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GOVERNMENT OF PAKISTAN
PORT QASIM AUTHORITY

TENDER AND CONTRACT DOCUMENTS

FOR THE PROCUREMENT OF

LIGHTED BUOY SYSTEM

VOL. I: PART 1 INSTRUCTION FOR TENDER
PART 2 FORM OF TENDER
PART 3 GENERAL CONDITIONS
OF THE CONTRACT
PART 4 PARTICULAR CONDITIONS
OF THE CONTRACT
PART 5 FORM OF AGREEMENT
TECHNICAL SPECIFICATIONS
BILL OF QUANTITIES

DECEMBER 1975

JAPAN INTERNATIONAL COOPERATION AGENCY

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PORT QASIM AUTHORITY**

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DECEMBER 1975

JAPAN INTERNATIONAL COOPERATION AGENCY

國際協力事業団		
受入 月日	'87. 6. 24	117
登録 No.	08706	72.8
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TENDER NOTICE

LIGHTED BUOY SYSTEM

1. The PORT QASIM AUTHORITY have received a loan from _____ toward the procurement of certain navigational aids for the PORT QASIM construction project including the cost for the Lighted Buoy System.
2. Payments will be made in accordance with the terms and conditions of the Loan Agreement and will be subject, in all respects, to the terms and conditions of that Agreement.
3. The total project, Port Qasim, for the Port Qasim Authority, is a new Iron Ore and Coal Berthing facility to be located in the Charo Creek area approximately 30 kilometers upstream from the mouth of Phitti, Creek in Sind Province. When complete, the port is designed to serve 75,000 DWT vessels. Being a new port facility the project encompasses all the various types of work and components required to make such a facility operable. The project being of such complexity that the Port Qasim Authority has determined to divide the various types of work and components into several Contracts. The Contracts are divided as follows:
 - CONTRACT "A": Iron Ore and Coal Berth, Small Crafts Pier and Related Facilities.
 - CONTRACT "B": Dredging of Navigational Channels.
 - CONTRACT "C": Construction of Navigational Aids including Light House, Leading Lights, Light Beacons and Related Facilities.
 - PROCUREMENT CONTRACTS:
 - Lighted Buoy System
 - Radio Aids System
4. Procurement Contract for the Lighted Buoy System includes the Buoy Bodies, Mooring and Lighting equipment and Radar Reflectors.
5. Any and all Contractors, prequalified and formally selected by the PQA for this Tender, from the countries which are members of the ADB, are hereby invited to submit tenders in accordance with the Tender Documents.
6. The Tender Documents are available for a payment of Pak. Rs. _____ for 3 sets.
7. The closing date for the submission of Tenders shall be _____, Pakistan standard Time _____, 1976 and all the Tenders received will be publicity opened at the same time. All inquiries relative to this bid shall be directed to:

7. cont'd.

- Address: Project Director
Port Qasim Authority
5th Floor
N.S.C. Building
Moulvi Tamizuddin Khan Road
Karachi - 2
Pakistan
- Telephone:
- Cable Address:
- Office Hours: 8:00 - 3:00
Friday: 8:00 - 12:30

INSTRUCTIONS FOR TENDER

1. Pre-Qualification:
 - a. Only firms pre-qualified for the WORDS are allowed to submit tender. However, it is understood, that ventures of pre-qualified tenderers with firms originally not prequalified will be allowed, subject to prior approval of PQA (vide also "Remark" under Part 2, The Form of Tender, Clause 7)
2. Tender Documents
 - a. The Tender Documents comprise the following:
 - PART 1 - INSTRUCTIONS FOR TENDER
 - PART 2 - THE FORM OF TENDER and APPENDICES
 - PART 3 - GENERAL CONDITIONS OF THE CONTRACT
 - PART 4 - PARTICULAR CONDITIONS OF THE CONTRACT
 - PART 5 - FORM OF AGREEMENT and APPENDICES
 - TECHNICAL SPECIFICATIONS OF THE CONTRACT
 - BILL OF QUANTITIES
 - b. Each tenderer shall receive two (2) sets of TENDER AND CONTRACT DOCUMENTS
 - c. In submitting tender, distribute Tender Documents as follows:
 - (1) To PORT QASIM AUTHORITY - One (1) set TENDER AND CONTRACT DOCUMENTS
 - (2) The remaining set is intended for the tenderers own record
3. The tenderer, whether or not he submits a tender, shall treat the details of the documents as private and confidential.
4. The tender shall be made in accordance with the Tender Documents and the requirements stipulated therein.
 - a. The tenderer may, additionally, submit alternative proposals for design and execution of the buoy system. Any alternative proposal must at least be technically equivalent to the solutions presented in the tender design.
5. The PQA does not guarantee the accuracy of the Tender Documents, or any part of them, or any statement made or information given therein, or of the estimated quantities given in the Bill of Quantities, or of any other information supplied by or in behalf of the PQA in respect of the WORKS.

PART 1
INSTRUCTION FOR TENDER
(contd.)

6. Examination of Tender Documents and Site
 - a. The Tenderer shall carefully examine the General and Particular Conditions of the CONTRACT, the Technical Specifications of the CONTRACT, the Bills of Quantities, and all other parts of the Tender Documents.
 - b. The Tenderer should on his own responsibility and his own expense, obtain all information which may be necessary for the purpose of making a tender.
 - c. The Tenderer must satisfy himself as to the following:
 - (1) Existing facilities in the vicinity of the site
 - (2) The available accommodations within or outside the site
 - (3) Existing conditions at the site
7. The Tenderer must satisfy himself as to the risks, obligations and responsibilities to be undertaken in and according to the CONTRACT to be entered into by him should his Tender be accepted.
8. The Tenderer must inquire and satisfy himself as to the sources of supply, the sufficiency of the means of obtaining and transporting at his cost all plant, materials, labour, fuel, water, electricity and other things required for or in connection with the WORKS. He must consider all other matters and possible contingencies affecting the execution, and completion of the WORKS.
9. The attention of the Tenderer is drawn to the fact that local regulations require special formalities to be complied with in connection with the ordering, purchasing and importing of materials from outside Pakistan. The importing of certain products obtainable in Pakistan is banned. Tenderer will be deemed to have obtained full information about all such matters and to have allowed in his Tender for all delays, additional costs and financing charges that may arise directly or indirectly therefrom.
10. Any neglect or failure on the part of the Tenderer to obtain reliable information on the spot or elsewhere upon the foregoing or any other matters affecting the execution, and completion of the WORKS, THE WORKS, the rates, total amounts and the CONTRACT, shall not relieve the Tenderer whose Tender is accepted from any risks or liabilities or from the responsibility of completing and handing over the WORKS, all as defined in the CONTRACT.
11. The rates and prices set down by the Tenderer against all the items in the Bill of Quantities are to be the full inclusive value of the finished work described thereunder and shall cover profit and all obligations of every kind whatsoever which under the CONTRACT are to be borne by the CONTRACTOR.

PART 1
INSTRUCTIONS FOR TENDER
(contd.)

12. The CONTRACTOR will be required to finance all foreign purchases from the advance payments or from his own Foreign Currency resources. In the latter case, Foreign Currency will be refunded to the CONTRACTOR by the PQA in accordance with their procedures, through the monthly certificates.
13. The attention of the Tenderer is drawn specially to the clauses in the General Conditions of CONTRACT dealing with the arrangements for payment, CONTRACTOR'S remuneration, condition of payment, monthly bills, bank guarantees, etc.
14. If the Tenderer does not clearly understand the meaning of any Specification, Drawing or other data, he may address his enquiry in writing to the PQA. Such questions shall be received not later than 14 days before the date of opening of the Tenders. All explanations and amendments respectively given by the PQA shall be sent at the same time to all firms invited to submit a Tender.
15. Tenders must be prepared only on the documents supplied herewith. All entries are to be made in English and clearly in ink.
16. Signing Documents
 - a. All covers of the bound Tender Documents shall be marked with the Tenderer's name and signed with the full signatures of the authorized persons. All pages of the Tender Documents as well as all erasures and/or corrections, if any, are to be initialled by the same representatives.
 - b. The Tenderer or his authorized representatives shall sign in full, stamp and date each of the Tender Documents in the spaces for the purpose, as well as all separate documents and drawings which shall be in English and form a supplement to the Tender.
17. No unauthorized alteration may be made in the Form of Tender or the accompanying Tender Documents. Any technical or other comments which are desired to be made, shall not be placed on any of the Tender Documents, but shall take the form of a separate statement, as brief as possible and referenced to items, clauses and pages of the Tender Documents.
18. Tenders must be complete, i.e.:
 - a. The individual items in Bill of Quantities must be fully priced and totalled as required.
 - b. All schedules and Appendices of the Tender Documents must be properly filled in, completed and signed as required
 - c. All drawings, descriptions, time schedules and data to be additionally supplied by the Tenderer, as per Clause 19 herein, must be in English and a copy attached to each Tender copy.

PART 1
INSTRUCTION FOR TENDER
(contd.)

19. The Tenderers must supply with their Tenders:
- a. Written authorization of the assignees and certificate attesting their signatures from the Chamber of Commerce of the country of origin or a similar body.
 - b. Contract of establishment of joint venture, if any, duly notarized and witnessed, clearly stating all conditions, e.g. purpose and name of the joint venture, name of the senior responsible partner and names of the other partner firms involved, as well as full details on shares, authorized assignees, joint liability and duration of the agreement.
 - c. Compilation of contractual reservations, if any, in technical and/or financial respects.
 - d. Information on any Standards, equivalent other than American or British; foreseen for supply of material and equipment or for the execution of the Works.
 - e. Preliminary time schedules, in outline form, which shall follow the requirements of Clause 13 of the General Conditions of the CONTRACT for time schedules to be submitted after the signing of the CONTRACT.
 - f. Description and justification of any special construction or sequence for the construction of any part of the WORKS along with binding statement that all additional supplies and performances required in connection with such special construction methods or sequences have been included in the respective rates filled by the Tenderer in the Bills of Quantities.
 - g. Descriptions, drawings and details, as well as preliminary structural calculations on alternative proposals as per Clause 4, if any, together with binding statements on required material quantities and costs.
 - h. All descriptions and data on construction gear and/or execution of the WORKS are not binding for the PQA. Later changes, if any are necessary because of non-effective and/or non-executable proposals of the CONTRACTOR, will not have any influence on the CONTRACT Price.
20. Each Tender must be accompanied by a Bid Bond in the amount of Pak.Rs.150,000. in Foreign Currency, duly certified by a Scheduled Bank in Pakistan at Karachi, valid for a period of 120 days from the date of opening of the Tender and drawn in favour of the Director Finance and Accounts, PORT QASIM AUTHORITY. The Bid Bond of the unsuccessful Tenderers will be refunded within five months after the Tenders are opened. The Bid Bond of the successful Tender will be refunded only after the CONTRACT has been signed and the Performance Bond has been issued by him as per Clause 9 (2) of the General Conditions of the CONTRACT and Clause 2 of the Particular Conditions of the CONTRACT.

PART 1
INSTRUCTION FOR TENDER
(contd.)

21. Tender set must comprise the complete Tender Documents and one set of all other documents, descriptions, drawings, details and data required as per these Instructions for Tender or in any other part of the Tender Documents.
22. Addressing of Tender
- a. The original Tender is to be inserted in double envelope and addressed to
- Port Qasim Authority
5th Floor
N.S.C. Building
Moulvi Tamizuddin Khan Road
Karachi - 2
Pakistan
- b. The inner envelope is to bear the name and address to the Tenderer and is to be sealed and inscribed as follows:
- "Tender for Procurement of Lighted Buoy System
23. Delivery of Tender:
- a. The original Tender set must reach the PORT QASIM AUTHORITY, before the time and date fixed in the Tender Notice for opening of the Tenders. Tenders received after opening of the bids will be rejected.
- b. The attention of the Tenderer is particularly drawn to the working of customs in the discharge of their duties, where air parcels are frequently opened. In his own interest and in order to preserve the confidential nature of Tender prices, the Tenderer is urged to pay attention to the following:
- (1) To despatch the completed Tender Documents and any covering letter only by AIR MAIL which should be enclosed and labeled in the manner laid down in the foregoing Clause 22.
- (2) All Tender and other drawings as well as technical literature and the like, may reasonably be sent off by air parcel or air freight, but since this would then be separate from the actual Tender, each parcel should contain specific evidence identifying the Tender to which the contents refer.
24. Tenders will be opened by the Board of the PORT QASIM AUTHORITY, in the presence of those Tenderers desiring to attend.
25. Evaluation of Tender
- a. Subsequent to their opening, Tenders will be checked and evaluated by the PQA

PART 1
INSTRUCTION FOR TENDER
(contd.)

- (1) The Tender of any Tenderer who has not fully conformed with these Instructions for Tender may not be considered and may be rejected.
 - (2) The PQA reserves the right to adjust arithmetical errors in any Tender. If the PQA discovers major errors and/or omissions in any Tender, he may require the Tenderer to adjust the same, but in such cases the Tenderer will not be permitted to change any of the basic rates.
26. The PORT QASIM AUTHORITY reserve the right to reject any Tender without giving any reason, or to accept any Tender in whole or in part and do not bind themselves to accept the lowest or any Tender.
27. The Tenderer whose Tender may be accepted, will be required to send authorized representatives to Karachi, at their own expense, for necessary technical and contractual discussions and, as the case may be, for drafting the Form of Agreement.
28. The Tenderer whose Tender is accepted will be required to enter into a CONTRACT, the form of which, subject to any necessary adaptations, will be as set out in Part 5, Form of Agreement.

FORM OF TENDER

TO
The Chairman of the Board
Port Qasim Authority
PQA Head Office
Karachi Pakistan

Subject: Port Muhammad-Bin Qasim Project Procurement of Lighted Buoy System

(The Appendices "A" through "H" and "J" forms part of this Tender. Tenderers are requested to fill in the blank spaces in this Form of Tender and in the accompanying Appendices)

Sir:

1. Having checked all local conditions affecting the WORKS, and having also examined all Tender Documents, including Instructions for Tender, General and Particular Conditions of the CONTRACT, Technical Specifications and Bill of Quantities for the construction of the above named WORKS, we, the undersigned, offer to construct, execute, and complete the whole of the said WORKS, ready for installation by PQA in conformity with the said Tender Documents for the sum of:

Pak. Rs. (in words)

(in figures Pak. Rs.) payable in Foreign Currencies as agreed upon under the CONTRACT.

2. We accept all the above Tender Documents as valid and binding, also those parts not countersigned in full by us. This also includes the Appendices to the Form of Tender attached hereto.
3. We acknowledge that we have satisfied ourselves about the services, climatic, traffic and all other conditions in Pakistan which influence the WORKS, and that we cannot raise any claim for not knowing them, or due to any inaccuracy of the Tender Documents or any of them, or any statement made therein or any information given in them.
4. We undertake to carry out such alterations, or curtailments of the WORKS as may from time to time be determined and ordered in writing, in accordance with the CONTRACT.

PART 2
FORM OF TENDER
(contd.)

5. The rates and prices which we have entered in the Bill of Quantities, and all information and data attached with our Tender are complete and without any hidden technical and/or financial reservations or implications. They have been duly checked and are correct in every respect.
6. The rates and prices entered in the Bill of Quantities are firm. Extra payments in consideration of variations in wage rates, prices of certain basic materials, customs duties, taxes and the like, shall be made as far and to the extent, as specified in the CONTRACT.
7. We intend/do not intend to enter into a joint venture with the following firms:
 1. _____
 2. _____
 3. _____
 4. _____

In accordance with the attached contract of establishment, every partner of this joint venture is liable to the PORT QASIM AUTHORITY as joint debtor, already at this stage. (Delete whichever is not applicable).

Remark: International firms can submit bids in joint venture with Pakistani firms approved in advance by the PQA provided the senior responsible partner of the joint venture is stipulated.

8. We attach herewith a Pay Order/Bank Certified cheque No./ Bank Guarantee Bond conforming to APPENDIX "L" to the Form of Tender, amounting to Pak. Rs. One Hundred Fifty Thousand (Pak. Rs. 150,000) and payable in Foreign Currency as Bid Bond, in favor of Director Finance and Accounts, PORT QASIM AUTHORITY (delete Certified cheque or Guarantee Bond, whichever is not applicable)
9. A certificate attesting the signatures of our authorised representatives is enclosed.
10. We undertake, if our Tender is accepted, to sign the Form of Agreement within 14 calendar days after receiving the Letter of Intent and to complete and deliver the Work within calendar days, calculated from the signing of the Form of Agreement.
11. If our Tender is accepted we will furnish a Performance Bond as per Appendix "I" to the Form of Agreement as assurance for due performance of the CONTRACT in accordance with Clause 9 of the General Conditions of CONTRACT and Clause 2 of the Particular Conditions of CONTRACT.
12. We agree to pay all costs towards the preparation of the Form of Agreement

PART 2
FORM OF TENDER
(contd.)

13. We further agree to abide by this Tender for a period of 120 days from the date of opening of the Tenders and it shall remain binding upon us for this period.
14. Unless and until a formal Agreement is prepared and signed, this Tender together with your written acceptance thereof, shall constitute a binding CONTRACT between us.
15. We agree that should we withdraw the offer within the aforesaid period and/or fail to sign the formal Form of Agreement and/or to submit the Performance Bond, the Board of the PORT QASIM AUTHORITY shall be at liberty at their absolute discretion to appropriate our Bid Bond of Pak. Rs. 150,000 payable in Foreign Currency, either as agreed liquidated damages without any proof whatsoever of the extent of such damages, or on account, reserving to themselves the right to recover from us any further loss or expenses to which they may have been put directly or indirectly by reason of any fault on our part as aforesaid.
16. We understand that you are not bound to accept the lowest or any Tender, you may receive.
17. We certify that this Tender has been prepared without contact or collaboration with other persons or firms, who have also submitted a Tender for these WORKS, and that it is fair in every respect and does not contain any secret or fraudulent arrangements.

Dated this day of 1976

Signature(s)

in the capacity of

duly authorized to sign Tenders for and on behalf of

.....
(Name of the Tenderer in block capitals)

Address

(Seal of the Tenderer)

In the presence of:

Witness

Address

.....

Occupation

APPENDIX "A" to the Form of Tender
(to be completed by the Tenderer)

Miscellaneous

<u>Subject</u>	<u>Provision</u>
1. Amount of Bid Bond	Pak. Rs. 150,000 payable in Foreign Currency
2. Amount of Performance Bond	5% of the Price of the CONTRACT at the time of signing the Form of Agreement, payable in Foreign Currency
3. Sureties for the proposed performance Bond	1. Name Address 2. Name Address
4. Minimum amount of Third Party Insurance	Pak. Rs. 2 Million for accidents for injury to persons and/or Pak. Rs. 1 Million for damages to property in case of each such happening. In both cases number of incidents unlimited
5. Proposed time for completion of WORKS vide clause 10 of the Form of Tender (calendar days)
6. Amount of Liquidated Damages for late completion, for each calendar day or a part thereof, after the completion date for the total WORKS, determined in accordance with the CONTRACT, payable in foreign currency as per Clause 44 of the General Conditions of the CONTRACT, and Clause 4 of the Particular Conditions of the CONTRACT.	Pak. Rs. 6,000 per calendar day, up to a maximum of 10% of the final CONTRACT price

PART 2
APPENDIX "A"
(contd.)

<u>Subject</u>	<u>Provision</u>
7. Percentage of Retention	In Foreign Currency, 10% of the value of Interim Certificates, up/to a maximum of 5% of the Price of the CONTRACT at the time of signing the Agreement of CONTRACT.
8. Proposed advance payments vide Clause 53 of the General Conditions of the CONTRACT, to be paid in Foreign Currency	Pak. Rs.
9. Name of the Foreign Currency
Rate of Exchange as per Clause 11 of the General Conditions of the CONTRACT	100 Pak. Rs. equal to

Signature

Date 1976

APPENDIX "B" TO THE FORM OF TENDER
(to be filled in by the Tenderer)

CONSTRUCTIONAL PLANT

The following Constructional Plant items will be furnished and maintained by us at the Site for fulfillment of the CONTRACT. We take cognizance of and agree to the fact, that the submission of this list does not in any way relieve us of the obligation to furnish to the satisfaction of the ENGINEER, the entire plant and all other necessary items required for the timely execution and completion of the WORKS.

No. of Units	Description, including name of manufacturer	Size or capacity	Whether new or used and date of manufacture	Value of each item of equipment and rate of depreciation allowed	Hire rate for dayworks per item and hour

The above hire rates, payable in local currency, include fuel and consumable stores, overheads charges, profit, maintenance, servicing and all other costs, expenses and charges but exclusive of drivers and attendants.

Signature

Date1976

APPENDIX "C" TO THE FORM OF TENDER
(to be filled in by the Tenderer)

CONTRACTOR'S SUPERVISORY SITE STAFF, DOWN TO AND INCLUDING FOREMEN AND WALKING GANGERS

The following personnel would comprise the supervisory staff to be assigned by us to the Site for fulfillment of the CONTRACT. We take cognizance of and agree to the fact that the submission of this list in no way relieves us of our obligation to provide an adequate supervisory staff for the execution and completion of the WORKS to the satisfaction of the ENGINEER.

Item	Designation	No. of per Shift	Nationality

Signature

Date 1976

APPENDIX "D" TO THE FORM OF TENDER
(to be filled in by the Tenderer)

MANAGING, LEADING AND SPECIALIST SITE STAFF

Responsible Engineers and/or Specialists for	Name	Age	Nationality

Biographical data and details of experience of the above staff are attached to our Tender.

Signature

Date 1976

APPENDIX "E" TO THE FORM OF TENDER
(to be filled in by the Tenderer
only if he wants to employ Sub-
Contractors)

SUB-CONTRACTORS

We intend to engage the following firms as sub-contractors for executing the WORKS specified below. However, we declare ourselves bound to our Tender, even if any of the firms mentioned below is rejected by the PQA for any reason whatsoever. We understand, and agree that the Approval of any sub-contractor does not relieve us of our sole responsibility for due fulfillment of the CONTRACT.

Name and Address of Intended Sub-Contractors	Type of Work

Signature

Date 1976

APPENDIX "F" TO THE FORM OF TENDER
(to be filled in by the Tenderer,
and are for assessment of Tenders
only)

SCHEDULE OF BASIC WAGES

We confirm, that the below listed wages (inclusive of surcharges for specialized job conditions, but without social benefits, overtime etc.), to be directly paid to the labourer, have been taken as an initial basis for fixing of the prices given in our Tender:

Type of Workmen	Rs. per hour

We agree that increases incurred in the above listed wage rates during the duration of the CONTRACT will be reimbursed only as far and to the extent as stipulated under Part 3, General Conditions of CONTRACT, Clause 11 (2).

Signature

Date 1976

APPENDIX "G" TO THE FORM OF TENDER
(to be filled in by the Tenderer)

Basic Material Costs

We confirm, and are ready to submit documentary proof, that the following material prices for delivery free at Site (inclusive of octroi charges) are in accordance with valid Government Notifications and/or binding decisions of government or semi-government authorities, where applicable, and were prevalent exactly one month before the scheduled date of Tender opening, and have been taken as an initial basis for fixing of the prices given in our Tender.

We agree that increases incurred in the above listed prices during the duration of the CONTRACT will be reimbursed only, as far and to the extent as stipulated under Clause 11 (2) of the General Conditions of the CONTRACT. Likewise we agree that decreases in the above listed prices during the duration of the CONTRACT will be reimbursed to the PQA as stipulated under Clause 11 (2)(c) of the General Conditions of the CONTRACT.

Signature

Date 1976

APPENDIX "H" to the Form of Tender
 (to be filled in by the Tenderer)

Accompaniments to our Tender

We have listed below all accompaniments to our Tender, including cover letter, clearly listing any conditions and reservations which may influence the execution of the WORKS and/or the Price of the CONTRACT, all drawings, descriptive matter and other information. We agree that all documents listed below will only become part of the CONTRACT, if expressly agreed upon in the Agreement of CONTRACT or its Annexures.

All accompaniments have been marked clearly with consecutive reference numbers from "H1" onwards.

Accompaniment No.	Title and description giving date and reference of letters and numbers of drawings
H1	Cover Letter, dated
H2	

Signature

Date1976

B I D B O N D

KNOW ALL MEN BY THESE PRESENTS that we,

..... (hereinafter called the BANK,
do hereby bind ourselves and our successors, executors and administrators
to PAY to the Board of the PORT QASIM AUTHORITY, KARACHI, PAKISTAN,
(hereinafter called the BOARD), on first demand without any question and
without reference to

..... (hereinafter called the TENDERER), and without
further question the sum of Pak. Rs. 150,000. - (One Hundred Fifty thou-
sand in Foreign Currency.

WHEREAS the TENDERER has tendered for the lighted buoy system requiring a
Bid Bond in Foreign Currency equivalent to an amount of Pak. Rs. 150,000.
- (One Hundred Fifty Thousand Pakistani Rupees) to be deposited with the
PORT QASIM AUTHORITY and binding the TENDERER to abide by his Tenderer
for a period of days from the
..... (Date of opening of the Tender).

KNOW THE CONDITION OF the above written Bond is such that:

1. Payment of Pak. Rs. 150,000. - (One Hundred Fifty Thousand Pakistani Rupees) in Foreign Currency, will be made on the first demand of the BOARD and without reference to the TENDERER.
2. Its validity for lodgement of claims shall remain in full force and effect till (6 months after opening of Tender) or till such extended time as the Bank may agree from time to time through a letter.

SIGNED SEALED AND DELIVERED

by the said BANK

in the presence of:

THE COMMON SEAL OF THE BANK
WAS HEREUNTO AFFIXED IN THE
PRESENCE OF:

GENERAL CONDITIONS OF THE CONTRACT

1. DEFINITIONS AND INTERPRETATIONS

(1) In the CONTRACT (see the following for definition of the term "CONTRACT") the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

(a) GOVERNMENT means the Government of the Islamic Republic of Pakistan.

(b) PQA means the Board of the PORT QASIM AUTHORITY Pakistan and includes their legal successors. PQA is the Employer inviting this Tender.

The Chairman means the Chairman of the PQA or such person as may be acting in that capacity.

PQA is represented through the Project Director of PQA head office, Karachi.

(c) ENGINEER means any firm, person or persons appointed by the PQA to act in that capacity.

(d) "ENGINEER'S Representative" means any resident engineer or assistant of the ENGINEER or any clerk of works appointed from time to time by the PQA or the ENGINEER to perform the duties set forth in Clause 2 hereof, whose authority shall be notified in writing to the Contractor by the ENGINEER.

(e) "CONTRACTOR" means person or persons, firm or company whose tender has been accepted by the PQA and includes the CONTRACTOR'S personal representatives, successors and permitted assigns.

(f) "Works" means and includes all works and things to be executed, supplied and done by the CONTRACTOR under the CONTRACT.

(g) "Permanent Works" means such part of the WORKS as shall be handed over to the PQA on the completion of the CONTRACT.

(h) "Temporary Works" means all works of every kind required in or about the execution, completion and maintenance of the WORKS, but for the Permanent WORKS as above defined.

(i) "CONTRACT" or CONTRACT Documents" means the General Conditions of CONTRACT, Specifications, Drawings, Schedule of Prices, Tender and the Contract Agreement.

1. cont'd.

- (j) "Drawings" means the drawings referred to in the Specifications and any modification of such drawings approved in writing by the ENGINEER and such other drawing as may from time to time be furnished or approved in writing by the ENGINEER.
- (k) "Constructional Plant" means all appliances or things of whatever nature required in or about the execution, completion or maintenance of the WORKS but does not include materials or other things intended to form or forming part of the Permanent WORKS.
- (l) "Site" means the lands and other places on, under, in or through which the WORKS are to be executed or carried out and any other lands or places provided by the PQA for the purposes of the CONTRACT together with such other places as may be specifically designated in the CONTRACT as forming part of the Site.
- (m) "approved" means approved in writing including subsequent written confirmation of previous verbal approval. "Approval" means written approval including the aforementioned. Any data, documents or drawings submitted with the Tender are only then deemed as approved, when expressly so fixed in the CONTRACT.
- (n) "Foreign Currency" means the foreign currency expressed in Pak. Rs., which is named in the Part 2., Form of Tender, APPENDIX "A".
- (2) Singular and Plural: Words used only in the singular, also include the Plural, and vice versa where required by the context.
- (3) Measurements and Weights: All weights and measuring units are based on the metric system.

2. DUTIES AND POWERS OF THE ENGINEER

- (1) The duties of the Engineer is to watch and supervise the Works and to test and examine any materials to be used or workmanship employed in connection with the Works.
- (2) The ENGINEER is Not Authorized to:
 - (a) Relieve the CONTRACTOR of any of his duties or obligation.
 - (b) To order any Work which would result in major delay or major additional payment on the part of the PQA, unless specifically foreseen in the CONTRACT and approved by PQA.
 - (c) To undertake any major changes with regards to the WORKS.

2. cont'd.

(3) The ENGINEER Shall Not Be:

- (a) Required to make exhaustive or continuous inspections of the Work to check the quality or quantity of the Work is behalf of the CONTRACTOR.
- (b) Responsible for safety precautions and programs in connection with the Work.
- (c) Required to expedite the Work in behalf of the Contractor.
- (d) Responsible for failure of the Contractor to carry out the Work in accordance with the CONTRACT Documents.
- (e) Required to mediate or otherwise settle any disputes between the Contractor and his Subcontractors or between any Sub-contractors.

(4) Resident Engineer: The ENGINEER may appoint a Resident Engineer to assist in fulfillment and carrying out of the ENGINEER's duties and responsibilities under the Contract.

- (a) Unless written instructions are issued to the contrary by the ENGINEER, the Resident Engineer will have delegated authority to act in the name of the ENGINEER and with the same duties and limitations as provided herein for the ENGINEER.
- (b) Actions and decisions of Resident Engineer shall be as binding upon the CONTRACTOR the same as if given directly by or from the ENGINEER.
- (c) Failures of Resident Engineer to reject or disapprove any Work not in compliance shall not prejudice authority of the ENGINEER to later or thereafter disapprove such Work and order the CONTRACTOR to make such corrections as the ENGINEER then deems necessary and appropriate to the case at hand.
- (d) The CONTRACTOR may at any time appeal to the ENGINEER respective to any decision or action made by Resident Engineer; which case the ENGINEER will immediately consider and render a decision upon forthwith.

(5) Approval by the ENGINEER of any part of the WORKS does not release the CONTRACTOR from his sole responsibility and liability for the supply of materials, equipment or construction of the WORKS, and their parts, in accordance with the CONTRACT and neither the ENGINEER's authority to act, nor any decision made by him in good faith, as provided for under this CONTRACT, whether to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the ENGINEER to the CONTRACTOR, any subcontractor, any of their agents or employees or any other person performing any of the WORKS.

3. ASSIGNMENT

The CONTRACTOR shall not assign the CONTRACT either fully or in part, any benefit or interest therein, except by a charge in favour of the CONTRACTOR's bankers of any monies due to or become due under this CONTRACT, without the prior written Approval of the PQA.

4. SUB-LETTING

(1) The CONTRACTOR shall not sub-let the whole of the WORKS. The CONTRACTOR may sub-let parts of the WORKS only with the prior written Approval of the PQA and of the ENGINEER. If such Approval is granted, the CONTRACTOR is in no case released from any of his liabilities or obligations from the CONTRACT. He remains as fully responsible for the actions, defaults and neglects of any sub-contractors, or their representatives, staff and workers, just as for the actions, defaults and neglects of his own representatives, staff and workers.

(a) The execution of work through provision of labour on a piecework basis shall not be deemed to be sub-letting under this clause.

5. EXTENT OF CONTRACT

The CONTRACT comprises the construction, completion and maintenance of the WORKS, and insofar as not otherwise specified in the CONTRACT, the provision of all labour, materials, Constructional Plant, Temporary Works and everything whether of permanent or temporary nature required in and for such construction, completion and maintenance, so far as the necessity for providing the same is specified in the CONTRACT or is to be reasonably inferred from the CONTRACT.

6. DOCUMENTS AND INTERPRETATION OF THE CONTRACT

(1) The applicable language, in which the CONTRACT shall be drafted and interpreted is English. The official language for general correspondence, technical information and data, operating instructions, literature, brochures, drawings, Standards regardless of national origin and test data shall also be English.

(a) All markings on equipment, recording devices, name plates and other objects shall also be in legible English. Shipping markings, addresses and marking of individual shipments shall be in printed capital letters and exclusively in English.

6. (1) cont'd.

The CONTRACTOR is obligated to replace any markings on objects in any other language than English, without additional costs for the PQA.

- (2) The various documents forming the CONTRACT are to be viewed as mutually explanatory. In the events of any ambiguity or contradiction, which are found in these documents the CONTRACTOR shall immediately bring them to the notice of the ENGINEER. Such ambiguities or contradictions are to be explained and adjusted by the ENGINEER, who shall thereupon issue instructions to the CONTRACTOR directing in which manner the WORKS are to be executed. If in the opinion of the ENGINEER, compliance with any such instructions shall cause the CONTRACTOR costs, which by reason of any such ambiguity or contradiction, the CONTRACTOR did not and had reason not to anticipate, the ENGINEER shall certify an additional reasonable sum with Approval of the PQA to cover these costs.
- (3) Interpretation of Contract: The ENGINEER may follow among others the following principles to arrive at the above mentioned decisions:
 - (a) The CONTRACTOR assumes all risks without any limitations, which are connected with or result from the supply, and transportation of the Constructional Plant and all material and equipment, before arrival at the Site.
 - (b) The CONTRACTOR assumes all risks without any limitations having effect on the progress of works at the Site, insofar as not stated otherwise under Clause 41. Interruptions of work by any reason whatsoever do not entitle the CONTRACTOR to additional compensation except as mentioned under Clauses 37 and 41.
 - (c) With the exclusion of direct damages due to "excepted risks" (see Clause 17 and Clause 56), the CONTRACTOR assumes all other risks for the materials and equipment stored at the Site, for his Constructional Plant, all Temporary Works and for the partially or fully completed Permanent Work or parts thereof, till Final Acceptance.

7. DRAWINGS

- (1) Documents Supplied By CONTRACTOR: The CONTRACTOR is obliged to supply the following documents for the execution of the WORKS when applicable to the CONTRACT.
 - (a) Site installation drawings
 - (b) Initial, intermediate and final construction programmes at time schedules (see Clause 13)

- (c) Drawings and calculations in connection with proposal for design and execution of the WORKS, special construction method or sequence for construction or erection of any permanent structures or parts thereof.
- (d) Shop drawings, calculations and specifications for all equipment.
- (e) Reports and records on all tests and material tests carried out by the CONTRACTOR or by his suppliers.
- (f) The records, reports and the like on definite construction measures to be supplied by the CONTRACTOR in accordance with the other provisions of the CONTRACT.
- (g) Settlement of accounts or quantity calculations, lists and the like.
- (h) As-built drawings for all WORKS showing all changes under taken in the course of the construction work.
- (i) Brochures and technical literature of all equipment and fixtures which are to be permanently installed in the Works. This data, at least relevant descriptions and salient features, shall be in English.
- (j) All instructions (in the form of lists, manuals and the like), which are required by the PQA for proper operation and for expert maintenance and repair of the structures and facilities.

8. FORMS OF AGREEMENT

At the latest, 14 calendar days after receiving the Letter of Intent, the CONTRACTOR must conclude and sign the Form of Agreement with the PQA in accordance with the attached form (vide Part 5), with such modifications as agreed upon and considered necessary.

9. NATIONAL CO-INSURANCE SCHEME AND PERFORMANCE BOND

(1) National Co-Insurance Scheme:

- (a) The CONTRACTOR shall cover all risks incurring to him through insurance from the Pakistan Insurance Corporation under the National Co-Insurance Scheme. PQA will also agree to insurance from another Pakistani insurance company selected by the CONTRACTOR, provided a no-objection certificate of the concerned Ministry of Commerce can be obtained and submitted to PQA.

9. (1) cont'd.

(b) With this in mind, among others but not limited to, the CONTRACTOR shall obtain and keep in force polices in respect of Performance Bond, Erection All Risks, Contractors All Risk, Marine, Motor and Workmen's Compensation, which shall refer specially and solely to the CONTRACT, and which shall meet all obligations incurring on the CONTRACTOR within the scope of the CONTRACT for adequate and proper insurance of the WORKS, and fulfill them. This shall include insurance for imported materials and equipments for Permanent Works. The CONTRACTOR shall also obtain a guarantee from the insurer that in the event of any loss or damage to the imported items, the relevant payments will be made in Foreign Currency. In case the National Co-Insurance Scheme is not in a position to provide the cover from a Pakistani insurer, or if neither the National Co-Insurance Scheme nor a Pakistani insurer are able to provide a cover in Foreign Currency, only in that event shall such a cover be obtained from foreign insurers. However, the ENGINEER and the PQA reserve the right of checking thereby, and the CONTRACTOR is obligated to make available the therefore required information and documents.

(2) Performance Bond:

(a) Before or at least at the signing of the CONTRACT, the CONTRACTOR must deposit a Performance Bond as surety for the proper and conscientious execution of the WORKS. Refer to Part 4, Particular Conditions of the Contract for the amount of Performance Bond required for this CONTRACT. This Performance Bond must be given fully in Foreign Currency, from the Pakistani insurer, or if cover cannot be obtained from them, from a first-class bank registered in Pakistan, which has been selected by the CONTRACTOR in concurrence with the PQA. After completion and formal acceptance of all parts of the WORKS the Performance Bond will be released by the PQA in accordance with the terms in the General Conditions of the CONTRACT. If a Period of Maintenance is required under the CONTRACT the Performance Bond shall remain in effect until the end of said Period of Maintenance but may be reduced to the amounts specified in the Particular Conditions of the CONTRACT.

(b) The Performance Bond is binding, irrespective of variations, changes or time extensions, which are granted or agreed upon. It shall be formulated according to the form prescribed in PART 5, APPENDIX "I" and shall contain the statement, that the PQA can complete that portion of the WORKS, which the CONTRACTOR has not commenced or not satisfactorily executed, up to the amount of the Performance Bond, at the expense of the insurer or bank giving the guarantee.

10. SELF-RESPONSIBILITY OF THE CONTRACTOR FOR ALL TECHNICAL BASES OF THE CONTRACT

- (1) If, during the execution of the WORKS, any alternative solution proposed by the CONTRACTOR, any construction method or sequence, any part of the Temporary Works or any item of the Constructional Plant selected by the CONTRACTOR, proves to be unsuitable or ineffective in the opinion of the ENGINEER, then the CONTRACTOR has to adjust, improve, change or substitute any such arrangement at his own expense. Thereby, it shall have no bearing, whether any such unsuitable or ineffective arrangement was proposed by the CONTRACTOR before or after signing of the Agreement of CONTRACT, or whether it has been approved by the ENGINEER, or not.

11. SUFFICIENCY OF THE TENDER, UNIT PRICES, BASIC RATE OF EXCHANGE AND CURRENCY CLAUSE

- (1) It is Presupposed, that the CONTRACTOR has satisfied himself before submitting his Tender, as to the correctness and sufficiency of his Tender for the WORKS and of the rates and prices given in the individual Bill of Quantities and that the rates and prices cover all his obligations from the CONTRACT and all matters and things, which are necessary for the proper execution and maintenance of the WORKS.
- (2) All Prices and unit rates in the CONTRACT are fixed and unchangeable. Additional payments, if due, will only be made insofar as especially provided below.
- (a) The Tender prices shall be based on the rates of materials, duties, taxes, royalties, octroi charges, etc., and be in conformity with the laws, rules and regulations etc. of the Government of Pakistan, applicable and/or in force on the date, exactly one month before the scheduled date of Tender opening. Should there be any change in the above, whereby the CONTRACTOR's costs for executing the WORKS are increased, PQA shall reimburse to him such increases in cost only for the specific items listed below. For all other items, the Tender prices shall be deemed to already include the required surcharges for absorbing any possible cost increases in supplies, performances and appertaining services.
- import duties, sales-tax and applicable surcharges on goods directly imported by the CONTRACTOR, also if imported in the name of PQA, and for re-export of Constructional Plant and equipment, provided changes are due to legislation or Government Notification.
 - Social benefits to labour working at Site only, provided changes are due to legislation or Government Notification.
- (b) All wages shall be deemed to be fixed wages for the whole duration of the CONTRACT. However, wages, as applicable to workmen working at Site will only be deemed as fixed for a period of 9 months from the date of issue of the Letter of Intent. Any increase in such wages after this period

11. (2)(b) cont'd.

established through conventions with the labour unions, negotiated and settled in accordance with the labour laws and sanctioned by the Government Labour Welfare Authorities and/or labour courts will be shared equally by the PQA and the CONTRACTOR.

(c) In the event, that any changes specified in the foregoing, result in reduction in cost for the above mentioned items, the CONTRACTOR shall correspondingly reimburse the PQA for such savings.

(3) The Unit Rates, beside the basic costs such as for providing material and gear, for wages and salaries for workers and other personnel etc., also include all incidental costs and incidental performances, which are necessary for a proper execution of the WORKS in concurrence with the CONTRACT. Accordingly contained in the submitted unit rates are also the cost for:

- (a) the providing and maintenance of the total Site installations, work and transportation gear, machines, scaffolding, Shutter-rings and all other Temporary Works as defined under Clause 1 (h), construction offices, lodgings and material sheds etc., required for the WORKS, inclusive of all cost for the provision and maintenance of workshops, working areas, storage rooms and areas, approaches to the Site and the like. Further included, are the costs for all working and storage areas used by the CONTRACTOR, insofar as they have not been made available by the PQA.
- (b) provision, and proper and safe storage of an adequate number of spare plant and spare parts, as well as of suitable materials for the manufacture of spare parts, and for repair to machines and plant.
- (c) the required fuels, greases, coal, electric power, oxygen, acetylene, compressed air, water etc. (electric power and tap water may be made available by the PQA subject to quantity demanded being available and cost reimbursed by the CONTRACTOR).
- (d) separation allowances and travel allowances, for hotel, flight and other travel costs, for permanent or temporary accommodation for the key, skilled and other personnel, for vacation monies, overtime, additional salaries and all other relevant compensations; also the costs for medical attention, hospitalisation, health and accident insurance and other such costs.
- (e) additional costs for a two or three shift operation of personnel and Constructional Plant as well as for Sunday and holiday work, insofar as such cannot be avoided in exceptional cases.
- (f) the required accident prevention facilities and devices.

11. (3) cont'd.

- (g) Providing, maintenance and warning lights, danger signals and fences, as well as the placing of guards for protecting and securing all Temporary Works, facilities, equipment, materials stores on the Site and Permanent Works under construction.
- (h) the required means of communication, such as telephones, etc.
- (i) the procuring of regular information from the storm warning services.
- (j) the preparation of the time schedules, programmes for construction and mobilization of plant and labour, of drawings for the Site installation and all Temporary Works as well as of all otherwise necessary drawings, plans, sketches, lists, tables, calculations and the like, insofar as such are to be prepared pursuant to the CONTRACT, inclusive of the costs for the supply of prints and/or other copies.
- (k) the supply of additional prints of all final design or working drawings, and other data,
- (l) all post, air-mail, air freight and other freight charges, as well as the costs for telephone calls, telegrams and telex.
- (m) the insurances for covering all risks incurring to the CONTRACTOR, to the extent such risks have been accepted by insurers.
- (n) the Agreement of CONTRACT, for the Bid and the Performance Bonds, as well as for bank guarantees for advance payments affected by the PQA and the interest costs for withheld amounts of bills, if any.
- (o) any taxes within or beyond the jurisdiction of the GOVERNMENT, port fees, customs duties, octroi charges, terminal charges and all other taxes leviable to the CONTRACTOR.
- (p) royalty and patent fees, licences, liability claims of third parties and the like in connection with the WORKS.
- (q) the execution of all contractually agreed upon, tests and laboratory investigations at factories on the Site and at other localities, inclusive of supplying of certificates.
- (r) providing of means of transportation and of plan, such as boats, ladders, walkways etc., which are necessary for the inspection, checking and acceptance of the performances under the CONTRACT by the PQA and the ENGINEER, inclusive of the costs for the provision of personnel required for the acceptance of the WORKS or parts thereof.

11. (3) cont'd.

- (s) protection of all fully or partially completed facilities and/or structures, for the safe transition of respective construction stages, safeguard against construction risks, as well as for any additional supplies and performances required as per Clause 1.(h).
 - (t) all extra expenses for any work difficulties and work interruptions except those mentioned under Clauses 37 and 41.
 - (u) any unforeseen additional supplies and performances construction measures, repairs etc., falling under the CONTRACTOR's risks, as far as not covered under the insurances (vide paragraph (m) above).
 - (v) all material price, transportation cost and wage increases, if not paid for separately under paragraph (2), and therefore falling under the CONTRACTOR's risks, whether covered under the insurances (vide paragraph (m), above), or not.
 - (w) the CONTRACTOR's own prefinancing, as well as for all other special supplies and performances, measures and installations, which are not specially listed here or otherwise in the CONTRACT, but which in the opinion of the ENGINEER are necessary for proper and complete execution of the WORKS, and which can be fairly demanded from the CONTRACTOR.
- (4) The Official Rate of exchange of Pak. Rs. in terms of various Foreign Currencies fixed by the State Bank of Pakistan on the date exactly one month before the scheduled date of Tender opening, will be treated as the fixed rate of exchange for purposes of payments as approved by the ENGINEER under this CONTRACT throughout the entire duration of the CONTRACT, irrespective of either the revaluation/devaluation of Pak. Rs. or any Foreign Currencies concerned under the CONTRACT.

12. WORK TO THE SATISFACTION OF THE ENGINEER

- (1) The CONTRACTOR shall execute, complete and maintain the WORK in-struct accordance with the CONTRACT to the ENGINEER's instructions and directions on any matter, whether mentioned in the CONTRACT or not, touching or concerning the WORKS, thereby however, the sole responsibility of the CONTRACTOR for sound and safe execution of the WORKS will in no way be restricted. If the CONTRACTOR does not concur with any of the ENGINEER's instructions, he must object in writing within 3 days after receipt of such instructions, giving well founded and detailed reasons therefor.
- (2) The CONTRACTOR shall take instructions and directions only from the ENGINEER.

13. TIME SCHEDULES AND CONSTRUCTION PROGRAMMES

- (1) Within 45 calendar days after the signing of the CONTRACT, the CONTRACTOR must submit detailed time schedules, construction programmes and labour employment schedules for the WORKS, to the ENGINEER for checking the Approval. The latter will accord his Approval in concurrence with the PQA.
- (2) The CONTRACTOR will submit the following time schedules:
 - (a) The first time schedule shall show the general planned progress of the entire WORKS commencing with the Site installation and ending with the Site clearance after completion of the WORKS.
 - (b) The second time schedule shall show only the dates of the various stages of the WORKS, also indicating the delivery dates for the required construction materials.
 - (c) The third time schedule, which shall refer only to all permanent Work or equipment, must contain the data for placing of orders, manufacture, shipping, arrival and installation of the equipment at the Site.
- (3) These Time Schedules which the CONTRACTOR has already submitted in outline form with his Tender are flexible, but binding insofar as the important and key dates in accordance with the general time schedule of the Tender Documents are concerned.
- (4) All Time Schedules are to be adjusted from time to time according to the actual progress of the WORKS with the definite condition that the final contractual completion date will remain unchanged unless extension of time is approved in accordance with the CONTRACT.
- (5) The CONTRACTOR shall at any time, whenever required by the ENGINEER furnish for his information particulars in writing of the CONTRACTOR's arrangements for the carrying out of the WORKS and of the Constructional Plant and Temporary Works which the CONTRACTOR intends to supply, use or construct as the case may be. The submission to and Approval by the ENGINEER of such programmes or the furnishing of such particulars shall not relieve the CONTRACTOR of any of his duties or responsibilities under the CONTRACT.

14. CONTRACTOR'S SUPERINTENDENCE

- (1) The CONTRACTOR shall give or 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 authorized agent or representative approved of in writing by the ENGINEER (which Approval may at any time be

14. (1) cont'd.

withdrawn) is to be constantly on the WORKS and shall give his whole time to the superintendence of the same. The agent may depart from the Site for longer durations only after notifying the ENGINEER, who will refuse his consent, if in his opinion the WORKS at Site require the presence of the agent. The agent can only leave the Karachi area after the prior Approval of the ENGINEER in writing.

- (2) If the Approval of the agent shall be 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 written notice of such withdrawal remove the agent from the Site and shall not thereafter employ him again on the Site in any capacity and shall replace him by another agent approved by the ENGINEER.
- (3) The authorised agent or representative shall receive on behalf of the CONTRACTOR directions and instructions from the ENGINEER.

15. CONTRACTOR'S EMPLOYEES

- (1) The CONTRACTOR shall provide and employ on the Site in connection with the execution and maintenance of the WORKS:
 - (a) only such technical assistants as are skilled and experienced in their respective callings and such sub-agents, foremen and leading hands who are competent to give proper supervision to the work they are required to supervise.
 - (b) the skilled, semi-skilled and unskilled labour, which are necessary for the proper and timely execution and maintenance of the WORKS
 - (c) only such key staff-members, technical assistants, sub-agents, foremen, leading hands, skilled and unskilled workers, who meet the pertinent security regulations of the GOVERNMENT and who have not been discharged by the PQA at an earlier date for good reason.
- (2) The PQA and/or the ENGINEER shall be at liberty to object to and require the CONTRACTOR to remove forthwith from the WORKS any person employed by the CONTRACTOR in or about the execution or maintenance of the WORKS who in the opinion of the PQA and/or ENGINEER misconducts himself or is incompetent or negligent in the proper performance of his duties or whose employment is otherwise considered by the ENGINEER to be undesirable and by the PQA as a security risk and such person shall not be again employed upon the WORKS without the written permission of the ENGINEER. Any person so removed from the WORKS shall be replaced as soon as possible by a competent substitute approved by the ENGINEER.

16. WATCHING AND LIGHTING

Watching and Lighting: The CONTRACTOR shall in connection with the WORKS provide and maintain at his own cost all lights, guards, fencing and watching when and where necessary or required by the ENGINEER or by any duly constituted authority for the protection of the WORKS or for the safety and convenience of the public or others.

17. CARE OF WORKS

- (1) From the commencement of the WORKS at the Site till their completion and transfer to the PQA the CONTRACTOR is fully responsible for their care including the Temporary Works, even if they should have been executed by any sub-contractors. If the WORKS at the Site or parts thereof, materials, equipment, Constructional Plant, or the Temporary Works suffer damage, loss or impairment from any cause whatsoever, save and except the expected risks as defined in Paragraph (2) of this Clause, the CONTRACTOR shall at his own cost repair and make good the same, so that they are in good condition at the completion of the WORKS and in full conformity with the conditions of the CONTRACT and the ENGINEER's instruction. If damage, loss or impairment occur at the site due to an excepted risk, the CONTRACTOR shall, if and to the extent required by the ENGINEER, subject to the provisions of Clause 56 of these Conditions repair and make good the same as aforementioned, at the cost of the PQA.
- (2) Excepted Risks: The "excepted risks" are war hostilities, whether war be declared or not, invasion, act of foreign enemies, rebellion, revolution, insurrection and civil war, curfew and national or local general strike, all to be applicable only if occurring in Pakistan and affecting the WORKS at Site, or (otherwise than among the CONTRACTOR's own employees) riot, commotion and disorder when affecting the WORKS at the Site and which may render it physically impossible to enter the Site of construction works by the CONTRACTOR's workmen; or the use or occupation by the PQA of any portion of the WORKS in respect of which a Certificate of Completion has been issued, all of which are herein collectively referred to as "the excepted risks".

18. INSURANCE OF THE WORKS, ETC.

- (1) Without limiting the obligations and the liability of the CONTRACTOR under Clause 17 (1) of these Conditions, the CONTRACTOR must conclude policies in the joint names of the PQA and the CONTRACTOR against all damages and losses arising from any cause, insofar as he is responsible for them under the provisions of this CONTRACT. The insurance policies are to be concluded in such a manner, that the PQA and the CONTRACTOR are covered during the entire period of construction, including the losses or

18. (1) cont'd.

damages which are caused by the CONTRACTOR, namely for:

- (a) the WORKS and Temporary Works to their full replacement value, in foreign currency, of such works executed from time to time:
 - (b) the materials, Constructional Plant and other things brought on to the Site by the CONTRACTOR, to their full replacement value, foreign currency, of all such items.
- (2) These insurances are to be concluded with insurance firms approved by the PQA and registered in Pakistan, and at terms approved by the PQA (vide Clause 9.).
 - (3) The CONTRACTOR shall, whenever required, produce to the ENGINEER, the policies of insurance and the receipts for payment of the current premiums. Provided always that without limiting his obligations and responsibilities shall render the CONTRACTOR liable to insure against the necessity for the repair or reconstruction of any work constructed with materials or workmanship not in accordance with the requirements of the CONTRACT.

19. DAMAGE TO PERSONS AND PROPERTY

- (1) The CONTRACTOR must indemnify and keep indemnified the PQA and the ENGINEER against all losses and claims for injuries or damage to any person or any property whatsoever, which may arise out of or in consequence of the construction and maintenance of the WORKS and against all claims, demands, proceedings, damages and expenses whatsoever in respect of or in relation thereto.
- (2) The CONTRACTOR is not allowed to claim any personal liability for or with regard to any matter or thing which can be made binding hereby for the PQA or the ENGINEER, from either the Chairman or from any member or official of the PQA, nor from the ENGINEER or from any of his staff.

20. THIRD PARTY INSURANCE

- (1) Before Commencing the execution of the WORKS, the CONTRACTOR but without limiting his obligations and liabilities under Clause 19 thereby, shall insure with a first-class insurer registered in Pakistan and approved by the PQA (vide Clause 9.), against any damage, loss or injury, which may occur to any property, including that of the PQA, or to any person, including any employees of the PQA or the ENGINEER, by or arising out of the execution of the WORKS or Temporary Works or in the carrying out of the CONTRACT.

20. cont'd.

- (2) Such Insurance shall be effected with an insurer and at terms approved by the PQA, and for at least the amounts stated in the Tender Documents. The CONTRACTOR must whenever required produce to the ENGINEER the policy or policies of insurance and receipts for payment of the current premiums.

21. ACCIDENTS OR INJURIES TO WORKMEN

- (1) The PQA and the ENGINEER do not assume any liability for or with regard to legal liability for damages or compensations as a result of accidents or injuries or epidemic illnesses of workmen or any other person in the service of the CONTRACTOR or of a sub-contractor. The CONTRACTOR must indemnify and keep indemnified the PQA and the ENGINEER with regard to all damages and liabilities of this type as well as with respect to any claims, demands, proceedings, damages, cost, charges and expenses therefrom or in connection therewith.
- (2) The CONTRACTOR shall insure against such liability with first-class insurer registered in Pakistan and approved by the PQA (vide Clause 9.). The insurance is to be maintained by the CONTRACTOR during the entire duration of the CONTRACT, in which persons are employed by him on the WORKS. He shall when required, produce to the ENGINEER such policy or policies of insurance and the receipts for payment of the current premiums. This insurance of the CONTRACTOR must also include the personnel of all sub-contractors and suppliers, insofar as they work on the Site, so that the PQA and the ENGINEER are also kept indemnified in this respect.
- (3) The Insurance obligation under Paragraph (2) in no case releases the CONTRACTOR from the obligation to reasonably safeguard against the accident danger on the Site. The CONTRACTOR must therefore take reasonable precautions to guard his personnel who are engaged in the execution of the WORKS, as well as third parties, from accidents and physical injuries, as well as from contagious diseases at the Site. The CONTRACTOR must take steps to see, that all sources of danger at the Site are watched and secured. He must take care that satisfactory and proper lighting conditions exist at the Site for night work. All storage and working areas are to be kept clean, in order to avoid the danger of diseases and epidemics.
- (4) A reasonable number of the CONTRACTOR's employees must be trained in first aid. First aid kits of the type, model, equipment and number approved by the PQA must be furnished properly equipped by the CONTRACTOR, at all construction sites and working areas. The CONTRACTOR must arrange, that each injured or epidemically ill person is immediately transported to a nearby suitable hospital.

21. cont'd.

- (5) The CONTRACTOR shall immediately make a written report to the ENGINEER on all accidents, which result from or in connection with the execution of the WORKS, regardless of whether on or near the construction Site, and which result in injuries, death or damage to property inclusive of all details and statements of witnesses. In case of serious injuries, death or extensive damage to property, the PQA, as well as the ENGINEER shall be notified of the accident by cable or messenger.
- (6) The CONTRACTOR is obligated to make payment to his Pakistani workers, staff, their dependents or heirs for any injuries or death, which may have occurred to them during the employment in or on the execution of the WORKS, in accordance with the provisions of the "WORKMEN'S COMPENSATION ACT 1923" and other laws in force in Pakistan during the total duration of the CONTRACT.
- (7) In case of diseases or plagues of epidemic nature, the CONTRACTOR must observe all rules, regulations or instructions issued by the competent authorities charged with the controls, and must in any case take all measures necessary to prevent the spreading of such diseases or plagues among others employed at the Site.
- (8) Nothing under this clause shall be so interpreted, to mean that the CONTRACTOR is relieved from the complete fulfillment of the applicable governmental or local rules, directives, laws and instructions in this respect.

22. LEGAL REMEDY ON CONTRACTOR'S FAILURE TO INSURE

If the CONTRACTOR shall fail to effect and keep in force the insurances referred to in Clauses 18, 20 and 21 hereof, or any other insurance which he may be required to effect under the terms of the CONTRACT, then and in any such case, the PQA may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose, and from time to time deduct the amounts so paid by the PQA as aforesaid from any monies due or which may become due to the CONTRACTOR or recover the same as a debt due from the CONTRACTOR.

23. GIVING OF NOTICES AND PAYMENT OF FEES, TAXES AND DUTIES

- (1) Notices and Payment of Fees: The CONTRACTOR shall give all notices and pay all fees required to be given or paid by any national or state statute ordinance or other law or any regulation or bye-law of any local or other duly constituted authority in relation to the execution of the WORKS or of any Temporary Works and by the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the WORKS or any Temporary Works.

23. (1) cont'd.

- (a) The PQA will deduct 3% advance income tax from any bill payment to be made to the CONTRACTOR as per CONTRACT, in accordance with Rule No. 50, under Sub-section (3BB) of Section 18 of the Income Tax Act 1922 or according to similar such rules enacted by the GOVERNMENT from time to time during the duration of the CONTRACT, and deposit the same in the GOVERNMENT Treasury on the CONTRACTOR's behalf, under information to the CONTRACTOR. The PQA does not assume any liability whatsoever for such taxes and duties incurring on the CONTRACTOR.
- (2) Compliance with Statutes, Regulations, Etc.: The CONTRACTOR shall conform in all respect with the provisions of any statute ordinance or law as aforementioned and the regulation or bye-laws of any local or other duly constituted authority which may be applicable to the WORKS or the any Temporary Works and with such rules and regulations of public bodies and companies. The CONTRACTOR shall keep the PQA indemnified against all penalties and liability of every kind, for breach of any such statute, ordinance, law and bye-law. The PQA will not effect any payment whatsoever to the CONTRACTOR in this connection, as all relevant amounts must have been included by him in the unit prices at the time of submitting his Tender.

24. ARCHAEOLOGICAL AND GEOLOGICAL DISCOVERIES

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

25. PATENT RIGHTS AND ROYALTIES

The CONTRACTOR shall save harmless and indemnify the PQA from and against all claims and proceedings for or on account of infringement of any patent rights, design, trade mark or name, or other protected rights in respect of any Constructional Plant, machine work or material used for or in connection with the WORKS and Temporary Works or any of them, and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever, in respect thereof or in relation thereto. The CONTRACTOR shall pay all tonnage and other royalties, rent and other payments or compensation for getting stone, sand, gravel, clay or other materials required for the WORKS or any of them.

26. INTERFERENCE WITH TRAFFIC AND ADJOINING PROPERTIES

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

27. EXTRAORDINARY TRAFFIC

- (1) The CONTRACTOR must initiate all measures, in order to prevent any of the highways or bridges communicating with or on the routes to the Site from being damaged or impaired by any traffic of the CONTRACTOR or any of his sub-contractors and suppliers. He shall in particular select routes, choose and use vehicles and restrict and distribute loads so that any unavoidable overloadings from the moving of plant and material from and to the Site shall be limited as far as possible and that no unnecessary damage or impairment may be occasioned to such highways and bridges.
- (2) If, during the carrying out of the WORKS or at any time thereafter, the CONTRACTOR shall receive any claim due to damage or impairment of highways or bridges or the like arising out of the execution of the WORKS, he must carry on the relevant negotiations himself and bear all costs and other expenses connected with claims, proceedings, damages, charges and the like.
- (3) If during the execution of the WORKS the use of waterborne transport by the CONTRACTOR, may be required, the foregoing provisions of this clause shall be construed as though "highway" is waterway, inclusive of quay walls, pier facilities, moles and other marine structures and the term "vehicle" is inclusive of water craft, and shall have effect accordingly. In such cases the CONTRACTOR shall at all times during the continuance of the CONTRACT comply with all the regulations and rules of the Port Authorities in respect of navigation and shall immediately carry out any orders or instructions of the Port Authorities with regard to berthing or unberthing any of his craft wherever berthed, lying at moorings or anchored within the jurisdiction of the Port and generally he shall conduct his proceedings and operations in such a way as to cause as little inconvenience as possible.

28. OPPORTUNITIES FOR OTHER CONTRACTORS

The CONTRACTOR shall in accordance with the requirements of the ENGINEER, afford all reasonable opportunities for carrying out their work to any other contractors employed by the PQA and their workmen and to the workmen of the PQA and of any other duly constituted authorities who may be employed in the execution on or near the Site of any work not included in the CONTRACT or of any contract which the PQA may enter into in connection with or ancillary to the WORKS. If however, the CONTRACTOR shall on the written request of the ENGINEER make available to any such other contractor or to the PQA or any such authority any roads or ways for the maintenance of which the CONTRACTOR is responsible, or permit the use by any such of his scaffolding or other plant on the Site, or provide any other service of whatsoever nature for any such, the PQA shall pay to the CONTRACTOR in respect of such use or service such sum or sums as shall in the opinion of the ENGINEER be reasonable.

29. SUPPLY OF CONSTRUCTIONAL PLANT, MATERIALS, STRUCTURAL PARTS AND LABOUR

- (1) The CONTRACTOR shall at his own expense, supply and provide all the Constructional Plant, Temporary Works, materials both for temporary and for permanent structures, labour (including the supervision thereof), transport to or from the Site and in and about the WORKS, and other things of every kind required for the construction, completion and maintenance of the WORKS. The CONTRACTOR must select his Constructional Plant according to the technical requirements of the construction work and taking the prescribed constructional completion dates into consideration. The Approval of the ENGINEER for the use of any plant does not in any case relieve the CONTRACTOR of his sole responsibility for suitability, efficiency and condition thereof.

30. SITE ORDERLINESS AND CLEARANCE OF SITE ON COMPLETION

- (1) During the execution of the WORKS, the CONTRACTOR must have all waste removed by the persons under his charge at intervals of not more than 48 hours. In case the CONTRACTOR does not remove rubbish, waste etc., within the aforesaid period, the ENGINEER will have it removed by another party and the CONTRACTOR will be charged for such costs.
- (2) On the completion of the WORKS, the CONTRACTOR shall clear away and remove from the Site or from any areas outside the PQA premises used for the WORKS, all Constructional Plant, surplus materials, rubbish and Temporary Works of every kind and leave the whole of the WORKS, of the Site and other areas clean and in workmanlike condition to the satisfaction of the ENGINEER. The ENGINEER will not accept the WORKS or any part thereof, if

30. (2) cont'd.

their sites or any other areas outside the PQA's premises used for the WORKS, have not been cleaned to his satisfaction. The ENGINEER shall have the right to withhold a reasonable sum of money due to the CONTRACTOR, till all construction sites and working or storage areas are clean and restored to the original state, and all damages to roads, ways and the property of third parties have been repaired to the full satisfaction of the ENGINEER in concurrence with the PQA.

31. LABOUR AND RELATED CONDITIONS

- (1) **Engagement of Labour and Conditions:** The CONTRACTOR shall make his own arrangements for the engagement of labour. In respect of the engagement, employment, transport, paving, feeding, housing and working conditions of labour and of all other matters connected therewith, the CONTRACTOR shall at all times during the continuance of the CONTRACT conform in all respects with and carry out all obligations imposed on him by the provisions and requirements of any law and of any Regulations or Orders of any Government (Central/Provincial or Local) or any authority which may be applicable including any such law, regulation or order passed or made or coming into force after the date of the CONTRACTOR's Tender. In particular but without prejudice to the generality of the foregoing provisions, the CONTRACTOR shall conform with and do or refrain from doing anything he may be required to do, or refrain from doing by any legislation or ordinances so far as applicable relating to factories or relating to industrial disputes and regulations or tenders thereunder.
- (2) **Foreign Employees:** If the CONTRACTOR employs foreigners, he must observe the applicable guiding principles and instructions of the GOVERNMENT. The salary agreements and other arrangements between the CONTRACTOR and his employees shall take place with consideration of the locally applicable regulations and laws.
- (3) **Local Employees:** The CONTRACTOR shall not employ anyone on the Site, who was previously an employee of the PQA without first obtaining the Approval of the PQA.
- (4) **Wage Tax and Deductions, Visas and Work Permits:** The CONTRACTOR is responsible for ensuring that all of the employees pay wage tax or any other levies under the rules of the GOVERNMENT. He will also be liable for payment of his own corporate, company or their profit taxes and other levies, as required under the local law.
 - (a) The CONTRACTOR must at his own expense procure work permits from the competent authorities, in order to be able to employ his foreign personnel in Pakistan. The CONTRACTOR

31.(4)(a) cont'd.

is responsible for all formalities in connection with passes, procuring of visas, police registration, work permits and expenditures for customs duties for personal property, which have been imposed on the foreign employees engaged on the WORKS. If the CONTRACTOR so requests, the PQA will recommend him to the proper authorities for work permits and other formalities.

- (5) Alcoholic Liquor and Drugs: The CONTRACTOR may not under any circumstances permit on the Site, the giving, bartering, distribution and the sale and the use of any alcoholic liquor and drugs. Violators must be immediately expelled from the Site.
- (6) Arms and Ammunition: The CONTRACTOR shall not give, barter or otherwise dispose of to any person or persons, any arms or ammunition of any kind or permit or a usffer the same as aforesaid.
- (7) Festivals and Religious Customs: The CONTRACTOR shall in all dealings with labour in his employ, have due regard to all recognized festibals, days of rest and religious or other customs.
- (8) Epidemics: In the event of any outbreak of illness of an epidemic nature, the CONTRACTOR shall comply with and carry out such regulations, orders and requirements as may be made by the Government or the local medical or sanitary authorities for the purpose of dealing with and overcoming the same.
- (9) Disorderly Conduct: The CONTRACTOR shall at all times take all reasonable precautions to prevent any unlawful riotous or disorderly conduct by or amongst his employees and for the preservation of peace and protection of persons and property in the neighbourhood of the WORKS against the same.
- (10) CONTRACTOR Responsibility: The CONTRACTOR shall be fully responsible for the observance of the foregoing provisions by his sub-contractors and suppliers.

32. PROGRESS REPORTS, LABOUR, CONSTRUCTIONAL PLANT AND MATERIALS LISTS

- (1) The CONTRACTOR must submit to the ENGINEER, daily progress reports of the WORKS, giving full information about the supervisory staff, the number of labour in different classes and of other personnel employed by the CONTRACTOR at the Site, on Constructional Plant in use, material in stock, and on arrival of essential material and equipment for permanent installation. The reports shall also include detailed specifications of works executed daily, and data on temperatures, rainfall, wind, humidity and information on all other facts and events of importance to the progress of the WORKS, together with reasons for delay, if any.

32. cont'd.

- (2) In a similar manner, the CONTRACTOR shall submit to the ENGINEER, comprehensive monthly reports in the form specified by the ENGINEER, together with detailed lists showing the percentages of already executed WORKS, materials and equipment in stock and to be expected during the following months, not later than 3 days after the end of every month. In case of delays affecting the maintaining of the scheduled progress of the WORKS, the CONTRACTOR must give detailed reasons and justifications therefor and advance proposals for making up the lost time.

33. MATERIALS AND WORKMANSHIP

- (1) All materials, permanent equipment and workmanship must comply with the relevant provisions of the CONTRACT and the instructions of the ENGINEER. They will be subjected to such tests from time to time, as the ENGINEER may direct at the place of manufacture or fabrication or at the Site, or at all or any of such places. The CONTRACTOR shall provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work or equipment and the quality, weight or quantity of any material used. He shall supply samples of materials before incorporation in the WORKS for testing as may be selected and required by the ENGINEER. Furthermore, the CONTRACTOR must supply at his own cost, as required by the ENGINEER or automatically, when the Specifications so require, to the ENGINEER, and to the PQA for information, adequate samples of all permanent equipment, small hardware, materials, prefabricated parts etc., which are necessary for the WORKS, for the purpose of Approval. Such samples shall be submitted in due time, before ordering, shipping or installing of the relevant parts or materials as required, in order to permit tests and checks thereon. All permanently installed parts and materials, as well as prefabricated parts used, must be identical with the approved samples. Samples of equipment, small hardware, materials and similar items will be returned to the CONTRACTOR if they were specifically ordered for installation in the WORKS.
 - (a) All Site and laboratory tests shall be carried out in the presence of a representative of the ENGINEER, and if desired from time to time, also in the presence of a representative of the PQA. The ENGINEER is to be informed of such tests in due time, but at least 24 hours in advance.
 - (b) Inspections of the WORKS will be undertaken by the ENGINEER and/or by the PQA at their discretion at any time without previous notification to the CONTRACTOR.

33. cont'd.

- (2) **CONTRACTORS Responsibility:** Factory, shop or Site visits and inspections by the ENGINEER, with or without participation of the PQA do not in any manner release the CONTRACTOR from his obligation to perform first-class work in accordance with the CONTRACTOR.
 - (a) In case of faulty materials or unworkmanlike execution, which are ascertained later, the ENGINEER will reject such inadequate parts of the WORKS. Any replacement parts required to be imported must be brought in to Pakistan by airfreight, at the CONTRACTOR's expense regardless of the amount of such costs.
- (3) **Costs of Samples:** All samples necessary for a proper execution of tests or for examination are to be supplied by the CONTRACTOR at his own expense.
- (4) **Costs of Tests.** The costs of any test are to be borne by the CONTRACTOR, if such test is clearly intended from the Specifications or the Technical Conditions, or if it is self-evident according to general practice. Test loadings at site, of piles or of fully or partially completed structures will be paid for as per the relevant items, if foreseen in the individual Bills of Quantities or as ordered by the ENGINEER.
- (5) **Costs of Tests not Provided for:** If the CONTRACTOR is instructed by the ENGINEER, in concurrency with the PQA, for any reason whatsoever, to carry out tests which bear no direct connection to the WORKS, the costs of these tests, for which special written orders will then be given, are to be borne by the PQA.
 - (a) If in the opinion of the ENGINEER, independent tests through a neutral party outside the Site or the place of manufacture or fabrication, are required in the interest of the WORKS, the costs of such tests are to be borne by the CONTRACTOR. Should the necessity of such an investigation appear doubtful to the ENGINEER under the CONTRACT, the costs of the test are to be borne by the CONTRACTOR, should the results of the test indicate that the works or materials do not meet the provisions of the CONTRACT or the instructions of the ENGINEER; otherwise such test shall be paid for by the PQA.

34. ACCESS TO SITE

The ENGINEER and any person authorized by him, shall at all times have access to the WORKS and to the Site and to all workshops and places where work is being prepared or where materials, manufactured articles, or machinery are being obtained for the WORKS. The CONTRACTOR shall afford every facility for and every assistance in or in obtaining the right to such an access.

35. EXAMINATION OF WORK BEFORE COVERING UP

- (1) No Work shall be covered up or put out of view without the Approval of the ENGINEER. The CONTRACTOR shall afford full opportunity for the ENGINEER to examine any work or member thereof before covering up and so far as necessary, to measure same. The CONTRACTOR must in any case give the ENGINEER due notice, whenever such works are ready or about to be ready for examination, and the ENGINEER shall without unreasonable delay, unless he considers it unnecessary and advises the CONTRACTOR accordingly, attend for the purpose of examining and measuring such work or foundation.
- (2) Uncovering and Making Openings: The CONTRACTOR shall uncover any part or parts of the WORKS or make openings in or through the same as the ENGINEER may from time to time direct and shall reinstate and make good such part or parts to the satisfaction of the ENGINEER. If any such part or parts have been covered up or put out of view after compliance with the requirements of paragraph (1) of this section, and are found to have been executed in accordance with the CONTRACT, the expenses of uncovering, making openings in or through reinstating and making good the same, shall be borne by the PQA, but in any other case, all such expenses shall be borne by the CONTRACTOR, and shall be recoverable from him by the PQA or may be deducted by the PQA from any monies due or which may become due to the CONTRACTOR.

36. REMOVAL OF WORKS AND MATERIALS, WHICH DO NOT COMPLY WITH THE CONTRACT

- (1) The ENGINEER shall have the power during the progress of the WORKS, to order in writing from time to time.
 - (a) the removal of any materials or equipment from the Site, within such time as may be specified in the order, when in the opinion of the ENGINEER, they are not in accordance with the CONTRACT;
 - (b) the substitution of proper and suitable materials (vide Clause 33. Paragraph (2)), and
 - (c) the removal and proper re-execution (notwithstanding any previous test thereof or interim payment therefor) of any work, which in respect of materials or workmanship is not in the opinion of the ENGINEER in accordance with the CONTRACT.
- (2) Default of CONTRACTOR: In case of default on the part of the CONTRACTOR in carrying out such order the PQA shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental thereto shall be borne by the CONTRACTOR and shall be recoverable from him by

36. (2) cont'd.

the PQA or may be deducted by the PQA from any monies due or which may become due to the CONTRACTOR.

37. SUSPENSION OF THE WORKS

- (1) The CONTRACTOR shall on the written order of the ENGINEER suspend the progress of the WORKS or any part thereof for so long and in such a manner as the ENGINEER, in concurrence with the PQA, considers necessary: He shall also during such a partial or total suspension, secure and protect the WORKS to the extent as required under the CONTRACT.
- (a) Any additional claims of the CONTRACTOR are excluded for a period or consecutive periods of suspension amounting in all up to 25 calendar days. This duration is extended to 60 calendar days if suspension of only parts of the WORKS occur, so that the CONTRACTOR through pertinent rearrangements on the remaining part of the WORKS, can continue his work. If the applicable periods are exceeded, the PQA will bear the additional costs, inclusive of all running wages and salaries incurred at Site, depreciation and maintenance of plant, Site on-costs and general overhead costs of the CONTRACTOR during the period or consecutive periods in which the suspension exceeds the aforesaid limits of 25 or 60 calendar days, unless such suspension is
- otherwise provided for in the CONTRACT, or
 - necessary for the proper execution of the work for any reason whatsoever or by reason of weather conditions affecting the safety or quality of the WORKS or by some default on the part of the CONTRACTOR, or
 - necessary for the safety of the WORKS or any part thereof.
- (b) A prerequisite for the CONTRACTOR's claim for compensation of additional costs is, that he informs the ENGINEER in writing, within 30 days after receipt of the directive of the ENGINEER, of his intention to file claims. The ENGINEER will assess and recommend the extra payment (if any) to be made to the CONTRACTOR in respect of any claim, which in the opinion of the ENGINEER is fair and reasonable. The ENGINEER's recommendation would be subject to the consideration and Approval of the PQA.
- (c) In case a suspension of the WORKS will result in additional costs for the PQA, the CONTRACTOR is obligated to keep these extra costs as low as possible through pertinent arrangements at the Site. The ENGINEER will not accept any additional claims from the CONTRACTOR, which could have been avoided with reasonable and more practicable arrangements by the CONTRACTOR.

37. (1) cont'd.

- (d) If a particular situation may require, after pertinent consideration by the ENGINEER, in concurrence with the PQA, that a suspension for a part or the whole of the WORK will extend beyond the period or consecutive period of 25 days or 60 calendar days, the ENGINEER shall have the right in concurrence with the PQA, to shorten the WORKS in accordance with Clause 47. The PQA further shall have the right to cancel the CONTRACT in total, or for definite works or parts thereof. The provisions under Clause 56 are valid under such circumstances, as far as applicable.
- (2) Suspension Lasting More Than 90 Days: If on the written order of the ENGINEER (in this paragraph referred to as a "Suspension Order"), the progress of the whole WORKS shall be suspended for a period or consecutive periods amounting in all to 90 calendar days, or if the ENGINEER having previously issued a Suspension Order for a period which has lasted less than 90 calendar days, shall within less than 90 calendar days from the expiration of that period of suspension issue a further Suspension Order, the CONTRACTOR may serve a written notice on the ENGINEER requiring permission within 28 calendar days from the receipt thereof to proceed with the WORKS or a part thereof. If such permission to proceed is not granted within that time, the CONTRACTOR by a further written notice so served, may elect to treat the suspension where it affects only a part of the WORKS as an omission of such part under Clause 47 of these Conditions, or where it affects the whole WORKS as an abandonment of the CONTRACT by the PQA.
- (3) Suspensions of the whole WORKS or parts thereof, provided the latter affect the maintaining of the contractual completion date, shall entitle the CONTRACTOR to claim an extension of the completion date, which extension is to be determined in accordance with Clause 41 and subject to the Approval of the ENGINEER, in concurrence with the PQA.

38. COMMENCEMENT OF THE WORKS

The CONTRACTOR shall commence the WORKS on the Site within 30 calendar days after signing Agreement. He must proceed with the same with due expedition and without delay except as may be expressly sanctioned or ordered by the ENGINEER or be wholly beyond the CONTRACTOR's control.

39. POSSESSION OF THE SITE

- (1) The respective areas of the Site designated in the Drawings will be turned over to the CONTRACTOR in the determined sequence according to the CONTRACT, and/or in accordance with the CONTRACTOR's proposals for execution of the WORKS as approved by the ENGINEER. The PQA will carry out this handing over each

39. (1) cont'd.

time after receipt of the CONTRACTOR's application approved by the ENGINEER.

- (a) At the commencement of the CONTRACT, the CONTRACTOR will be handed over by the PQA an adequately large part of the Site, which takes his requirements into account, enabling him to commence the WORKS and to proceed with the programme referred to in Clause 13. Such part will include suitable and adequate areas for the setting up of storage and working places as well as for the erection of sheds, storage rooms, offices etc., and the access to the Site area within the PQA premises and will be placed at the CONTRACTOR's disposal without charge.
 - (b) Further areas required by the CONTRACTOR outside the premises of the PQA must be procured by him at his own expense.
- (2) The CONTRACTOR must erect and maintain at his own expense, all necessary first-aid and sanitary facilities, as well as any other buildings necessary for reasonable accommodation of his workers and other persons. All canteens, camps working and storage areas, including the temporary ones, shall be constantly kept in a good and hygienic condition. The PQA reserves the right to check the provision and maintenance of the sanitary facilities by health officials, and if necessary, to have the ENGINEER issue pertinent instructions. The CONTRACTOR shall immediately comply with these instructions without any right to additional compensation.
 - (3) The CONTRACTOR shall bear all expenses and charges for special or temporary way leaves required by him in connection with access to the Site. The CONTRACTOR shall also provide at his own cost any additional accommodation outside the Site required by him for the purposes of the WORKS.

40. TIME FOR COMPLETION

- (1) Subject to any requirement in the CONTRACT as to the completion of any portion of the WORK before completion of the whole, the WORK shall, if not otherwise agreed upon under the CONTRACT, be completed within the time stipulated under Part 4, Particular Conditions of the CONTRACT.
- (2) The Time(s) stipulated shall be calculated from the day the Form of Agreement is signed.

41. EXTENSION OF TIME FOR COMPLETION

Should the amount of extra or additional work of any kind, or any other special circumstances due to suspension of the WORKS (vide Clause 37.) or due to excepted risks (vide Clause 17) be such as

41. cont'd.

fairly to entitle the CONTRACTOR to an extension of time for the completion of the WORKS, the ENGINEER shall determine the amount of such extension. Provided that the ENGINEER is not bound to take into account any extra or additional work or other special circumstances unless the CONTRACTOR has, within 28 days after such work has been commenced or such circumstances have arisen or as soon thereafter as is practicable, delivered to the ENGINEER full and detailed particulars of any claim to extension time to which he may consider himself entitled, in order that such claim may be investigated at the time. The ENGINEER's Approval for an extension of the completion date does not entitle the CONTRACTOR to any financial claims whatsoever on the PQA, apart from the specially named cases, of longer suspensions of the WORKS referred to under Clause 37 and of excepted risks as defined in Clause 17.(2).

42. NIGHT, SUNDAY AND HOLIDAY WORK

The CONTRACTOR may be permitted to carry out the WORKS also by double or three shift operation, if he has undertaken to provide satisfactory working conditions for this operation at the Site, and has received the Approval of the ENGINEER. Work may only be carried out on Sundays and on holidays, as they come into question for the Karachi area, with special Approval of the ENGINEER and/or the competent authorities, when such work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the WORKS, or when other extraordinary circumstances so require.

43. RATE OF PROGRESS

The Whole of the materials, equipment, plant and labour to be provided by the CONTRACTOR under Clause 5. of these Conditions and the mode, manner and speed of execution and maintenance of the WORKS, are to be of a kind and conducted in a manner to the satisfaction of the ENGINEER. Should the rate of progress of the WORKS or any part thereof be at any time, in the opinion of the ENGINEER, too slow to ensure the completion of the WORKS by the prescribed time or extended time for completion, the ENGINEER shall so notify the CONTRACTOR in writing. The CONTRACTOR shall thereupon make such arrangements, as approved by the ENGINEER, at his own expense, to expedite progress so as to complete the WORKS by the prescribed or extended time for completion. If the work is not being carried on by day and by night, and the CONTRACTOR shall request permission to work by night as well as by day, then, if the ENGINEER shall grant such permission, the CONTRACTOR shall not be entitled to any additional payment for so doing. All work at night shall be carried out without unreasonable noise and disturbance. The CONTRACTOR shall indemnify the PQA from and against any liability for damages on account of noise or other disturbance created while or in carrying out the work, and from and against all claims, demands, proceedings, costs, charges and expenses whatsoever in regard or in relation to such liability.

44. LIQUIDATED DAMAGES

(1) Amount of Liquidated Damages: If the CONTRACTOR fails to complete the WORKS within the time prescribed in Part 4, Particular Conditions of the Contract, or within the extended times, he shall pay to the PQA as liquidated damages for such default and not as a penalty, the sum(s) of money designated under Part 4, Particular Conditions of the CONTRACT, for every calendar day or part thereof which shall elapse between the prescribed time of completion(s) of the CONTRACT, or the extended time as the case may be, and the actual date(s) of completion.

(a) Said money shall be divided into local and foreign currency according to their proportion established in the Price of the CONTRACT.

(b) The PQA may without prejudice to any other method of recovery deduct the amount of such damages from any monies in its hand due or which may become due to the CONTRACTOR. The payment or deduction of such damages shall not relieve the CONTRACTOR from his obligation to complete the WORKS, or from any other of his obligations and liabilities under the CONTRACT.

45. CERTIFICATE OF COMPLETION OF WORKS

As soon as in the opinion of the ENGINEER, the WORKS shall have been substantially completed, and shall have satisfactorily passed any final test that may be prescribed by the CONTRACT, the ENGINEER shall issue a Certificate of Completion (also named "Final Acceptance Certificate" elsewhere in the CONTRACT) with the concurrence of PQA, in respect of the WORKS.

46. INVESTIGATION INTO CAUSE OF DEFECTS

If during the execution of the WORKS and also during the Period of Maintenance facts become recognisable which call attention to existing short-comings or defects, or which may cause any future deficiency or damage to the WORKS or any part thereof, the CONTRACTOR shall, if required by the ENGINEER in writing, investigate and determine and source of danger or the cause of any defect, imperfection of fault under the directions of the ENGINEER. The CONTRACTOR will be responsible to pay for all expenses required to carry out such investigations in addition to the costs for rectification of defects, if any, as required under the relevant clauses of the CONTRACT, unless it is established and confirmed in writing by the ENGINEER with concurrence of the PQA that the CONTRACTOR is not liable for such damages or defects under the CONTRACT. In the latter event PQA will reimburse such costs without prejudice to other terms and Conditions of the CONTRACT.

47. ALTERATIONS, ADDITIONS AND OMISSIONS

- (1) Variations: The ENGINEER, in concurrence with the PQA can order any variation of the form, quality or quantity of the WORKS or any part thereof, that may in his opinion be necessary. For that purpose, or if appears desirable to the ENGINEER, for any other reason, he shall have the power, in concurrence with the PQA, to issue the following binding directives:
 - (a) to increase or decrease the quantity of any work included in the CONTRACT;
 - (b) to omit any such works;
 - (c) to change the character or quality or kind of any such work;
 - (d) to change the levels, lines, positions and dimensions of any part of the WORKS and
 - (e) to execute additional work of any kind, in connection with or ancillary to the WORKS.
- (2) The CONTRACT and especially the unit rates are not in any way vitiated or invalidated by the aforesaid variations, but the value (if any) of all such variations shall be taken into account in ascertaining the amount of the final Price of the CONTRACT and the payments of account herefor.
- (3) Orders for Variations: No such variation shall be made by the CONTRACTOR without any order in writing of the ENGINEER. However, no order in writing shall be required for increase or decrease in the quantities of any work, where such increase or decrease is not the result of an order under this clause given by the ENGINEER, but is the result of the quantities exceeding or being less than those stated in the individual Bills of Quantities. The CONTRACTOR shall also comply with verbal directives, if the ENGINEER considers it advisable to do so, for any reason. The written confirmation of any order verbally given by the ENGINEER either before or after carrying out of the order, shall be deemed as a written directive within the means of this clause. If the CONTRACTOR shall confirm in writing to the ENGINEER any verbal order of the ENGINEER and such confirmation shall not be contradicted by the ENGINEER within a period of three weeks, after the receipt of such a letter, it shall be deemed to be an order in writing by the ENGINEER.

48. VALUATION OF VARIATIONS, DAYWORK AND CLAIMS

- (1) Unit Rates for Extra Work: The ENGINEER with concurrence of the PQA shall determine the amount (if any), which in his opinion should be added to or deducted from the Price of the CONTRACT,

48. (1) cont'd.

in respect of any extra or additional work done or work omitted by his order. All such work shall be valued at the unit rates set out in the CONTRACT, if in the opinion of the ENGINEER the same shall be applicable. If the CONTRACT shall not contain any unit rates applicable to the extra or additional work, then suitable prices and variation orders shall be agreed upon between the PQA and the CONTRACTOR.

- (a) Power of ENGINEER: In the event of disagreement, the ENGINEER shall fix such prices as shall in his opinion be reasonable and proper.
- (b) BOQ Rates: The rates and prices in the Bill of Quantities shall be deemed to consist of procurement, supply and incorporation of materials in the WORKS, including but not limited to the following costs.
- Material cost, i.e. C&F Karachi, if material to be imported.
 - CONTRACTOR's overheads, risk and profit in connection with the supply, as surcharge to material cost as stated above.
 - Insurance, all taxes, import duties and the like
 - All landing, clearance and transport costs in Pakistan, as well as all expenditures for handling, storage and incorporation of the materials into the permanent WORKS at Site, etc., inclusive of all appertaining plant and labour/staff costs, as well as of other Site overheads, risk and profit.
- (c) Material Supply: In case any Material deviating from the Specifications and the individual Bills of Quantities must be delivered on instruction of the ENGINEER, the CONTRACTOR will be paid for the above cost items as follows, under variation order:
- as per actual costs;
 - as contained in comparable items of the individual Bills of Quantities, or if not existing as approved by the ENGINEER and agreed upon by PQA.
- (d) All payments will be made in foreign currencies,
- (2) Notifications: A change of the Price of the CONTRACT under Paragraph (1) of this clause or an adjustment of the final Price of the CONTRACT in accordance with Paragraph (2) shall only then take place, if as soon after the date of signing of the CONTRACT, as is practicable and in the case of extra or additional work, before the commencement of the work or as soon thereafter as is practicable, the following notice shall have been given in writing:

48. (2) cont'd.

- (a) by the CONTRACTOR to the ENGINEER of his intention to claim extra payment or an adjustment of the final Price of the CONTRACT, or
 - (b) by the ENGINEER to the CONTRACTOR of his intention to issue a variation order as per Paragraph (1), or to adjust the final Price of the CONTRACT in accordance with Paragraph (2).
- (3) Claims: The CONTRACTOR shall send to the ENGINEER once a month, an account giving particulars (as full and detailed as possible) of all claims for any additional expense to which the CONTRACTOR may consider himself entitled and of all extra or additional work, inclusive of the daywork ordered by the ENGINEER, which he has executed during the preceeding month. No claim for payment for any such work will be considered which has not been included in such particulars.
- (a) The CONTRACTOR shall not be entitled to demand payment of interest on any claims, for the period before the claim has been approved by the ENGINEER and sanctioned by the PQA.

49. PLANT, TEMPORARY WORKS AND MATERIALS

- (1) All Constructional Plant, Temporary Works and materials provided by the CONTRACTOR shall, when brought on to the Site, be deemed to be exclusively intended for the construction and completion of the WORKS and the CONTRACTOR shall not remove the same or any part thereof, save for the purpose of moving it from one part of the Site to another, without the consent in writing of the ENGINEER which shall not be unreasonably withheld.
- (2) The PQA shall not at any time be liable for the loss of or injury to any of the said Constructional Plant, Temporary Works or materials save as mentioned in Clauses 17 and 56 hereof.
- (3) Should the CONTRACTOR neglect, after completion of the WORKS, to remove any of the aforesaid Constructional Plant, Temporary Works or unused materials, within a reasonable period approved by the ENGINEER, the PQA may sell the same. It will then, after deduction of the costs, dues and expenditures, pay the CONTRACTOR the balance from the proceeds of the sale (if available).
- (4) Liability for Damage: The PQA shall not at any time be liable for the loss or damage to any of the Constructional Plant, Temporary Works or materials available at the Site (except according to Clauses 17 and 56) or when the Constructional Plant, Temporary Works or materials have been outside the Site during such loss or damage.

49. cont'd.

- (5) **Customs Clearance:** Although the PQA shall be named as consignee for all imported materials, which become a part of the permanent structures, all import formalities, duties and charges for any imported materials, equipment, Constructional Plant and Temporary Works are to be arranged and/or to be paid for by the CONTRACTOR.
- (a) The amount of the customs duty will correspond to the rate in force at the time of the import into Pakistan and must be paid in the full amount by the CONTRACTOR at the time. The customs authorities will require a proforma invoice, which contains the costs and freight rates of each shipment, so that the correct import duty can be determined.
- (b) The CONTRACTOR must also arrange for all import duty approvals and pay all required incidental customs costs. If the CONTRACTOR requests any assistance from the PQA, the PQA will only give recommendations to the competent authority.
- (6) **Report On Import Articles:** The Contractor shall supply the PQA and the ENGINEER with receipts for all articles imported by the CONTRACTOR under the CONTRACT, in order to register each individual shipment received at the Site. Each shipment shall be carefully checked on its arrival at the Site, by the CONTRACTOR in the presence of the ENGINEER.
- (7) **Unloading and Storage:** The CONTRACTOR shall carefully unload at the Site all Constructional Plant, Temporary Works, materials, equipment item etc., and place or stack them in a proper manner in areas approved by the ENGINEER. Everything must be so protected, that damage and inconvenience to others are avoided as much as possible. The storage shall be such, that inspections can be easily carried out. All packing, ship containers, planks, coverings and the like remain or become the property of the CONTRACTOR even those containing plant, equipment or materials to be permanently installed in the Work and to be removed by him from the site.
- (8) **Right of Refusal:** The PQA has the right of first refusal to buy all Constructional Plant, materials etc., which will be sold by the CONTRACTOR in Pakistan on completion of the WORKS.
- (9) **Re-Export:** The CONTRACTOR shall procure the necessary information himself regarding the regulations for reexport of his Constructional Plant and unused materials, according to which the customs duties paid by the CONTRACTOR may be reimbursed to him to a certain amount by the customs authorities or the competent ministry. The CONTRACTOR shall check all such regulations and convince himself of their applicability. Special approvals, deviating from these regulations, are not possible. The PQA will not undertake any action in this respect, even if requested by the CONTRACTOR.

50. NO TACIT APPROVAL OF MATERIALS, ETC.

The application of Clause 49 does not mean the tacit Approval of the therein mentioned materials etc. by the ENGINEER, and does not exclude the rejection of the materials at any time by the ENGINEER.

51. METHOD OF MEASUREMENT

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

52. SUB-CONTRACTORS

- (1) The engagement of any sub-contractors as well as their scope of work and extent of performances as stated in APPENDIX "E" to the Form of Tender, Part 2, requires the Approval of the ENGINEER, which will be accorded only in concurrence with the PQA. The contract, which the CONTRACTOR enters into with a sub-contractor, regarding the respective works or supplies, shall be deemed to contain the same conditions and obligations as placed on the CONTRACTOR by the PQA under the CONTRACT.
- (2) The contract, which the CONTRACTOR concludes with any sub-contractor, does not produce any contractual connection of such sub-contractor with the PQA whatsoever.

53. CERTIFICATES AND PAYMENTS

- (1) Advance Payment: Should the CONTRACTOR so desire, the PQA will effect certain advance payments to him after the signing of the Form of Agreement, (Refer to Particular Conditions of the CONTRACT for percentage of CONTRACT price allowable). According to the request of the CONTRACTOR, this advance payments will be effected partially Pak.Rs. and partially in Foreign Currency. A prerequisite for these payments is the submission of guarantees from a first-class bank registered in Pakistan and approved by the PQA. If and when requested by the CONTRACTOR shall supply pertinent vouchers, such as Invoices, shipping documents etc., showing that the advance payments are used only for this CONTRACT.
 - (a) Each guarantee will be returned to the bank, after the respective advance payment has been withheld from the running bills, and thus the advance discharged.

53. cont'd.

- (2) Monthly Payments: The settlement and payment of each supply and/or performance as per the individual Bills of Quantities can be undertaken only monthly after preliminary acceptance of the pertinent part of the WORKS, provided that the total payable amount of the bill is at least Pak.Rs. 200,000.
- (a) Basically, all monthly payments will be effected only according to the contractually agreed upon unit rates of the individual Bills of Quantities.
 - (b) When the measurement sheets and settlement of account drawings have been preliminarily approved by the ENGINEER, the CONTRACTOR may prepare draft bills in quadruplicate. The outline form of these billers has to be approved by the PQA and the ENGINEER. After preliminary checking by the ENGINEER the CONTRACTOR shall submit his final bills for any part of the WORKS, to the Site office of the ENGINEER in seven copies, together with the required measurement sheets, drawings and other vouchers. All bills will be finally checked in detail by the ENGINEER's Site Office and forwarded to the PQA in triplicate.
 - (c) After their own additional check, the PQA will release the bill for payment.
 - (d) With the above procedure the monthly bills of the CONTRACTOR will be paid to the account of the CONTRACTOR within 4 weeks after submission of such final bills to the ENGINEER, provided they are correct and in order. If errors exist in the bills, the process will be correspondingly delayed.
 - (e) Monthly payments will be made after deduction of the advance or interim payments, the retention money and like, as follows:
 - Deduction of any advance payment in Foreign Currency as per Paragraph (1) of this clause, at 20% of the total amount of the running bill. Such deduction will be continued till all advances are full settled.
 - As Retention Money, the ENGINEER will make deductions from the first and the following monthly bills of the CONTRACTOR at 10% of the otherwise payable sums in Foreign Currency, until the total of such deductions amounts of 5% of the Price of the CONTRACT at the time when signing the Agreement of CONTRACT.
 - Advance income tax deduction where applicable of 3% of the net bill amounts in accordance with Rule No. 50, under sub-section (3BB) of section 18 of the Income Tax Act 1922 or similar such rules enacted by the GOVERNMENT from time to time during the duration of the CONTRACT. These deductions shall however be deposited in the

53. (2)(e) cont'd.

GOVERNMENT treasury by PQA on behalf of the CONTRACTOR.

- Eventual deductions from the amounts of the bills, which result from Paragraph (3) of this Clause.

(3) Withholding Payments:

(a) The PQA may withhold the whole or a part of any payment requested by the CONTRACTOR, if it is necessary in the opinion of the PQA to protect itself against losses on the basis of the following reasons:

- Defective work not rectified.
- Non-fulfillment of any demanded and due guarantee.
- Claims of third parties raised against the PQA, caused through the fault of the CONTRACTOR in connection with the WORKS.
- Damages, caused by the CONTRACTOR or his personnel or any sub-contractor, to the PQA, or to another contractor working on the Site, or to a third party on the Site.
- Non-fulfillment of the CONTRACT by the CONTRACTOR.

(b) After the reasons for withholding of payments have been eliminated to the satisfaction of the PQA and the ENGINEER, payments to the CONTRACTOR will be undertaken by the PQA without delay.

(4) Deductions: All costs, damages or expenses disbursed by the PQA, for which the CONTRACTOR is responsible under this CONTRACT, may be deducted by the PQA from any payments due to the CONTRACTOR, or to become due.

(5) Corrections and Retentions: The ENGINEER may introduce any corrections or changes in the certificate issued by him at an earlier date, and is empowered to retain any certificate, if the WORKS, or any part thereof, have not been executed to his satisfaction.

(6) Final Payment Documents:

(a) The CONTRACTOR shall submit the following documents to the PQA, certified by the ENGINEER, before receiving the final payments:

- Completion Certificate (Final Acceptance Certificate) for the whole of the WORKS issued by the ENGINEER, which shall automatically signify the complete handing over of all parts of the WORKS, under the CONTRACT, from the CONTRACTOR to the PQA.

53. (6)(a) cont'd.

- An affidavit by the CONTRACTOR, that the WORKS, have been executed according to first rate standard and have no concealed defects known to him.
 - Certificate of agreement with all measures and decisions taken by the PQA the ENGINEER and their representatives in the course of and in connection with the WORKS and the execution of the CONTRACT.
 - Release from lien, according to which, there is no lien from him or from a third-party, on any delivery or performance of the CONTRACTOR, in connection with the CONTRACT.
- (b) The final payment will be made after all the above documents and the final bill of the CONTRACT have been approved by the ENGINEER in concurrence with the PQA.
- (7) None Responsibility of ENGINEER: Nothing following from the CONTRACT, shall place any responsibility on the ENGINEER, for any payments to the CONTRACTOR for or with regard to the WORKS or in respect to his fulfillment of any other obligations under the CONTRACT.
- (8) Repayment of the Retention Money:
- (a) The PQA will withhold the retention money in full till the issuing of the Completion Certificate (Final Acceptance Certificate) for the whole of the works.
 - (b) If, under the CONTRACT a Period of Maintenance is required, portions of the retention money will be withheld by the PQA per specified amounts listed in Part 4, Particular Conditions of the CONTRACT.
 - (c) In case the Engineer certifies in writing that any part of the Retention Money devolves upon or belongs to the PQA due to non-fulfillment of the CONTRACT by the CONTRACTOR, the so certified sum shall be deducted from the payments to be effected under the conditions of this clause.

54. FORFEITURE

- (1) If the CONTRACTOR shall become bankrupt or have a receiving order made against him or shall present his petition in bankruptcy, or shall make an arrangement with or assignment in favour of his creditors, or shall agree to carry out the CONTRACT under a committee of inspection of his creditors, or (being a corporation) shall go into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or if the CONTRACTOR shall assign the CONTRACT without the written consent of the PQA first obtained, or shall have an execution levied on his goods, or if the ENGINEER shall certify

54. (1) cont'd.

in writing to the PQA that in his opinion, the CONTRACTOR:

- (a) has abandoned the CONTRACT, or
- (b) without reasonable excuse has failed to commence the WORKS or has suspended the progress of the WORKS for 28 days after receiving from the ENGINEER written notice to proceed, or
- (c) has failed to remove materials from the Site or to pull down and replace work for 28 days after receiving from the ENGINEER written notice that the said materials or work had been condemned and rejected by the ENGINEER under these conditions, or
- (d) is not executing the WORKS in accordance with the CONTRACT, or is persistently or flagrantly neglecting to carry out his obligations under the CONTRACT, or
- (e) has to the detriment of good workmanship or defiance of the ENGINEER's instructions to the contrary, sub-let any part of the CONTRACT, or
- (f) is not meeting the time schedule of the CONTRACT with his work progress, and is either not willing or not able to exert greater efforts with regard to the progress of the WORKS, or
- (g) violates the laws of the Islamic Republic of Pakistan,

then the PQA may, after giving 14 days' notice in writing to the CONTRACTOR, enter upon the Site and the WORKS and expel the CONTRACTOR therefrom without thereby avoiding the CONTRACT or releasing the CONTRACTOR from any of his obligations or liabilities under the CONTRACT or affecting the rights and powers conferred on the PQA or the ENGINEER by the CONTRACT. The PQA can then redeem the Performance Bond, complete the WORKS itself or engage another Contractor for the purpose of completing the WORKS. The PQA or such other Contractor may use for such completion so much of the Constructional Plant, the Temporary Works and materials, which have been deemed to be reserved exclusively for the construction and completion of the WORKS under the provisions of the CONTRACT, as they may think proper. The PQA may at any time sell any of the said Constructional Plant, Temporary Works and unused materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to him from the CONTRACTOR under the CONTRACT.

- (2) The Forfeiture of the CONTRACT becomes invalid, if the CONTRACTOR, within 10 days after receipt of the notice of forfeiture, eliminates the causes which have evoked the forfeiture. In this case, the CONTRACTOR may continue the WORKS after Approval of the ENGINEER.

54. cont'd.

- (3) Determination of Compensation: The ENGINEER shall, as soon as may be practicable after any such entry and expulsion by the PQA, fix and determine ex parte or by or after reference to the parties of the CONTRACT, or after such investigation or enquiries as he may think fit to make or institute, and shall certify what amount (if any) had at the time of such entry and expulsion been reasonably earned by the CONTRACTOR. This sums contain:
- (a) The settlement of accounts of the completed parts of the WORKS under the CONTRACT.
 - (b) A particla amount of the Site installation and clearance costs, corresponding to the executed part of the WORKS.
 - (c) The compensation for any construction materials and other materials delivered to the Site but not yet used, to the extent accepted by the PQA.
 - (d) The compensation for the preliminary work performed in the offices, workshops etc., to the extent approved by the ENGINEER.

In case of forfeiture, the CONTRACTOR has no claim to indemnification for any loss of profits.

- (4) Payment after Forfeiture: If the PQA shall enter the Site and expel the CONTRACTOR under this clause, it shall not be liable to pay the CONTRACTOR any money on account of the CONTRACT until the expiration of the Period of Maintenance and thereafter, until the costs of completion and maintenance, losses due to delay in completion (if any) and all other expenses incurred by the PQA have been ascertained and the amount thereof certified by the ENGINEER. The CONTRACTOR shall then be entitled to receive only such sum of sums (if any) as the ENGINEER may certify would have been due to him upon due completion by him after deducting the said amount. But if such amount shall exceed the sum which would have been payable to the CONTRACTOR on due completion by him after deducting the said amount. But if such amount shall exceed the sum which would have been payable to the CONTRACTOR on due completion by him then the CONTRACTOR shall, upon demand, pay to the PQA the amount of such excess. This amount shall be deemed a debt due by the CONTRACTOR to the PQA and shall be recoverable accordingly.

55. URGENT REPAIR WORK

If by reason of any accident or failure or other event occurring to or in connection with the WORKS or any part thereof, either during the execution of the WORKS or during the Period of Maintenance, any remedial or other work or repair shall in the opinion of the ENGINEER be urgently necessary for security, and the CONTRACTOR is unable or unwilling at once to do such work or repair, the PQA may

55. cont'd.

by its own or other workmen do such work or repair as the ENGINEER may consider necessary. If the work or repair so done by the PQA is work, which in the opinion of the ENGINEER the CONTRACTOR was liable to do at his own expense under the CONTRACT, all costs and charges properly incurred by the PQA in so doing shall on demand be paid by the CONTRACTOR to the PQA, or may be deducted by the PQA from any monies due or which may become due to the CONTRACTOR. Provided always, that the ENGINEER shall as soon after the occurrence of any such emergency as may be reasonably practicable, notify the CONTRACTOR thereof in writing.

56. RISK OF WAR AND SIMILAR RISKS

- (1) Continuation of Work: If during the currency of the CONTRACT there shall be an outbreak of war (whether war is declared or not) in any part of the World, or of civil War, rebellion, revolution, insurrection or usurped power in Pakistan (hereinafter referred to as "the said outbreak) which shall materially and decisively affect the execution of the WORKS, the CONTRACTOR shall for a period of 28 days reckoned from midnight on the date the said outbreak first occurs, continue so far as is physically possible to execute the WORKS in accordance with the CONTRACT.
 - (a) The CONTRACTOR will have to satisfy ENGINEER and PQA both, that as a direct impact of such an outbreak, physical execution of the WORKS is no longer possible. He will be responsible to make any temporary arrangements during such a development for looking after the Site, maintenance of his tool and plant or make any such arrangements during the interim period till such hostilities are over.
- (2) Effect of Completion of Work Within 28 Days: If at any time before the expiration of the said period of 28 days the WORKS shall have been completed, or completed so far as to be usable, all the provisions of the CONTRACT shall continue to have full force and effect, save that
 - (a) The CONTRACTOR shall, in lieu of fulfilling his obligations under Clauses 46 hereof, be entitled at his option to allow against the sum due to him under the provision of Paragraph (6), the cost (calculated at the prices ruling at the beginning of the said period of 28 days) as certified by the PQA at the expiration of the Period of Maintenance for the repair, rectification of making good of which the CONTRACTOR would have been liable under the said clauses, had they continued to be applicable.
 - (b) The PQA shall not be entitled at the expiration of the Period of Maintenance to withhold payment under Clause 53 hereof of the last portion of the Retention Money or any part thereof except such sum as may be allowable by the CONTRACTOR under the provisions of the last preceding

56. (2)(b) cont'd.

paragraph, which sum may (without prejudice to any other mode of recovery thereof), be deducted by the PQA from such last portion.

- (3) Right of PQA To Terminate CONTRACT: If the WORKS shall not have been completed as aforesaid, the PQA shall be entitled to terminate the CONTRACT (save as to the rights of the parties under this Clause and Clause 58 hereof) by giving notice in writing to the CONTRACTOR at any time after the aforesaid period of 28 days has expired and upon such notice being given, the CONTRACT shall (except as above mentioned) forthwith terminate, but without prejudice to the rights of either party in respect of any antecedent breach thereof.
- (4) Removal of Plant: If the CONTRACTOR shall be terminated under the provisions of the last preceding paragraph, the CONTRACTOR shall with all reasonable despatch remove from the Site all his Constructional Plant shall give facilities to his sub-contractors to remove similarly all Constructional Plant belonging to them, and in the event of any failure so to do the PQA shall have the like powers as are contained in Clause 53 hereof in regard to failure to remove Constructional Plant on completion of the WORKS.
- (5) Payment on Termination: If the CONTRACT shall be terminated as aforesaid, the CONTRACTOR shall be paid by the PQA (insofar as such amounts or items shall not have already been covered by payments on account made to the CONTRACTOR) for all parts of the WORKS executed prior to the date of termination at the rates and prices provided in the CONTRACT, and in addition:
 - (a) The amounts payable in respect of any preliminary items so far as the work or service comprised therein has been carried out or performed at the Site, and a proper proportion as certified by the ENGINEER of any such items, the work or service comprised in which has been partially carried out or performed at the Site.
 - (b) The cost of materials or goods reasonably ordered for the WORKS or Temporary Works which have been delivered to the Site or of those which the CONTRACTOR is legally liable to accept delivery, provided that such materials or goods will actually arrive safely at Site. All such materials or goods become the property of the PQA upon payment being made by it.
 - (c) A sum to be certified by the ENGINEER, being the amount of any expenditure reasonably incurred by the CONTRACTOR at the Site in the expectation of completing the whole of the WORKS, insofar as such expenditure shall not have been covered by the payments in this Paragraph before-mentioned.

56. (5) cont'd.

- (d) Any additional sum payable under the provisions of Paragraph (6) (b) and (c) of this clause.
- (e) The reasonable cost of removal under Paragraph (4) of this clause and (if required by the CONTRACTOR), of return thereof to the CONTRACTOR's main plant yard in his country of registration, or to any other destination, if no higher costs are incurred.
- (f) The reasonable cost of repatriation of all the CONTRACTOR's staff and workmen employed at Site on or in connection with the WORKS at the time of such termination of the CONTRACT.

The PQA is entitled to deduct from all sums it has to pay according to the foregoing, all still outstanding balance, which the CONTRACTOR owes the PQA for the reimbursement of advance payments effected by the PQA as well as for the execution of the WORKS, etc.

- (6) Outbreak of War: Whether the CONTRACT shall be terminated under the provisions of Paragraph (3) of this clause or not, the following provisions shall apply or be deemed to have applied as from the date of the said termination, notwithstanding anything expressed in or implied by the other terms of the CONTRACT, i.e.:
 - (a) The CONTRACTOR shall be under no liability whatsoever by way of indemnity or otherwise, for or in respect of damage to the permanent WORKS or parts thereof, to the Construct-
ional Plant, the Temporary Works or any materials brought on to the Site by the CONTRACTOR, for the purpose of executing the WORKS, or to property, whether of the PQA or of third parties or for, or in respect of injury or loss of life to persons which is the consequence whether direct or indirect of war hostilities (whether war has been declared or not), invasion, act of the State's enemies, civil war, rebellion or revolution, and the PQA shall indemnify the CONTRACTOR against all such liabilities and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising thereout or in connection therewith.
 - (b) If the permanent WORKS or parts thereof, or the Construct-
ional Plant or the Temporary Works or any materials on the Site (whether for the former or the latter) shall sustain destruction or any damage by reason of any of the causes mentioned in the last preceding paragraph, the CON-
TRACTOR shall nevertheless be entitled to payment for any such items so destroyed or damaged, and the CONTRACTOR shall be entitled to be paid by the PQA the cost of making good any such destruction or damage whether to permanent parts of the WORKS or to Temporary Works so far as may be required by the ENGINEER or as may be necessary for the completion of the WORKS, on a prime cost basis plus such

56 (6)(b) cont'd.

profit as the ENGINEER may certify to be reasonable. Costs incurred to the CONTRACTOR due to interruptions of construction works will also be reimbursed, to the extent as certified by the ENGINEER and/or the PQA.

- (c) Damage or injury caused by the explosion whenever occurring, of any mine, bomb, shell, grenade or other projectile, missile or munition and whether occurring before or after the cessation of hostilities shall be deemed to be the consequence of any of the events mentioned in Paragraph 6 (a) of this clause.

57. PAYMENT IN EVENT OF FRUSTRATION

- (1) In the event of the CONTRACT being frustrated, i.e. if the performance of the CONTRACT becomes physically and/or legally impossible, whether by war or otherwise, the sum payable by the PQA to the CONTRACTOR in respect of the work executed, shall be the same as that which would have been payable under Clause 56 hereof, if the CONTRACT had been terminated under the provisions of Clause 56 hereof.
- (2) Any increase whatsoever in the rates of materials, labour charges or other overheads expenses or revaluation or devaluation of the Pakistani or any other currency of currencies or any surmountable difficulty encountered during the execution of the WORKS shall not be considered as a ground for frustrating this CONTRACT.

58. LEGAL BASES, SETTLEMENT OF DISPUTES

- (1) Pakistani Contract: The CONTRACT shall be and be deemed to be Pakistani contract and shall accordingly be governed by and construed according to the laws for the time being in force in Pakistan. Should any or more conditions of the CONTRACT be lacking in legal effectiveness on account of ambiguity or for any other reason whatsoever, the same shall not impair the validity of any other conditions or of the CONTRACT as a whole.
- (a) The Pakistani Courts shall have exclusive jurisdiction to hear and determine all actions and proceedings arising out of the CONTRACT, and the CONTRACTOR hereby submits to the jurisdiction of the Pakistani Courts for the purpose of any such actions and proceedings.
- (2) Settlement of Disputes: If any dispute or difference of any kind whatsoever arise between the PQA or the ENGINEER and the CONTRACTOR in connection with or arising out of the CONTRACT or the carrying out of the WORKS (whether during the progress of the WORKS or after their completion and whether before or after the termination, abandonment or breach of the CONTRACT),

58. (2) cont'd.

it shall in the first place be referred to and settled by the ENGINEER, who within a period of 90 days after being requested to do so, shall give written notice of his decision to the CONTRACTOR.

- (a) Save as hereinafter provided, such decision in respect of every matter so referred shall be final and binding upon the CONTRACTOR until the completion of the WORKS and shall forthwith be given effect to by the CONTRACTOR, who shall proceed with the WORKS with all due diligence, whether he requires arbitration as hereinafter provided or not.
- (b) If the ENGINEER has given written notice of his decision to the CONTRACTOR and no claim to arbitration has been communicated to him by the CONTRACTOR within a period of 90 days from receipt of such notice, the said decision shall remain final and binding upon the CONTRACTOR.
- (c) If the ENGINEER shall fail to give notice of his decision as aforesaid within a period of 90 days after being requested as aforesaid, or if the CONTRACTOR should be dissatisfied with any such decision, then the CONTRACTOR may within 90 days after receiving notice of such decision, or within 90 days after the expiration of the first named period of 90 days (as the case may be) require that the matters in dispute be referred to arbitration as hereinafter provided.
- (d) This court of arbitration will be carried out according to the Arbitration Act 1940. It will be held in Karachi in any case. The point at issue will thereby be submitted to two arbitrators, of whom one will be nominated by the PQA and the other by the CONTRACTOR, or in case both arbitrators cannot agree, turned over to an umpire named by the arbitrators. The decision of the arbitrators or the umpire shall be final and binding for both parties, the PQA and the CONTRACTOR.
- (e) Each such arbitrators' /umpire's award must conform to the legal decrees and provisions, which are applicable for courts of arbitration, and which are in force in Pakistan at that time. The valuation of the costs in connection with the reference or the award shall devolve on the arbitrators, or should they be unable to agree, on the umpire named by them.
- (f) All disputes and differences, for which the eventual decision of the ENGINEER is not, as aforesaid, final and binding, shall be finally settled by the arbitrators/umpires named under this provision.

58. (2) cont'd.

- (g) The said arbitrators/umpires shall have full power to open up, review and revise any decision, opinion, direction, certificate or valuation of the ENGINEER. Neither party shall be limited in the proceedings before such courts of arbitration, to the evidence or arguments put before the ENGINEER for the purpose of obtaining his said decision.
- (h) No decision given by the ENGINEER in accordance with the foregoing provisions, shall disqualify him from being called as a witness and giving evidence before the court of arbitration on any matter whatsoever relevant to the dispute or difference referred to the court of arbitration as aforesaid.
- (i) The arbitrators/umpires shall not enter on the reference, until after the completion or alleged completion of the WORKS, unless with the written consent of the PQA and the CONTRACTOR, provided always
 - that such reference may be opened before such completion or a alleged completion in respect of the withholding by the ENGINEER of any certificate, or the withholding of any portion of the Retention Money to which the CONTRACTOR claims in accordance with Conditions set out in this CONTRACT to be entitled, or in respect of the exercise of the ENGINEER's power to give a certificate under Clause 54 (1) of these Conditions.
 - that the giving of a Certificate of Completion under Clause 45 hereof shall not be a condition precedent to the opening of any such reference.
- (j) Work under this CONTRACT, which has nothing to do with such a dispute, question or difference, shall be continued without any delay during the court of arbitration. The same is valid for the disputed portion of the WORKS, insofar as the dispute does not extend to essential questions of the technical solution to be selected.

59. LEGAL NOTICES

- (1) Service of Notice on CONTRACTOR: Any notice to be given to the CONTRACTOR under the terms of the CONTRACT shall be served, by sending the same to the CONTRACTOR's head office as well as to his local site office by registered air mail, or to leave it at the head office and the local site office against receipt.
- (2) Service of Notice on PQA: Any notice to be given to the PQA by the CONTRACTOR under the terms of the CONTRACT is to be sent to him by post (as in Paragraph (1)), or to be left against receipt. The site office of the ENGINEER, shall receive a copy.

* * * * *

PARTICULAR CONDITIONS OF THE CONTRACT

1. The Particular Conditions of the CONTRACT supplements Parts 3, General Conditions of the CONTRACT; and refer to particular conditions and requirements of this specific CONTRACT and add, delete or modify specific clauses of, or add new Clauses to, the General Conditions of the CONTRACT.

- (1) The General Conditions of the CONTRACT is hereinafter referred to as "G. C."

2. PERFORMANCE BOND

- (1) Refer to G. C. Clause 9 (2),

- (2) Amount of Performance Bond shall be 5% of the Price of the CONTRACT at the time of signing the Form of Agreement.

3. TIME OF COMPLETION

- (1) Refer to G. C. 40.

- (2) The WORKS shall, if not otherwise agreed upon under the CONTRACT, be complete within

4. LIQUIDATED DAMAGES

- (1) Refer to G.C. Clause 44 (1)

- (2) Liquidated Damages for late completions of the total WORKS shall be:

Pk. Rs. 6,000 per calender day up to a maximum of 10% of the final CONTRACT Price.

5. ADVANCE PAYMENT

- (1) Refer to G.C. Clause 53 (1)

- (2) Should the CONTRACTOR so desire, the PQA will effect certain advance payments to him, after the signing of the Form of Agreement, up to a maximum of 10% of the Price of the CONTRACT.

FORM OF AGREEMENT

This Agreement, made the day of
..... Nineteen Hundred
between the Board of the PORE QASIM AUTHORITY hereinafter
called the PQA, (which expression shall wherever the context so admits
or requires be deemed to include their successors) on the one part, and
..... of
..... hereinafter called the CONTRACTOR (which expres-
sion shall wherever the context so admits or requires be deemed to
include their Executors, Administrator, Successors and permitted
Assignees) on the other part.

Whereas the PQA is desirous to procure a lighted buoy system for and
has accepted OK as it is Tender of the CONTRACTOR for the construction
and completion of such WORKS ready for installation by PQA.

And Whereas the CONTRACTOR has already deposited with the PQA the sum of
Pak. Rs.
and has given to the PQA a lien on such sum as security for the due
fulfillment of the CONTRACT. Now this Agreement Witnesseth as follow:

1. In this Agreement, words and expressions shall have the same meanings
as are respectively assigned to them in the General Conditions of
CONTRACT hereinafter referred to.
2. The following documents, which for the purpose of identification have
been signed by
on behalf of The CONTRACTOR and by
on behalf of the PQA, all of which shall be deemed to form and be
read and construed as part of this Agreement, viz:
 - (a) Part 1 - Instructions for Tender
 - (b) Part 2 - The Form of Tender, inclusive of the pertinent APPENDICES
"A" through "H" and "J"
 - (c) Part 3 - General Conditions of the CONTRACT
 - (d) Part 4 - Particular Conditions of the CONTRACT
 - (e) Part 5 - Form of Agreement, inclusive of Appendices "I" and "II"
 - (f) - The Technical Specifications
 - (g) - The Individual Bill of Quantities
 - (h) - The Relevant Correspondence and other Documents as
per Part 3, General Conditions of the CONTRACT

PART 5
FORM OF AGREEMENT
(contd.)

3. In consideration of the payments to be made by the PQA to the CONTRACTOR as hereinafter mentioned, the CONTRACTOR hereby covenants with the PQA to construct and complete the WORKS ready for installation by the PQA in conformity in all respects, with the provisions of the CONTRACT.
4. The PQA here by covenants to pay to the CONTRACTOR in consideration of the construction of the WORKS, the Price of the CONTRACT in the manner prescribed by the CONTRACT.

In Witness Whereof, the parties hereto have hereunto set their respective hands and seals the day and first above written.

Signed, Sealed and Delivered by the:

Chairman and one member on behalf of the Board of the PORT QASIM AUTHORITY

Signed by Chairman, PQA

in the presence of

Signed by Member

in the presence of

and

..... for and on behalf of

Signed by CONTRACTOR

in the presence of

PERFORMANCE BOND

By this Bond, we
of
whose registered office is at
in
(hereinafter called the "Surety"), do hereby bind ourselves and our succe-
sors and assignees jointly and severally be these presents to pay to the
Board of the PORT QASIM AUTHORITY (hereinafter called the PQA), through
the Director, Finance and Accounts, PORT QASIM AUTHORITY unconditionally
on demand and without further question the sum of Rupees
..... (Rs.
...), payable in Foreign Currency. Sealed with our seal and dated this
..... day of
Nineteen Hundred and

Whereas
of whose registered office
is at in
(hereinafter called the CONTRACTOR), by an Agreement dated the
..... day of
Nineteen Hundred and made between the
PQA of the one part and the CONTRACTOR of the other part has entered into
a Contract (hereinafter called CONTRACT) for the construction and comple-
tion of certain WORKS as therein mentioned in conformity with the pro-
visions of the said CONTRACT, and the sum mentioned in the above written
Bond represents the security deposit to be furnished by the CONTRACTOR
for due fulfillment of the said CONTRACT.

Now the Conditions of the above written Bond are such, that if the
CONTRACTOR shall duly perform and observe all the terms, provisions, con-
ditions and stipulations of the said CONTRACT on the CONTRACTOR's part
to be performed and observed according to the true purport, intent and
meaning thereof as determined by the PQA, who shall be the sole judge in
the matter, or if on default by the CONTRACTOR for which the PQA shall be
the sole judge, the Surety shall satisfy and discharge the damages sustained
by the PQA thereby as determined by the PQA and without reference to the
CONTRACTOR up to the amount of the above-written Bond, then this obligation
shall be null and void but otherwise shall be and remain in full force and
effect, but no alteration in terms of the said CONTRACT made by agreement
between the PQA and the CONTRACTOR or in the extent or the nature of the
WORKS to be constructed and completed thereunder and no allowance of the
time by the PQA under the said CONTRACT nor any forbearance or forgiveness
in or in respect of any matter or thing concerning the said CONTRACT on
the part of the PQA, shall in any way release the Surety from any liability
under the above written Bond.

PART 5
APPENDIX "I" to the
FORM OF AGREEMENT

Signed, Sealed and Delivered by the

said

The Common Seal of

..... Limited

was hereunto affixed in the presence of:

1.

2.

The Chairman,
PORT QASIM AUTHORITY,
PQA Head Office
K a r a c h i

GUARANTEE NO.

Port Muhammad - Bin - Qasim Project, procurement of Lighted Buoy System.

WHEREAS the Board of the PORT QASIM AUTHORITY (hereinafter called the PQA) have entered into a CONTRACT with
.....
..... (hereinafter called the CONTRACTOR) for the above named WORKS)

AND WHEREAS the PQA have agreed to advance the CONTRACTOR at their request an amount of Rs.
in foreign currency (.....)

In the consideration of the PQA making the above advance we hereby guarantee that the CONTRACTOR, Messrs.
..... shall use the advance for the above named project, and if they fail or commit default in fulfillment of any of their obligation for which the advance payment is made, we shall be liable to PQA for the payment of the amount in respect of which they have so failed not exceeding the aforementioned sums.

Notice in writing of any default as aforesaid on the part of the CONTRACTOR will be given by the PQA to us, and on first demand from the PQA payment shall be made by us for all sums then due from this guarantee without further reference to the CONTRACTOR and without question and that PQA verdict in this behalf shall be final and binding on us.

As and when the said advance payment is adjusted against payment(s) for the running bills of the CONTRACTOR, then this guarantee shall automatically stand reduced to the extent of such adjustment(s).

This guarantee, so reduced, shall remain in force until the advance payment is fully adjust with the payments for the running bills of the CONTRACTOR, or until (state date of completion) whichever date is earlier.

Claims, if any, must reach the undersigned within one month after
..... (state date of completion) otherwise
they will be invalid.

We agree and undertake that the aforesaid period of validity shall be
extended for a further period mutually to be agreed upon if on the above
mentioned date the advance payments are not fully adjusted against the
payments for the running bills of the CONTRACTOR.

Signed, sealed and delivered

.....

in the presence of witness dated this

day of

Signed by the presence of

S P E C I F I C A T I O N S

For

Lighted Buoy System

C O N T E N T S

1.	OUTLINE OF THE SCHEMES	1
2.	BILL OF QUANTITIES AND TECHNICAL SPECIFICATIONS	1
3.	MATERIALS	1
4.	TRAINING	1
5.	FACTORY TESTING	2
6.	ACCEPTANCE TEST	2
7.	TOOLS	2
8.	SPARE PARTS	3
9.	MAINTENANCE MANUALS	3
10.	GUARANTEE	3
11.	MAINTENANCE, OPERATION AND SUPERVISORY SERVICES	4

SPECIFICATIONS OF THE CONTRACT

FOR

THE LIGHTED BUOY SYSTEM

1. OUTLINE OF THE SCHEMES

(1) General

The basic planning, design, supply and assembly shall be made for buoy aids to navigation in Port Muhammad Bin Qasim to let the ships enter or leave the port anytime during day and night.

(2) Scope of Work

The Contractor shall supply and assemble the equipment to be covered by this specification under the Contract and the Contractor shall also impart training for the maintenance and operation to the staff of PQA.

(3) Lighted Buoy System

The Buoy System shall consist of the following equipment.

Buoy body
Mooring equipment including sinker
Lighting equipment
Radar reflector

2. BILL OF QUANTITIES AND TECHNICAL SPECIFICATIONS

Bill of quantities shall be shown BILL OF QUANTITIES for LIGHTED BUOY.

Technical specifications shall be shown:

Buoy body:	SPEC. 1B
Mooring equipment:	SPEC. 2B
Lighting equipment:	SPEC. 3B
Radar reflector:	SPEC. 4B

3. MATERIALS

All materials used shall be of quality suitable for protracted use in humid tropical climate with excessive corrosion.

4. TRAINING

(1) The maintenance and operational training for the Equipment shall be provided to the one (1) engineer nominated by the PQA, for a period of three (3) days, after completion the assembly of the equipment.

- (2) All training shall be imparted in English language. Trainee will have a good knowledge of both technical and conversational English.

5. FACTORY TESTING

- (1) The Contractor shall submit to PQA for approval, within four (4) months after the effective date of the Contract, three (3) copies of written proposal for the methods and details of the factory testing.
- (2) As and when any Equipment shall have passed the Contractor's tests in conformity to the testing methods and details approved by PQA, the Contractor shall furnish to the PQA, within two (2) weeks after the inspection and testing, five (5) copies of the duly certified test reports with test readings.

Receipt of such certificated test reports by the PQA shall not relieve the Contractor from any of his obligations for the Contractor, from any of his obligations for the workmanship and quality of the Equipment under the Contract.

- (3) All Equipment condemned by the PQA shall be removed and replaced in accordance with the Contract at the Contractor's expense and in a manner satisfactory to the PQA.
- (4) If the PQA waives the right of inspection or testing as herein provided it shall in no way relieve the Contractor from inspecting or testing and full liability for the quality, proper operation and performance of the Equipment.
- (5) No shipment of the Equipment shall be made before the factory testing is completed with the result satisfactory to the PQA.
- (6) The Contractor shall be obliged to conduct additional testing, if deemed necessary by the PQA.

6. ACCEPTANCE TEST

Upon completion of the assembly of the Equipment, each portion of the equipment shall be tested by the Contractor in the presence of such representatives as the PQA may appoint and in such manner as these representatives may direct and in accordance with the Test Procedure Proposed by the Contractor and accepted by the PQA. The Test Procedure shall be submitted by the Contractor to the PQA during the reasonable period after the effective date of this Contract, and, in any case, not later than three (3) months before the Equipment is due for the Final Acceptance Test.

7. TOOLS

The Contractor shall supply all tools necessary for proper day to day maintenance of the equipment. The tools and the costs of all tools shall be listed in the maintenance manual and unit instruction manual for the maintenance of the equipment. Two complete set of special tools shall also be supplied.

8. SPARE PARTS

The list of spares shall be based upon a recommended list supplied by the Contractor and approved by the PQA.

The Contractor shall recommend spares necessary to maintain the system for a period of two (2) years. He shall indicate which spares are required for station level maintenance, following the same philosophy of maintenance as expressed in the specifications.

The spares to be supplied under this specification shall be included in the Tender.

After the two (2) years period or within the two (2) years if required, the Contractor shall supply on a reimbursement basis the requested spares without undue delay on receipt of orders for spares from the PQA.

9. MAINTENANCE MANUALS

The system maintenance manuals shall be delivered prior to the completion of the assembly and before any equipment is operated in the field. The maintenance manuals shall cover all routine periodic inspection, testing, alignment, adjustments, faults location and any other maintenance procedures.

10. GUARANTEE

- (1) The Contractor guarantees for one (1) year from the date of Final Acceptance the satisfactory performance of the Works and that the Equipment shall give a thoroughly efficient service in accordance with the standards laid down in the Specifications, the Contractor's Technical Proposal and the Final Acceptance criteria. The Guarantee shall consequently cover any malfunction or failure caused by faulty design workmanship or defective materials of the Equipment, except those caused by negligent use or maintenance, mis-operation of the Equipment by the PQA and/or third party or parties, and the repair and replacement of any part of the Works found to be defective for causes as aforementioned. Any part of the Equipment to be replaced under this guarantee shall be delivered to the Site free of charge.
- (2) The PQA shall possess the right at any time during the period of this guarantee and irrespective of prior inspections or acceptances to reject any materials, equipment, facilities and services not conforming to the above guarantee and may require the Contractor at his expense, to rectify or replace, at the PQA's option, such materials, equipment facilities and services.
- (3) If the Contractor fails to correct or replace such defective materials, equipment, facilities and services promptly after notification and authorization by the PQA, the PQA may, by contract or otherwise, rectify or replace such defective materials, equipment, facilities and services and to deduct the costs of the same from the Performance Bond. If as a result of

operational conditions the PQA determines that it is impracticable to have the Contractor repair or PQA may, if it so elects require the Contractor to repay such portion of the Contract Price as is equitable under the circumstances in lieu of repairing or replacing the defective materials, equipment, facilities and services unless the Contractor can satisfy the PQA that the defect was not due to his negligence or to any circumstance within his control.

- (4) The guarantee shall extend to all defects as aforesaid which appear during a period of one (1) year from the date of Final Acceptance by the PQA. This guarantee shall continue in respect of any replaced items for a period of one (1) year from the date of such replacement. In order that the PQA may avail themselves of the right under this Clause the PQA shall notify the Contractor in writing without delay of any defects that have appeared and shall give the Contractor every opportunity of inspecting and remedying such defects at the Contractor's own expense.
- (5) If the Contractor fails to proceed with due diligence after being required for fulfil his obligations under this Guarantee, the PQA may proceed to do the necessary work at the Contractor's risk and expense, provided it is done in a reasonable manner.

11. MAINTENANCE, OPERATION & SUPERVISORY SERVICES

- (1) The equipment, shall be exclusively maintained, operated and supervised by the PQA after the final acceptance, during the Guarantee period, however, if the Contractor considers it necessary, he may retain a few of his supervising engineers at his own cost of avoid difficulties in replacements free of cost and freight of each items, parts and whole of assemblies that fail to function according to the specifications and the specified tests during the Guarantee period.
- (2) Maintenance Manuals, (Detailed drawings of all units showing all components, their values and layout) details of installations, wiring diagram: test results, Manuals describing the equipment, Testing Equipment and Gear shall be supplied on the basis of five sets.
- (3) Contractor will propose equipment, test equipment and gear, set up and organization of maintenance workshops for whole equipment.

SPECIFICATION

SPEC. 1B

OF

BUOY BODY

Quantity:	Description	Quantity		
		Normal	Spare	Total
	Entrance buoy	1	1	2
	Approach Channel buoy	19	2	21
	Inner channel buoy	47	3	50

Specifications

1. Refer to as follows:

Entrance buoy Fig. 1 ENTRANCE BUOY

Approach channel buoy: Fig. 2 APPROACH CHANNEL BUOY

Inner channel buoy: Fig. 3 INNER CHANNEL BUOY

2. Approach channel buoy shall be fitted with cage-type daymarks.

Can type: 9 sets

Cone type: 9 sets

Non-daymark: 3 sets

3. Color of body painting shall be depended on UNIFORM SYSTEM OF MARITIME BUOYAGE.

4. Entrance buoy and approach channel buoy shall be fitted with radar reflector.

Fig. 1 ENTRANCE BUOY

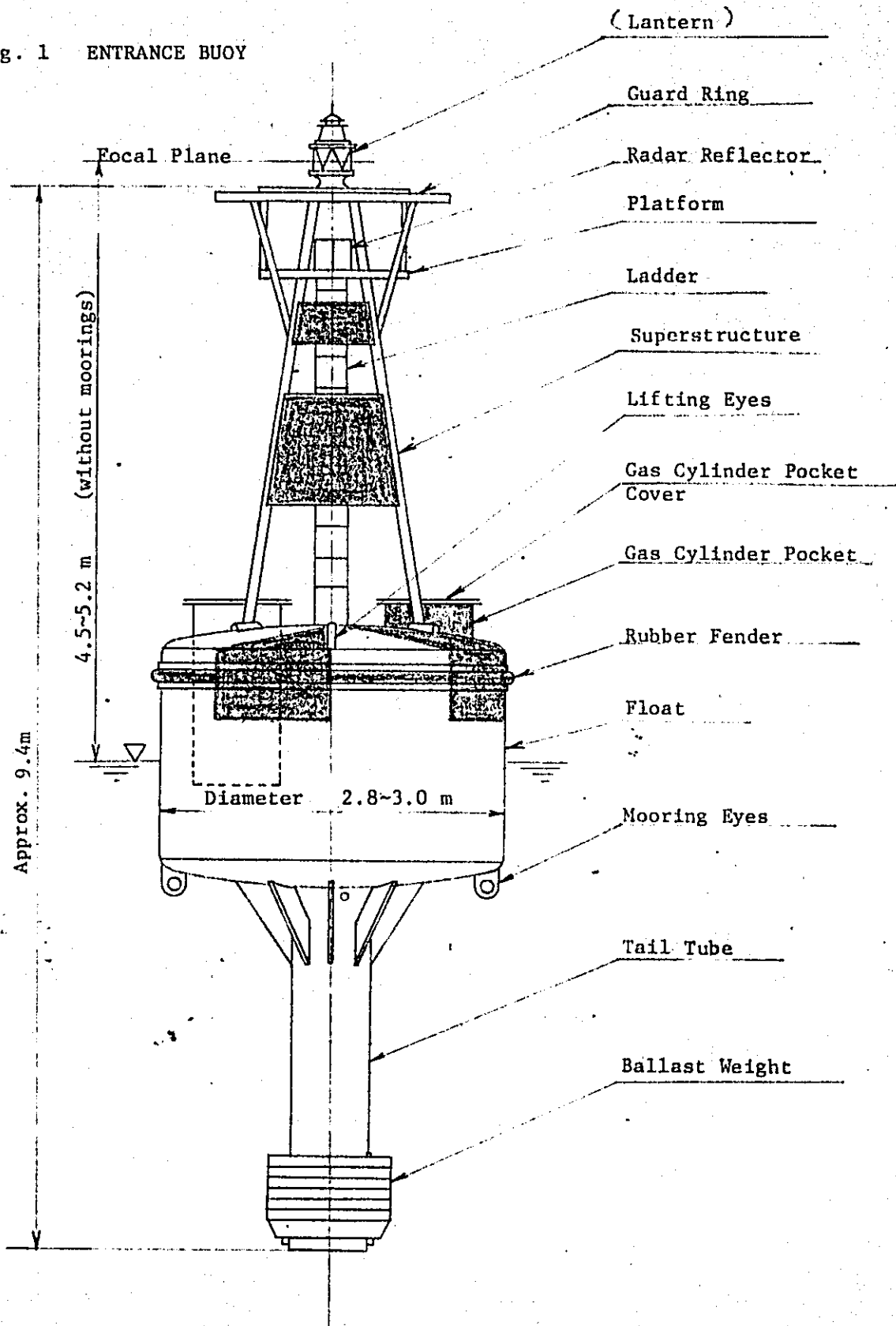


TABLE 1 ENTRANCE BUOY BODY

Body:	10mm and 12mm steel plate welded
Ballast weight:	Cast iron ballast ring
Superstructure:	Steel structure and mild steel angles with bracings bolted and welded
Lifting eyes:	Four steel structure or cast steel
Mooring eyes:	Two steel structure or cast steel
Day mark:	Non-day mark
Height (overall):	Approx. 9.4m
Weight (buoy body only):	7.0 ~ 7.5 tons
Total weight (without mooring):	7.5 ~ 8.0 tons
Total plane (without mooring):	4.5 ~ 5.2 m
Freeboard (without mooring):	0.5 ~ 0.8 m
Reserved buoy-ancy:	5.0 ~ 6.0 metric tons
Total buoy-ancy:	12.5 ~ 14.0 metric tons
Displacement per centimeter of immersion:	65 ~ 70 kgs
Gas cylinder pocket:	2 pcs
Suitable mooring chain:	52 ~ 74 mm
Suitable lantern size:	Maximum 375 mm
Maximum power strage acetylin:	Acetylene 8 (7000ℓ) cylinders

Fig. 2 APPROACH CHANNEL BUOY

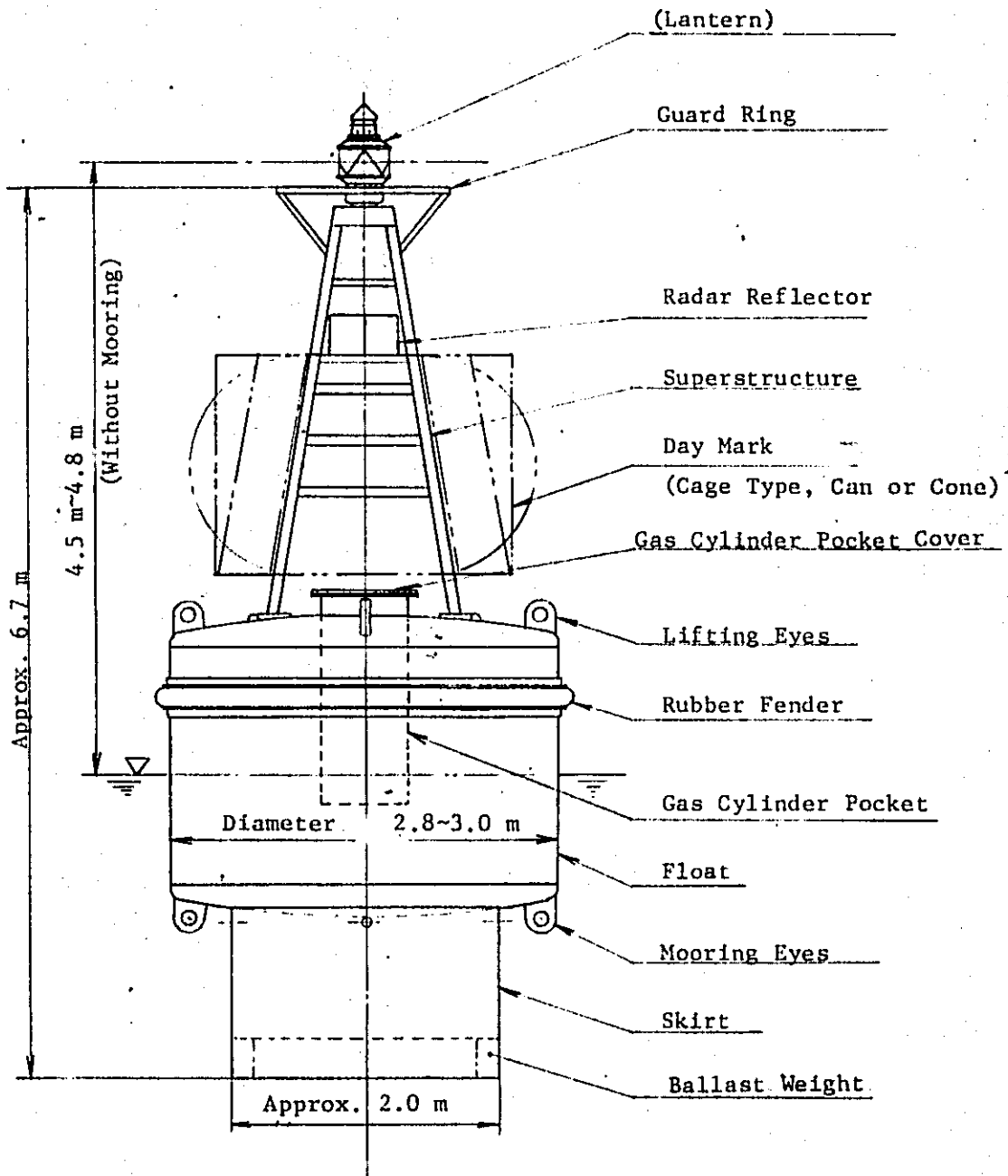


TABLE 2 APPROACH CHANNEL BUOY BODY

Body:	10mm Steel plate welded
Ballast weight:	Cast iron
Superstructure:	Mild steel angles with bracings bolted and welded
Lifting eyes:	Four of steel structure or cast steel
Mooring eyes:	Two of steel structure or east steel
Day mark:	Cage-type
Height (overall):	Approx. 6.7 m
Weight (Buoy body only):	5.9 ~ 6.1 metric tons
Total weight (without mooring):	6.4 ~ 6.6 metric tons
Focal plane (without mooring):	4.5 ~ 4.8 m
Freeboard (without mooring):	0.8 ~ 1.0 m
Reserved buoy-ancy:	6.5 ~ 7.3 metric tons
Total buoy-ancy:	13.0 ~ 14.0 metric tons
Displacement per centimeter of immersion:	65 ~ 70 kgs
Gas cylinder pocket:	1 pc
Suitable mooring chain:	40 ~ 32 mm
Suitable lantern:	Maximum 300 mm
Maximum power strage:	Acetylene 4 (7,000ℓ) cylinders

Fig. 3 INNER CHANNEL BUOY

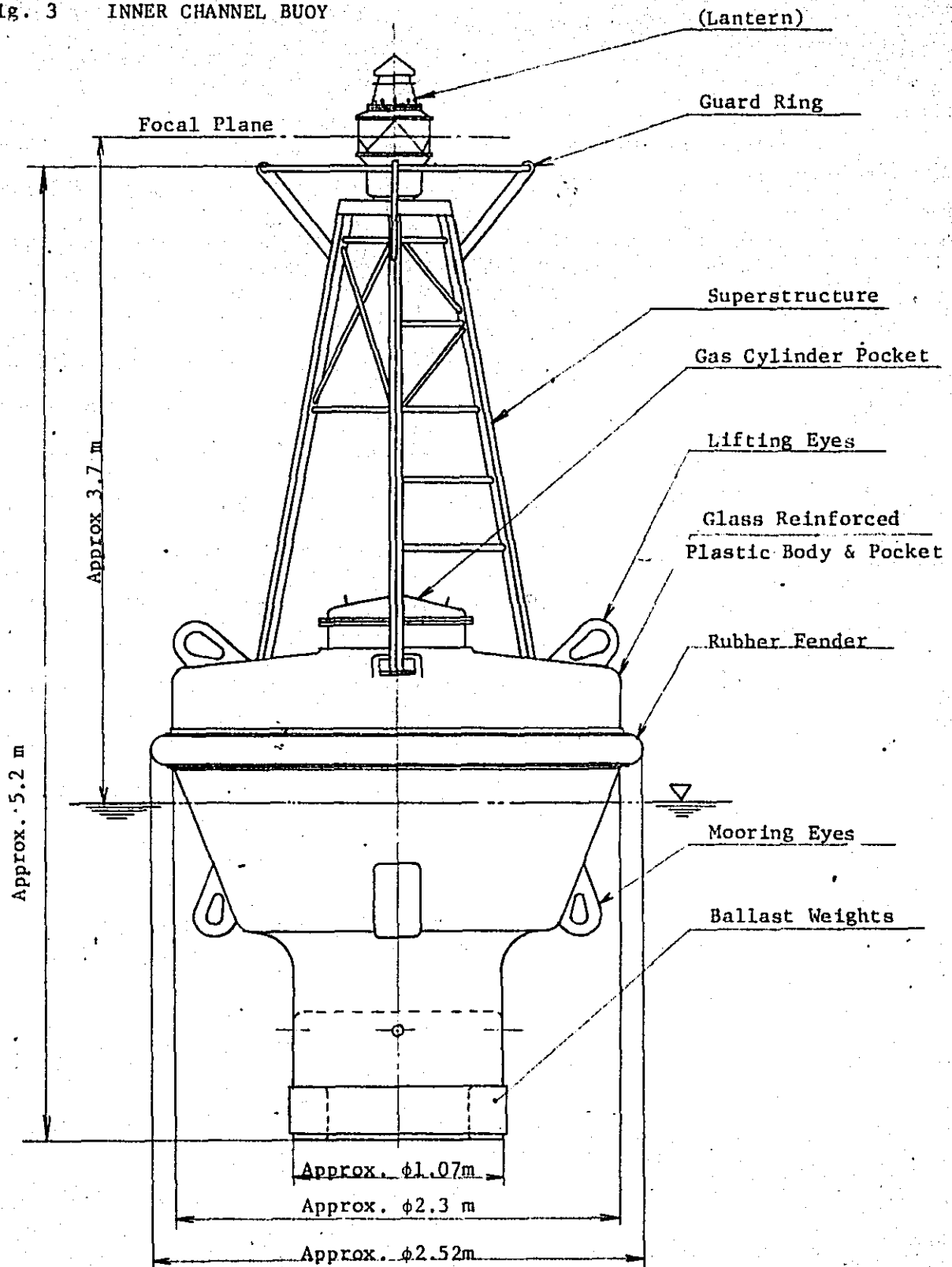


TABLE 3 INNER CHANNEL BUOY BODY

Body:	10mm Glass Reinforced Plastic moulded.
Ballast weight:	Cast iron
Superstructure:	Mild steel tube of square section. Hot-dipped galvanized and painted.
Lifting eyes:	Four of cast steel
Mooring eyes:	Two of cast steel
Day mark:	Non-Day mark
Height (overall):	Approx. 5.2 m
Weight (without mooring):	Approx. 2.3 ~ 2.5 metric tons
Focal plane (without mooring):	Approx. 3.7 m
Maximum draught:	Approx. 2.0 m
Gas cylinder pocket:	1 pc
Suitable mooring chain:	32 ~ 26 mm
Suitable lantern:	Maximum 220 mm
Maximum power storage:	Acetylene 4 (7,000ℓ) cylinders

SPECIFICATION
OF
MOORING EQUIPMENT

SPEC. 2B

Quantity:	Description	Diameter in mm	Length in m	Quantity		
				Normal	Spare	Total
	Main chain	52	25	2	1	3
		40	30	6	2	8
		40	25	27	5	32
		40	20	7	2	9
		32	30	12	3	15
		32	25	21	4	25
		32	20	14	3	17
		32	15	18	4	22
		32	10	14	3	17
	Bridle chain	46	12	1	1	2
		36	9	19	4	23
		28	9	47	5	52
	Anchor chain	52	5	2	2	4
	Swivel	52		1	1	2
		40		19	4	23
		32		47	9	56
	Joining shackle	52		8	2	10
		40		95	29	115
		32		217	43	260

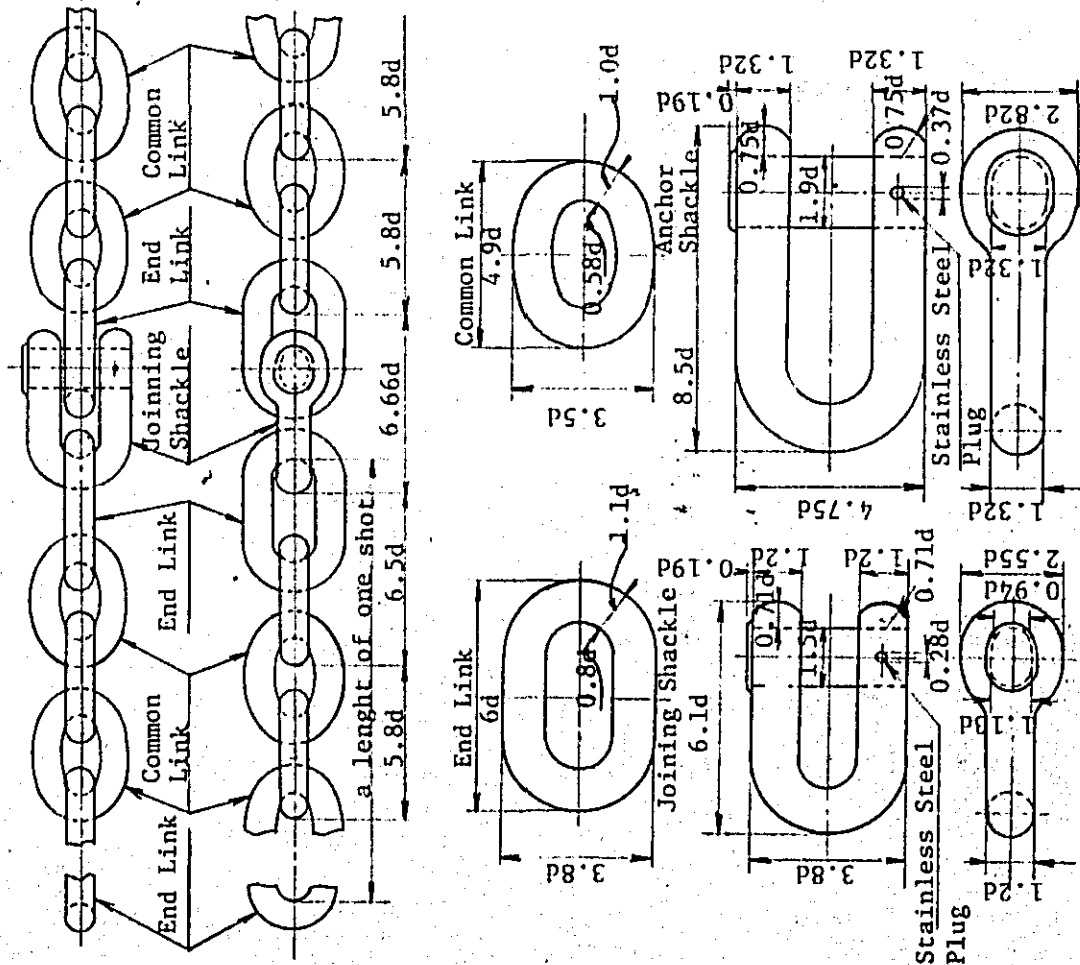
Description	Diameter in mm	Length in m	Quantity		
			Normal	Spare	Total
Anchor shackle	52		2	2	4
	40		19	4	23
	32		47	9	56
Joining steel ring	52		1	1	2
Chain for sinker (Provided with concrete sinker)	52		1	1	2
	40		19	4	23
	32		47	9	56
Concrete sinker	4 tons for entrance buoy		1	1	2
	4 tons for approach channel buoy		19	4	23
	1.5 tons for inner channel buoy		47	9	56
Single fluke stock anchor	1.6 tons		1	1	2

Specifications:

Refer to as follows.

Main chain:	Fig. 4 DIMENSION OF CHAIN LINK AND SHACKLE
Bridle chain:	Fig. 5 DIMENSION OF BRINDLE CHAIN LINK, JOINING STEEL RING AND CHAIN FOR SINKER
Anchor chain:	Fig. 4 DIMENSION OF CHAIN LINK AND SHACKLE
Swivel:	Fig. 6 DIMENSION OF SWIVEL
Joining shackle:	Fig. 4 DIMENSION OF CHAIN LINK AND SHACKLE
Joining steel ring:	Fig. 5 DIMENSION OF BRIDLE CHAIN RINK, JOINING STEEL RING AND CHAIN FOR SINKER
Concrete sinker:	Fig. 7 DIMENSION OF CONCRETE SINKER
Single fluke stock anchor:	Fig. 8 DIMENSION OF SINGLE FLUKE STOCK ANCHOR

Fig. 4 DIMENSION OF CHAIN LINK AND SHACKLE
A CONNECTING STYLE BY SHACKLES



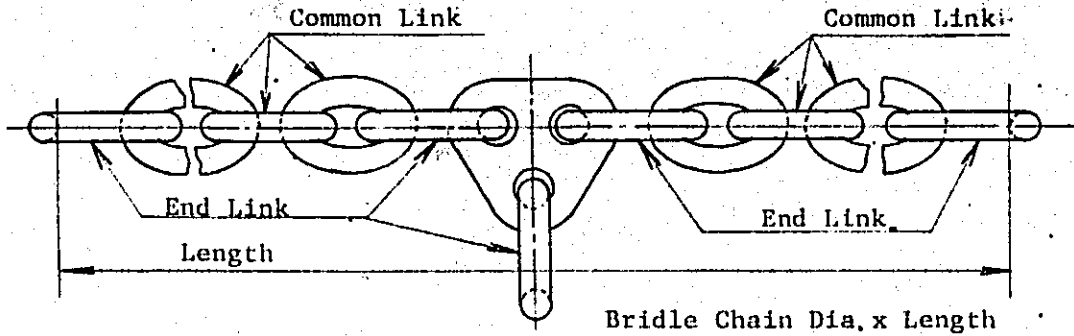
TEST LOAD AND WEIGHT OF SHORT LINK CHAIN TABLES

Size of Chain mm	Breaking Metric ton	Proof Metric ton	Minimum Weight per lm kg
14	7.39	3.69	4.26
16	9.65	4.83	5.56
17.5	11.55	5.78	6.66
19	13.60	6.80	7.84
20.5	15.85	7.93	9.14
22	18.20	9.12	10.52
24	21.70	10.90	12.52
26	25.50	12.70	14.72
28	29.60	14.80	17.08
30	33.90	17.70	19.60
32	38.60	19.30	22.28
34	43.60	21.80	25.16
36	48.90	24.40	28.20
38	54.40	27.20	31.44
40	60.30	30.20	34.80
42	66.50	33.30	38.40
44	73.00	36.50	42.00
46	79.80	39.90	46.00
48	86.90	43.40	50.00
50	94.30	47.10	54.40
52	101.65	50.83	58.67

Fig. 5 DIMENSION OF BRIDLE CHAIN LINK, JOINING STEEL RING AND CHAIN FOR SINKER

Unit: mm

BRIDLE CHAIN



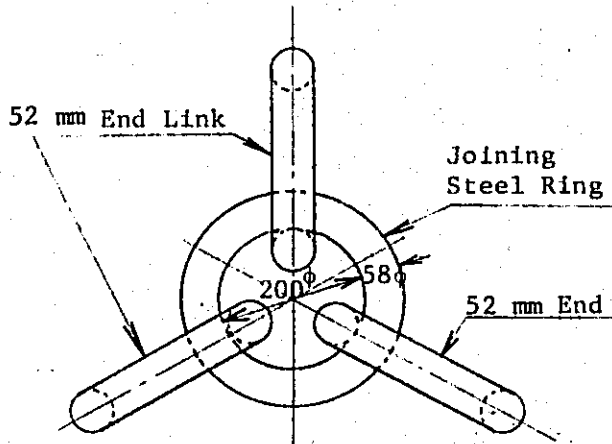
Bridle Chain Dia. x Length

46 mm x 12 m

JOINING STEEL RING

36 mm x 9 m

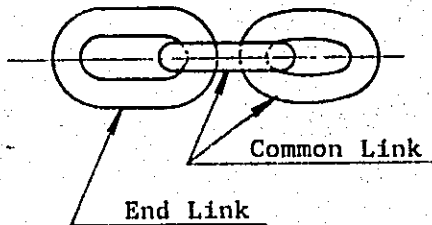
28 mm x 9 m



Joining Steel Ring

for 52 mm only

CHAIN FOR SINKER HOOK



For 52 mm Chain Sinker Hook

For 40 mm Chain Sinker Hook

For 32 mm Chain Sinker Hook

Fig. 6 DIMENSIONS OF SWIVEL

Size of Swivel Diameter (d) mm	Material
52	Steel Forging
40	Steel Forging
32	Steel Forging

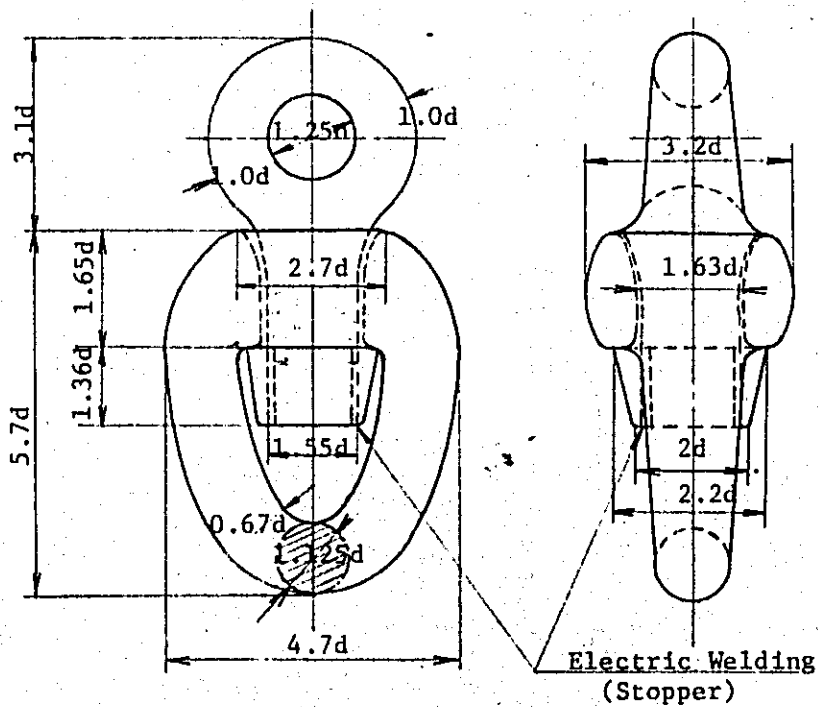
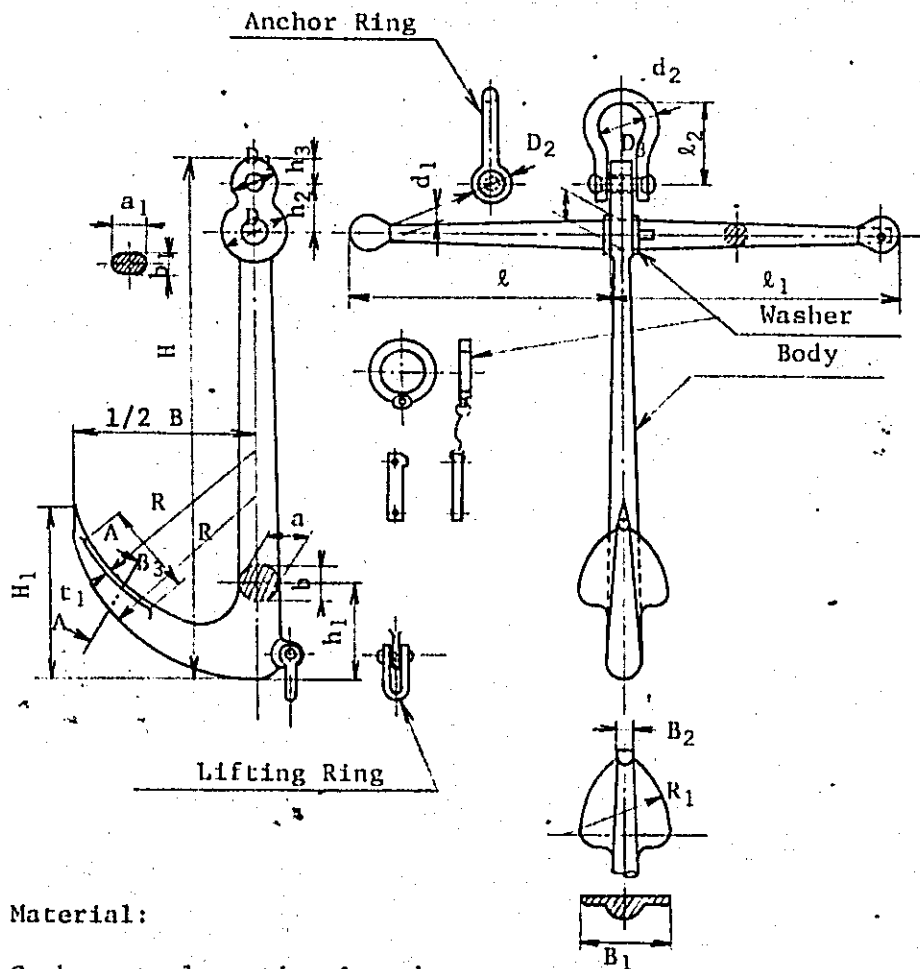


Fig. 8 DIMENSION OF SINGLE FLUKE STOCK ANCHOR

Normal Weight (ton)	Body, Stock, Anchor Ring, Lifting Ring												
	H	B	B ₁	B ₂	B ₃	a	a ₁	b	b ₁	D	D ₁	D ₂	D ₃
1.60	3160	2140	530	85	510	240	185	190	135	362	250	198	252

Normal Weight (ton)	Body, Stock, Anchor Ring, Lifting Ring											
	H ₁	h ₁	h ₂	h ₃	R	R ₁	ℓ	ℓ ₁	ℓ ₂	d ₁	d ₂	t ₁
1.60	840	570	302	152	1100	590	1510	1660	445	105	68	42



Material:

Carbon steel casting & carbon steel structure

SPECIFICATION

SPEC. 3B

OF

LIGHTING EQUIPMENTS

Description		Normal	Spare	Total
Lantern:	220 mm moulded lens	16	3	19
	190 mm moulded lens	50	3	53
Flasher:	Type Burner size litres per hour			
	Group-flash 25 ℓ	1	1	2
	Group-flash 20 ℓ	6	2	8
	Single-flash 20 ℓ	10	2	12
	Group-flash 15 ℓ	29	6	35
	Single-flash 15 ℓ	21	4	25
Gas cylinder:	7000ℓ type	223	47	270
Glass cylinder:	Red For 220 mm	8	6	14
	For 140 mm	18	8	26
do	: Green For 220 mm	8	6	14
	For 140 mm	22	9	31
Installation material:		67	13	80
Spare parts:	Burner 25 ℓ		10	10
	Burner 20 ℓ		40	40
	Burner 15 ℓ		100	100

Specifications

1. Lantern: Fig. 9 GAS LANTERN WITH 220 mm or 140 mm LENS

Main material of body: Polyesteler resin and glass-fiber.

Lens: 220 mm and/or glass moulded

Fixing holes: 4 holes of 18 mm at PCD 340 mm and Four tapped holes M16 bolts at 200 mm PCD for internal fixing.

Focal height of flasher: 325 mm

Focal height of lantern: 350 mm

Over all height: 780 mm

2. Flasher

Type	Burner size in litres per hour	Character	Duration of flash in sec.	Static intensity in candelas.		Quantity
				220m/m	140m/m	
Group-flash	25 ℓ	QkFL	0.3	190	120	2
Group-flash	20 ℓ	GPFL(2)6sec	0.3	165	105	4
Group-flash	20 ℓ	GPFL(3)6sec	0.3	165	105	4
Single-flash	20 ℓ	FL3sec	0.5	165	105	12
Group-flash	15 ℓ	GPFL(2)6sec	0.3	125	75	19
Group-flash	15 ℓ	GPFL(3)6sec	0.3	125	75	16
Single-flash	15 ℓ	FL3sec	0.5	125	75	21
Single-flash	15 ℓ	FL5sec	0.5	125	75	4
Focal height		325 mm				
Fixing holes		4 holes of 7 mm at 170 mm PCD				
Approx. weight:		Approx. 8 kgs				

3. Gas Cylinder

Type: Acetylene 7000 litres

Nominal gas₂ charge
at 15 kg/cm² and
15°C: 7000 litres or more

Available gas
quantity: 5800 litres or more

Weight: 70 kgs or less

4. Glass Cylinder

Type: For 220 mm lens lantern
140 mm lens lantern

Transmission factor: 20 percent or more

5. Installation Material

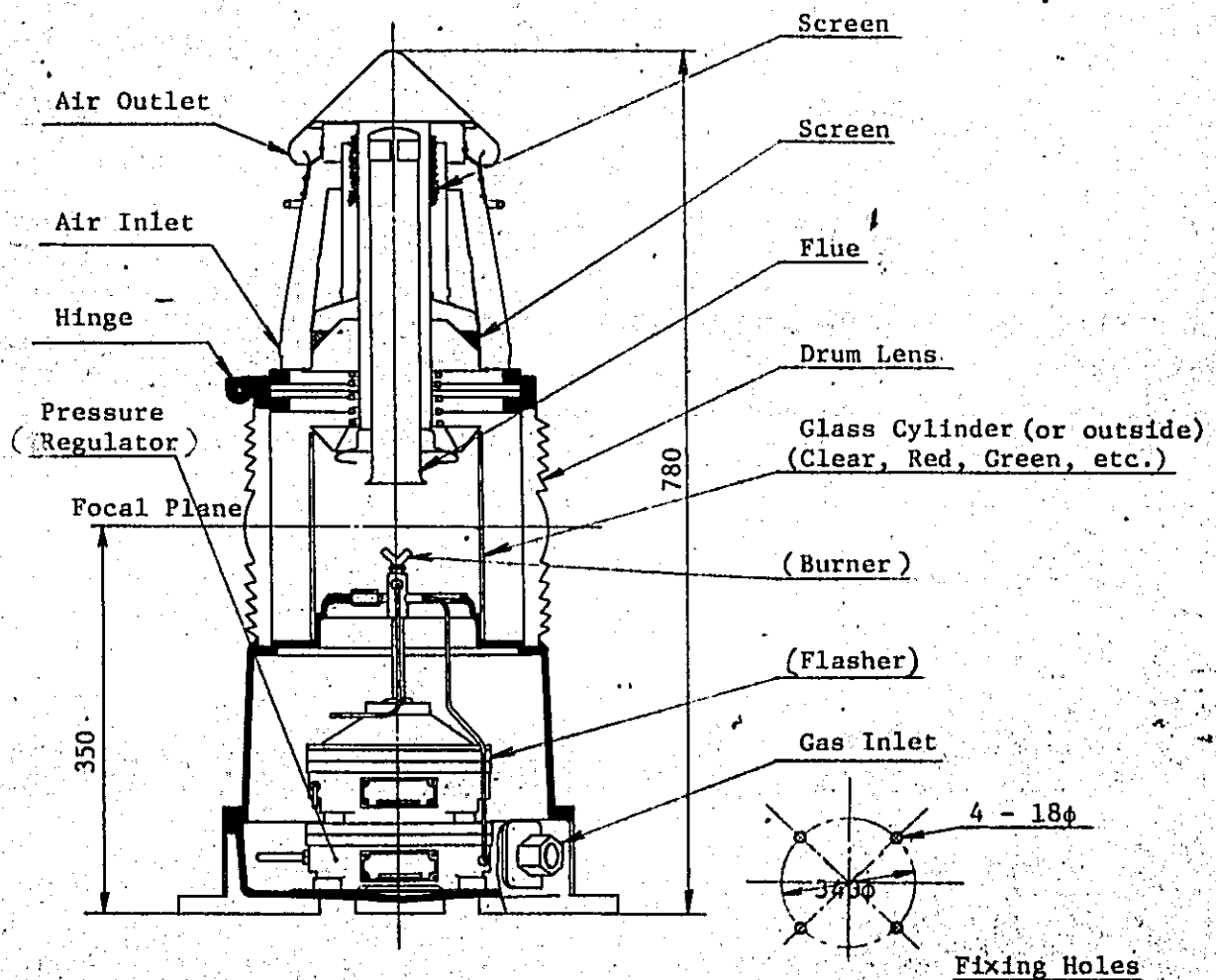
Installation material per one set consists of as follows:

Pipe coil:	From cylinder to manifold	4
	1 m of length with nipples	
Pipe coil:	From manifold to lantern	1
	5 m of length with nipples	
Manifold:	5 ways with gauge stand and stopped valve	1

Fig. 9 GAS LANTERN WITH 220 mm OR 140 mm LENS

Material: Press-moulded plastic
(Polyester resin and glass fiber)

220 mm or 140 mm Lens: Moulded Lens
Focal Height of Flasher: 325 mm
Net Weight with Lens and Flasher: Approx. 23 kg



Note,

Four tapped holes for M16 bolts
at 200 mm PCD for internal fixing.

SPECIFICATION

SPEC. 4B

OF

RADAR REFLECTOR

Description	Quantity		Total
	Normal	Spare	
Radar reflector	20	2	22

Specifications

- (1) Plate thickness: 2 m/m
- (2) Material: Corrosion resistant aluminum
- (3) Weight: Approx. 2 kg
- (4) Volume: Less than 0.02 m³
- (5) Maximum effective reflection area: 9 m² (for the 3 cm radar wave) or more
- (6) Maximum effective range: 2 km (installed at a height of 2m), or 5 km (installed at a height of 5m)

BILL OF QUANTITIES

For

Lighted Buoy System

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
1.	Buoy body	L.S.	1				
2.	Mooring Equipment	L.S.	1				
3.	Lighting equipment	L.S.	1				
4.	Radar Reflector	L.S.	1				
5.	Spare Parts	L.S.	1				
6.	Assembly of the Equipment	L.S.	1				
7.	Training	L.S.	1				
	Total						

BILL OF QUANTITIES FOR LIGHTED BUOY

Item No.	Pay Item	Unit	Quantity (No. sets)	Schedule Rate in PAK. RS.		Item Price in PAK. RS.	
				RS.	Paisa	RS.	Paisa
1.	Buoy Body						
(1)	Entrance buoy	sets	2				
(2)	Approach channel buoy:						
	with daymark	sets	18				
	non-daymark	sets	3				
(3)	Inner channel buoy	sets	50				
2.	Mooring Equipment						
(1)	Main chain						
	52 mm x 25 m	sets	3				
	40 mm x 30 m	sets	8				
	40 mm x 25 m	sets	32				
	40 mm x 20 m	sets	9				
	32 mm x 30 m	sets	15				
	32 mm x 25 m	sets	25				
	32 mm x 20 m	sets	17				
	32 mm x 15 m	sets	22				
	32 mm x 10 m	sets	17				
(2)	Bridle chain						
	46 mm x 12 m	sets	2				
	36 mm x 9 m	sets	23				
	28 mm x 9 m	sets	52				
(3)	Anchor chain						
	52 mm x 5 m	sets	4				
(4)	Swivel						
	52 mm	pcs	2				
	40 mm	pcs	23				
	32 mm	pcs	56				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
(5)	Joining shackle						
	5 52 mm	pcs	10				
	40 mm	pcs	115				
	32 mm	pcs	260				
(6)	Anchor shackle						
	52 mm	pcs	4				
	40 mm	pcs	23				
	32 mm	pcs	56				
(7)	Joining steel ring						
	52 mm	pcs	2				
(8)	Chain for sinker						
	52 mm	sets	2				
	40 mm	sets	23				
	32 mm	sets	56				
(9)	Concrete sinker						
	for entrance buoy 4 tons	sets	2				
	for approach channel buoy 4 tons	sets	23				
	for inner channel buoy 1.5 tons	sets	56				
(10)	Single fluke stock anchor 1.5 tons	sets	2				
3.	Lighting Equipment						
(1)	Lantern						
	220 mm moulded lens	sets	19				
	140 mm moulded lens	sets	53				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
(2)	Flasher						
	Type	Burner size litres per hour					
	Group-flash	25%	sets	2			
	Group-flash	20%	sets	8			
	Single-flash	20%	sets	12			
	Group-flash	15%	sets	35			
	Single-flash	15%	sets	25			
(3)	Gas cylinder		bottle	270			
(4)	Glass cylinder						
	Red	for 220 mm lens	pcs	14			
		for 140 mm lens	pcs	26			
	Green	for 220 mm lens	pcs	14			
		for 140 mm lens	pcs	31			
(5)	Installation material		sets	80			
4.	Radar Reflector						
	Radar reflector		sets	22			
5.	Spare Parts		Set	1			
6.	Assembly of the Equipment		Set	1			
7.	Training		Set	1			

