KENYA PIPELINE COMPANY LIMITED

TENDER FOR TANK REPAIR AND INSTALLATION OF ALUMINIUM DOME ROOF ON TANK 11-TK-201 AT PS10

TENDER NUMBER: KPC/PU/008- OT/18-19

February 2019

CONTENTS

Nomenclature

KOSF	*Kipevu Oil Storage Facility*
PS	*Pump Station*
DPK	*Dual Purpose Kerosene*
MSP	*Motor Spirit Premium*
AGO	*Automobile Gas Oil (Diesel)*
API	*American Petroleum Institute*
ASME	*American Society of Mechanical Engineers*
DPT	*Die Penetrant Test*
MPI	*Magnetic Particle Inspection*
WPS	*Welding Procedures*
FFS	*Fitness for Service*
NEMA	*National Environment Management Authority*
JSA	*Job safety analysis*
SA	*Safety Audits*
LS	*Lump Sum*
m^3	*Cubic Metre*
m^2	*Square Metre*
m	*Linear Metre*
No.	*Numbers*

Part 1

Invitation to Tender

REPAIR AND INSTALLATION OF ALUMINIUM DOME ROOF ON TANK 11-TK-201

Contents

1.0 Invitation for Tenders

Tender Reference Number: KPC/PU/008-OT/18-19

1.1 Tender Name: *Tender for Repair and Installation of Aluminium Dome Roof on Tank 11-Tk-201 at PS10*

1.2 Interested eligible candidates can view and download the documents from the website **www.kpc.co.ke** at no cost. Bidders will be required to email their detailed contact information to **opentender@kpc.co.ke** for recording, further clarifications and addenda. No other email addresses shall be used. No other email addresses should be used. Addenda will also be posted on the website as they become available.

1.3 Interested eligible candidates shall attach the following mandatory requirements and place them in a separate envelope marked "MANDATORY REQUIREMENTS"

a) Certificate of Incorporation/Registration.
b) Original Tender Security of KES 200,000.00 from a bank Registered in Kenya or from an Insurance Company Approved by PPOA or equivalent in foreign currency. Valid for 180 days from the date of tender opening.
c) Valid KRA tax compliance certificate (for local firms).
d) Signed declaration form.
e) For local firms they are required to produce *Valid NCA1* certificate for Mechanical and *Valid NCA1* for Electrical Work. The certificates shall be traceable to National Construction Authority of Kenya website, otherwise will lead to disqualification.
f) Letter of Authorization from the Manufacturer of Aluminium Dome Roof.
g) Letter of authorization from the Manufacturer of Internal Floating Roof (Full contact IFR type).
h) Pre-tender Site visit certificate. Site visit will be held on 21st February 2019 at 10 am at Nairobi terminal
i) In the event of participation by Foreign Firms a Local participation of a minimum of 40% of contract value either on materials locally produced/assembled or on shareholding is required. Foreign firms MUST submit a *Partnership Agreement with a Local firm*. The purpose is to ensure sustainable promotion of local industry. The participation for local firms shall be at least 40% of the contract value. The local partnership agreement may be a *Joint Venture*, a *Memorandum of Understanding* (MOU) or *any other form of agreement* signed by all the parties involved. (the local firm must also submit mandatory documents (a), (d), (e), (f)
j) Paginate and initialize all documents submitted.

KPC reserves the right to confirm the authenticity of all documents submitted by Tenderers. Any attempt by bidders to misrepresent themselves by submitting documents that are not genuine will amount to disqualification.

1.4 Prices quoted should be net inclusive of all taxes and shall remain valid for a minimum of **One Hundred and Fifty days (150) days** from the closing date of the tender.

1.5 Tenders must be addressed to:

The Managing Director
Kenya Pipeline Company
Kenpipe Plaza
Nanyuki Road, Industrial Area
Kenpipe Plaza
P.O BOX 73442 Nairobi 00200
Tel: +254-020-2606500-4

And deposited in the tender box on ground floor of Kenpipe Plaza on or before **10:00 AM 28th February 2019.** Tenders shall be opened immediately thereafter and tenderers or their representatives who wish to attend are welcome. Tender documents are not transferable.

Kenya Pipeline Ltd reserves the right to accept or reject any tender either in whole or in part and is not bound to give reasons thereof.

GENERAL MANAGER SUPPLY
FOR: MANAGING DIRECTOR

2.0 INSTRUCTIONS TO TENDERERS

Note: The tenderer must comply with the following conditions and instructions and failure to do so is liable to result in rejection of his tender.

2.1 General Definitions

a) "**Tenderer"** means any person or persons partnership firm or Employer submitting a sum or sums in the Bills of Quantities in accordance with the Instructions to Tenderers, Conditions of Contract Parts I and II, Specifications, Drawings and Bills of Quantities for the work contemplated, acting directly or through a legally appointed representative.

b) **"Approved Tenderer**" means the Tenderer who is approved by the Employer.

c) Any noun or adjective derived from the word **"tender"** shall be read and construed to mean the corresponding form of the noun or adjective **"bid".** Any conjugation of the verb "tender" shall be read and construed to mean the corresponding form of the verb "bid".

d) **"Employer"** means **The Kenya Pipeline Company Limited**

2.2 Eligibility and Qualification

2.2.1 This invitation to tender is open to all Tenderers who are eligible as stated in these Instructions to Tenderers.

2.2.2 Kenya Pipeline Company Limited employees, committee members, board members and their relatives (spouse and children) are not eligible to participate in the tender.

2.2.3 To be qualified for award of contract, the Tenderer shall provide evidence satisfactory to the Employer of their eligibility; and of their capability and adequacy of resources to effectively carry out the subject Contract. To this end, the Tenderer shall be required to submit the following information with this tender:

a) Details of experience and past performance of the Tenderer on the works of a similar nature within the past five years and details of current work on hand and other contractual documents.
b) Audited accounts for the last three years to demonstrate financial capability for undertaking this project.
c) The qualifications and experience of key personnel proposed for administration and execution of the contract, both **"ON"** and **"OFF"** the site, at least in the format provided in the evaluation criteria and Schedule B of Proposed Staff.
d) Major items of tools and equipment proposed for use in carrying out the contract. Only equipment in current production and use and suitable for the work required of it shall be shown on the schedule. The Tenderer will also indicate on the schedule when each item will be available on the works.

e) A draft of Program of Works in the form of a Gant chart and schedule of payment which shall form part of the contract if the tender is accepted. Any change in the Program or Schedule will be subjected to the approval of the Engineer.

f) Details of any current litigation or arbitration proceedings in which the Tenderer is involved as one of the parties.

2.2.4 Joint Ventures

Tenders submitted by a joint venture of two or more firms as partners shall comply with the following requirements:

(a) A Local Partnership Agreement as per requirements of this tender. International firms incorporated outside the Republic of Kenya must demonstrate partnerships with Local firms in a joint venture arrangement for this tender. The minimum shareholding for the local firm in the joint venture shall be 40% in all respects and the same must clearly be stated in the Agreement. Firms incorporated in Kenya must demonstrate that citizens of Kenya hold a minimum 51% shareholding to qualify for local firms.

(b) The tender, and in case of a successful tender, the Form of Agreement, shall be signed so as to be legally binding on all partners.

(c) One of the partners shall be nominated as being in charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners.

(d) The partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture and the entire execution of the Contract including payment shall be done exclusively with the partner in charge.

(e) All partners of the joint venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the authorization mentioned under (b) above as well as in the Form of Tender and the Form of Agreement (in case of a successful tender).

(f) A copy of the agreement entered into by the joint venture partners shall be submitted with the tender.

2.2.5 To qualify for contract award, the Tenderer shall have the following:

a) Necessary qualifications, capable experience, services, equipment and facilities to provide what is being procured.

b) Capacity to enter into a contract for service.

c) Shall not be insolvent, in receivership, bankrupt or in the process of being wound up and is not the subject of legal proceedings relating to the foregoing.

d) Shall not be debarred from participating in public procurement.

2.2.5 Tender by Special Entities

Pursuant to the Legal Notice No.114 of 18th June, 2013, KPC shall give preference to entities owned by youth, women and persons with disability who have (a) registered with relevant government body; and (b) have at least seventy per cent membership of youth, women or persons with disability, respectively.

3.0 Cost of Tendering

3.1 The Tenderer shall bear all costs associated with the preparation and submission of this tender and the Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

3.2 The price to be charged for the tender document shall be NIL the tender document may also be downloaded from the KPC website www.kpc.co.ke free of charge.

3.3 The procuring entity shall allow the Tenderer to view the tender document free of charge before purchase.

4.0 Site Visit to be held on the 21ST February 2019 at 10:00 am at PS 10 Nairobi terminal

4.1 The Tenderer is advised to visit and examine the Site and its surroundings and obtain for himself on his own responsibility, all information that may be necessary for preparing the tender and entering into a contract. The costs of visiting the Site shall be the Tenderer's own responsibility.

4.2 The Tenderer and/or any of his personnel or agents will be granted permission by the Employer to enter upon premises and lands for the purpose of such inspection, but only upon the express condition that the Tenderer, his personnel or agents, will release and indemnify the Employer from and against all liability in respect of, and will be responsible for personal injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, costs and expenses however caused, which but for the exercise of such permission, would not have arisen.

4.3 The Employer shall be available for a site visit at **PS10 NAIROBI TERMINAL** on the **21st February 2019** at **10.00 am.** A representative of the Employer will be available to meet the intending Tenderers at the Site. Tenderers are encouraged to avail themselves for the site visit at the prescribed date and time. KPC is not obliged to arrange alternative site visit dates.

4.4 Each Tenderer ***must*** submit the Certificate of Tenderer's Site Visit, whether he in fact visits the Site at the time of the organized site visit or by himself at some other time.

4.5 Tenderers must provide their own Personal Protective Equipment (PPEs). As a minimum Tenderers must bring along a helmet (hard hat), pair of safety shoes and cotton overall or dust coat. ***Tenderers who will not have PPEs will not be allowed to participate in the site visit.***

5.0 Tender Documents

5.1 The Tender documents comprise the documents listed here below and should be read together with any Addenda issued in accordance with ***Clause 7*** of these instructions to Tenderers.

a. Form of Invitation for Tenders
b. Instructions to Tenderers
c. Form of Tender
d. Form of Tender Security
e. Statement of Foreign Currency Requirements
f. Form of Performance Security
g. Form of Agreement
h. General Conditions of Contract – Part I
i. Conditions of Particular Application – Part II
j. Scope of works and Specifications
k. Schedule Prices
l. Declaration
m. Site visit certificate

5.2 The Tenderer is expected to examine carefully all instructions, conditions, forms, terms, specifications and drawings in the tender documents. Failure to comply with the requirements for tender submission will be at the Tenderer's own risk. Pursuant to ***Clause 24*** of Instructions to Tenderers, tenders which are not substantially responsive to the requirements of the tender documents will be rejected.

5.3 All recipients of the documents for the proposed Contract for the purpose of submitting a tender (whether they submit a tender or not) shall treat the details of the documents as **"PRIVATE AND CONFIDENTIAL"**.

6.0 Inquiries by Tenderers

6.1 A Tenderer making inquiries relating to the tender documents may notify the Employer in writing or by telex, cable or facsimile at the Employer's mailing address indicated in the Invitation to Tender. The Employer will respond in writing to any request for clarification which he receives earlier than 7 days prior to the deadline for the submission of tenders. Written copies of the Employer's response (including the query but without identifying the source of the inquiry) will be sent to all prospective Tenderers who have purchased the tender documents.

6.2 Clarification of tenders shall be requested by the Tenderer to be received by the procuring entity **not later than 7 days** prior to the deadline for submission of tenders.

6.3 The procuring entity shall reply to any clarifications sought by the Tenderer within 5 days of receiving the request to enable the Tenderer to make timely submission of its tender.

7.0 Amendment of Tender Documents

7.1 At any time prior to the deadline for submission of tenders the Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective Tenderer, modify the tender documents by issuing Addenda.

7.2 Any Addendum will be notified in writing or by cable, telex or facsimile to all prospective Tenderers who have purchased the tender documents and will be binding upon them.

7.3 In order to allow prospective Tenderers reasonable time in which to take the Addendum into account in preparing their tenders, the Employer may, at his discretion, extend the deadline for the submission of tenders.

7.4 If the Tender documents are amended when the time remaining before the deadline for substituting Tenders is less than one third of the time allowed for preparation of Tenders or the time remaining is less than the period indicated in information to tenderers, the employer shall extend the deadline as necessary to allow the amendment of the Tender documents to be taken into account in preparation of amendment of Tenders.

8.0 Preparation of Tenders

8.1 Language of Tender

8.2 The tender and all correspondence and documents relating to the tender exchanged between the Tenderer and the Employer shall be written in the English language. Supporting documents and printed literature furnished by the Tenderer with the tender may be in another language provided they are accompanied by an appropriate translation of pertinent passages in the above stated language. For the purpose of interpretation of the tender, the English language shall prevail.

9.0 Documents Comprising the Tender

9.1 The tender to be prepared by the Tenderer shall comprise: -

i. The form of tender
ii. Tender Security
iii. The Price Schedule
iv. The information on eligibility and qualification.
v. Any other materials required to be completed and submitted in accordance with the instructions to Tenderers.
vi. Bidders must include copies of the following documents with their technical submissions: -
   a) Annual turnover records
   b) Organizational charts

The Forms, price schedule and Schedules provided in the tender documents shall be used without exception (subject to extensions of the schedules in the same format and to the provisions of ***Clause 14.2*** regarding the alternative forms of Tender Security.

10.0 Tender Prices

10.1 All the insertions made by the Tenderer shall be made in **INK** and the Tenderer shall clearly form the figures. The relevant space in the Form of Tender and Price schedules shall be completed accordingly without interlineations or erasures except those necessary to correct errors made by the Tenderer in which case the erasures and interlineations shall be initialled by the person or persons signing the tender.

10.2 A price or rate shall be inserted by the Tenderer for every item in the Price schedules whether the quantities are stated or not. Items against which no rate or price is entered by the Tenderer will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Price schedules.

10.3 The prices and unit rates in the Price schedules are to be the full [all-inclusive] value of the work described under the items, including all costs and expenses which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based.

10.4 All duties and taxes and other levies payable by the Contractor under the Contract or for any other cause prior to the deadline for the submission of tenders, shall be included in the rates and prices and the total tender prices submitted by the Tenderer. Items against which no price is entered by the Tenderer will not be paid for by the Employer when executed and shall be deemed covered by the total amount.

10.5 Each price or unit rate inserted in the Price schedules should be a realistic estimate for completing the activity or activities described under that particular item and the Tenderer is advised against inserting a price or rate against any item contrary to this instruction.

10.6 Every rate entered in the Price schedules, whether or not such rate is associated with a quantity, shall form part of the Contract. The Employer shall have the right to call for any item of work contained in the Price schedule, and such items of work to be paid for at the rate entered by the Tenderer and it is the intention of the Employer to take full advantage of unbalanced low rates.

10.7 Unless otherwise specified the Tenderer must enter the amounts representing 10% of the sub-total of the summary of the Price schedules for Contingency payments in the summary sheet and add them to the sub-total to arrive at the tender amount.

10.8 The Tenderer shall furnish with his tender written confirmation from his suppliers or manufacturers of unit rates for the supply of such items.

10.9 The rates and prices quoted by the Tenderer are subject to adjustment during the performance of the Contract only in accordance with the provisions of the Conditions of Contract. The Tenderer shall complete the schedule of basic rates and shall submit with his tender such other supporting information as required.

11.0 Currencies of Tender Payment

11.1 Tenders shall be priced in **Kenya Shillings** and/**or any convertible foreign currency** and the tender sum shall be in the amounts indicated both in Kenya Shillings and the foreign currency element in the tender document. It is informed to the tenders that price quoted in foreign currency will be converted to Kenya shillings at the mean exchange rate prevailing on the date of opening of price bid as a basis for the comparison of tenders.

11.2 Tenderers are required to indicate in the Statement of Foreign Currency, which forms part of the tender, the foreign currency required by them. Such currency should generally be the currency of the country of the Tenderer's main Office. However, if a substantial portion of the Tenderer's expenditure under the Contract is expected to be in countries other than his country of origin, then he may state a corresponding portion of the contract price in the currency of those other countries. However, the foreign currency element is to be limited to two (2) different currencies and a maximum of 30% (thirty per cent) of the Contract Price.

11.3 The rate or rates of exchange used for pricing the tender shall be the mean rates of the Central Bank ruling on the date thirty (30) days before the final date for the submission of tenders.

11.4 Tenderers must enclose with their tenders, a brief justification of the foreign currency requirements stated in their tenders.

12.0 Tender Validity

12.1 The tender shall remain valid and open for acceptance for a period of **One Hundred and Fifty Days (150) days** from the specified date of tender opening or from the extended date of tender opening (in accordance with ***Clause 7.3*** here above) whichever is the later.

12.2 In exceptional circumstances prior to expiry of the original tender validity period, the Employer may request the Tenderer for a specified extension of the period of validity. The request and the responses thereto shall be made in writing or by cable, telex or facsimile. A Tenderer may refuse the request without forfeiting his Tender Security. A Tenderer agreeing to the request will not be required nor permitted to modify his tender, but will be required to extend the validity of his Tender Security correspondingly. The provisions regarding discharge and forfeiture of tender Security respectively shall continue to apply during the extended period of tender validity.

12.3 The tenderer shall quote in English. The prices must be quoted both in figures and in words in the Price bid to be submitted in the form of Schedule of prices, forming part of the Tender Documents. The amount for each item shall be worked out and entered and requisite totals be given for all items. The Tender amount for the work shall be entered in the Tender and duly signed by the Tenderer.

12.4 The Tender shall contain the name, address and place of business of the person(s) making the Tender and shall be signed by the Tenderer with his usual signature. The signature on the Tender shall be attested by at least one witness. The name(s), occupation(s) and address(s) of the witness(s) shall be stated below his/their signatures(s).

12.5 The person signing the Tender shall state his capacity as also the source of his ability to bind the Tenderer. The power of attorney or authorization or other document constituting adequate proof of the ability of the signatory to bind the Tenderer shall be annexed to the Tender. The Employer may reject outright any Tender unsupported by adequate proof of the signatory's authority.

12.6 All signatures in Tender Documents shall be dated. All pages of all sections of Tender Documents shall be initialled at the lower right-hand corner or signed wherever required in the Tender Document by the Tenderer or by a person authorized to sign on behalf of a Tenderer as envisaged above.

12.7 Any effort by a Tenderer to influence the Employer in process of examination, clarification, evaluation and comparison of tenders, and indecision concerning award of contract may result in the rejection of tender.

13.0 Tenderer's Procedures

13.1 The Tenderer shall submit to the Employer a complete copy of their repair procedures and specifications, appended to which shall be copies of all qualification tests.

13.2 Lists of all equipment, including serial numbers (where applicable) make and models are to be provided to the Employer.

13.3 The Tenderer shall submit a detailed method and Gantt chart to explain how he intends to progress and complete all the work.

14.0 Tender Security

14.1 The Tenderer shall furnish as part of his tender, a Tender Security in the amount of **Kshs.200,000.00**

14.2 The tender Security shall be valid for at least thirty (30) days beyond the tender validity period; **total of 180 days**. The format of the Security shall be in accordance with the sample form of Tender Security included in these tender documents; other formats may be permitted subject to the prior approval of the Employer.

14.3 Any tender not accompanied by an acceptable Tender Security will be rejected by the Employer as non-responsive.

14.4 The Tender Sureties of unsuccessful Tenderers will be returned as promptly as possible but, not later than fourteen (14) days after concluding the Contract execution and after a Performance Security has been furnished by the successful Tenderer. The Tender Security of the successful Tenderer will be returned upon the tenderer executing the Contract and furnishing the required Performance Security.

14.5 The Tender Security may be forfeited:

(a) If a Tenderer withdraws his tender during the period of tender validity: or
(b) In the case of a successful Tenderer, if he fails

(i) To sign the Agreement, or
(ii) To furnish the necessary Performance Security

15.0 No Alternative Offers

15.1 The Tenderer shall submit an Offer which complies fully with the requirements of the tender documents.
Only one tender may be submitted by each Tenderer either by himself or as partner in a joint venture.

15.2 The Tenderer shall not attach any conditions of his own to his tender. The tender price must be based on the tender documents. The Tenderer is not required to present alternative options and he shall use without exception, the Price Schedule as provided, with the amendments as notified in tender addenda, if any, for the calculation of his tender price.
Any Tenderer who fails to comply with this Clause will be disqualified.

16.0 Pre-Tender Meeting

16.1 If a pre-tender meeting is convened the Tenderer's designated representative is invited to attend a pre-tender meeting, which (if convened) will take place at the venue and time stated in the Invitation to Tender. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

16.2 The Tenderer is requested as far as possible to submit any questions in writing or by cable, to reach the Employer not later than seven days before the meeting. It may not be practicable at the meeting to answer questions received late, but questions and responses will be transmitted with contents as below: -

Minutes of the meeting, including the text of the questions raised and the responses given together with any responses prepared after the meeting will be transmitted without delay to all purchasers of the tender documents. Any modification of the tender documents listed in *Clause 9* which may become necessary as a result of the pre-tender meeting shall be made by the Employer exclusively through the issue of a tender notice pursuant to *Clause 7* and not through the minutes of the pre-tender meeting.

16.3 Non-attendance at the pre-tender meeting will not be a cause for disqualification of a bidder.

17.0 Format and Signing of Tenders

17.1 The Tenderer shall prepare his tender as outlined in *Clause 8* above and mark appropriately one set **"ORIGINAL"** and the other **"COPY".**

17.2 The copy of the tender and Bills of Quantities shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Tenderer. All pages of this tender document and where amendments have been made shall be initialled by the person or persons signing the tender.

17.3 The complete tender shall be without alterations, interlineations or erasures, except as necessary to correct errors made by the Tenderer, in which case such corrections shall be initialled by the person of persons signing the tender.

18.0 Submission of Tenders

18.1 Sealing and Marking of Tenders. This is a three envelope Tender.

18.2 The Tenderers shall prepare separately a ***mandatory, technical*** and f***inancial*** bid taking into consideration all the requirements specified in these tender documents. Inclusion of prices in the technical bid shall lead to immediate disqualification of the tenderer.

The financial bid shall include the following information: -

a) The total bid price inclusive of taxes
b) Schedule of prices i.e. breakdown of the bid price
c) Schedule of rates
d) Schedule of day work rates
e) Form of Tender

Tenderers shall submit the following tender documents: -

i. Mandatory requirements envelope
ii. One original hard copy of the technical bid marked – Technical Original
iii. One copy of the technical bid marked – Technical copy
iv. One original hard copy of the financial bid marked – Financial Original
v. One copy of the financial bid marked – Financial copy.

The tender security shall be placed in the envelope marked Mandatory requirements.

Each technical bid and financial bid shall be marked **"ORIGINAL"** or **"COPY"** as appropriate. If there are any discrepancy between the original and copy of the bid the original shall govern. **There shall be no indication of prices in the technical bid. Inclusion of prices in the technical bid shall result to immediate disqualification of the Tenderer.**

18.3 The Tenderer shall seal the original and copy of the tender in separate, duly marked envelopes as **"TECHNICAL"** and **"FINANCIAL"**. The envelopes shall then be sealed in an outer envelope. Tenders shall be submitted in two parts namely the ''**TECHNICAL BID''** and '**THE FINANCIAL BID''.**

18.4 The original and copy of the Technical Bid shall be placed in the first single sealed envelope clearly marked "**TECHNICAL BID"** and the original and copy of the Financial Bid in a the second single sealed envelope clearly marked **"FINANCIAL BID"** and warning: **"DO NOT OPEN WITH THE TECHNICAL BID".** The first envelope shall be clearly marked with the words ''Tender number **KPC/PU/008-OT/18-19** ***Tender for Repair and Installation of Aluminium Dome Roof on Tank 11-Tk-201 at PS10*** **TECHNICAL BID''**. The second envelope shall be clearly marked with the words ''Tender number **KPC/PU/XXX-OT/17** ***Tender for Repair and Installation of Aluminium Dome Roof on Tank 11-Tk-201 at PS10*** **FINANCIAL BID"**. Both, envelopes, after sealing shall be marked **CONFIDENTIAL** and placed inside an outer envelope. The outer envelope shall be superscripted; ''To be opened by the addressee only'', with the tender number and tender closing date clearly indicated on this envelope. This outer envelope shall bear the submission address and Tender name and number and shall be clearly marked, **"DO NOT OPEN, EXCEPT IN THE PRESENCE OF THE TENDER OPENING COMMITTEE."**

18.5 The inner and outer envelopes shall be addressed to the Employer at the address stated in the Instructions to Tenderers and **bear the name and identification of the Tenderer** with a warning "**Not to open before 10am 28th February 2019".**

18.6 **The inner envelopes shall each indicate the name and address of the Tenderer** to enable the tender to be returned unopened in case it is declared "late", while the outer envelope shall bear no mark indicating the identity of the Tenderer.

18.7 If the outer envelope is not sealed and marked as instructed above, the Employer will assume no responsibility for the misplacement or premature opening of the tender. A tender opened prematurely for this cause will be rejected by the Employer and returned to the Tenderer.

19.0 Deadline for Submission of Tenders

19.1 Tenders must be received by the Employer at the address specified in ***Clause 1.5*** and on the date and time specified in the Letter of Invitation, subject to the provisions of ***Clause 7.3, 18.2, 18.3, 18.4, & 18.5***.

Tenders delivered by hand must be placed in the "tender box" provided in the Office of the Employer.
Proof of posting will not be accepted as proof of delivery and any tender delivered after the above stipulated time, from whatever cause arising will not be considered.

19.2 The Employer may, at his discretion, extend the deadline for the submission of tenders through the issue of an Addendum in accordance with ***Clause 7***, in which case all rights and obligations of the Employer and the Tenderers previously subject to the original deadline shall thereafter be subject to the new deadline as extended.

19.3 Any tender received by the Employer after the prescribed deadline for submission of tender will be returned unopened to the Tenderer.

19.4 All tenders shall be prepared by typing or printing with indelible black ink in the Tender Form. One original and two copies of the original tender form shall be submitted by the Tenderer. One set of Tender Form is enclosed with the Tender Document. Copies shall be arranged by the Tenderers.

Tender shall be completely filled in all respects with requisite information and annexure. Incomplete tenders shall be liable to be rejected.

19.5 If the space in the Tender or any schedule or annexure thereto is insufficient, pages shall be separately added. These shall be consecutively page-numbered and shall also carry the tender document number, shall be signed by the Tenderer and entered in the index for the Tender.

Tenders submitted by Telex/Fax/Telegram/E-mail etc will not be accepted.

19.6 If the envelopes are not sealed and marked as instructed above, the Employer will assume no responsibility for the misplacement, premature or late handling. In such a case, it will be rejected by the Employer and returned to the Tenderer.

19.7 The Technical bid shall be opened on the date and at the time specified in the Invitation to Tender or any date thereafter convenient to the Employer, in presence of the Tenderer's accredited representative. The price bid of the qualifying Tenderers would be opened at a later date which would be intimated to the qualifying Tenderer.

19.8 Tenderers shall indicate their prices in firm figures in the tender without qualification or variation or addition in the terms of the Tender Documents. Tenders containing qualifying expressions or incorporating terms and conditions at variance with the terms and conditions incorporated in the Tender Document shall be liable to be rejected.

19.9 The Tenderers (Technical) submissions shall consist of the following:

i. One complete set of Tender Document duly filled in, signed and stamped by the Tenderers as prescribed in the Tender Document.
ii. Bid bond amounting to and in the manner specified elsewhere in the tender
iii. Power of Attorney or other proof of authority of the person who has signed the tender.
iv. Information regarding tenders in the form annexed to the form of tender
v. Detailed time schedule indicating various activities the Tenderer proposes to complete within the time for completion of work.
vi. Tenderer's procedures as sought in *Clause 13.0* of instructions to Tenderers.
vii. Bidders must include copies of the following documents with their technical submissions: -
    a) Audited accounts for the last two (2) years
    b) Organizational charts

The Employer reserves the right to accept or reject the Tender without assigning any reason whatsoever. However, the Employer does not bind self to accept the

lowest tender and reserves to itself the authority to reject, accept any or all the Tenders received without assigning any reason whatsoever.

20.0 Modification and Withdrawal of Tenders

20.1 The Tenderer may modify or withdraw his tender before the deadline of submission.

20.2 The Tenderer's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions for the submission of tenders, with the inner and outer envelopes additionally marked **"MODIFICATION"** or **"WITHDRAWAL"** as appropriate.

20.3 No tender may be modified subsequent to the deadline for submission of tenders.

20.4 No tender may be withdrawn in the interval between the deadline for submission of tenders and the period of tender validity specified on the tender form. Withdrawal of a tender during this interval will result in the forfeiture of the Tender Security.

20.5 Subsequent to the expiration of the period of tender validity prescribed by the Employer, and the Tenderer having not been notified by the Employer of the award of the Contract or the Tenderer does not intend to conform with the request of the Employer to extend the prior of tender validity, the Tenderer may withdraw his tender without risk of forfeiture of the Tender Security.

21.0 Tender Opening and Evaluation

21.1 Tender Opening

21.2 The Employer will open the tenders in the presence of the Tenderers' representatives who choose to attend at the time and location indicated in the Letter of Invitation to Tender. The Tenderers' representatives who are present shall sign a register evidencing their attendance.

21.3 Tenders for which an acceptable notice of withdrawal has been submitted, pursuant to ***Clause 20***, will not be opened. The Employer will examine the tenders to determine whether they are complete, whether the requisite Tender Sureties have been furnished, whether the documents have been properly signed and whether the tenders are generally in order.

21.4 At the Tender opening, the Employer will announce the Tenderer's names, confirm if Technical and Financial bids have been submitted separately, the presence of the requisite Tender Guarantee (Bid Bond), submitted by the Bidder, mandatory requirements and such other details as the Employer, at his discretion, may consider appropriate. No tender shall be rejected at the tender opening except for late tenders. The financial bid shall not be opened until another date after evaluation of the Technical Bids. Only bidders that fulfil all the mandatory requirements and meet the minimum technical requirement shall proceed to financial opening.

21.5 The Employer shall prepare a tender opening register and minutes of the tender opening including the information disclosed to those present.

21.6 Tenders not opened and read out at the tender opening shall not be considered further for evaluation, irrespective of the circumstances.

21.7 *The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or person or entity.*

22.0 Process to be Confidential

22.1 After the public opening of tenders, information relating to the examination, clarification, evaluation and comparisons of tenders and recommendations concerning the award of Contract shall not be disclosed to Tenderers or other persons not officially concerned with such process until the award of Contract is announced.

22.2 Any effort by a Tenderer to influence the Employer in the process of examination, evaluation and comparison of tenders and decisions concerning award of Contract may result in the rejection of the Tenderer's tender.

22.3 The Employer reserves the right to disqualify a tenderer immediately at any stage of the tender process on detection of false, inaccurate or incomplete information about its qualifications or any other mandatory requirement.

23.0 Clarification of Tenders

23.1 To assist in the examination, evaluation and comparison of tenders, the Employer may ask Tenderers individually for clarification of their tenders, including breakdown of unit prices. The request for clarification and the response shall be in writing or by cable, facsimile or telex, but no change in the price or substance of the tender shall be sought, Offered or permitted except as required to confirm the correction of arithmetical errors discovered by the employer during the evaluation of the tenders in accordance with ***Clause 24***.

23.2 No Tenderer shall contact the Employer on any matter relating to his tender from the time of the tender opening to the time the Contract is awarded. If the Tenderer wishes to bring additional information to the notice of the Employer, he shall do so in writing.

24.0 Determination of Responsiveness

24.1 Prior to the detailed evaluation of tenders, the Employer will determine whether each tender meets all the mandatory requirements and is substantially responsive to the requirements of the tender documents.

24.2 For the purpose of this Clause, a tender is substantially responsive if it fulfils all the mandatory requirements and conforms to all the terms, conditions and

specifications of the tender documents without material deviation or reservation. A material deviation or reservation is one which affects in any substantial way the scope, quality, completion timing or administration of the Works to be undertaken by the Tenderer under the Contract, or which limits in any substantial way, inconsistent with the tender documents, the Employer's rights or the Tenderers obligations under the Contract and the rectification of which would affect unfairly the competitive position of other Tenderers who have presented substantially responsive tenders.

24.3 Each price or unit rate inserted in the Bills of Quantities shall be a realistic estimate of the cost of completing the works described under the particular item including allowance for overheads, profits and the like. Should a tender be seriously unbalanced in relation to the Employer's estimate of the works to be performed under any item or groups of items, the tender shall be deemed not responsive.

24.4 A tender determined to be not substantially responsive will be rejected by the Employer and may not subsequently be made responsive by the Tenderer by correction of the non-conforming deviation or reservation.

25.0 Conversion to Single Currency

25.1 For comparison of tenders, the tender price shall first be broken down into the respective amounts payable in various currencies by using the mean rate of the Central Bank of Kenya ruling on the date thirty (30) days before the final date for the submission of tenders.

25.2 The Employer will convert the amounts in various currencies in which the tender is payable (excluding provisional sums but including Day works where priced competitively) to Kenya Shillings at the mean rates stated in ***Clause 26.1***

26.0 Evaluation and Comparison of Tenders

26.1 The Employer will evaluate only tenders determined to be substantially responsive to the requirements of the tender documents in accordance with ***Clause 24***.

26.2 The Employer reserves the right to accept any variation, deviation or alternative Offer. Variations, deviations, alternative Offers and other factors which are in excess of the requirements of the tender documents or otherwise result in the accrual of unsolicited benefits to the Employer, shall not be taken into account in tender evaluation.

26.3 Price adjustment provisions in the Conditions of Contract applied over the period of execution of the Contract shall not be taken into account in tender evaluation.

26.4 If the lowest evaluated tender is seriously unbalanced or front loaded in relation to the Employer's estimate of the items of work to be performed under the Contract, the Employer may require the Tenderer to produce detailed price analyses for any or all items of the Bills of Quantities, to demonstrate the relationship between those prices, proposed construction methods and schedules. After evaluation of the price

and analysis, the Employer may require that the amount of the Performance Security set forth in ***Clause 29*** be increased at the expense of the successful Tenderer to a level sufficient to protect the Employer against financial loss in the event of subsequent default of the successful Tenderer under the Contract.

26.5 The tender evaluation committee shall evaluate the tender within 30 days of the validity period from the date of opening the tender.

26.6 Persons not officially involved in the evaluation of tender shall not attempt in any way to influence the evaluation.

27.0 Award of Contract

27.1 Award Criteria

27.2 Subject to ***Clause 27.3***, the Employer will award the Contract to the Tenderer whose tender is determined to be substantially responsive to the tender documents and who has offered the lowest evaluated tender price subject to possessing the **capability** and **resources** to effectively carry out the Contract Works.

27.3 The Employer reserves the right to accept or reject any tender, and to annul the tendering process and reject all tenders, at any time prior to award of Contract, without thereby incurring any liability to the affected Tenderers.

28.0 Notification of Award and Signing of Contract

28.1 Prior to the expiration of the period of tender validity prescribed by the Employer, the Employer will notify the successful Tenderer by e-mail and confirm in writing by registered letter that his tender has been accepted and at the same time notify the unsuccessful tenderers that their tenders have not been successful. This letter (hereinafter and in all Contract documents called "Letter of Acceptance") shall name the sum (hereinafter and in all Contract documents called "the Contract Price") which the Employer will pay to the Contractor in consideration of the execution and completion of the Works as prescribed by the Contract.

28.2 Within fourteen [14] days of receipt of the form of Contract Agreement from the Employer, the successful Tenderer shall sign the form and return it to the Employer together with the required Performance Security.

28.3 The parties to the contract shall have it signed within 30 days but not until at least 14days have lapsed from the date of notification of contract award unless there is an administrative review request.

28.4 A Tenderer who gives false information in the tender document about is qualification or who refuses to enter into a contract after notification of contract award shall be considered for debarment from participating in future public procurement.

29.0 Performance Guarantee

29.1 Within thirty [30] days immediately upon of receipt of the notification of award from the employer, the successful tenderer shall furnish the employer with a performance security in an amount stated in the **Performance Bank Guarantee**. The amount of performance security is 10% of the contract price.

29.2 The Performance Security to be provided by the successful Tenderer shall be an unconditional Bank Guarantee issued at the Tenderer's option by an established and a reputable Bank approved by the Employer and located in the Republic of Kenya and shall be divided into two elements namely, a performance Security payable in foreign currencies (based upon the exchange rates determined in accordance with ***Clause 10.1*** of the Conditions of Contract) and a performance Security payable in Kenya Shillings. The value of the two securities shall be in the same proportions of foreign and local currencies as requested in the form of foreign currency requirements.

29.3 Failure of the successful Tenderer to lodge the required Performance Security shall constitute a breach of Contract and sufficient grounds for the annulment of the award and forfeiture of the Tender Security and any other remedy under the Contract the Employer may award the Contract to the next ranked Tenderer.
Note:
It is advisable that the successful bidder begins procuring the repair materials immediately upon receipt of the letter of award.

30.0 Advance Payment

There shall not be advance payment in this contract.

31.0 Corrupt and Fraudulent Practices

The procuring entity requires that Tenderers observe the highest standard of ethics during the procurement process and execution of contract. A Tenderer shall sign a declaration that he is not debarred from public procurement under section Section 62 of the Public Procurement and Asset Disposal Act No. 33 of 2015, and that the person will not engage in corrupt and/or fraudulent practises in competing for and executing the contract.

32.0 Tender Security

Amount of Tender Security is **Kshs. 200,000.00** or equivalent easily convertible international currency.

(i) The name and address of the Employer for the purposes of submission of tenders is:

The Managing Director,
Kenya Pipeline Company Ltd,
Kenpipe Plaza,
Sekondi Rd, Off Nanyuki Rd, Industrial Area
P. O. Box 73442 - 00200,
Nairobi, Kenya.

The tender opening is on **28th February 2019 at 10.00am.**

33.0 Evaluation Criteria

33.1 In addition to ***Clause 26.0*** above, The Technical Evaluation Criteria shall be based on the following:

	Evaluation Criteria	Marks
1	**Experience and Past Performance: bidders are required to demonstrate their ability to carry on the work as follows :-**	**27 marks**
	i. Bidders shall provide proof of having supplied, installed and commissioned at least 1No. Aluminium dome roof in the last 5 years of at least 20m diameter – **See Note 1 Below for compliance.** ii. Bidders shall provide proof of having supplied, Installed and commissioned at least 3No.Internal Floating Decks in the last 5 years of at least 20m diameter **(Each Tank will be awarded 4 Marks) – See Note 1 below for compliance.** iii. Bidders shall provide proof of having completed rehabilitation of 3No oil storage tank in accordance to **API 653**.The Tanks should have been constructed to **API 650** (**Each tank will be awarded 2 marks)- see Note 1 below for compliance.** *NOTE 1: The documentary proof shall be in the form of documentary evidence detailing the capability of the contractor in supplying and installation of Aluminum Dome Roof as per requirement in API 650 ,API 653 ,EEMUA and NFPA 11&30 , Completion Certificates from the clients and any other documentary evidence showing that the tanks were constructed meets the criteria above .*	**Max. 9 marks** **Max. 12 marks** **Max. 6 marks**
2	**Financial Capability**	**10 marks**
	a. Annual financial turnover during any one of the last 5 years. Scores shall be awarded as follows: i. Over KES 150 million in any one of the financial year gets 5 marks. ii. Between KES 120 million and KES 150 million in any one of the financial year gets 4 marks. iii. Between KES 90 million and KES 120 million in any one of the financial year gets 3 marks. iv. Between KES 60 million and KES 90 million in any one of the financial year gets 2 marks. v. Below KES 60 million gets 0 marks. *The documentary proof shall be audited accounts for the last five years.* **b.** Current Ratio: Scores shall be awarded as follows: i. A current ratio greater than 2 gets 3 marks. ii. A current ratio greater or equal to 1 but less or equal to 2 gets 2 marks. iii. A current ratio less than1 gets 1 mark. *The bidder shall provide current audited accounts.* **c.** Solvency (Debt to equity ratio) of less than 2 gets 2 marks otherwise zero. *The bidder shall provide current audited accounts.*	
3	**Qualifications and Experience of Key Personnel**	**17 marks**

	a. Project Manager The bidder shall provide names and detailed signed curriculum vitae of two members of staff *(prime and alternate)* who have supervised the installation of Aluminium dome roofs and rehabilitation or construction of petroleum storage tanks. (**See Note 2 below**) The candidates should: i. Be holders of a Bachelor's Degree in Mechanical Engineering or equivalent. The degree certificate must be **notarized by a commissioner of oaths** in country of origin. ***(Attach copies of certificates and where applicable translated to English).*** ii. Have a minimum of 15 years working experience after graduation and 10 years in construction of petroleum storage tanks. A bidder who provides two project managers meeting the above requirements shall be awarded **2marks, otherwise zero.**	**2 marks**
	b. Health, Safety and Environment (HSE) Officer The bidder shall provide names and detailed signed curriculum vitae of two members of staff with: i. Recognized HSE certification and **notarized by a commissioner of oaths** in country of origin *(attach copies of certificates and where applicable translated to English).* ii. At least 5 years' experience in HSE matters in the Oil and Gas Industry A bidder who provides two HSE Officers meeting the above requirements shall be awarded **1 mark, otherwise zero.**	**1 mark**
	c. Welders. The bidder shall provide names and copies of certificates of at least 12 (twelve) welders who have 6G qualifications to **ASME IX** or **API 1104** or equivalent. **0.25 marks per welder** meeting the above requirements.	**6 marks**
	d. Aluminum Dome Assembly Fitters The bidder shall provide names and detailed and signed curriculum vitae of six members of staff with the following: The candidates should: i. Be holders of Trade Test Certification in Fitting. ii. Have work experience of assembling at 1No Aluminium dome roof or Aluminium internal floating roof	**3 mark**
	e. Mechanical Engineer The bidder shall provide names and detailed signed curriculum vitae of two members of staff *(prime and alternate)*. The candidates should: i. Be holders of a Bachelor's Degree in Mechanical Engineering or equivalent. The degree certificate must be **notarized by a commissioner** of oaths in country of origin. *(Attach copies of certificates and where applicable translated to English).* ii. Have minimum of 10 years working experience with at least 5 years in the Oil and Gas industry. A bidder who provides two Mechanical Engineers meeting the above requirements shall be awarded 1 mark, otherwise zero.	**2 Marks**
	f. QA/QC Personnel The bidder shall provide a name and detailed signed curriculum vitae of one member of staff. The candidate should: i. Have minimum Diploma qualifications in any engineering field. The degree certificate must be notarized by appropriate authorities in country of origin *(Attach copies of certificates)* ii. Have a minimum of Level II certification in Non-destructive testing (NDT). A bidder who provides one QA/QC personnel meeting the above requirements shall be awarded 1 mark, otherwise zero.	**1 mark**
	g. Painters The bidder shall provide names and detailed curriculum vitae of four members of staff with the following: i. Proficiency certificate in painting	

	Evaluation Criteria	Marks
	ii. Have work experience of painting at least 5No tanks using airless spray painting method. (List of the tanks, location and clients shall be submitted)	2 marks
5	**Construction Plant and Equipment availability**	20 marks

Bidder's Submission on relevant equipment for use for in the installation and repairs of the said tank, plus tooling will be evaluated and ranked dependent on Plant and Machinery including proof of ownership. The criteria that shall be deployed to distribute the marks shall be as follows: -

Equipment	Quantity	Score
Grit blasting machine c/w with hoses	2Set	2
	1Set	1
Diesel driven welding generators capable of welding with E7018 3.2mm diameter electrodes	6No	3
	4No	2
Oxy-Acetylene Equipment (i.e. Oxy-Acetylene cylinders, regulators, gas cutting nozzles etc.)	3No	1
	2No	0.5
Air compressors min. 3.5 bar	3No	1
	2No	0.5
Scaffolding materials to 16m or Power climbers	1Set	2
Mobile Crane with boom with a reach of over 25m	1No	1
Elcometer (paint thickness gauge)	1No	2
Tank painting equipment (airless spray guns, rollers etc.)	2Set	1
	1Set	0.5
Air extractors	2Set	0.5
Lighting equipment (halogen lamps c/w stands and cables etc.)	3Set	1
	2Set	0.5
Portable fire extinguishers i.e. 2No foam, 2No dry powder and 1No CO_2	1 set	0.5
Max. Attainable		**20**

a) A contractor who provides proof of ownership of scaffolding materials/power climbers and painting equipment, welding machines, oxy-acetylene gas cylinders & equipment and in the specified quantities as detailed in table above gets prescribed points.

Or

b) A contractor demonstrates ability to hire the equipment and machinery in a) above for the whole duration of the works. Proof must be in the form of lease agreement specific to this Tender.

c) A contractor that does not demonstrate any of the above shall be awarded - **0 points**

NB: Attach log books, calibration certificates where applicable, purchase receipts or plant lease agreements in event of hiring. Where necessary, all interpretation must be in English language.

6	Draft Programme and Methodology of Works	18 marks

	Evaluation Criteria	Marks
	a. The bidder shall provide a reasonable draft program in MS Project of performing the works within the stipulated timeframe. The Gantt chart shall enlist milestones of the project activities (procurement of materials, installation of the Aluminium dome roof, repair of the tanks, testing & commissioning of the tank). i. A bidder who proposes to undertake the works within **180 days or less** period scores **8 marks.** ii. A bidder who proposes to undertake the works between **180 to 210 days** scores **4 marks** iii. A bidder who proposes to undertake the works beyond **210 days** scores **0 marks**. **b.** The bidder shall provide a comprehensive works methodology incorporating the following as a minimum: i. A Health, Safety and Environment Policy. (**1 mark, otherwise zero**) ii. A Job Safety Plan (JSP) relevant to the job at hand. (**1 mark, otherwise zero)** iii. Methodology for installation of Aluminium Dome Roof (**2 marks otherwise zero**). iv. Methodology for installation of Internal Floating Roof (**2 marks otherwise zero**). v. Methodology for installation of firefighting system (**2 marks otherwise zero**). vi. Methodology for repair of tank shell and bottom. (**1 marks otherwise zero**). vii. Methodology for painting tank internal and external (**1 mark, otherwise zero**).	**8 marks** **10 marks**
7	**Quality Control Plan QCP**	**8 marks**
	i. A bidder who submits a QA/QC plan for installation of Aluminium dome roof complete with internal floating roof (**2 marks otherwise zero**). ii. A bidder who submits a QA/QC plan for welding works comprising the installation of the firefighting systems and mechanical repairs of the tank bottom and shell (**2 marks otherwise zero**). iii. A bidder who submits a QA/QC plan for the painting works shall be awarded **2 Marks** iv. A bidder who submits a QA/QC plan for the commissioning of the tank after installation of dome roof and repair of the tank including hydro-test of the tanks as per API 650 shall be awarded **2 Marks**.	

Note 1: Past Experience

Tenderer shall demonstrate his experience in supplying, fabricating and installing Aluminium dome roof as per the requirements of API 650, API 653 and NFPA10, 11 & 30. He shall also demonstrate his experience in installing Aluminium internal floating deck in accordance to the relevant API standards. With this regard, the Tenderer shall submit all relevant documents of his Proven Track Record on successful installation of Aluminium dome roof as well as Aluminium internal floating deck in tanks with minimum diameter of 20m.

Tenderers shall provide a list of projects undertaken detailing the contract references, client contacts, brief scope of works, location, duration of each project, contract value ***and shall attach completion certificate for each contract as documentary evidence of execution of the works.*** Tenderers who fail to comply fully with these requirements will not be scored.

Note 2: Project Manager

Tenderers shall present a Project Manager who has relevant experience in the assembly and installation of Aluminium dome roofs and internal floating decks in tanks. He shall also be experience in repair of above ground steel welded

tanks for storage of petroleum product. He shall also be conversant with safety requirements and standards for working within petroleum installation. He shall possess good administrative skills in project management, good communication skills both in speech and writing and possess relevant academic qualifications in any discipline in Engineering.

Note 3: Welders

Tenderers shall provide in a table form a summary for welders he proposes to use for installation of the firefighting system and tank modification and repair works that will require welding skills.

NB: Only those Tenderer's who fulfil all the mandatory requirements and attain the minimum pass mark of 70% mark on the technical evaluation criteria and score 50% on each category shall have their financial submissions evaluated.

35.1 Financial evaluation criteria

Financial Evaluation Criteria shall be based on the following: -

Form of Tender

Tenderers shall submit a duly filled and signed Form of Tender in the form prescribed in this tender and which shall be enclosed in the financial bid.

Submission of unduly filled or unsigned form of tender will result to disqualification.

35.2 During financial evaluation the lowest evaluated bidder will be recommended for award in accordance to Clause 26.0 and any other applicable clause.

35.3 The employer may, prior to the award of the tender, confirm the qualifications of the tenderer who submitted the lowest evaluated responsive tender in order to determine whether the tenderer is qualified to be awarded the contract.

Schedule A: Details of Firm's Experience

(Contractor to Provide)

Schedule B: Details of Proposed Staff

1) Summary

Qualifications and experience of key personnel proposed for administration and execution of the Contract. Use the format below.

Position	
Name	
Qualifications	
Years of Experience (General)	
Years of Experience in Proposed Position	

2) CV Format

Proposed Position: _____ CV No.

Name of Firm:

Name of Staff:

Profession:

Date of Birth:

Year with Firm: _____ Nationality:

Membership in professional societies:

Registration with licensing bodies to practice:

Detailed Tasks Assigned:

Key Qualifications:

[Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree or responsibility held by staff member on relevant previous assignments and give dates and locations. Indicate the total number of years worked on similar assignment.]

Education:

[Summarize college/university and other specialized education of staff member, giving names of schools, dates attended and degree(s) obtained.] Certified copies of academic certificates should be attached.

Employment Record and Experience Relevant to the Assignment:

[Starting with present position, list in reverse order every employment held. List all positions held by staff member since graduation, giving dates, names of employing organizations, titles of positions held, locations of assignments and details of the activities performed to illustrate the staff capability to handle the tasks assigned.]

Languages [For each language indicate proficiency: good, fair, or poor in listening, speaking, reading, and writing.]:

Certification:

I, the undersigned, certify that these data correctly describe me, my qualifications, and my experience.

_____ Date:

[Signature of staff member]

_____ Date:

[Signature of authorized representative of the firm]

Full name of staff member:

Full name of authorized representative:

Schedule C – Schedule of Tools/Equipments

(Contractor to Provide details)

TENDER SECURITY FORM (TO BE ON BANKS LETTERHEAD)

WHEREAS ..... [*name of the tenderer*] (hereinafter called "The Tenderer") has submitted its tender dated .....[*date of submission of tender*] for the ***Repair and Installation of Aluminium Dome Roof on Tank 11-TK-201 at PS10*** (hereinafter called "The Tender") ..... **KNOW ALL PEOPLE** by these presents that **WE** ..... of ..... having our registered office at ..... (hereinafter called "the Bank"), are bound unto ..... [*name of Procuring entity*] (hereinafter called "the Procuring entity") in the sum of ..... for which payment well and truly to be made to the said Procuring entity, the Bank binds itself, its 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:-

1. If the tenderer withdraws its Tender during the period of tender validity specified by the tenderer on the Tender Form; or

2. If the tenderer, having been notified of the acceptance of its Tender by the Procuring entity during the period of tender validity:
   a) fails or refuses to execute the Contract Form, if required; or
   b) fails or refuses to furnish the performance guarantee in accordance with the Instructions to tenderers;

We undertake to pay to the Procuring entity up to the above amount upon receipt of its first written demand, without the Procuring entity having to substantiate its demand, provided that in its demand the Procuring entity will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This tender guarantee will remain in force up to and including thirty (30) days after the period of tender validity, and any demand in respect thereof should reach the Bank not later than the above date.

[*Signature of the bank*]

Part 2

Form of Agreement

REPAIR AND INSTALLATION OF ALUMINIUM DOME ROOF ON TANK 11-TK-201

Contents

1.0 THE AGREEMENT

THIS AGREEMENT made the ……. day of …… 20…… by and between **KENYA PIPELINE COMPANY LIMITED** of P.O. Box 73442, Nairobi (hereinafter referred to as the Employer) on the one part and,

……

(Hereinafter referred to as the Contractor) on the other part.

WHEREAS the Employer is desirous of ***Repair and Installation of Aluminium Dome Roof on Tank 11-TK-201 at PS10*** as detailed herein and has accepted the tender made by the **Contractor** for the execution and completion of the Works and remedying of any defects therein to the satisfaction of the Employer and, the Contractor is in a position and willing to carry out the Works to be performed by him as described in this agreement.

NOW THEREFORE the Employer and the Contractor agree as follows: -

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following additional documents shall be deemed to form and be read and construed as part of this Agreement viz: -
    i) Schedules to Agreement
    ii) Employer's Letter of Acceptance
    iii) Conditions of Contract (Part I and II) and Contractor's General Obligations
    iv) Scope of Works
    v) Specifications
    vi) Schedule of Prices
    vii) Schedules, Annexes and other documents forming part of the contract

3. We undertake, if our Tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Agreement.

We agree to abide by this Tender for the period of 150 days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period. **IN WITNESS** whereof the parties hereto affixed their signature on the Agreement hereto the day and the year first above written.

The Common Seal of the said

KENYA PIPELINE COMPANY LIMITED

was affixed in the presence of

…….. Managing Director

…….. Witnessed

Signed for and on behalf of

(CONTRACTOR) ……

…….. Authorized Representative

…….. Witnessed

2.0 SCHEDULE TO THE AGREEMENT

2.1 Schedule 1 -

CONDITIONS OF CONTRACT	AMOUNT
Tender Surety (Bank Guarantee only)	Kshs.200,000.00
Amount of Performance Surety (Unconditional Bank Guarantee)	10% per cent of Contract sum in the form of Unconditional Bank Guarantee
Program to be submitted	With the tender document
Minimum amount of Third Party Liability	Kshs 1,000,000.00 per occurrence with unlimited occurrences
Period for commencement, from the Engineer's order to commence	14 days
Time for completion	..... weeks
Amount of liquidated damages	0.5% of contract sum per day
Limit of liquidated damages	Shall not exceed 10% of Contract Sum
Defect Liability period	6 months
Percentage of Retention	10% of Interim Payment Certificate
Limit of Retention Money	10% of Contract Price
Minimum amount of interim certificates	Kshs.2,000,000.00
Minimum time within which payment to be made after Interim Payment Certificate signed by Engineer	42 days
Notice to the Employer and the Engineer	The Kenya Pipeline Co. Ltd, Kenpipe Plaza, Sekondi Rd, Off Nanyuki Road, Industrial Area P. O. Box 73442 – 00200, Nairobi, Kenya. The Maintenance Manager Kenya Pipeline Company Ltd, Kenpipe Plaza, Sekondi Road, Off Nanyuki Road, Industrial Area P. O. Box 73442 – 00200, Nairobi, Kenya.

FORM OF TENDER

To: _____ *[Date]*

Kenya Pipeline Company Ltd
Kenpipe Plaza,
Sekondi Road, Industrial Area,
P.O. Box 73442 - 00200
Nairobi, Kenya

Tender for Repair and Installation of Aluminium Dome Roof on Tank 11-TK-201 at PS10

Dear Sir,

i. In accordance with the Conditions of Contract, Specifications, Drawings and Price bid, for the execution of the above named Works, we, the undersigned Offer to undertake and complete such Works and remedy any defects therein for the sum of Kshs _____*[Amount in figures* ***Inclusive of all taxes****]*

   a. *Kenya Shillings*_____ *[Amount in words]*

ii. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Agreement to Conditions of Contract.

iii. We agree to abide by this tender until _____, and it shall remain binding upon us and may be accepted at any time before that date.

iv. Unless and until a formal Agreement is prepared and executed, this tender together with your written acceptance thereof, shall NOT constitute a binding Contract between us.

v. We understand that you are not bound to accept the lowest or any tender you may receive.

   a. Dated this_____ day of _____20_____

Signature _____in the capacity of_____

Duly authorized to sign tenders for and on behalf of:

Witness: Name_____

Address_____
Signature_____

Date_____

3.0 The Schedule of Prices

3.1 Notes on pricing

I. The following schedule of prices has been prepared for the purpose of identifying the costs of work to be undertaken for the contract and for the monthly progress payments.

II. The contractor shall fill the schedule of prices in ink to include total prices for the preliminary works, site preparation, civil works, corrosion damage repairs, base plate repairs etc.

III. The schedule of prices is prepared on the basis of:
   a) Lump sum
   b) Measured items to be finally measured following inspection on site.

IV. The prices given shall be verified by the Contractor as being totally inclusive of all activities required to complete the Works in accordance with the Contract and to the approval of the Engineer or Engineer's Representative.

V. Bidder shall allow for all applicable Statutory Taxes

The prices given against category III(a) and III(b) shall be verified by the contractor as being totally inclusive of all activities required to complete the works in accordance with the contract and to the approval of the Engineer or Engineers representative.

Reference has been made to the scope of works in preparation of the schedule of prices. The scope of works describes the work to be carried out on the tank and the contractor is expected to carry out.
Any item omitted by the contractor while filling the values in the schedule of prices shall be deemed to be covered by the entries in other parts of the schedule.

3.2 The Schedule of Prices

	Description	Rate	Quantity	Amount
A	**Preliminary and General**			
A1.	Allow for mobilization of Contractor's equipment and personnel.	LS	1	
A2.	Allow for insurances guarantees and license for the works and compliance to other statutory and regulatory requirements as may be applicable in the Laws of Kenya and applicable reference Standards.	LS	1	
A3.	Allow for prequalification of welders in accordance with **Section IX** of the **ASME code** and this specification.	LS	1	
A4.	Allow for demobilization of Contractor's equipment and personnel.	LS	1	
A5.	Allow for any other preliminary items not included above or elsewhere in the schedule of prices, and specify below: - …… ……	LS	1	
A6.	**Sub-Total (A1+…+A5)**			
B	**Design, Manufacture & Supply of Aluminium Dome Roof, Aluminium Internal Floating Deck and Associated Fire fighting System**			
B1.	Allow for design, manufacture and supply of Aluminium dome roof complete with accessories in accordance with the specifications as detailed in clauses 2.3.1, 2.3.2, 2.3.3, 3.2, 3.3, 3.4 and 3.6.	LS	1	
B2.	Allow for design, manufacture and supply of Aluminium internal floating Roof deck (full Contact type) complete with accessories in accordance with the specifications as detailed in clauses 2.3.1, 2.3.2, 2.3.3, 3.5 and 3.6.	LS	1	
B3.	Allow for design and supply of materials for dome roof periphery walkway complete with handrail as detailed in clause 2.3.8 and in accordance with the requirements of API650 & API653 standards.	LS	1	
B4.	Allow for design, supply of materials for firefighting system including Installation in accordance with the specifications as detailed in clauses 2.3.9 and 10.2.	LS	1	
B5.	**Sub-Total (B1+…+B4)**			
C	**Installation of Aluminium Dome Roof, Aluminium Internal Floating Roof Deck, Handrail on Walkway and Modification of Firefighting System On The Tank**			
C1.	Allow for dismantling and removal of the existing external floating roof complete with its accessories and carry out the necessary modification on the tank	LS	1	

	Description	Rate	Quantity	Amount
	to suit installation of the Aluminium dome roof in accordance with the specifications as detailed in clauses 2.3.4, 7.0 and 9.0.			
C2.	Allow for assembly, erection and installation of Aluminium dome roof on the tank complete with the dome roof walkway and other roof appurtenance as detailed in the specifications as detailed in clauses 2.3.5 and 8.0.	LS	1	
C3.	Allow for assembly and installation of Aluminium internal floating deck in the tank complete with the accessories as detailed in the specifications as detailed in clauses 2.3.6 and 8.0.	LS	1	
C4.	Allow for installation of handrail on the existing tank shell periphery walkway (wind girder) in accordance with the specifications as detailed in clause 2.3.8 and API Std 650 and API 653.	LS	1	
C5.	Allow for modification of tank gauging and dipping hatch installations to suit the design of the dome roof in accordance with the specifications as detailed in clause 2.3.10	LS	1	
C6.	Allow for modification, testing and commissioning of firefighting system to the tank in accordance to the applicable standards and the specifications as detailed in clauses 2.3.11, 2.3.12, 2.3.13, 12 and 13.	LS	1	
	Sub-Total (C1+…+C6)			
D	**Mechanical Repair of Tank Bottom**			
D1.	Allow for removal of existing condemned floor plates and replacement with new 6.5mm thick ASTM A283 Gr. C plates in accordance with the specifications as detailed in clauses 2.3.16 and 14 and the requirements of API 653 Section 9.10.2. **(provisional)**	m^2	250	
D2.	Allow for removal of existing condemned annular plates and replacement with new 10mm thick ASTM A-36 steel insert plates in accordance with the specifications as detailed in clauses 2.3.16 and 14 and the requirements of API 653 Section 9.10.2. **(provisional)**	m^2	25	
D3.	Allow for supply 6.5mm thick ASTM A283 Gr. C steel plate or its equivalent and install welded-on patch plates in accordance with the specifications as detailed in clauses 2.3.16 and 14 and the requirements of API 653 Section 9.10.1.	m^2	300	
D4.	Allow for supply 6.5mm thick ASTM A-36 steel plate or its equivalent and install welded-on patch plates on the tank annular plates in accordance with the	m^2	25	

	Description	Rate	Quantity	Amount
	specifications as detailed in clauses 2.3.16 and 14 and the requirements of API 653 Section 9.10.1.			
D5.	Fill weld pitted areas on tank bottom plate in accordance with the specifications as detailed in clauses 2.3.16 and 14.	m^2	20	
D6.	Allow for modification of the tank floor to accommodate roof support legs for internal floating roof.	LS	1	
D7.	Allow for repair of defective lap welds and butt welds on tank floor in in accordance with the specifications as detailed in clauses 2.3.17 and 14	m	100	
D8.	Allow for jacking the tank for replacement of annular ring plates in accordance with the specifications as detailed in clauses 2.3.16 and 14. **(provisional)**	m	87	
	Tank Shell			
D9.	Fill weld pitted areas of the shell internally, externally including wind girders in accordance with the specifications as detailed in clauses 2.3.19 and 15.	m^2	100	
D10.	Carry our repairs on butt welds and bottom-to-shell fillet welds in accordance with the specifications as detailed in clauses 2.3.20 and 15 and the requirements of API 653 Section 9.6.	m	150	
D11.	Carry out insert repair of shell in accordance with the specifications as detailed in clauses 2.3.21 and 15 and the requirements of API 653 Section 9.2. **(Provisional)**	m^2	100	
D12.	**Sub-Total (D1+…+D11)**			
E	**Grit Blasting of tank shell and appurtenances**			
E1.	Allow for grit blasting of tank external shell including the inlet, outlet nozzles and other shell nozzles and manway covers in accordance with the specifications as detailed in clauses 2.3.23 and 18.	m^2	1,485	
E2.	Allow for repair, if any, for the spiral stairway, landings and any other corrosion damage on the shell in accordance with the specifications as detailed in clause 2.3.19.	LS	1	
E3.	Allow for supply and application of the primer on the shell and all accessories in accordance with the specifications as detailed in clauses 2.3.23, 18 and 22.	m^2	1,485	
E4.	Allow for supply and application of the 1st coat on the primed shell in accordance with the	m^2	1,485	

	Description	Rate	Quantity	Amount
	specifications as detailed in clauses 2.3.23, 18 and 22.			
E5.	Allow for supply and application of the 2nd coat to cover the 1st coat on the shell in accordance with the specifications as detailed in clauses 2.3.23, 18 and 22.	m^2	1,485	
E6.	Allow For tank labeling in accordance in accordance with the specifications as detailed in clauses 2.3.25 and 18.	LS	1	
E7.	Allow for the grit blasting, supply and application of primer and the 2No coats for the wind girder, spiral stairway, water draw off points and other shell appurtenances in accordance with the specifications as detailed in clauses 2.3.23, 18 and 22.	LS	1	
E8.	Allow for the grit blasting, supply and application of primer and the 2No coats for all foam and water risers and other accessories in accordance with the specifications as detailed in clauses 2.3.23 and 18.	LS	1	
E9.	Allow for grit blast and epoxy paint tank shell internals including: (measured) appurtenances in accordance with the specifications as detailed in clauses 2.3.24, 18.9.2 and 22. (a) Tank bottom floor (b) Tank internal shell – 1st Shell course	 m^2 m^2	 590 215	
E10.	**Sub-Total (E1+…+E9)**			
F	**Civil Works**			
F1.	Allow for demolition and reinstatement of a section of the bund wall to allow for equipment mobilization and for installation of the new fire fighting facility to the tank accessories in accordance with the specifications as detailed in clauses 11.1, 11.2, and 11.3.	LS	1	
F2.	Allow for modification of the existing fire wall to tank to accommodate the new fire fighting facility in accordance with the specifications as detailed in clause 11.4.	LS	1	
F3.	Supply materials and repair damaged tank pad (internals) in accordance with the specifications as detailed in clause 11.5.	m^2	250	
F4.	Allow for repair of tank foundation in accordance with the specifications as detailed in clause 11.6.	m^2	20	
F6.	**Sub-Total (F1+…+F5)**			

	Description	Rate	Quantity	Amount
G1.	**Hydrotest and Commissioning**			
G2.	Allow for hydro-test of the tank after repair in accordance with the specifications as detailed in clauses 2.3.26 and 16.	LS	1	
G3.	Allow for commissioning of the tank in accordance with the specifications as detailed in clauses 2.3.27 and 19.	LS	1	
G4	**Sub-Total (G1+…+G3)**			
H	**Summary Cost = (A6+B5+C8+D12+E10+F6+G4)**			
I	Allow Contingency Sum at 10% of Item H			
J	**Total Value =(H+I)**			
K	VAT at 16% of J.			
	Total Contract Price (to be carried to form of tender)			

- **Note;** the form of tender must be filled and submitted with the financial proposal. Bidders who do not submit a completed form of tender will be non-responsive at financial evaluation stage.

Note: The prices in the BOQ shall be inclusive of all the applicable taxes

3.4 Schedule of Day work Rates

3.4.1 Notes Relating to Day works

a) Schedule 1 - Manpower

Manpower shall be inclusive of all costs incurred in connection with the site personnel including but not limited to: administration, medical services, messing and accommodation, payment of insurances, salaries and wages and deduction of applicable taxes thereof. Part day's work shall be measured on a basis of an 8 hour's working day. Part months worked shall be measured on the basis of a 26 day working month.

b) Schedule 2 - Plant and Equipment

The rates to be included in Schedule 2 shall be provided on the basis that the Contractor will be expected to have available at site plant and equipment required to complete the works relevant to the contract. Such rates shall be deemed to cover all costs necessary for the Contractor to provide and maintain items of Plant and Equipment in sound operating condition at the place where they are to be used, with all necessary appurtenances for efficient operation. The rates shall, inter alia, include the costs of supervision, the payment of wages and salaries etc., the cost of operation and indirect labour, insurance overheads, profits, consumables, fuels, oils and greases.

Standing charges will only be applicable when it has previously been agreed, in writing by KPC that a particular item of plant or equipment should be retained at site specifically for the contract on a day work basis.

3.4.2 Schedule 1 – (Manpower)

Item	Description	Working Kshs/day	Working Kshs/month
1.	Project Manager		
2.	Site Engineer – Mechanical/Corrosion		
3.	Site Engineer – Civil		
4.	Foreman – Mechanical/Corrosion		
5.	QA/QC Officer		
6.	Foreman – Civil		
7.	Welding Inspector		
8.	Welders		
9.	Welder Assistants		
10.	Graded Tradesman		
11.	Ungraded Tradesman		
12.	Draughtsman		
13.	Steelworks Fabricator		
14.	Radiographer		
15.	Mechanical Technicians		
16.	Mechanical Artisans		
17.	Civil Technicians		
18.	Civil Artisans		
19.	Crane Operator		
20.	Light Plant Operator		
21.	Unskilled Labourers		
22.	Drivers (car/ pick up/ 4 wheel drives)		
23.	Truck Driver		
24.	Safety Officers		
25.	Mechanics/ Electrician Grade I		
26.	Mechanics/ Electrician Grade II		
27.	Watchman		
28.	Junior Clerk		
29.	General Clerk and Store man		
30.	Testing and commissioning Engineer		
31.	Pipe fitter/ Layer, painter		
32.	Helper to Pipe fitter/ Layer		
33.	Surveyor		

Note:

i. Day shall be 8 working hours (0800hrs to 1700hrs)

ii. Month shall be the Calendar duration termed "month" (No work on Sundays and Public holidays unless approved by the Engineer, at the same rates as quoted)

iii. Any extension of working hours shall be as approved by the Engineer

iv. The Contractor may recover any lost time by self at no additional cost

3.4.3 Schedule 2 – Plant and Equipment

Item	Description	Working Kshs/day	Working Kshs/month
1.	Low Loader		
2.	Crane Truck (10 ton)		
3.	Pick-up		
4.	Welding machine		
5.	Water pump - 4" discharge		
6.	Lighting Generator		
7.	Holiday Tester		
8.	Elcometer for paint thickness		
9.	Pressure Gauges (0 – 30 bar)		
10.	Radiography Set		
11.	Truck (25 ton)		
12.	Truck (7 ton)		
13.	Tipper Truck (5Ton)		
14.	Trailer (25Ton)		
15.	Positive Displacement Pneumatic Pump		
16.	Power Grinder/ brush		
17.	Paint sprayer & grit blasting pots		
18.	Scrapping/ cleaning/ hand tools (set)		
19.	Excavating hand tools (set)		
20.	Hand Painting Tools (set)		
21.	Compressor 600 (cfm)		
22.	Generator (500 KVA)		
23.	Generator (10 KVA)		
24.	Concrete Mixer (0.4m³)		
25.	Vibrator (for concrete works)		
26.	Excavating hand tools (set)		
27.	Jack Hammer		
28.	Crane (25T)		
29.	Oxyacetylene Set		
30.	Propane Gas bottle and torch		
31.	Gas Tester		
32.	Allow for any other items of plant or equipment, not included above, which may be deemed necessary on a day works basis (to be filled in by Contractor) a) …….. b)…….		

Any equipment already mobilized for the works shall not attract any extra cost

4.0 The Programme of Works

4.1 The contractor's preliminary program for the Works shall be indicated for a week of five working days.

4.2 The program shall clearly show the major milestones/activities; the same shall be detailed further and submitted to the client for approval after the Contract Agreement.

4.3 The work program shall have all activities related to the execution of the contract be carried out and completed within the specified time in the program.

5.0 The Contractor's Organisation

Contractor to provide his organization chart indicating their Head Office Management, Quality Control, Quality Assurance, Procurement, construction, Site Management and Supervision.

Key personnel shall be identified by name and position in each case.

6.0 FORM OF PERFORMANCE GUARANTEE

_____ *(Date)*

To:
Kenya Pipeline Company Ltd
Kenpipe Plaza, Sekondi Rd, Off Nanyuki Rd,
Industrial Area,
P. O. Box 73342-00200
Nairobi, Kenya.

Dear Sir,

WHEREAS _____ (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute the **Repair and Installation of Aluminium Dome Roof on Tank 11-Tk-201 at PS10;**

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein as Security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Kshs. _____ (*amount of Guarantee in figures*) Kenya Shillings_____ (*amount of Guarantee in words*), of (specify foreign currency). _____ (*amount in figures of Guarantee in foreign currency*) _____ (*amount of foreign currency Guarantee in words*), and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of Kenya Shillings _____ (*amount of Guarantee in words*) and (specify foreign currency) _____ (*amount of Guarantee in words*) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change, addition or other modification of the terms of the Contract or of the Works to be performed there-under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any change, addition, or modification.
This guarantee shall be valid until the date of issue of the Certificate of Completion.

SIGNATURE AND SEAL OF THE GUARANTOR _____

Name of Bank _____

Address _____
Date _____
(Amend accordingly if provided by Insurance Company)

7.0 STANDARD FORMS

7.1 TENDER QUESTIONNAIRE

Please fill in Block Letters.

1. Full names of Tenderer

   .....

2. Full address of Tenderer to which tender correspondence is to be sent (unless an agent has been appointed below)

   .....

3. Telephone number (s) of Tenderer

   .....

4. Telex address of Tenderer

   .....

5. Name of Tenderer's representative to be contacted on matters of the tender during the tender period

   .....

6. Details of Tenderer's nominated agent (if any) to receive tender notices. This is essential if the Tenderer does not have his registered address in Kenya (name, address, telephone, telex)

   .....

   .....

_____

Signature of Tenderer

Make copy and deliver to: Kenya Pipeline Company Ltd

7.2 CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2 (b) or 2 (c) and 2 (d) whichever applies to your type of business.

You are advised that it is a serious offence to give false information on this Form.

Part 1 - General

Business Name ……

Location of business premises:

Country/Town……

Plot No…… Street/Road ……

Postal Address…… Tel No……

Nature of Business……

Current Trade Licence No…… Expiring date……

Maximum value of business which you can handle at any time: Kshs……

Name of your bankers……..

Branch……

Part 2 (a) – Sole Proprietors

Your name in full…… Age……

Nationality…… Country of Origin……

*Citizenship details ……

Part 2 (b) – Partnership

Give details of partners as follows:

Name in full Nationality Citizenship Details Shares

1……

2……

3……

Part 2(c) - Registered Company:

Private or public……

State the nominal and issued capital of the Company-

Nominal Kshs……

Issued Kshs……

Give details of all directors as follows:

Name in full Nationality Citizenship Details* Shares

1……

2……

3……

4……

Part 2(d) – Interest in the Firm:

Is there any person/ or persons in …… (*Name of Employer)* who has interest in this firm? Yes/No…….. (*Delete as necessary*)

I certify that the information given above is correct.

…… …… ……

(Title) (Signature) (Date)

* Attach proof of citizenship

7.3 LETTER OF NOTIFICATION OF AWARD

Kenya Pipeline Company Ltd,
Kenpipe Plaza, Sekondi Rd, Off Nanyuki Rd,
Industrial Area,
P. O. Box 73442 - 00200,
Nairobi, Kenya.

To: _____
_____
_____
_____

RE: Tender No._____

Tender Name: *Repair and Installation of Aluminium Dome Roof on Tank 11-TK-201 at PS10*

This is to notify that the contract/s stated below under the above mentioned tender have been awarded to you.

_____
_____

1. Please acknowledge receipt of this letter of notification signifying your acceptance.

2. The contract/contracts shall be signed by the parties within 30 days of the date of this letter but not earlier than 14 days from the date of the letter.

3. You may contact the Officer(s) whose particulars appear below on the subject matter of this letter of notification of award.

*(FULL PARTICULARS)*_____
_____

Signed for Kenya Pipeline Company Ltd

7.4 LETTER OF ACCEPTANCE

_____ *[date]*

To:

_____
[Name of the Contractor]

_____
[Address of the Contractor]

Dear Sir,

This is to notify you that your Tender dated _____ for the ***Repair and Installation of Aluminium Dome Roof on Tank 11-TK-201 at PS10*** for the Contract Price of Kshs _____ *[amount in figures]* [Kenya Shillings_____*(amount in words)* in accordance with the Instructions to Tenderers is hereby accepted.

You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract documents.

Authorized Signature……

Name and Title of Signatory……

Attachment: Agreement

7.5 STATEMENT OF FOREIGN CURRENCY REQUIREMENTS

(See *Clause 60[5]* of the Conditions of Contract)

In the event of our Tender for the *Repair and Installation of Aluminium Dome Roof on Tank 11-TK-201 at PS10* being accepted, we would require in accordance with *Clause 21* of the Conditions of Contract, which is attached hereto, the following percentage:

(Figures)……
(Words)……
……

of the Contract Sum, to be paid in foreign currency.

Currency in which foreign exchange element is required:

……

Date: The …… Day of …….. 2017

Enter 0% (zero percent) if no payment will be made in foreign currency.

Maximum foreign currency requirement shall be _____ (percent) of the Contract Sum, less Fluctuations.

_____
(Signature of Tenderer)

I certify that the above mentioned is correct

…… …… ……
(Title) (Signature) (Date)

7.7 DECLARATION FORM

Date _____

To: _____

_____

_____

The Tenderer i.e. (Name and Address)_____
_____declare the following:

a) Has not been debarred from participating in public procurement.

b) Has not been involved in and will not be involved in corrupt and fraudulent practices regarding public procurement.

_____	_____	_____
Title	Signature	Date

(To be signed by authorized representative and officially stamped)

CERTIFICATE OF SITE VISIT

This is to certify that …….....of …….....

Visited PS10 to familiarise with the project requirements for Repair and Installation of Aluminium Dome Roof on Tank 11-TK-201 at Nairobi Terminal PS10.

_____

[Name of KPC Representative]

_____

Signature]

_____

[Date]

Part 3

Conditions of Contract

REPAIR AND INSTALLATION OF ALUMINIUM DOME ROOF ON TANK 11-TK-201

PART I - GENERAL CONDITIONS OF CONTRACT

These Conditions of Contract are based on PART 1 of the third Edition of the International Federation of Consulting Engineers (Federation Internationale des Ingenieurs Con Seils – FIDIC) Conditions of Contract for Electrical and Mechanical Works, 1987 (reprinted May 1988 with Editorial Amendments).

PREAMBLE TO GENERAL CONDITIONS

This Preamble must be completed in all cases referring to completed schedules where appropriate. When completed, this Preamble, the General Conditions, Specification, Employer's and Contractor's Drawings, Schedules and other documents can constitute a Contract on the basis of the General Conditions in Part II. If this is not what is required, Part II must also be completed.

Commencement Date (Sub-clause 1.1.1.(I))

The date for commencement of the Works is 14 days after Project Engineer's instructions to commence.

Defect Liability Period Sub-Clause 1.1.11

The Defects Liability Period is 6 months after completion of the contract

The Employer (Sub-clause 1.1.12.)

The Employer is Kenya Pipeline Company Limited

The Engineer (Sub-clause 1.1.15)

The Engineer is the Maintenance Manager at Kenya Pipeline Company Limited.

Time for Completion (Sub-clause 1.1.35.)

The Time for Completion is _____ working days from the commencement Date.

Contractor's Profit (Sub-clause 1.6.)

The percentage to cover profit entitlement, where appropriate, is _____%. This percentage shall be as specified in the Special Conditions of Contract.

Ruling Language (Sub-clause 5.1.)

The version in English language (ruling language) shall prevail.

Day to Day Communications (Sub-clause 5.2.)

The language for day to day communications is English.

Programme to be Furnished (Sub-clause 12.1.)

The Programme must be submitted in the form of ***MS Project*** with individual activities

Electricity, Water, Gas and Other Services (Sub-clause 14.3.)

Services on the Site are:

a) Electricity: Available on request and shall be metered by the employer at the prevailing market rate that can be obtained by the bidder.
b) Water: Available on request and shall be metered by the employer at the prevailing market rate that can be obtained by the bidder
c) Gas: **Not applicable**
d) Other Services: **Not Applicable**

Employer's Equipment (Sub-clause 14.4.)

The following Employer's equipment is available for use by the Contractor under the Employer's operation:

1) Fire hydrant for provision of hydrotest sea water upon completion of repair works on the tank.

Working Hours (Sub-clause 18.3.)

The normal working hours are 0800 to 1700hrs, Monday to Friday

Delay in Completion (Sub-clause 27.1.)

Failure to meet the Time for Completion entitles the Employer to reduction in Contract Price as follows:

Amount per day Kshs 50,000.00

Maximum 10 per cent of the Contract Sum exclusive of all applicable taxes.

Prolonged delay (Sub-clause 27.2.)

Maximum amount recoverable from the Contractor by the Employer: Contract Sum

Terms of Payment (Sub-clause 33.1.)

In addition to the provisions under Clause 33, the terms of payment shall be as specified in the Special Conditions of Contract.

Payment in Foreign Currencies (Sub-clause 35.1.)

Payments to the Contractor in foreign currency shall be effected through and in accordance with, the terms and conditions of the contract Agreement.

Rates of Exchange (Sub-clause 53.3.)

The rates of exchange for the purpose of the Contract are the prevailing exchange rates shall be the Central Bank of Kenya (CBK) mean rate 30 days before the final date for the submission of tenders.

Payment against Provisional Sums (Sub-clause 36.4. (b))

The Provisional Sums in the Contract shall be utilized in accordance with the Engineer's instruction.

Maximum Liability (Sub-clause 42.2.)

The maximum liability of the Contractor to the Employer shall be the Contract price.

Insurance of Works (Sub-clause 43.1)

The contractor shall take out Contractors' All Risk Insurance Cover with the sum insured as the Total Contract sum. The Employers' name should be included in the policy and Employers' respective rights and interest noted in the policy and the policy deposited with Employer.

Sub-clause 43.1. (a)

The additional risks to be insured are:

1) Loss of revenue by Kenya Pipeline Company due to delay in completion of repair works on the tank beyond the completion date of the Contract.

Third Party Liability (Sub-clause 43.3)

The amount of insurance against third party liability taken out by the Contractor is KShs. 1,000,000 per occurrence, with unlimited number of occurrences.

Payment on Termination for Employer's Default (Sub-clause 46.3)

The additional amount payable by the Employer on termination shall not exceed the value of work done.

Notices to Employer and Engineer (Sub-clause 49.2.)

The address of the Employer for notices is:

The Managing Director,
Kenya Pipeline Company Ltd,
Kenpipe Plaza,
Sekondi Rd, Off Nanyuki Rd,
Industrial Area,
P. O. Box 73442 - 00200,
Nairobi, Kenya

The address of the Engineer for notices is:
The Maintenance Manager,
Kenya Pipeline Company Ltd,
Kenpipe Plaza,
Sekondi Rd, Off Nanyuki Rd,
Industrial Area,

PART II – SPECIAL CONDITIONS OF CONTRACT

1 Conditions Precedent to Commencement (Sub-clause 1.1.1.)

The following financial and administrative requirements are conditions precedent to commencement:

a) Submission of all insurance covers as detailed in the Part 1 of these Conditions of Contract.

b) Submission of valid statutory inspection certificates for lifting equipment and other applicable machinery to be used in the Contract works.

c) Submission of list of all equipment to be used in the Contract works.

d) Submission of list of all Contractor's site personnel complete with site organo-gram.

e) Submission of disclosure of service level agreement with suppliers of key materials, e.g. steel plates, to be used in the Contract.

f) Submission of detailed work program

g) Submission of a detailed Job Safety Analysis

h) Submission of work place registration certificate in accordance with the requirement of DOSH

i) Submission of bank details to which payment shall be made.

j) Submission the latest original of the following standards and codes as detailed in the specification.

i. API RP 2207 – Preparing tank bottoms for hot works
ii. API 579 – Fitness for service
iii. API 2015 – Requirements for safe entry and cleaning petroleum storage tanks
iv. ASME (BPVC) Section V – Non-Destructive Examination
v. API 570 – Piping Inspection Code
vi. API 580 – Risked Based Inspection
vii. API 651 – Cathodic Protection of aboveground storage tanks
viii. API 652 – Lining of Abovegrodund petroleum storage tanks bottom

ix. Submission the latest original of the following FIDIC Conditions of Contract.

i. Short Form of Contracts (Green Book)
ii. Construction (Red Book)
iii. Plant and Design-Build (Yellow Book)
iv. EPC/Turnkey Projects (Silver Book)

2 Definitions

The text of Sub-Clause 1.1.1 is deleted and substituted by the following:
"Commencement Date" means the date specified in the Preamble to Conditions of Contract.

The text of Sub-Clause 1.1.2 is deleted and substituted by the following:
"Conditions" means the Preamble to Conditions of Contract, General Conditions of Contract (GCC) and Special Conditions of Contract (SCC).

Sub-Clause 1.1.3
At the end of Sub-Clause, the following is added:
"Any subsequent document mutually agreed and signed by the Employer and the Contractor, shall be the part of the Contract."

Sub-Clause 1.1.5
The text of Sub-Clause 1.1.5 is deleted and substituted by the following:
"Contract Price" means the sum stated in the Letter of Acceptance as payable to the Contractor for the design, manufacture, delivery, execution and completion of the Works and remedying of any defects therein in accordance with the provisions of the Contract".

Sub-Clause 1.1.11
The Defects Liability Period is the period mentioned in the Preamble to Conditions of Contract.

Sub-Clause 1.1.23
The text of the sub-clause is deleted and substituted with the following:
The word "Plant" means the requisite components and accessories for erection of Aluminium dome roof, Aluminium internal floating deck as per specification, the materials and equipment required for modification and installation of a functional firefighting system and materials for grit blasting and painting of the tank shell and appurtenances for tank 11-TK-201 and all things to be provided under the Contract for incorporation into the works.

Add the following at the end of Sub-Clause 1.1.33:
The word "Tender" is synonymous with the word "Bid" and the word 'Tender Documents' with "Bidding Documents" including both technical and financial bids are part of it.

The following new Sub-Clauses 1.1.38 to 1.1.46 are added:
1.1.38 "Warranty Certificate" means the certificate against specified goods/equipment, for the period mentioned in the Preamble to Conditions of Contract, to be issued by the Contractor that the goods/equipment supplied under the Contract are new, unused and incorporate all recent improvements in design and materials unless provided otherwise in the Contract and that the Contractor will be responsible for making good or replacing any defective goods/equipment during the Warranty Period specified in the Preamble to Conditions of Contract which should commence after expiry of Defect Liability Period.

Sub-Clause 1.1.39
The word 'Part II' wherever appearing in FIDIC Conditions of Contract is synonymous with the words "Special Conditions of Contract".

Sub-Clause 1.1.40

The words 'Local Goods' is synonymous with the words "Indigenous Goods" and the word 'Installation' with "Erection".

Sub-Clause 1.1.41
"Constructional Plant" means all appliances or things of whatsoever nature (other than Temporary Works) required for execution and completion of the Works and the remedying of any defects therein but does not include Plant, materials or other things intended to form or forming part of Permanent Works. The word 'Constructional Plant' is synonymous with "Contractor's Equipment".

Sub-Clause 1.1.42
"Contractor's Agent" means the person for the time being or from time to time appointed by the Contractor pursuant to the provisions of Clause 13. The word "Contractor's Agent" is synonymous with" Contractor's Representative".

Sub-Clause 1.1.43
"Performance Tests" means tests intended to demonstrate the attainment of guaranteed contract performance to be conducted in accordance with the requirement of the Specifications.

Sub-Clause 1.1.44
"Reliability Test" means such test or tests as are provided for in the Contract, or as may be agreed upon, which shall be successfully completed as a pre-requisite to Taking Over.

Sub-Clause 1.1.45
"Temporary Works" means all temporary works of every kind (other than Contractor's Equipment) required in or about the execution and completion of the Works and the remedying of any defects therein.

Sub-Clause 1.1.46
"Permanent Works" means the permanent works to be executed (including Plant) in accordance with the Contract.

Sub-Clause 1.6 Costs, Overhead Charges and Profit
The last sentence "Any profit _____ stated in the Preamble" is deleted and substituted by the following:

"Any profit entitlement shall be added to cost at the percentage stated in the Bid and agreed in the Contract Agreement."

3 Engineer's Duties (Sub-clause 2.1.)

The Engineer shall obtain the specific approval of the Employer before taking any of the following actions specified in Part 1:

a) Consenting to the subcontracting of any part of the works under Clause 4.1;

b) Certifying additional cost determined under clause 12.1 and/or 12.2;

c) Determining an extension of time under Clause 44.1, 44.2 and/or 44.3

d) Issuing a variation under clause 51.1, except:

i. In an emergency situation as reasonably determined by the Engineer; or
ii. If such variation would increase the Fixed Lump Sum Contract Price by less than the amount specified in the Form of tender by Tenderer.

e) Fixing rates or prices under Clause 52.1, 52.2 and 52.3.

The Employer shall advise the Engineer of his decision in these matters within 14 days of notification.

4 Confirmation in Writing (Sub-Clause 2.6)

In line 3 after the words "undue delay" the following is added:
"but not after the 7No days from the instruction or decision".

At the end of Sub-Clause 2.6, the following is added:
"The Engineer shall confirm or otherwise within the period mentioned in the Preamble to Conditions of Contract from the receipt of requirement(s) from the Contractor".

5 The following new Sub-Clause 2.9 is added:

Sub-Clause 2.9 Engineer Not Liable
Approval, reviews and inspection by the Engineer of any part of the Works does not relieve the Contractor from his sole responsibility and liability for the supply of remaining materials and equipment for the Works and parts thereof and complete the remaining erection works and testing and commissioning in accordance with the Contract and neither the Engineer's authority to act nor any decision made by him in good faith as provided for under this Contract whether to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any Sub-Contractor, any of their representatives or employees or any other person performing any of the Works.

6 The following new Sub-Clause 4.2 is added:

"Sub-Clause 4.2 No Contractual Relation between Sub-Contractor and the Employer
Nothing contained in the Contract Documents shall create any contractual relation between any Sub-Contractor and the Employer."

7 Sub-Clause 5.3 Priority of Contract Documents

The text of Sub-Clause 5.3 is deleted and substituted by the following:
"Unless otherwise provided in the Contract, the priority of the Contract Documents shall be as follows:

a) The Contract Agreement
b) The Letter of Acceptance

c) The completed Technical and Financial Bids as submitted by the Contractor
d) Preamble to Conditions of Contract
e) The Special Conditions of Contract
f) The General Conditions of Contract
g) The priced Schedule of Prices
h) The Scope of works and Technical Specifications
i) The Drawings
j) Duly Filled Standard Forms
k) Any other document forming part of the Contract.

In case of discrepancies between drawings, those of larger scale shall govern unless they are superseded by drawing(s) of a later date regardless of scale. All drawings and specifications shall be interpreted in conformity with the Contract Agreement and these conditions."

8 Documents Mutually Explanatory (Sub-Clause 5.4)

The text appearing in the last line after the words "the Contract Price" is deleted and the following text is added:

"The Technical Specifications are taken to be correct, but complete accuracy is not guaranteed. Any error or ambiguity must be reported to the Employer and the Engineer before starting the work affected. In the event of any dispute arising as to the true intended meaning of Technical Specification, the Engineer shall interpret the same and his interpretation shall be accepted as final and binding upon all parties concerned, except to the extent provided for in the Arbitration provisions hereof."

9 Consequences of Disapproval of Contractor's Drawings (Sub-Clause 6.2)

Full stop in the last line is deleted and the following words are added at the end of the Sub-Clause:

"for the approval of the Engineer. However, the Contractor shall not be entitled for time extension on this account"

10 Operation and Maintenance Manuals (Sub-clause 6.6.)

Operation and Maintenance Manuals shall be in English language.

Paras 2 & 3 are deleted and the following text is added at the end of Para 1 of Sub-Clause:

"The Operation and Maintenance Manuals shall include full instructions for the operation, servicing and maintenance of the Aluminium Dome Roof and internal floating roof, not only during the period of the Contractor's liability but more particularly during its operating life.

The directions shall be set out simply, clearly and systematically. This may be divided into two volumes if desirable, one for operation and the second for inspection and maintenance.

The operational data shall include a complete physical and functional description of the Aluminium Dome Roof and Internal Floating Deck and step–by–step procedures for inspection, checking and adjustments for proper operation of the Dome Roof and Floating Deck.

The maintenance data shall include complete instructions for routine checks, maintenance and repair of Aluminium Dome Roof and Aluminium Internal Floating Deck. The maintenance data shall also include where possible parts catalogues. The lists shall provide all necessary information for identifying the parts and for re–ordering the parts including name of part, part number and catalogue references where applicable, name of manufacturer, size, capacity and other characteristics.

General arrangements, single line diagrams and detailed drawings shall be provided for ready reference in the maintenance instructions.

The manuals shall be printed on A4 (210x297 mm) paper size with offset or equivalent printing strongly bound in a durable stiff cover bearing the title in approved legend. Drawings shall be folded or reduced to 297 mm height. All volumes shall bear on the spine an approved shortened version of the title.

The Contractor shall provide Six (6) copies of the approved Operation and Maintenance Manuals prior to Taking Over by the Employer. Supplementary Operation and Maintenance Manual shall be provided by the Contractor, if required, to incorporate changes resulting from experience during the operation and maintenance period. The work shall not be considered to be completed for the purpose of taking over until such manual and drawings have been supplied to the Employer."

11 Manufacturing Drawings (Sub-Clause 6.9)

The words "Unless otherwise specified in Part-II" are deleted and the following is added at the end of Sub-Clause:

"However, the Contractor is required to disclose to the Engineer or the Employer any confidential information necessary to justify the reliability, the efficiency and the operation and maintenance of the Aluminium Dome Roof, Aluminium Internal Floating Roof and Firefighting Facility for the tank supplied by him."

12 The following new Sub-Clauses 6.10 and 6.11 are added:

Sub-Clause 6.10 "As–Built" Drawings
The Contractor shall furnish to the Engineer six (6) copies and one (1) reproducible of approved quality of all "As–Built" drawings within the period mentioned in the Preamble to Conditions of Contract. All drawings shall also be provided in an electronic format i.e. (CD/DVD).

Sub-Clause 6.11 Shop Drawings

The Contractor shall submit to the Engineer for review three (3) copies of all shop and site erection work drawings in 1:4 scale seeking approval of the Engineer.
Review and approval by the Engineer shall not be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory and that the Engineer's review or approval shall not relieve the Contractor of any of his responsibilities under the Contract."

13 General Obligations (Sub-clause 8.1.)

The text of Sub-Clause 8.1 is deleted and substituted by the following:

"(a) The Contractor shall commence the work on the date specified in the Preamble to Conditions of Contract and shall proceed with the same with due expedition and without delay.

(b) The Contractor shall, in accordance with the Contract, with due care and diligence, complete the Works and test and commission the Aluminium Dome Roofs and other tank modification works and carry out the Works within the Time for Completion. The Contractor shall also provide all necessary Contractor's Equipment, superintendence, labour and all necessary facilities therefor.

14 Performance Security (Sub-clause 10.1)

The text of Sub-Clause 10.1 is deleted and substituted by the following:
"The Contractor shall provide a Performance Security in the prescribed Form provided for in the Tender Documents. The said Security shall be furnished by the Contractor within twenty eight (28) days after the receipt of Letter of Acceptance. The Contractor shall obtain a Performance Security of an amount equivalent to 10 per cent of the Contract Sum in the form of an unconditional Bank Guarantee issued by an established and a reputable Bank approved by the Employer and located in the Republic of Kenya

The performance security shall be valid for twenty eight (28) days beyond defect liability period.

The cost of complying with the requirements of this Sub-Clause shall be borne by the Contractor".

Sub-Clause 10.3 Claims under Performance Security
Sub-Clause 10.3 is deleted in its entirety.

The following new Sub Clause 10.4 is added:
Sub-Clause 10.4 Performance Security Binding on Variations and Changes
"The Performance Security shall be binding irrespective of variations and changes in the quantities of the Works or extensions in completion time of the Works, which are granted or agreed upon under the provisions of the Contract."

15 Site Data (Sub-Clause 11.1)

The following paragraphs are added at the end of Sub-Clause:

"The Contractor shall satisfy himself as to the nature of the ground, the hydrological and climatic conditions, the form and nature of the Site, the quantities and nature of the Work and materials necessary for the completion of the Works, and the means of access to the Site, the accommodation he may require and in general shall himself obtain all necessary information as to risks, contingencies, and other circumstances which may influence or affect his Bid.

The Employer does not guarantee the correctness of any data/information/drawings either verbal and/or written provided herein nor any interpretations, deductions or conclusions relative to conditions at Site. The Contractor must form his own opinion of the character of the work and of other factors directly or indirectly related to the work contained in the Contract. He must make his own interpretations, and satisfy himself by his own investigations and research regarding all conditions affecting the work to be done.

16 Programme to be Furnished (Sub-Clause 12.1)

(1) The text of Sub-Clause 12.1(a) is deleted and substituted by the following:
"(a) the order in which the Contractor proposes to carry out the Works (including preliminaries, design, ordering and manufacturing, delivery to Site, construction, erection, testing, commissioning of the Aluminium dome roof including design modification and installation of the firefighting system on the tanks and taking–over by the Employer). The programme on critical activity based format and resource planning schedule shall be prepared. The programme shall also include the following:

(i) Employment of local and expatriate labour of various categories;
(ii) Local material procurement; and
(iii) Material imports, if any."

However, as the material items for the contract works need to be purchased from specialist suppliers/manufacturers, the Contractor shall, when submitting the tender, identify the manufacturing and delivery times of the items.

(2) The text of Sub-Clause 12.1(c) is deleted and substituted by the following:
"(c) The Contractor requires the Employer:
(i) to furnish any Employer's Drawings;
(ii) to provide access to the Site;

(3)The second last sentence of Sub-Clause 12.1 is deleted and substituted by the following:
"The programme is to be furnished by the Contractor within twenty eight (28) days from the date of receipt of Letter of Acceptance. "The Engineer" proposed changes/modifications may also be incorporated and revised program shall be submitted within fourteen (14) days."

The following new Sub-Clauses 12.4, 12.5 and 12.6 are added:
Sub-Clause 12.4 Program of works for Tank 11-TK-201.
The Contractor shall submit a program of installation of the dome roof, the internal floating deck, firefighting facility and grit blasting and painting of the tank.

17 Monthly Progress Report (Sub-Clause 12.5)

During the period of the Contract, the Contractor shall submit monthly progress report to the Engineer not later than the 8th day of each month including:

i) A construction schedule indicating the progress achieved during the preceding month;
ii) Description of all work carried out since the last report;
iii) Description of the work planned for the next forty-two (42) days sufficiently detailed to enable the Engineer to determine his programme of inspection;
iv) Summary of daily job record for the preceding month;
v) Colour digital photographs to illustrate progress.

18 Daily Job Record (Sub-Clause 12.6)

"During the period of the Contract, the Contractor shall keep a daily record of the work progress, which shall be made available to the Engineer as and when requested.

The daily record shall include particulars of weather conditions, number of men working in different categories, deliveries of materials, quantity, location and assignment of equipment."

19 Contractor's Representative (Sub-Clause 13.1)

At the end of the Sub-Clause, the following is added:

"The Contractor's Representative shall be a competent and skilled person approved by the Engineer (which approval may at any time be withdrawn). He shall be present on the Site during all working hours and shall not be transferred from the Site without the consent of the Engineer.

The following new Sub-Clauses 13.3 and 13.4 are added:

Sub-Clause 13.3 Language Ability of Superintending Staff of Contractor
A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of the English language.

Sub-Clause 13.4 Employment of Local Personnel
"The Contractor shall, to the extent practicable and reasonable, employ staff and labour from sources within Kenya."

20 Contractor's Equipment (Sub-Clause 14.1)

Replace the word "or" at the end of Sub-paragraph (a) by "and" and insert the following at the end of Sub-paragraph (b):

"which shall not be unreasonably withheld."

The following text is added at the end of the sub-clause:

"Contractor shall provide at his cost, all types of construction equipment, tools, tackles and all such materials required for timely completion of job in all respects to the entire

satisfaction of Engineer. All lifting tools/tackles shall be tested prior to use as per statutory requirement. Copy of the certificate shall be submitted to KPC prior to use."

21 Safety Precautions (Sub-Clause 14.2)

The text in the second paragraph is deleted and the following is added:

"In order to provide for the safety, health and welfare of persons, and for prevention of damage of any kind, all operations for the purposes of or in connection with the Contract shall be carried out in compliance with the safety requirements of Kenya Pipeline Company with such modifications thereto as the Engineer may authorize or direct and the Contractor shall take or cause to be taken such further measures and comply with such further requirements as the Engineer may determine to be reasonably necessary for such purpose.

The Contractor shall make, maintain, and submit reports to the Engineer concerning safety, health and welfare of persons and damage to property as the Engineer may from time to time prescribe."

22 Electricity, Water and Gas (Sub-Clause 14.3)

The text of Sub-Clause 14.3 is deleted and substituted by the following:

"The Contractor shall be responsible for making his own arrangements for the adequate supply of electricity required for the effective performance of his obligations under the Contract. Subject to the aforesaid, the Contractor shall be entitled to use for the purposes of the Works such supplies and services as may be available on the Site. The Contractor shall, before the commencement of the work at Site, seek the approval of the Engineer as to his detailed requirements of electricity for the entire Contract period. The Contractor shall pay the Employer at the rates/cost incurred by the Employer. The Contractor shall at his own cost provide any apparatus necessary for such use". The Contractor will bear the cost of distribution network for electricity and its consumption by his own personnel for the purpose of the work."

23 Employer's Equipment (Sub-Clause 14.4)

The text of Sub-Clause 14.4 is deleted and substituted by the following:
"The Employer shall, if the Contractor so requests for the execution of the works, operate any available equipment of which details are given in the Preamble to Conditions of Contract. The Contractor shall pay the Employer a mutually agreed price for such use.

The Employer shall during such operation retain control of and be responsible for the safe working of the equipment."

24 Information for Import Permits & Licenses (Sub-Clause 14.8)

The text of Sub-Clause 14.8 is deleted and substituted by the following:

"The Contractor shall submit to the Employer in good time such details of all Plant and Contractor's Equipment to be imported into Kenya and identify as to what assistance

of the Employer is required for obtaining by the Contractor of all necessary import permits or licenses".

25 Compliance with Laws (Sub-Clause 15.2)

The text of Sub-Clause 15.2 is deleted and substituted by the following:
"The Contractor shall comply with the Laws of country of manufacture and the Laws of Kenya where the Aluminium dome roofs will be erected".

The following new Sub-Clauses 16.4 and 16.5 are added:

26 Photographs of Works and Advertisement Prohibited (Sub-Clause 16.4)

Except with the prior written authorization of the Employer the Contractor shall not exhibit or permit to be exhibited any photographs or advertisement on the Works. Any authorized exhibition shall be immediately removed if the Employer so requires.

27 Training of Employer's (Sub-Clause 16.5)

The Contractor shall provide such facilities for the training of four (4) KPC Engineers on such sections of the Works at the Site and Contractor selected Aluminium dome roof manufacturer's premises and factories, or wherever else work is in hand. The cost of such training shall be borne by the Contractor and shall include air travel (economy class), 3 star hotel accommodation, meals, local travel and out of pocket expenses at the rate of US Dollars 500 per day per person.

The language of training at the above stated premises shall be English."

28 Access to and possession of the site Sub-Clause 17.1

The text of Sub-Clause 17.1 is deleted and substituted by the following:

The Contractor shall give to the Employer a 21 days' notice of the scheduled delivery of the contract materials to PS10. Within these 21 days, the Employer shall plan and initiate the necessary handover process of one of the tank to the Contractor subject to scheduled decommissioning of the specific tank.

29 Import Permits and Licences (Sub-Clause 17.5)

The word "Employer" is deleted and substituted by the word "Contractor" and the following is added at the end of Sub-Clause 17.5:

"The Employer will provide assistance for this purpose."

30 Engagement of Labour (Sub-Clause 18.1)

At the end of the Clause the following is added:

"in accordance with the regulations, orders and requirements of the Government of Kenya".

The following new Sub-Clauses 18.5 to 18.16 are added:

Sub-Clause 18.5 Employment of Persons in the Service of Others
The Contractor shall not recruit or attempt to recruit his staff and labour from amongst the persons in the service of the Employer and vice–versa, unless mutually agreed between the Employer and the Contractor.

Alcoholic Liquor or Drugs (Sub-Clause 18.6)
The Contractor shall not, otherwise than in accordance with the statutes, Ordinances and Government Regulations or Orders for the time being in force, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or suffer any such importation, sale gift, barter or disposal by his Sub-Contractors, agents, employees or labour.

Arms and Ammunition (Sub-Clause 18.7)
The Contractor shall not give, barter or otherwise dispose of to any person or persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid.

Festivals and Religious Customs (Sub-Clause 18.8)
The Contractor shall in all dealings with his staff and labour have due regard to all recognized festivals, days of rest and religious or other customs.

Disorderly Conduct (Sub-Clause 18.9)
The Contractor shall at all times take all reasonable precautions to prevent any unlawful riotous or disorderly conduct by or amongst his staff and labour and for the preservation of peace and protection of persons and property in the neighborhood of the Works against the same.

Records of Safety and Health (Sub-Clause 18.10)
The Contractor shall maintain such records and make such reports concerning safety, health and welfare of persons and damage to property as the Engineer may from time to time prescribe.

Reporting of Accidents (Sub-Clause 18.11)
The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition to appropriate action required under the law, notify the Engineer immediately by the quickest available means.

Compliance by Sub-Contractors (Sub-Clause 18.12)
The Contractor shall be responsible for compliance by his Sub-Contractors of the foregoing provisions.

Housing for Labour (Sub-Clause 18.13)
Save insofar as the Contract otherwise provides, the Contractor shall provide and maintain such housing accommodation and amenities as he may consider necessary for all his supervisory staff and labour, employed for the purposes of or in connection with the Contract including all fencing, electricity supply, sanitation, cookhouses, fire prevention, water supply and other requirements in connection with such housing accommodation or amenities. On completion of the Contract, these facilities shall be handed over to the Employer or if the Employer so desires, the temporary camps or

housing provided by the Contractor shall be removed and the Site reinstated to its original condition, all to the approval of the Engineer.

Epidemics (Sub-Clause 18.14)
In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government, or the local medical or sanitary authorities, for purpose of dealing with and overcoming the same.

Supply of Water (Sub-Clause 18.15)
The Contractor shall, so far as is reasonably practicable, having regard to local conditions, provide on the Site, to the satisfaction of the Engineer or his representative, adequate supply of drinking and other water for the use of his staff and labour.

Compliance by Sub-Contractors (Sub-Clause 18.16)
The Contractor shall be responsible for compliance by his Sub-Contractors of the foregoing provisions."

31 Manner of Execution (Sub-Clause 19.1)

The following is added at the end of Sub-Clause:
"The Contractor shall submit for approval of the Engineer, his detailed method statement(s) for the execution of such items of work as may be desired by the Engineer. Approval of such method statement(s) shall neither relieve the Contractor of his responsibilities under the Contract nor form any basis for claiming additional costs."

Uncovering Work (Sub-Clause 19.3)
The following is added at the end of second paragraph of Sub-Clause 19.3:
"In any other case, all costs shall be borne by the Contractor."

The following new Sub-Clause 19.4 is added:
Sub-Clause 19.4 Use of Materials Locally Available in Kenya
"The Contractor shall so far as may be consistent with the Contract make the maximum use of materials, supplies and equipment indigenous to or produced locally in Kenya and services available in Kenya or operated in Kenya provided such materials, supplies, equipment and services shall be of required standard."

The following new Sub-Clause 20.6 is added:
Sub-Clause 20.6 Witnessing of Factory Acceptance Tests
Factory acceptance tests shall be witnessed by four (4) of the Employer's Engineers.

32 Cost of Suspension (Sub-Clause 24.1)

At the end of the second paragraph after the word "Contractor" the following is added:

"or for the proper execution or for the safety of the Works or Plant unless such necessity results from any act or default of the Engineer or the Employer or in consequence of any of the Employer's Risks under Sub-Clause 37.2."

33 Resumption of Work (Sub-Clause 24.4)

First paragraph of Sub-Clause 24.4 is deleted and substituted by the following:

"If the Contractor chooses not to treat prolonged suspension as an omission or termination under Sub-Clause 24.3, the Employer shall, upon the request of the Contractor, take over the responsibility for protection, storage, security and insurance of the suspended Works and of the Plant which has been delivered to the Site and which is affected by suspension and the risk of loss or damage thereto shall thereupon pass to the Employer".

34 Time for Completion (Sub-Clause 25.1)

The text of Sub-Clause 25.1 is deleted and substituted by the following:

"The Works at the place of the project mentioned in the Preamble to Conditions of Contract shall be completed tested and commissioned within the period mentioned in the Preamble to Conditions of Contract."

35 Extension of Time for Completion (Sub-Clause 26.1)

Sub-Clause 26.1(h) is deleted.
Sub-Clause 26.3 Earlier Completion

Sub-Clause 26.3 (b) is deleted.
The following new Sub-Clause 26.4 is added:

Sub-Clause 26.4 Rate of Progress
"If for any reason, which does not entitle the Contractor to an extension of time, the rate of progress of the Works or any Section is at any time, in the opinion of the Engineer, too slow to comply with the Time for Completion, the Engineer shall so notify the Contractor who shall thereupon take such steps as are necessary, subject to the consent of the Engineer, to expedite progress so as to comply with the Time for Completion. The Contractor shall not be entitled to any additional payment for taking such steps. If, as a result of any notice given by the Engineer under this Clause, the Contractor considers that it is necessary to do any work at night or on locally recognized days of rest, he shall be entitled to seek the consent of the Engineer so to do. Provided that if any steps, taken by the Contractor in meeting his obligations under this Sub-Clause, involve the Employer in additional supervision costs, such costs shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any moneys due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer".

36 Delay in Completion (Sub-Clause 27.1)

The text of Sub-Clause 27.1 is deleted and substituted by the following:

"If the Contractor fails to deliver the Works, or any part thereof, within the time stated in Sub-Clause 25.1, or fails to complete the whole of the Work, or, if applicable, any Section within the relevant time prescribed by Sub-Clause 25.1, then the Contractor shall pay to the Employer the relevant sum stated herein below as liquidated damages for such default (which sum shall be the only moneys due from the Contractor for such default) for every day or part of a day which shall elapse between the relevant time for Delivery or Time for Completion and the actual date of delivery at site or the date stated in a Taking–Over Certificate of the whole of the Works or the relevant Section, as the case may be, subject to the applicable limit stated herein below.

The Employer may deduct the amount of such damages from any monies due or to become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the Works, or from any other of his obligations and liabilities under the Contract.

The liquidated damages for each day of delay and the maximum amount of liquidated damages shall be the amounts mentioned in the Preamble to Conditions of Contract."

37 Extension of Defects Liability Period (Sub-clause 30.4)

The Employer shall be entitled subject to Sub- Clause 2.5 [Employer's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of a damage attributable to the Contractor. However, a Defects Notification Period shall not be extended by more than two years.

38 Failure to Remedy Defects (Sub-Clause 30.5)

In first line after the words "reasonable time" the following is added:
"fixed by the Engineer".

The following new Sub-Clause 30.13 is added:

39 Unfulfilled Obligations (Sub-Clause 30.13)

"After the Defects Liability Certificate has been issued, the Contractor and the Employer shall remain liable for the fulfillment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force."

40 Value Engineering (Sub-Clause 31.7)

The Contractor may, at any time, submit to the Engineer a written proposal which in the Contractor's opinion will reduce the cost of constructing, maintaining or operating the works, or improve the efficiency or value to the Employer of the completed Works or otherwise be of benefit to the Employer. Any such proposal shall be prepared at the cost of the Contractor. However Employer is not bound to accept such proposal."

The following new Sub-Clauses 33.1.1 to 33.1.4 are added:

41 Retention of Payment (Sub-Clause 33.1.1)

"Any amount due to the Contractor certified for payment for the whole or section of the work comprising the installation of the Aluminium dome roof, Aluminium internal floating deck, firefighting system and grit blasting and painting of the tank shell and appurtenances shall be subject to 10% retention sum. Any sum retained by the Employer pursuant to the provisions of this Clause shall be paid in two equal installments. One half of the Retention Money upon the issue of a Taking- Over Certificate with respect to a Section or part of the Permanent Works as the Engineer may determine and certify having regard to the relative value of such Section or part of the Works. The remaining half shall be paid upon the lapse of Defect Liability period pursuant to Clause 30.

42 Extra Payment (Sub-Clause 33.1.3)

No extra payment in respect of overtime, additional materials, or special conditions or hardship shall be claimed by the Contractor unless otherwise provided in the Contract or such payments have been previously authorized in writing by the Engineer or the Employer.

43 Breakdown of Lump Sum Items (Sub-Clause 33.1.4)

For the purposes of statements to be submitted in accordance with Sub-Clause 33.1 hereof, the Contractor shall submit to the Engineer, within twenty eight (28) days after the receipt of the Letter of Acceptance, a breakdown for each of the lump sum items contained in the Bid. Such breakdowns shall be subject to the approval of the Engineer." Failure by the Contractor to comply with this requirement, then payment shall be based on milestone specified in sub-clause 33.2 below.

44 Method of Application (Sub-clause 33.2)

Application for payment shall be made as detailed in the payment milestone below and shall be subject to deduction of 10% retention amount.

	Description	Payment Milestone
1.	Mobilization of Contractor's equipment and personnel.	**Payment Certificate No.1** All the Preliminary and General items payable upon commencement of works on site except for item A5.
2.	Insurance of works in accordance with the conditions of contract.	
3.	Third party insurance in accordance with the conditions of contract	
4.	Prequalification of welders in accordance with section IX of the ASME code	
5.	Design, Manufacture and Supply of Materials for Aluminium Dome Roof, Aluminium Internal Floating Deck,	**Payment Certificate No.2** 70% cost of supply of specified materials upon

	Description	Payment Milestone
	Handrail on Periphery of Dome Roof Walkway and materials for Fire fighting System	delivery, inspection and acceptance by KPC less 10% retention sum
6.	Installation of Aluminium Dome Roof, Aluminium Internal Floating Deck, Dome Roof Periphery Walkway and Fire fighting System including commissioning of the new system to satisfaction of the Engineer	**Payment Certificate No.3** 90% cost of Installation (erection) works plus the remaining 30% of the cost of Supply of materials, less 10% retention sum
7.	Mechanical repair works on tank bottom and shell	**Payment Certificate No.4** 90% cost of repair works less 10% retention sum
8.	Submission of as built drawings for the commissioned tank	**Payment Certificate No.5** Remaining 10% cost of installation works plus remaining 10% cost of repair works less 10% retention sum
9.	Grit Blasting of tank shell and appurtenances	**Payment Certificate No.5** 100% of cost of paint upon completion of works less 10% retention sum
10.	Demobilization and clearance from site.	**Payment Certificate No.6** Cost of demobilization plus 50% of retention amount deducted in previous Payment Certificates.
11.	Balance of 50% retention amount	Shall be paid upon the lapse of the defect liability period.

45 Payment (Sub-clause 33.5.)

45.1 The period for payment shall be:

The amount due to the Contractor under any Interim Payment Certificate issued by the Engineer pursuant to this Clause, or to any other term of the Contract, shall, subject to Clause 47, be paid by the Employer to the Contractor within 30 days after the Contractor's invoice statement has been submitted to the Engineer for certification or, in the case of the Final Payment Certificate pursuant to Sub-Clause 60.13, within 84 days after the Final Statement and written discharge have been submitted to the Engineer for certification.

45.2 The place for payment shall be:

Payments to the Contractor by the Employer shall be made in the currencies in which the Fixed Lump Sum Contract Price is payable into a bank account or accounts nominated by the Contractor.

46 Delayed Payment (Sub-clause 33.6.)

The interest rate for delayed payment shall be in accordance with prevailing mean commercial lending rate as determined by Central Bank of Kenya.

47 Payment by measurement (Sub-clause 33.8)

The Engineer shall, except as otherwise stated, ascertain and determine by assessment the value of the proportion of each item in the Schedule of Price, which has been completed and the Contractor shall be paid that value. The Engineer shall, when he requires any part of the Works to be valued, give reasonable notice to the Contractor's authorized agent, who shall:

a. Forthwith attend or send a qualified representative to assist the Engineer in making such valuation and
b. Supply all particulars required by the Engineer.

Should the Contractor not attend or neglect or omit to send such representative, then the valuation either made by the Engineer or approved by the Engineer shall be taken to be the correct valuation of the Works.

48 Duty to Minimize Delay (Sub-Clause 39.4)

Each Party shall at all times use all reasonable endeavors to minimize any delay in the Performance of the Contract as a result of Risks.

The Contractor shall give notice to the Employer and vice versa the Employer shall give notice to the Contractor in case of foreseeable delay by the Risks."

49 Employer's Liability (Sub-Clause 40.2)

The text of Sub-Clause 40.2 from the words "death or personal injury" to the end of the Sub-Clause, is deleted and substituted by the following:

"..... (other than the Works) or of death or personal injury to the extent caused by those of the Employer's Risks listed in paragraphs (f), (g), (h), (i), (j), and (k) of Sub-Clause 37.2 but not otherwise."

Works (Insurance) Sub-Clause 43.1(a) the

Add to this clause the following text:-
The Contactor shall without limiting his or the employer's obligations and responsibilities, insure:

(a) The Tank for any damages that may be caused due to the works to be carried by the Contractor to the full rectification cost, up to the limit of USD 2,000,000.00

A copy of such insurance is to be included in the contract agreement together with the Performance Bond.

(b) The Contractor's Equipment and other things brought onto site by the Contractor for a sum efficient for their replacement at the site.
The insurance in paragraphs (a) and (b) shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

The other risks to be insured are:

(i) Fire, explosion, earthquake, perils of the sea, impact by aircraft or land vehicle, lightning, strike, riot, civil commotion, escape of water, flood, act of God, vandalism or malicious damage or windstorm.

(ii) Accidents of any vehicle either on land, water or air in which the materials of the Aluminium dome roofs and firefighting or any part thereof is being carried including overland transportation in Kenya from port of entry to the Site.

(iii) Theft, burglary or attempted theft or burglary.

(iv) Any loss or damage during pre-erection storage.

(v) Faults in construction and erection, lack of skill, lack of experience, negligence and malicious act.

(vi) Any other sudden and unforeseen event such as loss or damage due to collapse etc. on site, transport of items to be erected.

(vii) Actions of the Employer in the operation of plant or part thereof on behalf of the Contractor.

The following further Sub-Clauses are 43.1.1, 43.1.2 and 43.1.3 are added:

1) Plus not less than 30 % of CIF value at the Site to cover any additional costs resulting from loss or damage thereof.

2) The Insurance Policy for imported Materials for the Aluminium dome roofs and firefighting facility shall be on "All Risks" basis.

50 General (Sub-Clause 43.1.3)

Should a loss be sustained, the Contractor shall replace or repair any loss or damage at his own cost and complete the Works in accordance with the Contract as soon as possible after occurrence of such loss or damages, without waiting for the settlement of the insurance claim."

Note: In all insurance cover relating to Employer facilities that the Contractor shall take in this Contract, Employer (KPC) shall be included as a beneficiary and the interest of KPC shall be expressly endorsed on the insurance certificate.

51 Contractor's Equipment (Sub-Clause 43.2)

The text of Sub-Clause 43.2 is deleted and substituted by the following:

"The Contractor shall insure the Contractor's Equipment for its full replacement value while on the Site against all loss or damage caused by any of the Contractor's Risks."

52 Remedies on the Contractor's Failure to Insure (Sub-Clause 43.7)

In 3rd line after the word, "purpose", the expression "and reasonable costs including the man-hours costs of Employer's Personnel" is added.

The following new Sub-Clauses 43.9 to 43.12 are added:

53 Currency of Insurance (Sub-Clause 43.9)

All policies of Insurance of the Aluminium dome roof, Aluminium internal floating deck, firefighting facility and grit blasting and painting works shall provide for payment of indemnity to be made in such amounts as will allow making good of loss of or damage to the whole or any part of the Works.

54 Contractor to Notify (Sub-Clause 43.10)

It shall be the responsibility of the Contractor to notify the insurance company of any changes in nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times in accordance with the provisions of the Contract.

55 Insurance Company (Sub-Clause 43.12)

The policies of marine insurance and all other insurances with respect to Contractor's operations in Kenya shall be effected with any of the insurance company licensed by Insurance Regulatory Authority (IRA) operating in Kenya with financial strength to meet the Contractor's obligations under this Contract.

56 Contractor's Default (Sub-Clause 45.2)

The following paragraph is added at the end of Sub-Clause 45.2.

"The Employer or such other Contractor may use for such completion any Contractor's Equipment which is upon the Site as he or they may think proper, and the Employer shall pay the Contractor a reasonable compensation for such use".

57 Payment after Termination (Sub-Clause 45.4)

The text of Sub-Clause 45.4 is deleted and substituted by the following:

"The Employer shall not be liable to make any further payments to the Contractor until the Works have been completed. When the Works are so complete, the Engineer shall certify the total cost of such completion of Works.

The Employer may recover the extra cost of such completion, as certified by the Engineer subject, from any sums otherwise due and payable to the Contractor and/or

by disposing of the Contractor's Equipment and stores taken over by the Employer under this Clause or as otherwise provided by law. If there is no such extra cost the Employer shall pay any balance due to the Contractor."

The following new Sub-Clause 45.6 is added:

Integrity Agreement (Sub-Clause 45.6)
If the Contractor, or any of his Sub-Contractors, agents or servants is found to have violated or involved in violation of the Integrity Agreement signed by the Contractor as provided for in the Declaration Form in his Bid, then the Employer shall be entitled to:

(a) Recover from the Contractor an amount equivalent to ten times the sum of any commission, gratification, bribe or kickback given by the Contractor or any of his Sub-Contractors, agents or servants;
(b) Terminate the Contract; and
(c) Recover from the Contractor any loss or damage to the Employer as a result of such termination or of any other corrupt business practices of the Contractor or any of his Sub-Contractors, agents or servants.

The termination under Sub-Para (b) of this Sub-Clause shall proceed in the manner prescribed under Sub-Clauses 45.2 to 45.5 and the payment under Sub-Clause 45.4 shall be made after having deducted the amounts due to the Employer under Sub-Paras (a) and (c) of this Sub-Clause.

58 Sub-Clause 46.1 Employer's Default

The comma and the word "or" at the end of paragraph (d) of Sub-Clause 46.1 are deleted and substituted by period (.) Paragraph (e) of Sub-Clause 46.1 is deleted.

Sub-Clause 46.3 Payment on Termination for Employer's Default
The words "including loss of profit" in the second paragraph of Sub-Clause 46.3 are deleted.

59 Customs and Import Duties (Sub-clause 48.1.)

The rates and prices quoted by the Contractor in the Schedule of Prices shall be deemed to have included all applicable taxes including but not limited to Value Added Tax (VAT), Withholding Tax, Income Tax, Customs, Import duties and other taxes and fees charged for services provided under this Contract.

All local currency payments, including the reimbursement of Value Added Tax relevant to the imported permanent materials and Plant shall be paid to the Contractor within 45 days of the Certification of the Interim and Final Certificates.

The following Sub-Clause 48.3 is added:

60 Port Charges (Sub-Clause 48.3)

"The Contractor shall be deemed to have obtained all the information regarding facilities and charges, in respect of port clearance, loading and unloading, storage,

transportation and confirmed the requirements thereof at his own responsibility and all such costs and charges are deemed to be included in the rates and prices of the Schedule of Prices."

61 Notices to Contractor (Sub-Clause 49.1)

The following paragraph is added at the end of Sub-Clause 49.1:

"For the purposes of Sub-Clause 49.1, the Contractor shall, immediately after receipt of Letter of Acceptance, intimate in writing to the Employer and the Engineer by registered post, the address of his principal place of business or any change in such address during the period of the Contract."

62 Disputes & Arbitration (Sub-Clause 50)

Clause 50 is deleted and in its place the following Sub-Clauses 50.1 to 50.5 are inserted:

"50.1 If a dispute of any kind whatsoever arises between the Employer and the Contractor in connection with, or arising out of, the Contract or the execution of the Works, whether during the execution of the Works or after their completion and whether before or after repudiation or other termination of the Contract, including any dispute as to any opinion, instruction, determination, certificate or valuation of the Engineer, the matter in dispute shall, in the first place, be referred in writing to the Engineer, with a copy to the other party. Such reference shall state that it is made pursuant to this Clause. No later than the fifty sixth (56) day after the day on which he received such reference, the Engineer shall give notice of his decision to the Employer and the Contractor. Such decision shall state that it is made pursuant to this Clause.

Unless the Contract has already been repudiated or terminated, the Contractor shall, in every case, continue to proceed with the Work with all due diligence, and the Contractor and the Employer shall give effect forthwith to every such decision of the Engineer unless and until the same shall be revised, as hereinafter provided in an amicable settlement.

In any case where the Conditions of Contract provide that the decision of the Engineer is to be final and conclusive, such decision shall not be referable to arbitration under this Clause nor shall the same be questioned in any other form of proceedings whatsoever.

50.2 If either the Employer or the Contractor be dissatisfied with a decision of the Engineer or if the Engineer fails to give notice of his decision on or before the fifty sixth (56) day after the day on which he received the reference, then either the Employer or the Contractor may, on or before the twenty eighth (28) day after the day on which the said period of fifty six (56) days expired, as the case may be, give notice to the other party to move to the High Court of Kenya for adjudication, as hereinafter provided, as to the matter in dispute. Such notice shall establish the entitlement of the party giving the same to commence adjudication at the High Court of Kenya, as hereinafter provided, as to such dispute and, subject to Sub-Clause 50.5, no adjudication in respect thereof may be commenced unless such notice is given.

If the Engineer has given notice of his decision as to a matter in dispute to the Employer and the Contractor and no notification of intention to commence adjudication at the High Court of Kenya at as to such dispute has been given by either the Employer or the Contractor on or before the twenty eighth (28) day after the day on which the parties received notice as to such decision from the Engineer the said decision shall become final and binding upon the Employer and the Contractor.

50.3 Where notice of intention to commence adjudication at the High Court of Kenya as to a dispute has been given in accordance with Sub-Clause 50.2, adjudication of such dispute shall not be commenced unless an attempt has first been made by the parties to settle such dispute amicably through mutual negotiation within ninety (90) days from the date of notification of Engineer's decision.

50.4 Any dispute in respect of which:

(a) The decision, if any, of the Engineer has not become final and binding pursuant to Sub-Clause 50.1 and

(b) Amicable settlement has not been started/reached within the period stated in Sub-Clause 50.3

shall be referred to the High Court of Kenya for settlement.

50.5 Where neither the Employer nor the Contractor has given notice of intention to commence adjudication of a dispute within the period stated in Sub-Clause 50.1 or 50.2 and the related decision has become final and binding, either party may, if the other party fails to comply with such decision, and without prejudice to any other rights it may have, refer the failure to the High Court of Kenya in accordance with Sub-Clause 50.4. The provisions of Sub-Clauses 50.1 to 50.2 shall not apply to any such reference."

Additional Conditions

52. Liability of the Contractor

The Contractor or his Sub-Contractors or assigns shall follow strictly, all relevant labour laws in Kenya and the Employer shall be fully indemnified for all claims, damages etc. arising out of any dispute between the Contractor, his Sub-Contractors or permitted assigns and the labour employed by them.

53. Joint and Several Liability

If the Contractor is a joint venture of two or more persons, all such persons shall be jointly and severally bound to the Employer for the fulfilment of the terms of the Contract and shall designate one of such persons to act as leader with authority to bind the joint venture. The composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer.

54. Details to be Confidential

The Contractor shall treat the details of the Contract as private and confidential, save in so far as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the prior consent in writing of the Employer or the Engineer. If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract, the same shall be referred to the decision of the Engineer whose award shall be final.

63 Resolution of Disputes

63.1 KPC and the Contractor shall make every effort to resolve, amicably by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the contract.

63.2 If, after thirty (30) days from the commencement of such informal negotiations both parties have been unable to resolve amicably a contract dispute, either party may require adjudication in the High Court of Kenya.

64 Price Variation

64.1 Contract price variations shall not be allowed for contracts not exceeding one year (12 months) and shall only be considered after 12 months from the date of signing the contract.

64.2 Where contract price variation is allowed, the variation shall not exceed 15% of the original contract price for goods and services and 20% for works provided that the cumulating value of all contract variations do not result in an increment of the total contract price by more than 25% of the original contract price

64.3 Price variation requests shall be processed by Kenya Pipeline Company Limited within 30 days of receiving the request.

Part 4

Scope of Work & Specifications

REPAIR AND INSTALLATION OF ALUMINIUM DOME ROOF ON TANK 11-TK-201

SCOPE OF WORKS & TECHNICAL SPECIFICATIONS

1. Introduction

1.1 Key Objective

The key objective of this Contract is to refurbish tank 11-TK-201, an external floating pontoon roof tank used for storage of refined petroleum product (Premium Motor Spirit), located at KPC Nairobi Terminal (PS10). Generally, the scope of works shall comprise removal of the existing external Steel floating roof, installation of a new Aluminium dome roof and internal floating deck, installation of handrail on the existing top wind girder, modification of the existing firefighting facility of the tank, mechanical repair of the tank bottom and shell and finally grit blasting and painting the tank's external shell and epoxy lining of entire tank bottom and 1st course shell. All the works shall be done in accordance with the detailed technical specifications contained herein and in accordance with the requirements of the applicable codes and standards.

1.2 Tank 11-TK-201 Design and Construction Details

Tank 11-TK-201 was designed in accordance with the requirements of API Standard 650 and was originally constructed in 1977 and re-constructed in 1986.

The tanks design and construction details are as provided below.

	Description	Remarks
1.	Tank internal diameter (m)	27.4
2.	Tank height (m)	17.1
3.	Tank capacity (nominal) (m^3)	10,088
4.	Design pressure	Atmospheric
5.	Design temperature	30.0°C
6.	Max. Inlet Flow rate	850m^3/hr
7.	Max. Outlet Flow rate	490m^3/hr
8.	Top wind girder	Provided
9.	Stairway style	Spiral
10.	Ladder	Rolling ladder (roof access)
11.	**Tank Shell Details**	
11.1	Material of construction of shell	ASTM A36/A283 Gr.C
11.2	Design wind velocity (Km/hr)	160.8
11.3	Plate width, height & thickness	
	1st Course (mm)	8000 x 2500 x 14.7
	2nd Course (mm)	5600 x 2500 x 11.2
	3rd Course (mm)	8000 x 2500 x 9.30
	4th Course (mm)	6300 x 2500 x 8.00
	5th Course (mm)	8000 x 2500 x 6.35
	6th Course (mm)	6300 x 2500 x 6.35
	7th Course (mm)	7100 x 2100 x 6.35
11.4	Weld Joints	Butt
12.	**Tank Roof Details**	
12.1	Type	Single deck pontoon floating c/w primary and secondary seals

	Description	Remarks
12.2	Material of construction of roof	ASTM A283 Gr.D
12.3	Plate thickness (mm)	5.0
12.4	Roof manways (number & size)	2No. & 24inch Dia.
12.5	Roof Drain, size and type with shell nozzle	6" pipe with swivel joint
12.6	Roof support-adjustable with 2m extension Legs	Yes
12.7	Manways for access to each bulkheads (pontoons)	18" Diameter
12.8	Gauge hatches No. and size	4 - 8"
13.	**Tank Bottom Details**	
13.1	Material of construction of bottom	ASTM A283 Gr.C
13.2	Plate Thickness (mm)	6.5
13.3	Annular ring width & thickness (mm)	688 x 10
13.4	Material of construction of annular ring	ASTM A-36

1.3 The installation of the aluminium dome roof complete with its internal floating roof, mechanical repair work on the tank bottom and shell and modification of the fire fighting system shall all herein referred to as "out of service maintenance" shall be carried out based on guidelines in the latest editions of applicable standards.

Note 1:

The Contractor shall supply the following items for the Site Engineer's use:

a) One set of original hard copy for the above Standards and Codes specified in 2.1.4 above.
b) 1No hygrometer for measuring relative humidity during painting
c) 1No paint thickness measuring gauge (Elcometer)
d) 1No ultrasonic thickness measuring gauge

2. General Scope of Works

The scope of works shall involve:

2.1.1 Removal of the existing external floating roof complete with the nitrogen suppression system, rolling ladder, primary and secondary seals and other related tank roof appurtenances

2.1.2 Design, manufacture, supply, installation and commission of clear span type Aluminium geodesic dome roof including making any modification on the tank shell and top platform necessary to effectively fit the dome roof.

2.1.3 Design, manufacture, supply, install and commission an Aluminium internal floating deck including making any modifications thereon to accommodate tank gauging system and other related tank accessories.

2.1.4 Installation of hand rail on the top winder girder round the periphery of the Aluminium dome roof.

2.1.5 Modification of the firefighting system to conform to the requirements of National Fire Protection Association (NFPA) codes 10, 11 and 30 for a fixed roof tank with an internal floating deck.

2.1.6 Modification of foam risers and testing outlets to suit routine testing of the foam system of the tank.
2.1.7 Repair of shell plate, spiral stairway, landing and weld defects as may be necessary.
2.1.8 Repair of tank bottom, drain sumps and any other tank floor components.
2.1.9 Grit blasting and painting the external surface of the tank shell and all appurtenances thereto.
2.1.10 Grit blasting and epoxy painting of the entire tank bottom and internal 1st shell course.

2.2 Employer's Scope of Work shall include:

2.2.1 Isolation of the electrical and instrumentation and control power supply
2.2.2 Positive isolation of the tank inlet valves.
2.2.3 Initial tank cleaning of the tanks prior to handover to the Contractor
2.2.4 Issuance of work permits to the Contractor.

2.3 The Contractor's Scope of Works shall include:

2.3.1 Taking relevant tank dimensions and measurements for the design, manufacture and successful installation of the Aluminium dome roof, Aluminium internal floating deck and firefighting facility. This will be done while the tank is still in service.
2.3.2 Design of clear span structurally supported Aluminium geodesic dome roof for tank as per specification and the requirements of API 650 Appendix G and the Aluminium internal floating deck and submission of the detailed drawings to the Engineer of the complete dome roof for compliance. However, it is the responsibility of the Contractor to install and commission the Aluminium roof dome for acceptance per his design.
2.3.3 Manufacturing, transportation and delivery of quality components/parts for the assembly of the Aluminium dome roof, Aluminium internal floating deck and the firefighting system.
2.3.4 Dismantling, removal and transportation from site of the existing external floating roof complete with it accessories and appurtenance.
2.3.5 Assembly and installation of the dome structures and panels in accordance with the manufacturer's recommendations and sound and safe construction practices.
2.3.6 Assembly and installation of the internal floating deck in accordance with the manufacturer's recommendation, applicable standards and sound and safe construction practices.
2.3.7 Modifications of the existing tank shell and appurtenances to allow for successful installation of the dome roof.
2.3.8 Installation of handrail on the existing top wind girder in accordance with requirements of the applicable standards.
2.3.9 Design modification and supply of the firefighting system to the tank to suit the requirements of a fixed dome roof tank with internal floating deck in accordance with this specification and the applicable industry codes and standards.
2.3.10 Modification of the existing gauging and dipping hutches to suit the new accessories for dipping and gauging in accordance with the provisions of the Aluminium dome roof and internal floating deck designs.
2.3.11 Installation of dome roof deluge system, foam system suitable for extinguishing internal tank fire and refurbishment of existing shell sprinkler cooling system.

2.3.12 It is desired that the foam pourer system for the tank be fitted with means of isolating each diaphragm of the foam pourer riser assembly located at the last shell portion of tank and a provision for foam solution outlet at between 1.5m and 2.0m height from the ground level. The contractor will supply and install 4-inch schedule 40 equal tees and class 150 isolation gate valves for each of the risers. The outlet shall have a nipple, not less than one foot long, and an end cap.

2.3.13 The contractor will supply and install 4-inch schedule 40 equal tees and class 150 isolation gate valves for each of the risers. The outlet shall have a nipple, not less than one foot long, and an end cap

2.3.14 Testing and commissioning of the dome roof and the internal floating deck in accordance with the specifications and manufacturer's recommendations.

2.3.15 Provision of the requisite equipment and tools for the erection and installation of the dome roof and the internal floating deck.

2.3.16 Repair of corrosion damage on the tank bottom plates, annular ring plates, tank bottom drain sumps, by either replacing condemned bottom plates or installation of welded-on patch plates and fill-welding of pitted sections as may be determined by the API 653 Inspection Report recommendations. **(Provisional)**

2.3.17 Repair of defective lap welds and butt welds on the tank bottom as may be determined by the API 653 Inspection Report recommendations.

2.3.18 Partial or full jacking of the tank to allow for replacement of condemned annular plate rings. This shall including welding of lifting lugs on the tank shell as may be determined by the API 653 Inspection Report recommendations. **(Provisional)**

2.3.19 Repair of pitted section of the tank shell both internally and externally including winder girder, spiral stairway and platforms may be determined by the API 653 Inspection Report recommendations.

2.3.20 Repair of defective butt welds, fillet welds on the tank shell may be determined by the API 653 Inspection Report recommendations.

2.3.21 Replace condemned sections of the tank shell by insert repair method as may be determined by the API 653 Inspection Report recommendations. **(Provisional)**

2.3.22 Replace sections of the primary wind girder by insert method as may be determined by the API 653 Inspection Report recommendations.

2.3.23 Grit blasting and painting of the entire tank shell external surface, spiral stairway, platforms, wind girder, inlet and outlet tank nozzles, tank drain lines, foam risers, water risers and all other tank shell appurtenances.

2.3.24 Grit blasting and epoxy painting of the tank bottom and internal 1st shell course.

2.3.25 Labelling of the tank inlet, outlet, drain lines, KPC logo, updating of tank information box and any other labelling that may be required.

2.3.26 Hydrostatic testing of the tank after repair works in accordance with requirement of applicable standards and correcting any arising defects therein. **(Provisional)**

2.3.27 Commission the tank including supply of new gaskets, bolts and nuts for shell manholes.

2.3.28 Provision of qualified and experienced manpower to carry out all works contained in this contract.

3. Detailed Technical Specification

3.1 Applicable Standards and Codes

(a) API 653 – Tank inspection, Repair, alteration and reconstruction
(b) API 650 – Welded Steel Tank
(c) API RP 2207 – Preparing tank bottoms for hot works
(d) API 579 – Fitness for service
(e) API 2015 – Requirements for safe entry and cleaning petroleum storage tanks
(f) ASME Section IX – Code for Welding and Brazing
(g) ASME (BPVC) Section V – Non-Destructive Examination
(h) API 570 – Piping Inspection Code
(i) API 580 – Risked Based Inspection
(j) API 651 – Cathodic Protection of aboveground storage tanks
(k) API 652 – Lining of Abovegrodund petroleum storage tanks bottom
(l) ANSI/AWS D1.2 – Aluminium Structural Welding Code
(m) NFPA 10
(n) NFPA 11
(o) NFPA 30
(p) Other applicable NFPA Standards

3.2 Design of Aluminium Dome Roof

3.2.1 The enclosure shall be a dome structure conforming to the dimensions of the tank. The dome structure shall be a fully triangulated all Aluminium space truss complete with non-corrugated closure panels. It shall be clear span and designed to be self-supporting from the periphery structure. Primary horizontal thrust shall be contained by an integral tension ring. Full provisions shall be made to allow for thermal expansion.

3.2.2 The dome surface paneling shall be designed as a watertight system under all design load and temperature conditions. All raw edges of the Aluminium panels shall be covered, sealed, and firmly clamped with batten bars in an interlocking manner to prevent slipping or disengagement under all load and temperature changes. The batten to panel sealing must be accomplished with an extruded gasket in full engagement with the formed panel and batten. The gasket engagement detail shall prevent any wiping action between the panel and gasket. Panel attachment to the supporting frame using a lapped sheet joint is prohibited as per API 650 G.3.2 and Aluminium Association requirements for sheet metal work in building construction. Panels including peripheral flashing shall be of one piece construction (as per API 650 G.4.2.4.1.) and shall not be assembled by means of welding riveting or otherwise.

3.2.3 The roof framing system shall be designed as a three dimensional truss with moment-resisting joints. The design must consider the increased minor axis bending and compression induced in the framing members due to tension in the roof panels.

3.2.4 The structural analysis shall be performed to confirm API 650 and shall be submitted for our records.

3.2.5 The roof attachments & roof supports shall be as per API 650.

3.2.6 The design of welded components shall be done in accordance with the Aluminium Structural Welding Code ANSI/AWS D1.2.

3.2.7 Design Allowable stresses shall be as indicated in API 650.

3.2.8 The vertical loads transferred from the roof to the tank shall be in line with the tank support wall. The transfer of horizontal loads to the tank shall be minimized by means of low friction slide supports. Radial forces applied to the tank shall not exceed

10% of the vertical reactions. The Manufacturer shall provide all supports to adequately distribute forces into the tank shell considering out-of-round conditions of tank and based on a design shell thickness.

3.2.9 Dissimilar materials which are not compatible shall be physically separated or insulated from each other by means of gaskets or insulating compounds.

3.2.10 Dome design shall incorporate access to tank gauging system, dipping, temperature, sampling hutches and other tank appurtenances as may be necessary in accordance with the requirements of API 650.

3.2.11 Dome design shall accommodate normal and emergency venting as per API 2000.

3.2.12 Dome roof shall be designed with an external walkway with a minimum width of 710mm (28inch) from the top landing platform to the apex (center) of the dome roof complete with protection railings (hand rail) for safe access to the dome center in accordance with the requirements of API 650.

3.2.13 Dome roofs shall be designed with 4No. (four) man-holes each measuring 0.8m by 0.8m to be located diagonal to each other and sufficiently near the edge of the dome roofs.

3.3 Materials for Aluminium Dome Roof

3.3.1 Triangulated dome frame struts: 6061-T6 Aluminium.

3.3.2 Triangular closure panels: 0.050" nominal thickness 3003-H16 Aluminium Sheet.

3.3.3 Triangular skylight panels if specified: 0.25" thick clear acrylic.

3.3.4 Perimeter tension/compression ring: 6061-T6 Aluminium.

3.3.5 Fasteners: 7075-T73 anodized Aluminium or Series 300 stainless steel not coated or plated steel material is to be used. Only stainless steel fasteners to be used to attach Aluminium to steel.

3.3.6 The sealant (i.e. silicon sealant shall be Pecora or GE or equivalent) used on the domes should be of one time application and last till the lifetime of the dome.

3.3.7 Gaskets: Silicone. The sealant used on the domes should be of one time application and last till the lifetime of the dome without degradation of the physical and chemical properties.

3.3.8 Anchor Bolts: Series 300 stainless steel.

3.3.9 Dormers, doors, and hatches: 6061-T6, 5086-H34 or 5052-H36 Aluminium, 0.090" nominal thickness.

3.3.10 Provide triangular sky light panels as per standard. Any other fittings required for the Aluminium dome roof as per the standard shall be provided.

3.3.11 The Contractor shall provide a warranty on materials and workmanship for a specified period. As a minimum, the warranty shall provide assurance against defects in material, coatings and workmanship for a period of one (1) year

3.4 Design Loads for Aluminium Dome Roof

3.4.1 Dome Design Loads

The dome frame and skin shall be designed in accordance with the "Specifications for Aluminium Structures" as published by the Aluminium Association and designed for full dead load plus live load in accordance with the following:

a) Basic Live Load: 20 psf applied as per API 650-11th Edition, Addendum 2.
b) Wind Velocity: as per API 650
c) Seismic Zone: Zone III

d) Internal Pressure: as per API 650

3.4.2 Panel Design Loads (not acting simultaneously with the above loads)
The Aluminium panels shall be secured to the dome frame to withstand the following vertical loads:

a) Two concentrated loads of 250 pounds each, applied simultaneously on two separate one square foot areas of the panel.

3.5 Design of the Aluminium Internal Floating Deck

3.5.1 The IFR should be **Full Contact Type and should meet all the applicable guidelines as spelt out in *API 650 and EN 1450* among others deemed necessary by the contractor**

3.5.2 The Aluminum floating deck shall protect product evaporation during the tank normal emptying and refilling operation cycle. An advanced design and high quality of the deck shall be desirable, combined with experienced installation personnel. The floating deck structural design shall meet or exceed all known standards for internal floating roofs, in particular the requirements of API Standard 650, Appendix H, suited to the dimensions of the tank with double seal type.

3.5.3 The main interconnecting grid structure shall be of high strength-to-weight ratio, using contamination free and corrosion resistant Aluminium alloy tubular pontoons and extruded channel beams. These flotation pontoons and structural members shall provide maximum flotation and strength capable of withstanding loads generated by product turbulence and any other anticipated reason.

3.5.4 The overall assembled deck shall present a rugged construction, durable, lightweight, corrosion resistant and virtually maintenance free floating deck.

3.5.5 The proposed primary and secondary seals shall include stainless steel (or any other designers acceptable material for the application) mechanical shoe primary seals designed to accommodate wide variations in the tank shell and the rim space.

3.5.6 All the floating roof components shall be designed, pre-fabricated and partly pre-assembled to pass through the existing openings. The entire roof shall be completely assembled without welding.

3.6 Design Calculations, Drawings and Submittals

3.6.1 A complete set of design calculations for the dome roof and internal floating deck shall be submitted to KPC for records. All work shall be fabricated and erected in accordance with the approved drawings.

3.6.2 Detailed fabrication drawings in hard and soft forms shall be submitted to KPC for records. The dome roof shall be fabricated based on the submitted drawings. The drawings shall clearly indicate the item description, quantity, weight along with material of construction, dimension and thickness. The drawings shall include General arrangement drawings and fabrication drawings showing the attachment.

3.6.3 Certification that the specified material alloys, sizes and quantities have been supplied shall be submitted upon completion of the project.

4. Preliminary Works

4.1 Confirmatory Tank Measurements

4.1.1 The Contractor shall take all relevant measurements on the tank to ascertain the dimensional status of the tank in respect of the successful design, manufacture, erection and installation of the of the dome roof.

4.1.2 The contractor shall confirm Tank measurements which shall include but not limited to measuring the out of roundness/verticality or any other dimensions' measurement of the tank that the Contractor may require. All equipment required for this task shall be supplied by the Contractor.

4.2 Existing tank appurtenances

4.2.1 The Contractor shall design the dome roof and internal floating deck to accommodate all the existing nozzles like level gauge, radar gauge, sampling etc., requisite platform and other installations.

4.2.2 The Contractor shall recommend to KPC for consideration and approval other modifications that in his professional opinion are necessary for the safe and effective installation and subsequent maintenance of the dome roof and the internal floating deck.

4.2.3 All such modifications shall be deemed to have been included in the Contractor's priced schedule of rates and shall not be paid for separately.

4.3 Work area

4.3.1 The Contractor shall verify for himself on the adequacy of the available working area within the tank farm bund wall for the purpose of site erection of the dome roof. The Contractor shall craft his method of assembling and installation of the dome roofs to comply with the site conditions and shall submit to KPC his proposal for approval.

4.4 Firefighting System

4.4.1 The Contractor shall assess with a view to modifying as necessary the existing firefighting system to the tanks to suit requirements of fire prevention for a fixed dome roof tank with internal floating deck as outlined in applicable NFPA codes.

4.5 Storage of Materials and Equipment

4.5.1 All the contract equipment and materials to be supplied by the Contractor shall be delivered at the Employer's PS10 (Nairobi Terminal Industrial Area) for storage and shall be transported to the work site as and when required. The Contractor shall visit PS10 and together with the Employer identify a suitable location for storage of the equipment and materials.

4.6 Storage of dismantled floating roof

4.6.1 The Employer shall identify and notify the Contractor of a specific location in PS10 where the Contractor shall deliver the dismantled pieces of the floating roof and its accessories.

5. Preparatory Works

5.1 The Contractor shall mobilize services manpower; equipment and materials to carry out work as specified in this contract, and on completion of all works, demobilize all their resources from the site.

5.2 The Contractor shall furnish the employer with the requisite Job Safety Plan (JSP) for the works and obtain approval therein before commencements of the works.

5.3 The Contractor shall supply and install safety signboards with the following details, and install them at location shown.

ATTENTION
"TANK REHABILITATION WORKS IN PROGRESS ADMITTANCE ONLY FOR AUTHORISED PERSONEL"

5.4 The Contractor shall supply all materials and erect a temporary changing/washing facility at a location to be shown by The Engineer.

5.5 The Contractor shall supply a temporary rest room (washroom) for his personnel during the period of the contract.

5.6 The Contractor shall erect barriers/install barrier tape around the works area throughout the duration of repair works.

5.7 The Contractor shall provide office space for his people on a site to be advised by the Engineer.

5.8 The Contractor will ensure all men concerned are medically fit of which medical certificates should be provided.

5.9 Also insurance cover should be provided for all the men concerned (receipts for payment of the current premiums to be supplied).

5.10 The Contractor shall appoint a supervisor with requisite previous relevant experience; he should be conscientious and painstaking, have a good knowledge of the safety procedures required, and above all should have a very high sense of responsibility.

6. Tanks De-Gassing, Cleaning and Inspection

6.1 The Employer shall isolate electrical power from all apparatus/instruments on or connected to the tank, and shall tag and lock them the "off" position.

6.2 The Employer shall isolate the tank positively from the pipe work prior to opening the tank manholes and wash out door.

6.3 The Employer shall drain all pipes connected to the tank prior to valve removal.

6.4 The Employer shall supply all bolts, gaskets and blinds for isolation and shall drain all pipes connected to tank prior to the installation of blinds and spades.

6.5 The Employer shall install all blinds and spades during the tank and pipeline draining.

6.6 The Employer shall carry out the tank cleaning as per the internal tank cleaning procedure.

6.7 The Contractor shall perform the following preliminary tasks:-

6.7.1 Receive the tank from the employer and satisfy self of safe status of the tank; isolated, degassed and cleaned. Carry out pre-inspection of all the components before commencement of works.

6.8 Inspect and firm up the supply and installation of the desired stand pipes without any material deviation of the timelines.

6.9 Inspect and firm of the removal of the existing floating aluminium roof without any material deviation of the timelines.

6.10 Firm up the supply and installation of the desired new aluminium floating roof without any material deviation of the timelines.

6.11 Agree on a revised programme of works with the Engineer.

6.12 The Contractor shall present all their intended equipment with valid inspection certificates for use to the Employer's Representative for inspection prior to commencement of works.

6.13 The Contractor shall remove and transport to a site shown by the Engineer the station warehouse for storage and reinstall upon completion the following:

a) Parts of the disassembled existing aluminium roof
b) The floating roof seals
c) Any other appurtenances or parts removed at this stage to make the working sites clear.

6.14 The Contractor shall supply and erect scaffold for use by himself, Employer and any Employer's Inspection agency(s) for the entire period of the contract. The scaffold will be full height of tank and constructed in accordance with scaffold erection requirements.

6.15 The Contractor and the Engineer shall ensure that the following facilities are available on site before work is begun.

6.15.1 Equipment store

A room or temporary shelter shall be available for storing all items, tools paint and protective clothing etc. as necessary. The site for erecting the same shall be indicated by the Engineer or his representative during mobilization.

6.15.2 Cleaning room

A well ventilated room or shelter shall be provided, where clothing and equipment can be cleaned. However, if cleaning can be done out-doors, a room/shelter is not necessary and in such circumstances, the cleaned equipment will be kept in the equipment store.

It shall be the responsibility of the Contractor's supervisor to decide if a contaminated equipment or impermeable clothing may be adequately cleaned. If not, it shall be destroyed.

6.15.3 Change/wash room

A room, shelter or trailer, where men can change their clothing, wash and shower shall be required. The room shall be adequately equipped with items necessary for these purposes at the Contractor's expense.

6.15.4 Classified areas

Areas in which it is necessary to wear respiratory equipment shall be surrounded by ropes and pickets and "Mask Area" notices shall be displayed. This includes the cleaning room/area clearly marked to show the area for items to be cleaned and those to be destroyed. The site area may be arranged with the help of the relevant personnel of the employer.

6.15.5 Work wear

"Street" clothes shall not be accepted, therefore, everyone involved with works shall have standard petroleum industry protective clothing subject to acceptance by KPC.

7. Dismantling of the Existing Floating Roof

7.1 Site Safety Plan

7.1.1 The Contractor shall submit to the Engineer for approval a site safety plan for dismantling of the existing external floating roofs complete with the tank roof seals and appurtenances.

7.1.2 The Contractor shall employ safe work methods that are least likely to result in fire incidents. Method employing use of hot works shall be approved by the Engineer after Contractor submission of acceptable fire prevention and firefighting plan.

7.2 Dismantling of existing tank appurtenances

7.2.1 The Contractor shall before dismantling the existing float roofs remove/dismantle the entire existing tank appurtenance attached to the floating roofs as may be necessary. These shall include but not limited to the Nitrogen suppression system, rolling ladder and track, roof draining etc.

7.3 Equipment for dismantling floating roof

7.3.1 The Contractor shall supply suitable and efficient equipment for dismantling the existing external floating roof and tank roof appurtenances. The equipment shall be suitable for safe cutting and lifting off the dismantled pieces of the floating roof out of the tank.

7.4 Method of dismantling of the floating roof

7.4.1 The Contractor shall submit to the Engineer for approval a detailed method statement detailing the procedure for dismantling and removal of the floating roof. The method statement shall include measures that the Contractor shall take to protect the tank shell, bottom and other tank appurtenances from damage. The proposed procedure shall factor in safety of other tanks and installations in the proximity of the tank being fitted with the Aluminium dome roof.

7.4.2 All damages inflicted on the tank shell and bottom by the Contractor shall be suitably repaired to the satisfaction of the Engineer in accordance with the applicable standards and shall be done at no cost to the employer.

7.5 Transportation of the dismantled floating roof

7.5.1 The Contractor shall load, transport and offload the dismantled pieces of the floating roof and roof appurtenances to a suitable site to be identified by the Engineer within Nairobi Terminal.

7.5.2 The Contractor shall provide suitable means of transport to carry the dismantled pieces and offloading equipment at the designed area.

7.5.3 The Contractor shall not overload the vehicles and shall ensure to comply with recommended axle load as specified in the applicable traffic Laws of Kenya.

7.6 Loading and off-loading of dismantled pieces

7.6.1 The Contractor shall use safe methods of loading and offloading the dismantled pieces to minimize risk of human injuries and/or damage to property.

8. Fabrication and Installation of Dome Roof

8.1 The Contractor shall perform the work described herein with mechanics skilled and experienced in the fabrication and erection of Aluminium structures. All field work shall be directed by a Project Manager (qualified supervisor) who will remain on the job site from commencement until completion of works.

8.2 On-site re-fabrication of structural components or panels will not be accepted. Forcing of the structure to achieve fit-up during construction is expressly forbidden and not acceptable.

8.3 All sealant joints shall be tooled slightly concave after sealant is installed. Care shall be taken to keep sealant confined to joint area, and any outside of the joint shall be carefully removed so that the panels will be free from misplaced sealant. All gasket materials shall be continuous; splices will not be allowed.

8.4 The dome shall be leak tested by the Erector as described in API 650 G.10

8.5 Access to tank gauging, dipping, sampling and temperature hutches and any other critical tank appurtenance shall be included in the fabrication.

8.6 Roof manhole to enable inspection of the roof shall be provided.

8.7 The dome shall be installed with minimum of hot work.

9. Modifications of Tank Shell

9.1 Modification of tank top curb angle

9.1.1 The Contractor shall in consultation with KPC dismantle and remove existing plate/structure on the tank shell coming in the way of erection of Aluminium dome roof.

9.2 Top Landing Platform

9.2.1 The Contractor shall design and reconstruct the top land platform to suit the installed Aluminium dome roof.

9.3 Installation of Handrail on the Wind Girder

9.3.1 The Contractor shall design, supply and install handrail (protection railing) round the tank shell in accordance with the requirements of API 650 and API 653 standards on the existing wind girder to create a walkway round the periphery of the dome roof.

9.3.2 The Contractor shall repair any corrosion damage on the wind-girder and install by suitable method reinforcement brackets so as to ensure the structural soundness of the wind-girder to support the weight of persons that shall eventually wall on it.

10. Specification for Modification of the Tanks Firefighting System

10.1 Existing Fire Water Main Ring

10.1.1 The existing fire main ring laid outside the tank farm bund wall is a pressurized 12" ANSI class 150 carbon steel line. Branch steel pipes supplying firewater to the tank sprinkler system have been connected to this main ring. Foam supply is by use of a

single riser pipe connected to a ring pipe attached to the tank shell from which stand pipes connected to the foam pourers are attached.

10.1.2 The Contractor shall determine based on his designed in accordance with the applicable NFPA codes and other applicable standards the capacity of the fire water deluge system for the Aluminium dome roof and the best method of tie-in (connecting) into the existing 12" fire main ring.

10.2 Contractor's Obligation

10.2.1 The Contractor shall carry out design modification on the existing firefighting system to the tank and shall supply all requisite materials, equipment and labour for the installation and testing of the deluge system and foam system suitable for a fixed roof tank with an internal floating deck.

10.2.2 The Contractor shall submit to the Engineer for record the design layout, calculations and construction methodology of the firefighting system accompanied with the bill of quantities detailing the pipes, fitting, valves, paintings and other work materials. The Contractor shall detail all material and equipment specifications and their origin for all items to be supply for this works.

10.2.3 The Contractor shall in his design for the firefighting system endeavor to utilize as much as is practical the existing support brackets for the riser pipes for sprinkler system and foam riser pipe so as to reduce the points of direct welding on the tank shell for the new system.

10.3 Scope of Work Comprising Modification of Firefighting System

10.3.1 The Contractor shall carry out design modifications to the existing firefighting system that was designed for external floating roof tank to one for fixed roof with internal floating deck in accordance with the requirements of NFPA 11 and 30 and other applicable standards.

10.3.2 The firefighting system shall comprise of the firewater deluge system and foam system suitably designed and of sufficient capacity to meet the requirements of NFPA standards for the tank.

10.3.3 The Contractor shall supply and install the necessary foam system and deluge system to the tanks in accordance with applicable API and NFPA standards for fixed roof tank with an internal floating deck.

10.3.4 The design for the foam system shall ensure efficient extinguishing of internal tank fire and shall comprise of 4No foam inlet points diagonally located on the tank.

10.3.5 The foam inlets pipework to the tank shall originate from outside the tank bundwall and shall be installed with twin coupling similar to the existing installed couplings other of the tanks.

10.3.6 A foam proportioning bag tank complete with the associated accessories and pipework shall be constructed and connected to the tank and to the fire main ring.

10.3.7 The fire water deluge system shall be connected to the 12" ANSI Class 150 fire main outside the bund wall by a suitably sized Carbon steel pipework.

10.3.8 The design for the deluge system shall ensure efficient cooling of the Aluminium dome roofs and the tanks shells in the event of an internal tank fire or from radiation heating from an adjacent tank on fire.

10.3.9 At the dome roof periphery, the Contractor shall provide water deflection plates to re-direct water from dome roof to the tank shell. These plates shall be mounted on support brackets welded on the tank shells and shall be connected together by bolts-nuts.

10.3.10 The Contractor shall tie-in the modified firefighting system to the existing fire main ring located outside the tank farm bund wall.

10.3.11 The Contractor shall test and commission the installed firefighting facility to the satisfaction of the Engineer.

10.3.12 The Contractor shall test the existing tank shell sprinkler system to ensure that it is working effectively. Any defective sprinkler shall be repaired or replaced as may be applicable.

11. Specification for Civil works

11.1 The Contractor shall create an access through the existing bund wall to enable him mobilize his equipment to the working area within the tank farm. Immediately after mobilizing his equipment, he shall temporarily re-instate the bund wall to the satisfaction of the Engineer.

11.2 The Contractor shall cut through the existing tank farm bund wall to lay the branch lines for the firefighting system to the tank. **(Provisional)**

11.3 Upon completion of the works and demobilization of the equipment, the Contractor shall fully reinstate the bund wall to as found condition and make good any other damage related to the works contained in this contract to the satisfaction of the Engineer.

11.4 The Contractor shall modify the existing masonry wall outside the bundwall housing the fire water and foam piping to the tank to accommodate the modified firefighting system to the tank. The dimension of the wall shall be 2m high from the ground level by 1.6m in width.

11.5 The Contractor shall supply all materials and repair damaged tank pad where bottom plates are removed. The disturbed tank pad shall be filled with bitumen/sand mix, filling the sub-base and compacting using mechanical/manual rollers.

11.6 The Contractor shall supply equipment and materials for tank foundation repair including compacting of the tank pad in the event of repair associated with tank bottom settlement, tank shell edge settlement or as may be prescribed by NDT Inspection Agency. (**provisional**)

12. Specification for welding of firefighting pipework

12.1 The welding of the pipework and fittings shall be in accordance with ASME IX the Contractor shall prepare and submit all procedures for butt welds in a format which is compliant with same. Welders shall be qualified on the pipework for positions 2G-5G or 6G facilitate butt welds in all positions.

12.2 No welding shall be undertaken without the written approval of the Engineer of the procedures and the welders proposed by the Contractor. The written approval shall not relieve the contract of his responsibilities or obligations under the contract.

12.3 Only welders who have been pre-qualified in accordance with ASME IX against the agreed procedures, shall be employed on the works. No change in welding procedures or welders will be permitted, without the written approval of the Engineer. Copies of certificates for each welder shall be submitted to the Engineer and shall be retained on site for reference purposes. If for any reason to performance of standard of workmanship of any welder is not satisfactory then he shall be re-

tested and the welder shall not be allowed to undertake any welding with respect to the works until re-qualified.

12.4 The Contractor shall ensure that a qualified welding inspector is on site at all times when;-

a) Welding test procedure are being undertaken
b) Welding relating to the works is being undertaken.

12.5 The welding inspectors' qualifications and experience shall be submitted to the Engineer for approval and once approved the welding inspector shall not be changed without prior approval by the Engineer.

12.6 The Contractor shall make arrangement to ensure that each weld can be subsequently identified with the individual welder concerned.

12.7 The Engineer shall be afforded free and unimpeded access to the welding work at all times. The Contractor shall provide all the necessary facilities to comply with this requirement, including thoroughly cleaning the weld before inspection. The Engineer shall be at liberty to reject any welding work which does not comply with this specification and shall require the Contractor, at his expense, to undertake and complete all remedial measures to remedy a defective weld.

12.8 Welding on site shall proceed in a logical and organized manner and the Contractor shall clearly identify the proposals for the completion of all pipe laying/ pipe fitting installation within the shortest time period possible. The proposals must identify the number of weld to be deployed to undertake;

i. Tack welding of the pipes
ii. 1st layer welding
iii. 2nd layer welding
iv. 3rd layer welding

12.9 The Contractor's attention is however drawn to the following:

a) In conditions of high winds and/or rain the Contractor shall provide canvas wind breaks or shelter to prevent the undue chilling of the welds.
b) Neither the pipes nor fittings shall be used to form the arc with welding torch at the commencement of any welding operations.
c) All welds are to be visually inspected and subjected to Dye Penetration or MPT testing at the discretion of the Engineer. The Contractor shall provide all equipment and materials necessary to carry out the tests.
d) The Contractor shall submit to the Engineer daily reports on weld preparation, weld progress and detailed inspection sheets showing the results of all inspections made to each weld.

12.10 The Contractor shall protect against corrosion the portion of the piping to be buried if any. The Contractor shall submit for approval by the Engineer his methodology of protecting the pipes from corrosion.

13. Specification for Tie-in of Firefighting System

13.1 The Contractor shall on the firewater main ring isolate the immediate upstream and downstream valves to the point of tie-in and then drain all the water in the section.

13.2 The point to be cut shall be identified and marked on the ring main.

13.3 Using suitable method, the first and the second cuts shall be made.

13.4 The Contractor shall make the necessary connections to tie-in the new firefighting system.

13.5 If the foam system will be upgraded, the Contractor shall make the necessary tie-in to the existing foam system as necessary and in accordance with the applicable standards and best practice.

13.6 The Contractor shall perform 100% radiography examination on the two weld joints.

13.7 Leak test shall be conducted on all the joints at the tie-in to ensure integrity of the joints.

13.8 The Contractor shall carry out tests on both the foam system and deluge system to the satisfaction of the Engineer.

13.9 The Contractor shall finally normalize the firewater main ring.

14. Specification for Repair of Tank Bottom

14.1 The Contractor shall supply all equipment necessary to expeditiously carryout repair on the tank bottom. These shall include but not limited to equipment to carry out complete tank floor replacement or partial repair as may be specified by the NDT Inspection Agency.

14.2 The Contractor shall gouge out the condemned bottom plates. The number of plates to be gouged out shall be determined by the API 653 inspection report. **(provisional)**

14.3 The Contractor shall supply equipment for hot-cutting, cut and remove the condemned existing plates from the tank and dispose at the company scrap yard at PS10.

14.4 The Contractor shall supply 6.5mm thick as per ASTM A283 Gr. C steel plate or their equivalent for replacement of the bottom plates in accordance with the layout provided in the NDE report and the requirements of API 653 Section 9.10. **(provisional)**

14.5 The Contractor shall supply 10mm thick as per ASTM A-36 steel plate or their equivalent for replacement of the annular ring plates in accordance with the layout provided in the NDE report and the requirements of API 653 Section 9.10. **(provisional)**

14.6 **The Contract MUST submit to the Engineer Mill Test Certificates for the steel plates to** be supplied **and subsequently be used in repair of the tank which shall proof chemical and mechanical compatibility of the new steel plates with the existing tank plates prior to delivery to site.**

14.7 All new bottom plates shall be blasted to SA2.5 Swedish standard to remove the mill scale and primed on the underside prior to installation and welding.

14.8 Replacement of bottom plates shall be carried out in accordance with API and EEMUA specifications.

14.9 The Contractor shall supply and carry out welded-on patch repair on the tank bottom plates at defect areas using 6.5mm thick plate of similar material to the parent material. Patch repair plates shall conform to shapes and the specifications in API 653. The areas for patch repairs shall be marked by the API 653 Inspector before the site hand over.

14.10 The Contractor shall supply and carry out welded-on patch repair on the annular ring plates at defect areas using 6.5mm thick plate of similar material to the parent material. Patch repair plates shall conform to shapes and the specifications in API 653. *The areas for patch repairs shall be marked by the API 653 Inspector before the site hand over.*

14.11 The Contractor shall fill-weld the pitted locations on the bottom/annular Plates as marked on site and grind flush all welds and perform MPI or dye penetrant test on the welds. For extensively corroded areas beyond patch repair, the Engineer shall issue instructions for replacement of the plates. The plate thickness shall meet the recommendation of API 650.

14.12 For corrosion wear on the welded lap joints, linear welding shall be carried out to strengthen the welds.

14.13 All the corroded striker plates for the roof supports shall be replaced. The plates to be replaced shall be marked out by the NDT inspector. (provisional)

14.14 The Contractor shall supply equipment and vacuum-test to 5 psi all tank bottom plate welds for leaks and undertake repairs as necessary. The Contractor shall test the shell to bottom plate joints by DPT/ Diesel test. All tools and consumables shall be supplied by the Contractor. Butt weld joints that are found having corrosion attacks shall also be strengthened. (provisional)

14.15 The Contractor shall clean thoroughly by wire brush or otherwise, any identified weld faults or cracks, grind out the welds and re-weld using E-6013 welding electrodes. The repaired sections shall be re-tested as above. These tests shall be witnessed by the Employer's representative.

14.16 Welding of shell to bottom corner weld shall be done using low hydrogen electrode.

14.17 All leaking welds of the newly installed plates shall be repaired at Contractors cost.

14.18 The Contractor shall jack up the tank to carry out replacement of annular ring plates if so advised by the Engineer.

15. Specification for Repair of Tank Shell

15.1 The Contractor shall fill the pitted sections of the tank shell plates as marked on site. Payments shall be made as per the actual area of steel surface filled with weld.

15.2 For shell plate corrosion pits above the minimum allowable thickness as per the recommended standards or 50%; the Engineer shall give instructions to repair either by double butt welding or by insert repair method as per the applicable standards.

15.3 For insert repair method, adjacent plates shall be reinforced to minimize the buckling of the tank shell during cutting and welding and repair procedure should conform to applicable standards.

15.4 Inspection of welds for insert repairs shall conform to applicable standards.

15.5 The Contractor shall construct handrail round the top winder girder.

16. Specification for Tank Hydrostatic Testing

16.1 The Contractor shall submit to the Engineer the procedure to carry out the hydrostatic testing of the tank.

16.2 The Contractor shall also take tank settlement readings as recommended the API 653 and EEMUA No. 159 standards.

16.3 Applicable codes and standards shall be the latest edition of the following standards:

a) API Std 650 Section 5.3 - Welded Steel Tanks for Oil Storage
b) API 653 Section 12 and Appendix B - Tank Inspection, Repair, Alteration and Reconstruction

16.4 Test Medium

16.4.1 The test medium for hydrotest shall be ordinary (Domestic) water (free of chlorine, etc.) as supplied by the local water distribution system.

16.5 Tank Preparations

16.5.1 The tank shall be internally cleared of all debris, repair material residue and other deleterious matter prior to the hydrostatic test.

16.5.2 All welding on the tank shell, installation of the Aluminium dome roof and the internal floating deck shall be completed before the hydrostatic test can begin.

16.5.3 Prior to commencing with the test the Contractor shall provide written confirmation that the works and the inspections thereof have been completed with satisfactory results and that the tank is ready for hydrostatic testing.

16.6 Test Equipment and Materials

16.6.1 The Contractor shall supply all the necessary test equipment and materials. Generally, the following will be required:

a) Pressure Gauges;
b) Man-way gaskets;
c) Water pump;
d) Flow meter;
e) Temporary steel piping for filling and emptying the tank;
f) Valves
g) Pressure test reports;
h) Measuring rod or steel tape of sufficient measuring depth to reach bottom of tank;
i) Thermometer to measure air temperature;
j) Thermometer to measure water temperature;

16.7 Supply of Water for Hydrotest

16.7.1 The Employer shall provide water for the hydrotest.

16.7.2 The Contractor shall submit to the Engineer a Hydrotest Permit Request at least 4 weeks before the scheduled date. As an annexure to the request, the contractor shall submit detailed procedure for conducting the hydro test and shall include the following:

a) Temporary piping layout and route from the identified source of the water to the tank for filling in and from the tank to the discharge point.
b) Safety plan for the hydrotest that shall include environmental protection measures.
c) Contingency Plans to minimize the effects of a leak during testing to deal with component failure, contain and recover the test medium or any other leaks or spills.

16.8 Tank Filling, Monitoring and Empting during Hydrotest

16.8.1 The maximum tank fill rate shall be:

a) The maximum tank fill rate specified for the tank, or
b) A rate that allows for adequate inspection time and uniform loading during the filling process.

16.8.2 At regular intervals during tank filling the Contractor shall:

a) Check that the internal floating deck is rising freely and not binding on guide/gauge poles etc.
b) Check that seal is moving smoothly and distance between roof and tank shell is consistent and within tolerances.
c) Check for signs of leaks in the internal floating deck.
d) Visually inspect exterior of tank and appurtenances for signs of leaks.
e) Confirm that the fill rate does not exceed the rate specified.

16.8.3 The Contractor shall verify that the test height of water in the tank is the maximum design liquid level for the tank. The tank is to be filled up to the maximum design liquid level and held for a minimum of 24 hours.

16.8.4 The Contractor shall record time tank shall be full on the test report and begin the 24-hour test.

16.8.5 Monitoring of the tank shall be carried out jointly and all defects noted and documented for repair.

16.8.6 During the 24-hour test, the Contractor shall conduct the following checks every 4 hours and record the results on the test report.

a) Inspect internal floating deck for leaks.
b) Check the tank shell, nozzles and blinds for leaks.
c) Visually check the tank foundation for signs of unusual settlement

16.8.7 At regular intervals during tank empting the Contractor shall:

a) Check that internal floating deck is dropping freely and not binding on guide/gauge poles etc.
b) Check that seal is moving smoothly and distance between roof and tank shell is consistent and within tolerances.
c) Confirm that the discharge rate does not exceed the rate specified.

16.9 Standards of Acceptability of Hydrotest

16.9.1 Tank shell shall exhibit no leaks and shall remain within the dimensional tolerances of API Std 650.

16.9.2 The internal floating deck shall be dry at the time of inspection during the hydrotest and exhibit no leaks.

16.10 Records

16.10.1 The following documents shall be compiled/created throughout the tank hydrostatic test procedure.

a) Tank drawings that must, as a minimum, identify:
   i. Where the tank was isolated or blind flanged
   ii. Location of fill and drain nozzles;
   iii. Types, grades, sizes and rating of fittings and valves attached to tank;
   iv. Maximum design liquid level;
b) Copy of the Procedures certifying that the necessary steps have been completed;
c) Copy of the Above Ground Tank Hydrostatic Test Report;
d) Copy of the Hydrotest Permit Request form;
e) Written description of any other issues associated with the tank hydrostatic test and any corrective actions taken.

16.11 Activities upon completion of Hydrotest

16.11.1 Upon completion of the hydrotest, the contractor shall

a) Open up the tank shell man-way to allow entry into the tank.
b) Removal all the residual water in the tank and completely dry the tank.
c) Conduct a joint inspection of the tank with the Engineer for acceptability of the result of the hydro-test.
d) Remove all the temporary piping that was installed for the hydro-test.
e) Carry out carry out the necessary repair on the internal floating deck if need be in accordance with the manufacturer's recommendations.
f) Blind all the tank shell man-ways and nozzles using new gasket materials.

17. Tank Calibration

17.1 On completion of hydro test and cleaning of the tank, Contractor shall allow Employer appointed inspection agency to carry out calibration of the tank prior to commissioning.

18. Specification for Painting System for External Tank Shell and Appurtenances

18.1 Applicable codes and standards shall be

a) B.S. 5493 – code of practice for protective coating of iron and steel structures against corrosion
b) B.S. 7079 – preparation of steel substrates before application of paints and related products
c) SIS. 05-59-00 – preparation of steel substrates before application of paints and related products – visual assessment of surface cleanliness.
d) Sa $2^1/_2$ (ISO8501-1: 2007)

18.2 Requirement for paints and coatings

18.2.1 All paints and coatings shall be approved by the Engineer and shall be procured from the same manufacturer.

18.2.2 The paints and coating shall not have exceeded their shelf life at the time of delivery neither shall they have deteriorated.

18.2.3 The Contractor shall store these products as per the manufacturer's recommendations.

18.2.4 All paints and coatings containers shall be clearly labeled giving the following information;

a) Coating name
b) Coating description
c) Product name and identification code
d) Mixing instruction
e) Batch identification code
f) Batch manufacture date
g) Manufacturer's name
h) Supplier's name (if different)
i) Basic information and instructions:
   - Flammability
   - Ventilation/breathing equipment
   - Skin contact
   - Spillage
   - Fire
j) Clear reference to additional information sheet such as;
   - Coating data sheet
   - Application instruction sheet
   - Health and safety sheet

18.2.5 Each delivery of paint product must be accompanied by two complete sets of all relevant manufacturer's data sheets, application sheets and health and safety sheets.

18.3 Surface preparation

18.3.1 The entire tank shell surface shall be inspected for defects before starting any surface preparations. Some of the defects to be inspected for shall include but not limited to corrosion damage, surface laminations, mill scale, weld spatters, porous welds, arc strikes, weld undercuts and any surface irregularity that is likely to hinder correct surface preparation or the application of a satisfactory coating.

18.3.2 All surface contaminants such as mud, welding residues, hydrocarbons, salts etc. shall be removed by suitable method as provided for in BS 7079 prior to surface preparation.

18.3.3 The external shell surface and appurtenances shall then be cleaned by use of grit blasting (abrasive blast cleaning).

18.3.4 The grit for cleaning shall be clean, dry and of the correct particle size (working mix between G24 to G50 grit) to produce the profile specified for the coating to be applied and shall not leave any residue embedded in the profile of the blast cleaned surface. Expendable abrasive used for blasting shall be free of contaminants such as chlorides and other soluble salts and shall not contain metallic copper and they shall not be recycled. *Sand shall not be used for blast cleaning*.

18.3.5 The compressed air used for blasting cleaning shall be free of oil and condensed water and shall be supplied at a pressure of 7bars at each blast nozzle.

18.3.6 The Contractor shall also take measures to ensure that grit does not fly off the tank to the adjacent tanks and plant area while grit blasting. This shall be ensured by completely covering the areas being blasted with dust-proof material, erected approximately 2metres away from the tank shell, all around the tank and at a safe distance from the areas being blasted. Absolute care must be taken to avoid dust settling on the adjacent tanks.

18.3.7 All prepared surface shall be primed within four hours of the start of the surface preparation.

18.4 Preparation of coating (paints) materials

18.4.1 All coating materials shall be prepared in strict accordance with the manufacturer instruction.

18.5 Application of coating

18.5.1 Coating application shall be in accordance with the paint manufacturer's data sheet.

18.5.2 Coating shall be generally applied by airless or air atomizing spray as appropriate. Brushes may be used for touch-in repairs, stripe coating and the coating of small diameter pipework.

18.5.3 Coating shall be applied in a uniform layer, with each pass of the spray pattern overlapping by 50% onto the previous pass. The spray pattern shall be such that the coating is deposited in a solid, uniform, wet film, free of runs, sags, misses, dry spray, pores and bubbles.

18.5.4 Spray nozzles shall be of the correct size for the coating being applied in accordance with the manufacturer's recommendations. Variable spray tips shall not be used.

18.5.5 Unless specified by the manufacturer's data sheets, coating shall not be applied when the ambient humidity of air exceeds 85% of to surface temperature below 10°C and above 40°C.

18.5.6 Subsequent coating (over-coating) delay times both minimum and maximum shall be in accordance with the manufacturer recommendations. A new coating shall not be applied to previously coated surfaces unless the preceding coat has sufficiently dried.

18.6 Painting system

18.6.1 The abrasive cleaned tank shell surfaces shall have a three (3) coat system as detailed below:

i. 1st Coat – Zinc Chromate Primer - 50 microns (DFT)
ii. 2nd Coat – Jotamastic 90 - 150 microns (DFT)
iii. 3rd Coat – Aluminium Hardtop XP - 60 microns (DFT)

Note: the Aluminium paint shall be of heat resisting finish.

18.6.2 Also the abrasive cleaned foam and fire water deluge pipe surfaces shall have three (3) coat system as detailed below:

a) Foam system above ground piping

i. 1st Coat – Inorganic Zinc Silicate Primer - 80 microns (DFT)
ii. 2nd Coat – polyamide cured Hi –build epoxy - 50 microns (DFT)
iii. 3rd Coat – Cream Colour high gloss Coating - 50 microns (DFT)

b) Deluge system above ground piping

i. 1st Coat – Inorganic Zinc Silicate Primer - 80 microns (DFT)
ii. 2nd Coat – polyamide cured Hi –build epoxy - 50 microns (DFT)
iii. 3rd Coat – Fire Red Colour high gloss Coating - 50 microns (DFT

18.7 Tank Labeling

18.7.1 On completion of painting works, markings of tank number, inlet outlet pipelines, roof drain, water drain and painted valves shall be printed on the tank using correct font and number sizing via a template. On the minimum, markings including details below shall be printed next to the original nameplate as per the standards:

TANK NO.	:	11-TK-201
YEAR OF RE-CONSTRUCTION	:	1986
NORMAL HEIGHT	:	17.1 m
DATE OF LAST CLEANING	:	(To be provided)
PRODUCT	:	PMS
NET CAPACITY	:	(To be provided)
DEAD STOCK	:	(To be provided)
DATE OF LAST INSPECTION	:	(To be provided)
DATE OF LAST CALIBRATION	:	(To be provided)
DATE OF NEXT CLEANING	:	(To be provided)

18.7.2 KPC Logo

The Contractor shall paint KPC logo on the tank shell in the same location as the existing one.

18.8 Completion of the tank grit blasting and painting works

18.8.1 Upon completing the grit blasting and painting works to the satisfaction of the Engineer, the contractor shall demobilize from the site leaving the place clean and free of any structure or facility constructed for the above said purposes.

18.9 Internal painting

18.9.1 The Contractor shall grit blast the entire internal tank bottom and the first shell course.

18.9.2 Using an epoxy paint system as described in section (clause) 22, shall apply two paint coats on the tank floor and first shell course.

19. Specification for Tank Commissioning

19.1 On satisfactory completion of inspection works, the contractor shall reinstall all the tank fixtures, valves, drain lines and box up the tank for commissioning. All necessary materials, gaskets, bolts/nuts shall be supplied by the contractor. However, the suitability of the materials shall be subject to the Engineer's approval.

19.2 Reinstallation shall include cutting of gaskets, cleaning of all fasteners and cleaning of the tank and thereafter confirming vide a checklist the correctness and operation status of the installations.

19.3 The site shall also be cleaned of all waste and disposed-off to site as directed by the site supervisor.

19.4 The Contractor and the Employer shall agree on the procedures for oil-in based on the operation schedules. On completion of the oil in exercise, the tank shall be under a joint observation for a period of 48 hours before the tank is handed over for operation use.

19.5 Handover of the tank shall be deemed to have taken place on job close-out and handover and signing of all the work permits.

19.6 On completion of all the works on the tank, the Contractor shall compile and submit a bound QA/QC package in three (3) hard copies and a soft copy in a CD-R or flash disc. The QA/QC package shall contain records of all the procedures, test data, Inspection reports, and modification maintenance drawings containing changes carried out on the tank during the entire contract period.

20. Specification for Factory visit and training of KPC Engineers

20.1 Introduction

During the dome design and manufacturing of components a factory visit shall be carried out at the manufacturer's production facility by KPC Engineers and the Contractor's representative. The scope of visit shall entail

20.2 Design Office Visit

The Contractor shall afford KPC Engineers opportunity at the design office to familiarize with the various aspects of the design of Aluminium dome roofs. Key areas to be covered shall include familiarization with working of the design software, site construction and erection methods and maintenance and operation of the Aluminium dome roofs.

20.3 Production(Manufacturing) Facility Visit

The Contractor shall facilitate a visit to the production plant where the Aluminium dome roofs will be manufactured. This visit will include testing of materials and components of the Aluminium dome roofs such as laboratory material testing.

21. Specification for As-Built Drawings

The Contractor shall prepare detailed as-built drawings for the tank that shall capture the repair done on the tank floor and shell, newly installed firefighting system and Aluminium dome roof & internal floating roof.

22. Specifications for external and internal painting for 11-TK-201

Item	Area	Surface Preparation	Surface Preparation and Paint System			Remarks
			1st coat	2nd Coat	Top Coat	
1.	**Tank internals** -Entire tank internal (Tank bottom, 1st shell course, manholes, guide pole, MRT, dip hatch, water drains piping, Nozzles & sumps).	**Cleanliness:** Grit blast all steel surfaces to Sa $2^1/_2$ (ISO8501-1 2007) roughness and clean surfaces to remove grit & dust **Roughness:** Using abrasives suitable to achieve grade Fine to Medium G (30-85microns) (ISO 8503-2)	Free Epoxy with minimum 50% volume solids High Build Epoxy or phenolic: (specify colour) DFT min 85 microns Max 150 microns Microns (Wet-250 microns)	N/A	Free Epoxy with minimum 50% volume solids Specify Colour (but different from 1st Coat) DFT min 125 microns Max 150 Microns (Wet-250 microns)	• 16hrs Spread interval, • Min temp. 23 deg. • Theoretical spreading rate 5m2 /L
2.	**Tank external** (Tank shell, roof top, foam dam, manholes, covers, wind girders, foam pourers (outside) and Shell nozzles)	**Cleanliness:** Grit blast all steel surfaces to Sa $2^1/_2$ (ISO8501-1 2007) roughness and clean surfaces to remove grit & dust **Roughness:** Using abrasives suitable to achieve grade Fine to Medium G (30-85microns) (ISO 8503-2)	Epoxy Zinc Phosphate primer (Specify colour) DFT min 38 Microns DFT max. 60 microns (Wet 95 microns)	Jotamastic 90 DFT min 150 Microns	Aluminium hardtop XP DFT min 60 Microns	**First Coat** • Interval 12hrs • Theoretical spreading 10.6m²/L **Second Coat** • Interval 5hrs • Theoretical spreading 5.8m²/L **Third Coat** • Interval 5hrs • Theoretical spreading 12.5m2/L

23. Commissioning

(a) On satisfactory completion of inspection works, the contractor shall reinstall all the tank fixtures, valves, drain lines and box up the tank for commissioning. All necessary materials, gaskets, bolts/nuts shall be supplied by the contractor. However, the suitability of the materials shall be subject to the Engineer's approval.

(b) Reinstallation shall include cutting of gaskets, cleaning of all fasteners and cleaning of the tank and thereafter confirming vide a checklist the correctness and operation status of the installations.

(c) The site shall also be cleaned of all waste and disposed-off to site as directed by the site supervisor.

(d) The Contractor and the Employer shall agree on the procedures for oil-in based on the operation schedules. On completion of the oil in exercise, the tank shall be under a joint observation for a period of 48 hours before the tank is handed over for operation use.

(e) Handover of the tank shall be deemed to have taken place on job close-out and handover and signing of all the work permits.

(f) On completion of all the works on the tank, the Contractor shall compile and submit a bound QA/QC package in three (3) hard copies and a soft copy in a CD-R or flash disc. The QA/QC package shall contain records of all the procedures, test data, Inspection reports, and modification maintenance drawings containing changes carried out on the tank during the entire rehabilitation.

24. Cleanliness of the Site

The Contractor shall keep the work site in a clean and orderly state at all times. The Employer shall only certify Contractor's final invoice when the site is clean to the satisfaction of the Company's representative, with all temporary facilities removed.

25. Stoppage of work

The Contractor may be asked to withhold or postpone work by the Employer's representative as may from time to time be necessary for operational reasons and the Contractor shall comply with such request(s) at no additional cost to the Employer.

The Employer reserves the right to halt the works where the actions of the Contractor or their equipment are judged to be unsafe. Such cessation of work shall be at no cost to the Employer and will not be a cause for extension of the contract duration.

26. Quality Assurance and Quality Control

The Contractor shall submit a quality assurance plan before commencement of the works, and during the course of the work, shall maintain records of Quality Control Checks.

a. The Contractor shall submit Welding Procedure and Qualification Records

for review and approval by the Employer.

b. All welders to be involved in the tank rehabilitation works shall undergo a welding qualification procedure tests that will be approved by the employer
c. The Contractor shall ensure electrodes are stored, conditioned and used in accordance with the manufacturer's recommendations.
d. Upon completion of all works, the Contractor shall submit the final QA/QC document for the works which will include all original copies of WPS, NDT, Welders Qualification records, reports of NDT performed, Paint Procedure/Paint Map, Inspection Report and tank settlement level reports.
e. The Contractor shall develop and present to the Employer for approval the dismantling and erection procedure for bottom plates and shell inserts.

27. Reporting

(a) Contractor shall provide daily and monthly reports of progress, man-hours expended, safety related contractual issues, NCR's, manpower and equipment.
(b) Monthly reports shall contain all the above including overall percentage completion, time elapsed and their effect to earlier agreed program (lagging or leading).
(c) Contractor shall notify Employer within 5 days of any event, which they believe, has a cost or schedule impact.
(d) Contract progress meetings shall be held on monthly basis to review progression and address any issues.

28. Tools and Equipment

The Contractor shall ensure that all his equipment and tools are in safe/good working condition. For lifting equipment, the Contractor shall ensure that they have valid certification for the entire period of the works.

Evidence of validity will be required and be sighted by the Employer's HSE officer for all lifting equipment, slings, wire ropes, Shackles, Tirfors, Chain-blocks etc.

For man hoists/baskets, the Contractor must ensure optimal maintenance and recertification in accordance with the manufacturer's recommendations.

Failure by Contractor to meet the manufacturer's maintenance requirements and certification will lead to disqualification of the equipment from the site at the Contractor's cost. The Engineer must sight physical evidence of these requirements. In addition to above, the Contractor shall be required to check his equipment and tools on a daily basis and enter the condition and actions required on the checklist forms (reports) currently in use.