clause shall first be deducted.



**Clause – 73 Termination of Contract for PHPA-II’s Convenience**

- i) The PHPA-II shall be entitled to terminate this Contract at any time for the PHPA-II’s convenience after giving sixty days prior notice to the Contractor, with a copy to the Engineer-in-Charge.
  
- ii) In the event of such termination the Contractor shall:
  - a) Proceed as provided in the sub-clause – 65 (iii) hereof, and;
  - b) Be paid by the PHPA-II as provided in sub-clause – 65 (iv) hereof.

**Clause – 74 Source of Insurance**

The Contractor shall place all insurance including the insurance of Constructional Plant against which the PHPA-II has granted Constructional Plant Advance and the insurance referred to in Clause-22, 23 & 24 of the Contract from Insurance companies in Bhutan.

**Clause – 75 Contractor’s near Relative Employed on the Project**

The Contractor shall intimate the PHPA-II before submitting his bid whether any of his near relative is posted on the Project as Divisional Accountant or as an Officer in any capacity between the grades of Chief Engineer and Assistant Engineer (both inclusive) in the PHPA-II. He shall also intimate the name of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officer in the PHPA-II. Any breach of this condition by the Contractor will render him liable to be removed from the list of Contractors of the PHPA-II and his Work may be terminated without any compensation whatsoever.

**Clause – 76 Retired Officers Taking up Contract**

No official employed on Engineering or Administrative duties in an Engineering Department of the Royal Government of Bhutan or the Government of India is allowed to work as/for a Contractor for a period of two years of his retirement from service without the previous permission of the PHPA-II. The Contract is liable to be cancelled if either the Contractor or any of his employees if found, at any time, to be such a person who had not obtained the permission

of the PHPA-II as aforesaid, before submission of the bid or engagement in the Contractor's service as the case may be .

**Clause – 77 Foreign Currency Fluctuations**

For the import of materials such as steel fibre to be used in shotcrete, spare parts and constructional plant etc. not manufactured/available indigenously for the bonafide use on the Project, the foreign currency input shall be arranged and paid by the Contractor. The foreign currency input shall be considered in US dollars. The difference due to the foreign currency fluctuations on the date of making payments for imports valued upto 10% (ten percent) of the Contract Price shall be adjusted. Such additional or reduced amount due to foreign currency fluctuation shall be certified by the Engineer-in-Charge after examining the records provided by the Contractor and shall be paid by or credited to the PHPA-II. The bills selling rates of exchange established by Reserve Bank of India or other similar authoritative source for similar transactions on the date 30 (thirty) days prior to the latest date of submission of the bids shall be applicable for working out the fluctuation in the foreign currency.

**Clause – 78 Pre-Contract Integrity Pact**

As per norms of the Anti Corruption Commission, a Constitutional body of Royal Govt. of Bhutan, the successful Bidder shall have to sign a Pre-Contract Integrity Pact as per format enclosed at Annex – XI.

**Clause - 79 Steel Plates for Pressure Shafts**

In order to facilitate import of steel plates by the Contractor for the Pressure Shafts, the PHPA will provide assistance to him for getting the import license in Bhutan. For the import of these plates, the foreign currency input equal to CIF value of the steel plates will be arranged by the PHPA and provided to the Contractor in the form of an advance on submission of despatch and insurance documents and an irrevocable Bank Guarantee for an equivalent amount of the advance in Rupees. The above advance will be provided to the Contractor in US dollars and shall bear simple interest @ 13% per annum for the period from the date of making payment to the date of delivery of steel plates at site/fabrication shop anywhere in Bhutan/India. The interest shall be recoverable in Indian Rupees on the equivalent amount of advance in Indian Rupees at the bills selling market rate of exchange prevailing on the date of making advance

payment to the Contractor. However, the price adjustment for the steel liner components shall be governed by the Contract provisions stipulated under Clause-70 of the General Conditions of the Contract irrespective of the date of delivery of steel plates at site.