

Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	12-07-2024 10:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	12-07-2024 10:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	90 (Days)
Ministry/State Name/मंत्रालय/राज्य का नाम	Ministry Of Mines
Department Name/विभाग का नाम	Materials
Organisation Name/संगठन का नाम	National Aluminium Company Limited, Bhubaneswar
Office Name/कार्यालय का नाम	Alumina Refinery Nalco Damanjodi
Total Quantity/कुल मात्रा	8
Item Category/मद केटेगरी	Vertical Centrifugal Single Stage Blow Down Pump_10103099246_1_3000009909 , Vertical Single Screw Drain Oil Pump_32202001090_2_3000009909 , Vertical Single Screw Oil Water Mixture Transfer Pump_32202001100_3_3000009909 , Vertical Single Screw Recovery Oil Transfer Pump_32202001110_4_3000009909
MSE Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से एमएसई छूट	No
Startup Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से स्टार्टअप छूट	No
Document required from seller/विक्रेता से मांगे गए दस्तावेज़	Experience Criteria,Certificate (Requested in ATC),OEM Authorization Certificate,Compliance of BoQ specification and supporting document *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	Yes
RA Qualification Rule	H1-Highest Priced Bid Elimination
Type of Bid/बिड का प्रकार	Two Packet Bid
Primary product category	Vertical Centrifugal Single Stage Blow Down Pump_10103099246_1_3000009909
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	3 Days

Bid Details/बिड विवरण	
Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
Evaluation Method/मूल्यांकन पद्धति	Item wise evaluation/

EMD Detail/ईएमडी विवरण

Required/आवश्यकता	No
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ePBG Detail/ईपीबीजी विवरण

Required/आवश्यकता	No
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Splitting/विभाजन

Bid splitting not applied/बोली विभाजन लागू नहीं किया गया.

MII Purchase Preference/एमआईआई खरीद वरीयता

MII Purchase Preference/एमआईआई खरीद वरीयता	Yes
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MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता	Yes
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1. Preference to Make In India products (For bids < 200 Crore): Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate .The buyers are advised to refer the OM No.F.1/4/2021-PPD dated 18.05.2023.

[OM No.1_4_2021_PPD_dated_18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

2. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and

its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 100% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.

3. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.

4. Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:

- i. If number of technically qualified bidders are only 2 or 3.
- ii. If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
- iii. In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
- iv. If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1
- v. If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1

Evaluation Method (Item Wise Evaluation Method)

Contract will be awarded schedulewise and the determination of L1 will be done separately for each schedule. The details of item-consignee combination covered under each schedule are as under:

Evaluation Schedules	Item/Category	Quantity
Schedule 1	Vertical Centrifugal Single Stage Blow Down Pump_ 10103099246_ 1_ 3000009909	2
Schedule 2	Vertical Single Screw Drain Oil Pump_ 32202001090_ 2_ 3000009909	2
Schedule 3	Vertical Single Screw Oil Water Mixture Transfer Pump_ 32202001100_ 3_ 3000009909	2
Schedule 4	Vertical Single Screw Recovery Oil Transfer Pump_ 32202001110_ 4_ 3000009909	2

Vertical Centrifugal Single Stage Blow Down Pump_ 10103099246_ 1_ 3000009909 (2 pieces)

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अहंता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	Download
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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Arbind Kumar Singh	763008, Alumina Refinery Nalco, Damanjodi	2	90

Vertical Single Screw Drain Oil Pump_ 32202001090_ 2_ 3000009909 (2 pieces)

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Arbind Kumar Singh	763008, Alumina Refinery Nalco, Damanjodi	2	90

Vertical Single Screw Oil Water Mixture Transfer Pump_ 32202001100_ 3_ 3000009909 (2 pieces)

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	Download
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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Arbind Kumar Singh	763008, Alumina Refinery Nalco, Damanjodi	2	90

Vertical Single Screw Recovery Oil Transfer Pump_ 32202001110_ 4_ 3000009909 (2 pieces)

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	Download
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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Arbind Kumar Singh	763008, Alumina Refinery Nalco, Damanjodi	2	90

Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें

1. Scope of Supply

Scope of supply (Bid price to include all cost components) : Only supply of Goods

2. **Certificates**

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

3. **Generic**

Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.

4. **Generic**

While generating invoice in GeM portal, the seller must upload scanned copy of GST invoice and the screenshot of GST portal confirming payment of GST.

5. **Generic**

Manufacturer Authorization:Wherever Authorised Distributors/service providers are submitting the bid, Authorisation Form /Certificate with OEM/Original Service Provider details such as name, designation, address, e-mail Id and Phone No. required to be furnished along with the bid

6. **Buyer Added Bid Specific ATC**

Buyer Added text based ATC clauses

1) Bidder shall submit point wise confirmation of specification as well as special conditions along with the offer.

2) Prices on gem are inclusive of all cost component i.e. GST, freight, P&F, insurance etc. Any other condition mentioned anywhere in the attachment shall be ignored. Note- **Prices to be offered as per the UOM given in the BOQ/tender documents.**

3) Vendor should submit bid only if tender additional terms & conditions and GEM general terms & conditions are acceptable. Any commercial term mentioned as an attachment shall be ignored.

4) TDS under section 194Q:

a) Finance Act 2021 has brought amendments in existing TDS/TCS Sections and has introduced new Sections 194Q (Deduction of tax at Source on payment of certain sum for purchase of goods) and 206AB (Special provision for deduction of tax at source for non-filers of income-tax return) among others. The above Sections would be effective from 01st July, 2021.

b) NALCO, being Buyer (under Section 194Q inserted in the Income Tax Act, 1961 vide Finance Act 2021) having total sales, gross receipts, or turnover from business above Rupees Ten Crores during the last Financial Year, will deduct TDS under Section 194Q, w.e.f. 01.07.2021, at the prescribed rate of 0.1% on the purchase value of any goods, aggregate of which is exceeding the threshold limit of Rs.50 Lakhs in a Financial year.

c) Accordingly, Vendors/Sellers are not to collect tax at source under section 206C(1H) of the Act w.e.f. 01.07.2021, in case provisions of section are applicable to them.

d) The above is as per the current statute and is subject to modification(s) based on amendments/ notifications under Income Tax Act, 1961, from time to time. Income Tax TDS, as applicable at the prevailing rate on the gross amount billed shall be deducted from the contractor's bills.

e) Vendor/Party categorised/designated as "specified person" under Section 206AB of Income Tax Act, 1961 shall be liable for TDS at higher rate as provided under the said section, by NALCO. So, Vendors/Contractors are advised to submit self-certified copies of Income Tax return (ITR) for each of the Two Previous Years for which due date for filing of **ITR** has expired, along with the Invoice/Bill so as to facilitate NALCO, verify the applicability of Section 206AB.

5) NALCO's Vision, Mission, Core Values, Social accountability policy, Environment policy, OHS policy & En

ergy policy are given in the attached file for the knowledge of the suppliers for having a better understanding of NALCO company.

6) NALCO is a SA8000 certified company and all bidders interested to supply material to NALCO should be committed to social accountability. Hence, please submit the completely filled SA8000 questionnaire provided with the tender (without any alteration to the format) along with the offer. SA8000 certified companies can submit their certification. Non-compliance to the requirements of SA8000 may lead to rejection of the offer.

7) Payment term: 100% Payment within 10 days shall be released to the party after Receipt, Inspection and Acceptance of material by Engineer In-charge at Site.

Note: Payment of GST is subject to the reflection of invoice in GSTR-2A/Anx-2 (GST New Return) of NALCO.

8) CPBG: The supplier shall furnish a Contract-Cum-Performance-Bank Guarantee (CPBG) in NALCO's prescribed format (as attached) from any bank as approved by NALCO (as per attached annexure) for 5% (five percent) of the order value including amendment (if any), which shall remain valid up to warranty period + claim period of three months. The seller/ supplier shall furnish the CPBG along with the despatch documents. If the vendor fails to submit CPBG, the equivalent amount shall be recovered from the invoice of the vendor.

Subject to any deduction which NALCO is authorized to make, CPBG shall be released after satisfactory execution of the contract as mentioned above. On the breach of the contract by the supplier, CPBG/PBG shall be forfeited/ encashed whether or not the company has suffered a loss on this account and Purchase Order shall be rescinded. Forfeiture/ encashment of CPBG does not prejudice NALCO's rights to make risk and cost purchases and recover damages on account of such risk and cost purchases.

9) In case of order placement, vendor shall comply to **EHS (Environment Health & Safety) GUIDELINES TO SUPPLIERS** provided with the tender.

10) DELIVERY AND PRICE REDUCTION SCHEDULE / LIQUIDATED DAMAGES: Delivery period is the essence of the contract and the materials should be delivered within this time, failing which, NALCO without prejudice to its rights under the contract shall have the option either to reduce the price @ 1/2% of order value per week or part thereof subject to a maximum of 5% of the undelivered portion/the order value (if the item(s) cannot be used unless full supply is made) or to cancel the Order and purchase the materials from alternative source at the risk and cost of the supplier.

11) No communication shall be entertained outside GeM regarding the subject tender. Representation, if any, for clarification against this tender may be raised on GeM only.

12) Bidder must submit the attached declaration for Implementation of integrity for consideration of their offer for evaluation.

13) Bank Mandate form is attached in buyer added document. Bidder(s) 'not registered' with NALCO needs to submit the 'Bank Mandate' form along with the offer.

7. Buyer Added Bid Specific ATC

Buyer uploaded ATC document [Click here to view the file.](#)

Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

[This Bid is also governed by the General Terms and Conditions/ यह बिड सामान्य शर्तों के अंतर्गत भी शासित है](#)

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्यवाई का आधार होगा।

---Thank You/धन्यवाद---

Sub.- Technical Specification and Requirements

Item No. -1

Material Code- 10103099246

Material specification:-

Blow down Pumps - Vertical Centrifugal single stage - 15 Cu.m/hr with Electrics and associated instrumentation work. (SHORT TEXT OF THIS ITEM NOT TO BE INCLUDED IN THE TENDER)

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature of blow down water	°C	100
2	Density of water	Kg/cu.m	958
3	Normal blow down water flow	Cu.m/hr	9
4	Maximum blowdown water flow	Cu.m/hr	12
5	design margin on flow	%	10
6	Required capacity of each pump	Cu.m/hr	13.2
7	Capacity of each blow down pump with margin	Cu.m/hr	13.78
8	Selected capacity of pump	Cu.m/hr	15
9	Pump pressure	kg/cm ²	7

(REFER ANNEXURE-6 FOR TECHNICAL SPECIFICATIONS ALONG WITH ELECTRICALS AND INSTRUMENTATION DETAILS)

SPECIAL INSTRUCTIONS:

1. DELIVERY OF MATERIAL: The item (s) shall be delivered within three months of the P.O. This has to be declared by the party.
2. TECHNICAL DOCUMENTS : Party shall submit relevant Technical Documents/ Material Test Certificates along with the Item for Inspection purpose .
3. INSPECTION AND ACCEPTANCE OF SUPPLIED MATERIAL: The supplied material will be inspected by Engineer In-charge (EIC) upon receipt at site against the Technical Documents/Material Test Certificates provided by the vendor before it is accepted. Manufacturer name, part name etc. shall be marked/engraved on the supplied equipment for co-relation with the corresponding Technical Document.
4. REJECTION OF SUPPLIED MATERIAL (if any): Any Deviation from Technical Specifications shall lead to rejection of the supplied materials.
5. WARRANTY: The party is required to submit Warranty certificate for a period of 12 months from the date of Commissioning or 18 months from the date of dispatch whichever is earlier.

6. PAYMENT TERMS: 100% Payment within 10 days shall be released to the party after Receipt, Inspection and Acceptance of material by Engineer In-charge at Site.

7. CPBG: Party shall submit a CPBG for 5% value of PO which shall be valid for the Warranty Period+ 3 months claim period. PBG shall be sent along with dispatch documents while claiming payment.

8. PQC:

Experience of having successfully supplied similar equipment/items during the last ten years ending last day of the month previous to the one in which applications are invited should be either of the following

a) Three similar completed works each costing not less than the amount equal Rs 10,32,150 of the estimate

(OR)

b) Two similar completed works each costing not less than the amount equal to Rs 12,90,188 of the estimate.

(OR)

c) One similar completed work costing not less than the amount equal to Rs 20,64,300 of the estimate.

9. Engineer In-charge for the said works will be M/s M N Dastur (Consultant and EIC for CGPP#6 Expansion Project)

1. BLOW DOWN TRANSFER PUMP PROCUREMENT DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature of blow down water	°C	100
2	Density of water	Kg/cu.m	958
3	Normal blow down water flow	Cu.m/hr	9
4	Maximum blowdown water flow	Cu.m/hr	12
5	design margin on flow	%	10
6	Required capacity of each pump	Cu.m/hr	13.2
7	Capacity of each blow down pump with margin	Cu.m/hr	13.78
8	Selected capacity of pump	Cu.m/hr	15
9	Pump pressure	kg/cm2	7

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Above blow down pit
	- Drive	Direct drive
	- Application	To transfer blowdown water from blowdown pit to ash water sump house
	- Installation	Vertical
	- Pump type	Centrifugal, vertical
	- Number of stages	Single stage
	- Design standard	As per manufacturer standard
2	Material of construction	Eqvt.to S-6 as per API-610
3	Accessories details	
	- Mechanical seal	As per manufacturer's standard
	- Type of coupling	Spacer type metaflex coupling
	- Bearings	As perManufacturer's recommendation
	- Lubrication	As perManufacturer's recommendation
4	Drive motor details	
	- Type of drive motor	Horizontal, Squirrel-cage Induction type
	- Design Standard	IS-325
	- Voltage	3 ph,415 V
	- RPM(Nominal)	3000 rpm

2. DRAIN OIL PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370



Pipework (cont'd)

3	Suction Pressure	Kg/ cm2	Submerged
4	Discharge Pressure	Kg/ cm2	4
5	Relief valve set pressure	Kg/ cm2	5
6	Selected capacity of pump	Cu.m/hr	10

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer drain oil from drain oil tank to Main oil tank
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	3.7 KW (Flame Proof)
	- Design Standard	API-676
	- Voltage	3 ph,415 V
	- RPM(Nomin al)	400 rpm



Pipework (cont'd)

3. RECOVERY OIL PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370
3	Suction Pressure	Kg/ cm2	Flooded
4	Discharge Pressure	Kg/ cm2	1.5
5	Relief valve set pressure	Kg/ cm2	2.5
6	Selected capacity of pump	Cu.m/hr	2

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer Recovered oil from Recovery oil tank to Drain oil tank
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	1.5 KW (Flame Proof)



Pipework (cont'd)

S.No	Description	Details
	- Design Standard	API-676
	- Voltage	3 ph, 415 V
	- RPM(Nominal)	300 rpm

4. OIL WATER MIXTURE TRANSFER PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370
3	Suction Pressure	Kg/ cm2	Submerged
4	Discharge Pressure	Kg/ cm2	1.5
5	Relief valve set pressure	Kg/ cm2	2.5
6	Selected capacity of pump	Cu.m/hr	2

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer oil water mixture from oil water mixture tank to oil water separator
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type



Pipework (cont'd)

S.No	Description	Details
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	2.2 KW (Flame Proof)
	- Design Standard	API-676
	- Voltage	3 ph, 415 V
	- RPM(Nominal)	300 rpm

- **Tenderer shall quote with all the Technical Specifications of the equipment on his offer.**
- **All items shall have requisite Technical Documents as required.**

DESCRIPTION: VERTICAL 1-SCREW AP676 PUMP 02 CUM/H MATERIAL CODE- 32202001100

	DESCRIPTION	OIL-WATER MIXTURE TRANSFER PUMP (Motor 2.2 KW Flameproof)	
		ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs	
2	Type of power source available (power fdr / motor fdr)	Power feeder	
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes	150 Mtrs
4	LCS require for motors (Yes/ No)	Yes	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes	
6	Local starter panel requirement for motor (Yes/ No)	Yes	One no
7	Availability of earth grid at motor location (Yes/ No)	Yes	
8	GI Earthing material (25x 4 mm flat)	Yes	50 Mtr
9	GI perforated cable tray (300 MM width)	Yes	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO	
11	Motor Temperature(T...) class	T5	
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'	
13	Gas group	Gas Gr. IIA / IIB, Zone I & II	
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C	Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 32202001100		VERTICAL 1-SCREW AP676 PUMP 02CUM/H
Oil Water Mixture Transfer Pump	Pressure Gauge	1	Oil Water Mixture Transfer Pump (working) delivery
	Pressure Gauge	1	Oil Water Mixture Transfer Pump (standby) delivery
	Pressure Switch (High)	1	Oil Water Mixture Transfer Pump (working) delivery
	Pressure Switch (High)	1	Oil Water Mixture Transfer Pump (standby) delivery
	Pressure Switch (High)	1	Common delivery header of Oil Water Mixture Transfer Pumps (Working+Standby)
	Level Switch (High)	1	Oil Water collection sump
	Level Indicator	1	Oil Water collection sump

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: VERTICAL 1-SCREW AP676 PUMP 02 CUM/H MATERIAL CODE-32202001110

	DESCRIPTION	RECOVERY OIL TRANSFER PUMP (Motor 1.5 KW Flameproof)
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes 150 Mtrs
4	LCS require for motors (Yes/ No)	Yes Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes
6	Local starter panel requirement for motor (Yes/ No)	Yes One no
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	Yes 50 Mtr
9	GI perforated cable tray (300 MM width)	Yes 150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	T5
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'
13	Gas group	Gas Gr. IIA / IIB, Zone I & II
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	Two nos 415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE-32202001110		VERTICAL 1-SCREW AP676 PUMP 02CUM/H
Recovery Oil Transfer Pump	Pressure Gauge	1	Recovery Oil Transfer Pump delivery
	Level Gauge	2	Recovery Oil Tank
	Level Switch (High)	1	Recovery Oil Tank

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: CENTRIFUG. 1-STAGE BLOWDOWN PUMP-15
CUM/H

MATERIAL CODE- 10103099246

	DESCRIPTION	BLOW DOWN PUMP	
			Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	200 Mtrs	
2	Type of power source available (power fdr / motor fdr)	Power feeder	
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes	200 Mtrs
4	LCS require for motors (Yes/ No)	Yes	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	No	
6	Local starter panel requirement for motor (Yes/ No)	Yes	One no
7	Availability of earth grid at motor location (Yes/ No)	Yes	
8	GI Earthing material (25x 4 mm flat)	Yes	50 Mtr
9	GI perforated cable tray (300 MM width)	Yes	200 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO	
11	Motor Temperature(T...) class	NA	
12	Motor Explosion protection class (Ex....)	NA	
13	Gas group	NA	
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C	Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 10103099246		DESCRIPTION: CENTRIFUG. 1-STAGE BLOWDOWN PUMP-15 CUM/H
Blow Down Pump	Pressure Gauge	1	Blow Down Pump (working) delivery
	Pressure Gauge	1	Blow Down Pump (standby) delivery
	Level Gauge	1	Blow Down Pit
	Level Switch (High)	1	Blow Down Pit
	Level Switch (Low)	1	Blow Down Pit
	Pressure Switch	1	Common delivery header of Blow Down Pumps (Working+Standby)

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: DRAIN OIL PUMP- VERTICAL SINGLE SCREW AS PER
API676-10 CUM/HR MATERIAL CODE- 32202001090

	DESCRIPTION	DRAIN OIL PUMP (Motor 3.7 KW Flameproof)
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	150 Mtrs
4	LCS require for motors (Yes/ No)	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes
6	Local starter panel requirement for motor (Yes/ No)	Yes
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	50 Mtr
9	GI perforated cable tray (300 MM width)	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	T5
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'
13	Gas group	Gas Gr. IIA / IIB, Zone I & II
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 32202001090		VERTICAL 1-SCREW AP676 PUMP 10 CUM/H
Drain Oil Pump	Pressure Gauge	1	Drain Oil Pump (working) delivery
	Pressure Gauge	1	Drain Oil Pump (standby) delivery
	Pressure Switch (Low)	1	Common delivery header of Drain Oil Pumps (Working+Standby)
	Level Gauge	1	Drain Oil Tank
	Level Switch (High)	1	Drain Oil Tank
	Level Indicator	1	Drain Oil Tank
	Level Switch (Low)	1	Drain Oil Tank
	Temperature Gauge	1	Drain Oil Tank

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

Sub.- Technical Specification and Requirements

Item No. -2

Material Code- 32202001090

Material specification:-

Drain Oil Pump - Vertical single screw as per API 676 - 10 Cum/hr with electrics and associated instrumentation work.

S.NO DESCRIPTION UNIT DESIGN CONDITION

- 1 Temperature °C 50 Deg C
- 2 Fluid viscosity CST 2 – 370
- 3 Suction Pressure Kg/ cm2 Submerged
- 4 Discharge Pressure Kg/ cm2 4
- 5 Relief valve set pressure Kg/ cm2 5
- 6 Selected capacity of pump Cu.m/hr 10

(REFER ANNEXURE-6 FOR TECHNICAL SPECIFICATIONS ALONG WITH ELECTRICALS AND INSTRUMENTATION DETAILS)

SPECIAL INSTRUCTIONS:

1. DELIVERY OF MATERIAL: The item (s) shall be delivered within three months of the P.O. This has to be declared by the party.
2. TECHNICAL DOCUMENTS : Party shall submit relevant Technical Documents/ Material Test Certificates along with the Item for Inspection purpose .
3. INSPECTION AND ACCEPTANCE OF SUPPLIED MATERIAL: The supplied material will be inspected by Engineer In-charge (EIC) upon receipt at site against the Technical Documents/Material Test Certificates provided by the vendor before it is accepted. Manufacturer name, part name etc. shall be marked/engraved on the supplied equipment for co-relation with the corresponding Technical Document.
4. REJECTION OF SUPPLIED MATERIAL (if any): Any Deviation from Technical Specifications shall lead to rejection of the supplied materials.
5. WARRANTY: The party is required to submit Warranty certificate for a period of 12 months from the date of Commissioning or 18 months from the date of dispatch whichever is earlier.
6. PAYMENT TERMS: 100% Payment within 10 days shall be released to the party after Receipt, Inspection and Acceptance of material by Engineer In-charge at Site.

7. CPBG: Party shall submit a CPBG for 5% value of PO which shall be valid for the Warranty Period+ 3 months claim period. PBG shall be sent along with dispatch documents while claiming payment.

8. PQC:

Experience of having successfully supplied similar equipment/items during the last ten years ending last day of the month previous to the one in which applications are invited should be either of the following

a) Three similar completed works each costing not less than the amount equal Rs 10,32,150 of the estimate

(OR)

b) Two similar completed works each costing not less than the amount equal to Rs 12,90,188 of the estimate.

(OR)

c) One similar completed work costing not less than the amount equal to Rs 20,64,300 of the estimate.

9. Engineer In-charge for the said works will be M/s M N Dastur (Consultant and EIC for CGPP#6 Expansion Project)

1. BLOW DOWN TRANSFER PUMP PROCUREMENT DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature of blow down water	°C	100
2	Density of water	Kg/cu.m	958
3	Normal blow down water flow	Cu.m/hr	9
4	Maximum blowdown water flow	Cu.m/hr	12
5	design margin on flow	%	10
6	Required capacity of each pump	Cu.m/hr	13.2
7	Capacity of each blow down pump with margin	Cu.m/hr	13.78
8	Selected capacity of pump	Cu.m/hr	15
9	Pump pressure	kg/cm2	7

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Above blow down pit
	- Drive	Direct drive
	- Application	To transfer blowdown water from blowdown pit to ash water sump house
	- Installation	Vertical
	- Pump type	Centrifugal, vertical
	- Number of stages	Single stage
	- Design standard	As per manufacturer standard
2	Material of construction	Eqvt.to S-6 as per API-610
3	Accessories details	
	- Mechanical seal	As per manufacturer's standard
	- Type of coupling	Spacer type metaflex coupling
	- Bearings	As perManufacturer's recommendation
	- Lubrication	As perManufacturer's recommendation
4	Drive motor details	
	- Type of drive motor	Horizontal, Squirrel-cage Induction type
	- Design Standard	IS-325
	- Voltage	3 ph,415 V
	- RPM(Nominal)	3000 rpm

2. DRAIN OIL PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370



Pipework (cont'd)

3	Suction Pressure	Kg/ cm2	Submerged
4	Discharge Pressure	Kg/ cm2	4
5	Relief valve set pressure	Kg/ cm2	5
6	Selected capacity of pump	Cu.m/hr	10

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer drain oil from drain oil tank to Main oil tank
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	3.7 KW (Flame Proof)
	- Design Standard	API-676
	- Voltage	3 ph,415 V
	- RPM(Nomin al)	400 rpm



Pipework (cont'd)

3. RECOVERY OIL PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370
3	Suction Pressure	Kg/ cm2	Flooded
4	Discharge Pressure	Kg/ cm2	1.5
5	Relief valve set pressure	Kg/ cm2	2.5
6	Selected capacity of pump	Cu.m/hr	2

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer Recovered oil from Recovery oil tank to Drain oil tank
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	1.5 KW (Flame Proof)



Pipework (cont'd)

S.No	Description	Details
	- Design Standard	API-676
	- Voltage	3 ph, 415 V
	- RPM(Nominal)	300 rpm

4. OIL WATER MIXTURE TRANSFER PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370
3	Suction Pressure	Kg/ cm ²	Submerged
4	Discharge Pressure	Kg/ cm ²	1.5
5	Relief valve set pressure	Kg/ cm ²	2.5
6	Selected capacity of pump	Cu.m/hr	2

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer oil water mixture from oil water mixture tank to oil water separator
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type



Pipework (cont'd)

S.No	Description	Details
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	2.2 KW (Flame Proof)
	- Design Standard	API-676
	- Voltage	3 ph, 415 V
	- RPM(Nominal)	300 rpm

- **Tenderer shall quote with all the Technical Specifications of the equipment on his offer.**
- **All items shall have requisite Technical Documents as required.**

DESCRIPTION: VERTICAL 1-SCREW AP676 PUMP 02 CUM/H MATERIAL CODE- 32202001100

	DESCRIPTION	OIL-WATER MIXTURE TRANSFER PUMP (Motor 2.2 KW Flameproof)
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes 150 Mtrs
4	LCS require for motors (Yes/ No)	Yes Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes
6	Local starter panel requirement for motor (Yes/ No)	Yes One no
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	Yes 50 Mtr
9	GI perforated cable tray (300 MM width)	Yes 150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	T5
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'
13	Gas group	Gas Gr. IIA / IIB, Zone I & II
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 32202001100		VERTICAL 1-SCREW AP676 PUMP 02CUM/H
Oil Water Mixture Transfer Pump	Pressure Gauge	1	Oil Water Mixture Transfer Pump (working) delivery
	Pressure Gauge	1	Oil Water Mixture Transfer Pump (standby) delivery
	Pressure Switch (High)	1	Oil Water Mixture Transfer Pump (working) delivery
	Pressure Switch (High)	1	Oil Water Mixture Transfer Pump (standby) delivery
	Pressure Switch (High)	1	Common delivery header of Oil Water Mixture Transfer Pumps (Working+Standby)
	Level Switch (High)	1	Oil Water collection sump
	Level Indicator	1	Oil Water collection sump

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: VERTICAL 1-SCREW AP676 PUMP 02 CUM/H MATERIAL CODE-32202001110

	DESCRIPTION	RECOVERY OIL TRANSFER PUMP (Motor 1.5 KW Flameproof)
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	150 Mtrs
4	LCS require for motors (Yes/ No)	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes
6	Local starter panel requirement for motor (Yes/ No)	Yes
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	50 Mtr
9	GI perforated cable tray (300 MM width)	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	T5
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'
13	Gas group	Gas Gr. IIA / IIB, Zone I & II
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	Two nos 415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE-32202001110		VERTICAL 1-SCREW AP676 PUMP 02CUM/H
Recovery Oil Transfer Pump	Pressure Gauge	1	Recovery Oil Transfer Pump delivery
	Level Gauge	2	Recovery Oil Tank
	Level Switch (High)	1	Recovery Oil Tank

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: CENTRIFUG. 1-STAGE BLOWDOWN PUMP-15
CUM/H

MATERIAL CODE- 10103099246

	DESCRIPTION	BLOW DOWN PUMP
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	200 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes 200 Mtrs
4	LCS require for motors (Yes/ No)	Yes Two nos
5	Flame proof panel requirement for motor (Yes/ No)	No
6	Local starter panel requirement for motor (Yes/ No)	Yes One no
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	Yes 50 Mtr
9	GI perforated cable tray (300 MM width)	Yes 200 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	NA
12	Motor Explosion protection class (Ex....)	NA
13	Gas group	NA
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	Two nos 415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 10103099246		DESCRIPTION: CENTRIFUG. 1-STAGE BLOWDOWN PUMP-15 CUM/H
Blow Down Pump	Pressure Gauge	1	Blow Down Pump (working) delivery
	Pressure Gauge	1	Blow Down Pump (standby) delivery
	Level Gauge	1	Blow Down Pit
	Level Switch (High)	1	Blow Down Pit
	Level Switch (Low)	1	Blow Down Pit
	Pressure Switch	1	Common delivery header of Blow Down Pumps (Working+Standby)

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: DRAIN OIL PUMP- VERTICAL SINGLE SCREW AS PER
API676-10 CUM/HR

MATERIAL CODE- 32202001090

	DESCRIPTION	DRAIN OIL PUMP (Motor 3.7 KW Flameproof)
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	150 Mtrs
4	LCS require for motors (Yes/ No)	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes
6	Local starter panel requirement for motor (Yes/ No)	Yes
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	50 Mtr
9	GI perforated cable tray (300 MM width)	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	T5
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'
13	Gas group	Gas Gr. IIA / IIB, Zone I & II
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE-32202001090		VERTICAL 1-SCREW AP676 PUMP 10 CUM/H
Drain Oil Pump	Pressure Gauge	1	Drain Oil Pump (working) delivery
	Pressure Gauge	1	Drain Oil Pump (standby) delivery
	Pressure Switch (Low)	1	Common delivery header of Drain Oil Pumps (Working+Standby)
	Level Gauge	1	Drain Oil Tank
	Level Switch (High)	1	Drain Oil Tank
	Level Indicator	1	Drain Oil Tank
	Level Switch (Low)	1	Drain Oil Tank
	Temperature Gauge	1	Drain Oil Tank

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

Sub.- Technical Specification and Requirements

Item No. -3

Material Code- 32202001100

Material specification:-

Oil water mixture transfer pump - Vertical single screw as per API 676 - 2 Cu.m/hr with electrics and associated instrumentation work.

S.NO DESCRIPTION UNIT DESIGN CONDITION

- 1 Temperature °C 50 Deg C
- 2 Fluid viscosity CST 2 – 370
- 3 Suction Pressure Kg/ cm2 Submerged
- 4 Discharge Pressure Kg/ cm2 1.5
- 5 Relief valve set pressure Kg/ cm2 2.5
- 6 Selected capacity of pump Cu.m/hr 2

(REFER ANNEXURE-6 FOR TECHNICAL SPECIFICATIONS ALONG WITH ELECTRICALS AND INSTRUMENTATION DETAILS)

SPECIAL INSTRUCTIONS:

1. DELIVERY OF MATERIAL: The item (s) shall be delivered within three months of the P.O. This has to be declared by the party.
2. TECHNICAL DOCUMENTS : Party shall submit relevant Technical Documents/ Material Test Certificates along with the Item for Inspection purpose .
3. INSPECTION AND ACCEPTANCE OF SUPPLIED MATERIAL: The supplied material will be inspected by Engineer In-charge (EIC) upon receipt at site against the Technical Documents/Material Test Certificates provided by the vendor before it is accepted. Manufacturer name, part name etc. shall be marked/engraved on the supplied equipment for co-relation with the corresponding Technical Document.
4. REJECTION OF SUPPLIED MATERIAL (if any): Any Deviation from Technical Specifications shall lead to rejection of the supplied materials.
5. WARRANTY: The party is required to submit Warranty certificate for a period of 12 months from the date of Commissioning or 18 months from the date of dispatch whichever is earlier.
6. PAYMENT TERMS: 100% Payment within 10 days shall be released to the party after Receipt, Inspection and Acceptance of material by Engineer In-charge at Site.

7. CPBG: Party shall submit a CPBG for 5% value of PO which shall be valid for the Warranty Period+ 3 months claim period. PBG shall be sent along with dispatch documents while claiming payment.

8. PQC:

Experience of having successfully supplied similar equipment/items during the last ten years ending last day of the month previous to the one in which applications are invited should be either of the following

a) Three similar completed works each costing not less than the amount equal Rs 10,32,150 of the estimate

(OR)

b) Two similar completed works each costing not less than the amount equal to Rs 12,90,188 of the estimate.

(OR)

c) One similar completed work costing not less than the amount equal to Rs 20,64,300 of the estimate.

9. Engineer In-charge for the said works will be M/s M N Dastur (Consultant and EIC for CGPP#6 Expansion Project)

1. BLOW DOWN TRANSFER PUMP PROCUREMENT DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature of blow down water	°C	100
2	Density of water	Kg/cu.m	958
3	Normal blow down water flow	Cu.m/hr	9
4	Maximum blowdown water flow	Cu.m/hr	12
5	design margin on flow	%	10
6	Required capacity of each pump	Cu.m/hr	13.2
7	Capacity of each blow down pump with margin	Cu.m/hr	13.78
8	Selected capacity of pump	Cu.m/hr	15
9	Pump pressure	kg/cm2	7

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Above blow down pit
	- Drive	Direct drive
	- Application	To transfer blowdown water from blowdown pit to ash water sump house
	- Installation	Vertical
	- Pump type	Centrifugal, vertical
	- Number of stages	Single stage
	- Design standard	As per manufacturer standard
2	Material of construction	Eqvt.to S-6 as per API-610
3	Accessories details	
	- Mechanical seal	As per manufacturer's standard
	- Type of coupling	Spacer type metaflex coupling
	- Bearings	As perManufacturer's recommendation
	- Lubrication	As perManufacturer's recommendation
4	Drive motor details	
	- Type of drive motor	Horizontal, Squirrel-cage Induction type
	- Design Standard	IS-325
	- Voltage	3 ph,415 V
	- RPM(Nominal)	3000 rpm

2. DRAIN OIL PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370



Pipework (cont'd)

3	Suction Pressure	Kg/ cm2	Submerged
4	Discharge Pressure	Kg/ cm2	4
5	Relief valve set pressure	Kg/ cm2	5
6	Selected capacity of pump	Cu.m/hr	10

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer drain oil from drain oil tank to Main oil tank
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	3.7 KW (Flame Proof)
	- Design Standard	API-676
	- Voltage	3 ph,415 V
	- RPM(Nomin al)	400 rpm



Pipework (cont'd)

3. RECOVERY OIL PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370
3	Suction Pressure	Kg/ cm2	Flooded
4	Discharge Pressure	Kg/ cm2	1.5
5	Relief valve set pressure	Kg/ cm2	2.5
6	Selected capacity of pump	Cu.m/hr	2

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer Recovered oil from Recovery oil tank to Drain oil tank
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	1.5 KW (Flame Proof)



Pipework (cont'd)

S.No	Description	Details
	- Design Standard	API-676
	- Voltage	3 ph, 415 V
	- RPM(Nominal)	300 rpm

4. OIL WATER MIXTURE TRANSFER PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370
3	Suction Pressure	Kg/ cm2	Submerged
4	Discharge Pressure	Kg/ cm2	1.5
5	Relief valve set pressure	Kg/ cm2	2.5
6	Selected capacity of pump	Cu.m/hr	2

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer oil water mixture from oil water mixture tank to oil water separator
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type



Pipework (cont'd)

S.No	Description	Details
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	2.2 KW (Flame Proof)
	- Design Standard	API-676
	- Voltage	3 ph, 415 V
	- RPM(Nominal)	300 rpm

- **Tenderer shall quote with all the Technical Specifications of the equipment on his offer.**
- **All items shall have requisite Technical Documents as required.**

DESCRIPTION: VERTICAL 1-SCREW AP676 PUMP 02 CUM/H MATERIAL CODE- 32202001100

	DESCRIPTION	OIL-WATER MIXTURE TRANSFER PUMP (Motor 2.2 KW Flameproof)	
		ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs	
2	Type of power source available (power fdr / motor fdr)	Power feeder	
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes	150 Mtrs
4	LCS require for motors (Yes/ No)	Yes	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes	
6	Local starter panel requirement for motor (Yes/ No)	Yes	One no
7	Availability of earth grid at motor location (Yes/ No)	Yes	
8	GI Earthing material (25x 4 mm flat)	Yes	50 Mtr
9	GI perforated cable tray (300 MM width)	Yes	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO	
11	Motor Temperature(T...) class	T5	
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'	
13	Gas group	Gas Gr. IIA / IIB, Zone I & II	
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C	Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 32202001100		VERTICAL 1-SCREW AP676 PUMP 02CUM/H
Oil Water Mixture Transfer Pump	Pressure Gauge	1	Oil Water Mixture Transfer Pump (working) delivery
	Pressure Gauge	1	Oil Water Mixture Transfer Pump (standby) delivery
	Pressure Switch (High)	1	Oil Water Mixture Transfer Pump (working) delivery
	Pressure Switch (High)	1	Oil Water Mixture Transfer Pump (standby) delivery
	Pressure Switch (High)	1	Common delivery header of Oil Water Mixture Transfer Pumps (Working+Standby)
	Level Switch (High)	1	Oil Water collection sump
	Level Indicator	1	Oil Water collection sump

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: VERTICAL 1-SCREW AP676 PUMP 02 CUM/H MATERIAL CODE-32202001110

	DESCRIPTION	RECOVERY OIL TRANSFER PUMP (Motor 1.5 KW Flameproof)	
		ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs	
2	Type of power source available (power fdr / motor fdr)	Power feeder	
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes	150 Mtrs
4	LCS require for motors (Yes/ No)	Yes	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes	
6	Local starter panel requirement for motor (Yes/ No)	Yes	One no
7	Availability of earth grid at motor location (Yes/ No)	Yes	
8	GI Earthing material (25x 4 mm flat)	Yes	50 Mtr
9	GI perforated cable tray (300 MM width)	Yes	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO	
11	Motor Temperature(T...) class	T5	
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'	
13	Gas group	Gas Gr. IIA / IIB, Zone I & II	
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C	Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE-32202001110		VERTICAL 1-SCREW AP676 PUMP 02CUM/H
Recovery Oil Transfer Pump	Pressure Gauge	1	Recovery Oil Transfer Pump delivery
	Level Gauge	2	Recovery Oil Tank
	Level Switch (High)	1	Recovery Oil Tank

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: CENTRIFUG. 1-STAGE BLOWDOWN PUMP-15
CUM/H

MATERIAL CODE- 10103099246

	DESCRIPTION	BLOW DOWN PUMP
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	200 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes 200 Mtrs
4	LCS require for motors (Yes/ No)	Yes Two nos
5	Flame proof panel requirement for motor (Yes/ No)	No
6	Local starter panel requirement for motor (Yes/ No)	Yes One no
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	Yes 50 Mtr
9	GI perforated cable tray (300 MM width)	Yes 200 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	NA
12	Motor Explosion protection class (Ex....)	NA
13	Gas group	NA
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	Two nos 415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 10103099246		DESCRIPTION: CENTRIFUG. 1-STAGE BLOWDOWN PUMP-15 CUM/H
Blow Down Pump	Pressure Gauge	1	Blow Down Pump (working) delivery
	Pressure Gauge	1	Blow Down Pump (standby) delivery
	Level Gauge	1	Blow Down Pit
	Level Switch (High)	1	Blow Down Pit
	Level Switch (Low)	1	Blow Down Pit
	Pressure Switch	1	Common delivery header of Blow Down Pumps (Working+Standby)

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: DRAIN OIL PUMP- VERTICAL SINGLE SCREW AS PER
API676-10 CUM/HR

MATERIAL CODE- 32202001090

	DESCRIPTION	DRAIN OIL PUMP (Motor 3.7 KW Flameproof)
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	150 Mtrs
4	LCS require for motors (Yes/ No)	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes
6	Local starter panel requirement for motor (Yes/ No)	Yes
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	50 Mtr
9	GI perforated cable tray (300 MM width)	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	T5
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'
13	Gas group	Gas Gr. IIA / IIB, Zone I & II
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 32202001090		VERTICAL 1-SCREW AP676 PUMP 10 CUM/H
Drain Oil Pump	Pressure Gauge	1	Drain Oil Pump (working) delivery
	Pressure Gauge	1	Drain Oil Pump (standby) delivery
	Pressure Switch (Low)	1	Common delivery header of Drain Oil Pumps (Working+Standby)
	Level Gauge	1	Drain Oil Tank
	Level Switch (High)	1	Drain Oil Tank
	Level Indicator	1	Drain Oil Tank
	Level Switch (Low)	1	Drain Oil Tank
	Temperature Gauge	1	Drain Oil Tank

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

Sub.- Technical Specification and Requirements

Item No. -4

Material Code- 32202001110

Material specification:-

Recovery oil transfer pump - Vertical single screw as per API 676 - 2 Cu.m/hr with electrics and associated instrumentation work.

S.NO DESCRIPTION UNIT DESIGN CONDITION

- 1 Temperature °C 50 Deg C
- 2 Fluid viscosity CST 2 – 370
- 3 Suction Pressure Kg/ cm2 Flooded
- 4 Discharge Pressure Kg/ cm2 1.5
- 5 Relief valve set pressure Kg/ cm2 2.5
- 6 Selected capacity of pump Cu.m/hr 2

(REFER ANNEXURE-6 FOR TECHNICAL SPECIFICATIONS ALONG WITH ELECTRICALS AND INSTRUMENTATION DETAILS)

SPECIAL INSTRUCTIONS:

1. DELIVERY OF MATERIAL: The item (s) shall be delivered within three months of the P.O. This has to be declared by the party.
2. TECHNICAL DOCUMENTS : Party shall submit relevant Technical Documents/ Material Test Certificates along with the Item for Inspection purpose .
3. INSPECTION AND ACCEPTANCE OF SUPPLIED MATERIAL: The supplied material will be inspected by Engineer In-charge (EIC) upon receipt at site against the Technical Documents/Material Test Certificates provided by the vendor before it is accepted. Manufacturer name, part name etc. shall be marked/engraved on the supplied equipment for co-relation with the corresponding Technical Document.
4. REJECTION OF SUPPLIED MATERIAL (if any): Any Deviation from Technical Specifications shall lead to rejection of the supplied materials.
5. WARRANTY: The party is required to submit Warranty certificate for a period of 12 months from the date of Commissioning or 18 months from the date of dispatch whichever is earlier.
6. PAYMENT TERMS: 100% Payment within 10 days shall be released to the party after Receipt, Inspection and Acceptance of material by Engineer In-charge at Site.

7. CPBG: Party shall submit a CPBG for 5% value of PO which shall be valid for the Warranty Period+ 3 months claim period. PBG shall be sent along with dispatch documents while claiming payment.

8. PQC:

Experience of having successfully supplied similar equipment/items during the last ten years ending last day of the month previous to the one in which applications are invited should be either of the following

a) Three similar completed works each costing not less than the amount equal Rs 10,32,150 of the estimate

(OR)

b) Two similar completed works each costing not less than the amount equal to Rs 12,90,188 of the estimate.

(OR)

c) One similar completed work costing not less than the amount equal to Rs 20,64,300 of the estimate.

9. Engineer In-charge for the said works will be M/s M N Dastur (Consultant and EIC for CGPP#6 Expansion Project)

1. BLOW DOWN TRANSFER PUMP PROCUREMENT DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature of blow down water	°C	100
2	Density of water	Kg/cu.m	958
3	Normal blow down water flow	Cu.m/hr	9
4	Maximum blowdown water flow	Cu.m/hr	12
5	design margin on flow	%	10
6	Required capacity of each pump	Cu.m/hr	13.2
7	Capacity of each blow down pump with margin	Cu.m/hr	13.78
8	Selected capacity of pump	Cu.m/hr	15
9	Pump pressure	kg/cm2	7

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Above blow down pit
	- Drive	Direct drive
	- Application	To transfer blowdown water from blowdown pit to ash water sump house
	- Installation	Vertical
	- Pump type	Centrifugal, vertical
	- Number of stages	Single stage
	- Design standard	As per manufacturer standard
2	Material of construction	Eqvt.to S-6 as per API-610
3	Accessories details	
	- Mechanical seal	As per manufacturer's standard
	- Type of coupling	Spacer type metaflex coupling
	- Bearings	As perManufacturer's recommendation
	- Lubrication	As perManufacturer's recommendation
4	Drive motor details	
	- Type of drive motor	Horizontal, Squirrel-cage Induction type
	- Design Standard	IS-325
	- Voltage	3 ph,415 V
	- RPM(Nominal)	3000 rpm

2. DRAIN OIL PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370



Pipework (cont'd)

3	Suction Pressure	Kg/ cm2	Submerged
4	Discharge Pressure	Kg/ cm2	4
5	Relief valve set pressure	Kg/ cm2	5
6	Selected capacity of pump	Cu.m/hr	10

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer drain oil from drain oil tank to Main oil tank
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	3.7 KW (Flame Proof)
	- Design Standard	API-676
	- Voltage	3 ph,415 V
	- RPM(Nomin al)	400 rpm



Pipework (cont'd)

3. RECOVERY OIL PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370
3	Suction Pressure	Kg/ cm2	Flooded
4	Discharge Pressure	Kg/ cm2	1.5
5	Relief valve set pressure	Kg/ cm2	2.5
6	Selected capacity of pump	Cu.m/hr	2

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer Recovered oil from Recovery oil tank to Drain oil tank
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	1.5 KW (Flame Proof)



Pipework (cont'd)

S.No	Description	Details
	- Design Standard	API-676
	- Voltage	3 ph, 415 V
	- RPM(Nominal)	300 rpm

4. OIL WATER MIXTURE TRANSFER PUMP DATA SHEET

S.NO	DESCRIPTION	UNIT	DESIGN CONDITION
1	Temperature	°C	50 Deg C
2	Fluid viscosity	CST	2 – 370
3	Suction Pressure	Kg/ cm ²	Submerged
4	Discharge Pressure	Kg/ cm ²	1.5
5	Relief valve set pressure	Kg/ cm ²	2.5
6	Selected capacity of pump	Cu.m/hr	2

PUMP AND DRIVE SPECIFICATIONS

S.No	Description	Details
1	Basic Details	
	- Quantity	2 Nos (1 W + 1 S)
	- Location	Near Fuel oil tank farm area
	- Drive	Direct couple to motor through gearbox
	- Application	To transfer oil water mixture from oil water mixture tank to oil water separator
	- Installation	Vertical
	- Pump type	Single Screw pump
	- Design standard	API 676
2	Material of construction	
	- Casing	CS fabricated
	- Rotor	SS-316
	- Drive shaft	SS-420
	- Stator	Nitrile Rubber
3	Accessories details	
	- Mechanical seal	Single Acting Mechanical Seal (Face Combination Bu me-5 Vs C)
	- Type of coupling	Flexible Pin Bush Type



Pipework (cont'd)

S.No	Description	Details
	- Bearings	Radial Ball Bearing
	- Lubrication	By Grease
	- Gear Box	In line Helical Type Hollow Input & Solid Output Shaft Vertical Flange Mounted
4	Drive motor details	
	- Type of drive motor	Squirrel-cage Induction type, TEFC
	- Rating	2.2 KW (Flame Proof)
	- Design Standard	API-676
	- Voltage	3 ph, 415 V
	- RPM(Nominal)	300 rpm

- **Tenderer shall quote with all the Technical Specifications of the equipment on his offer.**
- **All items shall have requisite Technical Documents as required.**

DESCRIPTION: VERTICAL 1-SCREW AP676 PUMP 02 CUM/H MATERIAL CODE- 32202001100

	DESCRIPTION	OIL-WATER MIXTURE TRANSFER PUMP (Motor 2.2 KW Flameproof)	
		ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs	
2	Type of power source available (power fdr / motor fdr)	Power feeder	
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes	150 Mtrs
4	LCS require for motors (Yes/ No)	Yes	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes	
6	Local starter panel requirement for motor (Yes/ No)	Yes	One no
7	Availability of earth grid at motor location (Yes/ No)	Yes	
8	GI Earthing material (25x 4 mm flat)	Yes	50 Mtr
9	GI perforated cable tray (300 MM width)	Yes	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO	
11	Motor Temperature(T...) class	T5	
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'	
13	Gas group	Gas Gr. IIA / IIB, Zone I & II	
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C	Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 32202001100		VERTICAL 1-SCREW AP676 PUMP 02CUM/H
Oil Water Mixture Transfer Pump	Pressure Gauge	1	Oil Water Mixture Transfer Pump (working) delivery
	Pressure Gauge	1	Oil Water Mixture Transfer Pump (standby) delivery
	Pressure Switch (High)	1	Oil Water Mixture Transfer Pump (working) delivery
	Pressure Switch (High)	1	Oil Water Mixture Transfer Pump (standby) delivery
	Pressure Switch (High)	1	Common delivery header of Oil Water Mixture Transfer Pumps (Working+Standby)
	Level Switch (High)	1	Oil Water collection sump
	Level Indicator	1	Oil Water collection sump

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: VERTICAL 1-SCREW AP676 PUMP 02 CUM/H MATERIAL CODE-32202001110

	DESCRIPTION	RECOVERY OIL TRANSFER PUMP (Motor 1.5 KW Flameproof)
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	150 Mtrs
4	LCS require for motors (Yes/ No)	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes
6	Local starter panel requirement for motor (Yes/ No)	Yes
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	50 Mtr
9	GI perforated cable tray (300 MM width)	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	T5
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'
13	Gas group	Gas Gr. IIA / IIB, Zone I & II
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	Two nos 415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE-32202001110		VERTICAL 1-SCREW AP676 PUMP 02CUM/H
Recovery Oil Transfer Pump	Pressure Gauge	1	Recovery Oil Transfer Pump delivery
	Level Gauge	2	Recovery Oil Tank
	Level Switch (High)	1	Recovery Oil Tank

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: CENTRIFUG. 1-STAGE BLOWDOWN PUMP-15
CUM/H

MATERIAL CODE- 10103099246

	DESCRIPTION	BLOW DOWN PUMP
	ELECTRICAL MISC ITEMS	Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	200 Mtrs
2	Type of power source available (power fdr / motor fdr)	Power feeder
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes 200 Mtrs
4	LCS require for motors (Yes/ No)	Yes Two nos
5	Flame proof panel requirement for motor (Yes/ No)	No
6	Local starter panel requirement for motor (Yes/ No)	Yes One no
7	Availability of earth grid at motor location (Yes/ No)	Yes
8	GI Earthing material (25x 4 mm flat)	Yes 50 Mtr
9	GI perforated cable tray (300 MM width)	Yes 200 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO
11	Motor Temperature(T...) class	NA
12	Motor Explosion protection class (Ex....)	NA
13	Gas group	NA
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	Two nos 415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 10103099246		DESCRIPTION: CENTRIFUG. 1-STAGE BLOWDOWN PUMP-15 CUM/H
Blow Down Pump	Pressure Gauge	1	Blow Down Pump (working) delivery
	Pressure Gauge	1	Blow Down Pump (standby) delivery
	Level Gauge	1	Blow Down Pit
	Level Switch (High)	1	Blow Down Pit
	Level Switch (Low)	1	Blow Down Pit
	Pressure Switch	1	Common delivery header of Blow Down Pumps (Working+Standby)

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

DESCRIPTION: DRAIN OIL PUMP- VERTICAL SINGLE SCREW AS PER
API676-10 CUM/HR

MATERIAL CODE- 32202001090

	DESCRIPTION	DRAIN OIL PUMP (Motor 3.7 KW Flameproof)	
	ELECTRICAL MISC ITEMS		Qty
1	Incoming power (415V 3 P 50 HZ) source location / distance from installation	150 Mtrs	
2	Type of power source available (power fdr / motor fdr)	Power feeder	
3	1.1 KV grade. 1R -3C -10 AL XLPE Ar FRLSH power and 1.1 KV grade 1R-12C-1.5 CU XLPE Ar FRLSH control cable for each motor	Yes	150 Mtrs
4	LCS require for motors (Yes/ No)	Yes	Two nos
5	Flame proof panel requirement for motor (Yes/ No)	Yes	
6	Local starter panel requirement for motor (Yes/ No)	Yes	One no
7	Availability of earth grid at motor location (Yes/ No)	Yes	
8	GI Earthing material (25x 4 mm flat)	Yes	50 Mtr
9	GI perforated cable tray (300 MM width)	Yes	150 Mtrs
10	Local JB requirement for motors(Yes/ No)	NO	
11	Motor Temperature(T...) class	T5	
12	Motor Explosion protection class (Ex....)	Explosion Protection : Ex 'd'	
13	Gas group	Gas Gr. IIA / IIB, Zone I & II	
14	Squirrel cage induction Motor details (Motor shall be complete with all accessories as per pump requirement)	415V/50Hz/3 PH , TEFC, IP 55 , IE3 , Temp rise -F / Insulation B, Ambient 50 deg C	Two nos

INSTRUMENTATION MISC ITEMS FOR PUMPS

PUMP	INSTRUMENT TYPE	QTY.	SERVICE/LOCATION
	MATERIAL CODE- 32202001090		VERTICAL 1-SCREW AP676 PUMP 10 CUM/H
Drain Oil Pump	Pressure Gauge	1	Drain Oil Pump (working) delivery
	Pressure Gauge	1	Drain Oil Pump (standby) delivery
	Pressure Switch (Low)	1	Common delivery header of Drain Oil Pumps (Working+Standby)
	Level Gauge	1	Drain Oil Tank
	Level Switch (High)	1	Drain Oil Tank
	Level Indicator	1	Drain Oil Tank
	Level Switch (Low)	1	Drain Oil Tank
	Temperature Gauge	1	Drain Oil Tank

Note : Cabling of Pressure Switch, Level Switch etc. to MCC of respective pumps for interlock shall be included.

CHECKLIST FOR TECHNICAL AND COMMERCIAL REQUIREMENTS

S.No.	Nalco's Requirement	Bidder's Remarks
1	Item has been quoted as per material specification document without any deviation.	Yes/No.
2	Duly signed and stamped 'Technical Specification' document along with the supporting documents has been submitted.	Yes/No.
3	Prices are quoted on 'FOR Nalco Stores, Damanjodi' basis including all cost component viz. GST, P&F, freight, insurance etc.	Yes/No.
4	Offer shall be valid for 90 days from the date of opening of tender i.e. final tender opening date with extension time, if any	Agreed/Not agreed
5	Payment term: 100% Payment within 10 days shall be released to the party after Receipt, Inspection and Acceptance of material by Engineer In-charge at Site. Note: Payment of GST is subject to the reflection of invoice in GSTR-2A/Anx-2 (GST New Return) of NALCO.	Agreed/Not agreed
6	Item(s) shall be procured as per the evaluation criteria mentioned in the tender. This condition will supersede any other related condition mentioned by the bidder in their offer.	Agreed/Not agreed
7	Please confirm acceptance to the tender delivery period.	Accepted/Not Accepted
8	Please indicate the despatching station of the material.	
9	Duly filled Integrity Declaration has been submitted with the offer	Submitted/Not Submitted
10	Duly filled SA 8000 questionnaire provided with the tender has been submitted	Submitted/Dealer
11	Bank Mandate has been submitted with the offer	Submitted/Registered vendor-no change in already updated bank details
12	Duly filled Local Content Declaration Certificate as per PPP_MII order has been submitted with the offer (format attached).	Submitted/Not Submitted
13	UDYAM Registration Certificate for claiming MSE Purchase Preference as manufacturer of offered items.	Submitted/Not applicable

(Bidder's Signature with stamp)

(Declaration by the bidder on their letter head)

To,
GM(Materials),
M/s. National Aluminium Company Limited,
Refinery Unit, Damanjodi
Dist.-Koraput, Odisha-763008

Date-

Dear Sir,

We, M/s. _____ having its office at _____(address)

hereby confirm that the offered product has ____% of the local content as per the definition of local content in order No.P-45021/2/2017-PP(BE-II) dtd. 16.09.2020 issued by Gol.

Following is/are the location(s) at which local value addition is made:

Yours sincerely,

Signature

Name

Designation

Contact No.

NALCO's Vision, Mission and Value Statement

Vision

To be a Premier and Integrated company in the Aluminium value chain with strategic presence in Mining both domestic & global, Metals and Energy sectors.

Mission

To sustainably grow multi-fold in Mining, Alumina and Aluminium business along with select diversification in Minerals, Metals and Energy sectors, while continuously improving on efficiency and business practices thus enhancing value for all stakeholders.

Core Values: BEST

Benefitting Stakeholders

We provide our customers, suppliers and other stakeholders with utmost level of value, service and satisfaction.

Excellence and quality

We ensure that our products, manufacturing & business processes adhere to the highest quality levels and standards.

Sustainability

We relentlessly pursue sustainable practices and create a positive impact on the communities we engage with.

Trust & Integrity

We conduct ourselves with dignity, integrity, equity, transparency and accountability to build trust.

Alumina Refinery's Vision, Mission

Vision

To be a world-class Alumina Refinery

Mission

To sustainably grow multifold in Alumina Business while continuously improving on efficiency and business practices thus enhancing value for all stake holders.

Declaration by Bidder for Implementation of Integrity

Tender Ref: _____

I/We (_____ Name of the Bidder _____) commit to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of his bid or during any pre-contract or post-contract stage in order to secure the contract. I/ We further undertakes that

- Will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage to any official of the Buyer, connected directly or indirectly with the bidding process, evaluation, contracting and implementation of the Contract.
- will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- will commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable fact.
- will not instigate or cause to instigate any third person to commit any of the actions mentioned above.

Yours faithfully

(authorized signatory of the Bidder)

Date:

SL. NO.	EHS (Environment Health & Safety) GUIDELINES TO SUPPLIERS
1	For Suppliers of Capital equipment & machinery: <ol style="list-style-type: none"> 1. Competence/maintenance/calibration requirements if any to be compiled. 2. Does the machine need any hazardous chemicals as per MSIHC rules 1989 & amendment thereafter? 3. Noise level at 2 Meter distance is to be specified. 4. The machine shall comply with applicable EHS legislations.
2	For Suppliers of Hazardous Chemicals/Inflammable Chemicals: <ol style="list-style-type: none"> 1. You have to comply with applicable EHS legislations for manufacture, storage, transportation and possession of hazardous chemicals/inflammable liquid/gas cylinder rules. 2. MSDS guidelines shall be followed by your organization for proper storage, transportation of hazardous materials and others as applicable. 3. Provide MSDS at the time of first consignment or whatever any update is there to the company. 4. Fire extinguisher is to be maintained in working condition in your organization. 5. Avoid leakage of oil, water, coolant etc. in your organization to conserve natural resources. 6. Provide TREM Cards to drivers for handling transportation emergencies. 7. To use personal protective equipment such as helmets/gloves/shoes/ear plugs/welder goggles as specified and to follow safe work procedures in your organization. 8. You should explain to your workers about potential hazards, accidents, emergencies, environmental impact and explain all precautions to be taken.
3	For Suppliers of gas cylinders, the requirement of Gas Cylinder Rules and it's current amendment are to be ensured.
4	For Suppliers dispatching Full Truck –load material on their own truck must ensure the following: <ol style="list-style-type: none"> 1. Driver should have valid documents including Driving Licence and pollution control certificate. 2. Unauthorised person should not drive the vehicle. 3. Driver should strictly follow the speed regulations and other guidelines given by CISF.

SOCIAL ACCOUNTABILITY POLICY

We at NALCO are committed to provide a socially accountable work environment to all employees and uphold ethical business practices by respecting employees' rights.

We shall achieve these by adopting a companywide culture, which will help to promote:

- ✚ Involvement of all employees in sustenance of SA 8000 standard;
- ✚ Continual improvement initiatives in all social issues;
- ✚ Learning and training opportunities to all employees;
- ✚ Fulfillment of relevant statutory rules & regulations, ILO requirements, applicable international instruments and their interpretation.

ENVIRONMENT POLICY

In recognition of the interests of the society in securing sustainable industrial growth, compatible with a wholesome environment, NALCO affirms that it assigns high importance to promotion and maintenance of a pollution-free environment in all its activities.

OBJECTIVES:

- ✚ To use non-polluting and environment-friendly technology.
- ✚ To monitor regularly air, water, land, noise and other environmental parameters.
- ✚ To constantly improve upon the standards of pollution control and provide a leadership in environment management.
- ✚ To develop employees' awareness on environmental responsibilities and encourage adherence to sound environmental practices.
- ✚ To work closely with the Government & local authorities to prevent or minimize adverse consequences of the industrial activities on the environment.
- ✚ To comply with all applicable laws governing environment protection through appropriate mechanisms.
- ✚ To actively participate in social welfare and environmental development activities of the locality around its Units.

OCCUPATIONAL HEALTH & SAFETY POLICY

NALCO is committed to maintain a Safe, Healthy and Sustainable work environment in all its operations. This shall be achieved by:

- ✚ Focusing on prevention of Accidents and Occupational Health issues.
- ✚ Complying with all legal requirements & other requirements related to Safety and Occupational Health of persons and establishing clearly defined goals & procedures to achieve the same.
- ✚ Ensuring Safety & Health of all employees and contract workers in its premises, including those involved in transportation, cleaning and other such activities.
- ✚ Conducting Periodic Safety Audits, Environment Audits, Health Check-ups and Risk Assessment by both internal and external qualified persons.
- ✚ Considering aspects related to Safety and Health of personnel as well as environmental issues at the time of procurement of equipment and selection of technologies.
- ✚ Ensuring health of persons in the peripheral locations, likely to be affected by our operations.
- ✚ Periodically monitoring and reviewing safety & occupational health issues at relevant levels, including the highest levels.
- ✚ Communicating Safety Hazards and health related issues to all concerned through suitable means, including training.
- ✚ Involving the workmen in Policy implementation as well as identification of potential issues.
- ✚ Considering Health & Safety performance of individuals at different levels during their career advancement as per NALCO's policy.
- ✚ Establishing and maintaining suitable set-up with competent persons to monitor and bring to the notice of the management any issues related to unsafe conditions & practices.
- ✚ Striving for continual improvements, exceeding statutory compliance levels, wherever feasible.

ENERGY POLICY

Enhancing Energy Performance, comprehensively optimising Energy Use, Energy Consumption and Energy Efficiency, is a major imperative for an Energy Intensive industry like ours. In recognition of this, we will focus on continual improvement of all round Energy Performance with special focus on areas of significance by way of having in place Energy Objectives based on the enshrined Guiding Principles.

Guiding Principles:

- To endeavour for reduction in Specific Consumption of Energy in all forms in areas of significance.
- To ensure availability of correct information in time and to make available necessary resources for achieving the Objectives and Targets.
- To comply with all applicable legal and other statutory/ regulatory requirements related to our energy use, consumption and efficiency.
- To espouse Energy Efficient Technology encompassing procurement of Energy Efficient products & services and design for energy performance improvement.
- To carry out Energy audits and Energy reviews at planned intervals, to improve energy performance.

**PROFORMA OF CONTRACT CUM PERFORMANCE GUARANTEE BY
SELLER/CONTRACTOR**

(To be executed on non-Judicial stamped paper of appropriate value)

B.G. No _____ Date _____

1. WHEREAS National Aluminium Company Limited (A Government of India Enterprise), having its Unit/ Office at (Foreign vendors to incorporate Nalco's Corporate Office address/ Indigenous vendors to incorporate Nalco's Unit address where the supply or work is to be executed) (hereinafter called "the Company/Owner") which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns), has entered into a contract with M/s. _____/ has placed a purchase order on M/s. _____ (hereinafter referred to as "Contractor(s)/Seller(s)") which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns) for on the terms and conditions as set out inter alia, in the company Contract No/P.O. No..... dt..... and various documents forming part thereof herein after referred to as the "said contract" which expression include all amendments, modification and/or variation thereto and where as the Contractor/Seller has agreed for due execution of the entire contract and guarantees its performance including any parts executed through any others agencies/sub-contractors.

AND WHEREAS one of the conditions of the "said contract" is that "contractor/seller shall furnish to the owner a Bank Guarantee from a bank for% (..... percent) of the total value of the "said contract" against due and faithful performance of the "said contract" including defects liability obligations and the performance guarantee obligations of the contractor/seller for execution/supplies made under the "said contract".

2. We _____ Bank having its branch office at _____ **and IFSC code** _____ do hereby agree and undertake to pay the amount due and payable under this guarantee without any demur merely on a demand from the Company stating that in the opinion of the company which is final & binding, the amount claimed is due by reason of default made by the Contractor(s)/ Seller(s) in performing any of the terms and conditions of the said Contract including defects liability obligations, in fulfilling the performance Guarantee obligation or loss or damage caused to or would be caused to or suffered by the Company by reason of any breach by the said Contractor(s)/Seller(s) of any of the terms and conditions of the contract. Any such demand made on the Bank by the owner shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However our liability under this guarantee shall be restricted to Rs..... (Rupees..... only)

3. We undertake to pay to the Company any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s)/Supplier(s) in any suit or proceeding pending before any office, court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the owner proceeding against the contractor(s)/seller(s).

4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said Contractor(s)/ Seller(s) but shall in all respects and for all purposes be binding and operative until payment of all money due or liabilities under the said Contract(s)/Order(s) are fulfilled.

5. We _____ Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract(s)/Order(s) and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Contract(s)/Order(s) have been fully paid and its claims satisfied or discharged or till a duly authorised officer of the Company certifies that the terms and conditions of the said Contract(s)/Order(s) have been fully and properly carried out by the said Contractor(s) and accordingly discharge this guarantee.

6. We..... Bank further agree with the Company that the Company shall have the fullest liberty

without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contractor(s)/ Order(s) or to extend time of performance by the said Contractor(s)/Seller(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s)/Seller(s) and to forbear or enforce any of the terms and conditions relating to the said Contractor(s)/Seller(s) and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor(s)/Seller(s) or for any forbearance, act or omission on the part of the Company or any indulgence by the Company to the said Contractor(s)/Seller(s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

7. Notwithstanding anything contained herein before, our liability shall not exceed Rs. _____ (Rupees _____ only) and shall remain in force till _____ unless a demand or claim under this guarantee is made on us within three months from the date of expiry we shall be discharged from all the liabilities under this guarantee.

8. We _____ Bank further agree that this Guarantee shall be invocable at our place of business at (Bank name, addrees, Branch, Bhubaneshwar, -751XXX) with IFSC code _____.

9. We _____ Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing. We further undertake to keep this Guarantee renewed from time to time at the request of Contractor(s)/Seller(s).

Date:

Corporate Seal of the Bank

.....Bank

By its constitutional Attorney

Signature of duly authorised person
on behalf of the Bank with seal & signature code

Details of person issuing the BG:

Name: _____

Address for correspondence: _____

Telephone and Fax No.:

E-mail: _____

IFSC Code of the Bank: _____

(i) BG is to be furnished from any of Nalco approved banks, as per list attached.

ANNEXURE-G
LIST OF STANDARDISED BANKS

SCHEDULED PUBLIC SECTOR BANKS (INDIAN)

1. Allahabad Bank,
2. Andhra Bank,
3. Bank of Baroda,
4. Bank of India,
5. Bank of Maharashtra,
6. Canara Bank,
7. Central Bank of India,
8. Corporation Bank,
9. Dena Bank,
10. IDBI Bank
11. Indian Bank,
12. Oriental Bank of Commerce,
13. Punjab and Sind Bank
14. Punjab National Bank,
15. State Bank of India
16. Syndicate Bank
17. UCO Bank
18. Union Bank of India
19. Vijaya Bank.

(Nineteen banks)

SCHEDULED PRIVATE SECTOR BANKS (INDIAN)

1. HDFC Bank Ltd
2. ICICI Bank Ltd
3. Axis Bank Ltd.
4. Kotak Mahindra Bank Ltd
5. YES Bank
6. IndusInd Bank Ltd.
7. The Federal Bank Ltd.
8. The Jammu & Kashmir Bank Ltd.
9. The South Indian Bank Ltd.
10. The Karur Vysya Bank Ltd.
11. The Karnataka Bank Ltd.
12. IDFC Bank
13. RBL Bank.
14. The Lakshmi Vilas Bank Ltd
15. Tamilnad Mercantile Bank Ltd
16. City Union Bank Ltd.

(Sixteen Banks)

List of FOREIGN BANKS

1. Abu Dhabi Commercial Bank Ltd.
2. Australia & New Zealand Banking Group Limited
3. Bank of America NA
4. Bank of Bahrain and Kuwait B.S.C.
5. Bank of Ceylon
6. Barclays Bank PLC
7. BNP Paribas
8. Citibank N.A.
9. Commonwealth Bank of Australia
10. Credit Agricole Corporate & Investment Bank
11. Credit Suisse AG
12. DBS Bank Ltd.
13. Deutsche Bank AG
14. Doha Bank
15. FirstRand Bank Ltd
16. Industrial Bank of Korea
17. Industrial & Commercial Bank of China Limited
18. JP Morgan Chase Bank
19. KEB Hana Bank
20. Krung Thai Bank Public Company Ltd.
21. Mashreqbank PSC
22. Mizuho Bank Ltd.
23. National Australia Bank Ltd.
24. Sberbank
25. Shinhan Bank
26. Societe Generale
27. Sonali Bank Ltd.
28. Standard Chartered Bank
29. Sumitomo Mitsui Banking Corporation
30. The Bank of Nova Scotia
31. The Bank of Tokyo-Mitsubishi UFJ, Ltd.
32. The Hongkong and Shanghai Banking Corp. Ltd.
33. The Royal Bank of Scotland PLC
34. United Overseas Bank Ltd.
35. Westpac Banking Corporation
36. Woori Bank

(Thirty Six Banks)

Social Accountability 8000 Compliance Format (Supplier)

A. Basic information

Name of the organization		
Address		
Telephone No		
Name of the Proprietor		
Nature of Business		
License Number and date of expiry		
Employees	Staff (Total Number)	Workmen (Total Number)
• Permanent		
• Casual		
• Badli		
• Temporary		
• Contracted		

B. Information regarding Social Accountability

- What is the minimum age required to join your organization? _____ Years
- What types of certificates (Like mark sheet, birth certificate) you keep with you? Original Copy / Xerox
- Do you require to keep any kind of deposit in form of cash at the time of employment? Yes/No
- Do you provide safe & healthy work environment as per statutory requirement? Yes/No
- If directly not provided by you, do you get health & safety benefits from NALCO? Yes/No
- Do you provide personal protective equipment(s) to your employees free of cost? Yes/No
- Do you provide safety training to your employees? Yes/No
- Do you ensure canteen facility for your employees? Yes/No
- Do you have any procedure in your organization for Accessing work place related risk? Yes/No
- Do you have any worker participation based team Such as SPT (social performance Team) and Safety health Committee (SHC)? Yes/No
- Do you have any procedure in your organization for Consultation with stake holder & interested parties for

- improvement of the system? Yes/No
- Does your organization charge any employment fee from workers? Yes/No
 - Do you have any system for consultation & communication with Employees and other interested parties to understand the provision Of SA-8000? Yes/No
 - Do you have any procedure for handling the grievance and problems of the workers? Yes/No
 - Do you have any evaluation system for your suppliers, sub-suppliers And contractors? Yes/No
 - What types of medical benefits you provide to your employees?
-
-
-
-
- Do you allow trade union and collective bargaining in your organization? Yes/No
- If no, how do you ensure freedom of expression?
-
-
-
-
-
- Incase of non-performance of any employee, how do you deal with such situations?
-
-
-
-
-
- What are the procedures of hiring/promotion/ remuneration in your organization?
-
-
-
-
-
- Do you provide appointment letter to your employees? Yes/No
 - Do you maintain a documented terms and conditions

of employment? Yes/No

- Do you maintain a disciplinary procedure? Yes/No

If no, how do you terminate your employee?

- How do you ensure that your employees are not discrimination on the basis of cast creed, gender, religion, age and dieses?

- How many shift you have? _____ shifts
- What is the official working time? _____ hours
- Which day is off day in your organization? _____
- In case, a person works in off day or holiday, how is he/she compensated?

- Do you pay overtime to your employeesas per law? Yes/No
- What is the lowest amount (salary/wage) you pay to your employees? Rs._____-/-
- Is there any case of deduction in wage? Yes/No
- In case, it is yes, what are the general reasons for such deduction?

-
-
-
- Is there any apprentice period in your organization? Yes/No
 - If yes, what is the apprentice period in your organization? _____
 - Do you have any international certification Yes/No
 - If yes, please specify

 - Do you receive, handle or promote goods and/or services from supplier/subcontractors or sub-suppliers Yes/No
 - Do you receive, handle or promote goods and/or services from supplier/subcontractors or sub-suppliers who are classified as home worker? Yes/No
 - If yes, what steps you have taken to ensure that they get similar level of protection as afforded directly by permanent employees?

 - Have you taken care to look into issues related to child labour Forced labour, health & safety, working hours and remuneration of your suppliers Yes/No

We do hereby declare that our organization is committed to social accountability. We will promptly implement remedial/corrective actions identified against the requirement and promptly inform your organization. We also declare that the sub contractors/sub supplier's performances are monitored by us. Moreover, we declare that if invited, we shall participate in awareness programme as well as monitoring programme organized by you.

We declare that the above-mentioned informations are correct.

Signature:
Designation:
Date

Seal of the organization

MANDATE FORM FOR ELECTRONIC PAYMENT THROUGH RBI
EFT/ RTGS/NEFT/Internet Banking

To

National Aluminium Company Limited,

Dear Sir,

Sub: Authorization for release of payment due from NALCO, through RBI-EFT/Internet / RTGS.

Refer Order No.....dt.....and/or Tender/Enquiry/Letter No.....dt.....

(Please fill in the information in CAPITAL LETTERS. Please TICK wherever it is applicable)

1. Name of the Party :

2. Address of the party :.....

.....

.....

City :.....Pin Code:.....

E-mail Id:

PermanentAccountNumber :.....

3. Particulars of Bank:

Bank Name		Branch Name										
Branch Place		Branch City										
Pin Code		Branch Code										
MICR No												
(9 Digits code number appearing on the MICR Band of the cheque supplied by the Bank. Please attach Xerox copy of a cheque of your bank for ensuring accuracy of the bank name, branch name and code number)												
Account Type	Savings ف		Current ف		Cash Credit ف							
Account Number(as appearing in the Cheque Book)												
RTGS / IFSC Code												

4. Date from which the mandate should be effective :

I hereby declare that the particulars given above are correct and complete. If any transaction is delayed or not effected for reasons of incomplete or incorrect information, I shall not hold National Aluminium Company Limited responsible. I also undertake to advise any change in the particulars of my account to facilitate updation of records for purpose of credit of amount through RBI EFT / Internet / RTGS.

Place:

Date:

Signature of the party/Authorized Signatory

Certified that particulars furnished above are correct as per our records.

Bank's Stamp:

Date:

(Signature of the Authorized Official from the Banks)