CHECK LIST OF DOCUMENTS

DOCUMENT	CLASSIFICATION	
	ORIGINAL (1)	COPY (5)
ENVELOPE A		
a) Covering letter	Original	Copy
b) Certificate of prequalification	Copy	Copy
c) Tender Bond	Original	Copy
d) Power of Attorney	Original	Copy
e) Notices to Tenderers	Copy	Copy
f) Declaration of shareholders	Original	Copy
g) Statement of no change	Original	Copy
h) JV/JO Agreement	Copy	Copy
i) Statement of examination of Tender Document and site	Original	Copy
j) _____ or similar certificate	Copy	Copy
k) _____ or similar certificate	Copy	Copy
l) Bank reference	Copy	Copy
m) Project Execution Plan	Original	Copy
n) Statement of compatibility	Original	Copy
o) Method of technological transfer	Original	Copy
p) Financial data	Original	Copy
q) Contractors previous construction experience	Original	Copy
r) Subcontractors previous construction experience	Original	Copy
s) Other documents if instructed by e)	Original	Copy
ENVELOPE B	ORIGINAL (1)	COPY (5)
t) Form of Tender		
u) Appendix to the Conditions of Contract	Original	Copy
v) Priced Bill of Quantities	Original	Copy
w) Cumulative Interim Payment schedule	Original	Copy
x) Schedule of Dayworks rates	Original	Copy
y) Breakdown of major rates (as requested)	Original	Copy

Note:

1) Items a) to s) inclusive shall be bound into volumes (original and copy), these volumes are to be placed in two packets marked "Envelope A (Original)" and "Envelope A (Copy)" and sealed.

2) Item t) to y) inclusive are to be placed in packets marked "Envelope B (Original)" and "Envelope B(Copy)" and sealed.

3) Envelope A and Envelope B should then be sealed into separate packets marked, "Tender for Shanghai Pudong International Airport Project: Airside Civil Works. Not to be opened before

..... " and delivered to the address below.

The Chairman of the Tender Committee
Shanghai Pudong International Airport Construction Headquarters
220 Si Chuan, Road (M)
Shanghai
China 200002

FORM OF TENDER BOND

BOND NO. _____ **DATE BOND EXECUTED** _____

BY THIS BOND WE _____ (hereinafter called the "Tenderer") as principal and _____ (hereinafter called the "Surety") are held and firmly bound unto the Shanghai Municipal People's Government (hereinafter called the "Employer") in the Sum of China Renminbi (Yen)

_____

_____ (RMB. (Yen) _____) for the payment of which sum the Tenderer and the Surety bind themselves their successors and assigns jointly and severally by these presents.

Sealed with our respective seals and dated this _____ day of

_____ 19 _____.

WHEREAS

(1) The Employer has invited the Tenderer and other persons to complete Tenders in similar terms for the construction of the Shanghai Pudong International Airport Project (Airside Civil Works) and works associated therewith (hereinafter called the "Works") and to submit the same for consideration by the Employer.

(2) The tenderer proposes to submit to the Employer a tender (hereinafter called the "Tender") in accordance with such invitation and by the above written Bond to provide security for the due performance by him of the undertakings and obligations in the Tender on his part contained.

NOW THE CONDITION of the above written Bond is such that:

(a) if the Tender is accepted by the Employer within 245 days from the date for opening the Tender and the Tender has provided a surety or sureties and executed the Form of Agreement all in accordance with the Instructions to Tenderers, or

(b) if the Tender is not accepted by the Employer within 245 days from the date for opening the Tender or if before the expiration of that period of 245 days the Contract for the Works shall have been awarded to another person in accordance with the Instruction to Tenderers,

then this obligation shall be null and void but otherwise shall be and remain in full force and effect but no alteration in the terms of the Tender nor any forbearance or forgiveness or in respect of any matter or thing concerning the Tender in the part of the Employer shall in any way release the Surety from any liability under the above written Bond.

The Tender Bond shall be returned to us after the guarantee has been fulfilled or expired.

Tenderer _____	Surety _____
Signature(s) _____	Signature(s) _____
_____	_____
Name(s) _____	Name(s) _____
Title(s) _____	Title(s) _____

FORM OF TENDER

Chief Commander
Shanghai Pudong International Airport Construction Headquarters
220 Si Chuan Road(M)
Shanghai
China 20002

Gentlemen:

Shanghai Pudong International Airport Project (Airside Civil Works)

Having inspected the site of the Works and examined the Tender Documents comprising the Invitation to Tender, Instructions to tenderers, the Conditions of Contract (Parts I and II), the Specification, the Preamble to and the Bills of Quantities, the Drawings and Notice to Tenderers Nos._____ for the Works relating to the Construction of:

Shanghai Pudong International Airport Project (Airside Civil Works)

(1) We the undersigned offer to execute, complete and remedy any defects in the whole of the said Works in conformity with the aforesaid documents for the sum of

China Renminbi _____

_____

(RMB. _____) or such other sum as may be
ascertained in accordance with the said Conditions.

The above sum is calculated from the following amounts:

a) China Renminbi _____

_____

(RMB. _____)

b) Japanese Yen _____

_____

(Yen _____)

The amount stated in Japanese Yen is converted to China Renminbi at the rate of Yen _____

_____ for RMB _____.
(The conversion rate used in calculating the above amount is the rate last notified by the issuance of a Notice to Tenderers No. .....)

(2) We understand that the quantities given in the Bills of Quantities are approximate only and that total payments will be determined in accordance with the Contract.

(3) We undertake if our Tender is accepted to commence the works within 28 days of receipt of the Engineer's Order to Commence, and to complete and deliver the whole of the Works comprised in the Contract within 28 months calculated from the last day of the aforesaid period in which the Works are to be commenced.

(4) If our Tender is accepted, we shall submit to you a Performance Bond in the form as shown in Appendix J hereof, for an amount equal to 10 percent of the total Contract Price as guarantee for the due performance of the Contract.

(5) We agree that our Tender will remain valid for a period of 210 calendar days after the date of opening the tenders. The Tender Bond will remain valid for 245 calendar days after the date of opening the tenders.

(6) Unless and until a formal Contract is prepared and executed, this Tender together with your unconditional written acceptance thereof shall constitute a binding Contract between us. In the event that your award of Contract requires to be approved by any Funding Agency we accept that your award of Contract is conditional on such approval. We agree that our receipt of a conditional award of Contract will bind us to enter into a formal written contract with you, if and when your award of Contract is approved by the Funding Agency.

(7) We acknowledge that the Appendix forms part of our Tender.

(8) We understand that you are not bound to accept the lowest or any Tender you may receive.

Dated this ..... day of ..... 19.....

Signature ..... in the capacity

of ..... duly authorized

and on behalf of ..... *

.....

Witness: .....

Address: .....

(*) Letter of authority to sign on behalf of the tenderer duly authenticated must be attached.

APPENDIX TO THE CONDITIONS OF CONTRACT

	Sub-Clause		
Amount of security (Tender Bond)	10.1	1 - 3	per cent of the Tender Sum
Amount of security (Performance Bond)	10.1	10	per cent of the Contract Price
Minimum amount of third party insurance	23.2	RMB. 10 million	per event, with the number of events unlimited
Time for issue of notice to commence	41.1	28	days
Time for Completion	43.1	28	months
Amount of liquidated damages	47.1	0.10	per cent of the Contract Price per day
Limit of liquidated damages	47.1		unlimited
Defects Liability Period	49.1	365	days
Percentage for adjustment of Provisional Sums	59.4(c)	0	per cent
Percentage of invoice value of listed materials and Plant	60.1(c)	75	per cent
Percentage of Retention	60.2	5	per cent of each currency
Limit of Retention Money	60.2	5	per cent of the Contract Price
Minimum Amount of Interim Payment Certificates	60.2	5	per cent of the Contract Price

Rate of interest upon unpaid sums _____	60.10	0	per cent
Currency of Account and Rates of Exchange	60.11	_____	RMB* Exchange Rate:
Advance Payment	60.15	20	per cent of the Contract Price

Initials of Signatory of Tender _____

* The rates of exchange to be advised by a Notice to Tenderers.

AGREEMENT

This is agreement made the _____ day of _____ 19_____

Between _____

of _____

_____ (hereinafter called "the Employer") of the one part and

_____ of _____
(hereinafter called "the Contractor") of the other part

Whereas the Employer is desirous that certain Works should be executed by the Contractor, viz.

_____

and has accepted a Tender by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

Now this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
   (1) The Contract Agreement (if completed)
   (2) The Letter of Acceptance;
   (3) The said Tender;
   (4) The Conditions of Contract (Part II);
   (5) The Conditions of Contract (Part I);
   (6) The Specification;
   (7) The Drawings; and
   (8) The Priced Bill of Quantities.

   The aforesaid documents shall be taken as mutually explanatory of one another, but in the case of ambiguities of discrepancies shall take precedence in the order set out above.

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein the Contract Price or such

other sum as may become payable under the provision of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written in accordance with the laws of the People's Republic of China.

Signed for and or behalf of
the said Shanghai Municipal People's Government _____
(Signature and Title)

In the presence of: -
Name : _____
Address : _____

Occupation : _____

Signed for and or behalf of the said

_____ _____
(contractors official stamp) (Signature and Title)

In the presence of:-
Name : _____
Address : _____

Occupation : _____

SURETY BOND FOR PERFORMANCE

Know all Men by these Presents that (name and address of Contractor)

_____

_____

as Principal (hereinafter called "the Contractor") and (name, legal title and address of Surety)

_____

_____

as Surety (hereinafter called "the Surety"), are held and firmly bound unto the Shanghai Pudong International Airport Construction Headquarters, 220 Si Chuan Road (M), Shanghai, China 200002 (hereinafter called "the Employer") in the amount of _____ China Renminbi/Yen for the payment of which sum, well and truly to be made, the Contractor and the Surety bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

Whereas the Contractor has entered into a written contract agreement with the Employer dated the _____ day of _____ 19____ for the Shanghai Pudong International Airport Project Airside Civil Works in accordance with the plans and specifications and amendments thereto, to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

Now, therefore, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto) then this obligation shall be null and void; otherwise it shall remain in full force and effect.

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

(1) Complete the Contract in accordance with its terms and conditions; or

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

Employer to Contractor under the Contract, less the amount properly paid by Employer to Contractor, or

(3) Pay the Employer the amount required by Employer to complete the Contract in accordance with its terms and conditions any amount up to a total not exceeding the amount of this Bond.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the issue of the Defects Liability Certificate.

No right of action shall accrue in this Bond to or for the use of any person or corporation other than the Employer named herein or the heirs, executors, administrators or successors of the Employer.

This bond shall be returned to us after the guarantee has been fulfilled or expired.

Signed on _____	Signed on _____
on behalf of _____	on behalf of _____
by _____	by _____
in the capacity of _____	in the capacity of _____
in the presence of _____	in the presence of _____

FORM OF ADVANCE PAYMENT GUARANTEE

(To be completed only after the award of the Contract)

TO. Shanghai Pudong International Airport Construction Headquarters
220 Si Chuan Road (M),
Shanghai
China 200002

SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT: AIRSIDE CIVIL WORKS

Gentlemen:

In accordance with the provisions of the Conditions of Contract, sub clause 60.15 (Advance Payment) of the above mentioned Contract,_____

_____

(hereinafter called "the Contractor") shall deposit with The Shanghai Municipal People's Government (hereinafter called "the Employer") a Bank Guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in the Amount of China Renminbi/Yen (Amount of guarantee)_____

_____

(RMB. (Yen) _____)

We, the (name of bank or financial institution) _____
as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligatory and not as surety merely, the payment to the Employer on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding China Renminbi/Yen (amount of guarantee) _____

_____

(RMB. (Yen)_____) in the event that the obligations expressed in the said Clause of the above - mentioned Contract have not been fulfilled by the Contractor giving the right of claim to the Employer for recovery of the whole or part of the Advance Payment from the Contractor under the Contract.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between the Employer and the Contractor, shall in any way release us from the liability under this guarantee, and we hereby waive notice of any change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the Advance Payment under the Contract until the Employer receives full repayment of the same amount from the Contractor.

Your truly,

SIGNATURE AND SEAL_____

Name of bank/financial

Institution _____

Address _____

Date_____

BREAKDOWN OF MAJOR RTES

BOQ Item	Description	Unit	Rate	Composition of Unit Rate							Remarks
				Construction Cost						General Management and Head Office Cost	
				Direct Cost					Indirect Cost		
				Labour	Material		Equipment				
					Material (FOB)	Transport (Freight)	Depreciation	Operation			

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT,
PEOPLE'S REPUBLIC OF CHINA

DETAILED DESIGN
OF
SHANGHAI PUDONG INTERNATIONAL AIRPORT
FINAL REPORT

VOLUME III
TENDER DOCUMENT

PART II -2
INSTRUCTIONS TO TENDERERS
FOR
AIRFIELD LIGHTING SYSTEM

SEPTEMBER 1997

NIPPON KOEI CO., LTD.
NIKKEN SEKKEI LTD.

TABLE OF CONTENTS

SECTION 1
SPECIAL INSTRUCTIONS TO TENDERERS FOR AIRFIELD LIGHTING (AFL) SYSTEM

1.0 GENERAL

1.1 Preamble

The AFL system consists of 1) "Electrical and Mechanical Works", which is defined in PART III-2 Conditions of Contract prepared by FIDIC (Federation Internationale des Ingenieurs-Conseils), third edition 1987, for the airfield lighting (AFL) facilities and 2) AFL Substations (Architecture). Characteristics of the former are a lump-sum price quotation and a Turn-key contract, i.e., single contract for engineering, equipment supply and construction and so on to be provided by the same party. One of the later (Architecture) are a lump-sum quotation and a Unit-price Contract.
Both contract have different characteristic, thus the instruction to tenderes for the later (AFL Substations) are applied to the previous part II-1, and the following shall be applied to the former (AFL facilities) as additional and special instructions to the Tenderers.

If there is any ambiguities or discrepancies between the PART II-1 and II-2, the Employer will resolve and then instruct the Tenderers thereon.

1.2 Description of the Works

All tenderers are required to pass the Prequalifiaction successfully.
The scope of the Airfield Lighting (AFL) system is refereed to Appendix 2-A.
The supply, delivery, installation, commissioning and training and so on of the AFL facilities as mentioned in the Appendix shall be performed by the lump sum Contract with fixed price of turn-key basis.

1.3 Eligibility and Qualification Requirements

The invitation for the Tender is open to all suppliers from eligible source countries, as listed in the attached Appendix 2-B.

1.4 Assurance

The successful tender will be required to give satisfactory assurance of its ability and intention to supply the Goods and Services pursuant to the Contract, within the time set forth therein.

2.0 TENDER DOCUMENT

2.1 Content of the Tender Document

Tenderer shall be bound by the provisions stipulated in the Tender documents which are composed of the following:

- Instruction to Tenders
- Forms of Tender
- Conditions of Contract
- Specifications
- Drawings
- Schedules of Prices
- Other Schedules
- Notices to Tenderers (if issued)

3.0 PREPARATION OF TENDERS

3.1 Examination of Documents and Site of the Work

The form of declaration is applied to Appendix 2-C.

3.2 Taxes, Duties, etc.

The successful tenderer and his employees shall be liable for all taxes and duties necessary and incidental to the due and lawful prosecution of work in accordance with any and all laws, ordinances, regulations, orders, decrees, and notices of the People's Republic of China.

3.3 Advance Payment and Terms of Payment

An advance payment and terms of payment are detailed in Clause 33 of Conditions of Contract.

3.4 Tender Prices

3.4.1 Tenderers shall quote for the entire facilities on a "single responsibility" basis such that the total Tender price covers all the Contractor's obligations mentioned in the Tender Documents in respect of the design, manufacture, including procurement and subcontracting (if any), delivery, construction, installation and completion of the facilities. This includes all requirements under the Contractor responsibilities for the testing and commissioning of the facilities and where so required by the Tender Documents, the acquisition of all permits, approvals and licences etc., operation, maintenance and training services and such other items and services as may be specified in the Tender Documents, all in accordance with the requirements of the Conditions of Contract.

3.4.2 Tenderers shall give a breakdown of the prices in the manner and detail called for the Schedules of Prices in the following manner:

(a) Plant and Equipment to be supplied from abroad shall be quoted on a CIF basis. In addition, the FOB price, the ocean freight and the insurance to port shall also be indicated.

(b) Plant and Equipment manufactured or fabricated within the Employer's country, shall be quoted on an EXW (ex-factory, ex-works, ex-warehouse or off-the-shelf, as applicable) basis and shall be inclusive of all costs as well as duties and taxes paid or payable on components and raw materials incorporated or to be incorporated in the facilities.

(c) Local transportation, insurance and other local costs incidental to delivery of the locally supplied Plant and Equipment.

(d) Installation Services shall be quoted, and shall include rates and prices for all labour, insurances, Contractor's equipment, temporary works, materials, consumables and all matters and things of whatsoever nature, including operations and maintenance services, the provision of operations and maintenance manuals, training, etc. where identified in the Tender Documents, as necessary for the proper execution of the Installation Services.

3.4.3 Prices quoted by the tenderers shall remain fixed and valid until completion of the Contract performance and will not be subject to variation on any account.

3.5 Tender Currencies

3.5.1 Prices shall be quoted in the following currencies :

(a) Plant and Equipment covered under Instructions to Tenderers Sub-Clause 3.4.2 (a) to be supplied from abroad shall be quoted entirely in Japanese Yen only.

(b) Plant and Equipment covered under Instructions to Tenderers Sub-Clause 3.4.2 (b) to be supplied from within the Employer's country shall be quoted in the currency of the Employers country (Chinese Ren Min Bi: RMB).

(c) Local transportation, insurance and other local costs incidental to delivery of the Plant and Equipment covered under Instructions to Tenderers Sub-Clause 3.4.2 (c) shall be quoted in Chinese RMB.

(d) Installation services covered under Instructions to Tenderers Sub Clause 3.4.2 (d) shall be quoted in either Japanese Yen and/or Chinese RMB depending upon the currency in which the cost are to be incurred.

3.6 Minor Deviations from Specifications

If the Tender does not substantially conform to the Specifications, it will be rejected. However, the Tender may include with his Tender, in order of the relevant clauses, a statement of any proposed minor deviation from the Specifications. The minor deviations may be accepted only in case that the offered equipment and materials substantially conform to the Specifications and the minor deviations are obliged due to the Tenderder's manufacturing standards and such are considered advantageous to the Employer.

Notwithstanding any description, drawings or literature which may be submitted, all details other than those in such statement of deviations shall be deemed to be in accordance with the Specification. Such minor deviations shall not be binding on the Employer unless incorporated in the Contract. The Employer will, where necessary, make adjustments for such minor deviations in monetary term in the evaluation of Tenders.

3.7 Alteration in Tender

No alteration shall be made in the Form of Tender or the Schedules thereto except in filling in the blanks as directed. If any such alterations are made or if these instructions are not fully compiled with, the Tender may be rejected.

3.8 Additions to Tender

The Tenderes, however, is at liberty to add further details that he may desire and, in the event of his so doing, he shall list all such details and annex the said details to his Tender. Such additional details shall not be binding on the Employer if they conflict in any way with the requirements of the Contract Documents unless they are subsequently incorporated in the Contract.

3.9 Tender Bond

The Tenderer shall furnish, as part of its Tender, a tender bond in the amount of two per cent (2%) of the total of the Tender price.

4.0 SUBMISSION OF TENDERS

4.1 Contents and Completion of Tenders

4.1.1 Tenders shall include the following documents and information which shall be bound into the appropriate volumes in the order shown in the check list of documents. Refer to Appendix 2-D.

(1) Covering letter with name, address, telephone and facsimile numbers of the tenderer and his authorized resident representative in China.

(2) Certificate of Prequalification issued by the Tender Committee.

(3) Tender Bond: SECTION 2.1

(4) Power of Attorney issued by the tenderer to his legal representative and signatory of the tender Document.

(5) Copies of all Notices to Tenderers (if issued).

(6) Declaration of shareholders of company or association of companies (Instructions to Tenderers, item 4.1.9).

(7) Statement of no change (Instructions to Tenderers item 4.3.2).

(8) Joint Venture or Joint Operation Agreement, including details of the management structure of the J.V/J.O, share rate and distribution of responsibilities between the J.V/J.O members (relative to the Scope of the Project Works).

(9) Statement of examination of the Tender Document, the site of the Works and its surroundings, completed and signed. Reference Appendix 2-C.

(10) Copy of Enterprise Registration for local firms, or the certificates of registration and representation for construction services in accordance with state Administration for Industry and Commerce regulation for foreign firms.

(11) Copy of Permit for Operation and Company Certificate in accordance with the Shanghai City Construction Works Tender Control Provisional Act (1988).

(12) Bank reference stating amount of credit available from a bank accredited by the Bank of China.

(13) Project Execution Plan including:

1) Project strategy
2) Organization chart
3) Key personnel CVs
4) Risk management control
5) Programmes
6) Quality management system
7) Project safety plan
8) Procurement capability
9) Construction equipment
10) Temporary site facilities

(14) Statement of compatibility with the Tender Document (Instructions to Tenderers item 4.5).

(15) Method of technological transfer (Instructions to Tenderers item 4.4)

(16) Copies of the last three years audited accounts (96, 95, 94) authorized by auditor sign with attached summary identifying:

1) Current assets
2) Fixed assets
3) Other assets
4) Short-term debts
5) Long-term debts

(17) Any other document(s) required by the issue of Notices to Tenderers.

(18) Form of Tender is annexed to SECTION 2.2 thereof fully completed as required.

(19) Schedules of Prices thereof fully completed as required.

(20) Other Schedules

4.1.2 The Conditions of Contract, the Specification, the Drawings and the Instructions to Tenderers need not be submitted.

4.1.3 All documents shall be submitted in English and marked "Original" and "Copy" respectively. The copy of the original may be a duplicate or a photocopy.

4.1.4 All administrative and technical information shall be bound into one original and five copy volumes and placed in separate envelopes marked "Envelope A Original" and "Envelope A Copy". The Schedules of Prices and the Forms of Tender and the Other Schedules shall similarly be bound into one original and five copy volumes and placed in separate envelopes marked "Envelope B Original" and "Envelope B Copy". The envelopes shall be marked with the tenderers name and entitled "**Tender for Shanghai Pudong International Airport Project: Airfield Lighting (AFL) System**"

4.1.5 All administrative and technical envelopes shall be sealed in a single packet marked "Envelope A, Tender for Shanghai Pudong International Airport Project: **Airfield Lighting (AFL) System**" (Not to be opened before _____)" The date of tender opening is to be as instructed in the Invitation Tender. No indication of a tenderer's name shall be given on this packet.

4.1.6 All financial envelopes shall be sealed in a single packet marked "Envelope B" and annotated as stated in item 4.1.5.

4.1.7 Packets marked Envelope A and Envelope B shall be delivered between the hours of 09:00 and 11:00, on the date and to the address given in the invitation to Tender.

4.1.8 The following forms are attached as SECTION 2.3 and 2.4 for information only at this stage, but will be used after the award of Contract. A written declaration must be included stating the tenderer is willing to enter into an agreement and provide a bond in the terms indicated in these sample documents:

- Form of Performance Bond
- Form of Agreement

4.1.9 Where tenderers are a Joint Venture or a Joint Operation each shareholder is jointly and severally liable for all obligations and responsibilities of the Joint Venture or Joint Operation. A declaration from each shareholder to this effect is required to be submitted with the information required under item 4.1.1(6).

5.0 TENDER OPENING AND EVALUATION

5.1 Evaluation of Tenders

5.1.1 The following elements of a tender's technical information will be evaluated against given criteria.

(1) Tenders not satisfied with terms of eligibility for the Tender will be rejected.
(2) Incomplete Tenders will not be considered.
(3) Tenders proposing inferior technical particulars to the requirements in relevant SCHEDULES may not be considered.
(4) Contractor's Previous Experience.
(5) Subcontractor's Previous Experience.
(6) Method of Technical Transfer.

5.1.2 The following elements of a tender's price information will be evaluated against given data.

(1)	Total tendered price	: conversion into **RMB**.
(2)	Arithmetical error	: conversion into **RMB**.
(3)	Delayed completion date	: 0.1% per day

Total evaluated price is sum of (1) to (3).

6.0 AWARD OF CONTRACT

6.1 Employer's Right to Vary Quantities at Time of Award

The Employer reserves the right at the time of award of Contract to increase or decrease by up to fifteen per cent (15%) the quantity of Goods specified in the Specifications, without any change in unit prices or other terms and conditions.

6.2 Coordiantion with Other Contract(s)

The Contractor is required to coordinate with other contract(s) such as Airside Civil Works, Passenger Terminal Building Works and so on.in regard to progress of mutual works.

APPENDIX TO THE SPECIAL INSTRUCTIONS TO TENDERERS FOR AIRFIELD LIGHTING (AFL) SYSTEM

APPENDIX	DESCRIPTION
2-A	Project Description
2-B	Eligible Source Countries
2-C	Examination of Documents and the Site of the Works
2-D	Check List of Documents
2-E	Tender Data Sheet (Summary)

APPENDIX 2-A
PROJECT DESCRIPTION

1. The Project is located at the seashore area stretching over Jiangzhen, Shiwan, and Zhuqiao townships. The Project site is about 30 km east of the center of Shanghai city, and 40 km straight away from Hongqiao International Airport. The site is flat land developed from original tideland and now is used as rice field.

2. The Project is the first phase construction of Pudong International Airport Project. The Project will be implemented in accordance with the master plan and phasing constructions. There will be 4 parallel runways in the master plan. It is ultimately designed to accommodate 75 million of passengers and 5 million tons of cargo and mail annually. In phase 1 the airport is designed to meet the demands of the passenger volume in 2005, with a runway of 4,000 m in length and a terminal building of 200,000 m^2. The construction work started in mid 1996 with soil improvement works and will be completed by the end of 1999. The airport will be put into service in 2000.

3. Airfield Lighting (AFL) system have been designed on condition that both approach directions of Runways 17 and 35 shall comply with the requirements for Precision Approach Category-II Runway. This is performed by a runway instrument with ILS (Instrument Landing System) and/or MLS (Microwave Landing System) and visual aids intended for operation with a decision height lower than 60 m but not lower than 30 m and a runway visual range not less than 350 m.

   The AFL system is covered by followings:
   (1) Airfield Lighting
   - a) Approach Lighting System: Runway 17 & 35
   - b) Capacitor Discharge Light: Runway 17 & 35
   - c) Precision Approach Path Indicator (PAPI): Runway 17 & 35
   - d) Runway Edge Lights
   - e) Runway Threshold Lights and Wing Bar Lights: Runway 17 & 35
   - f) Runway End Lights
   - g) Runway Touchdown Zone Lights: Runway 17 & 35
   - h) Runway Center Line Lights
   - i) Taxiway Edge Lights
   - j) Taxiway Center Line Lights
   - k) Stop Bars
   - l) Runway Guard Lights
   - m) Taxiway Intersection Lights
   - n) Taxiway Guidance Signs
   - o) Visual Docking Guidance (VDG) System

p) Apron Floodlighting
q) Aircraft Stand Identification sings
r) Wind Direction Lights
s) Road-Hold Position Lights
t) Road-Holding Position Signs
u) Obstruction Lights
v) Control and monitoring System for the AFL: Computer-aided operation with lamp failure detecting unit

(2) Power Supply Facilities

Double-end system which is consists of duplex sets of the facilities provided from the power receiving point through the power receiving facilities end shall be provided.

a) 10 kV Power Receiving and Distribution Facilities.
b) Stand-by Power Generator
c) Uninterrupted Power System (UPS)
d) Constant Current Regulator (CCR)
e) Monitoring Control Facilities for the Power Supply Facilities
f) Cable pipes, ducts and manholes

(3) AFL Substations (Architecture)

Main AFL Substation with 2 stories and 2000m^2 floor area and Secondary AFL Substation with 1 story and 700m^2 floor area shall be constructed with following facilitates:

a) Air-conditioning System
b) Electrical System
c) Fire Extinguishing System
d) Maintenance Workshop for the AFL System (Main AFL only)

APPENDIX 2-B
ELIGIBLE SOURCE COUNTRIES

CATEGORY I ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (OECD)

United States of America
Canada
United Kingdom
France
West Germany
Italy
Belgium
Netherlands
Luxembourg
Sweden
Norway
Denmark
Iceland
Ireland
Austria
Switzerland
Portugal
Spain
Greece
Turkey
Japan
Finland
Australia
New Zealand

CATEGORY II DEVELOPING COUNTRIES

EUROPE
Cyprus
Gibraltar
Greece
Malta
Portugal
Turkey
Yugoslavia

NORTH OF SAHARA
Algeria
Egypt
Libya
Morocco
Tunisia

N. & C. AMERICA
Bahamas
Barbados
Belize
Bermuda

SOUTH AMERICA
Argentina
Bolivia
Brazil
Chile
Columbia
Ecuador
Falkland Islands
Guinea (Fr)
Guyana
Paraguay
Peru
Surinam
Uruguay
Venezuela
Costa Rica
Dominican Republic

SOUTH OF SAHARA
Angola
Benin

Cuba
El Salvador
Guadeloupe
Guatemala
Haiti
Honduras

N. & C. AMERICA

Jamaica
Martinique
Mexico
Netherlands Antilles
Nicaragua
Panama
St. Pierre & Miguelon
Trinidad & Tobago
Anguilla
Antigua
Cayman Islands
Dominica
Grenada
Montsarrat
St. Kitts-Nevis
St. Lucia
St. Vincent
Turks and Caicos
Virgin Islands

MIDDLE EAST

Bahrain
Iran
Iraq
Israel
Jordan
Kuwait
Lebanon
Oman
Qatar
Saudi Arabia
Syria
United Arab Emirates
Yemen
Yemen Democratic Republic

Botswana
Burundi
Cameroon
Cape Verde Islands
Central African Republic
Chad

SOUTH OF SAHARA

Comoros
Congo
Djibouti
Equatorial Guinea
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bessau
Ivory Coast
Kenya
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mayotte
Mozambique
Niger
Nigeria
Reunion
Rwanda
St. Helena
Sao Tome & Principe
Senegal
Seychelles
Sierra Leone
Somalia
Sudan
Swaziland
Tanzania
Togo
Uganda

SOUTH ASIA
Afghanistan
Bangladesh
Bhutan
Burma
India
Maldives
Nepal
Pakistan
Sri Lanka

FAR EAST ASIA
Brunei
China
Hong Kong
Indonesia
FAR EAST ASIA
Kampuchea
Korea (Rep.)
Laos
Macao
Malaysia
Philippines
Singapore
Taiwan
Thailand
Vietnam
Japan

Burkina Faso
Zambia
Zimbabwe

OCEANIA
Cook Islands
Fiji
Kiribati
Naura
New Caledonia
Niue
Pacific Islands T.T.
Papua New Guinea
Polynesia (Fr)
Solomon Islands
Tokelau Islands
OCEANIA
Tonga
Tuvalu
Vanuatu
Wallis & Futuna
Western Samoa

APPENDIX 2-C
EXAMINATION OF DOCUMENT AND SITE OF THE WORKS

DECLARATION

I/We, on behalf of _____

of _____

declare that we have examined the following documents comprising the Tender Document.

- Invitation to Tender.
- Instructions to Tenderers.
- Conditions of Contract
- Specifications.
- Preamble to Bill of Quantities (Schedules of Prices).
- Bill of Quantities (Schedules of Prices).
- Drawings.
- Other Schedules.
- Notices to Tenderers.

I/We further declare that I/We visited the site of the Works and have satisfied myself/ourselves of all of the conditions under which the Works are to be executed, completed and maintained.

I/We further declare that as result of such examination of the documents and the site our tender includes costs for all of the conditions, risks contingencies of any kind involved in the execution, completion and maintenance of the Works including all overhead costs and the like.

In witness whereof I/We have set my/our hand

1. Name _____
   Company _____
   Signature _____
   Date _____

2. Name _____
   Company _____
   Signature _____
   Date _____

3. Name _____
   Company _____
   Signature _____
   Date _____

4. Name _____
   Company _____
   Signature _____
   Date _____

APPENDIX 2-D

CHECK LIST OF DOCUMENTS

DOCUMENT	CLASSIFICATION	
	ORIGINAL (1)	COPY (5)
ENVELOPE A		
a) Covering letter	Original	Copy
b) Certificate of prequalification	Copy	Copy
c) Tender Bond	Original	Copy
d) Power of Attorney	Original	Copy
e) Notices to Tenderers (if issued)	Copy	Copy
f) Declaration of shareholders	Original	Copy
g) Statement of no change	Original	Copy
h) JV/JO Agreement	Copy	Copy
i) Statement of examination of Tender Document and site	Original	Copy
j) Enterprise Registration or similar certificate	Copy	Copy
k) Permit for operation and Company certificate	Copy	Copy
l) Bank reference	Copy	Copy
m) Project Execution Plan	Original	Copy
n) Statement of compatibility	Original	Copy
o) Method of technological transfer	Original	Copy
p) Financial data	Original	Copy
q) Other documents if instructed by e)	Original	Copy
ENVELOPE B	ORIGINAL (1)	COPY (5)
r) Form of Tender	Original	Copy
s) Priced Bill of Quantities (Schedules of Prices)	Original	Copy
t) Other Schedules	Original	Copy

Note:

1) Items a) to q) inclusive shall be bound into volumes (original and copy), these volumes are to be placed in two packets marked "Envelope A (Original)" and "Envelope A (Copy)" and sealed.

2) Item r) to t) inclusive are to be placed in packets marked "Envelope B (Original)" and "Envelope B(Copy)" and sealed.

3) Envelope A and Envelope B should then be sealed into separate packets marked, "Tender for Shanghai Pudong International Airport Project: **Airfield Lighting System.**
Not to be opened before "_____" and delivered to the address below.
The Chairman of the Tender Committee
Shanghai Pudong International Airport Construction Headquarters
220 Si Chuan, Road (M)
Shanghai
China 200002

APPENDIX 2-E
TENDER DATA SHEET

Name of Contract : **Airfield Lighting (AFL) System**
Invitation for Tender :
Loan No. :
Name of Project : SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT

Item No	Clause reference	Data
	PART II-1	
1	1.2 Source of Funds	Name of Borrower : The People's Republic of China Name of Employer : The Shanghai Municipal People's Government Address of Employer : Attention to The Tender Committee of Shanghai Pudong International Airport Project 220 Si Chung Road (M) Shanghai, China 20002 Telephone No. : Fax No. : Telex No. :
2	3.8.3 Bill of Quantities	For the purpose of comparison of Tenderers, the foreign currency amount (Japanese Yen) will converted to China RMB. Date on which exchange rate: Tender closing date. Source bank or publication to be used for the exchange rate: Bank of China.
3	6.3.1 Signing of Agreement	The amount of the performance security is ten percent (10%) of the total Contract Price.
	PART II-2	
4	1.3 Eligibility and Qualification Requirements	All tenderers are required to pass the Prequalifiaction successfully.
5	1.4 Assurance	Time to complete all activities up to taking over from order to proceed of Contract : 28 months

6	3.1 Taxes, Duties, etc.	Import and custom duties and any other duties on the facilitates from abroad will not be charged. Detail of the taxes, duties and others are explained in Clause 48.1 of Conditions of Contract.
7	3.4 Tender Prices	Fixed prices and lump sum base Contract shall be adopted.
8	3.5 Tender Currencies	Japanese Yen and China Ren Min Bi (RMB) are only applied to the Tender quotation. Tenderers are allowed to quote their local transportation, insurance and other local costs incidental to delivery in only China RMB.
9	3.9 Tender Bond	Amount of the tender bond is two percent (2%) of total Tender price.
10	4.0 Submission of Tenders	Tender closing date: 1997. Deadline of tender submission: 11:00AM. Tender submission: One (1) original and five (5) copies.

SECTION 2.1
FORM OF TENDER BOND

BOND NO. _____ **DATE BOND EXECUTED** _____

BY THIS BOND WE _____ (hereinafter called the "Tenderer") as principal and _____ (hereinafter called the "Surety") are held and firmly bound unto the Shanghai Municipal People's Government (hereinafter called the "Employer") in the Sum of China Renminbi (Yen) and Japanese Yen

_____ *(amount in words and figures)* _____

_____) for the

payment of which sum the Tenderer and the Surety bind themselves their successors and assigns jointly and severally by these presents.

Sealed with our respective seals and dated this _____ day of

_____ 19 _____.

WHEREAS

(1) The Employer has invited the Tenderer and other persons to complete Tenders in similar terms for the construction of the Shanghai Pudong International Airport Project **(Airfield Lighting System)** and works associated therewith (hereinafter called the "Works") and to submit the same for consideration by the Employer.

(2) The tenderer proposes to submit to the Employer a tender (hereinafter called the "Tender") in accordance with such invitation and by the above written Bond to provide security for the due performance by him of the undertakings and obligations in the Tender on his part contained.

NOW THE CONDITION of the above written Bond is such that:

(a) if the Tender is accepted by the Employer within 245 days from the date for opening the Tender and the Tender has provided a surety or sureties and executed the Form of Agreement all in accordance with the Instructions to Tenderers, or

(b) if the Tender is not accepted by the Employer within 245 days from the date for opening the Tender or if before the expiration of that period of 245 days the Contract for the Works shall have been awarded to another person in accordance with the Instruction to Tenderers,

then this obligation shall be null and void but otherwise shall be and remain in full force and effect but no alteration in the terms of the Tender nor any forbearance or forgiveness or in respect of any matter or thing concerning the Tender in the part of the Employer shall in any way release the Surety from any liability under the above written Bond.

The Tender Bond shall be returned to us after the guarantee has been fulfilled or expired.

Tenderer _____	Surety _____
Signature(s) _____	Signature(s) _____
_____	_____
Name(s) _____	Name(s) _____
Title(s) _____	Title(s) _____

SECTION 2.2
FORM OF TENDER

Chief Commander
Shanghai Pudong International Airport Construction Headquarters
220 Si Chuan Road(M)
Shanghai
China 20002

Gentlemen:

Shanghai Pudong International Airport Project (Airfield Lighting System)

Having inspected the site of the Works and examined the Tender Documents comprising the Invitation to Tender, Instructions to tenderers, the Conditions of Contract (Parts I and II), the Specifications, the Preamble to and the Bills of Quantities (Scedules of Prices), the Other Schedules, the Drawings and Notice to Tenderers Nos._____ for the Works relating to the Construction of:

Shanghai Pudong International Airport Project (Airfield Lighting System)

(1) We, the undersigned, hereby offer to execute, complete and remedy any defects in the whole of the said Works in conformity with the aforesaid documents for the sum of

China Renminbi _____ *(Amount in Words and Figures)* _____

_____

or such other sum as may be ascertained in accordance with the said Conditions.

The above sum is calculated from the following amounts:

a) China Renminbi _____ *(Amount in Words and Figures)* _____

_____

b) Japanese Yen _____ *(Amount in Words and Figures)* _____

_____

The amount stated in Japanese Yen is converted to China Renminbi at the rate of Yen _____*(Amount in Figures)*_____ for RMB_____*(Amount in Figures)*_____.

(The conversion rate used in calculating the above amount is the rate last notified by the issuance of a Notice to Tenderers No. .....)

(2) We understand that the quantities given in the Bills of Quantities (Scedules of Prcices) are approximate only and that the tender price includes all necessary works.

(3) We undertake if our Tender is accepted to commence the works within 28 days of receipt of the *Employer's* Order to Commence, and to complete and deliver the whole of the Works comprised in the Contract within *28* months calculated from the last day of the aforesaid period in which the Works are to be commenced.

(4) If our Tender is accepted, we shall submit to you a Performance Bond in the form of SECTION 2.3 hereof, for an amount equal to 10 percent of the total Contract Price as guarantee for the due performance of the Contract.

(5) We agree that our Tender will remain valid for a period of 210 calendar days after the date of opening the tenders. The Tender Bond will remain valid for 245 calendar days after the date of opening the tenders.

(6) Unless and until a formal Contract is prepared and executed, this Tender together with your unconditional written acceptance thereof shall constitute a binding Contract between us. In the event that your award of Contract requires to be approved by any Funding Agency we accept that your award of Contract is conditional on such approval. We agree that our receipt of a conditional award of Contract will bind us to enter into a formal written contract with you, if and when your award of Contract is approved by the Funding Agency.

(7) We acknowledge that the Appendix forms part of our Tender.

(8) We understand that you are not bound to accept the lowest or any Tender you may receive.

Dated this ..... day of ..... 19.....

Signature..... in the capacity

of ..... duly authorized

and on behalf of ..... *

.....

Witness: .....

Address: .....

(*) Letter of authority to sign on behalf of the tenderer duly authenticated must be attached.

SECTION 2.3
FORM OF PERFORMANCE BOND

Know all Men by these Presents that *(name and address of Contractor)*

_____

_____

as Principal (hereinafter called "the Contractor") and (*name, legal title and address of Surety*)

_____

_____

as Surety (hereinafter called "the Surety"), are held and firmly bound unto the Shanghai Pudong International Airport Construction Headquarters, 220 Si Chuan Road (M), Shanghai, China 200002 (hereinafter called "the Employer") in the amount of_____*(words and figures)*_____

_____

China Renminbi/Yen for the payment of which sum, well and truly to be made, the Contractor and the Surety bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

Whereas the Contractor has entered into a written contract agreement with the Employer dated the

_____ day of _____ 19____ for the Shanghai Pudong International Airport Project: **Airfield Lighting System** in accordance with the plans and specifications and amendments thereto, to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

Now, therefore, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto) then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever Contractor shall be, and declared by the Employer to be, in default under the Contract,

the Employer having performed the Employer's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

(1) Complete the Contract in accordance with its terms and conditions; or

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

(3) Pay the Employer the amount required by Employer to complete the Contract in accordance with its terms and conditions any amount up to a total not exceeding the amount of this Bond.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the issue of the Defects Liability Certificate.

No right of action shall accrue in this Bond to or for the use of any person or corporation other than the Employer named herein or the heirs, executors, administrators or successors of the Employer.

This bond shall be returned to us after the guarantee has been fulfilled or expired.

Signed on _____	Signed on _____
on behalf of _____	on behalf of _____
by _____	by _____
in the capacity of _____	in the capacity of _____
in the presence of _____	in the presence of _____

SECTION 2.4
FORM OF AGREEMENT

This is agreement made the _____ day of 19_____

Between _____

of _____

_____ (hereinafter called "the Employer") of the one part and

_____ of _____
(hereinafter called "the Contractor") of the other part

Whereas the Employer is desirous that certain Works should be executed by the Contractor, viz.

_____

and has accepted a Tender by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

Now this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
   (1) The Contract Agreement (if completed)
   (2) The Letter of Acceptance;
   (3) The said Tender;
   (4) The Conditions of Contract (PREAMBLE)
   (5) The Conditions of Contract (Part I);
   (6) The Conditions of Contract (Part II);
   (7) The Specifications;
   (8) The Drawings;

(9) The Priced Bill of Quantities (Scedules of Prices) and;
(10) The other Schedules.

The aforesaid documents shall be taken as mutually explanatory of one another, but in the case of ambiguities of discrepancies shall take precedence in the order set out above.

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provision of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written in accordance with the laws of the People's Republic of China.

Signed for and or behalf of
the said Shanghai Municipal People's Government _____
(Signature and Title)

In the presence of: -
Name : _____
Address : _____

Occupation : _____

Signed for and or behalf of the said

_____ _____
(contractors official stamp) (Signature and Title)

In the presence of:-
Name : _____
Address : _____
Occupation : _____

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT,
PEOPLE'S REPUBLIC OF CHINA

DETAILED DESIGN
OF
SHANGHAI PUDONG INTERNATIONAL AIRPORT
FINAL REPORT

VOLUME III
TENDER DOCUMENT

PART II -3
INSTRUCTIONS TO TENDERERS
FOR
EQUIPMENT PURCHASE
(FIRE FIGHTING AND RESCUE FACILITIES)

SEPTEMBER 1997

NIPPON KOEI CO., LTD.
NIKKEN SEKKEI LTD.

PEOPLE'S REPUBLIC OF CHINA
SHANHAI MUNICIPAL PEOPLE'S GOVERNMENT

SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT
FINAL REPORT

TENDER DOCUMENT
PART II-3
INSTRUCTIONS TO TENDERERS
FOR
EQUIPMENT PURCHASE
(FIRE FIGHTING AND RESCUE FACILITIES)

TABLE OF CONTENTS

SECTION 1

INVITATION FOR BIDS (IFB)

SECTION I

INVITATION FOR BIDS (IFB)

Date :
Loan No. :
IFB No. :

1. The Shanghai Municipal People's government will receive a loan from the Overseas Economic Cooperation Fund in various currencies towards the cost of The Shanghai Pudong International Airport Project and it is intended that part of the proceeds of this loan will be applied to eligible payments under the contract for the procurement of Fire Fighting and Rescue Vehicles and Miscellaneous Equipment.
2. The Shanghai Municipal People' s government now invites sealed bids from eligible bidders for the supply of the following equipment:

Package		Discription	Quantity
I.	1.	Rapid Intervention Vehicle (5000/600)	1 unit
	2.	Major Rescue and Fire fighting Vehicle (10000/1200)	4 units
II.	1.	Rescue Truck	1 unit
	2.	Dry Chemical Fire Extinguisher Vehicle	1 unit
III.	1.	Ambulance (I)	2 units
	2.	Rescue Commander's Vehicle	1 unit
	3.	Medical Service Vehicle	1 unit

3. Interested eligible bidders may obtain further information form and inspect the bidding document at the office of:

The Tender committee for
Shanghai Pudong International Airport Project
220 Si Chuau Road (M)
Shanghai, China

4. Bidding documents, may be purchased by any interested eligible bidder on a submission of a written application to the above office and upon payment of a non refundable fee of _____

5. A Pre-bid Conference will be held at the office above on _____
_____

6. All bids must be accompanied by a bid security of not less than 2% (two percent) of the Bid Amount and must be delivered to the above office on or before _____
_____

7. Bids will be opened in presence of Bidder's representative who chosen to attend bid opening at the above office on _____
_____

SECTION 2

INSTRUCTIONS TO BIDDERS

TABLE OF CONTENTS

SECTION 2 : INSTRUCTIONS TO BIDDERS

A. INTRODUCTION

1. Source of Funds

1.1 The Shanghai Municipal People's Government will receive a loan from the Overseas Economic Cooperation Fund of Japan hereinafter refered to as "International Financial Institution (IFI)", in various currencies towards the cost of the Shanghai Pudong International Airport Project and intends to apply part of proceeds of this loan to eligible payments under the Contract(s) for which this Invitation for Bids is issued.

Payment by the IFI will be made only at the request of the Shanghai Municipal People's Government and upon approval by the IFI in accordance with the terms and conditions of the Loan Agreement and will be subject in all respect to the terms and conditions of that agreement. Except as the IFI may specifically otherwise agree, no party other than the Shanghai Municipal People's Government shall derive any rights from the Loan Agreement or have any claim to the loan proceeds.

2. Eligible Bidders

2.1 This invitation for Bids is open to all Supplier from eligible source countries as listed in appendix B.

3. Eligible Goods and Services

3.1 All goods and ancillary services to be supplied under the Contract shall have their origin in eligible source countries, and all expenditures made under the Contract will be limited to such goods and services.

3.2 For the purposes of this clause "origin" means the place where the goods are mined, grown or produced or from which the ancillary services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.

3.3 The origin of goods and services in distinct from the nationality of the Bidders.

4. Cost of Bidding

4.1 The Bidder shall bear all cost associated with the preparation and submission of its bid, and the Shanghai Municipal People's Government hereinafter referred to as "the Purchaser" will in no case be responsible or liable for those costs,

regardless of the conduct or outcome of the bidding process.

B. THE BIDDING DOCUMENTS

5. Content of Bidding Documents

5.1 The goods required, bidding procedures and contract terms are prescribed in the Bidding Documents. In addition to the Invitation for Bids, the Bidding Documents include:

(a) Instruction to Bidders;
(b) General Condition of Contract;
(c) Special Conditions of Contract;
(d) Schedule of Requirements;
(e) Technical Specifications;
(f) Bid Form and Price Schedules;
(g) Bid Security Form;
(h) Contract Form; and
(i) Performance Security Form.

5.2 The Bidder is expected to examine all instruction form, terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid not substantially responsible to the Bidding Documents in every respect will be at the Bidder's risk and may result in the rejection of the bid.

6. Clarification of Bidding Documents

6.1 A prospective Bidder requiring any clarification of the Bidding Documents may notify the Purchaser in writing or by facsimile at the Purchaser's mailing address indicated in the Invitation for Bids.

The Purchaser will respond in writing to any request for clarification of the Bidding Documents which is received no later than 30 (thirty) days prior to the deadline for submission of bids prescribed by the Purchaser.

Written copies of Purchaser's responses (including explanations of the queries but without identifying the source of inquiry) will be sent to all prospective Bidders who have received the Bidding Documents.

A pre-bid conference will be held at the _____

prescribed in Clause 5 invitation of Bids.

7. Amendment of Bidding Documents

7.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidders, modify the Bidding Documents by amendment.

7.2 The amendment will be notified in writing or by facsimile to all prospective Bidders which have received the bidding Documents and will be binding on them.

7.3 In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the submission of bids.

C. PREPARATION OF BIDS

8. Language of Bid

8.1 The bid prepared by the bidder and all correspondence and documents relating to the bid exchanged between the Bidder and the Purchaser shall be written in the English language, provided that any printed literature furnished by the Bidder may be written in another language so long as it is accompanied by an English translation of its pertinent passages in which case, for purposes of interpretation of the bid, and for the which case, for purposes of interpretation of the bid, and for the performance of any subsequent contract, the English translation shall govern.

9. Documents Comprising the Bid

9.1 The bid prepared by the Bidder shall comprise the following components:

(a) A Bid Form and Price Schedule completed in accordance with Clauses 10, 11 and 12

(b) Documentary evidence established in accordance with Clause 13 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;

(c) documentary evidence established in accordance with Clause 14 that the goods and ancillary services to be supplied by the bidder are eligible goods and services and conform to the Bidding documents; and

(d) Bid Security furnished in accordance with Clause 15.

10. Bid Form

10.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the Bidding Documents, indicating for the goods to be supplied, a brief description of the goods, their country of origin, quantity and prices.

10.2 Bids may be submitted for one or more packages, but should be offered for all items and full quantities in each package. Each item in each package should be of one brand and type.

Bid without complete item in each package will be treated as unresponsive. The evaluation will be done for each item in each package and the award will be made for each package.

Alternative bid of each item in each the package is not permitted. The bidder has to choose the best item which will be offered.

11. Bid Prices

11.1 The bidders shall indicate on the appropriate Price Schedule attached to these documents the unit price and total Bid Prices of the goods it proposes to supply under the Contract.

11.2 Prices indicated on the Price Schedule shall be entered in the following manner:

(i) the price of goods quoted CIF port-of-entryin China.

In quoting the price, the Bidder shall be free to use ocean transportation through vessels registered in any eligible source country, or through shipping conferences in which the majority of the shipping lines are from such eligible source countries. Similarly, the Bidder may obtain insurance services from any eligible source country.

(ii) the cost of spareparts as listed in the Technical specification.

(iii) charges for inland delivery (local transportation including handling charge at the port of destination, insurance and other local costs incidental) to delivery of the goods from port-of -entry to the place of delivery (the Purchaser's warehouse).

11.3 The bidder's separation of price components in accordance with para 11.2 above will be solely for the purpose of facilitating the comparison of bids by the Purchaser and will not in any way limit the Purchaser's right to contract on any offered terms.

11.4 Prices quoted by the bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected, pursuant to Clause 24.4.

12. Bid currencies:

12.1 Prices shall be quoted in the following currencies:

(a) For goods and services which the bidder will supply from within the prices shall be quoted in China Renminbi or US Dollars; or

(b) For goods and services which the bidder will supply from outside China, the prices shall be quoted either in the currency of the bidder's/manufacturer's home country, or in US Dollars.

12.2 further, a bidder expecting to incur a portion of its expenditures in the performance of the contract in more than one currency, and wishing to be paid accordingly, shall so indicate in its bid. In such a case, either: (i) the bid shall be expressed in different currencies and the respective amounts in each currency together making up the total price, or (ii) the total bid price shall be expressed in one currency and payments required in other currencies, including China Renminbi, expressed as a percentage of the bid price along with the exchange rate used in such calculation.

13. Documents Establishing bidder's Eligibility and Qualifications

13.1 Pursuant to Clause 9, the bidder shall furnish, as part of its bid, documents establishing the bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted.

13.2 The documentary evidence of the bidder's eligibility to bid shall establish to the Purchaser's satisfaction that the bidder at the time of submission of its bid, is from an eligible source country as defined under Clause 2.

13.3 The documentary evidence of the bidder's qualification to perform the Contract if its bid accepted, shall establish to the Purchaser's satisfaction:

(a) that, in the case of a bidder offering to supply goods under the contract which the bidder did not manufacture or otherwise produce, the bidder has been duly authorized by the goods manufacturer or producer to supply the goods to China; The Letter of Authority from Manufacturer should be in the Form as Appendix A.

The Letter of Authority for offering one brand and type of equipment must be given to on bidder only.

More than one bid offering same brand and type of equipment with supported by the Letter of Authority from same manufacturer will be treated as unresponsive and unevaluated.

Bid which supported by Letter of Authority from Sole Agent/Dealer will be treated as not a bid.

(b) that the bidder has the financial, technical and production capability necessary to perform the Contract, for which the Bidder shall furnish, as part of its Bid, the following documents:

(i) Bidder's Financial Statement;

(ii) A statement of bank undertaking to issue a performance security for bidder if its bid is accepted or a Bank Reference;

(iii) Bidder's statement on its business and technical organization;

(iv) Bidder's statement on its experience and past performances of similar supplies; and

(c) that, in the case of a Bidder not doing business within China, the bidder is or shall be represented by an agent in China, equipped and able to carry out the supplier's maintenance, repair and spare parts stocking obligations prescribed by the Contract.

13.4 Pursuant to clause 13.3(c) above, the bidder shall furnish the following documents as evidence that the bidder or its agent has establish:

(a) At least 1 (one) unit Workshop facilities for maintenance and repair of (subject to the equipment offered):

i. Engine.

ii. Undercarriage.

iii. Transmission

iv. Hydraulic System

v. Electrical System

(b) Spareparts stocking enough for supporting operation of the equipment which have been operated in China

(c) At least 1 (one) fully qualified engineer/mechanic/technician capable to serve each facility perscribed in clause 13.4 a) above.

14. Documents Establishing Goods Eligibility and Conformity to Bidding documents

14.1 Pursuant to Clause 9, the bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the Bidding Documents of all goods and services which the bidder proposes to supply under the contract.

14.2 The documentary evidence of the goods and services eligibility shall consist of a statement in the Price Schedule on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin issued at the time of

shipment.

14.3 The documentary evidence of the conformity of the goods and services to the Bidding Documents may be in the form of literature, drawings and data and shall furnish:

(a) a detail description of the essential technical and performance characteristics of the goods (the goods should not a prototype production);

(b) a list giving full particulars, including available source and current prices, of all spare part, special tools, etc., necessary for the proper and continuing functioning of the goods for a period of two yeas, following commencement of the goods used by the Purchaser; and

(c) a clause-by-clause commentary of the goods used by the Purchaser's Technical Specification, demonstrating the goods' and services' substantial responsiveness to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.

14.4 For purpose of the commentary to be furnished pursuant to Clause 14.3 (C) above, the bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalogue numbers designated by the Purchaser in its Technical specifications are intended to be descriptive only and not restrictive. The bidder may substitute alternative standard, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the Purchaser's superior to those designated in the Technical Specifications and are as required by the Conditions of Contract.

15. Bid Security

15.1 Pursuant to Clause 9, the bidder shall furnish, as part of its bid, a bid security in the amount at least 2% (two percent) of the total bid price.

15.2 The bid security is required to protect the Purchaser against the risk to bidder's conduct which would warrant the security's confiscation, pursuant to para 15.7.

15.3 The bid security shall denominated in the currency of the bid or another freely convertible currency, and shall be in a Bank guarantee issued by a a Bank located in China or abroad acceptable to the Purchaser, in the form provided in the bidding Documents or another from acceptable to the Purchaser and valid for 30 (thirty) days beyond the validity of the bid.

15.4 Any bid not secured in accordance with para 15.1 and 15.3 will be rejected by the Purchaser as non-responsive, pursuant to Clause 24.

15.5 Unsuccessful bidder's bid securities will be discharged/returned as promptly as

possible but not later than 30 (thirty) days after the expiration of the period of bid validity prescribed by the Purchaser, pursuant to Clauses 16.

15.6 The successful bidder's bid security will be discharged upon the bidder's executing the Contract, pursuant to clause 34, and furnishing the performance security, pursuant to Clause 35.

15.7 The bid security may be forfeited:

(a) if a bidder withdraws its bid during the period of the validity specified by the bidder on the bid form; or

(b) in the case of a successful Bidder, if the Bidder fails:

(i) to sign the contract in accordance with clause 34; or

(ii) to furnish performance security in accordance with Clause 35.

16. Period of validity of Bids

16.1 Bids shall remain valid for 150 days after the date of bid opening prescribed by the Purchaser, pursuant to Clause 19. A bid valid for a shorter period may be rejected by the Purchaser as non-responsive.

16.2 In exeptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and responses thereto shall be made in writing (or facsimle transmission) bid security provided under Clause 15 shall also be suitably extended. A Bidder may refuse the request without confiscating its bid security. A bidder granting the request will not be permitted to modify its bid.

17. Format and Signing of Bid

17.1 The bidder shall prepare one original and two copies of the bid, clearly marking each "Original Bid" and "Copy of Bid" as appropriate. In the event of any discrepancy between them, the original shall govern.

17.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract.

The letter authorization shall indicated by written power-of -attorney accompanying the bid. All pages of the bid, except for unamended printed literature, shall be initialed by the person or persons signing the bid.

17.3 The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

D. SUBMISSION OF BIDS

18. Sealing and Marking of Bids

18.1 The bidders shall seal the original and each copy of the bid in an inner and an outer envelope, duly marking the envelopes as "original" and "copy".

18.2 The inner and outer envelopes shall be:

(a) addressed to the purchaser at the following address

The Tender committee for
Shanghai Pudong International Airport Project
220 Si Chuau Road (M)
Shanghai, China

(b) bear The Shanghai Pudong International airport Project (Fire fighting and Rescue Vehicles and Miscellaneous Equipment), the invitation for Bids (IFB) number, and the words "DO NOT OPEN BEFORE _____ "

18.3 The inner envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared "late".

18.4 If the outer envelope is not sealed and marked as required by para 18.2, the Purchaser will assume no responsibility for the bids misplacement or premature opening.

19. Deadline for Submission of Bids

19.1 Bids must be received by the Purchaser at the address specified under para 18.2 not later than _____

19.2 The Purchaser may, at its discretion, extend this deadline for the submission of bids by amending the bidding documents in accordance with Clause 7 in which case all rights and obligations of the Purchaser and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

20. Late bids

20.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser, pursuant to clause 19, will be rejected and/or returned unopened to the bidder.

21. Modification and withdrawal of Bids

21.1 The bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification or withdrawal is received by the Purchaser

prior to the deadline prescribed for submission of bids.

21.2 The bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of clause 18. A withdrawal notice may also be sent by facsimile but followed by a signed confirmation copy, postmarked received not later than deadline for submission of bids.

21.3 No bid may be modified subsequent to the deadline for submission of bids.

21.4 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the bidder on the bid form. withdrawal of a bid during this interval may result in the bidder's forfeiture of its bid security, pursuant to para 15.7.

E. BID OPENING AND EVALUATION

22. Opening of bids by Purchaser

22.1 The Purchaser will open bids in the presence of bidder's representatives who chosen to attend, on the above mentioned address under para 18.2. The bidders representatives who are present shall sign a register evidencing their attendance.

22.2 The bidders names, bid prices, modifications, bid withdrawals and the presence or absence of the requisite bid security and such other details as the Purchaser, at its discretion, may consider appropriate will be announced at the opening. any bid price and discount which is not read out and recorded at the bid opening will not be taken into account in the bid evaluation.

22.3 The Purchaser shall prepare minutes of the bid opening.

23. Clarification of bids

23.1 To assist in the examination, evaluation and comparison of bids the Purchaser may, at its discretion, ask the bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

24. Preliminary Examination

24.1 The purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

24.2 Arithmetical errors will be rectified on the followings basis. If there is a discrepancy between the unit price and the total price that is obtained by

multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of the errors, its bid will be rejected. If there is discrepancy between words and figures, the amount in words will prevail.

24.3 Prior to the detail evaluation, pursuant to Clause 26, the Purchaser will determine the substantial responsiveness of each bid to the Bidding documents. for purpose of these clause, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. The Purchaser's determination of a bid responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

24.4 A bid determined as not substantially responsive will be rejected by the Purchaser and may not subsequently be made responsive by the bidder by correction of the non-conformity.

24.5 The Purchaser may waive any minor informality or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

25. Conversion to Single Currency

25.1 To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which bid price is payable, to China Renminbi at the selling exchange rate established by Bank of China for similar transactions on the day bids are opened.

26. Evaluation and Comparison of Bids

26.1 The Purchaser will evaluate and compare the bids previously determined to be substantially responsive, pursuant to Clause 24.

26.2 The Purchaser's evaluation of a bid will exclude and not take into account:

(a) in the case of goods manufactured in China or goods of foreign origin already located in China, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the bidder;

(b) in the case of goods of foreign origin offered from abroad, customs duties and other similar import taxes which will be payable on the goods if the Contract is awarded to the bidder; and

26.3 The comparison shall be of ex-factory/ex-warehouse/off-the-shelf price of the goods offered from within China, such price to include all costs as well as duties and taxes paid or payable on components and raw material incorporated or to be

incorporated in the goods, and the CIF port-of-entry price of the goods offered from outside China.

26.4 The Purchaser's evaluation of a bid will take into account, in addition to the bid price and the price of incidental services, the factors, in the manner and to the extent indicated in para 26.5 and in the:

(a) Cost of inland transportation, insurance and other cost within china incidental to delivery of the goods to their final destination;

(b) Delivery schedule offered in the bid;

(c) The cost of fast moving components and spareparts;

(d) The availability in China of spare parts and after-sales services for the equipment offered in the bid.

26.5 Pursuant to para. 26.4, the following evaluation methods will be followed:

(a) Cost of inland delivery : Bidder shall quote cost of transportation for delivery of goods to the final destination (Purchaser's Warehouse), including insurance and other incidental service.

The above cost will be added to the ex factory/CIF price.

(b) Delivery schedule : The goods covered under this invitation should be supplied before June 1999.

The offered delivery time more than specified time in the schedule of requirement will be rejected/unconsidered.

(c) Cost of fast moving components and spareparts : The Purchaser draws up a list of high usage Value items of components and spareparts with estimated quantities for 2 (two) years period of operation.

The Bidder shall offer the spareparts and bid without the offering spareparts will be unconsidered.

(d) The availability of spareparts and other sales service in China:

The Bidder/its Agent shall submit the statement regarding to the spareparts inventories and after sales service facilities, pursuant to Clause 14 of General Conditions of Contract.

28. Contacting the Purchaser

28.1 Subject to Clause 23, no bidder shall contact the Purchaser on any matter relating to its bid from the time of the bid opening to the time the Contract is awarded.

28.2 Any effort by a bidder to influence the Purchaser in the Purchaser's bid evaluation, bid comparison, or contract award decisions may result in the rejection of the Bidder's Bid.

F. AWARD OF CONTRACT

29. Postqualification

29.1 In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder selected as having submitted the lowest evaluated responsive bid is qualified to satisfactorily perform the contract.

29.2 The determination will take into account the Bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the bidder, pursuant to Clause 13, as well as such other information as the Purchaser deems necessary and appropriate.

29.3 An affirmative determination will be a prerequisite for award of the Contract to the bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Purchaser will proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.

30. Award Criteria

subject to Clause 32, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

31. Purchaser's Right to Vary Quantities at Time of Award

31.1 The purchaser reserves the right at the time of award of Contract to increase or decrease by up to 10% (ten percent) without any change in price or other terms and conditions.

32. Purchaser's Right to Accept Any, Bid and to reject Any or All Bids

The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

33. Notification of Award

33.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the

successful bidder in writing by registered letter or facsimile to be confirmed in writing by registered letter, that its bid has been accepted.

33.2 The notification of award will constitute the formation of the contract.

33.3 Upon the successful bidder's furnishing of performance security pursuant to Clause 35, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to Clause 15.

34. Signing of Contract

34.1 At the same time as the Purchaser notifies the successful Bidder that its bid has been accepted, the Purchaser will send the Bidder the Form of Contract provided in the Bidding documents incorporating all agreements bottom the parties.

34.2 Within 30 (thirty) days or receipt of the Contract Form, the successful Bidder shall sign the Contract and return it to the Purchaser.

35. Performance Security

35.1 Within 30 (thirty) days of receipt of notification of award from the Pur5chaser, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the performance Security Form provided in the Bidding Documents or another form acceptable to the Purchaser.

35.2 failure of the successful Bidder to comply with the requirement of clause 34 or Clause 35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Purchaser may make the award to the next lowest evaluated bidder or call new bids.

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT,
PEOPLE'S REPUBLIC OF CHINA

DETAILED DESIGN
OF
SHANGHAI PUDONG INTERNATIONAL AIRPORT
FINAL REPORT

VOLUME III
TENDER DOCUMENT

PART III
CONDITION OF CONTRACT

SEPTEMBER 1997

NIPPON KOEI CO., LTD.
NIKKEN SEKKEI LTD.

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT,
PEOPLE'S REPUBLIC OF CHINA

DETAILED DESIGN
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VOLUME III
TENDER DOCUMENT

PART III -1
CONDITION OF CONTRACT
FOR
AIRSIDE CIVIL WORKS or FUEL SUPPLY SYSTEM
or FIRE FIGHTING AND RESCUE FACILITIES

SEPTEMBER 1997

NIPPON KOEI CO., LTD.
NIKKEN SEKKEI LTD.

PEOPLE'S REPUBLIC OF CHINA
SHANHAI MUNICIPAL PEOPLE'S GOVERNMENT

SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT
FINAL REPORT

TENDER DOCUMENT
PART III-1
CONDITION OF CONTRACT
FOR
AIRSIDE CIVIL WORKS, FUEL SUPPLY SYSTEM, AND FIRE FIGHTING AND RESCUE FACILITIES

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INTRODUCTION

These conditions of Contract are based on the Conditions of Contract for Works of Civil Engineering Construction as published by the International Federation of Consulting Engineers (FIDIC) Fourth Edition 1987 (Reprinted 1988 with editorial amendments)(Reprinted 1992 with further amendments).

The General Conditions (hereinafter referred to as A) are linked with the Conditions of Particular Application, referred to as B, by the corresponding numbering of the Clauses, so that A and B together comprise the Conditions governing the rights and obligations of the parties.

The version in English of the Conditions is considered to be the official and authentic text for the purpose of translation.

A: GENERAL CONDITIONS

FEDERATION INTERNATIONALE DES INGENIEURS-CONSEILS

CONDITIONS OF CONTRACT FOR WORKS OF CIVIL ENGINEERING CONSTRUCTION

PART I GENERAL CONDITIONS

WITH FORMS OF TENDER AND AGREEMENT

FOURTH EDITION 1987
Reprinted 1988 with editorial amendments
Reprinted 1992 with further amendments

FOREWORD

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

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

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

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

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

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

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

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

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

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

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

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PART I - GENERAL CONDITIONS

Definitions and Interpretation

Definitions **1.1** In the Contract (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them, except where the context otherwise requires:

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

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

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

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

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

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

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

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

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

(v) "Tender" means the Contractor's priced offer to the Employer for the execution and completion of the Works and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Acceptance.

(vi) "Letter of Acceptance" means the formal acceptance by the Employer of the Tender.

(vii) "Contract Agreement" means the contract agreement (if any) referred to in Sub-Clause 9.1.

(viii) "Appendix to Tender" means the appendix comprised in the form of Tender annexed to these Conditions.

(c) (i) "Commencement Date" means the date upon which the Contractor receives the notice to commence issued by the Engineer pursuant to Clause 41.

(ii) "Time for Completion" means the time for completing the execution of and passing the Tests on Completion of the Works or any Section or part thereof as stated in the Contract (or as extended under Clause 44) calculated from the Commencement Date.

(d) (i) "Tests on Completion" means the tests specified in the Contract or otherwise agreed by the Engineer and the Contractor which are to be made by the Contractor before the Works or any Section or part thereof are taken over by the Employer.

(ii) "Taking-Over Certificate" means a certificate issued pursuant to Clause 48.

(e) (i) "Contract Price" means the sum stated in the Letter of Acceptance as payable to the Contractor for the execution and completion of the Works and the remedying of any defects therein in accordance with the provisions of the Contract.

(ii) "Retention Money" means the aggregate of all monies retained by the Employer pursuant to Sub-Clause 60.2(a).

(iii) "Interim Payment Certificate" means any certificate of payment issued by the Engineer other than the Final Payment Certificate.

(iv) "Final Payment Certificate" means the certificate of payment issued by the Engineer pursuant to Sub-Clause 60.8.

(f) (i) "Works" means the Permanent Works and the Temporary Works or either of them as appropriate.

(ii) "Permanent Works" means the permanent works to be executed (including Plant) in accordance with the Contract.

(iii) "Temporary Works" means all temporary works of every kind (other than Contractor's Equipment) required in or about the execution and completion of the Works and the remedying of any defects therein.

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

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

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

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

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

(ii) "day" means calendar day.

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

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

Headings and Marginal Notes

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

Interpretation

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

Singular and Plural

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

Notices, Consents, Approvals, Certificates and Determinations

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

Engineer and Engineer's Representative

Engineer's Duties and Authority

2.1 (a) The Engineer shall carry out the duties specified in the Contract.

(b) The Engineer may exercise the authority specified in or necessarily to be implied from the Contract, provided, however, that if the Engineer is required, under the terms of his appointment by the Employer, to obtain the specific approval of the Employer before exercising any such authority, particulars of such requirements shall be set out in Part II of these Conditions. Provided further that any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Engineer.

(c) Except as expressly stated in the Contract, the Engineer shall have no authority to relieve the Contractor of any of his obligations under the Contract.

Engineer's Representative

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

Engineer's Authority to Delegate

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

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

(a) any failure of the Engineer's Representative to disapprove any work, materials or Plant shall not prejudice the authority of the Engineer to disapprove such work, materials or Plant and to give instructions for the rectification thereof; and

(b) if the Contractor questions any communication of the Engineer's Representative he may refer the matter to the Engineer who shall confirm, reverse or vary the contents of such communication.

Appointment of Assistants

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

Instructions in Writing

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

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

Engineer to Act Impartially

2.6 Wherever, under the Contract, the Engineer is required to exercise his discretion by:

(a) giving his decision, opinion or consent,

(b) expressing his satisfaction or approval,

(c) determining value, or

(d) otherwise taking action which may affect the rights and obligations of the Employer or the Contractor

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

Assignment and Subcontracting

Assignment of Contract

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

(a) a charge in favour of the Contractor's bankers of any monies due or to become due under the Contract, or

(b) assignment to the Contractor's insurers (in cases where the insurers have discharged the Contractor's loss or liability) of the Contractor's right to obtain relief against any other party liable.

Subcontracting

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

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

(a) the provision of labour,

(b) the purchase of materials which are in accordance with the standards specified in the Contract, or

(c) the subcontracting of any part of the Works for which the Subcontractor is named in the Contract.

Assignment of Subcontractors' Obligations

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

Contract Documents

Language/s and Law

5.1 There is stated in Part II of these Conditions:

(a) the language or languages in which the Contract documents shall be drawn up, and

(b) the country or state the law of which shall apply to the Contract and according to which the Contract shall be construed.

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

Priority of Contract Documents

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

(1) The Contract Agreement (if completed);

(2) The Letter of Acceptance;

(3) The Tender;

(4) Part II of these Conditions;

(5) Part I of these Conditions; and

(6) Any other document forming part of the Contract.

Custody and Supply of Drawings and Documents

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

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

One Copy of Drawings to be Kept on Site

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

Disruption of Progress

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

Delays and Cost of Delay of Drawings

6.4 If, by reason of any failure or inability of the Engineer to issue, within a time reasonable in all the circumstances, any drawing or instruction for which notice has been given by the Contractor in accordance with Sub-Clause 63, the Contractor suffers delay and/or incurs costs then the Engineer shall, after due consultation with the Employer and the Contractor, determine:

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

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

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

Failure by Contractor to Submit Drawings

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

Supplementary Drawings and Instructions

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

Permanent Works Designed by Contractor

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

(a) such drawings, specifications, calculations and other information as shall be necessary to satisfy the Engineer as to the suitability and adequacy of that design, and

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

Responsibility Unaffected by Approval

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

General Obligations

Contractor's General Responsibilities

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

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

Site Operations and Methods of Construction

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

Contract Agreement

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

Performance Security

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

Period of Validity of Performance Security

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

Claims under Performance Security

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

Inspection of Site

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

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

(a) the form and nature thereof, including the sub-surface conditions,

(b) the hydrological and climatic conditions,

(c) the extent and nature of work and materials necessary for the execution and completion of the Works and the remedying of any defects therein, and

(d) the means of access to the Site and the accommodation he may require,

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

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

Sufficiency of Tender

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

Not Foreseeable Physical Obstructions or Conditions

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

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

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

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

Work to be in Accordance with Contract

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

Programme to be Submitted

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

Revised Programme

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

Cash Flow Estimate to be Submitted

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

Contractor not Relieved of Duties or Responsibilities

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

Contractor's Superintendence

15. 1 The Contractor shall provide all necessary superintendence during the execution of the Works and as long thereafter as the Engineer may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract. The Contractor, or a competent and authorised representative approved of by the Engineer, which approval may at any time be withdrawn, shall give his whole time to the superintendence of the Works. Such authorised representative shall receive, on behalf of the Contractor, instructions from the Engineer.

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

Contractor's Employees

16. 1 The Contractor shall provide on the Site in connection with the execution and completion of the Works and the remedying of any defects therein:

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

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

Engineer at Liberty to Object

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

Setting-out **17.1** The Contractor shall be responsible for:

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

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

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

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

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

Boreholes and Exploratory Excavation **18.1** If, at any time during the execution of the Works, the Engineer requires the Contractor to make boreholes or to carry out exploratory excavation, such requirement shall be the subject of an instruction in accordance with Clause 51, unless an item or a Provisional Sum in respect of such work is included in the Bill of Quantities.

Safety, Security and Protection of the Environment **19.1** The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

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

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

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

Employer's Responsibilities **19.2** If under Clause 31 the Employer shall carry out work on the Site with his own workmen he shall, in respect of such work:

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

(b) keep the Site in an orderly state appropriate to the avoidance of danger to such persons.

If under Clause 31 the Employer shall employ other contractors on the Site he shall require them to have the same regard for safety and avoidance of danger.

Care of Works **20.1** The Contractor shall take full responsibility for the care of the Works and materials and Plant for incorporation therein from the Commencement Date until the date of issue of the Taking-Over Certificate for the whole of the Works, when the responsibility for the said care shall pass to the Employer. Provided that:

(a) if the Engineer issues a Taking-Over Certificate for any Section or part of the Permanent Works the Contractor shall cease to be liable for the care of that Section or part from the date of issue of the Taking-Over Certificate, when the responsibility for the care of that Section or part shall pass to the Employer, and

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

Responsibility to Rectify Loss or Damage

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

Loss or Damage Due to Employer's Risks

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

Employer's Risks

20.4 The Employer's risks are:

(a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,

(b) rebellion, revolution, insurrection, or military or usurped power, or civil war,

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

(d) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,

(e) riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his Subcontractors and arising from the conduct of the Works,

(f) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract,

(g) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible, and

(h) any operation of the forces of nature against which an experienced contractor could not reasonably have been expected to take precautions.

Insurance of Works and Contractor's Equipment

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

(a) the Works, together with materials and Plant for incorporation therein, to the full replacement cost (the term "cost" in this context shall include profit),

(b) an additional sum of 15 per cent of such replacement cost, or as may be specified in Part II of these Conditions, to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature, and

(c) the Contractor's Equipment and other things brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

Scope of Cover 21.2 The insurance in paragraphs (a) and (b) of Sub-Clause 21.1 shall be in the joint names of the Contractor and the Employer and shall cover:

(a) the Employer and the Contractor against all loss or damage from whatsoever cause arising, other than as provided in Sub-Clause 21.4, from the start of work at the Site until the date of issue of the relevant Taking-Over Certificate in respect of the Works or any Section or part thereof as the case may be, and

(b) the Contractor for his liability:

(i) during the Defects Liability Period for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability Period, and

(ii) for loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 49 and 50.

Responsibility for Amounts not Recovered 21.3 Any amounts not insured or not recovered from the insurers shall be borne by the Employer or the Contractor in accordance with their responsibilities under Clause 20.

Exclusions 21.4 There shall be no obligation for the insurances in Sub-Clause 21.1 to include loss or damage caused by:

(a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,

(b) rebellion, revolution, insurrection, or military or usurped power, or civil war,

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

(d) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds.

Damage to Persons and Property 22.1 The Contractor shall, except if and so far as the Contract provides otherwise, indemnify the Employer against all losses and claims in respect of:

(a) death of or injury to any person, or

(b) loss of or damage to any property (other than the Works),

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

Exceptions 22.2 The "exceptions" referred to in Sub-Clause 22.1 are:

(a) the permanent use or occupation of land by the Works, or any part thereof,

(b) the right of the Employer to execute the Works, or any part thereof, on, over, under, in or through any land,

(c) damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any defects therein, in accordance with the Contract, and

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