



REPUBLIC OF THE PHILIPPINES
NATIONAL POWER CORPORATION
(Pambansang Korporasyon sa Elektrisidad)

BID DOCUMENTS

**Name of Project: SUPPLY, DELIVERY, INSTALLATION AND TEST OF
OVERHEAD TRAVELLING CRANE FOR POWER
BARGE 106**

Project Location: Power Barge 106, Brgy. Bagacay, Romblon, Romblon

PR No. : S1-B0625-003

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Design and Development Department



SECTION I

INVITATION TO BID





National Power Corporation

INVITATION TO BID

PUBLIC BIDDING – BCS 2025-0151

- The NATIONAL POWER CORPORATION (NPC), through its approved Corporate Budget of CY 2025 intends to apply the sum of **(Please see schedule below)** being the Approved Budget for the Contract (ABC) to payments under the contract. Bids received in excess of the ABC shall be automatically rejected at Bid opening.

PR Nos./PB Ref No. & Description	Similar Contracts	Pre-bid Conference	Bid Submission / Opening	ABC/ Amt. of Bid Docs
S1-B0625-003 / PB250415-JD00102 Supply, Delivery, Installation and Test of Overhead Travelling Crane for Power Barge 106	Supply, Delivery and Installation of an indoor/outdoor Overhead Travelling Crane with lifting capacity of at least Two (2) Tons	02 April 2025 9:30 A.M.	15 April 2025 9:30 A.M.	₱ 2,158,000.00 / ₱ 5,000.00
Venue: Kañao Function Room, NPC Bldg. Diliman, Quezon City				

- The NPC now invites bids for Items listed above. Delivery of the Goods is required (**see table below**) specified in the Technical Specifications. Bidders should have completed, within (**see table below**) from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. (Instruction to Bidders).

PR No/s. / PB Ref No/s.	Delivery Period / Contract Duration	Relevant Period of SLCC reckoned from the date of submission & receipt of bids
S1-B0625-003	One Hundred Eighty (180) Calendar Days	Ten (10) Years

- Bidding will be conducted through open competitive bidding procedures using a non-discretionary "pass/fail" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183.

- Prospective Bidders may obtain further information from National Power Corporation, Bids and Contracts Services Division and inspect the Bidding Documents at the address given below during office hours (8:00AM to 5:00PM), Monday to Friday.
- A complete set of Bidding Documents may be acquired by interested Bidders from the given address and website(s) and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB. Payments via check, the payee should be: **NPC Bid Document Transactions**. Bidding fee may be refunded in accordance with the guidelines based on the grounds provided under Section 41 of R.A. 9184 and its Revised IRR.
- The National Power Corporation will hold a Pre-Bid Conference on the date, time and venue stated above. Interested bidder/s is/are allowed to join and participate in the Pre-Bid Conference at the Kañao Room or virtually. However, those attending virtually shall assume the risk of any internet connectivity issues. Further, interested bidders are hereby informed of the following:
 - Only a maximum of two (2) representatives from each bidder / company shall be allowed to participate

- b. Wearing of Face Masks is recommended but not required in view of Proclamation No. 297 S.2023 lifting the State of Public Health Emergency Throughout the Philippines
 - c. The requirements herein stated including the medium of submission shall be subject to GPPB Resolution No. 09-2020 dated 07 May 2020
 - d. The Guidelines on the Implementation of Early Procurement Activities (EPA) shall be subject to GPPB Circular No. 06-2019 dated 17 July 2019
7. Bids must be duly received by the BAC Secretariat through (i) manual submission at the office address indicated below; (ii) online or electronic submission before the specified time stated in the table above for opening of bids. Late bids shall not be accepted.
 8. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 14.
 9. Bid opening shall be in the Kañao Function Room, NPC Head Office, Diliman, Quezon City and/or via online platform to be announced by NPC. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
 10. The National Power Corporation reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised IRR of R.A. No. 9184, without thereby incurring any liability to the affected bidder or bidders.

11. For further information, please refer to:

**Bids and Contracts Services Division,
Logistics Department**
Gabriel Y. Itchon Building
Senator Miriam P. Defensor-Santiago Ave. (formerly BIR Road)
Cor. Quezon Ave., Diliman, Quezon City, 1100
Tel Nos.: Tel Nos.: 8921-3541 local 5564/
Email: bcsd@napocor.gov.ph /

12. You may visit the following websites:

For downloading of Bidding Documents: <https://www.napocor.gov.ph/bcsd/bids.php>

~~LARRY I. SABELLINA~~
Vice President, MinGen and
Chairman, Bids and Awards Committee

SECTION II

INSTRUCTIONS TO BIDDERS



SECTION II – INSTRUCTIONS TO BIDDERS

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SECTION II – INSTRUCTIONS TO BIDDERS

1. Scope of Bid

The **National Power Corporation (NPC or NAPOCOR)** wishes to receive Bids for the **SUPPLY, DELIVERY, INSTALLATION AND TEST OF OVERHEAD TRAVELLING CRANE FOR POWER BARGE 106**, with identification number **PR NO. S1-B0625-003**.

The Procurement Project (referred to herein as "Project") is composed of one (1) lot and will be awarded to one (1) Bidder in one complete contract, the details of which are described in Section VI (Technical Specifications).

2. Funding Information

- 2.1. The GOP through the source of funding as indicated below for CY 2025 in the amount specified in the Invitation to Bid.
- 2.2. The source of funding is the Corporate Operating Budget of the National Power Corporation.

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manuals and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or **IB** by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have verified and accepted the general requirements of this Project, including other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

4. Corrupt, Fraudulent, Collusive, and Coercive Practices

The Procuring Entity, as well as the Bidders and Suppliers, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

- 5.2. Foreign ownership exceeding those allowed under the rules may participate when citizens, corporations, or associations of a country, included in the list issued by the GPPB, the laws or regulations of which grant reciprocal rights or privileges to citizens, corporations, or associations of the Philippines.

The foreign bidder claiming eligibility by reason of their country's extension of reciprocal rights to Filipinos shall submit a certification from the relevant government office of their country stating that Filipinos are allowed to participate in their government procurement activities for the same item/product. The said certification shall be validated during the post-qualification of bidders.

- 5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to at least fifty percent (50%) of the ABC.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

6. Origin of Goods

There is no restriction on the origin of goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN, subject to Domestic Preference requirements under **ITB** Clause 18.

7. Subcontracts

- 7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than twenty percent (20%) of the Project.

The portions of Project and the maximum percentage allowed to be subcontracted are indicated in the **BDS**, which shall not exceed twenty percent (20%) of the contracted Goods.

- 7.2. The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.
- 7.3. Subcontracting of any portion of the Project does not relieve the Supplier of any liability or obligation under the Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants, or workmen as fully as if these were the Supplier's own acts, defaults, or negligence, or those of its agents, servants, or workmen.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address and/or through videoconferencing/webcasting as indicated in paragraph 6 of the IB.

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in Section VIII (NPCSF-GOODS-01 - Checklist of Technical and Financial Documents).
- 10.2. The Bidder's SLCC as indicated in **ITB** Clause 5.3 should have been completed within Ten (10) Years prior to the deadline for the submission and receipt of bids.
- 10.3. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. Similar to the required authentication above, for Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.4. The Statement of the bidder's Single Largest Completed Contract (SLCC) (NPCSF-GOODS-03) and List of all Ongoing Government & Private Contracts Including Contracts Awarded but not yet Started (NPCSF-GOODS-02) shall comply with the documentary requirements specified in the **BDS**.

11. Documents comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in Section VIII (NPCSF-GOODS-01 - Checklist of Technical and Financial Documents).
- 11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.
- 11.3. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.4. For Foreign-funded Procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Bid Prices

- 12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:
 - a. For Goods offered from within the Procuring Entity's country:

- i. The price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable);
 - ii. The cost of all customs duties and sales and other taxes already paid or payable;
 - iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
 - iv. The price of other (incidental) services, if any, listed in the **BDS**.
- b. For Goods offered from abroad:
- i. Unless otherwise stated in the **BDS**, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination in the Philippines as specified in the **BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
 - ii. The price of other (incidental) services, if any, as listed in the **BDS**.

13. Bid and Payment Currencies

13.1. For Goods that the Bidder will supply from outside the Philippines, the bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies, shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

13.2. Payment of the contract price shall be made in Philippine Pesos.

14. Bid Security

14.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

14.2. The Bid and bid security shall be valid for **One Hundred Twenty (120) calendar** days from the date of opening of bids. Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

15. Sealing and Marking of Bids

Each Bidder shall submit Two (2) copies of the first and second components of its Bid, marked **Original** and photocopy. Only the original copy will be read and considered for the bid.

Any misplaced document outside of the **Original** copy will not be considered. The photocopy is ONLY FOR REFERENCE.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

Bidders must also comply with the Disclaimer and Data Privacy Notice specified in the **BDS**.

16. Deadline for Submission of Bids

16.1. The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

17. Opening and Preliminary Examination of Bids

17.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

17.2. The preliminary examination of bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

18. Domestic Preference

18.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*," using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of the 2016 revised IRR of RA No. 9184.

19.2. If the Project allows partial bids, bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, as the case maybe. In this case, the Bid Security as required by **ITB** Clause 14 shall be submitted for each lot or item separately.

19.3. The descriptions of the lots or items shall be indicated in **Section VI (Technical Specifications)**, although the ABCs of these lots or items are indicated in the **BDS** for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the

2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder.

- 19.4. The Project shall be awarded to one (1) Bidder in one complete contract.
- 19.5. Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder. For bidders submitting the committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the lots or items participated in by the prospective Bidder.

20. Post-Qualification

- 20.1. Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

- 21.1. The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

SECTION III

BID DATA SHEET



SECTION III - BID DATA SHEET

ITB Clause	
5.3	<p>For this purpose, similar contracts shall refer to supply, delivery and installation of an indoor/outdoor Overhead Travelling Crane with lifting capacity of at least Two (2) Tons.</p> <p>The Single Largest Completed Contract (SLCC) as declared by the bidder shall be verified and validated to ascertain such completed contract. Hence, bidders must ensure access to sites of such projects/equipment to NPC representatives for verification and validation purposes during post-qualification process.</p> <p>It shall be a ground for disqualification, if verification and validation cannot be conducted for reasons attributable to the Bidder.</p>
7.1	<p>Subcontracting may be allowed on transport, local/non-skilled labor under the supervision of the Bidder. The Bidder shall not be relieved from any liability or obligation that may arise from the performance of the Subcontractor.</p>
10.1	<p>The prospective bidder shall submit a valid and updated Certificate of PhilGEPs Registration under Platinum Membership (all pages including the Annex A of the said Certificate). Non-compliance shall be a ground for disqualification.</p>
10.4	<p>The list of on-going contracts (Form No. NPCSF-GOODS-02) shall be supported by the following documents for each on-going contract to be submitted during Post-Qualification:</p> <ol style="list-style-type: none"> 1. Contract/Purchase Order and/or Notice of Award 2. Certification coming from the project owner/client that the performance is satisfactory as of the bidding date <p>The bidder shall declare in this form all his on-going government and private contracts including contracts where the bidder (either as individual or as a Joint Venture) is a partner in a Joint Venture agreement other than his current joint venture where he is a partner. Non declaration will be a ground for disqualification of bid.</p> <p>The Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid (Form No. NPCSF-GOODS-03) shall be supported by the following documents to be submitted during Bid Opening:</p> <ol style="list-style-type: none"> 1. Certificate of Acceptance; or Certificate of Completion; or Official Receipt (O.R); or Sales Invoice <p>Any single bidder/s who already procured/secured the bidding documents but want to avail the Joint Venture Agreement (JVA) shall inform the BAC in writing prior to the bid opening for records and documentation purposes.</p>



<p>10.5</p>	<p>Bidders shall also submit the following requirements in their first envelope, Eligibility and Technical Component of their bid:</p> <ol style="list-style-type: none"> 1. Duly signed and completely filled-out Technical Data Sheet (Section VI – Part II); <p>Manufacturer’s brochures, catalogues, drawings and other supporting documents of the Overhead Travelling Crane proposed by the bidders must comply with the technical specifications of the required equipment. It shall be a ground for disqualification if the submitted manufacturer’s brochures, catalogues, drawings and other supporting documents are determined not complying with the specifications during technical evaluation and post-qualification process.</p> <p>Overhead Travelling Crane proposed by the winning bidder to be supplied, which were evaluated to be complying with the technical specifications, shall not be replaced and must be the same items to be delivered and installed during the contract implementation. Any proposed changes/replacement of said items may be allowed on meritorious reasons subject to validation and prior approval by NPC.</p> <ol style="list-style-type: none"> 2. Complete eligibility documents of the proposed sub-contractor, if any
<p>12</p>	<p>The price of the Goods shall be quoted DDP Project Site or the applicable International Commercial Terms (INCOTERMS) for this Project.</p>
<p>14.1</p>	<p>The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:</p> <ol style="list-style-type: none"> a) The amount of not less two percent (2%) of ABC, if bid security is in cash, cashier’s/manager’s check, bank draft/guarantee or irrevocable letter of credit; or b) The amount of not less than five percent (5%) of ABC, if bid security is in Surety Bond.
<p>15.0</p>	<p>All bid submissions and related correspondences are confidential and for viewing only by the intended recipient/s. Any unauthorized access to review, reproduce, or disseminate the information contained therein is strictly prohibited. The National Power Corporation (NAPOCOR) does not guarantee the security of any information electronically transmitted.</p> <p>Bid submissions and related correspondences may contain personal and sensitive personal information, and are subject to the Data Privacy Act of 2012, its implementing rules, regulations and issuances of the National Privacy Commission of the Philippines (“Privacy Laws”). By viewing, using, storing, sharing and disposing (collectively “Processing”), such bids submissions and correspondences, you agree to comply with the Privacy Laws. By responding to correspondence, you consent to the Processing by NAPOCOR of the Personal Data contained in your submission/reply in accordance with NAPOCOR’s Personal Data Privacy Policy which you can find at http://www.napocor.gov.ph.</p>



	<p>To report any privacy issue, contact the Data Privacy Officer at dpo@napocor.gov.ph.</p> <p>NAPOCOR is not liable for the proper and complete transmission of the information contained in bid submission/correspondences nor for any delay in its receipt.</p>
19.3	<p>The Goods are grouped together in one (1) lot and will be awarded to one (1) Bidder in one complete contract.</p> <p>Partial bid is not allowed. The Goods are grouped in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.</p> <p>The Bidders bid offer must be within the ABC of the lot.</p> <p>Bid offers that exceed the ABC of the lot or with incomplete price, shall be rejected.</p>
19.5	<p>If the Bidder opted to submit a Committed Line of Credit (CLC), the bidder must submit a granted credit line valid/effective at the date of bidding.</p>
20.1	<p>Additional documents to be submitted during Post-Qualification:</p> <ol style="list-style-type: none"> a. Class A – Eligibility Documents listed on the Annex A of Certificate of PhilGEPs Registration under Platinum Membership pursuant to Section 34.3 of the Revised IRR of R.A. 9184 b. Contract/Purchase Order and/or Notice of Award for the contracts stated in the List of all Ongoing Government & Private Contracts Including Contracts Awarded but not yet Started (NPCSF-GOODS-02); c. Certification coming from the project owner/client that the performance is satisfactory as of the bidding date for all ongoing contracts stated in Form NPCSF-GOODS-02; d. Contract/Purchase Order for the contract stated in the Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid (Form No. NPCSF-GOODS-03)
20.2	<p>The licenses and permits relevant to the Project and the corresponding law requiring it as specified in the Technical Specifications, if any.</p>
21.2	<p>Notice to Proceed.</p>

BID DOCUMENTS

SUPPLY, DELIVERY, INSTALLATION AND TEST OF
OVERHEAD TRAVELLING CRANE FOR POWER
BARGE 106

SECTION IV – GENERAL CONDITIONS OF CONTRACT

PR NO. S1-B0625-003

SECTION IV

GENERAL CONDITIONS OF CONTRACT



SECTION IV – GENERAL CONDITIONS OF CONTRACT

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SECTION IV – GENERAL CONDITIONS OF CONTRACT

1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

Additional requirements for the completion of this Contract shall be provided in the **Special Conditions of Contract (SCC)**.

2. Advance Payment and Terms of Payment

- 2.1. Advance payment of the contract amount is provided under Annex "D" of the revised 2016 IRR of RA No. 9184.
- 2.2. The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated in the **SCC**.

3. Performance Security

- 3.1. Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than the signing of the Contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR of RA No. 9184.
- 3.2. The performance bond to be posted by the Contractor must also comply with additional requirements specified in the **SCC**.

4. Inspection and Tests

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the **SCC, Section VI (Technical Specifications)** shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

5. Warranty

- 5.1 In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.
- 5.2 The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

6. Liability of the Supplier

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Supplier is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

SECTION V

SPECIAL CONDITIONS OF CONTRACT



SECTION V – SPECIAL CONDITIONS OF CONTRACT

GCC Clause	
1	<p>Delivery and Documents –</p> <p>The delivery terms applicable to the Contract is DDP delivered to the project site specified in the technical specifications, in accordance with INCOTERMS. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination.</p> <p>Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI – Technical Specifications. The details of shipping and/or other documents to be furnished by the Supplier are as follows:</p> <p><i>For Goods supplied from within the Philippines</i></p> <p>Upon delivery of the Goods to the Project Site, the Supplier shall notify the Procuring Entity and present the following documents to the Procuring Entity:</p> <ul style="list-style-type: none"> (i) Original and four copies of the Supplier’s invoice showing Goods’ description, quantity, unit price, and total amount; (ii) Original and four copies of Supplier’s factory test/inspection report; (iii) Original and four copies of the certificate of origin (for imported Goods); (iv) Delivery receipt detailing number and description of items received signed by the Procuring Entity’s representative at the Project Site; (v) Certificate of Completion/Inspection Report signed by the Procuring Entity’s representative at the Project Site; (vi) Original and four copies of the Inspection Receiving Report signed by the Procuring Entity’s representative at the Project Site; (vii) Original and four copies of the Manufacturer’s and/or Supplier’s warranty certificate; and (viii) Documents specified in the Technical Specifications, if any. <p><i>For Goods supplied from abroad:</i></p> <p>Upon shipment, the Supplier shall notify the Procuring Entity and the insurance company by e-mail the full details of the shipment, including Contract Number, description of the Goods, quantity, vessel, bill of lading number and date, port of loading, date of shipment, port of discharge etc. Upon delivery to the Project Site, the Supplier shall notify the Procuring Entity and present the following documents as applicable with the documentary requirements of any letter of credit issued taking precedence:</p>



- (i) Original and four copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;
- (ii) Original and four copies of the negotiable, clean shipped on board bill of lading marked "freight pre-paid" and five copies of the non-negotiable bill of lading;
- (iii) Original and four copies of Supplier's factory test/inspection report;
- (iv) Delivery receipt detailing number and description of items received signed by the Procuring Entity's representative at the Project Site;
- (v) Certificate of Completion/Inspection Report signed by the Procuring Entity's representative at the Project Site;
- (vi) Original and four copies of the Inspection Receiving Report signed by the Procuring Entity's representative at the Project Site;
- (vii) Original and four copies of the certificate of origin (for imported Goods); and
- (viii) Original and four copies of the Manufacturer's and/or Supplier's warranty certificate including all other documents specified in the Technical Specifications, if any.

For purposes of this Clause the Procuring Entity's Representative at the Project Site is Vice President - SPUG.

Incidental Services –

The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VII - Schedule of Requirements:

- a. performance or supervision of on-site assembly and/or start-up of the supplied Goods;
- b. furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- c. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
- d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- e. training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

f. Additional requirements specified in Section VI – Technical Specifications, if any.

The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

Spare Parts –

The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

1. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and
2. in the event of termination of production of the spare parts:
 - i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements; and
 - ii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested

The spare parts and other components required are listed in **Section VI (Technical Specifications)** and **Section VII (Schedule of Requirements/Bid Price Schedule)** and the costs thereof are included in the contract price.

The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for the period specified in the Technical Specifications.

Spare parts or components shall be supplied as promptly as possible, but in any case, within three (3) months of placing the order.

Packaging –

The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by the Procuring Entity.

The outer packaging must be clearly marked on at least four (4) sides as follows:

Name of the Procuring Entity
Name of the Supplier
Contract Description
Final Destination
Gross weight
Any special lifting instructions
Any special handling instructions
Any relevant HAZCHEM classifications

A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.

Transportation –

Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.

Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.

The Procuring Entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP deliveries. In the case of Goods supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until their receipt and final acceptance at the final destination.

Intellectual Property Rights –

The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.

2.2

Advance payment not to exceed fifteen percent (15%) of the contract amount shall be allowed and paid within sixty (60) calendar days from effectivity of the contract and upon the submission to and acceptance by the Procuring Entity of an irrevocable letter of credit or bank guarantee issued by a Universal or Commercial Bank. The irrevocable letter of credit or bank guarantee must be for an equivalent amount, shall remain valid until the goods are delivered, and accompanied by a claim for advance payment.

All progress payments shall first be charged against the advance payment until the latter has been fully exhausted.

The terms of payment shall be as follows:

1) For Supply and Delivery Contracts:

(a) On Contract Effectivity: Advance payment of Fifteen percent (15%) of the total Contract Price shall be paid within sixty (60) days from effectivity of the Contract and upon submission of a claim and an irrevocable letter of credit or bank guarantee issued by a Universal or Commercial Bank for the equivalent amount valid until the Goods are delivered and in the form provided in Section VIII- Bidding Forms.

(b) On Delivery: Eighty percent (80%) of the Contract Price of the **delivered Goods** shall be considered for payment, less the total amount of advance payment, if any and other deductions. If the amount is sufficient to fully recoup the advance payment, the remainder after deductions shall be paid to the Supplier within sixty (60) days after the date of receipt of the Goods and upon submission of the documents (i) through (vi) specified in the SCC provision on Delivery and Documents. Otherwise, the total delivery payment shall be charged against the advance payment and the remaining advance payment will be fully recouped from the succeeding claims.

(c) On Acceptance: The remaining twenty percent (20%) of the Contract Price of the **delivered Goods** shall be paid to the Supplier within sixty (60) days after the date of submission of the acceptance and inspection certificate for the respective delivery issued by the Procuring Entity's authorized representative. In the event that no acceptance certificate is issued by the Procuring Entity's authorized representative within forty five (45) days after successful test and commissioning, if required, the Supplier shall have the right to claim payment of the remaining twenty percent (20%) subject to the Procuring Entity's own verification of the reason(s) for the failure to issue documents (vii) and (viii) as described in the SCC provision on Delivery and Documents.

2) For Supply, Delivery, Installation, Test and Commissioning Contracts:

(a) On Contract Effectivity: Advance payment of Fifteen percent (15%) of the total Contract Price shall be paid within sixty (60) days from effectivity of the Contract and upon submission of a claim and an irrevocable letter of credit or bank guarantee issued by a Universal or

Commercial Bank for the equivalent amount valid until the Goods are delivered and in the form provided in Section VIII- Bidding Forms.

(b) On Delivery: Eighty percent (80%) of the price of the **delivered Goods**, excluding price for installation, test and commissioning shall be considered for payment, less the total amount of advance payment, if any and other deductions. If the amount is sufficient to fully recoup the advance payment, the remainder after deductions shall be paid to the Supplier within sixty (60) days after the date of receipt of the Goods and upon submission of the documents (i) through (vi) specified in the SCC provision on Delivery and Documents. Otherwise, the total delivery payment shall be charged against the advance payment and the remaining advance payment will be fully recouped from the succeeding claims.

(c) On Acceptance: The remaining twenty percent (20%) of the price of the **delivered Goods** plus price for installation, test and commissioning shall be paid to the Supplier within sixty (60) days after the date of submission of the acceptance and inspection certificate for the respective delivery issued by the Procuring Entity's authorized representative. In the event that no acceptance certificate is issued by the Procuring Entity's authorized representative within forty five (45) days after successful test and commissioning, the Supplier shall have the right to claim payment subject to the Procuring Entity's own verification of the reason(s) for the failure to issue documents (vii) and (viii) as described in the SCC provision on Delivery and Documents.

3) For Supply, Delivery, Installation, Test and Commissioning Contracts where Installation, Test and Commissioning prices are included in the supply price:

(a) On Contract Effectivity: Advance payment of Fifteen percent (15%) of the total Contract Price shall be paid within sixty (60) days from effectivity of the Contract and upon submission of a claim and an irrevocable letter of credit or bank guarantee issued by a Universal or Commercial Bank for the equivalent amount valid until the Goods are delivered and in the form provided in Section VIII- Bidding Forms.

(b) On Delivery: Sixty percent (60%) of the price of the **delivered Goods** shall be considered for payment, less the total amount of advance payment, if any and other deductions. If the amount is sufficient to fully recoup the advance payment, the remainder after deductions shall be paid to the Supplier within sixty (60) days after the date of receipt of the Goods and upon submission of the documents (i) through (vi) specified in the SCC provision on Delivery and Documents. Otherwise, the total delivery payment shall be charged against the advance payment and the remaining advance payment will be fully recouped from the succeeding claims.

On Acceptance: The remaining forty percent (40%) of the price of the **delivered Goods** shall be paid to the Supplier within sixty (60) days after the date of submission of the acceptance and inspection certificate for the respective delivery issued by the Procuring Entity's authorized representative. In the event

	<p>that no acceptance certificate is issued by the Procuring Entity's authorized representative within forty five (45) days after successful test and commissioning, the Supplier shall have the right to claim payment subject to the Procuring Entity's own verification of the reason(s) for the failure to issue documents (vii) and (viii) as described in the <u>SCC</u> provision on Delivery and Documents</p>
<p>3.2</p>	<ol style="list-style-type: none"> 1. The following must be indicated in the performance bond to be posted by the Contractor: <ol style="list-style-type: none"> i. Company Name ii. Correct amount of the Bond iii. Contract/Purchase Order Reference Number iv. Purpose of the Bond: "To guarantee the faithful performance of the Principal's obligation to undertake <u>(Contract/Purchase Order Description)</u> in accordance with the terms and conditions of <u>(Contract No. & Schedule/Purchase Order No.)</u> entered into by the parties." 2. The bond shall remain valid and effective until the duration of the contract <u>(should be specific date reckoned from the contract effectivity)</u> plus sixty (60) days after NPC's acceptance of the last delivery/final acceptance of the project. 3. In case of surety bond, any extension of the contract duration or delivery period granted to the CONTRACTOR shall be considered as given, and any modification of the contract shall be considered as authorized, as if with the expressed consent of the surety, provided that such extension or modifications falls within the effective period of the said surety bond. However, in the event that the extension of the contract duration or delivery schedule would be beyond the effective period of the surety bond first posted, it shall be the sole obligation of the CONTRACTOR to post an acceptable Performance Security within ten (10) calendar days after the contract duration/delivery period extension has been granted by NPC. 4. Other required conditions in addition to the standard policy terms issued by the Bonding Company: <ol style="list-style-type: none"> i. The bond is a penal bond, callable on demand and the entire amount thereof shall be forfeited in favor of the Obligee upon default of the Principal without the need to prove or to show grounds or reasons for demand for the sum specified therein; ii. The amount claimed by the Obligee under this bond shall be paid in full and shall never be subject to any adjustment by the Surety; iii. In case of claim, the Surety shall pay such claim within sixty (60) days from receipt by the Surety of the Obligee's notice of claim/demand letter notwithstanding any objection thereto by the Principal.
<p>4</p>	<p>The inspections and tests that will be conducted are specified in the Technical Specifications.</p>



SECTION VI

TECHNICAL SPECIFICATIONS

(PART I – TECHNICAL SPECIFICATIONS)

PART I - TECHNICAL SPECIFICATIONS

GW - GENERAL WORKS

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PART I - TECHNICAL SPECIFICATIONS

GW - GENERAL WORKS

GW-1.0 GENERAL

This specification covers the general technical requirements for the **supply, delivery, installation and testing of one (1) x 2 Ton Single-Girder Overhead Travelling Crane's Electric Hoist for Power Barge 106** including supply of labor and materials required for retrofitting works of the associated structural supports.

Equipment and parts which are not specifically mentioned herein but are necessary for the proper assembly, installation, safe and reliable operation of the equipment shall be furnished including special and standard tools for maintenance, and spare parts for one (1) year operation.

Equipment shall essentially be the standard products of the manufacturer which best meets the conditions of sound engineering economy of manufacture and procurement of any necessary spare parts.

The Supplier shall accept full responsibility for its work including design, equipment drawings, performance qualifications, specifications, documentation, reports, fabrication, assembly, corrosion protection, cleaning, shop testing, preparation for shipment, field testing, warranty provisions, compliance with the applicable codes and standards, and the requirements of this specification.

Workmanship shall be of first class quality and in accordance with the best modern engineering practice for the manufacture, assembly, installation and test of all equipment and materials, notwithstanding any omissions from the specifications and drawings. To have quality workmanship, only technicians skilled in their respective trades shall be employed.

Correction of all deviations from the requirement of this specification or drawings and all errors in or resulting from the workmanship of the Supplier including all costs, expenses and other damages resulting from any such deviations or errors, as well as freight charges, taxes and duties, will be solely for the account of the Supplier.

The Supplier shall strictly observe the general technical requirements of this Section (GW-General Works) in conjunction with the specific technical specifications (Mechanical and Electrical Works). The specific technical specifications shall take precedence over the general technical requirements in case of any contradiction.

GW-1.1 Project Description

The overhead travelling crane shall be used in the overhauling, maintenance and servicing of the diesel generating sets and associated auxiliary equipment and shall be installed complete in every respect at the existing Power Barge 106 as shown on the drawings.

The 2-ton overhead travelling crane's electric hoist shall be complete with electric motor-operated trolley, electric hoist, bumper-end stoppers runway conductors, pendant-type controls, spare parts for one year operation, special tools and accessories necessary for the safe and reliable operation of the equipment.

Retrofitting works on existing structural supports and additional works as required and shown on the attachments are included in the scope of works of the Supplier.

Power supply requirement of the overhead traveling crane's electric hoist shall be sourced from the existing 480 V, 3 phase power supply line. All electrical equipment devices including monitoring and protection system of appropriate ratings shall be supplied by the Supplier if the available power supply and appurtenant equipment/devices is not suitable for the proposed equipment and auxiliaries.

GW-1.2 Project Location

The overhead traveling crane's electric hoist shall be delivered, installed and tested at Power Barge 106 located in Brgy. Bagacay, Romblon, Romblon.

Means of transportation in going to Power Barge 106 is by boat from Batangas Port to Romblon Port. The distance from Power Barge 106 is approximately 2.5 km from Romblon Port.

GW-1.3 Project Site Conditions

The Supplier shall be responsible for visiting the plant site and make assessment of the physical conditions of the existing structures to be affected by the works and make particular reference to accessibility to the site. The Supplier shall thoroughly investigate and familiarize himself with all the conditions at the site, the surrounding area, means of communication and transportation, materials and equipment sourcing, determine/verify the extent of the scope of works required for the proper installation and operation of the equipment supplied, and all other factors that could hamper the smooth execution of the contract.

Any and/or all expenses arising through the lack of knowledge or understanding regarding the existing conditions of the site shall be the responsibility of the Supplier and no additional payment thereof shall be made by NPC.

The conditions stated below may be applied for the project site unless otherwise specifically indicated on the technical specifications.

Elevation above sea level	:	0 to 500 m
Ambient temperature	:	up to 45°C
Barometric pressure	:	0.974 - 1.03 kg/cm ² abs
% Relative humidity	:	up to 85%
Design for seismic loads	:	Seismic zone factor 0.4
Max. wind velocity	:	250 km/hr

There are two (2) pronounced seasons in the province, the dry and wet season. The wettest months are from August to November. The other months of the year are generally dry with occasional rain showers.

The prevailing atmospheric condition is generally warm, humid, and salt laden.

GW-1.4 Project Duration

The contract duration of the project is one hundred eighty (180) calendar days reckoned from receipt of the Notice to Proceed. The total contract period is inclusive of twenty (20) rainy/unworkable days, considered unfavorable for the execution of works at site.

GW-2.0 SCOPE OF WORK

The scope of work shall cover but not limited to the furnishing of labor and materials for the supply, delivery, installation and testing of 2-ton overhead travelling crane's electric hoist complete with electric motor-operated trolley, bumper-end stoppers runway conductors, pendant-type controls, spare parts for one (1) year operation, special tools and accessories necessary for the safe and reliable operation of the system.

The works shall include retrofitting works on existing structural supports and other works as required and shown on the attachments.

The work shall include all and every work and service although not specifically detailed herein but are required to fully complete and placing ready for the safe and reliable operation of the overhead travelling crane.

The works and services to be performed under this contract shall include but not limited to the following:

- a) Mobilization, demobilization, clean-up, provision of temporary office & housing and storage, furnishing and maintenance of general construction facilities, and all miscellaneous works required for the implementation of the project;
- b) Conduct actual size measurement and assessment of the present conditions of the existing power barge's travelling overhead crane structures and facilities affected by the works;

- c) Provide services of highly qualified and experienced technical personnel having expertise in the overhead travelling crane's installation and testing;
- d) Supply and install of interconnection cables from the spare circuit breaker of the existing motor control center to the crane panelboard. The work shall include the supply, installation and test of electrical equipment/devices including monitoring and control system should the available power supply is not suitable for the equipment auxiliaries;
- e) Supply and delivery of spare parts recommended for one (1) year operation from date of project completion;
- f) Supply and delivery of equipment/tools/instruments and consumables necessary during equipment installation, start-up, test, operation and normal maintenance of the overhead crane including tool box;
- g) Maintenance services rendered upon request of NPC in the event of any abnormality occurs within the warranty period at no cost to NPC.
- h) Provide training to NPC plant personnel on proper operation and maintenance;
- i) Submit relative drawings and documents for approval prior to procurement/implementation of materials and equipment including as-built drawings upon completion of the project or prior to acceptance of the works. Two (2) sets of operation and maintenance manual shall also be submitted prior to testing;
- j) Clean up of work areas after the completion of work covered by the contract; and
- k) All other equipment appurtenances and work activities not specified but are necessary for the completion, safe and reliable operation of the traveling crane.

GW-3.0 MATERIALS AND EQUIPMENT

GW-3.1 General

All materials, equipment, devices and accessories to be supplied under this contract shall be new and unused, free from defects and imperfections and best suited for the purpose intended. Materials used in the manufacture and installation of all equipment to be furnished shall be of the required quality used in commercial products of reputable manufacturers.

All materials shall comply with the latest revisions or editions of the specified standards for each material specification unless otherwise specified or permitted by NPC. The materials selected shall be appropriately matched to other items complying with all applicable regulations, quality and dimension standards. All materials or components used shall be tested in conformance

with the applicable specifications and purchased with certified mechanical and chemical properties.

Materials and equipment of the Overhead Traveling Crane's Electric Hoist shall be essentially the current design product of one manufacturer regularly engaged in the production of such equipment. The overhead crane shall be designed and manufactured for maximum safety and reliability in accordance with standard quality specifications.

Certified mill test reports as required in the relevant sections of this specification and the governing codes and standards shall be furnished by the Supplier for NPC's record. Copies of each mill test report shall be submitted to NPC prior to fabrication of materials covered.

The Supplier shall submit equipment specifications, brochures, catalogs, plan and layout drawings, wiring diagrams, and other related technical data and detailed drawings of all equipment and materials to be supplied by the Supplier under this contract for NPC's review and approval prior to procurement.

The relative experience of the Manufacturer for the Overhead Traveling Crane shall comply with the following:

- a) The Manufacturer should have been in the business of manufacturing the equipment for not less than five (5) years; and
- b) The Model/Type of overhead crane being offered should have been in the actual service for not less than three (3) years.

NOTE: *Experience less than what is required will be ground for rejection of equipment being offered.*

GW-3.2 Applicable Codes and Standards

The supply of equipment and materials shall conform to the latest specifications and provisions of the following engineering societies or other internationally accepted standards. Other standards which ensure equal or higher quality than the standards mentioned below will be accepted provided they meet the requirements of existing laws and regulations of the Government of the Republic of the Philippines.

AGMA	-	American Gear Manufacturers Standards
AISC	-	American Institute of Steel Construction
ANSI	-	American National Standard Institute
ASME	-	American Society of Mechanical Engineers
ASTM	-	American Society of Testing Materials
AWS	-	American Welding Society
CMAA	-	Crane Manufacturers Association of America
FM	-	Factory Mutual Engineering
HIS	-	Hydraulic Institute Standards
HMI	-	Hoist Manufacturers Institute
NEC	-	National Electric Code

- NEMA - National Electrical Manufacturer's Association
- NFPA - National Fire Protection Association
- OSHA - Occupational Safety Health Act of 1970
- PEC - Philippine Electric Code
- SSPC - Steel Structures Painting Council

In the event of any conflict among the above listed codes or this Specification, Appendices and Attachments, the bidder shall refer the conflict to NPC for written resolution. In addition to the above codes and standards, the bidder shall comply with all applicable state and local laws and regulations.

In addition to the above codes and standards, the Supplier shall comply with all applicable national and local laws, codes, regulations, statutes and ordinances. The latest edition of each standard shall mean the latest edition available at the date of contract signing.

Other internationally recognized national standards may be accepted, if in the opinion of NPC, such will guarantee a quality not inferior to that guaranteed by the above standards. The list of these alternative standards which the bidder proposes to adopt must be attached to his Bid for acceptance. In every case, bidders must list fully the standards they will conform to for this Contract.

In case of conflicting requirements between authorities cited above or between authorities cited and those specified, such disagreement shall be resolved by NPC and its decision shall be final. The responsibility shall be on the bidder to show the suitability of any alternative standards he may wish to use.

All units, dimensions and calculations shall be in metric system.

GW-3.3 Test of Materials

All materials, parts and assemblies to be used shall be tested conforming to the latest specifications and provisions of approved Standards of Testing Materials. Results of the test shall be made to provide means of determining compliance with the applicable specifications. When requested, all test or trials shall be made in the presence of NPC or his duly authorized representative.

GW-3.4 Bill of Materials

The Supplier shall be responsible for checking and verifying at site the proposed location to determine the most accessible route of wiring/cables for tapping/connecting the power supply requirement of the Overhead Traveling Crane from the existing power source, determine the required quantity of materials and components to be supplied and installed, and verify the actual scope of works and its corresponding cost.

The Supplier shall also be responsible to assess and determine all and every work and service although not specifically detailed but are deemed required to fully complete the work and placing ready for the safe and reliable operation of the Overhead Traveling Crane. Relative costs of any additional works or

materials which the Supplier deemed required or necessary to complete the works shall be included in the bid proposal.

Any and/or all expenses arising through the lack of knowledge or understanding regarding the existing conditions of the site shall be the responsibility of the Supplier and no additional payment thereof shall be made by NPC.

GW-3.5 Tropical Serviceability

GW-3.5.1 General

In choosing materials and their finishes, due regard shall be given to the humid tropical conditions under which the equipment is to work. Cubicles used for switchgear and control cabinets in outdoor plant shall be vermin-proof and fungus-proof. Some relaxation of the following provisions may be permitted where equipment is hermetically sealed but it is preferred that tropical grade materials should be used wherever possible.

Totally enclosed motors and enclosures containing electrical control and switching equipment and instrument for outdoor installations shall be equipped with temperature controlled electrical heaters. The construction of the enclosures and installation of heaters shall be as to ensure effective circulation of air while ensuring that no damage to equipment occurs due to overheating.

GW-3.5.2 Metals

Iron and steel are in general to be galvanized or painted, as appropriate. Small iron and steel plate (other than SUS 316 stainless steel) of all instruments and electrical equipment, the cores of electromagnets and the metal parts or relays and mechanisms are to be treated in an approved manner to prevent rusting. Cores or other components which are laminated, or which cannot be rust proofed, shall have all the expected parts thoroughly cleaned and heavily enameled, lacquered or compounded.

GW-3.5.3 Screws, Nuts, Springs, Pivots, etc.

The use of iron and steel is to be avoided in instruments and electrical relays wherever possible. Steel screws, when used, are to be zinc, cadmium or chromium plated or, when plating is not possible owing to tolerance limitations, are to be of corrosion-resistant steel. All wood screws are to be of dull nickel-plated brass or of other approved finish.

Instrument screws (except those forming part of a magnetic circuit) shall be stainless steel or cadmium plated steel. Springs are to be of non-rusting materials, e.g. phosphor bronze or nickel silver, as far as possible. Pivots and other parts for which non-ferrous material is unsuitable are to be of approved rustless steel where possible.

GW-3.5.4 Fabrics, Cork, Paper, etc.

Fabrics, cork, paper and similar materials, which are subsequently to be protected by impregnation, are to be adequately treated with an approved fungicide. Sleevings and fabrics treated with linseed oil or linseed oil varnishes are not to be used.

GW-3.5.5 Adhesives

Adhesives are to be specially selected to ensure that the type to be used shall be impervious and resistant to attack of mildew and insects. Synthetic resin cement only shall be used for joining wood. Case-in cement shall not be used.

GW-4.0 EQUIPMENT MARKING, LABELING AND MISCELLANEOUS REQUIREMENTS**GW-4.1 Identification System**

All electro-mechanical equipment, valves, instruments, piping, panels and all component parts including cables, control wiring and terminals which shall be supplied and installed by the Supplier under this contract shall be designated with an alphanumeric code allowing clear identification of the equipment and components during design, installation and operation of the plant. Each equipment and components shall be systematically marked, both on the drawings and documents and on the equipment, valves, instruments, piping, cables, wires and terminals themselves.

Equipment designation codes and brief technical data shall be indicated on all drawings and documents including bills of materials, lists of spare parts, etc. The codes will later be used for easy identification of stored equipment parts and materials and shall be suitable for use with a computer supported registration system.

Attached drawings are in most cases already marked with designated codes; the system shall be expanded to include detailed diagrams, cable lists, spare parts list, etc., as approved by NPC.

Nameplates, labels and warning plates shall be in English.

GW-4.2 Nameplates

All equipment and auxiliaries to be supplied by the Supplier under this contract shall be provided with 1 mm thick of stainless steel or approved equivalent corrosion-resistant nameplate with clearly legible writing of approved size and pattern which shall be permanently attached to each assembled piece of equipment at an easily visible location subject to approval by NPC.

Nameplates generally contain the brief technical specifications or characteristics of each component or equipment has been designed to operate and shall include the following: manufacturer's name, type of



equipment, serial number, year of manufacture, weight, Standard Plant Identification Number (SPIN) and other relevant information in compliance with applicable standards. Any special instructions shall also be shown and suitably attached, as much as practicable, to the equipment or other visible location near the subject equipment.

For other major components, i.e. pumps, motors, etc., the following shall be added: rated horsepower, speed, total head, capacity, direction of rotation and any other pertinent information.

Nameplates for panels, boards, etc. shall be made of laminated black and white plastic. The lettering shall be bold-engraved through the black layer so that the letters appear white.

If it is not practical to include the SPIN or tag number on the equipment, valve, & instruments nameplate, a separate durable stainless steel tag or approved non-corrosive material with the identification number shall be securely attached to the equipment as specified in clause GW-4.3.

Each equipment wherever necessary, shall be provided with cautionary and warning plates and signs in accordance with the prescribed ANSI/IEEE or equivalent IEC Standards for the particular equipment.

Nameplates shall be attached by screws, the use of glue is only permitted for fixing labels on inside of a panel where screws are not applicable due to physical size of equipment.

GW-4.3 Labels

Labels contain only the Standard Plant Identification Number (SPIN) of each component or equipment for maintenance management and record purposes. In case SPIN is already factory fixed in the nameplate, labels are no longer required.

Labels for pumps and other rotary equipment shall be securely attached or installed adjacent to the equipment or as directed by NPC. For large equipment, i.e. tanks, piping, etc, the labels may be printed directly on the equipment's external surface which shall be fixed at readily visible locations. In addition to labels, a direction of flow for pipelines shall also be identified by arrows painted with color different from the pipe base color. Size of labels varies with the size of the equipment.

All valves shall be provided with suitable labels attached to the valve handwheel and engraved in it the valve number or SPIN and other inscriptions as applicable. Valve body mounted shall be applied where handwheel top mounted labels are not applicable.

Labels shall be provided on both front and rear sides of MCC's, boards, panels, etc.

Standard Plant Identification Number (SPIN) for instruments and other devices shall also be provided and inscribed in the label or nameplate as applicable.

Plate material used for labels shall be of stainless steel, 1mm minimum thickness or approved equivalent.

Labels shall be secured by screws or by flexible wires if screws are not applicable such as for valves, instruments, etc.

GW-4.4 Tag Numbers/Standard Plant Identification Number (SPIN)

Tag Numbers or SPIN for all supplied equipment and materials shall be provided by the Supplier.

Tag Numbers/SPIN are designation codes which shall be used to achieve uniformity and standardization in identifying each component and equipment for installation, maintenance, documentation and record purposes. The Tag Numbers/SPIN shall be clearly inscribed in a stainless steel or equivalent corrosion resistant metal in accordance with the NPC Standard Specifications.

Tag Numbers/SPIN are generally specified or indicated on the Bid drawings. In case of supplied equipment, valves, instruments or devices are not designated with tag numbers or SPIN, the Supplier shall assign a number subject to the approval of NPC.

GW-4.5 Erection Marks

All members comprising multi-part assemblies are to be marked with distinguishing numbers and/or letters corresponding to those of the approved drawings or material lists. These erection marks, if impressed before painting or galvanizing, shall be clearly readable.

Color banding of a code approved by NPC is to be employed to identify members of similar shape or type but of differing strengths or grades.

GW-4.6 Locks

Where locks are called for in the Specification, they shall be of the barrel type. Whenever possible, they shall be incorporated in the appropriate door handle. Padlocks will be acceptable on valves and are preferred for all outdoor equipment.

In general, all locks shall be supplied with three keys, and all locks and keys are to be non-interchangeable. However, in the case of an electric switchboard containing a number of lockable doors, all locks shall be operated by one key. In all other cases where a set of locks is provided under any section of the equipment, a group master key shall also be supplied. Where a group of locks is supplied under any part of the Contract, a key cabinet is to be supplied for the accommodation of all padlocks and/or keys while not in use. Padlocks and keys are to be engraved with a suitable identifying code or inscription and this is to be repeated in the cabinet on engraved labels.

GW-4.7 Guards

Coupling, drive shafts, fans and other rotating components shall be provided with protection guards. These shall comply with ANSI Standard B15.1, Safety Code for Mechanical Power Transmission Apparatus.

GW-4.8 Lifting Lugs

Each item of equipment or the whole equipment on skid which requires to be removed for servicing or transporting and which weighs more than 20 kg shall be provided with lifting lugs. Each lug shall be capable of supporting the entire unit. Lifting lugs shall be welded to and be of the same material as the equipment. Lug location shall minimize tilting of the equipment when suspended by the lugs.

GW-5.0 PACKING, SHIPMENT AND STORAGE**GW-5.1 Preparation**

The Supplier shall prepare materials and equipment for shipment to protect it from damage during shipment, transport and subsequent storage.

Equipment shall be completely drained of all water and thoroughly dry prior to shipment. When such draining requires removal of plugs, drain valves, etc., the Supplier shall make sure that these parts are re-inserted or reassembled prior to shipment. Other fluids (coolant, fuel oil, lube oil, etc.) shall be drained only if the Supplier deems it necessary and subject to the approval of NPC.

All openings and machined surfaces shall be provided with protection to prevent damage, corrosion and entrance of foreign matter during shipment, transport and storage.

Flanged connections shall be protected by a ½ inch (15 mm) or thicker plywood disc, or suitable alternate, bolted to the face of the flange.

Threaded or socket weld connections shall be protected with screwed or snap on type and securely held plastic protectors. Cast-iron plugs are not acceptable for protection unless part of the permanent assembly.

Butt weld connections shall be protected by wooden disks that cover the entire weld end area and shall be secured by metal straps and fasteners.

Covers, straps or fasteners shall not be welded to equipment.

Equipment shall be adequately supported for shipment. All loose parts shall be crated or boxed for shipment and appropriately identified. Where shipment is braced internally, it shall be marked conspicuously, "Remove internal braces before testing and operating".

All large and heavy shipping units shall have suitable skids for moving. Crating shall also be adequate for lifting with slings. If location of slings is critical, these locations shall be marked accordingly.

As the shipment may be left in open temporary storage at the designated place, the Supplier shall ensure that the delivered items have appropriate protection from water and other elements.

All electrical and delicate mechanical parts susceptible to damage from moisture shall be packed in hermetically sealed container or other approved containers within their packing cases, with all machined surfaces coated with a rust preventive compound. All sealed packages shall include bags of silica or equally moisture absorbing chemical. When electric space heaters are provided for that purpose, these should be wired to the outside of the equipment so that energization immediately upon receipt is possible without disassembly of crates, etc. This also requires that no combustible material will be left in the inside of the equipment.

All spare parts shall be packed in a sealed container including special and standard tools in their separate sealed toolboxes.

All packages, crate boxes, drums, bags, bundles, or other containers or any loose pieces shall carry the following identification marks on the two (2) sides in black with a stencil-proof ink or paint by means of block letters not less than 30 mm high; i.e.

NATIONAL POWER CORPORATION
Power Barge 106

CONTRACT No.	:	_____
ITEM NO.	:	_____
PORT OF DISCHARGE	:	_____
DESCRIPTION OF CONTENT	:	_____
NET WEIGHT	:	_____ kgs
GROSS WEIGHT	:	_____ kgs
DIMENSION	:	_____ m ³
CRATE NO.	:	_____

All packages shall be forwarded with a copy of packing list placed inside the package and another copy thereof contained in a waterproof envelope placed outside the package. The packing list shall give all information on the package such as package no., packing appearance, net weight, gross weight, dimension, measurement, and description of the equipment including storage and handling instructions with descriptions for periodic inspection and/or storage maintenance to ascertain that no deterioration will occur during storage.

Prior to shipment/transport, the Supplier shall furnish advance copies of all packing lists and other pertinent documents.



GW-5.2 Shipment/Transport

The Supplier shall be responsible for the sea and land transportation of the plant equipment, materials and supplies required under this Specification and shall ensure that they are safely and timely delivered to the specified site. Supplier shall be deemed to have visited the sites and other areas on the route of delivery, including port facilities, inter-island shipping facilities, island transport, access roads, bridges, and to have acquainted themselves with all factors that will affect the cost of shipping and freight to Site.

Any damages to the roads, bridges, railways, etc. arising out of neglect of Supplier shall be the responsibility of the Supplier. Likewise, any additional claim attributable to Supplier's lack of knowledge or understanding on existing conditions of the site shall not be given due credence.

Upon arrival of equipment and materials at site, NPC and the Supplier or their authorized representatives shall jointly verify the plant equipment to be stored at site following the steps below:

- a) Inspection and verification of the packing list;
- b) Visual inspection of the condition of the packing and its surfaces; and
- c) Partial opening of the crates and plastic sheet protection of the crane auxiliary equipment to verify the content and its physical condition and to check pilferage or damage during shipment and storage.

A record shall be prepared carefully noting all eventual shortage, defects or damages, signed by the Supplier and concurred by NPC. All shortages and damages noted shall be immediately replaced by the Supplier at his own cost and shall ensure the timely delivery of replacement without affecting the agreed overall project implementation schedule. The Supplier shall be responsible for the care and custody of the equipment from storage until erection.

The Supplier shall keep a proper store ledger carefully noting all movements of materials within the project site. NPC has the right of access to the ledger, which shall be kept by the Supplier on site at all times.

The Supplier shall ship/transport the required equipment and materials on clear commercial bill of lading and the cost of all freight, insurance, shipping, handling and road transport charges, as applicable, shall be included in the Bid Price.

GW-5.3 Storage

If the equipment and materials to be supplied by the Supplier including those to be dismantled/re-installed, will not be immediately required for installation at the site, the materials and equipment shall be carefully stored and maintained at such place and in such a manner as NPC may direct until such time as they are ready for installation/erection.

The Supplier shall be responsible for securing all his supplied equipment, including those to be dismantled/re-installed, at a place designated by NPC until the completion of the erection/installation, and test. Any loss and/or damage of said equipment at said storage area shall be the responsibility of the Supplier.

If the Supplier desires to use any storage area outside property at the respective sites, he may do so at his own expense and subject to the approval of NPC.

GW-6.0 ERECTION & INSTALLATION REQUIREMENTS

All electro-mechanical equipment and associated structures, including those to be dismantled/re-installed materials and equipment, shall be assembled, erected, installed and tested in accordance with the manufacturer's drawings, and instruction manuals. In the event of conflict within these documents, the Supplier shall inform NPC of the conflict in writing for written resolution prior to the execution of the Work.

Materials and equipment shall be handled with care at all times to prevent damage and defects during handling, hauling, packing/crating, loading, transportation, unloading, assembly/re-assembly, erection/re-erection and any such damage and defects shall be repaired, replaced or otherwise make good by the Supplier to the satisfaction of and at no cost to NPC.

Assembly, erection and installation of all materials, equipment and its associated structures shall be carried out by skilled and qualified personnel with special training and experience in the appropriate trade.

During installation, the Supplier shall provide adequate lifting gears and other protective devices that may be required to prevent damage to the equipment during and after erection. The Supplier shall be responsible for the correct positioning and leveling of the equipment and auxiliaries, and any checking made by NPC during the course of the work shall not relieve the Supplier from his responsibility. The equipment and associated structures shall be carefully lifted or glided on their respective foundations or supporting structures by using only approved methods and devices on a manner that will prevent damage during erection/installation. They shall be positioned on locations as shown on the drawings.

Welding works for structural steels and piping system shall be by an electric arc process. The procedure, testing and inspection shall conform generally with the relevant approved standards and to the approval of NPC. Weld joint preparations shall be in accordance with approved standard and to NPC's approval. Approval of the welding procedure, etc. shall not relieve the Supplier of his responsibility for correct welding, electrodes and for minimizing distortion in the finished structure and piping systems.

GW-7.0 DEMOLITION AND DISMANTLING REQUIREMENTS (AS APPLICABLE)**GW-7.1 General**

The Supplier shall make full provision in his bid for the demolition, dismantling of equipment/structures if necessary, temporary storage of existing equipment/structures if any, and disposal of debris as a result of the retrofitting works on structural supports. He shall furnish all necessary plant, equipment, tools and labor to execute the demolition/dismantling works.

The Supplier shall submit after the award of contract the general procedure or overall work program covering the dismantling, demolition and disposal of debris and temporary storage of all dismantled equipment and materials, if any.

Materials and equipment which are required to be relocated, if any, shall be handled with care at all times to prevent damage of any kind during the dismantling and any such damage shall be made good by the Supplier to the satisfaction of NPC.

The Supplier shall strictly observe the safety requirements/regulations of existing plant equipment and facilities during the performance of the work.

All works shall be coordinated with NPC at site and with existing installation so that interference in the performance of works will be avoided. In case interference occurs, NPC will decide which work is to be relocated.

GW-7.2 Preparation

NPC shall make available and provide access to the site for the demolition/dismantling activities of the Supplier. After contract award and prior to demolition/dismantling, the Supplier shall submit detailed schedule and methodology or work program for review and approval of the NPC. The work program shall include detailed demolition/dismantling procedure for all affected plant equipment and associated steel structures. The demolition/dismantling procedures shall comply with safety standards, existing environmental laws, rules, and regulations.

Any changes in any part of the approved work program shall be subject for review and approval by NPC.

The Supplier shall inspect and check properly all affected electrical cables and pipes and shall ensure that these are securely disconnected from their respective main source before the conduct of the actual dismantling activities, if required.

Piping systems shall be totally drained prior to dismantling. Lube oil, fuel oil and chemicals shall be properly disposed in a container with appropriate labels describing the contents. Water contents on pipes may be disposed in the existing drainage lines. Waste water found to be contaminated shall be properly treated prior to disposal.

All peripheral pipes, electrical power and control cables, conduits and cable trays including protruding steel supports that may obstruct the free movement of equipment going out from the Power Plant shall be dismantled first and removed.

The Supplier shall identify the most convenient access and manner of moving the affected equipment out of a fixed structure/s. The Supplier shall provide temporary shelter/cover (tarpauline or equivalent type of cover) on the torn down part until the torn down part is properly packed and crated.

All bevels, threads, flange faces and other sealing surfaces shall be suitably protected with wood, plastic or soft metal to prevent damage to these surfaces during handling and transport.

All pipes shall be capped using plastic or soft caps or plugs. All caps shall be taped.

All packaging or crating shall be suitable for long term outdoor storage on or off the ground.

GW-7.3 Dismantling of Existing Installations

The Supplier shall provide all the necessary equipment, tools and labor for the dismantling, transferring and moving out of all the equipment and its associated structures and accessories.

During dismantling works, electro-mechanical equipment shall be carefully lifted or glided using only the approved tools, equipment, and procedures that will prevent damage to the equipment. Whenever possible, the Supplier shall transport/haul the equipment by skids so as to reduce the dismantling works.

The Supplier shall engage the services of highly qualified engineer/specialist who shall be responsible for the supervision of all dismantling and hauling works. Suitably skilled personnel shall execute dismantling operations in an orderly sequence in such a manner as to minimize the number and size of the resulting dismantled parts/components.

To avoid pilferage, the Supplier shall maintain a well-guarded and secured area, as designated by the NPC, for all dismantled equipment and materials after each day's work.

Utmost care shall be strictly observed by the Supplier during the dismantling of the plant equipment and components to avoid damage of any kind to structures, equipment and installations. In the event that any such damage, breakage or losses should occur due to carelessness, the Supplier shall repair, replace or otherwise make good all damaged items to the satisfaction of the NPC and all cost related thereof shall be chargeable to the account of the Supplier.

The Supplier shall comply with the Plant security and safety procedures and requirements. The Supplier shall also be liable for loss of or damage to any property (including property of NPC) or any loss, claim, damage, or expenses of whatsoever nature arising out of death, injury, illness, or disease of any

person caused by the execution of all the works under this contract except to the extent that such loss or claim are due to negligence of the NPC.

GW-7.4 Demolition

The Supplier shall exercise due care and diligence during demolition of structures, equipment and installations, including the provision of screens and canopies to protect them from dust and debris. In the event that any such damage should occur, the Supplier shall repair, replace or otherwise make good all damaged items to the approval of NPC.

All demolition operations shall be carried out in an orderly manner so as to cause minimum interference with other activities.

GW-7.5 Storage and Transportation

All dismantled materials and equipment shall be carefully stored and maintained at such place and in such a manner as NPC may direct until such time as they are required to be re-erected and reinstalled.

The Supplier shall provide temporary shelter/cover such as tarpauline or equivalent type of cover for protection of the equipment during the storage.

The Supplier shall clean the area of debris and hazardous materials resulting from the removal/dismantling of the equipment. The areas should be free from safety and environmental hazards during and after the dismantling activities.

GW-7.6 Disposal of Demolished Materials

All debris and demolished materials shall be transported to a location designated by NPC and dumped or otherwise disposed of as directed by him.

If, in the opinion of NPC, any demolished materials which are not required to be used elsewhere have a commercial value, he may direct the Supplier to set aside and salvage such materials, the proceeds of which shall be credited to NPC.

All salvable materials shall be carefully handled to avoid damage and shall be piled neatly at a location adjacent to the work or as directed by NPC. All salvable materials shall become the property of NPC and the Supplier shall be held responsible for all materials not accounted for. The salvable material shall not be used by the Supplier for any of his construction operations, unless otherwise authorized by NPC.

GW-8.0 DRAWINGS AND INSTRUCTION MANUALS

GW-8.1 General

The drawings called for in this section shall be the Bid Drawings and/or Reference Drawings attached in the Bid documents.

Discrepancies between the drawings and actual field conditions or between drawings and specifications shall immediately be brought to the attention of NPC for proper resolution. All works involving discrepancies shall not be started without NPC's formal approval.

Anything mentioned in these specifications and not shown on the drawings, or shown in the drawings but not mentioned in the specifications but which are obviously necessary to make a complete installation shall be considered and included as if they are both mentioned and shown. The drawings and the specifications are complimentary to each other and what is called for in one shall be as binding as if called for both.

All drawings submitted by the Supplier or by any Sub-Supplier shall contain in the lower right-hand corner, in addition to the Supplier's name, the date, drawing scale, drawing number and title, and contract number as given in the Specification. Drawing Title Blocks per NPC standard specifications shall be provided to the Supplier during the contract stage.

GW-8.2 Supplier/Manufacturer Drawings and Instruction Manuals

The Supplier shall submit two (2) copies for approval a complete description of all materials to be used in the work prior to fabrication, manufacturing and/or purchasing. The description shall include catalogue numbers, illustrations, physical or chemical properties, dimensional data, etc., as maybe required to fully describe the materials.

The Supplier shall make any necessary detailed drawings and/or construction drawings for all equipment to be supplied under this contract including calculations, if necessary, to meet the intent of the specifications. The detailed drawings and/or construction drawings shall be submitted for review and approval of NPC prior to construction and erection/installation works.

Any supplied materials and construction of any particular structure or portion thereof prior to the approval of drawings pertinent thereto shall be at the Supplier's risk. The Supplier shall be responsible for any extra cost that may arise in correcting the work already done to conform with the drawings as revised and approved.

Should an error be found in the Supplier's drawings during approval, or during construction/erection, the correction including any field change considered necessary shall be noted on the drawings and shall be resubmitted for approval.

All data and information to be submitted shall be in the English language and all drawings shall be drawn using the metric system as unit of measurement.

All approved drawings shall form part of the Contract. Approval of the Supplier's drawings shall not be construed to mean relieving the Supplier of any of his responsibility for the correctness of his drawings nor for the strict compliance with the Contract.

All drawings submitted by the Supplier or by any Sub-Supplier shall contain in the lower right-hand corner, in addition to the Supplier's name, the date,

drawing scale, drawing title and number, and contract number as given in the Specification. Standard Specifications for Title Blocks shall be provided to the Supplier during the contract stage.

GW-8.3 As-Built Drawings/Operation & Maintenance Manuals

The Supplier shall provide and keep up-to-date “As-Built” drawings of all installed equipment and constructed structures. These drawings shall show all changes or revisions from the original drawings and locations, embedded piping and electrical systems and other concealed items of Works.

The Supplier shall furnish prints of these drawings. They shall be kept in the Supplier’s field office and shall be used only as a record set. At the end of every month, all entries, changes or revisions made in the drawings by the Supplier shall be checked and approved by NPC. The complete and duly checked and approved “As-Built” drawings shall be submitted by the Supplier within thirty (30) calendar days from the completion of the contract on five (5) prints and one (1) PDF file to Project Management Department. Likewise, one (1) AutoCAD file shall be submitted to Design and Development Department.

The Supplier shall furnish two (2) copies of instruction Manuals/Operation & Maintenance Manuals assembled on standard metric A4 sheets for all his supplied equipment under this Contract. Manuals shall contain data relevant to the equipment or system design and its installation, start-up, operation, lay-up, preventive maintenance, troubleshooting, testing and repair. Drawings and schedules, which are to be bound into the manual, shall also be A4 or A3 folded to A4. Covers and binders to be used for the manuals shall be robust and oil-resistant.

Instruction Manuals shall include the final as-built copy of all plans and drawings, brochures and catalogues including special tools list and spare parts list.

No separate payment will be made for furnished “As Built” drawings and Instruction Manuals/O & M Manuals. Supplier shall include all cost thereof in the unit and lump sum bid prices as specified in the Bidding Form.

GW-8.4 Processing of Drawings

During project implementation, the Supplier shall address all communications pertaining to Supplier’s Drawings to:

The Manager, Project Management Department
National Power Corporation
Gabriel Y. Itchon Building
Sen. Miriam P. Defensor-Santiago Avenue (formerly BIR Road)
corner Quezon Avenue, Diliman 1100 Quezon City

Supplier’s documents and drawings shall be prepared and submitted preferably on A4 or A3 sheets folded to A4 to the above concerned group.

Two (2) prints with dark lines on a white background shall be furnished to NPC for each drawing submitted for approval. One (1) copy will be returned

to the Supplier either marked "Approved", "Approved with Corrections Indicated", or "Returned for Corrections". When prints of drawings are marked "Approved with Corrections Indicated" or "Returned for Corrections", the Supplier shall finalize the drawings and re-submit it in two (2) copies each for final approval. Every revision shall be shown by number, date and subject in a revision block.

Upon receipt of prints marked "Approved With Corrections Indicated" or "Return for Corrections", the Supplier shall resubmit to NPC without delay required copies of said prints for NPC's review and approval. No major revision affecting the design shall be made after a drawing has been marked "Approved" without re-submitting the drawing for formal approval of said revision.

Prints marked "Approved" or "Approved with Corrections Indicated" authorize the Supplier to proceed with construction or fabrication of the work shown on the drawings, with corrections, if any, indicated thereon.

GW-9.0 INSPECTION AND TESTS

GW-9.1 General

The Supplier shall perform at his own expense all tests required to ensure adequacy of material and conformance of equipment to the requirements of the specifications and standards.

The Supplier shall submit to NPC for approval, a complete test program for all his supplied equipment covered by the contract. Likewise, two (2) copies of test procedures shall be submitted for approval at least forty five (45) days prior to the conduct of actual test.

NPC and/or his duly authorized representatives shall witness all applicable tests detailed in the relevant sections. NPC shall be notified by the Supplier thirty (30) days in advance about any tests to be conducted requiring the presence of NPC.

Tests not requiring the presence of NPC shall be, in any case, notified in advance. In such case, the Supplier shall then proceed with the tests and shall submit test reports in two (2) copies to NPC. NPC's acceptance of the work by waiving the inspection of tests and receipt of the Supplier's Certified Test Reports and Inspection and Testing Certificate shall in no way relieve the Supplier of his responsibility in accordance with the requirement of the Specifications.

For inspected or tested goods that fail to conform with the Specification, the Supplier shall either replace or make any alterations necessary to meet the requirements of the Specifications at no costs to NPC.

The Supplier shall provide the required consumables to be used during the test, unless otherwise specified in the relevant sections of the technical specifications.

During the test, NPC shall provide operations and maintenance personnel to assist the Supplier in the operation and maintenance of the equipment under the direction of the Supplier for the purpose of on-the-job training.

After installation of all equipment and devices supplied by the Supplier, the Supplier shall perform the required test in accordance with the approved test procedures. All tests to be performed shall be closely coordinated with the manufacturer's representatives or commissioning personnel specifically designated by NPC for said equipment.

NPC or its designated representative shall be entitled to attend the tests and/or inspections conducted on the premises of the Supplier or its supplier(s) provided that NPC shall bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses. The Supplier, however, shall extend all reasonable facilities and assistance during the conduct of such test and/or inspection on its premises.

GW-9.2 Tests at Supplier's Premises

NPC reserves the right to inspect all shop and assembly work associated with the Works, verify quantities consigned to stores and inspect quality control and assurance records as well as shop and purchase order records. When scheduled, and as often as NPC deems appropriate, progress will be monitored with respect to Key Dates in the Contract Schedule and the sequence of events and activities on the Supplier's Detailed Contract Schedule.

The Supplier shall carry out all tests in accordance with the requirements of the specifications and submitted test procedures duly approved by NPC.

Prior to shipment and final inspection, each equipment supplied by the Supplier shall be given the manufacturer's standard factory acceptance test and/or as required in the relevant sections of the technical specifications.

The Supplier shall carry out tests, as may be required by the specified Standards and the Quality Control and Assurance Program, as well as the entire test program approved by NPC. Prior to the witnessing of Factory Acceptance Test (FAT), the Supplier shall remove all faults found and correct all failures noted to the best of his knowledge such that no functional or procedural errors will occur during the witness test.

At the commencement of witnessing the FAT, all equipment and materials shall be brought together in one place, integrated and the configuration/set-up at the factory shall be identical to that to be installed at the site and any equipment and software necessary for the proper operation of the equipment shall have reached its final form, not to be changed during the FAT and until commencement of commissioning at site.

The Supplier shall immediately advise NPC if and when failures occur, and take remedial action subject to NPC's approval and proceed with the FAT as and when directed by NPC. It shall be NPC's prerogative to order a repeat of all such tests that it deems may have been affected by the failure.

The Supplier shall ensure that during the test, all hard copies from output devices are retained and that no outside parties interfere in any way with testing, equipment or test instruments, fixtures and jigs for the entire duration of the FAT. Only Supplier's personnel who are needed on the testing of the equipment shall be allowed in the test area. The Supplier shall appoint a chief-tester who shall be responsible for conducting the test, ensuring at all times that the test instruments, fixtures, jigs and extender cards, and those of the Supplier's personnel who in any way may contribute to the test, including testers, specialists and maintenance personnel, and are available prior to scheduled commencement of each test as maybe instructed by the Supplier.

The Supplier shall also be responsible that an accurate record of tests are kept and each individual test is duly initialed and dated by the Supplier and stamped or marked either "passed" or "failed" with annotations of antecedents and observations concerning the test. For each day of testing, the Supplier shall submit to NPC the proposed disposition of each criterion that failed during the previous day of testing, prior to commencement of the tests scheduled for that day. Tests witnessed by NPC will be initialed accordingly by him on the test record. The test record and dispositions, and any other pertinent supporting data and documents shall form part of a test report to be submitted in accordance with the specification.

GW-9.3 Site Test

After installation of all Supplier's supplied equipment, the Supplier shall supervise and perform all the required test of equipment and auxiliaries in accordance with the approved procedures submitted by the Supplier.

The Supplier shall be responsible in compiling, recording and submitting the test reports to NPC.

The work shall include the provision and assignment of personnel requirements during the test. During the test and upon the Supplier's request, NPC may, subject to availability, provide operations and maintenance personnel to assist the Supplier during the performance of the test. The said personnel shall be placed under direct supervision of the Supplier and shall also serve the purpose of on-the-job training in the field of operation and maintenance of the equipment.

Measuring and testing instruments, tools, equipment and devices shall be supplied by the Supplier. Other tools and instruments may be furnished by NPC upon request of the Supplier and the same shall be returned in good condition after use by the Supplier who shall be responsible for their safekeeping. In case of failure to return the tools and instruments, their value shall be debited to the Supplier's account.

GW-9.4 Tests Failures

If any equipment or component supplied by the Supplier fails to pass any test due to faulty installation by the Supplier, NPC may, at its own judgment, direct the Supplier to make any necessary corrections or alterations for defects or order equipment/component replacement, as maybe deemed appropriate.

Any and all expenses due to additional tests or retests made necessary by failure of Supplier's supplied equipment/component, e.i. failure to meet the guarantees and other requirements of the specification, shall be borne by the Supplier. The costs of witnessing the Factory Acceptance Tests by NPC or his representative(s) as a result of re-test to be conducted on the equipment shall also be borne by the Supplier.

GW-9.5 Test Reports/Certificates

Two (2) certified copies of the reports of all NPC's specified tests and other manufacturer standard tests shall be furnished to NPC within a maximum of fifteen (15) days following the completion of the tests.

Test certificates shall include, in addition to the test results, the following information:

- a) Date of the performance of test;
- b) Equipment data; and
- c) Equipment serial number.

The Supplier shall bear the cost of furnishing these records and reports.

GW-9.6 Waiver of Factory Acceptance Tests Witnessing / Inspection by NPC

Where Factory Acceptance Tests (FAT) to be witnessed by NPC or its representative(s) has been required, costs of these tests witnessing shall be borne by NPC.

If NPC opted not to witness the Factory Tests, NPC will issue a Certificate of Waiver of Tests Witnessing/Inspection for the equipment and materials. In such case, the Supplier shall proceed with the Factory Tests in accordance with the requirement of the specification and the manufacturer's test procedure as approved by NPC.

Issuance of the Certificate of Waiver of Tests Witnessing/Inspection for equipment required to be witnessed by NPC or its authorized representative(s) however, shall in no way relieve the Supplier of his responsibility to conform with the approved test procedures and the requirements of the Specification.

GW-10.0 TRAINING OF NPC PERSONNEL

GW-10.1 General

The Supplier shall extend all possible assistance and cooperation to NPC regarding the transfer of technology and developing expertise in the area of engineering, operation and maintenance of the Overhead Traveling Crane.

The cost of training of all involved NPC personnel at Plant Site shall be borne by the Supplier and shall be included in the bid price.

GW-10.2 Operation and Maintenance Training at Site

The Supplier shall conduct training at the Plant Site of NPC's personnel who will be assigned to operate and maintain the Overhead Traveling Crane. At least four (4) NPC Personnel from the plant shall participate in the training program. The Supplier shall provide a comprehensive training program related to design application, operation and maintenance, including trouble shooting of the Supplier's supplied equipment starting from date of Start of Test and thereafter up to the issuance of Certificate of Acceptance.

The contents of the training program shall include but not limited to:

- a) Principles in the equipment management and practices for operators, technicians and maintenance personnel; and
- b) Operation and Maintenance training program covering electrical, mechanical and instrumentation and control.

Said training program shall be submitted to NPC for approval. The program shall cover on the techniques of safe operation, daily and monthly inspections and troubleshooting.

Training at site shall consist of having the operators actually operate the crane and perform a daily inspection. If necessary, a written exam shall be conducted to insure the operator's understanding and compliance with the required codes of conduct.

The timing of the training should be such that the participants will be equipped with sufficient know-how to participate during site testing of the equipment.

During the performance test period, the Supplier may request NPC to provide operations and maintenance personnel to assist the Supplier in the operation and maintenance of his supplied equipment under the direction of the Supplier for the purpose of on-the-job training.

NPC shall have the right to send to the Site its personnel intended to operate and maintain the equipment supplied under this Contract. The Supplier shall use his staff to instruct these personnel relative to the operation and maintenance of the equipment.

GW-11.0 CORROSION PROTECTION AND PAINTING**GW-11.1 General**

The Supplier shall be responsible for the adoption of preparation procedures and protective coating systems that are suitable for the environment experienced by the various components/elements of the Plant.

Where a specific coating system is mentioned elsewhere in the specification, the Supplier shall accept responsibility for the suitability for such system. The

Supplier has the option to nominate an alternative coating system that is of equal or better quality subject for the approval of NPC.

At least forty five (45) calendar days from the expected or planned completion of major construction and installation/erection activities of the Contract, the Supplier shall submit for the approval of NPC, a full schedule of coating systems including the following information:

- a) Equipment item name and its supporting structures;
- b) Protective coating systems including number and thickness of coats;
- c) Short list of protective coating manufacturers and applicators;
- d) Surface preparation;
- e) Workshop action; and
- f) Final color schedule which NPC will provide during the contract stage or as specified in the relevant sections of this specification.

GW-11.2 Treatment for Shipping

The various items of materials, which do not fall under the paintings or lining specifications in the documents, shall be surface treated for shipping.

The various items of materials and equipment which constitute the supply shall be thoroughly cleaned before shipment as to eliminate dirt, rust and grease and all welding slugs, spatters and loose metals.

All metallic machined surfaces shall be covered with a protective coating. This coating shall be effective against salty air and shall be easily removable at site.

All iron or steel external surfaces shall be covered with two (2) coats of protective anti-rust paint.

GW-11.3 Application of Paint

Paint application stated in this section is a requirement intended for general application. Any specific painting requirement shall be as specified in the relevant specific technical specifications.

Before any painting is made, all surfaces must be prepared properly by removing all rusts, scales, welding slugs and spatters, grease and encrustation of any nature. Steel surfaces shall be white blasted in accordance with Steel Structures Painting Council Standard. The various paints to be used shall be of high quality and type subject to approval of NPC.

No painting shall take place outdoor during the presence of rain, fog, dew or where the surfaces may be otherwise damp in particular and no application of paint should be made on plaster surfaces that are not completely dry. No coating shall be applied unless the surface is at minimum of 3°C above dew point.

For successive coats, first coat shall be dried hard before the second coat. The color of successive coats must be sufficiently different to allow easy identification of the sequence of painting of surfaces for control purposes.

Paint shall not be applied to machined surfaces, corrosion resistant materials or linings, unless specified in relevant section of this specification.

All contact surfaces of field-welded connections shall be masked at a distance of 100 mm back from the weld joint and shall be suitably protected against corrosion.

For non-insulated surfaces exposed to high temperature, two (2) coats of Aluminum modified silicone with volume solids of $42\% \pm 2\%$ high temperature paint shall be applied. For insulated surfaces exposed to high temperature one (1) primer coat of Aluminum modified silicone shall be applied prior to installation of insulation.

For internal surfaces for the receipt of oil, three (3) coats of paint having a phenolic-base or equivalent shall be applied. As minimum, first coat shall be applied with 80 microns DFT of zinc rich polyamide epoxy primer. Second and final coat shall be applied with 100 microns DFT for each coat. External surfaces shall be painted with 80 microns DFT of zinc rich polyamide epoxy primer on first coat. On second coat, 160 microns FTF of intermediate chlorinated rubber shall be applied and 80 microns DFT chlorinated rubber topcoat as Final Coat.

All other equipment and piping installed outdoors and indoors shall be prime coated with 80 microns DFT zinc rich epoxy paint and 80 microns DFT of chlorinated rubber for each intermediate and topcoat.

All steel pipes laid underground shall be applied with two (2) coats of Coal Tar epoxy polyamide of 170 microns DFT each coat. Unless otherwise specified, asphalt jute or any approved equivalent may be used for pipes laid underground.

Exposed fabrication, erection, or shipping marks shall be cleaned off and the areas touched-up shall be painted to match the adjacent surfaces.

For surfaces where blast cleaning and a wash primer are specified, touch-up painting shall include application of the wash primer before the touch-up coats.

Final tests and inspection shall be carried out by Supplier to ascertain the correspondence of the paintwork to the prescribed color and treatment. These tests will indicate whether or not the paintwork is correctly applied and is free from wrinkles or roughness that might affect the adhesion of the protective coating.

Should the measured dry film thickness result to less than the specified one, the Supplier shall apply additional paint to the coat inspected or shall increase the thickness of succeeding coat, as applicable, to assure the specified total dry film thickness.

GW-11.4 Hot Dip Galvanizing

The zinc protective coat shall be adherent, smooth and free from discontinuity and imperfections such as bubble, porosity, cracks, or other irregularities of the protective layer.

The thickness of applied layer shall correspond to a minimum rate of 550 gm/m².

GW-12.0 SPARE PARTS AND TOOLS**GW-12.1 Spare Parts**

The Supplier shall supply all the spare parts as recommended by the manufacturer required for regular maintenance during the one (1) year warranty period and as listed and specified in the relevant technical specifications. Spare parts shall include all items that are expected to be consumed or replaced during the test period and these shall be identified in the Spare Parts List.

During the Guarantee Period, if the quantity specified in the final list of spare parts is found not sufficient for one (1) year reliable operation, then the Supplier shall supply the additional spare parts at his own cost.

All spare parts shall be delivered into storage areas nominated by NPC and the delivery will be deemed to be complete when the packages have been opened by Supplier, their contents checked by NPC and articles reprotected and replaced by Supplier to the satisfaction of such representatives or assembled into units at NPC's option and stored as directed by NPC. The Supplier at his own cost shall replace damaged or incorrect item.

All bidders are required to submit in their proposal the detailed list of spare parts to be supplied with its corresponding costs. This list is preliminary and subject to changes in order to conform to the final design without any additional cost. The final list of spare parts shall be submitted to NPC for approval not later than one (1) month prior to the delivery of the equipment.

Supplier shall indicate the expected life of the parts requiring replacement and the minimum recommended inventory of the spare parts for installation, start-up, continuous operation and maintenance. Supplier shall state whether the recommended spare part is a stock item or a special item, and shall furnish name and location of the nearest supplier, and approximate lead-time required for delivery.

GW-12.2 Tools and Appliances

The following tools and appliances shall be supplied under this Contract including all items listed in the relevant sections of the Technical Specifications which the Supplier shall give a full list with complete detail in the Schedule of Tools and Appliances:

- a) One (1) set of standard and special tools and instruments required for start-up, test, operation and normal maintenance of all the equipment and auxiliaries supplied by the Supplier; and
- b) Any special tools or appliances required solely for erection purposes.

Special tools are defined as all tools required for installation, assembling, dismantling and adjustment of all the works and usually not available in a standard machine shop (except heavy equipment used for lifting or transferring from one location to another).

Each tool or appliance supplied by the Supplier is to be clearly marked with its sign for purposes of identifying the name, function of each tool and the specific item(s) for which it is used. Each set of tools and appliances listed in a) above shall be fitted into a custom built lockable box clearly marked with the name of the item or equipment for which they are used and with a list of the tools contained, stamped and attached on an attached metal tab.

If the weight of any box, or its size, is such that it cannot be conveniently carried, it shall be supported on steerable rubber tired wheels. All large tools and wrenches shall be mounted on a suitable shadow board arranged for wall mounting.

Every special tool and instrument shall be accompanied or furnished with maintenance or instruction manuals in English language.

All tools and appliances supplied shall be handed over to NPC in perfect condition at the time of taking over.

All bidders are required to submit in their proposal the detailed list of standard and special tools to be supplied with its corresponding costs. This list is preliminary and subject to changes in order to conform to the final design without any additional cost. The final list shall be submitted to NPC for approval not later than one (1) month prior to the delivery of the equipment.

GW-13.0 MEASUREMENT OF PAYMENT

Measurement for payment for all works shall be based on the bid price of each item as shown in the Bid Price Schedule. The cost shall cover all works required and described in the pertinent provisions of the specifications and for the satisfactory completion of the each work.

GW-14.0 CERTIFICATE OF ACCEPTANCE

When all the works and services have been satisfactorily completed as required in the Contract, the Supplier may give notice to this effect to NPC. Such notice shall be deemed to be the basis for NPC to issue a Certificate of Acceptance in respect of the Works within fifteen (15) days of receipt of such notice.

The Guarantee Period for the completed Works shall commence on the date of issue of the relevant Certificate of Acceptance.

After the lapse of Guarantee Period, provided that there are no defects found and/or pending repair works, NPC shall release the warranty security/retention money.

GW-15.0 GUARANTEE

The Supplier shall guarantee that he will repair, and/or replace, at his own expense, equipment and materials against defect in design, materials and workmanship and shall include labor, parts and travel time for a period of twelve (12) months after the issuance of the Certificate of Acceptance including any maintenance services rendered upon request of NPC in the event of any abnormality occurs within the warranty period at no cost to NPC.

The Supplier guarantees that when the equipment and/or material are placed in operation and/or use, it will perform in the manner as set forth in the Contract.

PART I - TECHNICAL SPECIFICATIONS

MW - MECHANICAL WORKS

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PART I - TECHNICAL SPECIFICATIONS

MW - MECHANICAL WORKS

MW-1.0 GENERAL

The Work to be done under this section shall include the furnishing of all labor, materials, equipment, tools and other incidentals for all mechanical works enumerated hereunder or as shown on the accompanying drawings and installation manuals or as otherwise directed by NPC. The Supplier shall detail all other drawings deemed necessary, subject to the approval of NPC.

The work shall be performed and completed with high quality workmanship in accordance with generally accepted modern practice in the supply, installation/erection and test of mechanical equipment and associated works for the smooth and proper operation of the **Overhead Travelling Crane's Electronic Hoist**.

The work shall include all and every work and service although not specifically detailed herein but are required to complete and make ready for the safe and reliable operation of the overhead crane.

The Supplier shall strictly observe the requirement specified in this Specific Technical Specification (Mechanical Works) in conjunction with the General Technical Specification (General Works). In case of any contradiction, the requirement specified in this Specification shall take precedence over the General Technical Specifications.

MW-2.0 SCOPE OF WORK

In accordance with the specifications contained in this section and as shown on the drawings, the scope of work covers the supply of labor, materials, tools and other necessary incidentals required for the design, supply, delivery, installation and test of one (1) x 2-ton Overhead Traveling Crane's Electronic Hoist for Power Barge 106 including other works and services specified in Clause GW-2.0 of the General Works specifications.

MW-3.0 OVERHEAD TRAVELING CRANE

MW-3.1 Site Conditions

The Supplier shall be responsible for visiting the plant site and take particular reference to accessibility to the site. The Supplier shall thoroughly investigate and familiarize himself with all the conditions at the site, the surrounding area, means of communication and transportation, and all other factors that could hamper the smooth execution of the contract.

Any and/or all expenses arising through the lack of knowledge or understanding regarding the existing conditions of the sites shall be the responsibility of the Supplier and no additional payment thereof shall be made by NPC.

MW-3.2 Design Data

The overhead travelling crane's electric hoist shall be completely designed to suit and conform with the following general requirements:

Quantity	:	1-unit Overhead Traveling Crane's Electric Hoist
Type	:	Outdoor, Electric Traveling Single Girder with Electric Monorail Hoist
Capacity	:	2 Tons lifting
Lifting Speed	:	3 to 5 m/min
Bridge Travel Speed	:	6 to 10 m/min
Lifting Height	:	20 meters max.
Runway Span	:	22 meters
Power Supply	:	480 Volts, 3 Ph, 60 Hz.
Seismic loads	:	Seismic zone factor 0.4

The Supplier shall be responsible for a well-coordinated, complete and adequate design of overhead crane in accordance with the load requirements as stated in this Specification.

MW-3.3 Structural Requirements

The crane construction shall generally conform with the requirements of the latest edition of CMAA Specification No. 70 – Specifications for Electric Overhead Travelling Cranes, or B.S. 466 – Specifications for Electric Overhead Travelling Cranes including other standards specified in Clause GW-3.2 of the General Works specifications.

MW-3.3.1 End Stops

Rigid end stops shall be provided at both ends of the trolley and runway rails. The end stops shall be of height not less than one half diameter of the driving wheel.

MW-3.3.2 Bumpers

Spring or rubber bumpers shall be provided at the ends of the trolley and crane frames to prevent damage when in collision with the stops.

MW-3.4 Mechanical Requirements

MW-3.4.1 Hoist Drum

The hoist drum shall be made of cast and /or welded steel construction with heavy section and shall be reinforced to sustain the concentrated loads due to the rope pulls. The drum shall be made of such diameter and length that will take the full length of the ropes for the lift required plus the extra turns of each end, with not more than four layers of windings. Right and left hand

helical grooves shall be machined on the surface of the drum to receive the two (2) hoisting ropes. The depths of the grooves shall not be less than 30 percent of the diameter of the rope. The rope attachments to the drum shall be simple and secure so that adjustments and replacement of the ropes may be accomplished without dismantling the parts. The drum shall be in the true running balance, and the gears shall be pressed or shrunk onto the drum and provided with standard rectangular keys or dowels. The pitch diameter of drum shall be not less than 20 times the outside diameter of the rope.

MW-3.4.2 Rope Sheaves

The rope sheaves shall be made of wrought steel with turned rope grooves with suitable tolerance. The pitch diameter of the rope grooves for all moving sheaves shall be not less than 20 times the nominal diameter of the rope. All revolving sheaves shall be in true running balance. The sheaves on the block and the sheaves leading to the hoist drum shall be bronze bearing mounted. If fleeting sheaves are used, they shall be bronze bushed and provided with grease grooves. Pressure grease fittings shall be provided on all sheaves.

MW-3.4.3 Wire Ropes

The wire ropes shall be cut from a common master run and matchmarked to exact length while under tension. The wire ropes shall be supplied by a reputable manufacturer of hoisting wire ropes. The wire ropes shall be adjusted so that each individual wire rope will carry its proportionate share of the total load. An equalizer shall be furnished if multi-wiring system is adopted. The wire ropes shall have sufficient length to provide the required lift, plus two turns on the drums in addition to adequate length for attaching to the drums. This safety factor of wire rope shall not be less than 5.

Hoist rope shall be equipped with overload device to prevent lifting loads in excess of 125%. Hoist shall also be equipped with upper and lower limit switches which are adjustable to set the extreme upper and lower limits of hook travel.

MW-3.4.4 Lifting Hooks and Blocks

The blocks shall be arranged to lift without twisting and sideways pull of the load, and dead end ropes shall be avoided. The blocks shall be provided with a hook which shall be drop-forged and heat-treated. The lifting hook with factor of safety not less than 5.0 shall be swiveled on an antifriction thrust bearing and shall be annealed forged alloy or carbon steel.

The bearings shall be totally enclosed, dust tight, and arranged to prevent leakage of grease. The hook under maximum load shall be easily rotated by hand on its bearing. The hook for the hoist shall be of the single hook type. The cross head shall be made of annealed carbon or alloy steel and shall have such proportions as to provide ample sheave bearing area.

The block shall be constructed so as to guard the hoisting ropes fully and prevent them from leaving the sheaves under any operating condition. The guards shall be made of cast steel or plate steel, shall be fitted close to the periphery of the sheaves, and shall be arranged for proper drainage.

MW-3.4.5 Gear Reducers

The gear reducers for the hoist and trolley shall be completely enclosed grease lubricating construction. All gears shall have standard involute teeth, machine cut from the cast or forged steel solid rim of adequate strength and durability to meet the requirements for the intended class of service and designed in accordance with American Gear Manufacturer's Association Standards or equivalent approved standards. All bearings shall be of the ball or roller type, and shall be designed to permit easy removal of the shaft and gears.

MW-3.4.6 Brakes

Brakes shall be provided so that the crane is capable of raising or lowering smoothly or holding in any position at any load up to and including the test load.

The hoist shall be provided with spring set, electrical release thrust type magnetic brake with a rated capacity of not less than 150 percent of the rated full load torque of the hoist motor. The thrust brake shall be arranged to set when the motor power supply is cut off or fails, and to release when the hoist motor is operated. The brake enclosed shall be of weather-proof construction with convenient access to the enclosed mechanism. The magnetic coil shall be of moisture and fungus-proof construction. Means shall be provided for auto-adjusting to compensate for wear.

Nameplates shall be provided for each brake and attached to a part of the brake which ordinarily will not be rendered during its service life. Each nameplate shall conform to standard practice and clearly indicate the manufacturer's name, identification symbols, serial number, and salient design features such as type, frame, torque rating and voltage.

MW-3.4.7 Travelling Wheels

The traveling wheels shall be made from the solid wrought or rolled steel wheel blanks machined accurately to size and the flanges tapered and radiused. The wheels shall be properly heat-treated to carry the maximum rated load under normal conditions without undue wear.

MW-3.4.8 Drum

The drum shall be steel or minimum ASTM Grade A48-64 Class 40 Cast Iron or equal materials as specified by the crane manufacturer. It shall be designed to withstand combined crushing and bending loads.

MW-3.4.9 Bolts and Set Screws

Bolts and Set Screws in rotating parts shall be locked, but this provision does not apply to set screws used for locking purposes.

MW-3.4.10 Lubrication

Service lubrication of all bearings shall be by means of manual grease central feed systems with individual lubrication lines to each bearing. Ball and roller bearings shall be suitably lubricated before assembly.

MW-3.4.11 Pendant Station

The crane operation shall be controlled by a pendant mounted push-button switches suspended from the crane. The pendant shall be able to move along the crane bridge during operation.

The control pendant shall be equipped with an emergency cut-out button, key-operated buttons, signal lights for start-stop operation and a common switch for the crane's load lighting. The enclosure shall have durable, clearly marked legend plates, guards to protect switches from damage or accidental actuation and shall allow for right or left hand operation.

MW-3.5 Electrical Works Requirements

The Supplier shall furnish and mount all electrical equipment required to the crane including motors, electrically operated brakes, controllers, and resistors with magnetic contactors where necessary, overload relays or fuse panels, limit switches, lights, bridge and trolley wiring complete with hardware, controls and conduits in accordance with the Crane Manufacturer's Standard. Supplier shall state in his proposal the description, rating and type of enclosure for motors, brakes and controls and in accordance with the requirements specified in the relevant Electrical Technical Specifications and reference data.

MW-4.0 PAINTING REQUIREMENTS**MW-4.1 General**

The crane electrical equipment and other structural surfaces shall be painted in accordance with first class standard practice suitable for the purpose.

All paint and shop primer to be used shall be of standard types of a well-known manufacturer subject to the approval of NPC.

Paint application shall generally be in accordance with the requirements of Clause GW-11.0 of the General Works specifications.

MW-4.2 Color Schedule

All surfaces to be painted shall be applied with minimum of one (1) coat (80 microns) zinc rich epoxy primer and two (2) coats of chlorinated rubber of 80 microns DFT each coating. Final color of paint shall conform to the following:

Color Munsell No.

Overhead Crane Structures	7.5Y 9/12
Lower Pulley Block Motors	Black & Yellow Stripe 7.5Y R 7.5/16

MW-5.0 SPARE PARTS AND TOOLS

The Supplier shall furnish spare parts required for regular maintenance during the one year warranty period and complete set of tools per manufacturer's standard. The required Spare Parts and Tools shall be specified in the Forms attached in Part II – Technical Data Sheets of this Section VI, (Technical Specifications).

The Supplier shall supply any special tools and instrument required for start-up, test and commissioning, operation and normal maintenance of the whole of the equipment and auxiliaries supplied by the Supplier.

Each tool or appliance supplied by the Supplier is to be clearly marked with its sign and purpose identifying the function of each tool and the specific item(s) for which it is used. Each set of tools and appliances shall be fitted in a custom built lockable box clearly marked with the name of the item or equipment for which they are used and with a list of the tools contained, stamped and attached on an attached metal tab.

Every special tool and instrument shall be accompanied or furnished with maintenance or instruction manuals in English language.

All tools and appliances supplied shall be handed over to NPC in perfect condition at the time of taking over.

MW-6.0 INSPECTION AND TEST

MW-6.1 Material Tests

The Supplier shall furnish NPC with two (2) copies of certified mill and mechanical test reports covering crane hooks, hoist ropes and structural steel.

Properties of materials (e.g. material specifications, yield strength, elongation at yield, ultimate strength) and maximum calculated stresses of the following components shall also be submitted in tabular form;

1. Main structural members



2. Axles
3. Gears
4. Drums, sheaves pins and associated fittings
5. Hooks
6. Wheels
7. Rails

MW-6.2 Shop Assembly and Tests

The crane shall be completely assembled in the shop to ensure that the parts are properly fitted. The crane shall be centered upon and supported by two parallel and level rails to simulate the runway. After accurately aligning all shafts, couplings, bearings and gears, the motor bases, bearings, gear cases and structural supports shall be solidly doweled. All mating gears and especially the open gears shall be evenly across the entire tooth faces, and distance of mating gears and their shafts shall be accurate to a tolerance of 0.16 mm per meter. Shims used in shop alignment shall be left bolted or welded in place. The hoist and trolley shall be operated by power to check the operation of the gearing. The hoist shall be operated for 15 minutes in the slowest speed step to demonstrate that the control equipment has been designed for continuous duty.

MW-6.3 Field Testing

The crane shall be tested by the Supplier in the presence of NPC and at such time as will be directed by NPC. Before testing, the hoist shall be operated under light load for a period of time equivalent to several hours of continuous operation to run-in the gearing and ensure that all parts are properly lubricated. After this run-in period, the crane shall be inspected to see that all parts have remained in alignment and that no excessive wear has occurred. Adjustments shall be made in accordance with the manufacturer's recommendations or standard practice. All tests instruments and weights shall be furnished by the Supplier. At least two observations or readings shall be made and recorded for each test. During all of the tests, volts, amperes and watts input for each applicable motor shall be recorded.

On compliance of the tests the crane will be inspected for misalignment, breakage and undue wear.

All equipment of the crane shall operate without undue noise or vibration.

a) Overload Test

Each hoist shall be tested separately in an overload condition as follows:

The hoist shall raise, lower and hold in any position a test load of 125% of its rated capacity. Second hoisting position shall raise this load, and it shall not be lower than the first hoisting position. Trolley and crane shall transport at full speed, or as directed, along full runway length a test load of 125% rated capacity.

b) Hoisting Test

With rated load on the lifting hook, the following tests shall be made:

- b.1 “Inch” the load both in the hoisting and lowering direction. Determine and record the vertical movement of the hook for each direction.
- b.2 Determine and record the hook speed for each point of the controller which will move the load both in the hoisting and lowering direction.
- b.3 Permissible temperature rise of eddy current brakes or other speed controlling equipment shall not be exceeded when rated load on the hook is lowered through the full length of travel with controller in first lowering position. With no load on the hook determine and record the hook speeds for each point of the controller which will move the hook both in the hoisting and lowering directions.

c) Trolley and Crane Travel Test

The following tests will be conducted separately with the rated load on the hook:

- c.1 “Inch” the trolley in each direction of travel of and determine and record the distance the trolley travels in each direction. When starting from standstill it shall be possible to limit the movement of the trolley to 6 mm.
- c.2 Determine and record the trolley speed for each point of the controller which will move the trolley. This test is to be conducted for both directions of travel.

The first controller point shall release the trolley brake, and the second controller point shall move the trolley at not more than fifty percent (50%) of the designed maximum trolley speed by approximately equal increments to the full-rated speed on the last point. Tests will be conducted for both directions of travel.

With no load on the hook, determine and record the trolley speed in both directions for each point of the controller which will move the trolley and bridge.

d) Speeds and Electrical Characteristics

Test the electric hoist under loads of 100, 75, 50 and 25 percent of rated capacity to determine and record electrical characteristics as directed by NPC.

Any defect or improper operation discovered during the test due to design deficiency will be corrected by the Supplier to the satisfaction of the NPC.

In the above outline of tests the work “inch” is used to denote the minimum movement possible.

MW-7.0 DRAWINGS AND INFORMATION

MW-7.1 General

In addition to the requirements stated elsewhere in this Specification the Supplier shall submit, as a minimum requirement, the following drawings, calculations as required and information to demonstrate compliance with this Specification.

MW-7.2 Drawings

- a) Drawings with full dimensions, construction details and arrangements of:
 - a.1 Complete assembly
 - a.2 Trolley
 - a.3 Hook and block
 - a.4 End stops and attachment loads
 - a.5 Electrical motors and equipment (motor ratings and power requirements to be shown)
 - a.6 Motor mounting details
 - a.7 Braking systems
 - a.8 Gearing and gear boxes
- b) Wiring diagrams including full cable schedules for:
 - b.1 Complete wiring system
 - b.2 Control wiring
 - b.3 Installation wiring
 - b.4 Logic diagrams in a flow chart presentation showing automatic and manual sequence steps.

MW-7.3 Operation and Maintenance Manuals

The Supplier shall provide two (2) sets of comprehensive manuals to fully describe all aspects of design, operation and maintenance of the crane components and equipment.

MW-8.0 TRAINING OF NPC PERSONNEL

The Supplier shall conduct training of at least four (4) engineers/operators/technicians of NPC on operation and maintenance of the systems including management and trouble shooting at site starting from Start of Test and Commissioning until completion of the Work.

The Supplier shall prepare and submit a training program and schedule to NPC for approval.

The program shall cover on the techniques of safe operation, daily and monthly inspections and troubleshooting.

Training at site shall consist of having the operators actually operate the crane and perform a daily inspection. If necessary, a written exam shall be conducted to insure the operator's understanding and compliance with the required codes of conduct.

MW-9.0 CLEAN UP

When the Works are completed and before the issuance of Certificate of Completion, the Supplier shall remove from the Site, without expense to NPC, all temporary structures, all materials and rubbish of every sort, shall fill all holes and cavities made for his convenience, and shall leave the whole area in good order and condition, all as required and directed by NPC.

All excess materials, devices and component which form part of the equipment supply and identified to be no longer required for installation, shall remain at site and properly turned over to NPC.

MW-10.0 MEASUREMENT OF PAYMENT

Measurement of payment for all works shall be based on the bid price of each item as shown in the Bid Price Schedule. The cost shall cover all works required and described in the pertinent provisions of the specifications.

PART I - TECHNICAL SPECIFICATIONS

EW - ELECTRICAL WORKS

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PART I - TECHNICAL SPECIFICATIONS

EW - ELECTRICAL WORKS

EW-1.0 GENERAL

The Supplier shall furnish, install and test all electrical equipment and appurtenances required to operate the crane in accordance with the Crane Manufacturer's Standard. The Supplier shall state in his proposal the technical data and details of motor brakes and controls including enclosure and mounting details.

The following electrical equipment and materials to be furnished shall include but not limited to the following:

- a) Electric Motor
- b) Motor Control System
- c) Terminal Box
- d) Cables and Conduits
- e) Equipment Grounding

EW- 2.0 STANDARD OF MATERIALS

All materials to be used in the work shall be new, of high quality, free from all defects and of proven acceptability for the purpose intended. Unless otherwise specified, materials shall conform to the latest applicable standard issued by the following authorities:

- a) American National Standards Institute (ANSI)
- b) International Electro-technical Commission (IEC)
- c) Underwriter's Laboratory (UL)
- d) National Electrical Manufacturer's Association (NEMA)
- e) National Electrical Code (NEC)
- f) Philippine Electrical Code (PEC)

Other recognized national standards maybe accepted if, in the opinion of NPC representative, such will guarantee a quality not inferior to that guaranteed by the above standards.

EW- 3.0 APPROVAL OF MATERIALS

The Supplier shall submit for approval a complete description of all equipment and/or materials to be used in the work. The description shall include catalogues/brochures, standard of materials, illustrations, diagrams,

dimensional data, etc. to describe fully the equipment/materials to be supplied.

EW- 4.0 ELECTRIC MOTORS

- a) Hoist Motor
- b) Trolley Traverse Motor

Hoisting motors shall be two-speed, pole-changing squirrel cage motors specifically designed for hoisting applications. Each motor shall incorporate a cylindrical rotor with Class F insulation. The motors shall be fully enclosed, providing protection to a minimum level of IP 55.

The stator frame shall be constructed from extruded aluminum, working in conjunction with a fan mounted at the rear of the motor to optimize heat dissipation. To prevent overheating, bi-metallic thermal switches, also referred to as thermistors, shall be embedded within the motor windings of all hoisting motors.

Trolley motors shall also be two-speed, pole-changing squirrel cage motors designed specifically for trolley applications.

The system shall include an electric hoist and trolley drive with pendant backup control.

Brakes

Each hoisting motor shall be equipped with a DC magnetic disc brake. The hoist motion brakes shall be non-adjustable. To prevent load slippage when initiating or stopping hoisting or lowering operations, the brake and hoist motor shall be designed and manufactured to operate in conjunction with each other.

In the event of a power failure, the brake shall automatically engage in a fail-safe manner. The brake torque shall exceed the motor's nominal torque by a factor of at least 1.8. The brakes shall be fully enclosed and dust-proof, with brake linings that are entirely asbestos-free. DC magnetic disc brakes shall also be installed on all travel motors.

Overload Protection

To prevent the lifting of loads that exceed the crane hoist's capacity, the hoist shall be equipped with an overload protection system. The crane remains safe to operate, as the overload protection system is designed to automatically reset and suspend hoist operations in the event of an overload, while still permitting lowering of the load.

EW- 5.0 MOTOR CONTROL SYSTEM

The Supplier shall provide a motor control system that controls the motor rotating speed by changing the supply voltage frequency of a sturdy squirrel cage motor. It shall be specifically designed for traveling and hoisting applications for crane use. The controls system shall be of robust constructions to ensure excellent tolerance to poor ambient conditions.

The control system shall be designed and manufactured to contain the necessary control, monitoring and protection devices as per industry standard.

Power Supply Requirement

Power supply requirement of the overhead crane shall be sourced from the existing 480 Volts, 3 phase power supply line with an appropriately rated Circuit Breaker suitable for the motor to be supplied.

Power from the crane is taken from the termination box at the generating room through the manual main disconnect switch (isolator switch) located at the bridge control panel.

The power supply system is equipped with a phase control guard that opens the main contactor in case of phase failure. The control voltage is taken to the control circuitry through isolating transformer. All hoist and crane movements are independent and can be run simultaneously. Supplies are magnetic type and shall be designed for crane applications, rated for severe vibration. Mechanical interlocking is used in contactors that control movements in opposite directions, preventing accidental, simultaneous contacting.

The electrical equipment of the crane is located in the bridge and hoist control panels. The control panels shall be made of steel plates and finished to withstand corrosion. The components are positioned in a maintenance friendly way and the whole layout provided good protection against accidental contact.

EW- 6.0 CABLES

The Supplier shall furnished multi-wired type of flexible cables with appropriate insulation intended for crane usage. Cables shall be coded with number, colors or tags for easy identification. The cables used for festoons shall be PVC insulated flat cables rated at 600 Volts, especially designed for cranes and hoist system. Festoon cables are suspended on cable saddles, fixed to cable trolleys, running in a galvanized C-track which is connected to the main girder with bolted or welded support brackets.

EW - 7.0 EQUIPMENT GROUNDING

The hoist and trolley motor to be supplied shall be properly grounded in accordance with the latest electrical and electronics industry standards.

The grounding conductor shall be sized per PEC requirements and connected to the facility's existing grounding system.

EW - 8.0 LOAD LIGHTING

Load lighting shall be provided to the underside of the crane. The Supplier shall make provision for the mounting of three discharge lights under the crane girder in such a manner that servicing and replacement of the lamps and fittings may be carried out from the crane. A terminal box shall be

mounted adjacent to each light fitting mounting and shall be wired at 230 V AC to a common switch mounted on the pendant controller.

EW - 9.0 MEASUREMENTS AND PAYMENT

Measurement of payment for all electrical equipment, materials and devices to be provided for the efficient and safe operation of the Overhead Travelling Crane shall be on a lot basis. Payment thereof is included under item 1.0 in the Bid Price Schedule which shall constitute the full compensation for furnishing all materials and labor necessary to complete the work.

All materials and parts which are not specifically mentioned herein but are necessary for the efficient and safe operation of the Overhead Travelling Crane shall be furnished at no additional cost to NPC.

SECTION VI

TECHNICAL SPECIFICATIONS

PART II - TECHNICAL DATA SHEETS

SECTION VI - TECHNICAL SPECIFICATIONS**PART II - TECHNICAL DATA SHEETS****TABLE OF CONTENTS**

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3.0	TOOLS LIST Tools and Appliances including Special Tools for Overhead Travelling Crane's Electric Hoist (Per Manufacturer's Standard and Recommended Tools and Appliances)	TDS-5

SECTION VI - TECHNICAL SPECIFICATIONS

PART II - TECHNICAL DATA SHEETS

OVERHEAD TRAVELLING CRANE'S ELECTRIC HOIST

- a) The Bidder shall complete this technical data sheet and submit the filled-up form with the technical proposal. The Bidder shall use continuation sheets as necessary for any other additional information keeping to the format shown herein or by reproducing the same.
- b) NPC reserves the right to reject Bids without proper and/or specific data and information as required herein.
- c) The data required are technical features and characteristics of the Equipment/component/material to be provided by the bidder. Bidder's proposal shall at least be equal or superior to the requirements specified by NPC.

1.0 EQUIPMENT/COMPONENT DATA

ITEM	DESCRIPTION	UNIT	NPC REQUIREMENT	SUPPLIER'S DATA
Overhead Travelling Crane's Electric Hoist				
1.1	Type		Outdoor, Electric Travelling Single Girder	
1.2	Manufacturer		By Supplier	
1.3	Brand/Model		By Supplier	
1.4	Place of Manufacture		By Supplier	
1.5	Quantity	unit	1	
1.6	Capacity	tons	2	
1.7	Maximum Lifting Height	m	20	
1.8	Lifting Speed	m/min.	3 to 5	
1.9	Trolley Travel Speed	m/min	Manufacturer's standard	
1.11	Power Supply	V	480	
1.12	Rope			
1.12a	Type		By Supplier	
1.12b	Diameter		By Supplier	
1.13	Drum			
1.13a	Material		By Supplier	
1.13b	Diameter		By Supplier	
1.14	Sheaves			
1.14a	Material		By Supplier	
1.14b	Diameter		By Supplier	
1.15	Bearings Type		By Supplier	
1.16	Wheels			

Name of Firm

Name & Signature of Representative

Designation



1.0 EQUIPMENT/COMPONENT DATA (Cont'd...)

ITEM	DESCRIPTION	UNIT	NPC REQUIREMENT	SUPPLIER'S DATA
1.16a	Trolley Wheels Material		By Supplier	
1.16b	Trolley Wheels Diameter		By Supplier	
1.17	Type of Brakes			
1.17a	Main Hoist		By Supplier	
1.17b	Trolley		By Supplier	
1.18 Hoist Motor				
1.18a	Type		By Supplier	
1.18b	Manufacturer		By Supplier	
1.18c	Rated Output	kw	By Supplier	
1.18d	Speed	rpm	By Supplier	
1.18e	Voltage	V	480	
1.18f	Frequency	Hz	60	
1.19 Trolley Motor(s)				
1.19a	Type		By Supplier	
1.19b	Manufacturer		By Supplier	
1.19c	Rated Output	kw	By Supplier	
1.19d	Speed	rpm	By Supplier	
1.19e	Voltage	V	480	
1.19f	Frequency	Hz	60	
1.20 Equipment Grounding (to be connected to the existing grounding system)				
1.20a	Grounding connection		Exothermic	
1.20b	Bonding Conductor			
	a. Manufacturer		By Supplier	
	b. Size, mm ²		By Supplier	
	c. Material		tin-annealed copper stranded conductor with 1.2 kV PVC Insulation	

Name of Firm

Name & Signature of Representative

Designation



2.0 SPARE PARTS

SPARE PARTS FOR OVERHEAD TRAVELLING CRANE DURING THE WARRANTY PERIOD (Minimum Requirements as Specified and Manufacturer’s Standard and Recommended Spare Parts)

ITEM	DESCRIPTION	ORDER NO.	QTY.*	SHELF LIFE	INTERVAL OF REPLACEMENT	UNIT PRICE	TOTAL PRICE ⁺
2.1	Limit switches		1 pc each type				
2.2	Bearings		1 set each type/size				
2.3	Brake end cap		1 set				
2.4	Friction disc		1 pc each type/size				
2.5	Fuses		1 pc each type				
2.6	Rope guide		1 set				
2.7	Push button contact block		1 set				
2.8	Contactors		1 set				
2.9	Gear box gasket		1 set				
2.10	Other spare parts recommended by Manufacturer for 1 year operation						

NOTES: **Supplier to provide minimum quantity required per Manufacturer’s/Supplier’s recommendation during the warranty period.*

⁺ Indicated Price shall be used for reference in future purchase orders.

Name of Firm

Name & Signature of Representative

Designation



SECTION VII

SCHEDULE OF REQUIREMENTS

(BID PRICE SCHEDULE)

**SECTION VII - SCHEDULE OF REQUIREMENTS
(BID PRICE SCHEDULE)**

**SUPPLY, DELIVERY, INSTALLATION AND TEST OF OVERHEAD TRAVELLING CRANE FOR
POWER BARGE 106**

ITEM NO.	DESCRIPTION	QTY.- UNIT	* CODE	UNIT PRICE FOR GOODS AND RELATED SERVICES TO BE SUPPLIED AND DELIVERED				TOTAL PRICE
				Unit Price of Goods and/or Services Delivered up to Philippine Port (Phil. Peso)+	Import Duties & other Levies Imposed by Phil. Govt. (Phil. Peso)	Value Added Tax and other Taxes Imposed by Phil. Govt. (Phil. Peso)	Local Transport from Port to Delivery Site (Phil. Peso)>	Local Currency (Phil. Peso) ((E+F+G+H) x C)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1.0	Supply, delivery and installation of 2 tons overhead travelling crane complete with electric motor-operated trolley, electric hoist, crane girder, bumper-end stoppers runway conductors, pendant-type controls, power cables including conduit and appurtenances, circuit breaker appropriate rating with Nema-1 enclosure (to be installed at the 480V Feeder Panel), grounding conductors for equipment connections to the existing grounding system, required spare parts during the warranty period, special tools and accessories, painting and other works and services as described in the tender specification.	1 lot						
2.0	Conduct of technical training/seminar at site on proper operation and maintenance of the equipment by highly qualified technical personnel	1 lot						
3.0	Inspection and Test	1 lot						
TOTAL								P. _____
_____								(Amount in Words)

- * Bidders shall enter a code representing the Country of Origin of all imported equipment, materials and accessories
- + Cost of equipment, freight, insurance, etc. up to Phil. port of entry
- > Unit Price for Local Transportation, insurance and other local costs incidental to delivery of the goods from the Phil port of entry to final delivery site

Note: Final delivery site of all equipment/materials shall be at the plant site stated above

Code	Country of Origin
US	United States

Name of Firm

Name and Signature of Authorized Representative

Designation



SECTION VIII

BIDDING FORMS

SECTION VIII – BIDDING FORMS

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NPCSF-GOODS-03	- Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid
NPCSF-GOODS-04	- Computation of Net Financial Contracting Capacity (NFCC)
NPCSF-GOODS-05	- Joint Venture Agreement
NPCSF-GOODS-06a	- Form of Bid Security : Bank Guarantee
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NPCSF-GOODS-06c	- Bid Securing Declaration Form
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NPCSF-GOODS-08	- Bid Letter
Sample Form	- Bank Guarantee Form for Advance Payment
Sample Form	- Certification from DTI as Domestic Bidder

Standard Form No: NPCSF-GOODS-01

Checklist of Technical & Financial Envelope Requirements for Bidders

A. THE 1ST ENVELOPE (TECHNICAL COMPONENT) SHALL CONTAIN THE FOLLOWING:

1. ELIGIBILITY DOCUMENTS

a. (CLASS A)

- PhilGEPs Certificate of Registration and Membership under Platinum Category (all pages) in accordance with Section 8.5.2 of the Revised IRR of RA. 9184;

Note: The failure by the prospective bidder to update its Certificate with the current and updated Class "A" eligibility documents shall result in the automatic suspension of the validity of its Certificate until such time that all of the expired Class "A" eligibility documents has been updated

- Statement of all its ongoing government and private contracts if any, whether similar or not similar in nature and complexity to the contract to be bid (*NPCSF-GOODS-02*)
- The Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, and whose value, adjusted to current prices using the Philippine Statistics Authority (PSA) consumer price index, must be at least 50% of the ABC (*NPCSF-GOODS-03*) complete with the following supporting documents:

1. Certificate of Acceptance; or Certificate of Completion; or Official Receipt (O.R); or Sales Invoice

(The Single Largest Completed Contract (SLCC) as declared by the bidder shall be verified and validated to ascertain such completed contract. Hence, bidders must ensure access to sites of such projects/equipment to NPC representatives for verification and validation purposes during post-qualification process.

It shall be a ground for disqualification, if verification and validation cannot be conducted for reasons attributable to the Bidder.)

- Duly signed computation of its Net Financial Contracting Capacity (NFCC) at least equal to the ABC (*NPCSF-GOODS-04*) or a Committed Line of Credit (CLC) at least equal to ten percent (10%) of the ABC, issued by a Universal or Commercial Bank; If the Bidder opted to submit a Committed Line of Credit (CLC), the bidder must submit a granted credit line valid/effective at the date of bidding.

b. (CLASS B)

- For Joint Venture (if applicable), any of the following:

- Valid Joint Venture Agreement (*NPCSF-GOODS-05*)

OR

- Notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA, if awarded the contract

- Certification from the relevant government office of their country stating that Filipinos are allowed to participate in their government procurement activities for the same item/product (*For foreign bidders claiming eligibility by reason of their country's extension of reciprocal rights to Filipinos*)

Standard Form No: NPCSF-GOODS-01

2. Technical Documents

- Bid Security, any one of the following:
 - Bid Securing Declaration (NPCSF-GOODS-06c)
OR
 - Cash or Cashier's/Manager's check issued by a Universal or Commercial Bank – 2% of ABC;
OR
 - Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: (NPCSF-GOODS-06a) - 2% of ABC;
OR
 - Surety Bond callable upon demand issued by a reputable surety or insurance company (NPCSF-GOODS-06b) - 5% of ABC, with
 - Certification from the Insurance Commission as authorized company to issue surety
- Duly signed, completely filled-out and notarized Omnibus Sworn statement (Revised) (NPCSF-GOODS-07), complete with the following attachments:
 - For Sole Proprietorship:
 - Special Power of Attorney
 - For Partnership/Corporation/Cooperative/Joint Venture:
 - Document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)
- Duly signed and completely filled-out Technical Data Sheets (Section VI – Part II)
- Complete eligibility documents of the proposed subcontractor, if any

B. THE 2ND ENVELOPE (FINANCIAL COMPONENT) SHALL CONTAIN THE FOLLOWING:

- Duly signed Bid Letter indicating the total bid amount in accordance with the prescribed form (NPCSF-GOODS-08)
- Duly signed and completely filled-out Schedule of Requirement (Section VII) indicating the unit and total prices per item and the total amount in the prescribed Price Schedule form.
- For Domestic Bidder claiming for domestic preference:
 - Letter address to the BAC claiming for preference
 - Certification from DTI as Domestic Bidder in accordance with the prescribed forms provided

Standard Form No: NPCSF-GOODS-01

CONDITIONS:

1. Each Bidder shall submit Two (2) copies of the first and second components of its Bid, marked Original and photocopy. Only the original copy will be read and considered for the bid. Any misplaced document outside of the Original copy will not be considered. The photocopy is ONLY FOR REFERENCE. NPC may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.
2. In the case of foreign bidders, the eligibility requirements under Class "A" Documents (except for Tax Clearance) may be substituted by the appropriate equivalent documents, if any, issued by the country of the foreign bidder concerned. The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country; and shall be authenticated by the appropriate Philippine foreign service establishment/post or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines.

These documents shall be accompanied by a Sworn Statement in a form prescribed by the GPPB stating that the documents submitted are complete and authentic copies of the original, and all statements and information provided therein are true and correct. Upon receipt of the said documents, the PhilGEPS shall process the same in accordance with the guidelines on the Government of the Philippines – Official Merchants Registry (GoP-OMR).
3. A Bidder not submitting bid for reason that his cost estimate is higher than the ABC, is required to submit his letter of non-participation/regret supported by corresponding detailed estimates. Failure to submit the two (2) documents shall be understood as acts that tend to defeat the purpose of public bidding without valid reason as stated under Section 69.1.(i) of the revised IRR of R.A. 9184.

Standard Form Number: NPCSF-GOODS-04

NET FINANCIAL CONTRACTING CAPACITY (NFCC)

- A. Summary of the Supplier's/Distributor's/Manufacturer's assets and liabilities on the basis of the income tax return and audited financial statement for the immediately preceding calendar year are:

		Year 20__
1.	Total Assets	
2.	Current Assets	
3.	Total Liabilities	
4.	Current Liabilities	
5.	Net Worth (1-3)	
6.	Net Working Capital (2-4)	

- B. The Net Financial Contracting Capacity (NFCC) based on the above data is computed as follows:

NFCC = [(Current assets minus current liabilities) x 15] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract for this Project.

NFCC = P _____

Herewith attached is certified true copy of the audited financial statement, stamped "RECEIVED" by the BIR or BIR authorized collecting agent for the immediately preceding calendar year.

Submitted by:

Name of Supplier / Distributor / Manufacturer

Signature of Authorized Representative

Date : _____

Standard Form Number: NPCSF-GOODS-05

JOINT VENTURE AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

That this JOINT VENTURE AGREEMENT is entered into by and between:
_____, of legal age, *(civil status)* _____, authorized representative of
_____ and a resident of _____.

- and -

_____, of legal age, *(civil status)* _____, authorized representative of
_____ a resident of _____.

That both parties agree to join together their capital, manpower, equipment, and other resources and efforts to enable the Joint Venture to participate in the Bidding and Undertaking of the hereunder stated Contract of the **National Power Corporation**.

NAME OF PROJECT

CONTRACT AMOUNT

That the capital contribution of each member firm:

NAME OF FIRM	CAPITAL CONTRIBUTION
1. _____	P _____
2. _____	P _____

That both parties agree to be jointly and severally liable for their participation in the Bidding and Undertaking of the said contract.

That both parties agree that _____ and/or _____ shall be the Official Representative/s of the Joint Venture, and are granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Joint Venture in the Bidding and Undertaking of the said contract, as fully and effectively and the Joint Venture may do and if personally present with full power of substitution and revocation.

That this Joint Venture Agreement shall remain in effect only for the above stated Contract until terminated by both parties.

Name & Signature of Authorized Representative

Official Designation

Name of Firm

Name & Signature of Authorized Representative

Official Designation

Name of Firm

Witnesses

1. _____ 2. _____

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Standard Form Number: NPCSF-GOODS-06a

FORM OF BID SECURITY (BANK GUARANTEE)

WHEREAS, (Name of Bidder) (hereinafter called "the Bidder") has submitted his bid dated (Date) for the [name of project] (hereinafter called "the Bid").

KNOW ALL MEN by these presents that We (Name of Bank) of (Name of Country) having our registered office at _____ (hereinafter called "the Bank" are bound unto National Power Corporation (hereinafter called "the Entity") in the sum of [amount in words & figures as prescribed in the bidding documents] for which payment well and truly to be made to the said Entity the Bank binds himself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____ 20____.

THE CONDITIONS of this obligation are that:

- 1) if the Bidder withdraws his Bid during the period of bid validity specified in the Bidding Documents; or
- 2) if the Bidder does not accept the correction of arithmetical errors of his bid price in accordance with the Instructions to Bidder; or
- 3) if the Bidder, having determined as the LCB, fails or refuses to submit the required tax clearance, latest income and business tax returns and PhilGEPs registration certificate within the prescribed period; or
- 4) if the Bidder having been notified of the acceptance of his bid and award of contract to him by the Entity during the period of bid validity:
 - a) fails or refuses to execute the Contract; or
 - b) fails or refuses to submit the required valid JVA, if applicable; or
 - c) fails or refuses to furnish the Performance Security in accordance with the Instructions to Bidders;

we undertake to pay to the Entity up to the above amount upon receipt of his first written demand, without the Entity having to substantiate its demand, provided that in his demand the Entity will note that the amount claimed by it is due to the occurrence of any one or combination of the four (4) conditions stated above.

The Guarantee will remain in force up to 120 days after the opening of bids or as it may be extended by the Entity, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE _____

SIGNATURE OF THE BANK _____

WITNESS _____

SEAL _____

(Signature, Name and Address)

Standard Form Number: NPCSF-GOODS-06b

FORM OF BID SECURITY (SURETY BOND)

BOND NO.: _____ DATE BOND EXECUTED: _____

By this bond, We (Name of Bidder) _____ (hereinafter called "the Principal") and (Name of Surety) _____ of (Name of Country of Surety) _____, authorized to transact business in the Philippines (hereinafter called "the Surety") are held and firmly bound unto National Power Corporation (hereinafter called "the Employer") as Obligee, in the sum of (amount in words & figures as prescribed in the bidding documents), callable on demand, for the payment of which sum, well and truly to be made, we, the said Principal and Surety bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

SEALED with our seals and dated this _____ day of _____ 20 _____

WHEREAS, the Principal has submitted a written Bid to the Employer dated the _____ day of _____ 20 _____, for the _____ (hereinafter called "the Bid").

NOW, THEREFORE, the conditions of this obligation are:

- 1) if the Bidder withdraws his Bid during the period of bid validity specified in the Bidding Documents; or
- 2) if the Bidder does not accept the correction of arithmetical errors of his bid price in accordance with the Instructions to Bidder; or
- 3) if the Bidder, having determined as the LCB, fails or refuses to submit the required tax clearance, latest income and business tax returns and PhilGEPs registration certificate within the prescribed period; or
- 4) if the Bidder having been notified of the acceptance of his bid and award of contract to him by the Entity during the period of bid validity:
 - d) fails or refuses to execute the Contract; or
 - e) fails or refuses to submit the required valid JVA, if applicable; or
 - f) fails or refuses to furnish the Performance Security in accordance with the Instructions to Bidders;

then this obligation shall remain in full force and effect, otherwise it shall be null and void.

PROVIDED HOWEVER, that the Surety shall not be:

- a) liable for a greater sum than the specified penalty of this bond, nor
- b) liable for a greater sum than the difference between the amount of the said Principal's Bid and the amount of the Bid that is accepted by the Employer.

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This Surety executing this instrument hereby agrees that its obligation shall be valid for 120 calendar days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Surety is hereby waived.

PRINCIPAL _____ SURETY _____

SIGNATURE(S) _____ SIGNATURES(S) _____

NAME(S) AND TITLE(S) _____ NAME(S) _____

SEAL _____ SEAL _____

Standard Form No: NPCSF-GOODS-06c

REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.

BID-SECURING DECLARATION
SUPPLY, DELIVERY, INSTALLATION AND TEST OF OVERHEAD
TRAVELLING CRANE FOR POWER BARGE 106
(PR NO. S1-B0625-003)

To: **National Power Corporation**
Gabriel Y. Itchon Building
Sen. Miriam P. Defensor-Santiago Ave.
(formerly BIR Road) corner Quezon Avenue
Diliman, Quezon City, Philippines 1100

I/We¹, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the Procuring Entity for the commission of acts resulting to the enforcement of the Bid Securing Declaration under Sections 23.1 (b), 34.2, 40.1 and 69.1, except 69.1 (f) of the IRR of R.A. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:
 - (a) Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - (b) I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;
 - (c) I am/we are declared as the bidder with the Lowest Calculated and Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/we have hereunto set my hand this ____ day of ____
20____ at _____, Philippines.

[Name and Signature of Bidder's Representative/
Authorized Signatory]
[Signatory's legal capacity]
Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

¹ Select one and delete the other. Adopt same instruction for similar terms throughout the document.

Standard Form No: NPCSF-GOODS-07

Omnibus Sworn Statement (Revised)

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. *[Select one, delete the other:]*

[If a sole proprietorship:] I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

[If a partnership, corporation, cooperative, or joint venture:] I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. *[Select one, delete the other:]*

[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. *[Select one, delete the rest:]*

[If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a partnership or cooperative:] None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee

(BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a corporation or joint venture:] None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and
8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
 - a. Carefully examining all of the Bidding Documents;
 - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
 - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.
9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of ___, 20__ at _____, Philippines.

*[Insert NAME OF BIDDER OR ITS AUTHORIZED
REPRESENTATIVE]*

[Insert signatory's legal capacity]
Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Standard Form No: NPCSF-GOODS-08

BID LETTER

Date: _____

To: **THE PRESIDENT**
National Power Corporation
Gabriel Y. Itchon Building
Sen. Miriam P. Defensor-Santiago Ave.
(formerly BIR Road) corner Quezon Avenue
Diliman, Quezon City, Philippines 1100

Gentlemen:

Having examined the Bidding Documents including Bid Bulletin Numbers *[insert numbers]*_____, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to perform **SUPPLY, DELIVERY, INSTALLATION AND TEST OF OVERHEAD TRAVELLING CRANE FOR POWER BARGE 106 (PR NO. S1-B0625-003)** in conformity with the said Bidding Documents for the sum of *[total Bid amount in words and figures]* _____ or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to supply and deliver the goods and perform other services, if required within the contract duration and in accordance with the scope of the contract specified in the Schedule of Requirements and Technical Specifications.

If our Bid is accepted, we undertake to provide a performance security in the form, amounts, and within the times specified in the Bidding Documents.

We agree to abide by this Bid for the Bid Validity Period specified in Bid Documents and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon us.

We understand that you are not bound to accept the Lowest Calculated Bid or any Bid you may receive.

We certify/confirm that we comply with the eligibility requirements pursuant to the Bidding Documents.

We likewise certify/confirm that the undersigned, *[for sole proprietorships, insert: as the owner and sole proprietor or authorized representative of [Name of Bidder]* _____ has the full power and authority to participate, submit the bid, and to sign and execute the ensuing contract, on the latter's behalf for the *[Name of Project]* _____ of the National Power Corporation *[for partnerships, corporations, cooperatives, or joint ventures, insert: is granted full power and authority by the [Name of Bidder]* _____ to participate, submit the bid, and to sign and execute the ensuing contract on the latter's behalf for *[Name of Project]* _____ of the National Power Corporation.

We acknowledge that failure to sign each and every page of this Bid Letter, including the attached Schedule of Requirements (Bid Price Schedule), shall be a ground for the rejection of our bid.

*[name and signature of authorized signatory]*_____
[in the capacity of]

Duly authorized to sign Bid for and on behalf of _____
[name of bidder]

Bank Guarantee Form for Advance Payment

To: **THE PRESIDENT**
National Power Corporation
Gabriel Y. Itchon Building
Sen. Miriam P. Defensor-Santiago Ave.
(formerly BIR Road) corner Quezon Avenue
Diliman, Quezon City, Philippines 1100

[name of Contract]

Gentlemen and/or Ladies:

In accordance with the Advance Payment Provision, of the General Conditions of Contract, *[name and address of Supplier]* (hereinafter called the "Supplier") shall deposit with the PROCURING ENTITY a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of *[amount of guarantee in figures and words]*.

We, the *[name of the universal/commercial bank]*, as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the PROCURING ENTITY on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding *[amount of guarantee in figures and words]*.

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

This guarantee shall remain valid and in full effect from the date the advance payment is received by the Supplier under the Contract and until the Goods are accepted by the PROCURING ENTITY.

Yours truly,

Signature and seal of the Guarantors

[name of bank or financial institution]

[address]

[date]

CERTIFICATION AS A DOMESTIC BIDDER

This is to certify that based on the records of this office, (Name of Bidder) is
duly registered with the DTI on _____.

This further certifies that the articles forming part of the product of (Name of Bidder)
which are/is (Specify) _____ are substantially composed of
articles, materials, or supplies grown, produced or manufactured in the Philippines. (Please
encircle the applicable description/s).

This certification is issued upon the request of (Name of Person/Entity) in
connection with his intention to participate in the bidding for the (Name of Project)
of the National Power Corporation (NPC).

Given this ___ day of _____ 20__ at _____, Philippines

Name

Position

Department of Trade & Industry

SECTION IX

REFERENCES



SECTION IX – REFERENCES

OVERHEAD TRAVELLING CRANE

1.0 EXISTING OVERHEAD CRANE

Overhead Crane



Starboard Side



Middle Side to Starboard Side



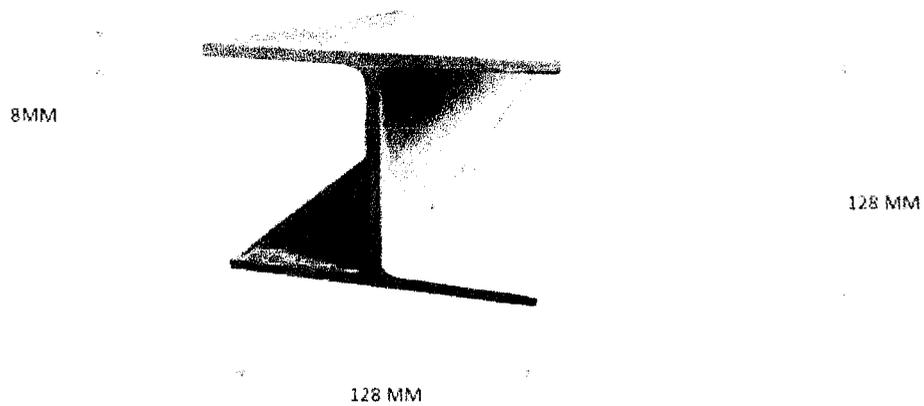
EXISTING OVERHEAD CRANE (cont'd...)

Port Side

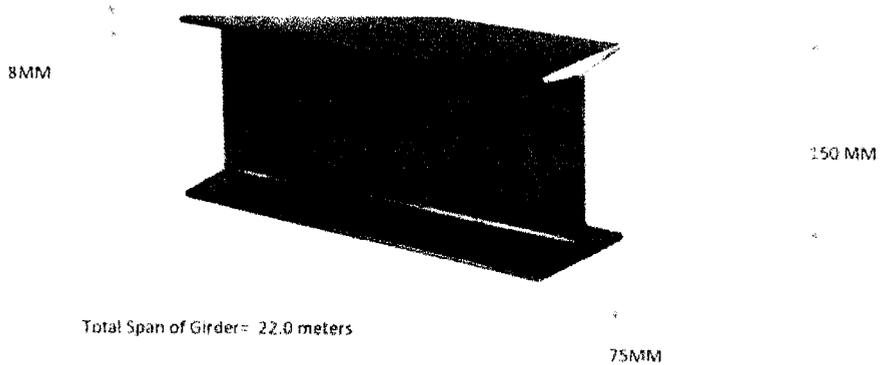


2.0 SUPPORT FRAME AND GIRDER SPECIFICATIONS

Support Frame



Girder



3.0 UPPER DECK PLAN

