Department of Alternative
Energy Development and Efficiency
MINISTRY OF ENERGY

MAE HAT HYDROPOWER PROJECT

WIANG HAENG DISTRICT CHIANG MAI PROVINCE

CONTRACT C1
CIVIL WORKS AND TRANSMISSION LINE

VOLUME 1
TENDER DOCUMENTS

P AND C MANAGEMENT CO., LTD.

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MAE HAT HYDROPOWER PROJECT

CONTRACT C1

CIVIL WORKS AND TRANSMISSION LINE

VOLUME 1 : TENDER DOCUMENT

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SECTION 1 - INVITATION TO BID

1.01 INVITATION

The DEPARTMENT OF ALTERNATIVE ENERGY DEVELOPMENT AND EFFICIENCY (DEDE), hereinafter called the Department wishes to receive Bids for the construction of

MAE HAT HYDROPOWER PROJECT
WIANG HAENG DISTRICT CHIANG MAI PROVINCE

CONTRACT C1
CONSTRUCTION OF CIVIL WORKS

The description of the Works to be constructed under this Contract is given in Section 4 'Special Conditions of Contract'.

1.02 QUALIFICATION OF BIDDERS

The qualifications to be met by the Bidder shall be defined in the Announcement inviting bids as issued by the Department.

1.03 SUBMISSION AND OPENING OF BIDS

Details for the submission and opening of bids shall be as defined in the Announcement inviting bids as issued by the Department.

1.04 CHARGES FOR BID DOCUMENTS

Details of charges for Bid Documents shall be as defined in the Announcement inviting bids as issued by the Department.

1.05 CORRESPONDENCE

All correspondence pertaining to the Bid shall be in English and shall be sent in one (1) original and two (2) copies to the Department at the following address:

CONSTRUCTION BID COMMITTEE
MAE HAT HYDROPOWER PROJECT
WIANG HAENG DISTRICT CHIANG MAI PROVINCE

CONTRACT C1
CONSTRUCTION OF CIVIL WORKS

DEPARTMENT OF ALTERNATIVE ENERGY DEVELOPMENT AND EFFICIENCY Kasatsuk Bridge, Rama 1 Road
Bangkok 10330, Thailand

Cable address: NATPOWER BANGKOK
Phone : (02) 2230021-9
Fax : (662) 226-1416

SECTION 2 - INSTRUCTION TO BIDDERS

2.01 PREPARATION OF BIDS

(a) Bids shall be prepared in English, in one (1) original and two (2) copies.

(b) The original and the copies of Bids shall be prepared on the Bid Forms in Volume 3, which shall be submitted in its entirety with all blanks in the Schedule of Quantities, Rates and Prices properly filled in, and shall be manually signed in ink. If erasures or other changes appear on the Forms, each such erasure or change shall be initialed by the person signing the Bid.

(c) Modification by cable or letter of Bids already submitted will be considered if received prior to the time fixed for the receipt of Bids. Modifications by cable shall be promptly confirmed by letter.

(d) Bids shall be for the whole of the Works of the Contract and will not be considered for only a part of the Contract. Bidders shall quote prices on all items in the Schedule of Quantities, Rates and Prices.

(e) The Bid price shall be in Thai currency.

(f) No reservation shall be accepted in Bids and the Department reserves the right to reject any Bid with reservations or put monetary value for such reservations as an additional cost to that Bid while comparing the Bid Documents.

(g) The Bidder shall complete the statement of estimated monetary requirements in fiscal years.

(h) The Bid must be signed by a person duly authorized to do so. Bids submitted by a corporation must bear the seal of the corporation and be attested by its secretary. Bids submitted by joint ventures of two or more firms must be accompanied by a document evidencing formation of the joint venture including the registration as a single legal firm where such is the case. The document shall precisely define the general conditions under which the joint venture will function, its period of life, the persons authorized to represent and obligate it, the participation of the several firms forming the joint venture, and any other information which will be helpful and useful to permit a full understanding of its functioning.

(i) Each Bid shall contain an address for service of any notice necessary or required to be served on or given to the Bidder in connection with the Bid.

(j) In case of there is any conflict in the Contract Document with the Regulation on Storage of the Office of the Prime Minister, B.E.2542. Such conflict must be corrected to comply with the Regulation.

(k) The original Bid and each of the two (2) copies thereof shall be placed in separate sealed envelopes clearly marked in capital letters in the lower left hand corner as follows:

BID FOR CONTRACT C1
CONSTRUCTION OF CIVIL WORKS

MAE HAT HYDROPOWER PROJECT
MAE HAT WEIR

AMPHOE WIANG HAENG CHANGWAT CHIANG MAI
ORIGINAL (OR COPY)

The name of the Bidder shall also be clearly imprinted on the said envelope.

2.02 BID DOCUMENTS

(a) The Works being bid for shall be executed in accordance with the Contract Documents listed below:

VOLUME 1 TENDER

SECTION 1 : INVITATION TO BID
SECTION 2 : INSTRUCTION TO BIDDERS
SECTION 3 : GENERAL CONDITIONS OF CONTRACT
SECTION 4 : SPECIAL CONDITIONS OF CONTRACT
SECTION 5 : CONTRACT FORMS

VOLUME 2 TECHNICAL SPECIFICATIONS

VOLUME 3 BID FORMS AND SCHEDULE OF QUANTITIES

SECTION 1 : BID FORMS
SECTION 2 : SAMPLES OF SUBMITTED INFORMATION

VOLUME 4 DRAWINGS

(b) A reference volume on General Project Information, Hydrology, Geology and Materials will be made available to Bidders, but will not form part of the Contract Documents. Copies of the volumes can be obtained from the Department for a price of Baht .....(฿)

(c) Addenda to Bid Documents may be issued by registered mail or cable at any time prior to but not less than fourteen (14) days before the Bid submission date for the purpose of clarifying the Bid Documents or to reflect modifications in the design or Contract terms. If Bidders are in doubt as to the true meaning of any part of the Contract Documents they should notify the Department and obtain clarification prior to the submittal of their Bid.

(d) Any interpretation of the Bid Documents will be made only by formal Addenda which will form part of the Contract Documents. The Department will not be responsible for any other interpretation. Each Addendum will be distributed to each Bidder to whom Contract Documents have been issued. Each recipient is required to acknowledge receipt of such Addendum by registered mail or cable.

2.03 RESPONSIBILITY OF BIDDER

(a) The Department will not assume any responsibility regarding information, interpretations, conclusions or deductions the Bidder may obtain or arrive at from the data furnished by the Department. Verbal agreement or conversation with any officer, employee, or agent of the Department or the Engineer, either before or after the execution of the Contract, shall not affect or modify any of the terms or obligations contained in the Contract.

(b) It shall be the sole responsibility of the Bidder to determine and to satisfy himself as to all matters pertaining to this Contract, the nature and condition of the terrain, the physical conditions existing on Site, climatic conditions, transportation, power, roads, the location and condition of material sources, availability and cost of labor and materials and all other factors that may affect the cost, duration, and execution of the work.

(c) The Bidder, by the act of submitting a Bid, acknowledges that he has inspected the Site and determined the general characteristics of the work and the conditions indicated above, and that he is fully familiar with the Bid Documents and any other documents attached to the Bid Documents submitted for bid purposes or constituting a part thereof, and that these documents will become an integral part of the Contract, and that the Bidder is accepting without reservation all terms and conditions stipulated directly or indirectly in any and all such documents.

2.04 INFORMATION TO BE SUBMITTED WITH THE BID

The Bidder shall have qualification of Bidder as follow to Terms of Reference of DEDE.

2.05 SUPPLIER FOR HYDROMECHANICAL EQUIPMENT

The Bidder shall select the supplier of proven ability in manufacturing for the preparation of his Bid and shall bid the prices for such equipment based on an agreement with such supplier. The supplier must have the experiences in manufacturing and installation of the equipment.

2.06 BID PRICES

The Contract is to be awarded on the basis of fixed unit prices of payment to the Contractor, as specifically set forth in the Bid Documents. Bid prices shall be in Thai Baht. The lump sums and unit rates shall include an allowance to cover all duties, taxes and expenses incurred by the Contractor in Thailand and/or in the country of the Bidder. Bidders are therefore requested to prepare their Bids on the above basis, and any Bid that is on any other basis will not be considered.

2.07 BID SECURITY

(a) The Bidder shall furnish with the Bid Security of not less than as defined by the Announcement inviting bids as issued by the Department and which shall be valid for a period of at least one hundred and fifty (150) days after the date of Bid Opening. Bid Security of unsuccessful Bidders will be returned to them not later than thirty (30) days after acceptance of the successful Bidder. The Bid Security of the successful Bidder will be returned to him after he has deposited the proper Performance Security as required under the Contract.

(b) If necessary, the period of validity of the Bid Security of the successful Bidder shall be extended for an additional period upon the Department's notice.

(c) The form of the Bid Security shall be in the form of cash, or cashier cheque or Bank guarantee issued by a Bank in Thailand acceptable to the Department. Unless and until an official receipt is issued by the Department acknowledging receipt thereof, the Department shall not be responsible for any securities deposited as aforesaid.

(d) The Bid Security shall be required as a guarantee that the Bidder, if awarded the Contract, will, within thirty (30) days after notification of Acceptance of Bid or the Contract may be canceled by the Department whereupon the Bid Security shall be forfeited to the Department as liquidated damages.

2.08 JOINT VENTURES

(a) Not more than three (3) separate firms may be combined their assets, equipment and personnel and submit a Bid to perform the Works, either as one legal firm and registered as such under the laws of Thailand or the laws of the country of the foreign joint venture, or as individual members of the joint venture registered separately. Bidders combined as separate legal entities shall submit individual experience and financial statements but shall be jointly and severally liable for the undertaking of the Contract.

(b) In case of a Bid submitted by a joint venture not registered as a single firm, such combination of firms shall appoint a representative who, on their behalf,

is authorized to deal with the Department on all questions and matters pertaining to the execution of the Bid. The same shall also be required for the execution of the Contract in case of acceptance of Bid.

2.09 EXPLANATION TO BIDDERS

(a) Any explanation desired by Bidders regarding the meaning or interpretation of the Bid Documents must be requested in writing not less than thirty (30) days before Bid submission date. Verbal explanations or instructions given by the Department before Bid submission date will not be binding. Any explanation given by the Department in writing will be in the form of Addendum to the Bid Documents as described in Clause 2.02 and will be furnished to all Bidders, and its receipt shall be acknowledged in writing.

(b) If it is deemed necessary by the Department to alter, modify or delete any Clause in the Bid Documents, the Department reserves the right to do so and shall communicate to all Bidders in a suitable manner. If necessary in such case the date of submission of Bids may be extended.

2.10 OFFICIAL BRIEFING AND SITE VISIT

The Department will organize a mandatory briefing session and official visit to the Site and the Bidder shall send appropriate representatives for these sessions. The Bidder will be notified by the Department of details of arrangements for the briefing session and Site visit.

2.11 WITHDRAWAL OF BIDS

Bids may be withdrawn only on written request received from the Bidders prior to the time fixed for opening. The Bidder shall not be allowed to withdraw his Bid after it has been opened.

2.12 EFFECTIVE PERIOD OF BIDS

The effective period of the Bid is one hundred and twenty (120) days after the date of Bid opening. In the event the Department wishes to extend the above effective period, the Department will in writing or by cable notify the Bidders at least fifteen (15) days prior to the expiration of the effective period. Any Bidder who does not agree to such extension may withdraw his Bid by so advising the Department in writing or by cable prior to the expiration of the original effective period. If such advice of withdrawal is not received by the Department prior to the said date, the extension shall be deemed to have been accepted by the Bidder, and the Bidder shall be required to extend the effective period of the Bid Security accordingly.

2.13 CONSIDERATION OF BIDS

(a) After the Bids are opened, they will be compared on the basis of the Total Amount of each and compliance with the proposed detailed design, manufacturing, delivery and construction schedule with the specified completion dates.

(b) The Total Amount will be checked for possible arithmetic mistakes and duly corrected as follows:

(i) In case of an erroneous product of the respective bid unit price and given quantity, the bid unit price shall govern and the corrected amount of product shall be binding upon the Bidder.

(ii) In case of errors in the summation to yield the Total Amount, the corrected summation including the lump sums and all other sums shall be binding upon the Bidders.

(iii) Where a unit price only is stated in the Bill of Quantities, the bid amount for the item shall be determined by multiplying the unit price by the given quantities.

(c) The Proposed Construction Schedule will also be checked for compliance with the specified completion dates, and if adopted shall become the Agreed Construction Schedule.

(d) The Bidder may be instructed to provide additional information or provide further clarification with respect to Clause 2.04, failure to comply with which shall constitute reason for rejection of the Bid.

2.14 REJECTION OF BIDS

(a) The right is reserved by the Department to reject any or all Bids, to waive technicalities, to advertise for new Bids, or to proceed to do the work otherwise, if in the judgement of the Department the best interest of the Department will be prompted thereby.

(b) Bids may be rejected in, but not limited to, the following cases:

(i) When they are not in compliance with the requirements of, or when they contain provisions not required by the Bid Documents.

(ii) When the facts as to the Bidder's experience, business and technical organization, and financial and other resources when compared with the work to be performed justify the rejection.

(iii) When submitted by a Bidder who has not purchased from the Department the Bid Documents for which the Bid is called.

(c) The Department will not be bound to award a Contract to the Bidder submitting the Bid with the lowest indicated cost. The Department reserves the right to reject any or all Bids submitted or to accept the Bid which in its judgement, is the lowest responsive Bid. In making its selection the Department will take into consideration:

(i) The conformity of the Bid to the requirements of the Bid Documents. Whenever possible, compensating factors will be applied to the deviations.

(ii) The suitability of the Bid for the purpose intended; and

(iii) The Bidder's experience, organization, facilities, financial resources and other resources when compared to the work to be performed.

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2.15 ACCEPTANCE OF BID AND AWARD OF CONTRACT

(a) The Contract shall be awarded as soon as practicable to the successful Bidder by a Notice of Acceptance of Bid.

(b) The letter of Notice of Acceptance of Bid will be delivered by registered mail within one hundred and twenty (120) days after the opening of Bids to the successful Bidder who, upon receiving the said letter shall immediately notify the Department by cable of receipt of the same.

(c) The Bidder whose Bid is accepted shall, within thirty (30) days after the date of the Acceptance of Bid or such extended time as may be approved by the Department, execute a Contract in accordance with the form shown in Section 5 for the due execution of the Works, provided that where minor deviations or modification of any of the provisions in the Contract Documents are agreed to through stipulation, negotiation or otherwise, by the Department and the Bidder, and written into the formal Contract, such deviations or modifications shall take precedence over the statements and requirements set forth herein and provided further that where such deviations or modifications are incorporated in the formal Contract, that document shall specifically state that such is a modification of the Contract Documents. The Acceptance of Bid shall constitute a binding agreement between the Department and the Bidder even though such formal Contract is not executed.

(d) The successful Bidder shall also, within forty-five (45) days after the date of the Acceptance of Bid, submit to the Department for approval an updated Construction Schedule giving the sequence and time in which he proposes to execute the Permanent and Temporary Works based on the Agreed Construction Schedule referred to in the Acceptance of Bid. These documents, if deemed satisfactorily, will be approved by the Department within fifteen (15) days from receipt and considered binding for the Contract.

(e) The date of Acceptance of Bid shall be the date upon which the notice in writing of such acceptance is delivered to the Bidder.

SECTION 3 - GENERAL CONDITIONS OF CONTRACT

3.01 DEFINITIONS

The following terms as used in this Contract shall have the following meaning:

"Department" "DEDE"	:	Department of Alternative Energy Development and Efficiency, office in Bangkok, Thailand and it's authorized representatives.
"Engineer"	:	The Engineer shall be DEDE or persons designated by the Department to supervise the Works in the Contract or other Engineer appointed from time to time by the Department and notified in writing by DEDE to the Contractor to act as Engineer for the purposes of the Contract.
"Engineer's Representative"	:	Any resident engineer or assistant of the Engineer appointed from time to time by the Department or the Engineer to perform the duties set forth in Clause 3.02 hereof and such other duties and hold such powers as the Engineer may from time to time delegate to him. The Contractor shall be furnished with a copy of the written delegation of powers and authorities.
"Contract"	:	The Contract executed between the Department and Contractor, including the following documents: General and Special Conditions of Contract, Bid and Contract Forms, Specifications, Drawings, Addenda and all other documents signed between the Department and the Contractor.
"Contract Price"	:	The corrected and accepted sum named in the Bid Form subject to such additions thereto or deductions therefrom as may be made under the provisions hereinafter contained.
"Contractor"	:	The party to whom this Contract is awarded for construction of the Works, and its authorized representatives.

"Sub-contractor"	:	Any person or persons to whom any part of the Contract has been assigned with the consent, in writing, of the Department and the legal personal representative, successors and permitted assignees of such persons.
"Days"	:	Days as pertaining to period of construction shall be consecutive calendar days including Sundays and holidays.
"Drawings"	:	The Drawings referred to in the contract Documents and any modification of such Drawings approved in writing by the Engineer and such other drawings as may be furnished or approved in writing by the Engineer.
"Construction or Working Drawings"	:	The combination drawings of Contract drawings and shop drawings.
"Approval"	:	Approval (approved) in writing by the Department or by the Engineer, including subsequent written confirmation of previous verbal approval.
"Schedule"	:	Schedule of Quantities, Rates and Prices as given in the Bid Form.
"Site"	:	The lands on which the Works are to be executed or carried out and any other lands or places provided by the Department for the Contract.
"Supplier"	:	An individual, firm or corporation that sells materials, equipment or services to the Contractor or his Sub-contractors.
"Permanent Works"	:	The Permanent Works to be executed and maintained in accordance with the Contract.
"Temporary Works"	:	All Temporary Works of every kind required in or about the execution or maintenance of the Works.
"Works"	:	All Temporary Works and Permanent Works, including equipment, machinery and materials to be supplied, to be executed and maintained in accordance with the Contract.

3.02 CONTROL OF THE WORKS

(1) Engineer's Authority

(a) The Engineer shall perform technical inspection and supervision of the Works. He has the authority to stop the Works whenever such stoppage may be necessary to insure the proper execution of the Contract. He shall also have authority to reject all work and materials that do not conform to the Contract and to decide questions that arise in the execution of the Works.

(b) The Engineer shall within thirty (30) days after their presentation in writing to him by the Contractor, make decisions in writing on all matters relating to the execution and progress of the Works or the interpretation of the Contract Documents.

(c) The Contractor shall comply with and adhere strictly to the Engineer's instructions and directions on any matter concerning the Works, and he shall co-operate to the fullest extent with the Engineer in the performance of the Works.

(d) The Engineer shall carry out such duties in issuing decisions, certificates and orders as specified in the Contract. In the event of the Engineer being required in the terms of his appointment by the Department to obtain the specific approval of the Department for execution of any part of these duties, the Contractor shall act in accordance with the instructions of the Engineer. Provided that the following, notwithstanding anything stated otherwise in the Contract, are subjected to the approval of the Department:

(i) Extension of Contract period for any reason.

(ii) Increase or decrease of quantities of Works and fix new rate to alter the rate specified in the Contract for such increase or decrease.

(iii) Major alteration of Drawing and/or Specifications.

(iv) Issuance of any Completion Certificate

(v) Certify an additional or extra cost incurred

(2) Contractor's Representative

The Contractor shall appoint his authorized representative who shall be competent to provide all necessary superintendence during the execution of the Works for the proper fulfilling of the Contractor's obligations under the Contract and the representative shall submit a written notice to the Department when he is available to take up his duties. The Contractor's Representative, approved in writing by the Department through the Engineer,

shall be on Site at all time and shall devote his entire time to the superintendence of the Works. The approval of the Contractor's Representative may be withdrawn at any time and should this withdrawal be made by the Department through the Engineer, the Contractor shall without delay after receiving written notice of such withdrawal remove the representative from the Site and shall not thereafter employ him again on the Site in any capacity and shall replace him with another representative approved by the Department through the Engineer. All expenses associated with the removal of such employee shall be paid by the Contractor.

(3) Contract Documents

(a) Contract Documents shall mean and include the General Conditions of Contract, the Special Conditions of Contract, the Specifications, the Drawings, the Addenda, the Contract and all other written agreements signed by the parties hereto for the purpose of execution of the Works.

(b) The Contract Documents are to be taken as mutually explanatory. In the case of contradictory and/or discrepant provisions of an engineering nature, the order of recognition of these documents is as follows:

1. Addenda (if any)
2. Special provisions (if any)
3. Contract Drawings
4. Conditions of Contract
5. Specifications

In the event of any discrepancy between the drawings and figures written thereon, the Engineer will make a determination and will provide the Contractor with correct information.

(c) Six (6) copies of the Contract Documents will be furnished to the Contractor without charge. These documents are to be used only in connection with the work specified herein and shall be kept on Site.

(4) Drawings

The Drawings which are included in the Bid Documents are the drawings to be used for constructions. The Department has already prepared the Construction Drawings in sufficient details in the Volume 4 of the Contract Documents. Two full size prints and one reproducible copy of each Drawing will be issued to the Contractor at the commencement of the Contract and thereafter when any Drawing is amended or added. On receipt of these Drawings, the Contractor shall check them carefully and advise the Engineer in writing of any discrepancies, errors and omissions and full instructions will be furnished to the Contractor should any discrepancies, errors or omissions be found. The Contractor shall be required to perform the work in accordance with such further drawings at the applicable rates bid in the Schedule of Quantities, Rates and Prices for such work or work of a similar nature. Although the Drawings are prepared to scale, work shall be based upon

dimensions shown on the Drawings and not on dimensions scaled from the Drawings. Drawings when read in conjunction with the Specifications and instructions that may be issued from time to time by the Engineer, will show sufficient dimensions, specific details and typical details to define the various features of the work, but the details necessary for the construction of any part of the work may have to be deduced from several Drawings. Any additional drawings that the Contractor requires interpreting the Drawings to construct the Works shall be prepared by the Contractor at his own cost

(5) Documents and Information to be furnished by the Contractor

(a) In accordance with the requirements of Clause 4.03 the Contractor shall submit an updated Construction Schedule to the Engineer for approval. The updated Construction Schedule shall show the procedure and method by which he proposes to carry out the Works. The Contractor shall also submit working drawings and other information requested by the Engineer, such as construction plant and Temporary works which the Contractor intends to supply, use or construct as the case may be. The submission to and the approval by the Engineer of such updated Construction Schedule or the furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the Contract.

(b) The Contractor shall furnish to the Engineer for approval within sixty (60) days after Acceptance of Bid the detailed breakdown of the rates and lump sums provided in the Schedule of Quantities, Rates and Prices. Such approved breakdown of the Rates and Prices shall be used as the basis for the calculation of monthly payment as stipulated in Clause 3.05(1)(a).

(c) Other than the documents provided for in the above sub-clauses, the Contractor shall furnish without delay the documents, drawings and other information provided for in the Conditions of Contract and the Specifications, or documents, drawings and other information deemed necessary by the Department or the Engineer.

(d) Unless otherwise specifically provided, any and all expenses, required by the Contractor to submit the documents, drawings and other information in compliance with the Contract shall be borne by the Contractor.

(6) Familiarity with Site Conditions

(a) The Contractor shall thoroughly investigate and familiarize himself with all conditions of the Site and the surrounding area.

(b) Any and all expenses arising through lack of knowledge or understanding on the part of the Contractor regarding the conditions of the Site and the surrounding area shall be the responsibility of the Contractor and no additional payment therefor will be made by the Department.

(7) Change of Works

(a) The quantities given in the Schedule shall be regarded as estimates only and they are not to be taken as the actual and correct quantities of the Works to be executed by the Contractor in fulfillment of his obligations under the Contract.

(b) The Department may make any changes of the form, quality or quantity of the Works or any part thereof that may, in the opinion of the Department, be necessary, and for that purpose or if for any other reason it shall in its opinion be desirable, shall order the Contractor to do any of the following:

(i) Increase or decrease the quantity of any work included in the Contract.

(ii) Omit any such work.

(iii) Change the character or quality or kind of any such work.

(iv) Change the levels, lines, position and dimensions of any part of the Works.

(c) Such changes shall in no way affect or invalidate the Contract but the value of such changes shall be taken into account in accordance with provisions of Clause 3.05(5).

(d) Such changes of Works shall not be made by the Contractor without written order and/or instruction from the Engineer.

(8) Additional Works

The Department may, at any time through the Engineer, direct the Contractor to perform additional work not covered or included in the Specification and Drawings if such additional work is within the general scope of this Contract. In such case, the Contractor shall perform the same, and be entitled to receive payment therefor according to Clause 3.05(4). No additional work shall be undertaken without such written order of the Engineer, and no claim for payment shall be valid unless the additional work was so ordered.

(9) Inspection of Works

(a) All works under this Contract shall be performed in a skillful and workmanlike manner. Inspection of all works will be made by the Engineer while such works are in progress to ascertain that the completed Works will comply in all respects with the standards and requirements set forth in the Contract Documents. Notwithstanding such inspection, the Contractor shall be held responsible for the acceptability of the finished Works.

(b) The Department, the Engineer, and their representatives shall at all time have access to the Works whenever it is in preparation or in progress. The Contractor shall provide proper facilities for such access, and furnish promptly, without additional charge, all facilities, labor and material reasonably needed for safe and convenient inspection by the Department and the Engineer. The Contractor shall give the Engineer timely notice of readiness of the Works for inspection, and the Engineer will perform said inspection in such a manner as not to delay the Works unnecessarily.

(c) If any Works should be covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for examination and properly restored at the Contractor's expense, unless the Engineer has unreasonably delayed inspection.

(d) Re-examination of any work may be ordered by the Engineer, and, if so ordered, the work must be uncovered by the Contractor.

(10) Correction of Works

(a) The Contractor shall promptly replace, repair, adjust, improve or correct, all materials or work rejected by the Engineer under clauses 3.02(9) and 3.03(3) as failing to meet Contract requirements, whether incorporated in the Works or not. The Contractor shall promptly replace and re-execute his own work in accordance with the Contract without expense to the Department and shall bear the expense of making good all works of any other parties destroyed or damaged by such removal or replacement. Such correction of work shall not in any way relieve the Contractor of the obligation and duty of meeting the completion date for the Works stipulated in the Contract Documents.

(b) If the Contractor does not take action to replace and correct such rejected materials and work within ten (10) days after written notice, the Department may, by Contract or otherwise, replace such materials or correct such work and charge the cost thereof to the Contractor, or terminate the Contractor's right to proceed as provided for in Clause 3.04(5).

(c) If the Engineer deems it inexpedient to correct Works that have been damaged or that were not done in accordance with the Contract, an equitable deduction from the Contract Price will be made therefor, unless the Contractor elects to correct the Works.

(11) Audits by the Department

The Department shall be entitled at its discretion to conduct audits, as it may deem necessary for its own investigations. Based on such investigation the Department may order the following:

(a) Additional work as provided in clause 3.02(8).

(b) Variations in quantities as provided in Clause 3.02(7).

(c) Suspension of Works or termination as provided in Clause 3.04(4) and 3.04(5).

(d) Decide on any other costs claimed by the Contractor, but not covered by specified items in the Contract.

The Contractor shall maintain complete updated records of the work particular to the above conditions.

3.03 CONTROL OF MATERIALS AND EQUIPMENT

(1) Supply of Materials and Equipment

(a) The Contractor shall furnish all materials and equipment necessary for incorporation in the Works. All such materials and equipment shall be new and of good quality, shall meet all the requirements of these Contract Documents, and shall be subject to approval by the Engineer. All materials and equipment being used shall be subject to inspection, testing or rejection at any time during their preparation, manufacture and/or use.

(b) All loading, transporting from the point of origin to the Site, unloading, handling, storage on Site and installation of all such materials and equipment shall be the responsibility of the Contractor.

(c) All materials and equipment which are to be shipped into Thailand shall be packaged for ocean shipment in humid tropical climate in such a manner as to protect the materials and equipment from damage in transit and storage on Site. The Contractor shall be responsible for damage incurred due to improper packaging.

(d) The Contractor shall promptly report to the Engineer, in written form, each shipment of major items of materials and equipment on arrival on Site.

(e) All costs incurred by the Contractor to meet the requirements of this Clause shall be included in the prices bid for the various items in the Schedule.

(f) Before proceeding with any purchase, production or manufacture, the Contractor shall submit complete information and supply all samples as needed for approval by the Engineer on all of the above materials and equipment which he proposes to furnish. Such submissions shall be

timely and failure to provide complete information for approval or purchase of any such materials or equipment prior to approval shall be at the Contractor's risk.

(g) The approval of materials and equipment by the Engineer shall in no way relieve the Contractor of the responsibility for furnishing materials and equipment meeting all the requirements of this Contract.

(2) Tests

(a) The Contractor shall execute in the presence of the Engineer and/or the Department tests of quality of materials and the Works, in accordance with the provisions of the Contract Documents, and submit the results to the Engineer for approval.

(b) The acceptance of any services, goods, materials or equipment covered by these contract documents, or the making of any inspection or witnessing of any test, shall in no way relieve the contractor of the responsibility for furnishing services, goods, materials or equipment meeting all of the requirements of this contract.

(c) Unless otherwise specifically provided, the expenses directly required for labour, materials and equipment necessary for the tests shall be borne by the Contractor.

(3) Defective Materials and Equipment

All materials and equipment not conforming to the requirements of the Contract Documents shall be considered as defective and all such materials and equipment, whether in place or not, shall be rejected and shall be removed immediately from the site of the work unless otherwise directed by the Engineer. No rejected materials and equipment, the defects of which have been substantially corrected, shall be used until approval has been given.

(4) Designated Local Material Sources

(a) Material for embankment of the Works shall be obtained the excavation of the Works or otherwise as directed by the Engineer.

(b) The Contractor shall determine for himself the quality and quantity of the materials by selecting from the Works meeting the Specifications and whether blending with other material as necessary. It is not feasible to ascertain from sample limits for an entire deposit, and those variations shall be considered as usual and to be expected. It shall also be understood that the Engineer may order procurement of material from borrow area located within the Right-of-Way and may reject portions of the deposit as unacceptable.

(c) All costs of exploring inside the Right-of-Way as designated on the Drawings or described in the Specifications or when such deposits may prove insufficient, the Contractor shall provide a source of materials acceptable to the Engineer.

(d) All costs of exploring and developing sources of materials including any which may result from an increase in length of haul, shall be borne by the Contractor.

(e) The use of material from other than borrow area inside the right-of-way sources will not be permitted until representative samples have been approved and written authority issued for the use thereof. Approval for the use of material from such alternate sources will not be given unless the quality of the material therefrom is at least equal to the quality specified in this Contract.

(f) Site from which material has been removed shall be left in a neat and presentable condition upon completion of the work.

(5) Storage

Materials and equipment shall be stored in such a way as to ensure the preservation of their quality and fitness for the work. Stored materials may be inspected prior to their use in the work and shall be located so as to facilitate their prompt inspection. All storage sites shall be restored to their original condition by the Contractor at his expense except when otherwise specifically prescribed under the Specifications.

3.04 PROSECUTION AND PROGRESS

(1) Assignment, Transfer or Subcontracting

(a) The Contractor shall not assign or transfer the Contract or any part thereof or any benefit or interest therein or thereunder, any money due or to become due under this Contract to any other person or persons.

(c) The Contractor shall not subcontract the whole of the Works. Except where otherwise provided by the Contract, the Contractor shall not subcontract any part of the Works without prior written consent of the Department, which shall not be unreasonably withheld. Such consent, if given, shall not relieve the Contractor from any liability or obligation under the Contract and the Contractor shall be responsible for the acts, defaults and neglects of any subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen.

(c) No contractual relation shall exist between the Department and subcontractor as a result of the above subcontract.

(d) Should a subcontractor, given prior approval, prove to be unsuitable for the performance of the Works under this Contract, the Engineer may direct the replacement of the said subcontractor, and the Contractor shall comply with such direction.

(2) Extension of Time for Completion

(a) If as a result of increase in quantity of any work in the Contract or additional work of any kind necessary for the completion of the Works or delay in the schedule of supply and installation of material and equipment by other contractors or default on the part of the Department or its agents, or the Department's risks stated in Clause 3.06(16), or any cause beyond the control of the Contractor, the Contractor finds that there is reason to believe that the Works can not be completed within the time stipulated in the Contract, the Contractor shall notify the Engineer in writing stating his reasons within fourteen (14) days from the day on which such event occurred.

(b) The Engineer upon receipt of the notice will study the reasons and if he deems them to be justified will recommend the Department to grant a suitable extension of the time for the completion of the Works.

(c) The Department upon the recommendation of the Engineer may grant a reasonable extension of time for completion.

(d) Other than claiming an extension of time for completion of the Works, the Contractor shall not have any further recourse of claim against the Department, nor shall he have any right of action against the Department for loss or damage suffered by reason of such delay, except as provided for in Clause 3.06(16).

(e) Any claim arising under this Contract shall be made by the Contractor within ten (10) days of the first occurrence. In any case, neither the Department nor the Engineer will take into consideration any claim put forward by the Contractor after the Final Acceptance of the Works.

(3) Late Completion

If the Contractor fails to meet any of the specified completion dates of specific work set forth in Clause 4.03(3) or any extension of time therefor granted by the Department as provided for in Clause 3.04(2), such shall be a default under this Contract. In lieu thereof the Contractor agrees to pay to the Department as liquidated damages and not by way of penalty as prescribed below:

(a) The sum of zero point one percent (0.1%) of the total Contract Price for each calendar day of delay in meeting the aforementioned specified Completion Dates of specific work.

(b) Any damages arising from the Works being late.

(c) Any expenses which the Department may have to bear in employing others to carrying out for the supervision and control the late construction work. Such expenses shall not exceed Baht ……. per day or as per the Prime Minister Office's Procurement Regulation by Electronic Auction B.E.2549 (and Adit edition) and shall be calculated from the specified completion date (Clause 4.03(3) refers) up to the day of actual completion of the specific works.

(4) Suspension of the Works

(a) The Department may at any time by written notice to the Contractor through the Engineer suspend the whole or any portion of the Works under this Contract.

(b) If the suspension of the Works is due to neglect or fault on the part of the Contractor, no additional payment will be made by the Department and the Contractor shall have no right to claim for damages.

(5) Termination of Contract by the Department

(a) The Department may terminate or cancel the Contract or a part thereof in any of the following events:

(i) If the Department deems that the Works or a part thereof can not be completed by the Contractor within the period or extended period provided by the Contract on account of any reason which is attributable to the Contractor, or

(ii) The Contractor without reasonable excuse has failed to commence the Works according to the Agreed Construction Schedule specified in Contract Form in Clause 5.01, or has failed to proceed with the Works, within thirty (30) days after contract signature, or

(iii) The Contractor does not execute the Works in accordance with the orders and/or instructions of the Engineer and is persistently and flagrantly neglecting to carry out his obligations under the Contract, or

(iv) The Contractor has acted unlawfully in performance of the Contract, or

(v) The Contractor has become bankrupt or insolvent.

(b) In the event the Department terminates or cancels the Contract in whole or in part, the Department may after giving fourteen (14) days prior notice in writing, enter into Site and direct the Contractor to vacate the Site.

(f) Such act, however, shall not in any way void the Contract, or relieve the Contractor of his responsibilities or liabilities under the Contract, or affect the right or powers conferred to the Department or the Engineer under the Contract.

(d) In such event the Department may itself or by employing any other contractor complete the said Works. The Department may at its discretion in performing the Works purchase or rent from the Contractor any of the construction equipment, temporary work and/or materials belonging to the Contractor on Site for the purpose of the Works.

(e) After such entrance into Site and the Works by the Department and the expulsion of the Contractor, the Engineer shall determine unilaterally or upon referring to the parties concerned or after conducting investigations and examinations deemed proper, the quantity of work performed under the Contract by the Contractor up to the time of said entrance and expulsion or the sums due to the Contractor in respect of work actually done by him, and the amount of the purchase or rental by the Department from the Contractor of the construction equipment, temporary work and materials stated in the paragraph (d) above.

(f) In the event the Department shall make entrance or cause the Contractor to withdraw from the Site in accordance with this Clause, the Department shall have no responsibility under the Contract for payment to the Contractor, until the Works are completed and the expenses incurred for completion of the Works, the amount of liquidated damage for delay in completion and any and all other expenses borne by the Department have been ascertained.

(g) The Contractor shall be obligated to pay the Department the amounts required by the Department or other contractor the additional costs of construction and administration resulting from non-fulfillment of the Contract by the Contractor and the damages for breach of Contract by the Contractor.

(6) Termination of Contract by the Contractor

(a) (i) If the whole of the Works should be completely stopped for a period of more than ninety (90) days, through no act or fault of the Contractor or of anyone employed by him or in the event of the occurrence of the Department's risks as provided for in Clause 3.06(17), or

(ii) If the Department persistently neglects to make the payments as prescribed by the Contract conditions, within ninety (90) calendar days after the due date, then the Contractor may, without prejudice to any other right or remedy and after giving the Department and the Engineer seven (7) days written notice, stop work or terminate this

Contract and recover from the Department payment for any loss or damage to the Contractor arising out of or in connection with or by consequence of such termination.

(b) If the Contract shall be terminated as provided for above, the Contractor shall be paid by the Department for all works executed prior to the date of termination at the rates and prices provided in the Contract.

(c) Provided that against any payments due from the Department under this Clause the Department shall be entitled to be credited with any outstanding balances due from the Contractor for any advances and other sums previously paid by the Department to the Contractor in respect of the execution of the Works.

(7) Final Acceptance of the Works and Guarantee Period

(a) Whenever all Works provided and contemplated by the Contract shall have been completed and the final clean up finished, the Contractor shall notify the Engineer that all Works under the Contract have been completed, and the Engineer will, within fifteen (15) days after such notice, make the final inspection. If the Engineer finds that the Permanent Works have been satisfactorily completed in accordance with the requirements of the Contract and are undamaged, he shall recommend acceptance thereof to the Department which will, if it concurs with such recommendation, issue to the Contractor the Certificate of Final Acceptance provided that there are no unsettled liquidated damages as provided in Clause 3.04(3) and no unsettled claims against the Contractor by the Department, and provided further that the final statement stipulated in Clause 3.05(7) is approved by the Department.

(b) The Guarantee Period is the duration of one (1) year commences on the date specified in Clause 3.06(12)(b). If during the Guarantee Period, the Department should find any defect in the Permanent Works, the Contractor shall without delay repair and make good such defect to the satisfaction of the Department at no cost to the Department.

(c) When judged urgent and unavoidable by the Department, or if the Contractor fails to perform promptly and satisfactorily to the Department, in accordance with the Contract, the required repair or replacement, the Department shall so notify the Contractor and may without the consent of the Contractor, directly or through a third party, carry out necessary repair or replacement, and any or all expenses incurred for said repair or replacement shall be borne by the Contractor.

(d) In the event any part of the Permanent Works can not be satisfactorily used for a continuous period of seven (7) days or longer, the guarantee period shall be extended by the length of the period during which the Permanent Works could not be used, and in the event the repair work or replacement is not completed within the guarantee period, the guarantee

period shall be extended until such repair or replacement is completed to the satisfaction of the Department and functions properly.

(e) The repair or replacement performed in accordance with this Clause including related work shall be at no cost to the Department. The expenses required for replacement of structures or removal of equipment required for such repair or replacement shall also be borne by the Contractor.

3.05 PAYMENT

(1) Means of Payment

(a) Monthly Statement of Payment

The Contractor shall prepare after the end of each month the monthly statement including the measured or estimated quantities of the work performed, showing the estimated Contract value of the work executed until the end of the months. Six (6) copies, each signed by the Contractor's representative approved by the Engineer in accordance with Clause 3.02(2), of a statement shall be submitted in such form as the Engineer may from time to time prescribe, showing the amounts to which the Contractor considers himself to be entitled up to the end of the month with respect to:

(i) The value of the Permanent Works executed.

(ii) Change of work as described in Clause 3.02(7).

(iii) Any additional work as described in Clause 3.02(8).

(iv) Any other sum to which the Contractor may be entitled under the Contract.

The amount of the progress payment shall be calculated from the Schedule on the basis of the quantity of work performed. For lump sum prices, the amount of progress payment shall be calculated on the basis of the percentage of the estimated quantity of work performed according to the breakdown that the Contractor shall submit under Clause 3.02(5)(b). The estimated quantity of work performed used as the basis for the calculation of monthly payment shall be adjusted at the time of final payment according to the actual quantity of work performed.

(b) The monthly statement shall be submitted, to the Engineer by the fifth (5) days of each month. The Engineer will check the said statement and if in his opinion the estimate is reasonable, he will certify the same for payment within seven (7) days after receipt of the same from the

Contractor. The Department will arrange for payment within forty-five (45) days from the date of receipt of such certificate from the Engineer.

(c) Measurement of Quantities for Payment

Measurement of quantities for payment for each item of work in the Schedule, shall be made to the unit or fraction shown in the Schedule and any fraction thereof shall be taken to the nearest full unit. The method of measurement shall be of the reasonable accuracy and shall be subject to the approval of the Engineer.

(d) Retention Money

(i) All such monthly payments are subject to a retention of ten percent (10%) hereafter referred to as the retention money. Said retention shall be based on the total amount of each statement prior to any deductions for advances as provided for in clause 3.05(3).

(ii) If the Contractor so requests, the Department will, each three (3) months, pay all of the retention money retained during that period to the Contractor upon lodgment with the Department of a Bank guarantee issued by a Bank in Thailand, acceptable to the Department in an amount equal to the payment.

(iii) The balance of the retention money shall be released to the Contractor within forty-five (45) days after the date of issuance Certificate of Final Acceptance.

(2) Methods of Payment

The amount due to the Contractor under this Contract will be paid in Bangkok, Thailand under the monthly payment based on the progress of the Works at each month according to Clause 3.05(1) within forty-five (45) days after the monthly certificate was certified by the Engineer. The basic monetary unit for computing payments under this Contract will be Thai currency.

(3) Advance Payment

(a) The Department shall, after signing the Contract, make an advance payment to the Contractor of fifteen percent (15%) of the Contract Price,

(i) After the Contractor has prepared the workshop and equipment which are proposed for first two (2) months of the construction schedule.

(ii) After the Department has acquired the right-of-way at the Site necessary for the Works in accordance with Clause 3.06(13) and made such right-of-way available for use by the Contractor,

(iii) After the Contractor has submitted to the Department copies of all insurance policies as required in accordance with Clause 3.06(18), and

(iv) Following the presentation of a Bank guarantee by the contractor to the Department in a form approved by the Department for the full value of the advance payment from a Bank located in Thailand acceptable by the Department. The Bank guarantee shall be valid until the Contractor has complete the Works.

(v) And the contractor has followed all requirements in Clause S1.04(5) of Volume 2.

(b) The advance payment shall be progressively recovered by deduction twenty percent (20%) of the total amount from each monthly statement prior to any other deduction, until the advance payment has been repaid in full.

(c) The Bank guarantee for advance payment may be reduced in accordance with the reimbursements by monthly installments but it shall at any moment be valid and in effect for an amount not less than the total amount of the outstanding advance payment.

(4) Payment for Additional Works

(a) The Contractor shall promptly proceed with the additional work stated in Clause 3.02(8) when directed by the Engineer and the amounts to be paid to the Contractor for any such additional work shall be determined by one or more of the following methods as determined by the Engineer:

(i) By applicable rates contained in the Schedule for similar work, or

(ii) By a lump sum proposed from the Contractor and approved by the Engineer, or

(iii) By the rates set out in the Daywork Schedule included in the Contract and bid therefor by the Contractor in his Bid. Works to be executed and paid on the Daywork basis will be ordered in writing by the Engineer. The Contractor shall, during the continuance of such work, deliver each day to the Engineer an exact list in duplicate of the names, occupation and time of all workmen employed in such work and a statement, also in duplicate, showing the description and quantity of all materials, equipment and plant used thereon. One copy of each list and

statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor, or

(iv) By cost plus fixed percentage of overhead.

The additional work and material shall be paid for at the actual cost which is defined hereunder as determined by the Engineer, plus a fixed percentage for overhead and profit.

The actual cost will include all reasonable expenditures for material, labor (including Employer's Liability and Workmen's Compensation Insurance) and supplies furnished by the Contractor and a reasonable allowance for the use of his plant and equipment, where required, but will in no case include any allowance for office expense, general superintendence, or other general expenses.

(b) The fix percentage of overhead in paragraph (4)(a)(iv) above shall be paid in the manner stated below. In the event of disagreement as to costs used for calculating the payment, such costs shall be determined by the Engineer as he deems reasonably and proper.

(i) If the Contractor elects to undertake the additional work by his own forces, he shall be paid as overhead an allowance of fifteen percent (15%) of actual cost incurred.

(ii) If the Contractor elects to sublet the whole of the additional work to a subcontractor or subcontractors, he shall be paid as overhead ten percent (10%) of the contract amount as evidenced by the contract documents between the Contractor and the subcontractor(s).

(iii) If the additional work involve only purchase of materials and/or equipment on behalf of the Department, he shall be paid as overhead and allowance of fifteen percent (15%) of the cost of the materials and/or equipment including import duties and taxes as evidenced by vouchers and receipts.

(c) Requests for payment shall be included with the Contractor's monthly statements for progress payments as provided for in Clause 3.05(1).

(5) Payment for Change of Works

Increase or decrease of work quantities due to the changes stated in Clause 3.02(7) or due to the difference between actual quantities and the estimated quantities in the Schedule shall be evaluated by the unit price bid therefor in the Schedule. Evaluation of work changed other than the aforementioned shall be made in the same manner as set out according to the Department's Announcement. Requests for payment for change of work shall be included

with the Contractor's monthly statements for payments as provided for in Clause 3.05(1).

(6) Adjustment of Contract Price

Should the sum of all monthly progress payments excepting payments for additional work exceed or fall short of the original total Contract Price, then no adjustment shall be made to the unit rates contained in the Schedule.

(7) Final Statement and Payment

(a) Upon completion, delivery and acceptance of the Works provided and contemplated by the Contract, the Contractor shall present to the Department for review and approval a final statement of the cost of the Works with all final quantities of Works performed.

(b) After approval of the final statement, the Department will pay to the Contractor any balance that may be due to the Contractor according to the final statement as approved by the Department.

(c) The amount due to the Contractor under the final statement will be paid after issuance of the Final Acceptance Certificate as stipulated in Clause 3.04(7) and after the Contractor shall have furnished to the Department a statement of release of all claims against the Department arising under and by virtue of this Contract.

3.06 LEGAL RELATIONS AND RESPONSIBILITY

(1) Statutory and Legal Jurisdiction

(a) The proper law of this Contract shall be the law in force in the Kingdom of Thailand. Any litigation between the parties that may arise out of or in connection with this Contract or the breach thereof or the performance of work thereunder shall be determined in the courts of Thailand, except as may be otherwise specifically provided in these Contract Documents.

(b) The Contractor shall give all notice to and comply with all ordinances and regulations of the Government of Thailand in any manner affecting the Contract, and all such orders and decrees as exist or may be enacted by bodies or tribunals having any jurisdiction or authority over the Contract and shall indemnify and save harmless the Department against any claim of liability including any charge, cost thereof arising from or based on, the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees, subcontractors or a combination of both.

(2) Language

(a) The Official Contract shall be in Thai language but all other contract documents related thereto are in English or Thai.

(b) All correspondence between the Department, the Engineer and the Contractor shall be in English or Thai.

(3) Standards and Units

(a) Standards

(i) All materials, fabrication and tests thereof shall, unless otherwise specified, conform to the appropriate Thai Industrial Standards (TIS) or those established and approved in the United States of America (ASTM or ACI), Japanese Industrial Standard (JIS) or to equivalent applicable standards, currently at the time of Acceptance of Bid.

(ii) Reference to standards in the Specifications and Drawings shall be regarded as followed by the words or equivalent.

(iii) If the Contractor proposes equivalent standards, the Contractor shall submit all relevant parts of these standards for the approval of the Engineer. If these standards are written in a language other than English, the Contractor shall attach English versions to the original standards. The decision of the Engineer in the matter of equivalence shall be final.

(b) Units

(i) Units of measurement shall be in the metric system.

(ii) In case any standard expressed in units other than the metric system is used, such standard shall be denoted with an equivalent in the metric system.

(4) Notice and Correspondence

Every notice required under the terms of this Contract should be served in writing and signed by the authorized representative of the party issuing said notice. Notices shall be deemed to be well and sufficiently given if delivered by hand or sent by registered mail or cable to the address given under Clause 1.05. All notices given by cable shall be followed up by a registered letter to be received by the addressee within ten (10) days of receipt of the said cable. All correspondence and notices from the Contractor to the Engineer including enclosures shall be in quadruplicate.

(5) Disputes and Arbitration (Not Applicable)

(a) If any dispute or difference of opinion of any kind whatsoever shall arise between the parties hereto in connection with or arising out of the Contract, either party shall, as soon as practicable, notify the other party of the nature and the points in dispute or the difference of opinion in writing, and the parties hereto shall endeavor to resolve and settle such matters directly and in a friendly manner.

(b) Any controversy or dispute arising out of or relating to this Contract which can not be resolved by mutual agreement shall be decided by the Director General of the Department within a period of ninety (90) days. The decision shall be final and conclusive, unless within thirty (30) calendar days from the date of receipt thereof the Contractor shall deliver to the Department that he desires that the dispute be submitted to arbitration. Pending decision from arbitration, the Contractor shall proceed diligently with the performance of the Contract and in accordance with the decision of the Director General of the Department.

(c) The notice of the Contractor shall contain the name of the arbitrator he has appointed. The Department then shall appoint an arbitrator within thirty (30) calendar days from the date of receipt of such notice. Should the arbitrators fail, within thirty (30) calendar days after the appointment of the Department's arbitrator, to agree upon a decision of the dispute, they, or either of them, should the other refuse to act, shall applied within thirty (30) calendar days for the appointment of an umpire, as follows:

(i) The arbitrators and umpire shall meet within thirty (30) calendar days following appointment of the umpire, and the dispute shall be finally settled by them. The decision shall be by the majority vote of the arbitrators and the umpire, and shall be final, conclusive, and binding upon the parties thereto. All arbitration proceedings shall be carried on in Thailand. Each party shall bear the cost of its own arbitrator. The proportion in which each party is to bear the cost of an umpire, should one be appointed, shall be decided by the arbitrators or, in case they disagree, by the umpire.

(ii) The Department and the Contractor shall have the right to institute a suit against each other, as the case may be, in any court of competent jurisdiction in Thailand, to enforce any decision or award rendered in arbitration proceedings. The Department shall have the same right as above to enforce a ruling of the Director General of the Department in the event said ruling is final and conclusive as above described.

(6) Relation between the Department, the Engineer and the Contractor

The Engineer will act as the intermediary between the Department and the Contractor for all matters relating to this Contract.

(7) Relation with Other Contractors

(a) Whenever other works undertaken by the Department's own forces or by other contractors' forces are contiguous to the Works covered by this Contract, the respective right of the various interests involved shall be established by the Engineer, to secure the completion of the various portions of the Works in general harmony.

(b) The Contractor shall afford the Department and such other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their works, and shall properly connect and coordinate his Works within theirs. The Contractor shall, without charge, permit the Department and such other contractors to use the roads, bridges, lighting installations and other facilities constructed by the Contractor for the Works as are available without entailing any material increase in cost to the Contractor for maintenance or operation of such facilities provided that such usage shall in no way interfere with the works of the Contractor. The Contractor will be remunerated by Department or other Contractors for services supplied to them such as electrical energy and similar.

(8) Contractor's Employees

(a) The conditions of employment for workmen and labor employed by the Contractor for execution of the work shall be in accordance with the labor laws, related ordinances and regulations in force in the Kingdom of Thailand.

(b) In the execution of the work in accordance with the Contract, the Contractor shall employ insofar as practicable, nationals of Thailand, selecting them on the basis of their competency, efficiency and skill in the various occupations and trades. The Contractor may, however, upon prior approval of the Department, employ foreign personnel provided that not less than 85% of the work force shall be a national of Thailand.

(c) Should the Department or the Engineer judge an employee of the Contractor to be incompetent, careless, uncooperative, insubordinate, or judge the employment of such employee is not in the best interest of the Department or that the conduct of such person has brought them in conflict with the Department, the Contractor may at any time be ordered to remove such person from the Site. All expenses associated with the removal of such employee shall be paid by the Contractor.

(d) The Contractor shall at all time take necessary steps to maintain order in and around the Site and prevent his employees from disturbing law and order.

(e) The Contractor shall not, otherwise than in accordance with the Statutes, Ordinances and Government Regulation or Orders for the time being in

force, 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 subcontractors, agents or employees.

(f) The Contractor shall not give, barter or otherwise dispose of to any persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid.

(g) The Contractor shall in all dealings with labor in his employment have due regard to all recognized festivals, day of rest and religious or other customs.

(h) In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulation, orders and requirements as may be made by the Government, or the local medical or sanitary authorities for the purpose of dealing with and overcoming the same.

(i) The Contractor shall at all time 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 neighborhood of the Works against the same.

(j) The Contractor shall be responsible for observance his subcontractors of the foregoing provisions.

(9) Responsibility for Works

(a) The Contractor shall be absolutely and solely responsible that the Works are executed in the most substantial, proper and workmanlike manner with the best quality materials, workmanship, and that the surveys, drawings and quality control are performed or made according to the Contract and that services reasonably to be furnished though not specifically provided for in the Contract are furnished, all to the entire satisfaction of the Engineer notwithstanding that certain portions of the Works may be executed by subcontractors.

(b) The Contractor shall assume full responsibility for the Works until its final acceptance, and shall be responsible for damage to or destruction of the Works and he agrees to make no claims against the Department for damage to the Works from any cause.

(10) Partial Use of the Works by the Department

The Department may take over, on the recommendation of the Engineer, all or part of the Works prior to the issue of the Certificate of Final Acceptance. In such event the guarantee period of the part taken over and place in use shall begin from noon of the day of taking over regardless of the provisions of Clause 3.06(12). Such taking over and use shall not alter the guarantee period

in respect of those portions of the Works not so taken over by the Department nor relieve the Contractor of his obligations under the Contract.

(11) Ownership of the Works

All of the Works covered by monthly progress payments made shall thereupon become the property of the Department, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the Works upon which payments have been made or the restoration of any damaged Works, or as waiving the right of the Department to require the fulfillment of all of the terms of this Contract.

(12) Performance Security

(a) The Contractor shall present by the date of execution of the Contract a Performance Security for the due and faithful performance of the Contract a sum equivalent to ten percent (10%) of the Contract Price effective from the date of the execution of the Contract in the form of an irrevocable letter of guarantee issued by a Bank in Thailand subject to the approval of the Department.

(b) The Performance Security in a form approved by the Department shall be valid until the Contractor has executed and completed the Works and remedied any defects therein in accordance with the Contract to the expiration of the Guarantee Period. The Guarantee Period shall be one (1) year beginning from noon of the day immediately following the date of issuance of the Certificate of Final Acceptance.

(c) On the expiration of the Guarantee Period and if the Permanent Works function normally, the Contractor shall thereafter be released of all obligations and responsibilities under the Contract and the Performance Security will be released and returned to the Contractor.

(13) Land and Right of Way

The Department will acquire right-of-way on Site necessary for the Works, such as land for structures and temporary facilities. The Contractor may use right-of-way free of charge. If the Contractor requires the use of land in addition to that made available by the Department, the Contractor shall by himself, and at his own expense, make all arrangements with owners and users of land to acquire the necessary right to use the land and acquire the right-of-way. In the case, however, that the Contractor encounters major difficulties in acquiring the necessary right, the Contractor shall give the Engineer written notice of such requirement ninety (90) days before he proposes to commence to use such land. In this case, if the requirement of the

Contractor is deemed reasonably, the Department will take all necessary proceedings and make available the land to the Contractor.

(14) Storage and Handling of Explosives

(a) The sale of explosives is under the control of the Government of Thailand. If requested by the Contractor, the Department will assist the Contractor in the purchase thereof by issuing necessary supporting letters.

(b) The Contractor shall keep an up to date account of the amounts of explosives in storage and already used, and shall submit this monthly inventory to the local government authority for inspection.

(c) The Contractor shall exercise due care and attention in the storage, transporting and handle of explosives. Blasting shall be permitted only by skilled and qualified workmen and all precautions shall be taken to prevent loss of life and damage to properties around the Project area. The explosives shall be stored in reasonable and adequate protective facilities as may be necessary to prevent theft or pilferage thereof. The explosives shall be stored in a place on site approved by the Engineer. Such site shall be more than 500 m away from the camp area and site structures. The Engineer shall notify immediately of any protective facilities as may be necessary to prevent theft of explosives and to minimize hazards of subversive action of sabotage to property. Only reliable personnel shall be permitted to handle explosives.

(d) The detonators must not be stored, transported or kept in the same place with the dynamite or other explosives.

(e) The Contractor shall strictly abide by relevant Thai government regulations concerning purchase, transporting, handling, storage and use of explosives.

(15) Petrol, Oil and Lubricants

(a) Petrol, oil and lubricants for construction equipment and vehicles are available in Thailand and the Contractor shall not be permitted to import such products for use in the Works.

(b) In the purchase of petrol, oil and lubricants, the Contractor shall give preference to products from Petroleum Authority of Thailand (PTT) to the extent of no less than fifty percent (50%) of the total of such products to be used under this Contract, if PTT can supply at the prices comparable to those offered by private firm suppliers.

(16) Telecommunication Facilities

(a) The Contractor may, at his own costs, install and operate his own radio communication equipment after obtaining the approval of the Communication Authority of Thailand. The Department will assist the Contractor to obtain the necessary licenses by issuing the required supporting documents. The Contractor shall submit the proposal of his own telecommunication system with sufficient details and drawing to the Department for The approval prior to construction.

(b) The Contractor shall supply, install, operate and maintain a reliable internal telecommunication system until completion of the Works. The Contractor shall obtain approval from the Communication Authority of Thailand for installation and operation of the internal telecommunications system. At least 2 PABX extensions of this system shall be reserved for internal communications by the Engineer. The Engineer will determine the allocation of these extensions and the Contractor shall provide such extensions, allowing for one repositioning of each extension, to the locations on Site as directed by the Engineer. Extensions for the Contractor's purposes shall include an extension to the steel gate installation site, the first-aid posts, and his site offices. All calls made over the internal communications system shall be free of charge to Department and the Engineer.

(c) The Contractor shall provide telecommunication facilities within the project area during construction of the Works at his own expense. These facilities shall also be made available to the Department and the Engineer. The Contractor shall provide 2 sets of walkie-talkie hand telephone system for uses of the Department and the Engineer during the Construction Period.

(d) The telephone system and hand walkie-talkie telephone and all equipment of the system of communication shall remain the properties of the Contractor at the end of the Works and shall be removed from the site.

(17) Department's Risks

(a) During the execution of the Works, the Contractor shall be under no liability whatsoever whether by way of indemnity or otherwise for or in respect of loss of or damage to the Works which is the consequence whether direct or indirect of the Department's risks listed below. In the event of such loss or damage from any of the Department's risks the Contractor shall if and to the extent required by the Engineer repair and remedying of any defects at the cost of the Department.

(b) The Department's Risks are:

(i) War, hostilities (whether war be declared or not), invasion, acts of foreign enemies,

(ii) Rebellion, revolution, insurrection, or military or usurped power, or civil war,

(iii) Ionizing radiation, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste, from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,

(iv) Pressure wave caused by aircraft for other aerial devices travelling at sonic or supersonic speeds,

(v) Riot, commotion or disorder, unless solely restricted to the employees of the Contractor or his subcontractor and arising from the conduct of the Works.

(18) Contractor's Insurance

(a) The Contractor shall, so far as insurable by using his best effort and at his own cost, insure against all loss or damage, before any of Works are commenced, and maintain in effect throughout the duration of the Contract the following insurance coverage:-

(i) Employer's Liability and Workmen's Compensation for all of the Contractor's employees.

(ii) Comprehensive vehicle insurance, which shall cover risk entailed in the civil responsibility for all vehicle employed in the execution of the Works under the Contract for the transport of objects and persons, as well as risks due to Force Major, provided that such vehicles are the property of the Contractor.

(iii) Insurance of the Works for the time being executed to the estimated current value thereof, plus fifteen percent (15%) to cover any additional expense of and incidental to the restoration or repair of any such loss or damage including the cost of demolishing and removing any part of the Works and of removing debris of whatever nature, together with the materials for incorporation in the Works at their replacement value. For the Permanent Equipment such insurance shall start from the date of shipment.

(iv) Insurance for civil responsibilities in regard to third parties, for damage to objects and persons proven to have occurred in consequence of accidents caused by, or during the execution of the Contract.

(v) Fire, earthquake, flood, such other perils as the Contractor may deem necessary and all risks for protection of his construction

plant and Temporary Works, and all materials or other things intended to form, but not yet forming, part of the Works.

(b) The above insurance policies shall be effected with an insurance company duly registered to transact business in the Kingdom of Thailand and shall be subject to the approval of the Department. The insurance policies under points (iii), (iv) and (v) above shall be in the joint names of the Department and the Contractor.

(c) The Contractor shall not commence any of the Works until he has filled with the Engineer a certified copy of all the required insurance policies and he has subsequently obtained from the Engineer a certificate that all such insurances have been obtained. The Department reserves the right to require the Contractor to modify, amend or a combination of both, the above policies to protect the interests of the Department.

(19) Contractor's Working Area

(a) The working areas for the Contractor's construction camp, storage, workshop, warehouse and other facilities shall be provided by the contractor himself at his expense.

(b) The Contractor shall submit to the Engineer, with his Bid, detailed plans showing the areas he proposes to use together with detailed drawings of the buildings and facilities to be erected thereon. Construction shall be generally in accordance with plans approved in the Acceptance of Bid and shall not commence until these plans have been approved by the Engineer.

(c) The Contractor shall, at his own cost, construct, operate and maintain buildings, warehouses, shops and other facilities necessary for the execution of the Works. These facilities remain the property of the Contractor and on completion of the Works shall be removed from the Site unless otherwise approved by the Engineer.

(20) Water Supply

The Contractor shall, at his own cost, be responsible for the installation, operation and maintenance of a safe and adequate supply of drinking and domestic water, for his camp, housing and work area and an adequate supply of water for construction purposes.

(21) Sewage Disposal and Sanitation

(a) The Contractor shall provide and maintain, at his own cost, adequate toilet and wash-up facilities for his employees at his camp and at such places near where the Works are executed. The requirements for sanitary facilities shall be according to the regulations of the Public Health Department, and shall be subject to the prior and continuous approval and inspection of the Engineer.

(b) Garbage, rubbish and trash from kitchen, camp and other facilities shall be buried in the ground or incinerated as approved by the Engineer.

(c) The Contractor shall keep the whole of the Site in a clean and sanitary condition to the satisfaction of the Engineer, and shall take all necessary measures to prevent pollution of water in the waterways.

(22) Safety of Personnel and Third Parties, and Prevention of Accidents

(a) Except for the Department's risks as provided for in Clause 3.06(17), the Contractor is solely responsible for the safety, protection and security of his personnel, third parties, the public at large, the Works, equipment, installations, etc. Accordingly the Contractor shall comply faithfully to any and all pertinent laws, decrees, regulations and other ordinances and shall, at his own expense, take all requisite protective measures to prevent and eliminate the occurrence of accidents, loss or damage of any kind during the performance of the Works and until their final acceptance. The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient warning lights, danger signals and signs and shall take all necessary precautions for the protection of the Works and the safety of the public. Roads close to traffic shall be protected by effective barricades and obstructions shall be illuminated at night and all lights shall be kept burning from sunset until sunrise.

(b) The Contractor shall at all time comply with any accident prevention regulations and any safety regulations peculiar to the various trades employed on the work and any safety regulations published by the Government of Thailand, the Department or the Engineer.

(c) The Contractor shall co-operate closely with the safety inspectors of the Department and the Engineer in order to develop an effective safety program to promote safe practices in construction of the Works.

(d) The Contractor shall report in writing within twenty-four (24) hours from their occurrence, to the Engineer, the local police and the local labor inspector, all accidents occurring on any of the work or in connection therewith. In the event of serious or fatal accidents, the Contractor shall leave unchanged the conditions existing on site of the accident so that the Department may proceed with their investigations to ascertain the causes of the accident.

(e) The Contractor shall be solely and exclusively responsible for any loss or damage, death or injuries, resulting from the performance of the work or in connection therewith, sustained by any person or party. The Contractor shall at his own expense indemnify and save harmless the Department and the Engineer from any or all claims or court actions raised or instigated against it by any persons or parties for loss, damage and/or injuries caused by the Contractor, his personnel, his mechanical equipment and materials or his work yard installations.

(f) Separate payment will not be made for complying with the provisions of this Clause and all costs shall be deemed to be included in the rates and lump sums in the Schedule.

(23) First Aid

The Contractor shall construct and maintain a first aid station on Site, complete with a trained medical officer, all of that shall be made available to the personnel of the Contractor, the Department and the Engineer. Charges for the services rendered to the personnel of the Department and the Engineer shall not be above the minimum to cover operating costs.

(24) Fire Precautions

The Contractor shall take all necessary precautions for the prevention of fire and install the necessary fire fighting appliances within his camp area and the Site in general.

(25) Import Duties

(a) The Contractor shall pay all costs of procuring any necessary permits and licenses for importation into the Kingdom of Thailand, and shall pay any duties and taxes of any nature imposed on imported goods by the Kingdom of Thailand on all equipment, machinery, materials and supplies, which are to be imported into the Kingdom of Thailand for use under this Contract, including the personal effects of the Contractor's employees. The amount of duties and taxes on importation of the said goods shall be included in the rates and prices in the Schedule.

(b) No adjustment will be made to the unit rates and prices as a result of any variations in the rates of import duties and taxes.

(26) Export Charges

Any tariffs, duties, and other taxes or charges levied by the country of origin of the equipment and/or materials required for the performance of this Contract shall be paid by the Contractor.

(27) Income and Other Taxes

(a) All immigration and other fees, VAT and income or other taxes and revenue stamps assessed or collected by the Kingdom of Thailand or any political subdivision thereof or any municipality therein on the Contractor and his expatriate staff shall be paid by the Contractor. Such fees and taxes shall be included in the rates and lump sums in Schedule. No adjustment of such fees and taxes shall be allowed.

(b) According to the regulations of the Revenue Department of Thailand the Department will deduct corporate income tax at the rate of one percent (1%) and VAT at the rate of seven percent (7%) of the Contract Price. The deduction shall be made each time the Contractor receives payment from the Department on the total amount shown, less ten percent (10%) (Clause 3.05(1)(d)(i) refers), as shown on the monthly statement

submitted to and approved by the Department. The one percent (1%) corporate income tax is by way of an advance against corporate income tax that is to be calculated on the profit earned under this Contract each fiscal year in accordance with the Revenue Code of Thailand.

(c) The retention money which retained during a period of 3 months if paid to the Contractor (Clause 3.05(1)(d)(ii) refers) will be subject to deduction of taxes as stipulated in (b).

(28) Royalties and Patents

The Contractor shall pay all royalties and license fees, and shall save harmless and indemnify the Department and the Engineer, their officers, agents and employees against liability, including costs and expenses, for infringement of any liability, right or other protected right arising out of the performance of this Contract.

(29) Publication, Pictures and Visitors to Site

(a) Publicizing the Works or any part thereof, without the prior written approval of Department, in the form of announcements or publications, either verbal or in writing, or pictures, movies or in any other manner, is prohibited.

(b) No visitors are allowed to any of the Works without the prior approval in writing of the Department.

(30) Antiques and Objects of Value

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on Site and the Works shall be deemed to be the absolute property of the Department and the Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out at the expense of the Department the Engineer's orders as to the disposal of the same.

(31) Public Traffic

The Contractor shall comply with all traffic laws and regulations of the Kingdom of Thailand, and shall take every precaution not to interfere with normal public traffic. Where the laws require and specify any special protection or strengthening of highways, roads or bridges, the Contractor shall submit his proposals to the Engineer for such work after their approval by the authority concerned and the Contractor shall carry out the work at the direction of the Engineer.

(32) Soil Conservation

(a) All proper precautions shall be taken by the Contractor to prevent the erosion of soil from any lands used or occupied by the Contractor and of the bed or banks of any stream or lake and to prevent the deposition of excavated or eroded material in any stream, lake or reservoir that may result from the execution of the Works.

(b) If, in the opinion of the Engineer, the Contractor's operations cause erosion hazards, the Contractor shall undertake soil conservation measures when directed by the Engineer and in accordance with accepted practices and procedures for soil conservation. The Contractor shall not be entitled to any compensation for work carried out in accordance with this Clause.

(c) All soil conservation measures shall be carried out at the earliest possible time, as determined by the Engineer, to ensure that the required protection is established by the time of Completion of the Contract.

(33) Preservation of Flora and Fauna

The Contractor shall:-

(a) Refrain from destroying, removing or clearing trees, timber and scrub to an extent greater than is necessary for the execution of the Contract.

(b) Arrange that timber for firewood be obtained only from such places as shall be approved by the Engineer and

(c) Take such measures as may be necessary to prevent his employees from hunting, disturbing, capturing or destroying native animals and birds or illegally taking fish from any water.

SECTION 4 - SPECIAL CONDITIONS OF CONTRACT

4.01 DESCRIPTION OF WORKS

(1) Location

MAE HAT Weir are located at Wiang Haeng District, Chiang Mai on the North region of Thailand and is about 177 km. from Chiang Mai. The purpose of the Project is mainly to provide power of the stream.

(2) Items of Works

The main works to be performed shall include, but not be limited to, the following :

(a) Construction of MAE HAT Hydropower Project.

(i) Improvement partial of Weir
(ii) Headrace and Valve Chamber
(iii) Box Culvert
(iv) Penstock
(v) Power House
(vi) Tailrace
(vii) Access Road
(viii) Surge Tank
(ix) Hydromechanical Equipment

(b) Provision and maintenance of the following facilities for use by the Department and the Engineer on site office and site residence during the construction period :-

- Electrical supply
- Water supply

(c) Maintenance the Works when necessary and as specified.

(d) Associate and ancillary works as may be required.

4.02 CO-ORDINATION WITH OTHER CONTRACTORS

(1) Related Contract

The Department envisages that the following related contracts will be awarded in relation to the Project :

Contract No. Scope of Works
C1 - Improvement partial of Weir, Headrace and Valve Chamber

- Access Road to Weir and to Power House
- Surge Tank, Penstock, Power House and Tailrace

C2 Mechanical Electric Equipment and Control, Switch Yard

(2) Intercontractor Responsibility

The Contractor shall communicate directly with the other contractors on all matters of mutual interest and responsibility including:

- All information and data necessary to the performance of their duties for the Department.

- Establishing programs for the contractors respective site operations for the commencing of certain activities.

- Informing among the other contractors of any matters which arise during the course of the Contract and which may affect the other contractors' operations or responsibilities.

(3) Information to the Engineer

(a) Two copies of all communications, programs, drawings and records of all meetings between the Contractor and the contractors for the associated works shall be sent to the Engineer by the Contractor at the same time as the respective information as sent or received. Receipt of these copies by the Engineer shall not imply approval of the contents.

(b) Should the occasion arise that the Contractor considers that another contractor has failed or will fail to perform prejudice the Contractor's contractual obligations, he shall seek the Engineer's assistance in having the failure rectified.

(c) Subject to the right of the Contractor under the Contract, the decision of the Engineer shall be final in the event of any disagreement between contractors which con not be resolved mutually. If necessary, the Contract shall be required to revise the Construction Schedule (Clause 4.03(1) referred) to conform with the Engineers decision.

(d) When submitting for approval of the Engineer, Drawings, information, programs or the like which affect other contractors, the Contractor shall indicate whether the other's approval has been obtain or not.

(e) The Engineer shall have the right to be present at any meeting among the Contractors.

4.03 CONSTRUCTION SCHEDULE

(1) Contractor's Construction Schedule

(a) The Contractor shall submit, to the Engineer for approval within forty-five (45) days after Acceptance of Bid or such extended time as may be approved by the Department five (5) copies and one (1) reproducible copy of an updated Construction Schedule (Clause 3.02(5) referred) giving the sequence and time in which he proposes to execute the Permanent Works and Temporary Works to supplement the Agreed Construction Schedule referred to in the Acceptance of Bid. The Engineer may from time to time, if he deems it necessary and advisable, demand that Contractor submit for approval five (5) copies and one (1) reproducible copy of detailed construction schedules of particular sections, or parts of the Works together with the basis of such schedules.

(b) The Contractor shall program or schedule the Works in bar chart from or by a similar type of construction schedule. Such schedule shall be submitted as a supplement to the program specified above.

(2) Commencement of Works

(a) Notice to Proceed

After the Contract between the Department and the Contractor has been singed the Department will issue the "Notice to Proceed" to the Contractor. The Notice to Proceed will stipulate the date on which it is expected the Contractor will begin the Works and from which date contract time will be reckoned. The Contractor shall not begin the Works before such stipulated date.

(b) The Contractor shall commence work on Site within thirty (30) days from the expected commencement date of the Contract that mentioned in the "Notice to Proceed" and shall proceed the Works in accordance with the Agreed Construction Schedule in compliance with Clause 4.03(1) above without any changes prior to the approval of the Engineer.

(c) The Contractor shall give written notice of his commencement date to the Department at least seven (7) days prior to the Commencement Date. Thereafter, the Contractor shall proceed the Works with due expedition and without delay.

(3) Progress and Completion of the Works

(a) The Contractor shall Schedule the performance of his activities to allow for completion of the Works by the specified completion period as listed below calculated from the actual date of commencing work on Site. The whole of the Works shall be completed within the time as stipulated, or within such extended time as may be granted under Clause 3.04(2), subject to any requirement in the Contract as to the time for

completion of any portion of the Works before completion of the whole.

(b) Failure to meet such specified Completion Dates by the Contractor shall be a breach of Contract and subject to liquidated damage as prescribed in the provision of Clause 3.04(3).

Construction activity	Completion date From the date of Commencement (Month)
Completion of the Contract	24

(c) Should the Contractor not comply with one or any of the specified completion period above for each calendar day of delay, the Department shall apply the amount equal to zero point one percent (0.1%) of total amount of each item for each day, until to the actual completion date when the Department accepts the performance statement for the Works.

4.04 DRAWINGS TO BE PREPARED BY THE CONTRACTOR

(1) Shop Drawings

(a) The Contractor shall, where required in the Contract Documents, prepare and deliver the detailed drawings of supplies and special installations of the permanent works, etc., to the Engineer for approval. The Contractor shall also prepare such additional drawings which he considers necessary to interpret the Contract Drawing for the use of his employees or to ensure the proper construction of each part of the Works within the scope of this Contract.

(b) Where designs are required to accomplish the Works the Contractor shall perform the necessary calculations and make the required drawings.

(c) The Contractor shall submit in triplicate, to the Engineer for review, all designs and drawings which he prepares under this Clause. The Engineer will review all such designs and drawings and order changes when deemed necessary.

(d) The Contractor's design and drawings shall be submitted in a sequence to facilitate the Engineer's study and scrutiny of the same, and shall be completed in regard to all computations and data, and shall be traced on Standards Size A1 and A3 reproducible. The title of the drawing, the signature of the Contractor's representative, the date prepared and the

corresponding number of the Drawing attached to the Contract Documents shall appear at the bottom right hand corner of the drawings.

(e) Within thirty (30) days after submission of drawings, the Engineer will advise the Contractor of his conclusions regarding the drawings. The Engineer's conclusions may be one of the following :

(i) Approved.

(ii) Approved except as noted.

(iii) Disapproved (with relevant reasons determining rejection duly indicated).

(f) Within fourteen (14) days of the return of designs and drawings marked 'Approved' or 'Approved except as noted' the Contractor shall present to the Engineer the revised original drawings and two blueprints of the same.

(g) Thereafter the signed original full size drawings will be returned to the Contractor. No drawing will be considered valid unless signed by the Engineer. The approval by the Engineer of such drawings will not relieve the Contractor of his obligation and responsibility under the Contract.

(h) Drawings marked 'Disapproved' shall be redrawn and resubmitted to the Engineer.

(i) The Contractor shall not be entitled to a time extension based upon the rejection of design or detail drawings because such design of detail drawings fail to conform to sound engineering principles or to the Specifications.

(j) All materials ordered or work performed prior to the approval of the relevant design shall be at the Contractor's risk.

(2) As-built Drawings

As-built Drawings shall be prepared and submitted by the Contractor to the Engineer before the Certificate of Final Acceptance is issued. The As-built Drawings shall show all facilities constructed under the Contract, and incorporate all changes, revisions and corrections including the delineation thereon of any physical changes made during construction, assembly or portion of the Works delineated thereon as it was completed and accepted by the Engineer. Sizes and titles of drawing will be directed by the Engineer. Prior to the submission of the As-built Drawings, the Contractor shall have the Engineer's approval. Each As-built Drawings to be submitted shall contain one (1) reproducible and three (3) copies with the same to the reproducible and five (5) copies with A3 paper size.

4.05 REPORTS AND DATA TO BE SUPPLIED BY THE CONTRACTOR

(1) Before the 10th of every month during the course of construction, the Contractor shall submit to the Engineer twelve (12) copies of the Monthly Progress Report for the preceding month which shall include the following:

(a) List of engaged staff and laborers during the report period.

(b) List of construction plants and equipment in Workshop and/or on Site in Working order indicating the number of working days of each plant.

(c) List of activities scheduled to be in progress and actually in progress during the report period, together with the Contractor's estimate of progress achieved up to the report date and actual/forecast start and/or completion date for each activity.

(d) List of activities scheduled to be started within one (1) month with forecast starting dates.

(e) A progress graph chart showing the monthly progress of major work items together with their scheduled total achievements and their actual total achievements.

(f) Physical records and climatic conditions such as rain fall record at headwork, minimum and maximum temperature, relative humidity, etc.

(g) Record of correspondence, instruction drawings, site instruction, etc.

(h) Accidents and dispensary frequency.

(i) Special events, trouble-shooting, etc.

(2) Five (5) sets of the Photographic Record and one (1) set of slide containing first quality color photographs of all significant aspects of construction work during the report period shall also be submitted in addition to the Monthly Progress Report. This monthly Photographic Record shall contain approximately ten (10) color photographs of 90 mm by 125 mm in size and ten color slides within a frame with brief explanation of aspects, sites, and date.

(3) Daily or weekly reports shall be required for the nominated special works in a form approved by the Engineer. These reports shall be submitted to the Engineer by 9.00 a.m. of the following day or the first day of the following week.

(4) The Contractor shall participate the site meetings which will be conducted by the Engineer on a regular basis and at any time when called for.

4.06 SURVEY

(1) General

(a) The Department will make available to the Contractor datum points installed by the Department as shown on the Drawings. All surveying that are necessary for layout of the Works shall be performed by the Contractor.

(b) The Contractor shall check all datum points furnished by the Department and submit the results to the Engineer. If there is any discrepancy the Engineer will make the necessary corrections.

(c) From the datum points, the Contractor shall furnish and place all additional stakes, templates and bench marks necessary for making and maintaining points, lines and elevations for layout of the Works. All datum points shall be preserved by the Contractor unless authorized to remove them. Should any of the datum point need to be removed, such work shall be done by the Contractor at his expense in accordance with the instruction of the Engineer.

(d) The Contractor shall also conduct survey of cross section of the original ground surface and excavated surface necessary for calculating the quantity for the purpose of progress payments. Survey of the completed Works shall be made by the Contractor for the final quantities. All such survey shall be subject to the approval of the Engineer and shall be taken only in the presence of the Engineer.

(e) All field notes, computations and other records taken by the Contractor for the purposes of survey shall be submitted to the Engineer. All data shall be in suitable form to permit checking.

(f) The Department reserves the right to check all surveying work at any time and to require correction of inadequate surveys, inaccuracies in layout of the Works, or incompleteness of field data by the Contractor at the Contractor's expense.

(g) The true and proper setting-out of the Works in relation to original points, lines and levels of reference given by the Engineer in writing and for the correctness of the position, levels, dimensions and alignment of all parts of the Works shall be the sole responsibility of the Contractor. If, at any time during the progress of the Works, any error shall appear or arise in the position, levels, dimensions or aligment of any parts of the Works, the Contractor, on being required so to do by the Engineer shall, at his own cost, rectify such error to the satisfaction of the Engineer, unless such error is based on incorrect data supplied in writing by the Engineer, in which case the expense of rectifying the same shall be borne by the Department. The checking of any setting-out or of any line or level by the Engineer shall not in any way relieve the Contractor of his responsibility for the correctness thereof and the

Contractor shall carefully protect and preserve all bench-marks, sight-rails, pegs and other things used in setting-out the Works.

(2) Surveying Equipment and Personnel

(a) Instruments, tools, equipment and materials for surveying shall be furnished by the Contractor. Instruments shall be accurate and shall be subject to rigid inspection, and any defective instrument, as determined by the Engineer, shall be promptly replaced, repaired, or adjusted as directed.

(b) Personnel performing survey work shall be experienced in the work. All surveying shall be done under the direct supervision of a qualified surveyor who shall be subject to approval by the Engineer at all time during continuance of the Works.

(3) Accuracy

Accuracy of survey work shall be within the following tolerances:

Triangulation

Allowable error of closure	10 seconds

Traversing

Allowable error of closure	1/3000
Allowable error of distance	1/3000

Levelling

Allowable error for each 1 km. measured forward and backward	10 mm.
Allowable error for closure	$10\sqrt{S}$ mm.

Where S is the total distance of levelling expressed in km.

4.07 GEOTECHNICAL INVESTIGATIONS

(1) General

(a) Information and data obtained by the Department from geotechnical investigations related to the Works are shown on the Drawings. In addition to this information, there are available at the office of the Department, reports and data on geotechnical investigations conducted so far.

(b) The Department and the Engineer shall not be responsible for any interpretation, deduction or conclusion which may be made of the information given on the Drawings. It shall be the sole responsibility of the Contractor as to the conclusions or deductions made by the Contractor that Site conditions would affect the execution of Works.

4.08 TRANSPORTATION CONDITIONS

(1) Unloading

There are no loading or unloading facilities on site, and it shall be the responsibility of the Contractor to provide loading and unloading facilities of the required capacity.

(2) Transportation to Site

It would be expected that all transport to site would be by road from Bangkok.

The following limitations apply to road transportation:

Width	:	3.5	m.
Length	:	10.0	m.
Height	:	3.0	m.
Weight	:	Limited to rated capacity of bridges which are generally of H20 design.	

Permission must be obtained from the Department of Highways before higher loads can be transported.

(3) Road Access to Site

(a) The distance from Amphoe WIANG HAENG to site is approximately 10 km. (177 km. from Changwat)

(b) The Contractor shall fully inform himself as to the condition of the access roads to the Site over the period of the contract, and the Department and the Engineer shall not be responsible for any deductions or conclusions which the Contractor may make relating to access.

(c) It shall be the responsibility of the Contractor to obtain and maintain access to the Site at all time.

4.09 CLIMATOLOGICAL DATA

(1) Statistical data of atmospheric and hydrologic conditions of the project area obtained by the Department are shown on the Drawings.

(2) Further relevant reports and detailed information held by the Department will be made available to the Contractor upon request.

(3) The Department and the Engineer shall not be responsible for any interpretation made or conclusion drawn by the Contractor.

4.10 ELECTRIC POWER FOR CONSTRCUTION PURPOSES

The Contractor shall construct, install and maintain at his own expense the electric power source and distribution system for the construction work under this Contract. The electric power as facilitated will be made available for use by the Department and the Engineer free of charge.

4.11 STATEMENTS OF ESTIMATED MONETARY REQUIREMENT

Notwithstanding any other provisions in this Contract, the total amount of payment by the Department in one fiscal year stated in the Statement of Estimated Monetary Requirements in Fiscal Year (hereinafter called 'Monetary Statement') shall be in principle limited by the following terms:

(1) The Department shall not be bound to provide funds in any fiscal year in excess of the total amount for the fiscal year stated in the Monetary Statement as the result of change in the Works under Clause 3.02(7).

(2) If payments to the Contractor in one fiscal year are less than the amount stated in the Monetary Statement, the amount not expended shall be automatically transferred to the next fiscal year.

SECTION 5 - CONTRACT FORMS

Only the official Thai language contract form in this section, issued by the Office of the Prime Minister, Government of Thailand, shall be signed and shall be the governing document.

The English language contract form in this section is an approximate translation of the official Thai form and is provided for information purposes only. The English language form shall not be signed and shall not obligate parties to any of the terms or conditions therein.

SECTION 5 - CONTRACT FORMS

5.01 CONTRACT FORM

MAE HAT HYDROPOWER PROJECT
CONTRACT C1
CONSTRUCTION OF CIVIL WORKS

This contract is executed at …… Tambon .....……Amphoe …….....…… Changwat ...…..…… on this ……day of……....……..…, B.E.…… (A.D.……...……) between …… …… presented by ……...…… hereinafter referred to as "the Department" of the one part, and ….....…… whose business office is situated at…….....…… Road …… Tambon …… Amphoe …… Changwat …...…… hereinafter referred to as "the Contractor" of the other part.

Now, therefore, the parties hereto have mutually agreed as follows:

1. Department agrees to employ the Contractor to……..……...
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2. The Contractor agrees to perform the Works as stated in Article 1 hereof and provide good quality materials, good equipment and high skill technicians for the performance and the completion of such work.

3. As a Performance Security for the Works under this Contract, the Contractor has on the signing date of this Contract deposited to the Department in the form of…… …… amounted to ten percent (10%) of the total Contract Price……...……Baht (….....…….……) equal to ……Baht (……) The said security shall be valid beyond the Contract's Completion Date. If the Contract's Completion Date shall be extended for any reason, the Contractor shall furnish a security to fully cover the extension period of the Contract.

   The Department shall return the security deposited by the Contractor as mentioned in the first paragraph of this Article after the Contractor has fulfilled his obligations set forth in the first paragraph of Article 6.

4. The Department and the Contractor agreed upon the prices including labour, equipment, materials and/or supplies, not to exceed the Contract Price and the parties accept that the Drawings and Specifications are correct.

   The Department agrees to pay the Contractor partial payments (one partial payment equals to one month) as the work in progress and each unit rate based upon the completion of the work as the Drawings.

   The Department shall retain ten percent (10%) of the total amount of each partial payment made to the Contractor in accordance with the certified documents and the Contractor shall submit the Retention guarantee in an amount equal to ten percent (10%). The Retention guarantee shall be valid not less than six (6) months after the Contract Completion Date.

   Final Payment shall be paid for the remaining work and the Retention Money shall be returned to the Contractor which shall complete the Works within the…….....… day of …….…..… B.E. ……...……, (A.D. …..……) and the Contractor shall perform in Article 22 completely.

   The Department or his authorized officer will issue to the Contractor the Acceptance Certificate after the inspection of each completed and accepted unit work.

5. The Contractor shall commence the Works at the specified place within the …… day of …..…… B.E. ……..…… (A.D. ……) and complete the Works within the …..... day of ….....……..…… B.E. ……, (A.D. ……). If the Contractor fails to commence the Works within the above mentioned time, or should there be any reason for the Department to believe that the Contractor will not be able to complete the Works within the specified Contract Period, or will complete the Works beyond the specified Contract Period, or breach any clauses of the Contract, then the Department shall

have the right to terminate the Contract and to employ other contractor to carry on the Works.

Should the Department not declare the termination of the Contract as mentioned in the preceding paragraph the Contractor shall not be relieved from any of his responsibilities under this Contract.

6. After completion of the Works and their acceptance by the Department from the Contractor, or from new contractor employed to complete the Works in the event that the Contractor breaches the Contract and the Department uses the right set forth in Article 5 to terminate the Contract, should any damage caused by the default of the Contractor, for example, poor performance, use of low quality materials, or the performance being not conformed to the technical practices, occur to the accepted Works within the period of ....…… year(s) ……...…… month(s) from the date of Acceptance of the Works, the Contractor shall in due course repair or make replacement of such damage within the period specified by the Department without making any claims for cost of materials, wages or any other expenses from the Department. Should the Contractor not repair or replace the damages within …… days from the day the receipt of the notice issued by the Department, or the Contractor fails to complete such repair Works within the specified period, the Department shall have the right to hire other person to carry on such Works.

Should any damage occur to the Works after the above specified period, the Contractor shall be responsible for such damage as called for under the Civil and Commercial Code.

In the event that the Department employ other person to carry on the Contract Works as described in Article 5 and the First Paragraph of Article 6, the Contractor shall agree to pay all wages, cost of materials, supervisory cost, and (if any) other expenses, the actual amounts paid by the Department and the Contractor shall remain to be obligated under Article 13 as if such Works performed by the new contractor are his own Works.

7. Being obligated to the Contract, the Contractor agrees that all parts of the Works constructed by the Contractor as well as plants, building, supplies and equipment brought onto the Site particularly for the performance of the Works called for under Article 1 shall become the properties of the Department. Any damage happened to the above buildings and supplies, whether or not as a consequence of force majeure, shall be the responsibility of the Contractor, who shall properly repair or replace such damaged items within the extent of this Contract. The Contractor's responsibilities shall cease after the Delivery of Works, whereafter the Contractor shall be responsible for only defects and damages incurred within the period specified in Article 6.

After successful completion and final acceptance of the Works by the Department, the Contractor shall be allowed to remove the equipment, surplus materials and/or supplies from the Site.

8. Contract Documents of this Contract consist of the followings:

(1) ……
……
……

(2) ……
……
……

(3) ……
……
……

(4) ……
……
……

And each of the above mentioned documents is considered to be part of this Contract.

9. The Contractor shall not execute any part of the Works without the correct specified Drawings and Specifications which shall be properly and disclosely reserved on Site at all time for the inspection of the Department, or the Inspection Committee or its inspector.

10. The Contractor shall not sublet the whole or part of the Works to other person or persons without written permission from the Department. Nevertheless, the Contractor shall remain to be responsible for such sublet Works.

11. Throughout the Construction Period, the Works shall be under the supervision of the Contractor or the Contractor's representative whose name is notified in writing to the Department. The Contractor's representative shall be responsible for the supervision of the Works on behalf of the Contractor. Any instructions issued to the Contractor's representative by the Department shall be deemed that they are also acknowledged by the Contractor.

12. In case the representative appointed in accordance with Article 11. The Contractor's representative is withdrawn by the Department, such representative shall be removed and the Contractor shall agree to provide a replacement without making any claims for damages, or an extension of time. The Contractor shall notify each time in writing the name of the replacement to the Department.

13. The Contractor shall be responsible for all the accidents and risks caused by his errors, and shall be responsible for any damages caused by laborers, technicians, or employees of the Contractor to the Department's properties located on Site.

14. The Contractor shall pay the wages to his employees who are engaged in the execution of the Works called for under this Contract at the rates and time agreed upon between the Contractor and his employees.

    If the Contractor fails to pay the wages to his employees as specified in the preceding paragraph of this Article, the Contractor shall permit the Department pay such wages to his employees out of the money due to him, and all such wages paid by the Department to the Contractor's employees will be deemed as payment made by the Department to the Contractor under this Contract.

    In the event that the Contractor fails to pay the wages to his employees as in the second paragraph of this Article, besides permitting the Department to arrange for payment as stated above it is considered that the Contractor has defaulted and entitled the Department to terminate the Contract.

15. Should the Department appoint an Inspection Committee or inspectors stationed on Site, whether in its course of preparation or progress, the Inspection Committee or its inspectors shall have the right to inspect the Works at all time, and the Contractor shall provide all conveniences and the necessary assistants to the Inspection Committee or its inspectors.

    Appointment of the Inspection Committee or its inspectors on Site shall not relieve the Contractor from any part of his obligations under this Contract.

16. If, prior to or during the course of construction, any discrepancies are found on the Drawings or Specifications attached herewith, the Contractor shall follow the ruling given by the Inspection Committee or its inspectors. If the ruling of the Inspection Committee or its inspectors corresponds to any items on Drawings, it shall be deemed as final. However, if such items have not been specified on the Drawings but such items are required for the satisfactory completion of the Works the Contractor shall agree to perform such work at no additional cost to the Department. The incorrect or unspecified items shall not be the salient aspects of the Contract.

17. The Inspection Committee or its inspectors appointed by the Department shall be permitted by the Contractor to control and inspect the Works in order to meet the Conditions of Contract, the Drawings and Specifications and shall have the power to instruct the Contractor to change, adjust, increase or cancel any parts of the Works in compliance with the Conditions of Contract, the Drawings and Specifications. Should the Contractor fail to follow the instruction, the Inspection Committee or its inspectors shall have the power to suspend such Works temporarily and the Contractor shall not be subject to request for extension of time due to such delay.

18. The Department shall have the right to make variations, to increase or to decrease the quantities of Works specified on the Drawings and Specifications without thereby invalidating the Contract. The increase or decrease in the quantities of Works resulting in and addition or deduction in prices, or an extension or reduction of time shall be agreed upon.

19. In case the Acceptance of Works is made later than the Completion Date specified in the Contract and the Contract is not terminated by the Department, the Contractor shall agree to let the Department take following actions:

(1) Assess the liquidated damages at the amount of ……...…… Baht (……) for each day after the Completion Date specified in the Contract up to the actual successful Completion Date.

(2) Charge for damages caused by the delay of Works (if any).

(3) Charge the supervisory cost if the supervisors are hired by the Department for the amount of …… Baht (……) for each day after the Completion Date specified in the Contract to the date of the Acceptance of Works.

During the assessable period, if the Department considers that the Contractor is not able to fulfil his obligations under the Contract the Department shall have the right to terminate the Contract, and besides assessing the liquidated damages up to the Contract termination date the Department shall be entitled to the right(s) as stated in Article 20.

20. Should the Contract be terminated by the Department, the Contractor shall allow the Department to undertake as follows:

(1) Confiscate the Performance Security indicated in Article 3.

(2) Claim for the Additional cost incurred from hiring the new Contractor by the Department to complete the Contract.

(3) Claim for the supervisory cost paid to the supervisors who are hired by the Department for the completion of the Contract.

(4) Claim for any other damages caused by the Contractor.

21. Upon the termination of the Contract by the Department, any Works performed by the Contractor including materials and equipment brought to Site by the Contractor for particular execution of the Contract Works shall become the properties of the Department and the Contractor shall not claim for any indemnities and damages from the Department. The Contractor shall agree that the Department has the right to restrain the unpaid wages due for the Works done as being the debt Guarantee.

In case the remaining of the Contract Price is not sufficient for the remaining work to be performed by new contractor employed by the department, the Contractor agrees that the deficiency shall be covered by the unpaid wages due to him in accordance with the above paragraph and shall agree to indemnify the deficiency until the total sum is balanced.

Should there by any unpaid amounts of wages under the Contract left after deducting the amount for liquidated damages and compensation, the Department shall return all to the Contractor.

22. During the course of construction, if the Contractor or his adherents put up any workshop or structures or make any holes or traps on Site, the Contractor shall keep such area clean at all time. After completion of the Contract, the Contractor shall remove from Site all such job building, waste materials, debris and rubbish, and fill up all the holes and traps leaving the Site in a clean and orderly condition so that it can be promptly occupied by the Department.

This Contract is executed in two identical counterparts, one for each party. Both the Department and the Contractor have attested their signatures and affixed the seals (if any), upon thorough perusal and understanding, thereto in the presence of the witnesses.

(Signature)……The Department

(…….……)

(Signature) …..……..……The Contractor

(……)

(Signature) ……..……Witness

(……..……)

(Signature) ……..……Witness

(……..……)

5.02 PERFORMANCE SECURITY FORM

1. Whereas the Department of Alternative Energy Development and Efficiency, hereinafter called the Department has awarded the Contract Contract C1 Construction of Civil Works of Mae hat Weir Project, Wiang Haeng District, Chiang Mai Province to the…….....……
.....……...
……
…….……...……, hereinafter called the Contractor.

2. And whereas the Contractor is bound by the said Contract to submit to the Department a Performance Security for a total amounts of Baht ……...…….....……(written in words)……
(฿……).

3. Now we underwriters responsible and representatives of the Bank……
……situated at ……..…
…….…….……
…….hereinafter called the Bank, and fully authorized to sign and to incur obligations in the name of the Bank, hereby declare that this Bank will guarantee the Department the full amount of Baht ……(written in words)
…….
(฿….……) as stated above.

4. After the Contractor has signed the aforementioned Contract with the Department, the Bank is engaged to pay to the Department any amount up to and inclusive the aforementioned full amount upon written order from the Department to indemnify the Department for any liability of damage resulting from the defects or shortcomings of the Contractor or the debts he may have incurred to any parties involved in the Works under the Contract mentioned above, whether these defects of shortcomings or debts are actual or estimated or expected. The Bank will deliver the money required by the Department immediately without delay and without the necessity of a previous notice or of judicial or administrative procedures and without it being necessary to prove to the Bank the defects or shortcomings or debts of the Contractor.

5. This guarantee is valid for a period of ……
(……..……) months after the date of signing the Contract. (The initial period on which this guarantee is still valid must be at least 12 months longer than the completion period specified for all Works under the Contract).

6. At any time during the period in which this Guarantee is still valid, if the Department agrees to grant a time extension to the Contractor of if the Contractor will fail to complete the Works within the completion period for all works as stated in the Contract, or will fail to discharge himself of the liabilities or damages as stated under Article 4 above, it is understood that the Bank will extend this Guarantee under the same conditions for the required time.

7. Until the Department has issued and instruction to the Bank to the effect that this Guarantee can be released, the Bank undertakes, notwithstanding the validity period as stated under Article 5 above, to extend the validity under the same conditions for successive periods of six (6) months at a time and to forward the appropriate extension sheet to the Department.

8. As a declaration of good faith for the Guarantee, the legal representatives of the Bank hereby sign and seal this Security on the date of ..…….....……
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GUARANTOR

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Title ……

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WITNESS

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Title ……..…….

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Office……..……
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Title ……....…..…

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Office……..……
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5.03 FORM OF GUARANTEE FOR ADVANCE PAYMENT

1. Whereas the Department of Alternative Energy Development and Efficiency (DEDE), hereinafter called the Department had awarded the Contract C1 Construction of Civil Works of Mae hat Weir Project, Wiang Haeng District Chiang Mai Province to the..... .... hereinafter called the Contractor.

2. And whereas according to the said Contract an advance payment of fifteen percent (15%) of the Contract sum can be paid by the Department to the Contractor.

3. Now we underwriters responsible and representatives of the Bank …… ……...…in……..., hereinafter called the Bank, and fully authorized to sign and to incur obligations in the name of the Bank, hereby declare that this Bank will guarantee the Department the full amount of Baht ……(Baht ……).

4. The Bank is engaged to pay to the Department any amount up to and inclusive the aforementioned full amount upon written order from the Department, to indemnify the Department for any loss that may result if the Contractor shall fail to reimburse the Department the said amount received as an advance payment or a part hereof. The Bank will deliver the money required by the Department immediately without delay and without necessity of a previous notice or of judicial or administrative procedures and without it being necessary to the Bank the defects or shortcomings of the Contractor.

5. This guarantee is valid for a period of …… (……..……) calendar months. (The initial period in which this Guarantee is still valid must be at least 3 months longer than the completion period specified for all Works under the Contract.

6. At any time during the period in which this Guarantee is still valid, if the Department agrees to grant a time extension to the Contractor, or if the Contractor will fail to complete the Works within the completion period for all Works as stated in the Contract or will fail to discharge himself of the liabilities or damages as stated under Article 4 above, it is understood that the Bank will extend this Guarantee under the same conditions for the required period of time.

7. Until the Department has issued an instruction to the Bank to the effect that this Guarantee can be released, the Bank undertakes, notwithstanding the validity period as stated under Article 5 above, to extend the validity under the same conditions for successive periods of six (6) calendar months at a time and to forward the appropriate extension sheet to the Department.

8. Without in any way invalidating any other conditions of this guarantee it is understood, that the Department from time to time will agree to serve written notifications to the Bank to the effect that the full amount, as stated under Article 3

above, can be reduced by certain sums in accordance with the installments which the Contractor may have reimbursed to the Department.

9. As a declaration of good faith for this guarantee the legal representatives of the Bank hereby sign and seal this guarantee on the date of …….
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GUARANTOR

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Title ……

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WITNESS

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Office ……..……
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5.04 RETENTION GUARANTEE FORM

1. Whereas the Department of Alternative Energy Development and Efficiency, hereinafter called the Department, has awarded the Contract C1 Construction of Civil Works of Mae hat Weir Project, Wiang Haeng District, Chiang Mai Province to the..... ....,hereinafter called the Contractor.

2. And whereas according to the said Contract an amount equal to ten percent (10%) of the value of the work done shall be retained by the Department from the monthly payment due to the Contractor, with the provision that all of the retention money will be paid to the Contractor's lodgment with the Department an acceptable Retention Guarantee.

3. Now we underwriters responsible and representatives of the Bank …… situated at ……. hereinafter called the Bank, and fully authorized to sign and to incur obligations in the name of the Bank, hereby declare that this Bank will guarantee the Department the full amount of …….....……Baht (Baht……...…….....……) in exchange for the amounts retained by the Department from the Contractor's payment certificates over the months……

4. The Bank is engaged to pay to the Department any amount up to and inclusive of the aforementioned full amount upon written order from the Department, to indemnify the Department for any liability of damage resulting from the defects of shortcomings of the Contractor or the debts he may have incurred to any parties involved in the Works under the Contract mentioned above, whether these defects of shortcomings of debts are actual or estimated or expected. The Bank will deliver the money required by the Department immediately without delay and without necessity of a previous notice or of judicial or administrative procedures and without it being necessary to prove to the Bank the defects or shortcomings of the Contractor.

5. This guarantee is valid for a period of …… (……) calendar months. (The initial period in which this Guarantee is still valid must be at least 3 months longer than the completion period specified for all Works under the Contract).

6. At any time during the period in which this Guarantee is still valid, if the Department agrees to grant a time extension to the Contractor, or if the Contractor will fail to complete the Works within the completion period for all Works as stated in the contract or will fail to discharge himself of the liabilities or damages stated under Article 4 above, it is understood that the Bank will extend this Guarantee under the same conditions for the required period of time.

7. Until the Department has issued an instruction to the Bank to the effect that this Guarantee can be released, the Bank undertakes, notwithstanding the validity period as stated under Article 5 above, to extend the validity under the same conditions for successive periods of six (6) calendar months at a time and to forward the appropriate extension sheets to the Department.

8. As a declaration of good faith for this Guarantee, the legal representatives of the Bank hereby sign and seal this Guarantee on the date of …….
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…….
…….

GUARANTOR

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Title ……

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WITNESS

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Title ……..…….

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Office……..……
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Title ……....…..…

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Office……..……
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