



Bid Number/बोली क्रमांक (बिड संख्या): GEM/2024/B/5108481 Dated/दिनांक : 29-06-2024

# Bid Document/ बिड दस्तावेज़

Bid C	Details/बिड विवरण
Bid End Date/Time/बिड बंद होने की तारीख/समय	31-07-2024 10:00:00
Bid Opening Date/Time/बिंड खुलने की तारीख/समय	31-07-2024 10:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	180 (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	Angul
Total Quantity/कुल मात्रा	1
ltem Category/मद केटेगरी	STACKER CUM RECLAIMER
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	Certificate (Requested in ATC) *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/बिंड से रिवर्स नीलामी सक्रिय किया	No
Type of Bid/बिंड का प्रकार	Two Packet Bid
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	3 Days
Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation

EMD Detail/ईएमडी विवरण

Advisory Bank/एडवाईजरी बैंक	State Bank of India
EMD Amount/ईएमडी राशि	2400000

# ePBG Detail/ईपीबीजी विवरण

Advisory Bank/एडवाइजरी बैंक	State Bank of India
ePBG Percentage(%)/ईपीबीजी प्रतिशत (%)	5.00
Duration of ePBG required (Months)/ईपीबीजी की अपेक्षित अवधि (महीने).	27

- (a). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy./जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित केटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज़ प्रस्तुत करने हैं। एमएसई केटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।
- (b). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable./ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए।

# Beneficiary/लाभार्थी :

AS PER THE TENDER DOCUMENT AS PER THE TENDER DOCUMENT (As Per The Tender Document)

#### Splitting/विभाजन

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

# **Reserved for Make In India products**

l ra			7
	Reserved for Make In India products	Yes	

# MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता	Yes

1. Bid reserved for Make In India products: : Procurement under this bid is reserved for purchase from 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. However, eligible micro and small enterprises will be allowed to participate. The minimum local content to qualify as a class 1 local supplier is denoted in the bid document. All bidders 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 the bid is liable to be rejected. 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 . In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

- 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 25% (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.

# Pre Bid Detail(s)

Pre-Bid Date and Time	Pre-Bid Venue	
1 15-07-2024 10:00:00	PURCHASE DEPARTMENT, ADMINISTRATIVE BUILDING, CAPTIVE POWER PLANT, NALCO, ANGUL, ODISHA, PINCODE-759145	

# STACKER CUM RECLAIMER (1 pieces)

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

# Technical Specifications/तकनीकी विशिष्टियाँ

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	<u>Download</u>

## Installation Commissioning and Testing (ICT) details for the above item:

% of Product Cost Payable on Product Delivery	90%
Min Cost Allocation for ICT as a % of product cost	20%
Number of days allowed for ICT after site readiness communication to seller	90 Days/दिन

# 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	SIBA PRASAD BEHERA	759145,CAPTIVE POWER PLANT NALCO, ANGUL	1	488

# **Buyer added Bid Specific Additional Scope of Work**

S.No.क्र.सं	Document Title	Description	Applicable/रिवर्स प्रभार के अनुसार जीएसटी i.r.o. Items
1	PRE BID CONFERENCE View	PRE BID CONFERENCE	STACKER CUM RECLAIMER(1)
2	PRE QUALIFYING CRITERIA View	PRE QUALIFYING CRITERIA	STACKER CUM RECLAIMER(1)
3	LOCAL CONTENT DECLARATION View	LOCAL CONTENT DECLARATION	STACKER CUM RECLAIMER(1)
4	EMD SUBMISSION CLAUSE View	EMD SUBMISSION CLAUSE	STACKER CUM RECLAIMER(1)
5	EMD BG FORMAT  View	EMD BG FORMAT	STACKER CUM RECLAIMER(1)
6	CPBG FORMAT View	CPBG FORMAT	STACKER CUM RECLAIMER(1)
7	LIST OF BANKS View	LIST OF BANKS	STACKER CUM RECLAIMER(1)
8	GENERAL CONDITIONS OF CONTRACT View	GENERAL CONDITIONS OF CONTRACT	STACKER CUM RECLAIMER(1)

The uploaded document only contains Buyer specific Additional Scope of Work and / or Drawings for the bid items added with due approval of Buyer's competent authority. Buyer has certified that these additional scope and drawings are

# 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) : Supply Installation Testing and Commissioning 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

Buyer Organization specific Integrity Pact shall have to be complied by all bidders. Bidders shall have to upload scanned copy of signed integrity pact as per Buyer organizations policy along with bid. Click here to view the file

# 4. Buyer Added Bid Specific ATC

Buyer uploaded ATC document Click here to view the file.

# 5. Buyer Added Bid Specific ATC

Buyer Added text based ATC clauses

A)THE ICT DURATION OF 90 DAYS AS MENTIONED ABOVE IN THE IC T DETAILS AT PAGE NO. 3 OF THE GEM NIT, FROM THE DATE OF SIT E READINESS COMMUNICATION TO THE SELLER HAS BEEN KEPT TO ENABLE THE ICT PROVISION IN GEM PORTAL AS THE MAXIMUM ALL OWABLE DURATION IS 90 DAYS.

HOWEVER, THE ACTUAL REQUISITE DURATION AS PER THE TENDER DOCUMENT FOR CARRYING OUT THE ICT SHALL BE 07 MONTHS FR OM THE DATE OF SITE READINESS COMMUNICATION TO THE SELLE R (KINDLY REFER CLAUSE NO. 11 OF THE AGREED TERMS & CONDITIONS OF THE NIT).

# 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

5/6

- 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 <u>attached categories</u>, 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 कार्रवाई का आधार होगा।

---Thank You/धन्यवाद---



TO: AS PER GEM BID

# PURCHASE RFQ

(Purchase Dept)

# NATIONAL ALUMINIUM COMPANY LIMITED

(A Govt. of India Enterprise)

**Captive Power Plant Division** Tel: - 9437585716 Fax:-06764220303

Email:-hrudananda.sahoo@nalcoindia.co.in

ANGUL - 759145, Odisha

RFQ No./Date: AS PER GEM BID

Contact Person/Telephone:

Hrudananda Sahoo / 9437585716

Purchase Group:

AS PER GEM BID

Quotation Deadline Date: Quotation Submission Time: AS PER GEM BID

AS PER GEM BID

Delivery Date:

Collective No.:

AS PER GEM BID 3000009880

Bidders shall upload this TECHNICAL SHEET along with your submitted bid towards confirmation of the technical specification.

Note: Non-confirmation to this technical specification points or incomplete confirmation to it may lead to rejection of the offer

SL.	Material Code	MATERIAL DESCRIPTION	UNIT OF MEASURE	QUANTITY
NO.	HSN Code			
1	99900003950	Stacker cum Reclaimer for Old CHP	EA	1

The Rail mounted Stacker cum Reclaimer with modes of operation like Stacking, Reclaiming and By-pass modes for Handling Uncrushed coal in Old CHP.

The Rail mounted Stacker cum Reclaimer with modes of operation like Stacking, Reclaiming and By-pass modes for Handling Uncrushed coal in

- 1. Design, Engineering, Manufacturing, Supply, Erection, Commissioning, Performance Testing of Stacker-cum-Reclaimer and Accessories as per Detail specifications and scope of work enclosed at Annexure I.
- 2. Replacement of old rails(all rails) alongwith it's fixture and rail allignment to be carried out by the bidder before erection/ commissioning of new stacker-cum-reclaimer.
- 3. Bidders shall inspect the site and obtain all information required and satisfy himself regarding all factors that may affect the work/ cost thereof before submitting the offer. Ignorance of site conditions shall not be accepted as basis for any claim or delay.
- 4. All the equipments and their important components should be of standard size and make as mentioned in detailed technical specification.
- 5. PDI: Pre-dispatch inspection to be carried out at supplier's works with minimum fifteen days prior intimation (Details as per TS).
- 6. Complete Inspection and Pre Dispatch Inspection (PDI) shall be as per NALCO approved quality plan and as mentioned in the specification in annexure-I.
- 7. DELIVERY PERIOD: Supply of all materials and accessories of the total system up to site within 09 months from placement of LOI and for Installation, erection, commissioning, PG Test till handover of the complete system together at NALCO, CPP site within 07 months from the date of last item supply.
- N.B: The total work to be completed within 16 months of the award of LOI.
- 8. GC AND TC: Standard and to be provided for all sub-assemblies/items.
- 9. Warranty: 12 months from the date of PG test at NALCO site or 24 months from the date of last dispatch whichever is earlier.
- 10. Payment terms mentioned in the specification in Annexure-I.
- 11.LD Clause mentioned in the specification in Annexure-I.

# Special instruction:

1. Bidders shall upload the this TECHNICAL SHEET confirming its detail
along with your submitted bid towards confirmation of the technical
specification.

 $2.\mbox{\sc Bidders}$  have to submit this Technical Sheet duly signed with below declaration.

For & On Behalf of NATIONAL ALUMINIUM CO.LTD.

488224/2024/CHP

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - #2	1 of 50

# **ANNEXURE-I**

# SPECIFICATION FOR "DESIGN, ENGINEERING, SUPPLY, ERECTION, COMMISSIONING AND PG TEST" OF STACKER CUM RECLAIMER-II

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	1 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	2 of 50

# **CONTENTS**

1. INTRODUCTION	: Page- 3 to 3.
2. INTENT OF SPECIFICATION	: Page- 3 to 4.
3. INSTRUCTION TO BIDDER	: Page- 4 to 5.
4. PAYMENT AND SCHEDULE	: Page- 5 to 7.
5. GENERAL INFORMATION	: Page- 7 to 8.
6. SCOPE OF WORK AND SUPPLY	: Page- 8 to 42.
7. SPARES, CONSUMABLES, TOOLS & TACKLES	: Page- 42 to 43.
8. INSPECTION AND TESTING	: Page-43 to 44.
9. FREE ISSUE OF MATERIALS	: Page-45 to 45.
10. ERECTION, TESTING, COMMISSIONING & HANDING OVER	: Page-45 to 46.
11.PERFORMANCE TEST AND GUARANTEES	: Page-46 to 46.
12. STANDARDS AND NORMS	: Page-46 to 47.
13. DRAWING AND DATA REQUIREMENT	: Page-48 to 50.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	2 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	3 of 50

### 1. INTRODUCTION:

National Aluminium Company Limited is one of the largest Aluminium producers in Asia having its Corporate Office at Bhubaneswar, capital city of Odisha, Mines & Refinery at Damanjodi in the Koraput district of Odisha and Smelter & Captive Power Plant at Angul district of Odisha. Nalco has also Port facilities at Visakhapatnam in the state of Andhra Pradesh in addition to regional marketing office at Delhi, Kolkata, Mumbai, Chennai, and Bangalore.

The Aluminum Smelter & Power complex located at Angul is 140 Km from Bhubaneswar on National Highway No-55. The Captive Power Plant (CPP) is having 10X120MW thermal power generating units installed in two phases. Coal handling plant (CHP-1) supply coal to first phase units #1 to #6 and Coal Handling Plant (CHP-2) supply coal to 2nd phase units from #7 to #10. CHP-1 (First Phase) was constructed during 1983-84 by M/S TRF and CHP-2 (Second Phase) was erected and commissioned during 2003-04 by M/S L&T. Coal Handling Plants (CHP-1 & CHP-2) are fully equipped with all the coal handling equipment to feed coal to power house, stack the coal in coal yards and reclaim from coal yards as per plan and feed to coal bunkers of the units in power house. Primary source of coal receipt is from MCL and NALCO own mines. Coal is received through own MGR coal rake system and through Railway rakes as well as through fixed trucks and hyva tipper trucks. Track hoppers exist to unload the wagons and Poclain unloads the coal from fixed trucks. Occasionally large size coal/boulders received through railway wagons and through fixed trucks/ hyva tipper trucks. Thus all the coal handling equipment like plough feeders, Crusher house, Travelling Trippers, coal conveyors, coal yards, Stacker-cum-Reclaimers exist in the system.

# 2. INTENT OF SPECIFICATION :

- 2.1 The intent of this requisition is to outline the requirements of the Purchaser for replacement of existing Stacker Cum Reclaimer # 02(Not in service) with a new Stacker Cum Reclaimer with latest design on the existing yard conveyor and same rail track(with complete replacement), which shall include site assessment to study the requirements, conceptualization of the project, survey & development of lay out plan, collection of required data/inputs/drawings, design(bought-out designs are not acceptable by Nalco), engineering, approval from Nalco, manufacturing, procurement, supply/ dispatch, transport/shipment both air & sea, inland transportation, receipt at site, storage & warehouse management, fabrication, assembly, erection, installation, construction, painting, hook-up with the existing system, testing, commissioning, performance & process guarantee, PG test, handing over of stacker cum reclaimer. In the process of engineering, vendor may have to visit the site number of times for gauging physical requirements and collection of data relevant to the process design.
- 2.2 The supplied system shall be a complete operating unit including all required auxiliary equipment for efficient and satisfactory operation as a system and integral part of the existing system. Vendor shall be

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	3 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	4 of 50

- responsible for furnishing all civil, mechanical, electrical, instrumentation and other inter-connecting and safety items as required to make the system complete.
- 2.3 All the equipment and materials supplied & installed under these specifications shall be installed / erected / constructed in accordance with sound design & engineering principles and good fabrication and construction practices. No omission from these specifications shall relieve the vendor of his responsibility for an adequate system as above. All materials supplied under this requisition shall be adequate for proposed service. Proper consideration shall be given to their function with regard to corrosion, chemical and process hazards and erosion due to the material being handled.
- 2.4 The proposed system shall be complete integrated unit that includes Stacker Cum Reclaimer with all accessories & switchgears, sensors & control instruments and other accessories required for the complete system.

All civil, mechanical, electrical & instrumentation items within the battery limit required for supply, installation, testing & commissioning and handing over of the proposed Stacker Cum Reclaimer shall be in vendor's scope.

#### 3. INSTRUCTIONS TO BIDDERS:

- 3.1 The bidder must inspect the site and obtain all information required for carrying out the job satisfactorily, understand the space availability, safety hazards and O&M constraints before bidding. Submission of bid will construe that such examination has been done by the bidder.
- 3.2 The Bidder shall furnish all the design, engineering, drawings, load data and QAP for all Civil, Mechanical, Electrical and Instrumentation & Control which will be vetted by the owner / consultant/ representative before execution.
- 3.3 The Bidder shall include in the scope the requirement of all lubricants & all other consumables for testing, commissioning of plant & equipment and for the operation of the plant during testing & commissioning.
- 3.4 Bidder shall have to bring all materials, tools & tackles and measuring instruments required for erection, commissioning/ PG tests, which can be taken back after completion of the work in case entered as returnable material.
- 3.5. The Bidder shall not off-load the contract or part thereof to any Sub-Vendor without written permission of the Owner. In the event that subletting of any part of the work is permitted by the owner, the fact that such permission has been accorded shall not establish any contractual relationship between NALCO & approved Sub-Vendor and also, it shall not absolve the Bidder from any of his obligations & liabilities under the contract.
- 3.6 The successful bidder shall submit a Master Network within one month from effective date of order. The master network will be in the form of PERT/CPM/GANTT CHART prepared system wise containing major milestones in all phases of execution of contract. The final master network as mutually agreed upon would

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	4 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	5 of 50

form the basic document from which schedules for design (bought-out designs are not acceptable by Nalco), engineering, procurement, construction and commissioning will be arrived at. These schedules will be prepared discipline or system wise. The final master network shall also form the basis for review of schedules, short-term programme and progress reporting for the entire run of the contract. The frequency/periodicity of programming and reporting will be mutually agreed upon.

- 3.7 The contractor shall arrange for weekly progress review meeting with the "Engineers" at site during which actual progress during the week vis-à-vis scheduled programme shall be discussed for action to be taken for achieving targets. The programme for subsequent work shall also be presented by contractor for discussion. The contractor shall constantly update/revise his work programme to meet the overall requirements and suit the material availability.
- 3.8 Contractor shall have at all times during performance of the work, post a technically competent person to supervise the work at the work premises. Any instruction given to such a person by the Owner/ Engineer in charge shall be construed as having been given to the Contractor.
- 3.9 To bring materials/ equipment/ tools/ tackles etc., to Construction site of the work, the Contractor has to produce challan/ proper documents to the Owner's personnel at gate. The materials shall be checked thoroughly by the Owner's personnel at Gate and recorded in their register before allowing any materials to the site. It is Contractor's responsibility to see that the recorded entry No., date, signature of Owner's authorized representative with stamp are there on the challan/ supporting documents before taking any materials into work site. In addition to above, entry of the material will be permitted only during the stipulated working hour, and more so, if consignee is available to receive the said material.
- 3.10 Approval or acceptance of drawings / documents and inspection and acceptance of the work shall not relieve the Contractor from any of his responsibilities under this contract.
- 3.11 It shall be entirely the Contractor's responsibility to provide, operate and maintain all necessary construction equipment, scaffoldings and safety gadgets, cranes and other lifting tackles, tools and appliances to perform the work in a professional and efficient manner and complete all the jobs as per time schedule.
- 3.12 While selection of the technology, equipment, and process, contractor has to ensure that, latest technology & engineering practices are followed and complied with emphasis of safety, statutory & regulatory requirements as specified in national & international standard.

#### 4. PAYMENT & SCHEDULE :

#### 4.1 Payment terms

The modified payment terms as per "Milestone Payment terms" is as follows:

The total order value of Stacker-cum-reclaimer-2 consist of two parts:

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	5 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	6 of 50

#### A. SUPPLY PORTION.

- a) 10% of "supply order value" shall be released against submission of the GA Drawing, Basis of Design (BOD) and Quality Approved Plan (QAP) duly approved by Engineer-In-Charge subject to submission of CPBG @ 5% of "Total order value".
- b) 80% of "supply order value" shall be released on pro-rata basis after receipt and acceptance of the materials at NALCO CPP site according to the approved billing break up.
- c) Balance 10% of "supply order value" shall be released after completion of successful erection, commissioning and PG test of the entire project at NALCO CPP site, duly certified by the Engineer-In-Charge.

N.B: In case the erection, commissioning and PG test is not completed within 07 months from the delivery date of last item as per approved BBU, due to reason not attributable to the supplier, then the balance 10% payment shall be released after 07 months from the delivery date of last item as per approved BBU against submission of equivalent amount of ABG valid for (12 months + 03 months) period. Further extension of ABG, if felt necessary, shall be done with mutual agreement between the supplier and Nalco. However ABG shall be released upon successful completion of erection, commissioning and PG test duly certified by the Engineer-In-Charge.

# B. ERECTION, COMMISSIONING AND PG TEST OF SCR-2 (SERVICES PART)

 100% Payment shall be released after completion of successful erection, commissioning and PG test of Stacker-cum-reclaimer-2 at Nalco CPP site, duly certified by the Engineer-In-Charge.

#### N.B:

- i. The above milestone payment terms shall be included with 'NO DEVIATION' conditions. Any deviation in payment terms shall be liable for the rejection of bidder's offer.
- ii. As the tender shall be floated in GeM portal, it is therefore necessary to include ICT condition in GeM to get a separate quotes for supply & services. Hence following payment terms matching to the milestone payment terms shall be part of GeM NIT:
  - 1. % of Product Cost Payable on Product Delivery: 90% (in line with milestone payment term 10-80-10)
  - 2. Min Cost Allocation for ICT as a % of product cost:20%

#### C. BILLING BREAK-UP

In case of requirement of part payment, the successful bidder will have to submit a billing break up which is to be examined and approved by the NALCO. Payment will be made as per the approved billing schedule and provisions in "A" above on certification by engineer –in-charge.

# 4.2 Mobilization advance

Not applicable

# 4.3 Completion Schedule

The successful bidder has to supply, erection, testing, commissioning, PG test and final handing over of the complete system within 16 (Sixteen) months from the date of placement of LOI / Brief order / PO, whichever is earliest. The Bidder shall submit a PERT chart / Bar chart indicating the duration & completion schedule of major activities considering 2 weeks for approval of drawings by the owner.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	6 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	7 of 50

#### 4.4 Price reduction schedule

Time is the essence of the contract and the contract should be executed within the time specified for delivery and total work completion requirement. For delay in completion of work attributable to the supplier, NALCO without prejudice to its rights under the contract shall reduce the price @ 0.5% of order value of delayed quantity for each week of delay or part thereof, subject to maximum of 5% of the total order value.

N.B: This shall supersede the LD Clause in GCC as well as the GeM GTC.

# 5. GENERAL INFORMATION:

5.1 Location: The plant and equipment to be supplied under this package will be installed in the Captive Power Plant (CPP) of National Aluminum Company Limited, located at a site approximately 10 Km. from the nearest town Angul in the Odisha State of India. This site is connected by a link road to the existing highway NH- 55, linking NH- 16 (Kolkata-Chennai) and NH- 53 (Kolkata-Mumbai). The nearest Railway Station is about 13 km from the plant and the plant is approximately 150 Km. from state capital Bhubaneswar.

#### 5.2 Site Condition & Climate:

#### Climate:

Temp. °C	Dry Bulb	Wet Bulb	Relative Humidity
Maximum	50	25.7	83 % at 26 °C
Minimum	06	14.80	33 %
Design	50 Max./ 06 Min		

# Rain fall:

Annual:	
Maximum:	2148.7 mm
Minimum:	756 mm
Average:	1243.7 mm
Heaviest Rainfall	257 mm
Peak Intensity	100 mm/ Hour
Design Intensity	100 mm / Hour
Rainy Season	Mid. June- Mid. Sept.

#### Wind Data:

Wind Direction	West & North-West	

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	7 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	8 of 50

Wind Velocity	180 KMPH Max.
Max. Wind pressure	At 10 m: 193 da N/M2
	At 20 m: 219 da N/M2
	At 30 m : 231 da N/M2

# **Barometric Pressure:**

Maximum	1001.4 mbs (Average Monthly)
Minimum	981.6 mbs (Average monthly)
Average yearly	Morning (08:30 hours) 993.5 mbs Evening (17:30 hours) 989.3 mbs
Design	981 mbs

5.3 Seismic Data: Design of structure for seismic load (due to earthquake) shall be as per design requirement of IS: 1893, considering zone-III and importance factor shall be 1.5.

# 6. SCOPE OF WORK & SUPPLY

6.1 Specification of existing as well as proposed Stacker Cum Reclaimer

1	Туре		um bucket wheel reclaimer for operating with or fed at one end and discharging at the other
2	Material handled	Coal	
4	Wateriai Handred	Bulk density	1.1 t/cu.m
		Size	(-)300 mm (>300 mm occasionally)
		Moisture (average)	10 %
		Angle of repose	36-38 deg
3	Capacity		
	Rated	Stacking	800 tph
		Reclaiming	800 tph
	Design /Peak	Stacking	1000 tph
		Reclaiming	1000 tph
4	Stockpile	Type	Linear trapezoidal
		Base width	35 m
		Length	300 m
5	Duty	Continuous	
6	Boom length		30 m
	Boom conveyor width		1200 mm
7	Slewing range	while stacking & reclaiming	±105 deg
8	Luffing range	(-) 11°38' to + 14°	
9	Operating	Bucket wheel-7.5 rpm (hydra	ulic system capability up to 10rpm)
	speeds	Boom conveyor (Bi-direction	al) 3.0 m/s
		Luffing (at BW centre)	3.0 m/min
		Slewing (at BW centre)	6-30 m/min
		Travel	15 m/min

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	8 of 50

OVERALL PAGE
9 of 50

10	Track rails	Size	ISCR 80	
		Gauge	7.0 m	
		Level (above btm. of pile)	0.8 m	
		Max. wheel load	28 t	
11	Yard conveyor	Belt width	1000 mm	
	170	Troughing angle	35 deg	
		Belt speed	3.0 m/s	
		Level (above rail level)	0.7 m	
		Location	At centre of trac	k gauge
12	Wind loads	Machine in operation	18.0 m/sec	296 N/m <sup>2</sup>
		Machine out of operation	50.0 m/sec	$1500N/m^2$
13	Ambient	Coal yard temperature not	less than 50 °C	
	temperature			
14	Power supply	6.6 kV, ±6%, 3 Ph, 50 Hz	3%A.C. (fault le	vel 40 kA for 3 sec.)
	STAR 970	(at centre of machine trave	el for a stock pile	length of 350 m)

# 6.2 GENERAL

- 1. The scope of the supply includes Design (bought-out designs not acceptable by Nalco), engineering, manufacture, shop fabrication assembly, testing, inspection at manufacturer's works, packing, dispatch, transportation, delivery to site, receipt, unloading, storage, required fabrication at site, installation, testing & commissioning, completion of facilities, performance guarantee testing, final painting at site and handing over of STACKER CUM RECLAIMER AND ASSOCIATED WORKS as per specifications and scope defined in tender documents complete with all accessories and drive, which are not mentioned specifically but are required for the efficient and trouble free operation of the equipment/system.
- Stacker cum Reclaimer shall be a complete system which shall include all structures, equipment, civil, mechanical, electricals, instrumentation work & accessories associated with the system.
- 3. The scope of the bidder shall be deemed to include all such items which although are not specifically mentioned in the specification, but are needed to make the equipment complete in all respect for its safe, reliable, efficient and trouble free operation. The items after complete erection are to be painted as per the instruction of Manager in charge.
- 4. The Scope includes replacement of all rails and rail alignment and erection & commissioning of all the equipment and accessories of HYDRAULIC OPERATED STACKER CUM RECLAIMER systems in place of old Stacker-cum-reclaimer-2. All electrical from existing control room to conveyor drive along with installation of necessary safety devices and interlocks are also included in the scope of work. The complete system should be hooked up to our existing PLC/ present system, all required hardware and software is included in the scope of work to make the system complete. Party has to make interconnectivity through both control cable & wireless (non-licenced) between Stacker cum Reclaimer with the existing Allen Bradley PLC (Model Control Logix L 7 Series) available in CHP I/

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	9 of 50

2-4/0111	PROJECT TITLE	OVERALL PAGE
	REPLACEMENT OF STACKER CUM RECLAIMER - # 2	10 of 50

II Control Room. All required hardware and software for the interconnectivity to be supplied by the party.

- Complete replacement of the existing rail system required for the above is also in the scope of the bidder. Bidder should visit the site to ascertain the scope of civil & rail work involved before tendering.
- 6. The successful bidder shall have to supply and replace all rails with rails identical to the existing rails/with latest rail design confirming to relevant IS. (Existing rails may be ISCR 80 as per IS 3443. However the bidder has to confirm from site before supply). All rail fixtures / clamps and fasteners are to be supplied and replaced and rails alignment is to be done.
- 7. The electrical supply (6.6 KV HT Power supply and Control Supply) will be given at the centre of the machine travel including scope of supply of centre pit junction box. Both Power and Control cable reeling drums should be positioned in-line with the existing junction box in order to avoid cable rerouting below conveyor 6B.
- 8. The design (bought-out designs are not acceptable by Nalco), manufacture, inspection and testing of Stacker-Reclaimer shall comply with all the currently applicable statues. The machine should be designed as per ISO 5049/1 & Regulation and safety codes in the locality where the equipment is to be installed.
- The Stacker-reclaimer shall confirm to the latest edition of the Indian Standard and codes. Other
  internationally acceptable standards / codes, which ensure equal or higher performance than those
  specified, shall also be accepted.
- Nothing in this specification shall be construed to relieve the contractor of the required statutory responsibility.
- In case of any conflict in the standard and this specification, the decision of the Manager In-Charge shall be final and binding.
- 12. All construction, installation, workmanship, design & equipment shall conform to acts, rules & regulations of the jurisdiction within which the project is to be located, and to the current edition of the following or equivalent standards or codes, in so far as they apply:

American Iron & Steel Institute (AISI)

American Society for Mech. Engineers (ASME)

American Society for Testing & Materials (ASTM)

American Wire Gauge (AWG)

Institute of Electrical & Electronic Engrs. (IEEE)

Instrument society of America (ISA)

National Electrical Code (NEC)

National Electrical Manufacturers Association (NEMA)

United States of America standards (USAS)

Bureau of Indian Standards (BIS)

Conveyor Equipment Manufacturers Association (CEMA)

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	10 of 50

488224/2024/CHP

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	11 of 50

# 6.3 **DESIGN REQUIREMENT: -**

# 6.3.1 Design requirements in general:-

- a. Travelling Stacker-cum-reclaimer will be mounted/erected on unidirectional yard conveyor for both stacking the coal in the yard and reclaiming from the yard using same conveyor belt.
- b. It should be of self-contained and self-propelled design with all the safety features.
- c. It should have capacity to scoop out or stack material at the guaranteed capacity in both forward and reverse motions without any wheel slip.
- d. The buckets should be of robust design to handle coal boulders and stone boulders which come along with coal.
- The Stacker-reclaimer shall be designed to guarantee the design capacity while handling entire range of lump size.
- It shall operate on the principle of positive discharge and shall not depend on friction or moisture content.
- g. The components and materials used and the equipment supplied shall conform to high standards of design, engineering and workmanship and shall be suitable for efficient operation and reliable service in the prevailing Coal Handling conditions.
- h. The supplied stacker-reclaimer should be able to perform on the existing rail structure / foundation.
- i. Suitable arrangement (RCC/ Structural platform) to be provided at the parking zone to stable and lock the stacker-reclaimer. Location of parking zone will be decided considering all feasible options during execution of the machine
- j. The under-carriage shall be fabricated of steel plates and section. The wheel mounting arrangement shall be such that the wheels can be dismantled easily from their supports.
- k. Walkways with hand railings shall be provided on both sides of boom conveyor (Minimum one meter on each side for ease in maintenance/ operation).
- The upper structure shall consist of rigid box type steel plate construction on which the super-structure supporting mast, boom with bucket wheel and counterweight boom with ballast are erected.
- m. The upper works shall be mounted on under-carriage by means of large diameter ring bearing of double roll roller type.
- n. The boom shall be fabricated from rolled steel plates and sections and shall be of luffing type.
- The counterweight boom with ballast which balances the boom conveyor shall be mounted on the upper structure and shall be suitably dimensioned.
- p. The counterweight boom shall be fabricated with rolled steel plates and sections. Suitable boxes shall be provided for placing the counter weights.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	11 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	12 of 50

- q. Dry type transformers, PCRD, CCRD, isolators, LCS, Outdoor Electrical Control Panel, welding power receptacles and all drives shall be suitably protected from accumulation of coal dust falling from the tripper section of machine by providing canopy.
- r. Adequate number of impact idlers shall be provided integral with stacker-reclaimer at the discharge region where the boom conveyor feeds material to yard conveyor through transfer Chutes.
- s. The impact idler frame mounting structures should not be dismantled during replacement of damaged impact idlers at stacker-cum-reclaimer discharge to yard conveyor.
- t. Coal should flow slide wise and centrally through the transfer chute from boom conveyor to yard conveyor (No direct free fall of coal from boom conveyor to yard conveyor is acceptable).
- Boom conveyor to yard conveyor transfer chute should have adequate inspection doors for chute inspection during operation/ maintenance.
- Boom conveyor head chute should have adequate inspection doors for chute inspection during operation/ maintenance.
- w. Suitable arrangement shall be provided at the starting point (belt take off point) of the tripper to avoid folding of belt while the tripper is in tension.
- x. Tripper head chute should have adequate inspection doors for chute inspection during operation/maintenance.
- y. The supplier shall furnish the detailed basis of design (BOD) used for design of the structural components of the stacker-reclaimer. The BOD shall be comprehensive and shall account for the various technical requirements of the specification and should include all parameters, assumptions, structural codes adopted, loading conditions and design software used.
- z. Manufacture of the stacker-reclaimer shall be taken up by the supplier, only after approval of the BOD by NALCO. However the approval is only meant for machine layout, suitable positioning of sub-assemblies, operational convenience etc. All the major criteria of the design aspect are in supplier's scope and he shall remain responsible for overall performance of the equipment.
- aa. During erection/commissioning/operation if any modification, installation required in Stacker-reclaimer for suitable performance to complete satisfaction of customer shall be complied by the party free of cost.

# 6.3.2 Specific Design requirement:-

- Boom conveyor including its GTU (if any) and return side should be placed minimum one meter above
  the boom structure, in no case it should come below the boom structure and should not come in contact
  with coal heap while reclaiming.
- ii. Boom conveyor tail pulley should be 02 meter (minimum) away from the bucket discharge.
- iii. Turbo-hub type design in pulleys is not-acceptable for entire Stacker-cum-reclaimer.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	12 of 50

24/0111	PROJECT TITLE	OVERALL PAGE
REPLAC	EMENT OF STACKER CUM RECLAIMER - # 2	13 of 50

- iv. Operator's cabin should be placed on the boom structure minimum 08 meter away from the bucket wheel with clear visibility of reclaiming position and bucket cutting point etc.
- v. Operator's cabin should be with complete dust proof sealing and Air condition system.
- vi. All the operating systems (traverse, luffing, slewing, bucket wheel operation, boom conveyor operation etc.) must be provided in Operator's cabin.
- vii. The cabin shall be kept in horizontal position always irrespective of the luffing position i.e. inclination of boom conveyor by suitable (automatic by master slave) arrangement as per luffing operation without any extra/separate operation for cabin level adjustment.
- viii. The operational controls of all parts of the stacker-reclaimer unit shall be provided in the operator's cabin within easy reach of the operator. Lights and fan for operator's cabin, adequate illumination at all areas for working at night shall also be provided. Coal cutting by bucket wheel shall be clearly visible from operator's cabin.
- ix. Communication (paging system desktop) should be provided in operator's cabin which should be hooked up to existing paging system (Bosch Make) with Control room. The Stacker Reclaimer will be under CHP-1 Control Room, 04 Nos of wall mounted stations (Hand Sets) with separate speakers to be supplied (preferably Bosch Make (Bosch make LBD 8921/02) and hooked-up with the existing Paging System.
  - Out of 04 Nos to be provided, 2 Nos should be installed outside in the Slew Stacker & LT area & 2 Nos should be installed in the Operator Cabin & Electrical MCC respectively with separate speakers.
- x. Sitting arrangement for operator must be provided inside the cabin itself from where he should be able to see the stacking / reclaiming operation in the yard through the glass / window panel of the cabin including operation.
- xi. The System shall be completely monitored by latest best in class CCTV system with PC interface in the Control Room. Minimum 06 Nos (ONVIF Compliant, IP Based, PTZ/ Varifocal Bullet as per site requirement) Cameras shall be installed in the required locations with the display at the operator's cabin. The CCTV system shall be supplied with suitable Licensed NVR / Server and interface PC in the control room.
- xii. Adequate approach area to be provisioned for all bearing housings, pulleys, hydro motors, HPPs, Lubrication system, Electrical switch gears, etc.
- xiii. The structural design should be such that dismantling of members is not required during replacement of pulley, bearing, bearing housing, idlers, etc.

# 6.3.3 Specific Mechanical Requirements:-

a) The stacker-reclaimer is to be designed and built to incorporate the latest technological progress in the engineering of large bulk material handling equipment & shall be capable of both stacking and reclaiming complete with adequate length of the existing rail track and its foundation.

नालको 🙆 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP INALES	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	13 of 50

24/0111	PROJECT TITLE	OVERALL PAGE
RE	PLACEMENT OF STACKER CUM RECLAIMER - # 2	14 of 50

- b) The designed support system should ensure reliability of operation with the permissible unevenness of the track rails.
- c) During coal feeding, the carrying belt should have maximum contact with toughing idlers to prevent off centre running of the belt and coal spillage /dust generation.
- d) Direct free fall of coal on boom conveyor belt from bucket discharge is not acceptable. (Coal should flow slide wise through an inclined guideways/ transfer chute to boom conveyor in order to reduce the impact force and velocity of flow).
- e) Mechanical track stops, belt trackers (both carrying and return), belt sway shall also be provided.
- f) In no-case boom conveyor return side should slide over the boom structures. Boom conveyor should always slide over the return idlers/ carrying idlers/ pulleys only.
- g) Boom conveyor return side should be half meter (minimum) above the side walkways for faster and quick replacement of return idlers/ pulleys.
- h) The equipment should be suitable for smooth, efficient and trouble free service in the tropical humid climate prevailing at plant site and under the ambient temperature conditions.
- i) All parts are to be conveniently arranged for ease of access with special attention being paid to the requirements for Operation & maintenance of the all the machinery (Free/ adequate access to HPP internals, pulley bearing housings, gearboxes, hydro motors, idlers, etc.).
- j) Adequate walkways with hand rails, ladders (No Monkey ladder), etc. are to be provided for convenient approach for operation and maintenance.
- k) All equipment shall be designed to withstand any rate of acceleration imparted by drives or any strain resulting from a sudden change in load.
- Further the design of Stacker-reclaimer carriage should be such that it does not run off from its rail due to sudden change in load or other reasons.
- m) All drive equipment including hydraulic motors, gear boxes etc. shall be selected based on 120% or more of actual power requirement at specified guaranteed capacity.
- n) Hydraulic components (hydro motors, HPP, pipelines, valves, gauges etc) shall be provided with dust proof cover and canopy for protection against spillage of ore/dust. Pressure/Temperature gauges shall be located at convenient locations for continuous observation by operator.
- o) The Digging wheel shall be driven by a step-less hydraulic drive.
- p) Only split type bearing (Cooper make only) is to be provided for digging wheel shaft.
- q) There should be separate power pack for slewing & digging operation. The hydraulic system normal average working pressure shall be selected considering the above loading condition.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	14 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	15 of 50

- r) The Operator's cabin shall be provided with toughened glasses (it must be replaced easily in case of damage) with wipers and the arrangement shall be such that glasses can be cleaned from outside without any scaffolding, Cabin door shall be provided with hydraulic door closers.
- s) Each hydraulic system (tank) shall have an individual "offline" filtration unit for oil filtration.
- t) Auto lubrication system (Only dual line lubrication system is acceptable) of reputed make like SKF, GRACO/LINCOLN is to be provided in the machine. There should be five separate lubrication pumps with IP69K protection and inbuilt timer for (a) slewing bearing, (b) bucket wheel and discharge pulley, (c) bogie wheels right hand side, (d) bogie wheels left hand side, (e) hinge pin and all other pulleys. These systems are to be fitted at site after supply.
- u) Equipment is to be provided with automatic storm lock and rail clamp for its safety.
- v) By pass chute with flap gate arrangement is to be provided in stacking path to divert coal either to coal yard or towards yard conveyor head end.
- w) Matching mechanical end stoppers and spring loaded type buffers for LT motion of stacker shall be provided on all the four corners of the machine besides end Limit Switches (LS will act as first level protection).
- x) Makes of gear box shall be Elecon / Flender / Premium energy transmission / Shanthi gears / Rexnord Make only. Hydraulic systems should be of Rexroth / Parker / Eaton Make only. Slewing bearing make should be Rothe Erde. NO OTHER MAKE SHALL BE ACCEPTABLE.
- y) Hydraulic systems are to be provided for bucket wheel drive, boom conveyor drive (bi-directional), slew drive system and boom luffing system with master slave arrangement for operator's cabin.
- z) HPP oil tank design should be such that the difference between minimum and normal oil level quantity is 50 liters of hydraulic oil (minimum).
- aa) Hydraulic system, electrical system and E&I, control system should be able to perform in coal yard ambient temperature not less than 52 °C. Design consideration must be taken up accordingly.
- bb) Dust suppression system, water spray pipe line and nozzles with suitable end couplings, water pump and water tank (2000 liters capacity) to be provided on the carrier boggy for spray of water at the cutting point of bucket wheel & discharge chute. Flexible hose (50 meter) with end connection / adaptor for filling of water to the tank from hydrant point is also to be provided.

# cc) DOCUMENTATION

The party shall submit (three) sets hard copies of the following documents along with soft copies.

- 1.1 O & M Manual in detail.
- 1.2 Hydraulic circuit diagram for all drives
- 1.3 Lubrication system layout drawings with O & M manual.
- 1.4 Structural drawings of all members along with GA drawing.

नालको 🖱 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
नालका (A) NALGO	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	15 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	16 of 50

- 1.5 Schedule details of all Pulleys, housings, idlers, frames, belt trackers, sprockets, chains, etc.
- 1.6 Detail drawings/ manuals of all mechanical drives, members, components, etc.
- 1.7 All drawings/Manuals shall be made in Auto -Cad System in A3 size
- 1.8 Soft Copies in removable hard disk of minimum one TB size

# 6.3.4 Electrical Requirement:-

# A. Power Supply:-

Incoming power supply: 6.6 KV, 3 phase, Fault level - 40 KA for 3 sec

Power supply for the Stacker cum Reclaimer shall be made available from the 6.6 kV switchboards. The scope of work of the Bidder shall commence from the outgoing terminals of 6.6 kV load break switch located at TP-3 of CHP-1. The party has to supply New Load Break Switch at TP-3 & Stacker/Reclaimer, the 6.6 KV XLPE cable from TP-3 New Load Break Switch to Yard Centre JB. The Centre JB to be mounted at the centre of the coal yard. The centre JB shall be provided with Canopy and should have IP-67 protection.

# B. Main power supply:-

A barrel type motorized cable reeling drum with HV cable wound on it has to be considered to take the power to the machine from center JB. Party has to supply the required length of HT (6.6KV) EPR flexible trailing copper cable as per overall compliance of IS: 9968 (Part-1). HT trailing cable should have 4 cores.

# C. Control supply:

Separate barrel type motorized cable reel for control supply to be considered. Party has to Supply the required length of LT Control EPR flexible trailing copper cable as per overall Compliance of IS: 9968 (Part-2). The number of cores shall be adequate with 30% spare.

# D. Complete Electricals:-The complete electricals of S/R includes,

- Motorised cable reeling drums (power & control) including flexible copper cables, stalled torque
  motors with conical rotor with integrated mechanical braking system (Demag make only), slip
  ring boxes, Load Break Switches, resistance boxes, Cable guide and clamp, Power and control
  Junction boxes etc.
- ii. Dry type Transformer shall be wheel mounted and with suitable protection.
- iii. 6.6 KV/415 Volt transformer is to be dry type, resin cast with Class-H insulation

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
नालको 🗥 NALCO	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	16 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	17 of 50

- iv. AC drives motors with DCEM/ Thrustor Brakes /inbuilt fail safe brake.
- Conventional type Control Panel, VVVF AC drives, Relay panel, Resistance boxes, Brake panels, LCS, junction box etc.
- vi. Traverse Drive with VVFD system
- vii. Anemometer and motorised rail clamps.
- viii. Control desks, Fault Annunciation panels
- ix. All Safety switches /devices (including pull chord, belt sway etc.), Limit Switches, instruments, Tacho-generator, Pulse Encoder, Warning hooters, anti-collision feature. Adequate space & access to be provided for maintenance of all safety devices.
- x. Chute jamming switch, Zero speed switches, material sensing probe etc. as required. Zero speed sensor positioning to be provided at middle portion of the BOOM Conv structure except head end/Tail End.
- xi. HT and LT power, control and special instrument cables etc.
- 415V, 3- Phase six (6) nos. Of Welding sockets at fixed & moving portion of Stacker / Reclaimer with provision of ELCB.
- xiii. Two (2) no. 6.6 KV Load break switch and one (1) no. 6.6 KV junction box for Stacker cum Reclaimer machine.
- xiv. Radio/Wireless communication (including minimum I/Os Indication, protection and interlocking requirements) shall be established in addition to hardware interfacing between Machine PLC and the dispatcher PLC through CRD control cable. In case of requirement of necessary statutory clearance / License etc. from Govt. authorities, for provision of radio/wireless communication, the same has to be arranged by the vendor on behalf of NALCO during the installation & commissioning. Subsequent renewals etc. will be done by Nalco. However, depending upon the site condition, preference may be given to a non-licensing type communication system.

**Note:** (i) Dry type transformers, PCRD, CCRD, Load Break Switch and all drives shall be suitably protected from rain and accumulation of coal dust falling from the tripper section of machine by providing canopy.

(ii) All the Electricals, drives etc. should of Energy Efficient and a comparison statement may be given with the conventional.

#### E. Electrical MCC:

1. The wall cladding will be made of self-supporting factory made of polyurethane foam (PUF) Sandwich panel of 80 mm (minimum) thickness. The PUF panels will be made of pre-painted GI

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	17 of 50

24/0111	PROJECT TITLE	OVERALL PAGE
	REPLACEMENT OF STACKER CUM RECLAIMER - # 2	18 of 50

sheet in both sides with rigid polyurethane foam having density of minimum 40 kg m<sup>3</sup> used as in filled. The panels are to be jointed with CAMLOCK made of special grade engineering plastics and additionally shall have tongue and groove configuration. The panel will be fixed in the floor in a 'u' shaped channel by inserting to it.

- 2. The roof will be made of PUF sandwich panel having plain pre painted GI sheet on both side sandwiched in between rigid polyurethane foam of minimum 60 mm thick density of PU foam.
- 3. Over the roof, slanted profile aluminum trough sheet to be fixed properly with necessary roof support. The sheet should have a minimum thickness of 0.9 to 1.0 mm with pre painted surface. The room shall be sealed against coal dust and air conditioned. The doors shall be provided with hydraulic door closer. Both the MCC doors should open to outside only.
- 4. The MCC house should have a strong canopy arrangement with GI plates of minimum 4mm thickness reinforced by grid structure to protect from rain and accumulation of coal dust falling from the tripper section of machine.
- 5. There should be Minimum 2 meter gap in between two panels (Panel front to Panel Front) and Minimum one meter gap between panel and wall.

# Electrical system design criteria

The design, manufacture, assembly and testing as well as performance of the equipment shall conform to the relevant IS: specifications (latest revision) and other relevant standards.

## **Electric motors**

All motors shall generally conform to IS 12615 or equivalent. The motors shall be IE-3 class and suitable for S1 Duty operation. Motors shall run continuously at rated output with + 5 % variation in frequency and + 10 % variation in voltage and + 10 % combined variation of frequency and voltage (absolute sum). Motor shall not stall due to momentary drop in voltage up to 70 % of rated value and shall run satisfactorily for five minutes at a supply voltage of 75 % of rated value. The limiting value of voltage at rated frequency under which motor will successfully start and accelerate to rated speed with load shall be assumed to be a constant value of 80 % rated voltage throughout the starting period. All motors shall be supplied with foundation bolts (if applicable), drain holes with plugs. Motors shall be designed for 50° C ambient temperature. Motors supplied shall be complete with required double compression cable glands, crimp type cable lugs and first filling of lubrication, name plate, etc. Motors shall have class 'F' insulation with temperature limited to class 'B'.

Degree of protection for motor and bearings shall be IP-55 for indoor and IP55 with rain canopy and weather proof construction for outdoor. Motor shall be suitable to withstand at least three



24/0111	PROJECT TITLE	OVERALL PAGE
	REPLACEMENT OF STACKER CUM RECLAIMER - # 2	19 of 50

successive starts from system cold condition and two starts from hot condition at normal system voltage and frequency.

The drive motor shall have at least 20 % margin over the maximum power requirement of the driven equipment after considering all losses, de-rating due to temperature and specific site and operating conditions. The motor may be subjected to sudden application of 150% rated voltage during bus transfer, due to phase difference between the incoming voltage and motor residual voltage. Vibration intensity shall be limited as per IS 12075 (1987). Continuous noise level should not exceed 75 dBA at a distance of 1.0 m from motor body.

Motors of 75 kW and above shall be fed from MCC through air circuit breakers, Vacuum Power Contactor with numeric type comprehensive motor protection relays. Motors below 75 kW shall be fed from MCC through MCCB/MPCB with power contactor and overload relay single phase preventer.

Motors of 5 kW and above but below 75 kW, shall have fed through MCCBs (for short circuit protection), motor protection relay (for overload and other motor protection) and power contactors (Pick up shall be positively at voltage between 85% to 110% of rated value).

For motor below 5 kW, MPCBs may be considered in place of MCCBs. Single phasing protection shall also be provided in the MCC modules. Space heaters shall be provided for all motors rated above 30kW. Adequate handling space shall be provided for all the big LT motors.

All switchgears of Stacker/Reclaimer shall be LOTO compliant for safe isolation/Normalization All outdoor motors/actuators shall have rain canopy. The motors/actuators shall be placed in such a way that it can be dismantled and transported easily and proper access shall be available for their handling. The motors should be of energy efficient type.

#### LT MOTOR CONTROL CENTRE (LT MCC)

# i) Constructional Features

MCC shall be single front, totally enclosed; dust and vermin proof (IP 54). ACB shall be draw out type having service, test and isolated positions and modules shall be fixed type. Panels should be of Floor mounting, free standing with base channel 50 mm high for fixing on the inserts on the floor. All the module of the MCCs/ Sub-MCCs shall be spacious to facilitate maintenance of equipment inside the module. Pollution degree applicable shall be pollution degree 4 as per IS-13947 (Pt-I), 1993. The LT MCC panel along with breakers, modules should be of reputed make such as L&T, Siemens, Schneider, and ABB. The bus bar of LT MCC shall be accessible for bus bar maintenance.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	19 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	20 of 50

#### ii) Incomer

MCC incomer and Bucket Wheel Reclaimer feeder along with one spare feeder of same rating shall have Air circuit breakers. Incomer shall be rated for at least 150% of maximum demand taking into account the spare feeders and shall be suitable for the specified fault level. Multifunction meters of reputed make should be considered with appropriate protocol for energy management system.

#### iii) Feeder Modules

Feeders for motors of 75 kW and above shall be with ACB, Vacuum Power Contactor and numeric type comprehensive motor protection relays. Other motor feeders shall be consisting of MPCB, MCCB, contactor, overload relay as main power components to ensure type 2 protection. The short circuit release of MCCBs shall be suitably selected to the applications concerned (Rated short time withstand current shall not be less than 50 kA for 1 second and Rated peak withstand current not less than 2.1 times the specified short circuit level). All the feeders shall have sufficient space for mounting of required switchgear & accessories and easily approachable for maintenance.

Other motor feeders shall be provided with spare modules for reducing the down time. The provision of 220V DC Supply with redundant source for the control scheme is in the scope of the party

iv) At least 30% spare feeders (minimum one spare feeder) of each type shall be provided. All modules shall be fixed type with provision of isolation & Normalization from outside panel door. Multifunction meters shall be provided for all motor feeders. Modules for Welding sockets should be provided.

#### v) Air circuit breaker (ACB) 415 v

Air break, draw out type conforming to IS 13947 (1993) and symmetrical breaking capacity not less than 50 kA for 1 second shall be provided. Service short circuit breaking capacity (Ics) shall be 100% of rated ultimate short circuit breaking capacity (Icu). Motor operated mechanism shall be applicable with air circuit breakers. Spring charged stored energy mechanism shall be there to ensure high speed closing and tripping independent of the operating forces. Electrical anti pumping and trip free feature shall also be provided. Spring charging universal motor suitable for rated control voltage (220 AC/DC) should be provided. The closing coil and trip coil shall be suitable to DC operation. Closing and tripping of ACB shall be by closing coil (operating range 85% to 110% of rated voltage) and tripping by trip coil (operating range 70% to 110% of rated voltage) respectively. The breakers are preferably with the following makes: ABB/Siemens/L&T/Schneider The bidder should provide the ACBs along with the followings.

Breaker lifting/handling trolley (for ACBs): 1 No.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	20 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	21 of 50

Breaker racking handle (for each ACBs) : 5 Nos.

Panel key (if applicable) : 10 Nos.

The protection shall be with separate High Speed Numerical Relays for earth fault, short circuit and over current. Separate under Voltage protection shall be provided .The scheme should have high speed lock-out relay protection (VAJH Relays may be considered).

Multifunction meters of reputed make should be considered with appropriate protocol for energy management system for *incomer breakers & motor feeders* 

# vi. Thermal overload relay

Thermal overload relay shall be triple pole, ambient temperature compensated, inverse time lag, hand reset type, bimetallic with adjustable setting and built in single phase protection. The relay shall be able to withstand prospective short circuit-current without damage or injurious heating till the motor protection MCCB clears the fault. Tripping indication and reset push button operable from outside shall be provided.

# vii. Push Buttons / Indicating Lamps / indicating instruments

Push buttons shall be spring return, push to actuate type and their contacts shall be suitable to carry and break 240 V AC, 10 A and 220 V DC, 10 A. Indicating lamps shall be LED LVGP (Low Voltage Glow Protection up to 100V) type. Standard colors shall be applicable for push buttons and for indicating lamps. Indicating instruments shall be flush mounting, square dial with 90° scale with zero adjusting device for external operation. Accuracy class shall be 1.0 or better. KWh meter shall also be provided with incomers. MCC shall have run / start, stop, tripped, and ready to start push button cum indication lamp for motor feeders.

# viii. Current transformers

The thermal and dynamic stability current for CTs and CT ratio shall be as per requirement. Protection and measuring current transformer shall be bar primary/ window type with 1A/5A secondary as per relevant standard. Burden of CTs shall be as required by the associated measuring equipment.

## ix. Potential transformers

Potential transformers shall be provided on incomers as well as on buses and shall be in same circuit breaker cubicle. 415 V sides of PTs shall have fuses. Accuracy class 1.0 shall be used. VA burden shall be selected based on meters and relays connected with the PT.

नालको 🙆 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP INALES	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	21 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	22 of 50

#### x. Control transformers

Control transformers shall be dry type 415V/240V, primary taps at +2.5 %, +5 % and shall be mounted in draw out trolley if outgoing feeders are in draw out execution. Control supply shall have supervision facility, alarm shall be provided for non-availability of any one of the control supply. Automatic/manual changeover facility shall also be provided. For capacity consideration of control transformers, each shall be capable to meet 100 % load including spare feeders and 10 % cushion for future and 15 VA for each module for remote aux. relays and indication lamps. Separate DC and AC control (3 ph & neutral) copper bus bars shall be considered for MCC. From AC control bus, motor space heater supply shall be tapped with suitable control and interlocking arrangement.

# xi. Internal Control Wiring and external Terminations

Internal control wiring shall be of 1100V grade PVC insulated, single core multi-stranded flexible copper conductor of minimum cross section 2.5 sq.mm. For CTs and space heater circuits and 1.5 sq.mm for other circuits. For CT secondary wiring, disconnecting type terminal blocks (CAD type) shall be considered.

xii. For external terminations, DIN rail mounting type Bakelite type terminal blocks shall be used complete with insulated barriers, stud type terminals, washers, nuts and lock nuts and identification strips. Power and control terminals shall be segregated.

# xiii. CABLES & CABLING WORK

All cables, including standard power and control cables conforming to relevant standards, signal, instrumentation, screened, fiber optics, copper power cables and special purpose cables required for applications concerned and for satisfactory operation of the all the drives shall be in the scope of the Bidder. Bidder shall include all the cable accessories like Lugs/connectors, glands, cable clamp, cable tie, identification tags, ferrules etc. are in the scope of supply as well as installation as per actual requirement at site.

# xiv. Cable trays

All the cable trays shall be prefabricated hot dip galvanized sheet steel trays and under the scope of bidder. Prefabricated GI ladder type / perforated type cable racks/trays shall be used for laying of cables. The factory made system of cable trays shall be complete in all respects with all standard accessories like reducers, bends, tees, risers etc. and shall be suitable for bolted type assembly at site so as to avoid any welding. The GI ladder type factory fabricated cable trays made from 2.5 mm thick hot welded steel sheets grade 'o' shall be provided as per IS: 2062. Hot dip galvanizing of 86 micron thick as per IS-2629, IS-4759 and IS- 209. Trays shall be of standard length of 3 M / 2.5 M with max

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	22 of 50

PROJECT TITL	E	OVERALL PAGE
REPLACEMENT OF STACKER CU	JM RECLAIMER - # 2	23 of 50

deflection not exceeding 1/400 of span with sufficient load bearing capacity. Sheet steel thickness shall be minimum 2.5 mm. Rung hall be provided at every 250 mm. At one meter interval two rungs shall be provided side by side to facilitate clamping. Beside, Bidder shall also provide suitable pre-fabricated bends of cable trays at all the bending points as per actual site requirement. Horizontal tees and 90° bends shall be provided for each size of cable trays as per actual requirement at site.

**Cabling system:** - Total Cabling of the equipment is to be carried out by the party as below:

**Fixed cable:** Power- 1.1 KV grade, PVC insulated AL/Copper conductor, armored. Control- 1.1 KV grade, copper conductor. All 1.1 KV grade cables are to be HR PVC insulated, armored, with insulations for conductor, inner sheath, outer sheath are to be extruded type confirming to relevant IS.

**Flexible Cable-** Flexible copper power cables have to be laid from MCC to each Drive. Necessary protection for flexible cables are to be provided. The routing shall be so designed for easy inspection and maintenance.

**Trailing cables:** Power- 6.6 kv (UE) grade, EPR rubber insulated, copper conductor ATC Control: 1.1 kv grade, EPR rubber insulated, CU conductor confirming to IS: 9968 (Part-1 & 2).

All cables are to be laid on trays as far as possible / conduit as required with special attention to protect them from mechanical damage.

All field control cables shall be 2.5 mm<sup>2</sup> stranded copper cable. MCC panel internal wiring shall be 2.5 mm<sup>2</sup> multi stranded copper wire with 1100 volts grade.

All cable trays and conduits are to be hot dip zinc galvanized iron (GI) type as per relevant IS. Cable trays in single tier or in multitier shall be installed in vertical arrangement everywhere to avert dust accumulation and space reduction.

Cabling shall include laying and termination at both ends, cable trays and cable accessories for the cables to be laid by the Bidder.

Bidder shall consider all required cables for cable engineering, preparation of cable schedule, terminal plans, cable support structure layout, cable layout drawings, etc. All cable trays, accessories, termination kits, glands, lugs, clamps, etc. shall be included in the scope for all the cables interconnecting both side equipment and one side equipment of the Bidder's scope.

Dry type transformers, PCRD, CCRD, Load Break Switch and all drives shall be suitably protected from accumulation of coal dust falling from the tripper section of machine by providing canopy.

Equipment selection and rating should be considered taking the coal yard ambient temperature 50 °C. Generally Squirrel Cage Induction Motor with DOL starter / VFD will be provided. Use of Slip ring motor in general will be avoided.

All motors will have class F insulation with temperature rise limited to class B. All motor should be IE3 type energy efficient.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	23 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	24 of 50

All motors should be of 120% rating value.

All controls shall be based on feedback signals from field equipment.

For all drives, zero speed shall be ensured before affecting reversal, by providing suitable speed sensing device.

Motors shall start on when the Brake and/or rail clamp, is in "Not Applied condition". This signal shall be obtained from limit switch provided for that purpose.

Provision for power-cut off in case of high wind velocity has to be incorporated in the system.

All sequential interlocks for proper material flow shall be provided.

It shall be possible to operate the lubrication system from operator's cabin.

# **Local Control Stations**

Local control station shall be provided for all the HT / LT drives located near the motors. Local control stations shall be of Glass Reinforce Fiber body. LCS of all the LT drives shall have start/stop push button and local/remote selector switch near each drive. Stop push button shall be of lockable type without key. Outside LCS shall be poly-carbonated type. All local junction boxes, welding receptacles, 230 Ac & 24 DC volt plug sockets, and local control stations shall have canopy with IP-67 protection.

**Manual - Local.** With the selector switch in this position all drive functions on the stacker-reclaimer can be operated by push buttons local to the drives. All other operation initiating devices shall be locked out.

Manual - Remote

Manual controls facility shall also be provided in control desk and keyboard (operator's cabin) as below:

- (1) Individual controls shall be provided for each equipment.
- (2) Manual slew speed variation and depth of cut setting facilities shall be provided.
  - -The design of the Stacker-reclaimer (especially Traverse) would be independent of carrying conveyor i.e. it should not have hanging idlers over the wheel axle set for running the carrying conveyor There will no contact in between the carrying conveyor and Stacker-reclaimer
  - Interlock (sensor type/mechanical type) must be available to trip the Stacker- reclaimer in case conveyor trips.
  - Attention may be given to provide sitting arrangement for operator, visibility for coal feeding, ladders/stair case both at leading & trailing side for safety and space management for easy equipment cleaning for housekeeping.
  - Cable tray (if any) will not be allowed to be laid on floor which is hindrance for housekeeping.
     Which means the hydraulic system of the Stacker-reclaimer should be designed to operate in dusty environment, moisture, etc.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	24 of 50

24/0111	PROJECT TITLE	OVERALL PAGE
REPLAC	EMENT OF STACKER CUM RECLAIMER - # 2	25 of 50

- Following minimum audio-visual annunciation shall be provided through integral type annunciation system in operator's cabin in stacker-reclaimer. Annunciation system shall meet the requirements specified in the relevant electrical sections.
  - (1) Wind velocity high
  - (2) Lubrication system trouble
  - (3) Luffing system trouble
  - (4) Chute plugged
  - (5) Coal flow rate high
  - (6) Belt sway switch operated
  - (7) Zero speed switch operated
  - (8) Pull chord switch operated
  - (9) Motor electrical protection operated (Individual)
  - (10) L.T. transformer Wind temp. High alarm and trip.
  - (11) LT breaker tripped
  - (12) HT switch tripped
  - (13) Rail clamps of stacker-reclaimer not engaged
  - Following individual indications for all drives shall be provided in operator's cabin and CRT
  - (1.) Motor ON / OFF / TRIP
  - (2.) Control supply healthy
  - (3.) All necessary position/motion/level indications. Analog ammeters shall be provided in control desk for all the motors.

Status of all field & switch gear Inputs to PLC to be displayed on the MMI screen on real time basis.

- Wind velocity indication shall be provided in operator's cabin Minimum 20% spare windows shall be available. Boom conveyor shall be interlocked in such a way that it cannot start in reclaiming mode unless yard conveyor is running. In addition, yard conveyor would not start unless boom conveyor is running in stacking mode (with CHP in stacking mode). Following indications shall also be provided in operator's cabin.
  - (1) Boom conveyor stacking
  - (2) Boom conveyor reclaiming
- For indications/interlocks indicated above, and for communication system between stacker/ reclaimer and main control room, party shall provide all necessary control cables.
  - Facility shall also be provided to trip stacker-reclaimer from main CHP control room.
  - A push button shall be provided in operator's cabin to trip the yard conveyor (emergency stop).
- A. The stacker-reclaimer shall receive power through trailing cables. Separate motorized cable reeling drums for power and control cable shall be provided with arrangements for winding and rewinding of the cables. The trailing cables shall run in a cable tray. Further, the trailing cable arrangement shall be such that the cables run in-between the track rails. Cushion shall be provided in the cable reeling drums for about 15 m extra cabling length.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	25 of 50

	PROJECT TITLE	OVERALL PAGE
REPL	ACEMENT OF STACKER CUM RECLAIMER - # 2	26 of 50

- B. Normal & Emergency Limit switches shall be provided to prevent traverse movement, slew and luffing etc. beyond the respective safe extremities. Interlocking shall also be provided for S/R rail clamps and traverse motors.
- C. Yard conveyor can be stopped from control panel of stacker / reclaimer. Provision also be given to trip the stacker / reclaimer from CHP control room.
- D. Travel drive equipment and slew drive equipment shall be suitable for 150 starts/hr with continuous reversals.
- E. Speed control of long travel (in case of electric drive) shall be through Variable Voltage Variable Frequency System (VVVF) with minimum 6 (Six) pulse design. Necessary input & output devices to be provided to reduce harmonics, as per IEE 519. All necessary protections e.g. Input Phase Loss, Earth Fault, Over Voltage, Output Short Circuit, Load Loss, Input Transient Protection, Overload etc to be provided. VVVF system shall be capable of generating suitable starting torque with/without encoder. Squirrel cage Induction motor with VPI insulation shall be provided with VVVF system.
- F. All the required power and control cables for the system are to be supplied and laid by party.

# Illumination system:

- Suitable indoor and outdoor Illumination with lighting Transformer and lighting distribution boards having adequate circuit distribution in three phase and 240V and 24 V AC socket outlets.
- 2 Lighting of the complete machine shall be designed based on lux level requirement of the system.
- 3 LED tube light fitting with warm-day light colour inside the cabin and MCC. LED based bulk head fittings with IP-67 protection to be provided for stairs, ladders, passages etc.
- 4 High intensity LED Flood light fittings with IP-67 protection to be fitted near the operator cabin for better visibility of the coal yard by the operator.
- 5 Vibration-proof mounting arrangement / fixtures withstanding high vibration has to be provided for all light fittings.
- 6 All outside light fittings should have separate circuit and should be timer controlled. The timer shall of astronomical timer type.

# Air-condition System:

The Electrical MCC room and operator's cabin are to be air conditioned. Air conditioners should be suitable for high ambient temp of 55 °C.

# Earthing:

 Earthing is to be provided as per IE rules with dual earthing for all items and earth shoes on either track rails.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	26 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	27 of 50

- 2. Earthing from rail track to main earth grid has to be ensured by the party. Existing earth pits are in damaged condition. Required earth pits have to be considered so that combined earth resistance shall be < 1 ohm. Electronics earth pits have to be considered separately.</p>
- 3 Minor civil works associated with cabling, earthing, conduit installation, illumination systems, lighting poles, for buried cables, for erection of equipment supplied by the Bidder etc. shall be included under scope of bidder. Similarly minor civil works like widening of floor openings / cable trenches, wall opening for cables, minor chipping, etc. shall also be included under scope of bidder.

# Miscellaneous Requirement:

- Neat & clean cross ferruling to be done by use of laser printing on plastic sleeves.
- All TBs shall be with nonferrous contact material (preferable vendors: Elmax/ Connectwell/ phoenix). Power & control TB's shall be bolt & nut type, with round type lugs with bi-metallic washer where ever required.
- TBs shall be fused type with LED indication for Power and field interrogation service. Doubledecker or higher TBs shall not be used.
- 4. Each cabinet shall have free space to the extent of 30% for ease of maintenance.
- 5. Cable trays shall not be loaded more than 60% of its capacity.
- Power supply distribution shall be done through MCB with proper rating & coordination up to node level.
- All drive current shall be displayed at operator's console. Necessary transducer arrangement to be done by the party.

# Mandatory Spares:-

The following mandatory spares have to be supplied in the package

10% of the following items used in the Electrical system have to be supplied which should be rounded to next higher integer. The item(s) for which 10% is less than one, one number is to be supplied.

- 1. The auxiliary contactor.
- 2. The power contactor
- 3. Indication Lamps with cover
- 4. Fuses of Each rating.
- 5. MPCB"S of Each rating
- 6. MCB's of each rating

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	27 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	28 of 50

# Make of equipment:

- 1. Motor: Siemens/ABB/CGL/Marathon/Bharat Bijlee/Kirloskar
- 2. Stall Torque motor: Demag make conical rotor brake motor only
- 3. VVVF Drive: Allan Bradely/Siemens/ABB/Yaskawa/Danfoss
- 4. Transformer: CGL/Bharat Bijlee/Voltamp
- 5. Electrical MCC: ABB/Siemens/L&T/ Schneider
- 6. LED Lights- Phillips/ CGL/ Bajaj/ Wipro/ Havells.
- MCC Panel: Shall be manufactured by OEM of Siemens/ L&T/ ABB/ Schneider. Test Reports for MCC panel as per relevant IS from CPRI/ NABL/ Govt Approved lab shall be submitted by party.
- 8. Any other make proposed by the bidder shall have prior approval of NALCO.
- Party has to submit list of "makes" for bought-out items during detailed engineering for approval by Nalco.

# **Documentation:-**

- 1) The party should submit (Six) sets hard copies of the following documents
  - 1.1 Site As-Built Drawings in A3 size
  - 1.2 Inter Connection drawings, Schematic Drawing
  - 1.3 Cable Schedules
  - 1.4 Equipment test certificates
  - 1.5 Load Data Details/Drives Characteristic curves/Motor data Sheet/Test Report from NABL Accredited lab
  - 1.6 All drawings/Data sheets shall be made in Auto -Cad System in A3 size
  - 1.7 Soft Copies in removable hard disk of minimum one TB size

The party shall visit the site before participating in the tender process to ascertain the available space and site condition.

# 6.3.5 Instrumentation (C&I) Requirement:-

The proposed system to be supplied with adequate self-sufficient instrumentation to facilitate trouble free operation, necessary in built safety interlock and its instrumentation including sufficient measurement to facilitate trouble shooting during any abnormal condition.

- Instrumentation product shall be from reputed international brand confirming to open standard. No prototype instrument (H/W, S/W) shall be used.
- Pressure transmitter with local indicator need to be used along with standard local gauge in important locations of hydraulic circuit to facilitate ease of diagnosis and operating condition.
  - The system shall be self-sufficient to operate from the local panel.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	28 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	29 of 50

- For other's /owner's interlock inputs related to Upstream/ Downstream equipment from the existing Allen Bradley make PLC of CHP -1 Control Room, all necessary signals including commands, feedbacks, permissive, Interlock conditions etc. need to be wired from the source to a stationary point (mid JB) for ease of hook-up.
  - PLC Cabinets shall be housed in an AC environment having relatively vibration free zone but not in the Operator Cabin.
  - Operator Cabin shall house one 12" Touch Screen HMI and another one fully loaded 12" Touch Screen HMI shall be supplied as Redundant.
  - 3. Provision to accept other's /owner's interlock inputs related to Up Stream/ Downstream equipment through reeling cable need to be considered along with separate reeling cable and reeling Drum. Maximum I/P, O/P shall be limited to approximately 50 Nos. This communication system shall be redundant and failure of either one Line A or Line B will not affect the communication or operation. Communication Cable 6 Pair 1.5 Sq. mm to be considered with CCRD Cable. All field cables shall be 1.5 sq.mm stranded copper control cables.
  - 4. The PLC shall preferably be Allen Bradley (Rockwell Automation) PLC
  - PLC System Cabinet Room (Electrical house) shall house its Engineering Work Station (EWS) and one "PLC System Cabinet Panel mounted" 7 inch Touch Screen HMI shall be provided for Emergency operation.
  - Latest Plat form & version of Operating as well as application S/W for all Touch Screen HMI and EWS as on date of acceptance after PG Test shall only be accepted.
  - 7. All interposing relays shall have manual forcing mechanism & each relay shall be mounted on a individual relay base and not on multi-channel relay board
  - 8. Interposing relay panel shall be completely separate panel & the system cabinet shall be completely separate panel. No field signal cable shall come into system cabinet. All Inputs from field to PLC and outputs from PLC to the field are to be routed through the Interposing relay panel.
  - Redundancy for Processors, Communication Modules / Network & Power Supply as a minimum shall be provided.
  - 10. Built-in isolation to input at DI & AI & O/P isolation at AO in respective module shall be there. Channel to channel isolation shall be provided for all types of module.
  - 11. Considering extra 10% load for future requirement the UPS shall be supplied with the system depending upon the load requirement and it shall be able to able to give back up for four hours. Design should also consider initial switching load.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	29 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	30 of 50

- 12. Hard wired Annunciation panel (LED version) shall be provided for all important process parameters & drives. It shall include all important interlocks and protections of all drives. Minimum 32 channel hard wired annunciation system should be provided. However it should contain 20% free wired channels.
- 13. Installed Spare & Mandatory spare philosophy shall be maintained as described below:
- a. Installed spare -
- i. Each installed module should have 10% (rounded off to the next higher integer) of pre wired usable spare channels.
- ii. Each type of installed module should have 10% (rounded off to the next higher integer) pre wired usable spare Modules.
- iii. 10% free space in rack
- iv. 10% pre wired usable spare relays shall be provided.
- b. Commissioning Spare: Start-up and Commissioning spares, as required shall be provided by the vendor.
- c. Mandatory Spare:

**For PLC:** 10% of Installed Quantity (rounded off to the next higher integer) of each type of installed module to be given as mandatory spare. This shall include I/O modules, Processors, Communication module, Power Supply and all other modules.

For Hydraulic Control System (Spider / similar Control Systems): 10% of Installed Quantity (rounded off to the next higher integer) of each type of installed module to be given as mandatory spare. This shall include Control Circuit Card, Power Supply Card, Display LCD, Memory Card and any other modules.

For C&I Field Instruments: 10% of Installed Quantity (rounded off to the next higher integer) of each type of installed C&I field instruments to be given as mandatory spare. This shall include Proportional Solenoid Valves, Pressure Switches, Pressure Transducers, Position Switch, Float Switch, Temperature Sensor, Clogging Indicator etc.

 One complete Electronic Belt weigher system preferably M/s Schenck make (with all mechanical support, Electrical accessories) having accuracy of ± 1% should be provided for online weighment of coal flow. Mandatory Spare- 10% of each item or minimum 1 no of each

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	30 of 50

24/0111	PROJECT TITLE	OVERALL PAGE
REPLAC	CEMENT OF STACKER CUM RECLAIMER - # 2	31 of 50

items whichever is higher, calculated over each type of item to be given as mandatory spare for the belt weigher.

- One number wind velocity meter with high alarm/trip output should be provided. Wind velocity indication should be available in operator's cabin.
- All parameters used in Permissive or Start / Stop / Trip Interlocks shall be indicated with required Pressure gauges, Temperature gauges and Level gauges. Solenoid valves, Level switches, Pressure switches etc. for Permissive or Start / Stop / Trip Interlocks should be provided.

Vendor to provide all required instrumentation for safe & trouble free operation of the equipment with the following in mind:

- 1. Neat & clean cross ferruling to be done by use of laser printing on plastic sleeves.
- All TBs shall be with nonferrous contact material (preferable vendors: wago/ Phoenix contact)
- TBs shall be fused type with LED indication for Power and field interrogation Service.
- 4. Double-decker or higher TBs shall not be used.
- 5. Each cabinet shall have free space to the extent of 30% for ease of maintenance.
- 6. Cable trays shall not be loaded more than 60% of its capacity.
- Power supply distribution shall be done through MCB with proper rating & coordination up to node level.
- The hard ware of the PLC shall be designed for the following requirements.
- a) Ambient condition: 20-50 deg C, RH: 20-80 %

### b) PLC Cabinets

- i. All the cabinets shall be free standing, enclosed type and shall be designed for bottom entry of cable. Cabinet structure shall be sound and rigid and shall be provided with removable lifting lugs to permit lifting.
- Cabinets shall be made from cold rolled steel sheet of minimum thickness 2 mm suitably reinforced to prevent warping and buckling. Doors shall be made from 1.6 mm thick cold rolled sheet steel.
- There shall be front and rear access doors with self-locking handles and concealed hinges. All
  cabinets should open with same key.
- iv. Vent louvers backed by wire fly screen shall be provided to remove the heat dissipated heat. Ventilation fans shall be used for effective cooling.
- v. Illumination by LED lamp and door operated micro-switch shall be provided.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	31 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	32 of 50

- vi. Protection class shall be IP-31 compliant. Paint shade-Siemens grey.
- vii. Provision for panel temp measurement and alarm on high temperature / stoppage of fan shall be made.(Make of cabinet: Rittal)
- The functional requirement of the system shall be composed of one or more processors and they shall perform all the data handling and computing functions required to:
  - a. Acquire data and display dynamically.
  - b. Handle operator commands.
  - Perform the computations required by the control strategies send commands to field instruments and/or other requirements.
  - Programmable Controller Processor shall be a state of the art microprocessor based module with enough computing, memory and resources available to perform the required control. The programmable logic controller shall have a memory word-length of at least 16 bits, and, in the event of disruption of program execution or scan, loss of logic power, loss of communication between controller and essential devices, or memory error, shall have the ability to either perform an orderly shutdown and alarm, or freeze the output, or both based on predefined program or condition. The offered PLC system shall have very high noise immunity in order to ensure safe and reliable operation when subjected to electrical radio frequency interference and electro- magnetic disturbances expected in a plant. Documentary evidence towards compliance to relevant standards shall be furnished. Automatic reboot after power failure shall be provided. Provision shall be made for the CPU (Central Processing Unit) to check all logic words for parity when read from memory. A parity error shall cause an immediate shutdown with alarm and visual indication. The CPU shall have the capability of servicing the input/output at any point in the user program as many times as desired during a scan. In addition, the CPU shall have the capability to conditionally skip execution of any part of the user program. A suitable locking arrangement at the CPU shall prevent memory modification unless an authorized person has intentionally enabled such a change. Main memory shall be retentive memory (core or CMOS with battery backup). CMOS memory with battery backup shall be capable of retaining all memory for a minimum of six months.
  - The backup battery shall be capable of being replaced without interruption of memory integrity with AC power off. The vendor shall establish a method of sizing memory required to fully implement the functions described in this Specification with 20 percent spare memory but it shall not be less than 16 MB.

The programmable logic controller shall have the capability to perform the following functions:

a. Data displaying

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	32 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	33 of 50

- b. Data printing
- c. Alarming
- d. Sequential process control (analog and digital).
- e. Numerical calculation
- f. Diagnostic monitoring
- g. Report generation
- h. Peripheral interfacing
- i. Data processor interfacing.
- j. logging operator actions.
- k. Trending, historisation and retrieval.

Each processor shall include, but not be limited to, the following redundancies:

- a. CPU redundancy,
- b. POWER SUPPLY redundancy
- c. COMMUNICATION NETWORK (I/O & HMI) hot redundancy
- Automatic switch over to stand-by CPU shall be provided in case of failure. Failed module shall be serviceable without affecting the active one. Down time is required to be minimal. The VENDOR shall provide availability documents citing PLC system MTBF and MTTR. The modules shall be fully hot swappable. There shall not be any interruption in the system while replacing the faulty module from I/O racks except for the I/Os being handled by the module. There shall not be any unintended energisation of out-put on insertion of I/O modules in power on condition
- System response time is defined as the time elapsed between changes in state of an output based on
  a change of state of a corresponding input and shall consider program execution, scan time and
  output action time. Maximum system response time shall be as short as practical, but shall not
  exceed 0.5 second.

### HARDWARE

### 1: System Design:-

The PLC shall be configured as fully redundant with dual processor and with redundant power supplies and redundant processor modules. Redundant power supply and processor modules shall reside in separate card files. The system shall be supplied with redundant communication modules (other than CPU resident port) to be located such that Data communications shall not be affected by a single hardware failure. The PLC cabinets including terminals shall be physically segregated on an area / equipment basis as far as practicable. Interface to plant signals will be via PLC non redundant I/O

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	33 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	34 of 50

modules housed in remote I/O stations (or separate racks in the same cabinet). The field cables from the I/O modules shall pass through field termination blocks suitably mounted within same cabinet or adjacent field termination cabinets.

### 2: Remote I/O station

All I/O modules should be connected and integrated into remote I/O racks. Each I/O rack shall communicate with both the redundant CPUs directly or through interfacing devices. Field cables shall be terminated at the field termination cabinets using "Klippon" 2.5 or equivalent terminals. The PLC vendor shall provide sufficient terminals for all I/O including cable/pair screens and 20% spares equally distributed. All analog and digital signal terminals (KLIPPON) shall be provided with disconnect facility for Maintenance/testing. All multi-strand wiring shall be crimped with suitable lugs. All remote I/O stations shall be located in the control room

### 3: Analog Inputs:

The Analog Input modules shall comply with 8 channels per card. 4-20 mA inputs shall be capable of being configured on an individual channel basis to provide energizing power for a 2 wire transmitter, or to receive a powered signal from an external device (4 wire transmitter). The 2 wire transmitter options shall be capable of providing 24 VDC Transmitter power plus an additional loop resistance of 600 ohms. The circuit for the transmitter power supply shall be protected by a current limiting resistor, such that the effect of a short circuit in one current is limited to less than 30 mA. Power supply fusing shall be provided on an individual I/O basis. Input resolution shall be 12 bits minimum. Calibration shall be accurate to within +/-0.075% full scale. Total drift shall not exceed +/-0.15% full scale over a 0-50°C change. Common mode rejection ratio shall be less than 70 dB, channel to channel cross talk rejection shall not be less than 60 dB. Inputs shall be capable of withstanding over-voltage of +/-30 Volts with respect to common, with no damage. The input scan rate shall be 4 samples per second per channel. All channels shall be scanned within a 250 ms window. Each input processor shall be provided with a reference calibration input channel, used internally to monitor the performance of the A/D converter. An alarm shall be generated on detection of error and change-over to the redundant module.

### 4: Analog Outputs:

The Analog Output modules shall comply with 8 channels per card. Analog outputs shall be 4-20 mA current sources capable of driving into a 600 ohm load. Each output shall have individual current limiting such that the effect of a short circuit to earth in an output does not affect the operation of any other, and that the fault current is limited to less than 30 mA. Each I/O processor module shall have multiple internal power supply paths to ensure that output power is not lost due to a single fault. Output resolution shall be 0.05% full scale minimum. Calibration shall be to within +/-0.15% full scale, over the range 0-50°C. Output current linearity shall be +/-0.5% full scale or better. Temperature stability

MALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
नालको 🔊 NALCO	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	34 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	35 of 50

shall be 0.02% full scale per °C or better. Output ripple shall not exceed 10 mV peak-to-peak at 50 Hz. Channel to channel output isolation shall be 1M ohms minimum. Isolated O/P to external device shall have 12 bit resolution with +/- 0.1 % accuracy.

### 5: Digital Input & Outputs:

The digital I/O modules shall comply with 16 channels per DI card and 16 channels per DO card. There shall not be combination of Inputs and Outputs in one module. Channel wise LED indication for Status, Power & module Fault for all DI & DO modules. Support for error diagnostics and alarm generation for module faults which can be viewed through programming software and HMI screen. Rated input voltage for DI module: 24V DC (Derived from potential free contacts from external equipment / Interposing Relays).DO modules shall be required to drive an external Interposing Relays of 24 V DC. Replaceable load fusing with LED indication at the terminal shall be provided on an individual channel basis. Each input shall be galvanically isolated from the system and other inputs to 1000 Vdc, and shall be capable of withstanding input voltages of 230 VAC on a continuous basis without causing damage. Input filter delay shall not exceed 1.0 ms. Field resistance for guaranteed ON conditions shall be 100 ohms maximum, and 200 ohms minimum for OFF condition.

### 6: Interposing Relays:

The following types of interposing relays shall be used with PLC DOs and DIs depending on application.

- a. For DO: High duty cycle electro mechanical contactor relays, 2 NO + 2 NC, 5.0 A 240 V AC for each contact, 24V DC coil voltage, with LED indication and forcing mechanism. Make: Phoenix/Siemens/Omron/S&S/ABB or equivalent reputed make heavy duty type.
- b. For DI: High duty cycle electro mechanical contactor relays, 2 NO + 2 NC, 1.0 A 24 V DC for each contact, 24V DC / 230 V AC coil voltage, with LED indication and forcing mechanism. Make: Phoenix/Siemens/Omron/S & S/ ABB make of heavy duty type.

The relays shall be pluggable on to DIN rail mounted individual sockets. PCB mounted relay are not acceptable.

7: I/O channels and Installed Spares: Vendor shall design the system considering the following minimum I/O channels and installed spare requirements. I/O requirement for the system (excluding installed spare channels/cards) shall comprise of following types of Modules:

•	24V DC Digital Input:
•	24V DC Digital Output:
•	Isolated Analog Input, +/- 10 V DC:
•	Isolated Analog Input, 4 – 20 mA DC:
	Isolated Analog Output, +/- 10 V DC:

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	35 of 50

488224/2024/CHP

2 17 0 1 11	PROJECT TITLE	OVERALL PAGE
	REPLACEMENT OF STACKER CUM RECLAIMER - # 2	36 of 50

■ Isolated Analog Output, 4 – 20 mA DC: \_\_\_\_

### 8: Input and Output assignment.

I/O start and stop signals for different equipment should be assigned to different I/O cards. Mixing I/O logic signals for different equipment in one I/O card should be avoided. How- ever I/O assignment shall be vetted by NALCO at engineering stage.

### 9: Power Supplies:

All PLC equipment shall be supplied to operate from 240 VAC, 50 Hz, earthed neutral, UPS derived power supplies. The UPS power Supply to PLC, HMI, OWS, EWS and Belt Weigher shall be provided with Surge Protective Devices for protection against lightning. Internal DC power supplies shall be capable of tolerating a supply voltage variation of 10%, frequency variation of plus or minus 2.5 Hz, interruption time of 10 ms and 5% rms harmonic content without adverse effect on the system operation. Following power supplies shall be provided at the minimum and the redundant power supplies shall be connected through diode decoupling.

- CPU Power supply: Two dedicated rack / DIN rail mounted PS module for each redundant CPU.
- 2. Separate Redundant I/O rack power supply for each I/O rack
- Separate Input interrogation power supply of 150% of required capacity (min 10 A) for each remote I/O station: Output-24V DC +/- 1%, Input-190V-260V AC 1ph 50Hz, regulated, efficiency-88% or above, IP 20, class-B with earthing, short circuit & over current protection.
- 4. Separate Output energisation power supply of 150% of required capacity (min 10 A) for each remote I/O station: Output- 24V DC +/- 1%, 20 A, Input-190V-260V AC 1ph 50Hz, regulated, efficiency-88 % or above, IP20, class-B with earthing, short circuit & over current protection.
- All redundant PLC equipment shall be capable of receiving two power feeders, from separate independent supplies designated A and B.
- Power received from the UPS shall be distributed to the various loads through a Distribution board with suitable MCBs and fuses.

### 10: UPS:

The UPS preferably Emerson make shall be sized accordingly at a capacity not less than twice the load requirement. The UPS shall consist of charger, inverter, Voltage stabilizer, Static By-Pass, Battery Bank, Maintenance By-Pass and input isolation transformer. The backup power requirement shall be sized for 4 hours. Battery shall be of SMF type from Exide / Amara Raja only. Battery sizing calculation shall be furnished with the offer. The UPS shall be IGBT based with digital control and alarm system. The signals from Potential Free alarm board shall be hooked up to the PLC for alarms. Enclosure: IP42.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	36 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	37 of 50

Preferred Vendors: Emerson Network Power, APC (Schneider Electric), Socomec UPS

### 11: EARTHING:

Separate earthing systems shall be provided i.e., an electrical safety earth connected to all cabinets and metal work, a system signal earth for systems screen common (O V) lines. All metal work shall be positively connected to the electrical safety earth either through metal fixing screws or through separate earth straps. Earth pit construction (using pipe in pipe type electrode and back fill compound) and earth cable connection from the cabinet shall be in the scope of the vendor.

- Programming Software: One Dongle / CodeMeter Licensed PLC programming software to run in ON-line, OFF-line and Development / Program mode. This PLC programming software should be a GUI based Windows application is to be loaded to the Engineering Work Station (EWS) PC and the Programming device (laptop). The Dongle / CodeMeter License shall license to run the PLC program both in the EWS and in the Laptop. It shall be possible to communicate with the PLC in Ethernet TCP/IP mode. Any necessary interface hardware or software required to achieve these functions shall also be supplied. User program access shall have minimum two levels password protection such as Full access and Read only access. Software shall be supplied with Dongle / CodeMeter license. It shall have the following facilities / features at the minimum.
  - Program changes shall be allowed element by element such as adding, deleting, or reversing (NO to NC) contacts without replacing an entire rung.
  - Program changes shall also be allowed to delete or insert entire rungs inside the program.
  - A search feature shall allow operator to call up any contact or coil in the program by reference.
     An override feature shall allow operator to override input and outputs on or off from the terminal.
  - 4. Any rung may be corrected without having to totally re-enter.
  - New elements may be inserted or deleted in a rung, and rungs may be added or removed any place within the ladder diagram. This function may be performed at any time in the program mode on Run /program mode.
  - All elements of a rung shown on the terminal shall be intensified when "true" to allow viewing
    of the rung and observing he condition that exists on both input and output devices.
  - 7. The programming terminal shall have the capability to monitor /program all programmable controllers, one at a time, by means of selection. Program documentation software shall include, but not limited to:
    - >Hard copy printing of program and comments

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	37 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	38 of 50

- > Comments insertion
- > Cross reference tables generation and printing.

The software shall be installed on to the ENGG station and the programming device with the following specifications.

**Programming Device:** One proprietary programming tool required for engineering station shall be included in scope of supply. A portable programming station (Laptop) with all the ladder logic/ programming/software shall be provided for engineering and troubleshooting functions. Latest generation Intel i7 Processor or higher, compatible to your system, 15" wide screen 16 GB DDR4 RAM, minimum 512 GB SSD, integrated graphics with shared memory, Integrated wireless, integrated Bluetooth, 10/100/1000 fast Ethernet, 03 nos. USB, Microsoft Windows 10 Pro OS or higher, MS Office (Latest) Business/Professional version. Antivirus with minimum 3 years License in DVD media to be supplied.

- HMI Package: The HMI package shall consist of 02 Nos of 12" HMI of touch screen display type located in operator cabin, 01 No. of 7" HMI of touch screen display type mounted in the PLC System Cabinet in the Electrical House. The above mentioned 3 Nos of Touch Screen HMI shall be loaded with the PLC Display Software with inbuilt Licence. 01 No. of PC based Engineering Work Station (EWS) with minimum Intel i7 Processor latest generation, compatible to your system, 16 GB DDR4 RAM, minimum 1TB HDD, 22" wide screen along with necessary accessories, DVD Drive, communication hardware, cables, switches etc. The above mentioned Engineering Work Station (EWS) shall be loaded with the PLC Display / HMI Software with Dongle / CodeMeter License.
  - a. The HMI software shall be capable of running under windows OS. Licensed copies of HMI software packages of latest version shall be provided to run in the HMI workstations/engineering stations. One of this software shall be supplied with Development facility. The software shall be supplied with Dongle / CodeMeter license.
  - b. Built-in library like graphical objects & pictures, built-in editors like screen designer, alarm logging, Tag logging, Report designer etc shall be available. If separate modules are necessary for historical data analysis, event/alarm logging and other MIS reporting functions, that shall be supplied along with the software package.
  - Standard interfaces, for open integration with other Windows applications like ODBC, ActiveX, OPC etc shall be provided.
  - d. Minimum number of Tags: Shall be sufficient to meet all the internal, external and on-screen functions of the HMI such as, alarm display, message display, analog indication, digital indication, trending, report generation, PID controls, mathematical calculations, command

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	38 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	39 of 50

- buttons, selection switches, event logging etc for a minimum of twice the number of I/Os in the total installed modules in PLC.
- e. The HMI software shall be capable of handling all HMI functions including Monitoring & PID control of process parameters; Sequencing & interlocking; Mathematical functions; Data acquisition; Message handling functions; Recipe management etc. It shall be configurable to provide for monitoring and control of all points, loops and system through graphic display screen and hard copy (printer output) reports. These shall include but not limited to:
  - i. Parameter & value display for process I/Os.
  - ii. Control loop status displays
  - iii. Trend displays Real time and Historical data
  - iv. Event and Alarm displays and log reports
  - v. Equipment diagnostic displays and reports
  - vi. Operator action log
  - vii. Reports using the logged data shall be generated using standard third party database management tools such as spreadsheets and crystal report writers.
- f. User access: Up to minimum 02 levels in Runtime mode.
- g. The HMI package should have the facility to act as both OPC server and OPC Client. This would enable any system supporting OPC communication, to communicate with this HMI package. Required License if any shall be supplied.
- h. Self-diagnostic capability. On-line diagnostics for self-faults and PLC faults. These alarms shall be displayed on the HMI screen and also shall be logged in the Alarm history. Status of all the components up to I/O card level shall be displayed on a system layout graphics page with distinct colour change from normal to alarm / failure state.
- i. The HMI shall have separate graphic display pages for each drive with Start / Stop Permissive, Protection / Trip Interlock logics. All these inputs are to be dynamically updated. Standard Colour coding to be followed for ON/OFF, Start / Stop, Release and availability or non-availability of permissive for dynamic updation.

**DCS / THIRD PARTY INTERFACE:** The system shall support communication with third party devices / PLC through industry standard interface and protocols like Modbus over TCP-IP, profibus, OPC etc.

Some 50/100 data shall be exchanged between this PLC & PLC at CHP. Suitable hard ware and software shall be offered for the same. Implementation of the same shall be in the vendor's scope.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	39 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	40 of 50

They shall make detailed study of the site conditions, functional requirements, process condition / interlocks/ sequences etc to know the job requirements before finalizing the design of the project. The design and engineering activity shall include but not limited to the following:

- > Finalizing the System Architecture
- ➤ I/O list with I/O termination details
- Finalizing the PLC & HMI system hardware & software.
- ➤ I/O distribution in RI/O station
- ➤ Interposing relays for driving outputs and inputs Specification, qty & their distribution in RI/O station
- Power supply distribution
- Location of RI/O panels & operator control desks
- Design & component layout of RI/O panels, Operator control desks, CPU panel, Engineering control desk etc
- Development of PLC application software: Shall be developed as per the required interlock & protections, analog/digital process loops and process flow sequence, in consultation with the engineer-in-charge.
- Development of HMI screens, Tag database, Alarm & Event database for all operator control desks in consultation with the engineer-in-charge.
- Development of all Reports. Reports shall be provided as per NALCO's format based on user defined start & end date/time.

## INSPECTION, ERECTION, TESTING, COMMISSIONING AND HANDING OVER LIST OF DRAWINGS & DOCUMENTS (Automation)

Following drawings and documents shall be submitted by the Bidder:

# (a) To Be Submitted By The Successful Bidder During Detailed Engineering (I) FOR APPROVAL:

- Finalized system configuration diagram for the automation system along with its peripherals with list of hardware and write-up on the system.
- Bill of Materials & Data Sheets of all the hardware i.e. Processors, Communication modules,
   Power supply cards, Operator stations, Eng Stations, Servers, Bus cables etc
- Overall General arrangement drawings & sectional views of various cabinets, panels, consoles, etc., showing internal disposition of all components/ units, with dimensional details and bill of materials.
- 4. Interfacing details for interfacing with CHP − 1/2 Control Room PLC.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	40 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	41 of 50

- Single line power supply diagram with specification and bill of quantities of electrical accessories.
- Control room layout drawing showing disposition of panels, consoles, desks, etc with dimensional details.
- Detailed technical catalogues & a write-up explaining the system offered shall also be submitted along with details of all software being considered.
- 9. Total power requirement & heat load for automation system.

### (II) For Scrutiny and Reference

- Detailed technical literature/catalogue for Automation-system with peripherals, with the model number.
- 2. Input/ Output list.
- 3. Terminal diagram of all the Marshalling panels.
- 4. Cable schedule and specification.
- 5. System grounding scheme.
- Formats and work sheets for generation and display of overview, groups loops, graphics, alarms, operator's guide messages, real time & historical trends, log & shift formats.
- Detailed listing of application software, system software, HMI software, etc and the number of licenses.
- 8. Application software formats and details in documentation and CDs.
- Manufacturer's test, calibration and guarantee certificates for all instruments and automation system.
- 10. Operation and maintenance manuals for Automation system.
- 11. As-built documentation.

### For supply before Closure of Contract:-

All the drawings and datasheets etc. shall be made in AutoCAD latest version. Soft copy of these drawings in CD media and at least three hard copy of each of the following shall be submitted.

- a) Final "As Built" drawings and datasheets as listed above.
- b) Loop wiring diagram for each I/O indicating interrogation power supply distribution, relay contacts and field device connections. It should indicate I/O address, field termination and panel termination on the route.
- Hard copies of PLC logic along with cross reference, address, comments and other system Software Descriptions and follow the format given below
- i) Program Description

	DOCUMENT TITLE	DOCUMENT	REVISION	DOC PAGE
नालको 🔊 NALCO				3195 (minute)
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	41 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	42 of 50

For every software module a full written description of its objectives and functions shall be provided. It shall be in sufficient detail to allow a person with no prior knowledge of the system to determine the function of each module.

### ii) General Flow Diagrams

This shall provide, in standard symbols, flow diagrams for the total system, indicating the flow of information between the various software modules and all external devices.

### iii) Basic Equations

A full description of the basic equation and calculation procedures used in the system shall be provided. This shall be cross referenced to the modules in which the equations are used and the calculations carried out.

### iv) System Editing

The VENDOR shall provide all information & required tools to carry out editing and loading of configuration information into system libraries. A full description shall be provided in the techniques required to amend existing configuration and replace old versions in the system. A separate list of editing feature (adding/deleting for points, CRT pages, microprocessor configuration, etc.) shall be included, defining what can be done on line, on the Operator Console, and what must be developed off line on the Engineering Work Station.

- d) Operation, configuration, installation and Maintenance manual for all modules of the PLC and HMI workstation.
- e) CD back up containing as-built application software for PLC and HMI.

The successful Bidder shall submit the consolidated list of various drawings indicating schedule date of submission and approval within one month after award of contract .Bidder shall submit required copies of drawing, documents, calculation data information etc to NALCO. Bidder shall resubmit the drawing after the incorporation of comments to NALCO within 15 days for approval. The actual schedule of these data/ drawings shall be discussed and mutually agreed to, between the Owner and the successful Bidder before the issue of Letter of Award of Contract. Technical details not included in the tender or revision of any data furnished earlier must be submitted for the approval of the Owner before start of corresponding work.

### 7. SPARES, CONSUMABLES TOOLS & TACKLES

### (A) Commissioning Spares

Supply of commissioning spares as required shall be in scope of supply of the Bidder along with the equipment. It shall cover requirements of erection, cold tests, start up and initial operation of the plant till integrated testing & successful commissioning. Any leftover commissioning spares shall be the

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	42 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	43 of 50

property of the Purchaser. Any commissioning spares required over and above the list given by the Bidder shall have to be provided by the Bidder free of cost up to the successful commissioning.

### (B) Consumables

The Bidder shall supply all consumables such as initial fill of lubricants, oils, grease, chemicals, etc. as required to complete the plant till commissioning. The Bidder shall also furnish Indian equivalent of oils, lubricants, and other consumables along with necessary specifications, drawings, catalogues etc. to enable the Purchaser to procure them from indigenous sources.

### (C) Special Erection / Maintenance Tools and Tackles:

- 1. All Tools & tackles required for the satisfactory execution of work shall be arranged by contractor at his cost. All instruments, measuring tools etc. are to be calibrated periodically as per the requirement of NALCO and necessary calibration certificates are to be submitted to NALCO before use. All the lifting tackles including wire ropes, slings, shackles and electrically operated equipment shall be got approved by NALCO Engineer before they are actually put on use. Test certificates should be submitted before their usage. For the movement of cranes / mobile equipment, it may become necessary to lay sleeper bed for obtaining leveled safe approach for usage of equipment. It shall be the contractor's responsibility to lay necessary sleepers. Required sleepers shall be arranged by the contractor at their cost. It shall be contractor's responsibility to arrange necessary cranes/ tractors, trailer or trucks/ slings/ tools and tackles/ labour including operators to transport equipment, move it to erection site/ pre-assembly yard and unload the same at pre-assembly yard/ erection site and the quoted rate shall include the same. All equipment so used by contractor shall be of proven quality and safe in operation as approved by the statutory authorities as per the law in force.
- 2. The Successful Bidder shall indicate list of construction machineries, handling equipment and other facilities including tower crane or equivalent for erection at high elevation required for the execution of work based on their previous experience, considering site conditions and other considerations of work and furnish resource deployment plan. The successful Bidder shall mobilize this equipment at site for the execution of work and this is an important requirement of the project. The availability of required facilities shall be ensured by the bidder for completing the project in time.
- 3. For any fabrication / control assembly (necessary for erection) work to be done in the plant premises the plan shall be indicated by the Bidder. The necessary equipment such as plate bending machines, special purpose welding machines, fixtures, tools & tackles and other equipment required for fabrication shall be arranged by the successful Bidder.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	43 of 50

24/0111	PROJECT TITLE	OVERALL PAGE
	REPLACEMENT OF STACKER CUM RECLAIMER - # 2	44 of 50

- Electrical/ operation tests, as per standard practice, shall also be arranged and completed by them.
   All the measuring instruments shall be calibrated having reference to NPL (National Physics Laboratory).
- 5. All materials, equipment, tools, tackles etc. brought at site by the successful Bidder within the plant area shall not be removed without the written permission of the Purchaser. Similarly, all enabling works built/erected and/or acquired by them within the plant premises shall not be dismantled and removed without the written permission of the Purchaser.

### 8. INSPECTION AND TESTING

- 8.1 The details of the checks to be carried out for various components (QAP) are to be submitted after placement of order by the successful bidder for approval.
- 8.2 Individual equipment shall be shop tested as per the applicable codes and standards for performance and output. Bidder shall perform the required tests necessary to fulfil the acceptable noise limits.
- 8.3 Depending upon the requirement, Nalco will have option to visit the vendors factory minimum once to inspect all the equipment in its progressing state of manufacturing to check equipment, materials procurement control, manufacture progress, follow-up schedule, raw material conformity on presentation of material certificate, quality control, conformance to drawing, specification requirement, function of operating parts, overall size, welds quality control of the points undergo maximum stress etc.
- 8.4 Pre-despatch inspection by NALCO or third party will be carried out for which bidder shall give 15 days' advance written notice of equipment being ready for inspection. Unless the witnessing of the tests is waived, inspection shall be carried out within 15 days of the date on which the equipment is notified as being ready.
- 8.5 Performance testing of complete system shall be done at site by the vendor.
- 8.6 A functional test shall be performed for the instrument and control system for individual equipment and also the system as a whole. Bidder shall provide all the necessary interconnections for the purpose of shop tests. Any or the entire tests may at the owner's option, be witnessed by the owner or its representative. However, all such inspections shall be regarded as check-up and in no way absolve the contractor of his responsibility.
- 8.7 After installation and commissioning at site, the units shall be tested for overall performance as per procedures mutually agreed upon. All instruments and gadgets for testing at site shall be arranged by bidder at his own cost.
- 8.8 Type & routine test report/ certificates shall include details of standard to which the tests are performed, test parameters, acceptance criteria, test set up etc. used during the testing along with the test piece details/ rating and the detailed test record and final test result.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	44 of 50

24/0111	PROJECT TITLE	OVERALL PAGE
	REPLACEMENT OF STACKER CUM RECLAIMER - # 2	45 of 50

8.9 All inspection, measuring and test equipment used by the contractor shall be calibrated periodically. Bidder shall maintain all relevant records of periodic calibration, instrument identification, and shall provide for inspection by bidder wherever asked specifically; bidder shall calibrate measuring / testing equipment in the presence of employer.

### 9 FREE ISSUE MATERIALS:

- i) There will be no free issue materials for the proposed Stacker cum Reclaimer. The vendor shall arrange all the materials required for the proposed system within the battery limit.
- ii) The bidder shall have to make his own arrangement to construct temporary shed and draw electricity & water from the nearest point or any other point as per the availability and convenience of the owner which may be approximately 500 meter away from the site
- iii) NALCO will not provide compressed air. The bidder shall have to make his own arrangement for compressed air if so required.
- iv) However, free land, electricity & water for office, store & works shall be provided to the bidder during the tenure of the WO/PO to execute the work as per the TS.

### 10 ERECTION, TESTING, COMMISSIONING & HANDING OVER

### 1. Erection, Testing, Commissioning

The Bidder shall do the erection, testing, commissioning & demonstration of the guaranteed performance of all the individual equipment supplied by them & test the integrated plant to ensure smooth running & satisfactory performance of the same.

Guarantee will be for all the plant & equipment including mechanical, electrical, instrumentation & controls etc. supplied by the Bidder & will be guaranteed for satisfactory performance, manufacturing defects & workmanship, the period as specified in the TS after commissioning & handing over of the plant.

### 2. Acceptance & Handing over

Bidder shall conduct the Preliminary Acceptance Test (PAT) & Final Acceptance Test (FAT) to ensure that the plant & equipment supplied by them meet owner's system requirement.

Preliminary Acceptance Test for equipment covered in this specification shall be conducted unit wise or group wise within a reasonable period after the completion of erection work.

Any defects found in the supplied plant & equipment during commissioning shall be rectified by the Bidder at his own cost failing which the owner reserves the rights to take remedial measures at the Bidder's cost.

MALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
नालको 🔊 NALCO	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	45 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	46 of 50

The Stacker cum Reclaimer shall be taken over by Nalco after completion of trial operation & final acceptance test subject to the successful commissioning and achieving the guaranteed performance by the supplier.

### 3. Stabilisation Period:

Entire Scope of Supply & Services under this tender shall be carried out under vendor's supervision. Vendor shall depute technical specialists at Nalco's site for a period of two weeks or till the liquidation of plug lists and acceptance thereof after completion of erection, commissioning and performance test. Visit of specialist and other engineers for construction work as well as commissioning and stabilization shall be an integral part of the contract. No additional remuneration or charges shall be admissible.

4. Final taking over certificate will not be issued unless Owner is fully satisfied with the supply & work in every respect as per requirement & all documents, drawings, manuals etc. are furnished by the Bidder as per the terms of contract.

### 11 PERFORMANCE TESTS AND GUARANTEES

### 1. Performance Test

The objective of performance test shall be to establish the capacity of the Stacker cum Reclaimer. The bidder will have to show the rated capacity of the equipment.

### 2. Performance Guarantee

The equipment shall be considered to have performed satisfactorily when

- Rated capacity of the equipment is demonstrated with all its drives and accessories in operation uninterruptedly for 06 hours.
- ii) It runs successfully for a period of 15 days as per coal feeding requirement of CHP.

NOTE: PG procedure will be mutually decided depending on the prevailing operating condition during PG test.

In case of non-achievement of the guaranteed parameters, the Bidder shall be advised for necessary rectification work. Even after two such consecutive rectifications, if particular equipment fails to achieve the guaranteed parameters, it will be assumed that the plant & equipment supplied is defective in its design & the PG test will be considered unsuccessful.

### 12 STANDARDS AND NORMS

Design, fabrication & operation of the systems shall be based on but not limited to the following,

- 1. Indian Factory Act
- 2. Regulations laid down by Explosive Directorate and Electrical Inspectorate
- 3. NFPA code of practice
- 4. Regulation for electrical equipment of Buildings Insurance Association of India
- 5. Indian Electricity Rules

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	46 of 50

02-4/0111	PROJECT TITLE	OVERALL PAGE
REPLACEM	MENT OF STACKER CUM RECLAIMER - # 2	47 of 50

- 6. IS-3103 (code and practice of Industrial Ventilation)
- 7. IS: 2062( Steel for general structural purposes)
- 8. IS: 3601 (Steel Tubes)
- 9. ASTM A 106 GR B (Seamless Pipes)
- 10. ASME B 31.3(Process Piping)
- 11. ANSI B 16.5 (Pipe flanges and Pipe fittings)
- 12. ASTM A234 Grade B WPB(Bends)
- 13. AWS D1.1/D1.1M (Structural Welding)
- 14. AWS A5.1, A5.1M, A5.5(Welding Electrodes)
- 15. National Electrical Manufacturers Association (NEMA)
- 16. IEC 61511- Functional safety Safety instrumented systems for the process industry sector
- 17. IEC 61131- standard for programmable controllers
- 18. VFD: as per standard mentioned in the attached 'Standard Specification of VFD'
- 19. Motors: As per the standards mentioned in the attached 'Standard specifications of Motors'
- 20. MCC: As per the standards mentioned in the attached 'Standard Specification of M.V. Board'
- 21. LBS: IS/IEC 60947
- 22. Cables: IS 1554
- 23. Concrete works: IS 456 2000 & amendment 2013
- 24. Steel structure: IS 800-2007
- 25. Workability of concrete: IS 1199-1959

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	47 of 50

PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAI	2 48 of 50

### 13. DRAWING AND DATA REQUIREMENT:

13.1 The following data and information shall be furnished by vendor:

Sl.	Description	With	l A	After Job Awar	ď
No		Bid	For Review	For Information	Final in Book Form
1	2	3	4	5	6
1.	Basic Calculations for system design and equipment selection		Y		Y
2.	Make, model, specification and power requirement for each major equipment		Y		Y
3.	Makes of all equipment & materials	-	Y		Y
4.	Technical Literature like erection manual, start- up and operating manual, maintenance hand book, equipment data sheets, lubrication drawing and manual,		Y		Y
5.	Control Schematic (Basic)		Y		Y
6.	Process and Instrumentation diagram		Y		Y
7.	Overall general arrangement drawing		Y		Y
8.	Completed data sheet (Bidder shall submit his own standard data sheets for items whose data sheets are not enclosed)		Y		Y
9.	Drawings and documents as asked for under electrical and instrumentation control specifications		Y	Y	Y
10.	Lubricants list with specifications		Y	Y	Y
11.	GA drawing with all components at the battery limit.		Y	Y	Y
12.	Test Procedures		Y		Y
13.	Start-up and operating instruction			Y	Y
14.	Repair and maintenance instruction			Y	Y
15.	Maintenance manual, including assembly showing all critical clearances.			Y	Y
16.	Manufacturer's test certificate for sub vendor items.		Y	Y	Y
17.	Stage inspection test reports		Y	Y	Y
18.	Final acceptance testing and performance test records		Y	Y	Y
19.	Detail list for recommended spare parts (preliminary/ final)			Y	Y
20.	Spare Parts Identification Drawings				Y
21.	As built drawings (Civil, Mechanical, Electrical & Instrumentation)				Y

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
CPP	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	48 of 50

24/0111	PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF	STACKER CUM RECLAIMER - # 2	49 of 50

### 13.2 Document distribution schedule:

- 1 Document listed under column 4 and 5 are to be submitted in 03 copies (Both in soft and hard)
- 2 Document listed under column 6 are to be submitted as hard bound indexed book and soft copies as well containing the following details in 08 copies and two transparencies and (are) to be submitted within 04 weeks of release note/ dispatch of materials/ equipment from vendor's works. All transparencies shall be supplied in rolls (in two sets).
- 3 The electronic files of all final documents and drawings shall be submitted in soft format. Drawings shall be pdf format and editable dwg format. Drawings shall be sketched in AutoCAD in proper scale. Not to scale drawings shall not be acceptable

### 13.3 Details to be included in final documents Books:

- 1. Copy of P.O. and all amendments
- 2. Copy of purchase requisition and amendments
- Manufacturing data book containing all test certificates of components, raw materials, stage manufacturing tests and inspection, final tests and inspection documents.
- 4. Spares details including assembly drawings, part numbers, delivery, prices, and ordering information.
- 5. All design calculations carried out by the vendor.
- Final drawing index and all as built drawings reduced to A3 size & soft copies and wherever reduction
  is not possible, full size copies appropriately folded and placed in plastic folders.
- Catalogue/leaflets of sub vendors/ suppliers of various bought out components highlighting the components actually supplied correlated to P.O. item numbers.
- Operating and maintenance instructions including lubrication schedule with requirement of first fills, flushing fluids, inhibitors, chemicals required for pre-commissioning.
- Release note and Packing list.
- 10. Any other document asked in the purchase requisition.

### 13.4 Special Instruction for submission of Drawings:

- 1. Fold all prints to 216 mm x 279 mm size and roll transparencies.
- Vendor to forward drawings and documentation to National Aluminium Company Limited clearly specifying the Order or tender number.
- 3. The drawing / Document no with revision number are essential. The number may be up to a maximum of 28 characters in length.
- Each drawing submitted to Nalco must be checked and signed / stamped by the vendor's authorized representative.
- 5. Revision number must change during subsequent submission of vendor document.

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	49 of 50

488224/2024/CHP

5 <u>24/0111</u>	
PROJECT TITLE	OVERALL PAGE
REPLACEMENT OF STACKER CUM RECLAIMER - # 2	50 of 50

- 6. Multi sheet documents other than drawings must be submitted in their entirety in the event of a resubmission even of only few sheets are revised.
- 7. Final submission in bound volumes shall necessarily have a cover page giving project title, item name, P.O. No, particulars of the purchaser and vendor and an index-giving list of drawings & documents included.
- 8. All vendor drawings are to be provided with a blank space measuring 75 mm W x 38 mm H for marking review codes.
- Review & approval of the design and drawing by Nalco would be only to check compatibility with basic design and concepts and would no way absolve the contractor/ vendor of his responsibility to meet design parameters, applicable codes, specifications and statutory regulations/ rules.

-----X------

नालको 🔊 NALCO	DOCUMENT TITLE	DOCUMENT	REVISION	DOC.PAGE
	Annexure-VI - Technical Specification for Stacker Cum Reclaimer 2		00	50 of 50

### **PRE-BID CONFERENCE**

## PRE-BID MEETING EITHER THROUGH PHYSICAL MODE OR VIRTUAL MODE USING VIDEO CONFERENCE:-

- A Pre-Bid conference will be held with the interested Bidders either through Physical mode or through virtual mode over video conferencing for the purpose of holding technical & commercial discussions and providing clarifications by the Purchaser.
- 2) The time and venue shall be as stipulated in the GeM NIT.
- 3) In the Pre-Bid Conference, clarifications pertaining to technical, commercial and other issues regarding the items stipulated in the Bid Document may be required by the interested bidders will be provided.
- 4) All the administrative & incidental expenses e.g. travelling, lodging and boarding etc shall be borne by the bidders.
- 5) A list of clarifications/deviations required to be discussed in the Pre-Bid Conference shall be intimated/communicated to the Purchase Executive over e-mail as per the tender document before attending the Pre-Bid Conference.
- 6) Based upon the discussion held in the Pre-Bid Conference, a MOM shall be prepared and if required, a Corrigendum/Addendum shall be issued in GeM Portal and it shall be treated as a part of the Tender document.
- 7) However, the decision of the purchaser in this regard will be final.
- 8) No further Pre-Bid suggestions for clarifications/deviations will be entertained after the Pre-Bid Conference.

406438/2023/C begin, Engineering, Supply, Installation, Commissioning and PG Test of Hydraulic operated Stacker-cum-Reclaimer-2 and associated work of CHP-I.

Estimated Price: ₹2400 Lakhs (Excluding GST) for 01 unit.

#### **Technical PQC** Eligibility Criteria **Documentary Proof** The bidder should have experience of having successfully completed "Similar Work" The bidder has to submit copy of following during the last Ten (10) years ending on last day of the month previous to the one in documents duly attested by notary public for which the NITs are invited as per following criteria: assessment of technical eligibility criteria. Three similar completed works each (with above criteria) having executed value Detailed work order / PO showing order value, not less than ₹ 960 lakhs (Rupees Nine Crore Sixty Lakh Only excluding applicable Scope of Work & Bill of Quantity. GST). Satisfactory Completion Certificate indicating OR the value of work executed & period of contract (ii) **Two** similar completed works each (with above criteria) having **executed value** not obtained from Principal Owner of the work for less than $\stackrel{\scriptstyle \checkmark}{\phantom{}}$ 1200 Lakhs (Rupees Twelve Crore Only excluding applicable GST). whom the work has been executed. (iii) One similar completed work (with above criteria) having executed value not less 2. In case the bidder submits the credentials as a sub than ₹ 1920 Lakhs (Rupees Nineteen Crore Twenty Lakh Only excluding applicable contractor the following copies duly attested by notary public are to be submitted for assessment of GST). The work experience should be of "Working directly" and possess relevant experience technical eligibility criteria. as per the details given under experience criteria. "Working directly" implies, working as a a) Detailed work order / PO / Agreement from the Contractor or Sub Contractor under above authorities who is the Principal Owner of the main agency showing order value, Scope of Work & Bill of Quantity. Evaluation criteria: Cost of the completed works by the bidder shall be escalated @ 10% b) Completion certificate issued by main agency per annum (simple rate) to bring them at the current price level. indicating value of work executed and period of (The cost of work completed within one year prior to original date of bid opening shall contract. not be considered for any escalation. The escalation shall only be considered for work c) Completion certificate issued by the Principal / completed prior to one year of original date of bid opening on annual basis and no weightage project authorities in favour of the main agency shall be given for part of the year). showing due completion of the package. "Similar Work" means Experience/Completion certificate submitted "Design, engineering, manufacturing, supply, erection & commissioning of at least one rail by bidder for job completion should clearly mounted STACKER/ RECLAIMER/ STACKER-CUM-RECLAIMER of capacity 800 TPH or bear name & designation of issuing authority. more for material handling application installed in INDIA". Financial PQC Eligibility Criteria Documentary Proof: The average annual financial turnover of the bidder for last three financial years should The bidder has to submit the copies of audited

### be minimum ₹ 720 Lakhs (Rupees Seven Crore and Twenty Lakh only excluding applicable GST).

(Turn over shall be escalated @10% per annum (simple rate) to bring them at the current price level. The turnover of the latest previous year shall not be considered for any weightage)

- The bidder should have minimum positive working capital of ₹ 450.00 lakhs (Rupees Four Crore and Fifty Lakh only excluding applicable GST) and submit documentary evidence in this regard. In case the bidder does not have adequate working capital, he should make exclusive credit limit from one or more scheduled commercial banks for the proposed work and submit a line of confirmation from the bank / banks as documentary evidence.
- The bidder should have minimum positive net worth of ₹ 900.00 lakhs (Rupees Nine Crores only excluding applicable GST).
- financial statements / profit & loss accounts of the relevant years duly certified by Notary Public / Chartered Accountant / Auditor in support of both the eligibility criteria along with the bid (or) Auditor's certificate of Turnover and net worth of lat three financial years.
- Other documents in support of financial criteria under para 2 & 3.

Note: For bids received prior to 30th June of any year, the financial figure for the previous to previous year may also be considered for evaluation. Whereas for bids submitted after 30th June, the bidder has to submit financial statement for the previous year certified by Chartered Accountant/ Auditor for consideration of their bid.

GGM (CPP) GGM (CRG), S & P GGM (FIN), S & P GGM (MAT), S & P

### (Declaration by the bidder on their letter head)

(The bidders are required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content)

To, GGM(Materials)I/C, M/s. National Aluminium Company Limited, Captive Power Plant DistAngul, Odisha-759145
Sub: Declaration of % of Local content along with the place of value addition. (Ref. No: GoI order No: P-45021/2017-PP (BE-II), Dated: 16.09.2020)
Tender Ref. No:
Dear Sir, We, M/s having its office at (address) Hereby confirm that the offered product has% of the local content.
Following is/are the location(s) at which local value addition is made:
Yours sincerely,
Signature Name:
Designation: Contact No.:

### Information related to Pre-bid/Pre-contract Agreement (Integrity Pact) & Independent External Monitor:

- 1. The accompanying 'Integrity Pact' attached along with this bid under "Integrity pact" tab is to be executed in two (02) originals. Duly signed Integrity Pact shall be submitted in non-judicial stamp papers of value ₹ 100/-.
- 2. All the pages of the Integrity pact are to be signed by the bidder. Bidders are required to clearly indicate the name and designation of the signatory as well as the name and address of the witnesses. The Bidders should not change the contents of the Integrity Pact.
- 3. The two (2) originals of Integrity Pact signed and stamped on each page by the bidder have to be submitted in sealed cover addressed to **GM (Mat.)**, **NALCO CPP Plant**, **Angul-759145**, **Odisha**. The scanned copy of the Integrity Pact is to be uploaded along with online bid. GeM bid id along with subject of the bid must be mentioned on the envelope.
- 4. The two originals of Integrity pact will be signed by the representative of NALCO. One original of the Integrity pact will be retained by NALCO & the other original will be returned to the bidder through Post/Courier.
- 5. At present, there are 03 IEMs in NALCO. They are as below;
- (i) Dr. Deepa Krishan IRS(Retd.) C 2603, Sushant Lok 1 Gurgaon, Haryana - 122002 E-mail: deepakrishan@gmail.com
- (ii) Dr. Meeran C Borwankar IPS (Retd.) C 10/5, Vasant Vihar New Delhi-110052

E-mail: mcborwankar@gmail.com

(iii) Ms Archana Ranjan IRS (retd.) A 4/1, Vasant Vihar, New Delhi- 110057

E-mail: ranjan.archana@gmail.com

### Note:-

- i. Bidder may write to the IEM through Email (provided in the tender) for their grievances if any, giving details of the tender reference, name of the tender issuing officer and Nalco's unit for quick identification of the tender by the IEM.
- ii. Only representation in respect of Integrity Pact need to be addressed to the IEMs and no query regarding tender terms and conditions should be address to the IEMs.
- iii. Any clarification regarding the tender details and terms & conditions should be addressed to NALCO's officials as per details given below.

Mr. Hrudananda Sahoo, Manager (Matls.), NALCO CPP Plant, Angul, Odisha. Mail: Hrudananda.sahoo@nalcoindia.co.in.

#### PRE CONTRACT INTEGRITY PACT

### General

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on day of the month
of 2022, between, on one hand, the National Aluminium Company Limited (NALCO), a company registered
under the Companies Act 1956 and a Government of India Enterprise, having its Registered Office at NALCO
Bhawan, P/1, Nayapalli, Bhubaneswar- 751013,Odisha, India (referred to as NALCO) acting through Shri A.K.
BHOI, GM (MATLS.) (hereinafter called the "BUYER", which expression shall mean and include, unless the
context otherwise requires, his successors in office and assigns) of the First Part and M/s represented
by Shri, Chief Executive Officer (hereinafter called the "BIDDER / Seller" which expression shall
mean and include, unless the context otherwise requires, his successors and permitted assigns ) of the Second Part.
WHEREAS the BUYER proposes to procure "PROCUREMENT OF STACKER-CUM-RECLAIMER-2
<b>OF CHP-1, CPP</b> " and the BIDDER/Seller is willing to offer/has offered the stores and WHEREAS the BIDDER
is a private company / public company /Government undertaking/ partnership /registered export agency, constituted
in accordance with the relevant law in the matter and the BUYER is a Company under the administrative control of
the Ministry of Mines, Govt. of India.
NOW THEDEFORE

#### NOW THEREFORE

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence / prejudiced dealings prior to during and subsequent to the currency of the contract to be entered into with a view to:-Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and Enabling BIDDERs to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will comment to prevent corruption, in any form, by its officials by following transparent procedures. The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

### Commitments of the BUYER

- The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will 1.1 demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person or organisation or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The BUYER will, during the pre-contract stage, treat all BIDDERs alike and will provide to all BIDDERs the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERs.
- 1.3 All the officials of the BUYER will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- 2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings my be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

- 3. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-
- 3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organisation or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Government.
- 3.3 BIDDERs shall disclose the name and address of agents and representatives and Indian BIDDERs shall disclose their foreign principals or associates.
- 3.4 BIDDERs shall disclose the payment to be made by them to agents / brokers or any other Intermediary, in connection with this bid / contract.
- 3.5 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 3.6 The BIDDER 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.
- 3.7 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.8 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.9 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable fact.
- 3.10 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.11. If the Bidder or any employee of the Bidder or any person acting on the behalf of the Bidder, either directly or indirectly, is a relative of any of the officers of the Buyer, or alternatively, if any relative of an officer of the Buyer has financial interest/stake in the Bidder's firm, the same shall be disclosed by the Bidder at the time of filing of tender.
  - The term "relative" for this purpose would be as defined in Section 6 of the Companies Act 1956.
- 3.12. The Bidder shall not lend to or borrow any money from or enter into monetary dealings or transactions, directly or indirectly, with any employee of the Buyer.
- 3.13 Bidder(s)/ Contractor(s) who have signed the integrity pact shall not approach the courts while representing the matter to IEMs and shall wait for their decision in the matter.

### 4. **Previous Transgression**

4.1. The Bidder declares that no previous transgression occurred in the last three years immediately before signing of this integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder

or with any Public Sector Enterprise in India or any Government Department in India that could Justify Bidder's exclusion from the tender process.

4.2. The Bidder agrees that if it makes incorrect statement on this subject, Bidder can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

### 5.. Sanctions for Violations :

- 5.1. Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle of the BUYER to take all or any one of the following actions, wherever required: -
  - (i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
  - (ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit / Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
  - (iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
  - (iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
  - (v) To en-cash the advance bank guarantee and performance bond / warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
  - (vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation / rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
  - (vii) To debar the BIDDER from participating in future bidding processes of NALCO for a minimum period of five years, which may be further extended at the discretion of the BUYER.
  - (viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
  - (ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.
  - (x) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 5.2 The BUYER will be entitled to take all or any of the actions mentioned at para 5.1(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal Code 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 5.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the independent Monitor(s) appointed for the purposes of this Pact.

### 6. Independent External Monitors (IEMs):

- 6.1. The BUYER has a panel of Independent External Monitors (hereinafter referred to as IEMs) for this Pact in consultation with the Central Vigilance Commission as mentioned in NALCO's NIT/NALCO's website (www.nalcoindia.com).
- 6.2 The task of the IEMs shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 6.3 The IEMs shall not be subject to instructions by representatives of the parties and perform their functions neutrally and independently.
- Both the parties accept that the IEMs have the right to access all the documents relating to the project / procurement including minutes of meetings.
- As soon as the IEM notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- The BIDDER(s) accepts that the IEM has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the IEM, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The IEM shall be under contractual obligation to treat the information and documents of the BIDDER / Subcontractor(s) with confidentiality.
- 6.7 The BUYER will provide to the IEM sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties.

  The parties will offer to the IEM the option to participate in such meetings.
- 6.8 The IEM will submit a written report to the designated Authority of BUYER / Secretary in the Department / within 8 to 10 weeks from the date of reference or intimation to his by the BUYER / BIDDER and should be occasion arise, submit proposals for correcting problematic situations.

### 7. Facilitation of Investigation:

In case of any allegation of violation of any provisions of this Pact or payment of commission, the IEMs shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

### 8. Law and Place of Jurisdiction:

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

### 9. Other Legal Actions:

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

### 10. Validity:

- 10.1 This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by CMD,NALCO.
- 10.2 Should one or several provisions of this Pact turn out to be invalid, the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 11. If the bidder/ Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members
- 12. The parties hereby sign this Integrity Pact at \_\_\_\_\_ on \_\_\_\_

For	&	on	hel	half	of.

BUYER

For & on behalf of

BIDDER

Name of the Officer: Designation:		
Company:	NALCO	
Official Seal		
	Witness	Witness
1		1
2		2

### **EARNEST MONEY DEPOSIT (EMD):**

1)The Part - I Bid (i.e. the techno-commercial bid) must be accompanied by Earnest Money Deposit for INR 24,00,000/- (Rupees Twenty Four Lakhs only) by Demand Draft/Pay Order/through e-payment (RTGS/NEFT mode INR currency) favouring "National Aluminium Company Limited" payable at Angul, Orissa, India or by way of Bank Guarantee. The BG should be furnished from any of NALCO approved Banks as per the list enclosed along with the NIT document. The wording of BG should be strictly as per proforma and no deviation to the same shall be permitted. Seller is required to ensure the same from the issuing bank. The Bank Guarantee for Earnest Money Deposit shall remain un-discharged for such a period as may be specified for keeping the tender open. The EMD BG should have a validity of at least three months beyond the offer validity of the bidder, with claim period of three months. The validity of the EMD BG may have to be extended by the bidder on request of NALCO, till the tender is finalized.

2)Offer without EMD may be liable for rejection. However, State / Central Government organizations, Public Sector Undertakings, Firms registered with DGS&D/ NSIC/ District Industries Centers (DICs)/ Khadi & Village Industries Commission (KVIC)/ Khadi & Village Industries Board (KVIB)/ Coir Board/ Directorate of Handicrafts & Handloom or any other body specified by Ministry of Micro, Small and Medium Enterprises (for the tendered item) and NALCO's Ancillary units and all start ups recognized by Deptt. of Industrial Policy & Promotion, Ministry of commerce and Industry Govt. of India are exempted from furnishing EMD. Moreover, the EMD exemption clause as per the GeM condition shall also apply to the Tender/NIT.

Bidders must upload the scanned copy of the certificate and send the hard copy to the tender inviting authority before the due date of submission. In the absence of such certificate, the bidder's offer may be liable for rejection.

3)MSME bidders are requested to register their Udyog Aadhar Memorandum (UAM) issued by Ministry of Micro, Small and Medium Enterprises (MSME) vendors on Central Public Procurement Portal. In this regard, MSE vendors are required to give declaration of UAM number on CPPP, failing which such bidders will not be considered as MSEs bidder.

4)If the tenderer, after submitting his tender, revokes the offer or modifies the terms & conditions thereof, in a manner not acceptable to the Purchaser, the EMD BG shall be liable to be forfeited / enforced. Any forfeiture / recovery made by the owner shall be with applicable GST at the time of settlement. In case the EMD has been paid in the form of DD/RTGS/NEFT, the EMD amount will not be refunded back in case of forfeiture of EMD.

5)After finalization of the tender, the EMD BG of unsuccessful tenderers will be returned. The EMD of successful tenderer shall be returned after successful execution of order and after submission of acceptable Contract- cum -Performance Bank Guarantee(CPBG), as the case may be. In case where submission of SD/CPBG is not a condition of tender, EMD of successful bidder will be released after successful execution of order. In case where submission of SD/CPBG is a condition of Purchase Order and If the successful bidder accepts the order but fails to submit the CPBG, the EMD will be retained. In such case differential amount towards CPBG and EMD may be deducted from the bills of vendor, which shall be released after receipt of acceptable Contract- cum -Performance Bank Guarantee (CPBG).

6)In the event of non-execution of Order, the EMD will stand forfeited. Any forfeiture of EMD made by NALCO will be with applicable GST at the time of settlement.

### FORMAT FOR ONLINE SUBMISSION OF EARNEST MONEY DEPOSIT (EMD)

### DETAILS TO BE FURNISHED BY NALCO

1)	TENDER NO.	
2)	DATE	
2)	DESCRIPTION OF	PROCUREMENT OF FLUEGAS FLOW, TEMP &
3)	TENDER	VELOCITY MEASUREMENT SYSTEM
4)	EMD AMOUNT (IN RS)	INR 24,00,000/-
5)	SBI ACCOUNT NO	10657908589
6)	SBI BRANCH CODE	08279
7)	SBI IFSC CODE	SBIN0008279

### DETAILS TO BE FURNISHED BY BIDDER

1)	NAME OF THE BIDDER	
2)	NALCO VENDOR CODE	(FOR EXISTING VENDOR)
3)	AMOUNT DEPOSITED	
4)	DATE OF DEPOSIT	
5)	NAME OF BANK &	
	BRANCH	
6)	BRANCH CODE	
7)	IFSC CODE	
8)	UTR NO.	(ENCLOSE COPY)
9)	DATE	

Indian bidders submitting the EMD in INR should send the scanned copy of the duly filled in and signed Format along with the scanned copy of Transaction Slip/ receipt of the Bank within 3 days of payment by e-mail to <a href="mailto:hrudananda.sahoo@nalcoindia.co.in">hrudananda.sahoo@nalcoindia.co.in</a> and shailesh.verma@nalcoindia.co.in.

The bidders should upload the scanned copy of the duly filled in and signed Format along with the scanned copy of Transaction Slip/ receipt of the Bank with their submitted offer in GeM bid.

### PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

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

B. G	. No Date:
1.	WHEREAS M/s National Aluminium Company Limited (A Government of India Enterprise), having its Unit/Office at(UNIT/OFFICE ADDRESS ISSUING THE TENDER) (hereinafter called "The Company" which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has issued Tender paper vide its Tender No
2.	WEBank having its branch office atdo hereby 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 and binding, the amount claimed is due because of any withdrawal of the tender or any material alteration to the tender after the opening of the tender by way of any loss or damage caused to or would be caused or suffered by the Company by reason of any breach by the said tenderers(s) of any of the terms and conditions contained in the said tender or failure to accept the Letter of Intent Agreement or that the amount covered under this Guarantee is forfeited. Any such demand made on the Bank by the Company 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 an amount not exceeding `
3.	We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the tenderer(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee 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 Company proceeding against the tenderer.

4.	ŭ	·			
	or winding up, dissolution or change of constitution or	•	. ,		
	all respect and for all purposes be binding and operative	e until payment of all money	due or liabilities		
	under the said contract(s)/ Order(s) are fulfilled.				
5.	5. WEBank Ltd. further agree that the guarante	ee herein contained shall rer	nain in full force		
	and effect during the period that would be taken for t	he finalization of the said te	ender and that it		
	shall continue to be enforceable till the said tender	is finally decided and orde	r placed on the		
	successful tenderer(s) and or till all the dues of the co	mpany under or by virtue of	the said tender		
	have been fully paid and its claims satisfied or discha	arged or till a duly authorise	ed officer of the		
	• •	company certifies that the terms and conditions of the said tender have been fully and properly			
	carried out by the said tenderer(s) and accordingly disc		, , ,		
6.	5. That the Company will have full liberty without referen	ce to us and without affectin	g this guarantee		
	to postpone for any time or from time to time. The ex	to postpone for any time or from time to time. The exercise of any of the power of the Company			
	under the tender.				
7.	7. Notwithstanding anything contained herein before, c	our liability shall not exceed	ł Rs		
	(Rupeesonly) and shall remain in force	tillUnless a deman	d or claim under		
	this Guarantee is made on us within three months from	m the date of expiry, we sha	all be discharged		
	from all the liabilities under this guarantee.				
8.	B. WeBank, lastly undertake not to revoke this g	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 on the request of Tenderer(s).				
9.	9. WeBank further agree that this G	uarantee shall be invocable	at our place of		
	business at	(Bank	Name),		
	(Branch Nan	ne and address of the branch	n), Bhubaneswar		
	, Odisha-751				
Dat	Date	Ba	ank		
Cor	Corporate Seal of the Bank	By its constitutional Atto	orney		
		Signature of duly Autho	rised person		

### On behalf of the Bank With seal & signature code

Details of Persons Issuing the BG:	
Name	
Address for Correspondence:	Telephone & Fax No.
E-mail:	

Note: 1: BGs to be furnished from any of the approved banks of NALCO.

Note 2: BG confirmation must be sent to our Banker through SFMS with the followings details :

Beneficiary : NATIONAL ALUMINIUM CO LTD CPP

Banker : State Bank of India

Branch : Kandsar(Nalco Nagar)

A/C No : 00000010657908589

IFSC Code : SBIN0008279

Address of Bank: AT/P.O – Kandsar, P.S - Nalco Nagar, Dist – Angul , ODISHA, , Pin - 759145

## PROFORMA FOR CONTRACT CUM PERFORMANCE GUARANTEE BY SELLER/ CONTRACTOR.

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

В. (	G. No Date
1.	WHEREAS National Aluminium Company Limited (A Government of India Enterprise) having its
	Unit/Office at (UNIT/OFFICE ADDRESS WHERE THE WORK IS EXECUTED) (hereinafter
	referred to as "The Company" which expressions 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(work/assignment
	description) on the terms and conditions as set out inter alia, in the Company's contract No./ P.O. No.
	datedand various documents forming part thereof hereinafter referred to as the "said
	contract" which expression include all amendments, modifications and/ or variations thereto and
	whereas the Contractor(s)/Seller(s) has agreed for due execution of the entire contract and
	guarantees its performance including any parts executed through any other agencies/subcontractors.
	AND WHEREAS one of the conditions of the "said contract" is that "contractor(s)/seller(s) shall furnish
	to the Company 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 defect liability
	obligations and the performance guarantee obligations of the contractor(s)/seller(s) for execution/
	supplies made under the "said contract."
2.	Wedo 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 &
	conditions of the said Contract including defect 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 & conditions of the
	contract. Any such demand made on the Bank by the Company 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 ` (Rupeesonly).

- 3. We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the contractor(s)/Seller(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee 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 Company 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 respect 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 discharges the 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 Contract(s)/Order(s) or to extend the 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 Contract(s)/Order(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 affect 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	Ba	nk, lastly undertake no	ot to revoke this guarantee during its currer	ncy except with the
	previous	consent	of the Company in wri	iting. We further undertake to keep this G	uarantee renewed
	from time	e to time	at the request of Conf	tractor(s)/Sellers(s).	
9.	We		Bank further ag	gree that this Guarantee shall be invocab	le at our place of
	business		at	(Bank	Name),
				(Branch Name and address of the branc	ch), Bhubaneswar ,
	Odisha-75	51			
	Date.				Bank
Cor	porate Sea	al of the	Bank	By its constitutional A	•
				Signature of duly Authorised p	
				On behalf of the Bank With seal & sigr	nature code
Det	tails of Per	sons Issi	uing the BG:		
Naı	me				
Ado	dress for C	orrespo	ndence:	Telephone & Fax No.	
E-n	nail:				
Not	te: 1 : BGs	to be fu	rnished from any of th	e approved banks of NALCO.	
Not	te 2: BG co	onfirmat	ion must be sent to ou	r Banker through SFMS with the followings	details :
Ber	neficiary	:	NATIONAL ALUM	IINIUM CO LTD CPP	
Bar	nker	:	State Bank of India		
Bra	nch	:	Kandsar(Nalco Naga	ar)	
A/C	C No	:	000000106579085	589	
IFS	C Code	:	SBIN0008279		
Ado	dress of Ba	ınk :	AT/P.O – Kandsar.P.	.S - Nalco Nagar,Dist – Angul ,ODISHA,,Pin -	- 759145

#### LIST OF STANDARDISED BANKS FOR BG & EMD

Any domestic Guarantee issued by PSU Bank (or) Private Bank (or) Foreign Bank operating in India must be operational and invocable in Bhubaneswar only. For Guarantee to be operational in Bhubaneswar the issuing bank must designate a specified Bank Branch in Bhubaneswar.

#### **I-SCHEDULED PUBLIC SECTOR BANKS (INDIAN)**

1	Bank of Baroda	7	Punjab & Sind Bank
2	Bank of India	8	Punjab National Bank
3 Bank of Maharashtra		9	State Bank of India
4	Canara Bank	10	UCO Bank
5	Central Bank of India	11	Union Bank of India
6	Indian Bank		

#### II SCHEDULED PRIVATE SECTOR BANKS (INDIAN)

1	HDFC Bank Ltd.	10	The Karur Vysya Bank Ltd.
2	ICICI Bank Ltd.	11	The Karnataka Bank Ltd.
3	Axis Bank Ltd.	12	IDFC Bank
4	Kotak Mahindra Bank Ltd.	13	RBL Bank
5	YES Bank	14	The Lakshmi Vilas Bank Ltd.
6	IndusInd Bank Ltd.	15	Tamilnad Mercantile Bank Ltd.
7	The Federal Bank Ltd.	16	City Union Bank Ltd.
8	The Jammu & Kashmir Bank Ltd.	17	IDBI Bank Ltd.
9	The South Indian Bank Ltd.		

#### III. LIST OF FOREIGN BANKS

Sl. No	Name of the Bank	BIC
1	Abu Dhabi Commercial Bank Limited	ADCB AE AA
2	Australia & New Zealand Banking Group Limited	ANZB AU 3M
3	Bank of America NA	BOFA US 3N
4	Bank of Bahrain and Kuwait B.S.C.	BBKU BH BM
5	Bank of Ceylon	BCEY LK LX
6	Barclays Bank PLC	BARC GB 22
7	BNP Paribas	BNPA FR PP
8	Citibank N.A.	CITI US 33

9	Commonwealth Bank of Australia	CTBA AU 2S
10	Credit Agricole Corporate & Investment Bank	BSUI FR PP
11	Credit Suisse AG	CRES CH ZZ
12	DBS Bank Ltd.	DBSS SG SG
13	Deutsche Bank AG	DEUT DE FF
14	Doha Bank	DOHB QA QA
15	FirstRand Bank Ltd.	FIRN ZA JJ
16	Industrial Bank of Korea	IBKO KR SE
17	Industrial & Commercial Bank of China Limited	ICBK CN BJ
18	JP Morgan Chase Bank	CHAS US 33
19	KEB Hana Bank	KOEX KR SE
20	Krung Thai Bank Public Company Ltd.	KRTH TH BK
21	Mashreqbank PSC	BOML AE AD
22	Mizuho Bank Ltd.	MHCB JP JT
23	National Australia Bank Ltd.	NATA AU 33
24	Sberbank	SABR RU MM
25	Shinhan Bank	SHBK KR SE
26	Societe Generale	SOGE FR PP
27	Sonali Bank Ltd.	BSON BD DH
28	Standard Chartered Bank	SCBL GB 2L
29	Sumitomo Mitsui Banking Corporation	SMBC JP JT
30	The Bank of Nova Scotia	NOSC CA TT
31	The Bank of Tokyo-Mitsubishi UFJ, Ltd.	BOTK JP JT
32	The Hongkong and Shanghai Banking Corp.Ltd.	HSBC HK HH
33	The Royal Bank of Scotland PLC	RBOS GB 2L
34	United Overseas Bank Ltd.	UOVB SG SG
35	Westpac Banking Corporation	WPAC AU 2F
36	Woori Bank	HVBK KR SE

 $\mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x}$ 

#### **AGREED TERMS & CONDITIONS** (All bidders are requested fill up the confirmation completely) For Replacement of Stacker cum Reclaimer-2 of CHP-I on EPC/LSTK basis Vendor's SI. **Descriptions** Confirmati No. ons This is a Turnkey Project i.e. the scope of the Tender comprises of Design, 1 SCOPE **TENDER** Supply, Erection, Commissioning and conducting of PG Test. The details are mentioned in the Technical Specifications of the NIT. 2 PRE-The bidders are required to go through the Pre-Qualifying criteria **QUALIFICATIO** attached along with the Tender document and furnish all the documents **N CRITERIA** as sought in the Tender document. 3 The materials to be supplied shall have a Guarantee of 12 months from **GUARANTEE CERTIFICATE** date of PG Test at NALCO CPP site or 24 months from the date of last receipt of materials at NALCO CPP site, whichever is earlier against defective design, faulty materials of construction, poor workmanship and unsatisfactory performance. The Guarantee Certificate to this effect shall be sent by you along with the supply. Manufacturer's Material Test Certificate from reputed/Govt./NABL 4 TEST **CERTIFICATE** approved laboratory against the supply portion shall be submitted along with the supply. 5 **PG TEST** The PG Test shall be carried out as per clause 8 and 11 of the "ANNEXURE-I" of the NIT. 6 **DELIVERY** The successful bidder has to complete the Supply, Erection work, SCHEDULE Testing, Commissioning, PG Test and final handing over of the complete system within 16 (Sixteen) months from the date of placement of LOI / Brief order/ PO, whichever is earliest. The Bidder shall submit a PERT chart/ Bar chart indicating the duration & completion schedule of major activities considering 2 weeks for approval of drawings by the owner. 7 LD/PRICE Time is the essence of the contract and the contract should be REDUCTION executed within the time specified for SCHEDULE delivery and total work completion requirement. (PRS) delay in completion of work attributable to supplier, NALCO without prejudice to its rights under the contract shall reduce 0.5% the price of order value of delayed quantity for each week of delay or part thereof, subject to maximum of 5% the total order value. N.B: This shall supersede the LD Clause in GCC as well as the GeM **GTC SUBMISSION** 8 OF DRAWINGS, The successful bidder shall submit the requisite Drawings, Basis of Design **BASIS** (BOD), Quality Approved Plan (QAP) and other documents for approval

DESIGN(BOD),

AND

QAP

**OTHER** 

by NALCO.

	DOCUMENTS BY THE		
	SUPPLIER		
9	APPROVAL OF DRAWINGS,		
	BASIS OF	NALCO will approve the Drawings Book of Design (BOD) Quality	
	DESIGN(BOD),	NALCO will approve the Drawings, Basis of Design (BOD), Quality Approved Plan (QAP) and other documents submitted by the Supplier	
	QAP AND OTHER	within 15 days from the date of submission of the documents.	
	DOCUMENTS		
10	BY NALCO		
10	WORK FONT AVAILIBILITY/		
	SITE	The work font availability/site clearance shall be given to the Supplier within 15 days from the date of placement of the PO.	
	CLEARANCE BY NALCO	within 13 days from the date of placement of the 10.	
11	PAYMENT	The Payment Terms shall be as follows:	
	TERM	A) 0/ of Droduct Cost Dayable on Droduct Delivery, 000/	
		A) % of Product Cost Payable on Product Delivery: 90% B) Min Cost Allocation for ICT as a % of product cost: 20%	
		C) Number of days allowed for ICT after site readiness communication to	
		seller: 07 months.	
		The Payment Term shall be as per the "Milestone Payment Terms"	
		mentioned below:-	
		The total order value of Stacker-cum-reclaimer-2 consist of two	
		parts:	
		A. SUPPLY PORTION.	
		a. 10% of "supply order value" shall be released against	
		submission of the GA Drawing, Basis of Design (BOD) and	
		Quality Approved Plan (QAP) duly approved by Engineer-	
		In-Charge subject to submission of CPBG @ 05 % of "Total order value".	
		b. 80% of "supply order value" shall be released on pro-rata	
		basis after receipt and acceptance of the materials at	
		NALCO CPP site according to the <b>approved billing break</b>	
		up. c. Balance 10% of "supply order value" shall be	
		released after completion of successful erection,	
		commissioning and PG test of the entire project at NALCO	
		CPP site, duly certified by the Engineer-In-Charge.	
		N.B: In case the erection, commissioning and PG test is not	
		completed within 07 months from the delivery date of last item as	
		per approved BBU, due to reason not attributable to the supplier,	
		then the balance 10% payment shall be released after 07 months	

from the delivery date of last item as per approved BBU against submission of equivalent amount of ABG valid for (12 months + 03 months) period. Further extension of ABG, if felt necessary, shall be done with mutual agreement between the supplier and Nalco. However ABG shall be released upon successful completion of erection, commissioning and PG test duly certified by the Engineer-In-Charge.

- B. ERECTION, COMMISSIONING AND PG TEST OF SCR-2 (SERVICES PART)
- 100% Payment shall be released after completion of successful erection, commissioning and PG test of Stackercum-reclaimer-2 at NALCO CPP site, duly certified by the Engineer-In-Charge.

#### N.B:

- The above milestone payment terms is nonnegotiable and No Deviation is allowed. Any deviation in payment terms shall be liable for the rejection of bidder's offer.
- ii. As the tender shall be floated in GeM portal, it is therefore necessary to include ICT condition in GeM to get a separate quotes for supply & services. Hence following payment terms matching to the milestone payment terms has been incorporated in the GeM NIT:
  - 1. % of Product Cost Payable on Product Delivery: 90% (in line with milestone payment term 10-80-10)
  - 2. Min Cost Allocation for ICT as a % of product cost:20%

#### C. BILLING BREAK-UP

• In case of requirement of part payment, the successful bidder will have to submit a billing break up which is to be examined and approved by the NALCO. Payment will be made as per the approved billing schedule and provisions in "A" above on certification by engineer –in-charge.

However, the payment of GST is subject to reflection of the party's invoice in GSTR-2A/Annexure-2(GST new return) of NALCO.

12	PRE-BID INTERACTION	The Pre-Bid Interaction clause shall be as per the NIT document. The Time & venue of the meeting shall be as stipulated in the GeM NIT.	
13	GENERAL CONDITIONS OF CONTRACT (GCC)	The GCC is a part of the NIT document and the bidders are required to comply to the same.	
14	CPBG CLAUSE	The seller/supplier shall furnish a composite Contract-cum-Performance Bank Guarantee (CPBG) in NALCO's prescribed format (enclosed along with NIT) towards successful execution of the contract and for Performance Guarantee obligation of the item from any bank as approved by NALCO (Bank list enclosed below) for <b>05% (Five Percent)</b> of the total order (contract) value including amendment (if any), which shall remain valid up to expiry of Guarantee Period (excluding claim period of three months). The seller/supplier shall furnish the CPBG within 15 days from the date of issue of PO. The bank guarantee issued by the issuing bank on behalf of the supplier in favor of NALCO shall be in paper form as well as under structured financial messaging system. Original Bank guarantee issued by the issuing bank shall be sent by the issuing bank to NALCO by registered post. If the vendor fails to submit CPBG after placement of order, the equivalent amount shall be recovered from the bill(s) of the vendor. Subject to any deduction which NALCO is authorized to make, CPBG shall be released after satisfactory execution of the contract and on completion of warrantee period as mentioned above. On the breach of the contract by the supplier, CPBG 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. NALCO to ensure availability of sufficient fund for imposition of PRS/LD/Performance in the Contracts/PO/Orders, last stage of payment should be at least such that it covers the maximum liability with respect to PRS/LD/Performance.	
15	INSPECTION & TESTING	The Inspection shall be carried out as per clause 8 of "ANNEXURE-I" of NIT.  The Pre-dispatch Inspection shall be carried out by NALCO's representatives at Manufacturer's/Supplier works after readiness of the materials. Therefore, the supplier shall give the PDI call after readiness of the materials giving 15 days' time to NALCO to attend the PDI  However, the final inspection shall be carried out by NALCO's personnel at NALCO CPP site and the result shall be final and binding upon the	
16	TAX DEDUCTION AT SOURCE (TDS) UNDER GST	As per section 51 of CGST Act 2017, Nalco shall deduct at source @1% CGST & @ 1% SGST for intra-state transaction and @ 2% IGST in the case of inter-state transaction from the payment made or credited to the supplier of taxable goods and / or services, provided if the contract value is more than Rs.2,50,000/ However, no deduction shall be made if the location of the supplier and the place of supply is in a state or union territory, which is different from the recipients' registration state.  The bidders are requested to go through the above mentioned clause and confirm their acceptance.	
17	INTEGRITY PACT	The vendors are required to furnish the Integrity Pact as per the format attached along with the NIT.	

18	EARNEST MONEY DEPOSIT (EMD)	The vendors are required to submit the EMD of Rs. 24 Lakhs. The mode of EMD submission is mentioned in the NIT.  The EMD BG Format is also attached along with the NIT.	
19	CONTACT DETAILS	The contact details is as follows:- a)Technical Executive:- Mr. Malaya Kumar Khatua Contact No- 9437370987 Email: Malaya.khatua@nalcoindia.co.in b)Purchase Executive:- Mr. Hrudananda Sahoo Contact No-9437585716 Email: Hrudananda.sahoo@nalcoindia.co.in c)Stores Executive(i.e. consignee):- Mr. Siba Behera Contact No-9437350693 Email: sibaprasad.behera@nalcoindia.co.in d)Finance Executive:- Mr. Debendra Samal Contact No-9438368588 Email: debendra.samal@nalcoindia.co.in	
20	INCOME TAX CLAUSE	NALCO being buyer (Under section 194Q inserted in 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. 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. 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.	
21	ANTI- PROFITEERING CLAUSE (Sec 171 of CGST Act)	If any new Tax/Taxes is introduced on sale of goods/services, either in lieu of existing tax/taxes or as separate tax/taxes, then the overall incidence of tax/taxes on the Vendor on account of its inputs and outputs	
22	LOCAL CONTENT OF PRODUCT	The bidders are requested to go through the GoI Order No: P-	

		The bidders are required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content	
23	RESTRICTION UNDER RULE 144(XI) OF GFR, 2017	The vendors are requested to go through the Rule 144(xi) of GFR 2017 and order No: 6/18/2019-PPD, dtd: 23/07/2020 & 24/07/2020 and confirm to have complied the same.	
24	GST AGAINST SUPPLY PORTION	1. GST: 2. HSN code:	
25	GST AGAINST SERVICE PORTION	1. GST: 2. SAC code:	
26	GeM PO & SAP PO	A separate SAP PO shall be issued by NALCO to regularize the GeM contract for the payment purpose only. All the terms and conditions shall be strictly as per the GeM contract only.	
27	ORDER OF PRECEDENCE	following documents shall be considered in the chronological order of precedence:-  i. Technical Specifications ii. Agreed terms & conditions (ATC) iii. GEM GTC iv. GCC  i.e. in case of any conflict in the Terms & Conditions, the Terms & Conditions mentioned in the Technical Specifications shall supersede the Terms & Conditions mentioned in the ATC	
		document which shall supersede the Terms & Conditions mentioned in the GeM GTC which shall supersede the Terms & Conditions mentioned in the GCC.	

#### 1. Introduction

This document is an electronic record published by GeM under the provisions of the Information Technology Act, 2000 and the rules made there under (as applicable) and shall act as valid agreement between Seller / Service Provider and Buyer. Further the use of GeM Portal for Sale / Purchase of Goods / Services and the resulting Contracts shall be governed by the following General Terms and Conditions (GTC) (unless otherwise superseded by Product / Service specific Special Terms and Conditions (STC), Product / Track / Domain Specific STC of Particular Service including its SLA (Service Level Agreement) and BID/Reverse Auction Specific Additional Terms and Conditions (ATC) as applicable).

Government e-Marketplace (GeM) is the National Public Procurement Portal; an end- to-end online Marketplace for Central and State Government Ministries / Departments, Central & State Public Sector Undertakings (CPSUs & SPSUs), Autonomous institutions and Local bodies, for procurement of common use goods & services. The portal is owned and managed by GeM SPV which is a Section 8 (Non- Profit) Company registered under the Companies Act, 2013. GeM SPV operates, monitors and supervises all the business transactions on the portal through the Managed Service Provider as per defined roles and responsibilities.

#### 2. General Terms and Definitions:

- a. "APPLICABLE LAWS" shall mean any statute, law, ordinance, notification, rule, regulation, judgment, order, decree, bye-law, approval, directive, guideline, policy or other governmental restriction as may be in effect.
- b. "GOODS" shall mean an Article / product or an intangible product like software, technology transfer, licenses, patents or other intellectual properties being offered for sale on the GeM portal by Seller(s) on GeM. The term 'Goods' shall also include works and services which are incidental or consequential to the supply of such goods, such as, transportation, insurance, installation, commissioning, training and guarantee / warrantee obligations as defined in the scope of supply given in the contract.

**Note:** If nothing contrary is specified in the contract and in the detailed specification of products given in contract, the scope of contract shall be supply of Goods on free delivery to consignee basis.

- c. "SERVICES" shall mean the services offered or provided by the Seller such as IT Professional Services, Manpower Services, Security Services, Transport Services, etc. listed as Services on GeM. The term 'Service' shall also include supply of goods / articles which are incidental or consequential to the provisioning of such Services as defined in the scope of supply given in the contract
- d. "SERVICE LEVEL AGREEMENT (SLA)" shall mean the Contractual Commitment that prevails between the Buyer and the Service Provider with regard to type of service to be provided, deliverables, desired performance level, reliability and responsiveness, monitoring process and service level reporting, response and issue resolution time-frame, repercussions / penalties / remedies for service provider not meeting its commitment. The SLA of a particular contract may carry the matrix regarding the delivery of the goods and/or services and the corresponding penalties or remedies and liquidated damages as applicable.
- e. "CATEGORY SPECIFICATION" shall mean the framework of technical features, functional capabilities, technical properties, certifications of the items etc. in a particular category. The Specifications shall identify the key parameters defining the products with all necessary validations related toconfiguration, type of data, restrictions, range / allowed values, allowed units etc. Sellers as well as Buyers while offering / buying the Goods / services shall have to comply with the validation rules / restrictions provided for in the Category Specification. Buyers / Sellers cannot add parameters and / or drop down values not provided for in category Specification. If any Buyer / Seller desire to add new parameter, value, validation etc. against any category specification, they have to raise request for the same to GeM for incorporationin Category Specification.
- f. "BUYER" is the Contract placing authority, which includes Central/State Government Ministries/Departments including its attached/subordinate offices, Central/State Public Sector Units (PSUs) and Autonomous Bodies acting through its authorized officer(s) for and on behalf of President of India/Governor of the State/PSU/Autonomous Bodies, as the case may be, for purchase of Goods/Services offered by Sellers on GeM.
- g. "SELLER / SERVICE PROVIDER" on GeM shall mean any legal entity such as firm(s) of Proprietorship / Partnership Firm / Limited Liability Partnership / Private Limited / Limited company / Society registered under Society's Act / Statutory Bodies etc., registered on GeM to sell its Good(s) / Service(s) to the Buyers registered on GeM.

The "Seller on GeM" will be either OEM (Original Equipment Manufacturer\*) or Seller having authorization to sell products manufactured by the OEM in open market or Licensed manufacturer under Drugs & Cosmetics Act, 1940.

\* OEM is the owner of the Brand / Trademark of the product being offered or in case of un-registered brand's products / products with own brand, the actual manufacturer of the final product. To be recognized as an OEM on GeM, seller has to get Vendor Assessment Report from designated agency (unless exempted as per GeM VA policy) as per due process of vendor assessment notified on GeM portal (which would include production of documentary evidences and demonstration of manufacturing facilities and / or capabilities asrequired).

In case of Services related to Goods, Service Provider on GeM will be either OEM or Service Provider having authorization to Service products manufactured by that OEM in open market. In respect of other Services, Service Provider on GeM will be any legal entity offering its services.

By registering on GeM portal, Seller / Service Provider hereby agrees to be bound by these General Terms and Conditions for Sale / Purchase of Goods and / or Services (GTC); Product / Service Specific Special Terms and Conditions (STC) and Service Level Agreements (SLAs) for various Services; and Additional (Bid Specific) Terms and Conditions (ATC) as applicable. For the purpose of this document and transactions on GeM, Seller as well as Service Provider will be referred to as "Seller"

- h. "USER ID and PASSWORD" All users including Buyers and Sellers (primary as well as secondary) will get User ID and Password created on GeM following due registration process defined on GeM. It is the responsibility of the user to keep their User ID and Password secure and confidential. Individual user shall be solely and completely responsible for all transactions taking place on GeM portal using his / her User Id and Password and GeM shall not be responsible in any manner.
- i. "LICENSE" shall mean by registering the Seller and by offering Product / Service details on GeM and by participating in Bids floated on GeM, the Seller grants GeM a non-exclusive, royalty-free, irrevocable, perpetual and fully sublicensable right to use, reproduce, modify, adapt, publish, translate, distribute, and/or display publicly the content / materials / documents which has been submitted to GeM and / or GeM Buyer(s) during registration / bid participation excluding Aadhaar Number. In case of registration of Primary user and creation of secondary user(s) by the Buyer/Seller, their Aadhaar (UID)

details collected by GeM are solely for user verification and to apply e- signing on the documents. The e-sign is at par with digital signatures as per Information Technology Act Amendment 2008 and it works based on details available in Aadhaar database of UIDAI and there is no interference / intrusion in their personal details.

- j. "CONTRACT" shall mean the purchase order created / issued by the Buyer on GeM for supply of Goods / Services in electronic form which includes scope of supply, delivery instructions and specifications etc. as ordered by Buyer against such Contract besides the subject GTC, STC/ATC as the case may be.
- k. "BID SECURITY" (also known as Earnest Money Deposit) shall mean Insurance Surety Bond, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (including e-Bank Guarantee) from any of the Commercial Banks or payment online in an acceptable form as defined in the bid document, safeguarding the purchaser's interest in all respects.
- 1. "PERFORMANCE SECURITY" shall mean Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt from a Commercial bank, Bank Guarantee (including e-Bank Guarantee) from a Commercial Bank or online payment in an acceptable form as defined in the bid document safeguarding the purchaser's interest in all respects.

#### 3. Role, Responsibilities and Obligations of Seller/Buyer:

#### A. Role and Responsibilities of Sellers on GeM are as under:

- i. Only Director (s) / Partner (s) / Proprietor (as applicable) are authorized to become Primary User and register any legal entity on GeM as Seller.
- ii. Once Seller/Service Provider is registered and account is created on GeM, the Primary user of the Seller/Service Provider can create Secondary User Accounts within Seller/Service Provider Organization with different Roles and Responsibilities. However, the Primary User creating Secondary User accounts shall continue to be fully responsible and accountable for all actions / transactions done by Secondary Users on GeM Portal.
- iii. Since GeM is a trust based Portal, the complete accuracy and integrity of data submitted in respect of the Seller and also in respect of the Goods / Services offered on GeM will be the sole responsibility of the Seller/Service Provider. Seller will be liable for administrative action as per GeM terms and conditions in case of any discrepancy / infirmity in any data / information submitted on GeM.

- iv. The Primary / Secondary Users of Sellers, offering Goods/Services and/or participating in e-Bidding / Reverse Auction on GeM, must ensure that they have the requisite authorization to enter into contract with Buyer(s) in GeM for and on behalf of the Seller, failing which such Seller as well as the individual(s) shallbe vicariously liable for its actions and also for any liability arising out of such actions.
- v. Seller can offer any number of products. However, it will be the sole responsibility of the seller to satisfy themselves regarding possessing the requisites for doing business for the offered product(s). The Sellers are solely responsible for ensuring that there is no violation of any Intellectual Property Rights in their offer for sell / providing service on GeM.
- vi. The Seller should not exercise any corrupt influence on any aspect of contract and commit to take all measures necessary to prevent corruption maintaining complete transparency, integrity and fairness in all activities related to GeM.
- vii. The seller would represent its business on the GeM portal and is mandated to comply with all the terms and conditions of the platform. Sellers would be solely and absolutely responsible for the information provided about their organization, business, products and services on the portal and would be required to produce proof of such information, if requested at any point in time by the Buyer and / or GeM.
- viii. GeM would not allow creation of any fresh data related to Seller identity on GeM portal. All details provided by the Seller at the time of registration would be counter checked / verified through other data bases of Government such as PAN, MCA 21, Udyam Registration, etc. For Financial details, PAN / Income tax Database shall be primary validating database and will override any conflicting data in any other database. If the data / details entered by the seller while registering on GeM is not verified with validating databases, registration will not be allowed. Further, in case of any conflict in details after registration, Seller's registration would be automatically suspended. It is the Seller's responsibility to keep all their information on GeM updated with the latest change(s). Non-updating of details on GeM within 7 days of such occurrence would make Seller liable for administrative actions.
  - ix. Eligibility of Sellers in terms of Turn Over / Past Performance / Profitability etc. and also their eligibility for availing various benefits / advantages in terms of various Govt. Policies / Guidelines / Acts / Laws etc. shall be determined solely on the basis of data fetched / validated or verified through external agency / owner of that set of database such as Income Tax / PAN Data Base, MCA 21, Udyam

Registration, GSTN, Certifying Agencies such as BIS, BEE etc. In case of any discrepancy in data available in these databases, Seller has to get the same updated in the corresponding validating database before updating the same on GeM. Till such time only the existing validated information shall be used to decide seller's eligibility on GeM. Any default in sellers updating their data on partner sites / validating databases and any fall out of the same impacting adversely any transaction on GeM, shall entirely and exclusively be Seller's responsibility. GeM shall not be responsible for any consequential impact on any GeM transaction due to data discrepancy and / or suspension of seller account due to data discrepancy. Seller will be solely responsible for the same.

- x. The Seller shall be solely responsible for the Goods / Services including, without limitation, the applicable guarantee / warranty, shelf-life, quantity, quality and the title and for giving the correct and accurate details of the offer their Goods and / or /Services indicating product specifications, quantity which can be supplied over the specified time period, etc. as per catalogue or catalogue based template prescribed in GeM. Seller would ensure that the Goods or /Services offered are latest, new and complete in all respects. Where Seller is selling any Goods which needs spare parts, Seller should ensure and make available such spare parts for a minimum period of three years from the date of expiry of warrantee period (unless otherwise specified). The individual Sellers shall ensure that the products offered in e-Bidding and/or ordered shall remain available on GeM during the bid / contract validity period.
- xi. Sellers shall offer minimum discount of 10% on the Maximum Retail Price (MRP) mandatorily (unless otherwise specified for offering their products on GeM). Sellers are free to offer higher discounts. The Seller must offer its best possible lowest price on GeM and undertake that it would not sell or offer to sell the same product outside GeM in comparable quantity on similar terms and conditions at a price lower than Offer Price on GeM. In case any such infringement by Seller is noticed, the Seller shall be liable to be removed / debarred from the GeM.
- xii. By offering their product on GeM, the Seller agrees for sharing price details of the offered Goods / Service by GeM authorities with other Government agencies including Department of Excise & Customs, Income tax, GST etc.
- xiii. Sellers shall ensure uploading of their product / service in the correct category in all respects. Any offering of wrong and misleading product(s) or service(s) in any of the category will be removed by GeM from the portal when noticed without making any reference to the seller(s). The seller(s) will also be liable for any other

Administrative action as deemed fit by GeM for uploading wrong product(s) or service(s) in any category.

If any such infringement made by Seller leads to placement of a contract by any Buyer for such inappropriately offered product(s) / service(s) by the Seller, such contract shall be treated as null and void.

No claim whatsoever against such contract shall be admissible and entertained.

xiv. The Seller(s) shall pass on all the benefits associated with any scheme / offer / freebies provided by the OEM on any product from time to time on an "as-is basis" to the Buyer. This obligation will also apply to OEM's directly supplying the goods. Holding back any such offer or accounting such freebies in quantity supplied shall make such consignments liable to be rejected by the consignee and shall also be considered as inappropriate and against the GeM policies for which GeM reserves all rights to take necessary action against such Seller/OEM as deemed fit.

By registering on GeM and by participating in any bid on GeM, Seller undertakes that presently it is not "Debarred from Bidding" on the grounds mentioned in Rule 151 of GFR 2017.

xv. In case of drug manufacturer licensed under Drugs & Cosmetics Act 1940, drug manufacturers have to submit a notarized undertaking that the license for the product submitted by them has been issued under Drugs & Cosmetics Act, 1940 and is authentic and that the data of the same has been uploaded by the manufacturer on the SUGAM Portal under rule 84AB of Drugs Rules, 1945.

Only such manufacturers who have given the said undertaking as above will be considered as authentic for registration on GeM.

The said undertaking / affidavit to be submitted by the Drug Manufacturer, in prescribed form, would enable / empower Buyer / Ministry / Central Drugs Standard Control Organization (CDSCO) to initiate criminal proceedings in case of false declarations.

xvi. By offering their product and fulfilling the basic need of regular updating of the stock on GeM as stipulated on the portal, the Seller agrees for the acceptance of the order placed through the Direct purchase and L1 purchase without any need for any acceptance or confirmation. The seller commits to hold the price and offer as valid till the date seller itself removes the product offer from GeM or changes the price in compliance with online price change guidelines / rule engines applicable in that category. The action as deemed fit may be initiated for

the declining of the such orders as incident policy of the GeM.

xvii. Bidders while participating in a bid should submit price element(s) in Financial bid only. Accordingly, all bidders are advised not to mention any price element(s) in the technical bid, else the offer shall be rejected as nonresponsive, except in case of Single Packet Bidding.

#### B. Role and Responsibilities of Buyer on GeM:

Buyer Registration on GeM is divided in two categories:

- **a. Primary User:** In GeM, the Primary User is as under:
- i. Any officer of Central / State Government / PSU / Autonomous Bodies / Local Bodies / Constitutional Bodies / Statuary Bodies at the level of Deputy Secretary of the Government of India or equivalent
- ii. Head of the Office at Sub Centre / Unit / Branch, can Register his / her organization / unit on GeM portal as Primary User.

Primary User shall be responsible for registering the organization on GeM, for creating User accounts for Secondary Users, assigning them roles and responsibilities on GeM and for supervision of all transactions performed by Secondary Users under him / her.

Primary User shall also be vicariously responsible for ensuring compliance of General Financial Rules and / or Rules Governing Public Procurement in respect of their organization, all GeM terms and conditions and other Procurement Policies / Guidelines notified by the government from time to time, by all the secondary users including timely payments and for dispute resolutions as per GeM terms and conditions.

Primary user cannot perform any Procurement related transactions on GeM portal.

b. Secondary Users: Secondary Users are officials responsible for procurement transactions on GeM including Placement of Contracts, Receipt of Stores, and Payments to the Sellers etc. The access rights permissible to registered Secondary users would be decided by the Primary User of the Department. Secondary Users may be given the roles of Buyer / Consignee / Drawing and Disbursement Office (DDO) / Paying Authority / Indentor / Technical Evaluator, etc. For transaction on GeM portal, Buyer is the official who is responsible for processing procurement transaction up to Order Placement stage. Consignee is the Secondary User in Buyer Organization responsible for certifying receipt and acceptance of the goods procured.

Buyer's responsibilities on GeM portal are as under:

- i. The Buyers are responsible to ensure that the procurement done by them are in compliance of General Financial Rules and / or Rules Governing Public Procurement in respect of their organization, all GeM terms and conditions and other procurement Policies / Guidelines notified by the government from time to time, including timely payments as per GeM terms and conditions.
- ii. The Buyers (in all capacities i.e. as Buyer, Consignee, DDO, Paying Authority etc.) are responsible to ensure that the procurement done by them are in compliance with GeM Terms and Conditions / Guidelines and all contract related transactions are completed within time lines prescribed in GeM Contract.
- iii. The Buyers must ensure that they have the requisite authorization to enter into contract with Seller(s) on GeM for and on behalf of the organization, failing which such individual(s) shall be individually liable for its actions and also for any liability arising out of such actions.
- iv. While making procurement on GeM, the Buyers shall judiciously search and shortlist items using filters such as quantity, technical parameters, delivery period, warranty period, consignee location(s), Seller's eligibility etc. as per their approved requirements. Placement of contract for a product / service uploaded by the Seller in any wrong/inappropriate product category is strictly prohibited and such contracts shall be treated as null and void and such Buying shall adversely affect Buyer Rating on GeM.
- v. The Buyers shall satisfy themselves that the price of the selected offer is reasonable. Buyer is at liberty to utilize all the data / information and Business Analytics made available in GeM including e-bidding and reverse auction.
- vi. The Buyers, before placing the order on GeM, should have the required mandatory approval with prior sanction and approval of the competent authorities and shall be in compliance with and as per procedures outlined in GFR and other procurement guidelines issued by the Government from time to time.
- vii. On award of the Contract(s), it would be construed that the Buyer has obtained all necessary Administrative & Financial sanctions of the competent authority and adequate funds are available indicating the relevant Head of accounts in the awarded Contract(s).

- viii. The Buyers should not exercise any corrupt influence on any aspect of contract and commit to take all measures necessary to prevent corruption maintaining complete transparency and fairness in all activities related to GeM.
- ix. Buyers are not allowed to place any order at GeM prices outside GeM. The prices on GeM are only applicable if the procurement is made through GeM portal. Using GeM prices for procurement outside GeM portal is strictly prohibited. Further, Buyers are not allowed to place any off-line contract to the Seller directly based on the outcome of e-Bidding / RA conducted on GeM. All such contracts shall be treated as null and void and GeM reserves the right to delete all data related to such transactions from GeM database besides taking suitable actions against such Buyers including suspension from GeM and / or reduction of Buyer rating etc.

#### 4. Enabling provisions of Rule 149 of General Financial Rules- 2017

Enabling provisions of Rule 149 of General Financial Rules- 2017 as amended vide Ministry of Finance OM dated 02.04.2019 regarding procurement through GeM and necessary guidelines and terms and conditions thereon:

GeM portal may be utilized by the Government buyers for on-line purchases as under:-

- i. Up to INR 25,000/- through any of the available suppliers on the GeM, meeting the requisite quality, specification and delivery period.
- ii. Above INR 25,000/- and up to INR 5,00,000/- through the GeM Seller having lowest price amongst the available sellers (excluding Automobiles where there is no ceiling limit), of at least three different manufacturers, on GeM, meeting the requisite quality, specification and delivery period. The tools for online bidding and online reverse auction available on GeM can be used by the Buyer if decided by the competent authority.
- iii. Above INR 5,00,000/- through the supplier having lowest price meeting the requisite quality, specification and delivery period after mandatorily obtaining bids, using online bidding or reverse auction tool provided on GeM (excluding Automobiles where there is no ceiling limit).
- iv. The Government Buyers may ascertain the reasonableness of prices before placement of order using the Business Analytics (BA) tools available on GeM including the Last Purchase Price on GeM,

Department's own Last Purchase Price etc.

- v. GFR rule 149 allows direct on-line purchases on GeM up to INR 25,000/-through any of the available suppliers on the GeM, meeting the requisite quality, specification and delivery period. However, this is subject to procuring authorities certifying the reasonability of rates. While making such direct on-line purchase below INR 25,000/-, the buyer should have approval of competent authority and should also record reasons for selecting the specific product in case lowest priced products are not being accepted / ordered.
- vi. Tools have been deployed on GeM portal to show the price of compared products on other e-commerce sites (wherever available) and also the rates at which orders have been placed on GeM for such items in recent past. While taking decision on reasonableness of price, the buyers may also take into account the discount over MRP; Last Purchase Price (LPP) on GeM, Department's own Last Purchase Price; rates on other e-commerce websites etc. The prices on e-commerce site give a broad idea and its terms and conditions may be different. If it is found that the price available on GeM marketplace is not reasonable or is substantially higher than e- commerce sites or LPP, the GeM Portal provides tools for online bidding or reverse auction which can be used by the Buyers to get better competitive rates and then satisfy themselves about reasonableness of the price as per GFR -2017 before placement of contract. Bidding should be considered as the preferred mode of procurement above INR 25,000/-.
- vii. In case of Direct Purchase, during carting period, rates for carted quantity, for that buyer, are frozen for carting period as notified from time to time on GeM against any upward revision by seller. However, advantage of any downward revision in the offer price of carted item shall be automatically provided to the buyer.
- viii. According to the provisions of Rule 149 (ii) of GFR, 2017, GeM shall be utilized by Government buyers for direct on-line purchases above INR 25,000/- and up to INR 5,00,000/- however such purchase has to be through the Seller having the lowest price (L-1) amongst the available Sellers on the GeM. In order to ensure that buyers select only L-1 available offer, the GeM portal enables buyer to first compare all the product options available on GeM to ensure that it meets its requirements/ specifications. While comparing, care should be taken by the Buyer that comparison has to be done between products of at least three different Manufacturers / OEMs. For L-1 buying, comparison has to be made between products of at least three different OEMs, as per GFR. If Buyer

wants to buy any specific OEM's product then he has to go for Proprietary Article Certificate (PAC) buying after obtaining necessary approvals of competent authorities for PAC buying as per GFR-2017, as amended from time to time or the Procurement Guidelines of the respective Organisation as the case may be.

- ix. **Proprietary Article Certificate (PAC) Buying:** While making procurement under PAC Buying on GeM, it is the responsibility of the Buyer to ensure that compliances with the conditions / rules as laid down under GFR, 2017, as amended from time to time or the Procurement Guidelines of the respective Organisation, as the case may be, is met before initiating procurement under PAC:
  - (a) In case a Govt. Buyer on GeM wants to make procurement on proprietary basis on the GeM Portal after obtaining the requisite approvals / PAC certificate from their competent authority as per Rule 166 of GFR-2017 or the Procurement Guidelines of the respective Organisation, as the case may be, the Buyer can use PAC filter provided on GeM for selecting a specific model/ make available from a particular GeM Seller. The Buyer should ensure before procuring the goods under PAC Buying that the Proprietary Article Certificate as per the conditions laid down in GFR or the ProcurementGuidelines of the respective Organisation, as the case may be, is available with the Buyer. It is the responsibility of the Buyer to ensure compliance with GFR or the Procurement Guidelines of the respective Organisation while procuring goods on proprietary basis through the GeM Portal including ensuring the certificate to be in proper format as per GFR or the Procurement Guidelines of the respective Organisation, as the case may be.
  - (b) The Buyer should note that the Seller's price on the Portal is just their offer prices and the proper discovery of price generally happens through bidding/RA. Moreover, in PAC procurement irrespective of multiple listing by authorized sellers, the important issue of price control remaining with the OEM should not be overlooked. Therefore, in case of all the PAC procurements, the Buyers are advised to carry out extra due diligence in establishing the reasonableness of prices before placement of contract as per Para (vii) of Rule -149 of GFR-2017 or the Procurement Guidelines of the respective Organisation, as the case may be.

- (c) Except for direct buying up to INR 25,000/- subject to establishing the reasonableness of price, the bidding is mandatory for procurements above INR 25,000/- as per GFR. As result of bidding, the response could be as under:
- i. Only OEM is available or only single authorised seller is available.
- ii. OEM as well as multiple authorised Sellers are available.
- iii. Multiple authorised Sellers of the OEM are available.
- (d) After bidding, under PAC buying, the Buyer may take decision with the approval of the competent authority to process the procurement subject to establishing the reasonableness of prices before placement of contract as per Para (vii) of Rule 149 of GFR-2017 or the Procurement Guidelines of the respective Organisation, as the case may be.
- x. In order to give flexibility to the buyers in sourcing their requirements through GeM, provision has been made in e-bid and RA modules for indicating delivery period in terms of "number of days from date of placement of contract". While stipulating delivery period in their bid documents, Buyers are advised to be careful since un-realistic delivery period stipulations may result in elimination of some genuine sellers, lack of competition and may ultimately have impact on cost of procurement. While fixing delivery period in e-bid/ RA bid, buyers should not only take into consideration the quantity required and the essentiality of requirement of that quantity within stipulated time period but also the possible impact of shorter delivery period on competition in e-bidding / RA.
- xi. Splitting of demands by creating multiple Bids / RAs of same goods / services or making repeated procurements of same Goods / Services through L-1 buying as per rule 149(i) and 149(ii) of GFR-2017 are strictly prohibited on GeM. Splitting of demand deprives the organizations from achieving the best competitive prices leveraging economies of scale. It also implies avoiding the necessity of obtaining the sanction of higher authority required with reference to the estimated value of the total demand. It is a violation of Para Rule 149 (viii) of GFR -2017 and terms and conditions of GeM Portal and Buyer including the Primary Buyer shall be entirely responsible for the same. If any such splitting of demand is noticed, GeM shall have the right to take necessary action such as blocking of such Bids/RAs and / or cancelling such contracts.
- xii. GeM is a dynamic online marketplace. The product/service listings across the existing categories are dynamic. Moreover, new categories of

products/services are continuously being added on GeM. In situations where there is only one offer available in a product/ service category and/or there is offer from only one Seller after filter based search, the buyer should not select such offer for buying. Efforts should be made by Buyer to get their past suppliers and prospective Sellers on-boarded on GeM so as to ensure availability of sufficient Sellers on GeM. This however will not apply for PAC procurement.

#### xiii. e-Bidding and Reverse Auction (RA) on GeM

- (a) The e-Bidding / RA module of GeM is a tool provided to the Buyer(s) for organizing bidding / RA from GeM Sellers of the particular product category for a pre-defined requirement i.e. quantity, technical parameters for Goods/ Services of the particular product category required for one or more Buyers / Consignees.
- (b) Prior to initiating e-Bidding / RA, the Buyer shall judiciously search and shortlist item among the items offered on GeM using filters such as quantity, technical parameters, warranty period, consignee location(s) etc.as per the requirement. In case the search made using actual quantity required, fails to identify sufficient offers, the Buyer may use an indicative quantity for initial search and selection of product and quantity may be amended to match the actual requirement at the time of finalizing e-Bidding / RA.
- (c) The technical parameters and warranty of the item identified by the Buyer shall be base parameters of the item for conducting e- Bidding / RA for the required Goods/Services.
- (d) The e-Bidding / RA document will be finalized by the Buyer(s) by stipulating requirements such as Quantity, Consignee Details, Terms of Delivery, Delivery Period, Bid Security, Performance Security, Time & Date for Start and End of Bid Submission and for Opening of Bids and required Bid Validity period etc. GeM system shall decide Start / Reference Price and Step Value of Decrement in case of RA based on product selection and / or outcome of bidding process.
- (e) The e-Bidding / RA invitation / Notice shall be published on GEM, stipulating the last date for bid submission / opening of bids giving at least clear 10 days time after the publication. Any change in last date forbid submission will be intimated to eligible bidders through e-mail / GeM. The e-Bidding invitation shall be extended to all the registered Sellers on GeM who have Goods / Services for that particular category listed on

GeM, at least 2 hours prior to closing time of e-Bidding / RA. The GeM normally requires 48 hrs for approval / rejection of the product / service offered by Sellers before it is listed on the portal. Considering these time lines, the Sellers are required to offer their Goods / Services onGeM well in advance before bid closure. The decision of the Buyer / GeM regarding technical/commercial eligibility of the individual Seller to be invited for e-Bidding / RA shall be final.

- (f) The Seller participating in the e-bidding / RA may offer any one of their product(s) already listed on GeM. The bid submitted under:
  - i) e-Bidding shall remain valid for 15 days (or as stipulated by the Buyer in the bid document) from the Bid Opening Date (till 24.00 Hrs IST).
  - ii) RA in Bid to RA case, where the bid offer validity is less than 30 days, will be extended to 30 days including the RA initiation date.

Bid Validity can be further extended with mutual consent between Buyer and Seller. The products offered in e-Bidding / RA cannot be withdrawn by the Sellers from GeM during the bid validity period. The Buyer reserves the right to postpone/cancel the e-bidding and intimation thereof will be sent by e-mail / GeM to the Bidders. Any amendment / corrigendum to the e-bid invitation issued by the Buyer will be made online and shall be uploaded on the GeM. The participation by the Seller in e-bidding shall be construed as his / her acceptance for all the Terms and Conditions as outlined in the e-bidding including GTC, STC and ATC. However, the Buyer shall have right to decide the technical and commercial acceptability of the individual bids based on eligibility criteria and compliances as stipulated in the bid document. The technical parameters shown in the bid are from a particular catalogue as selected by the buyer while applying initial filters in selection of the product. The sellers are free to bid for same, equivalent or superior specifications catalogue / products. In the public interest, buyers will evaluate such bids based on their requirements / end use and bid parameters and will accordingly technically accept or reject the bids on merits.

(g) In bid documents, Buyers can incorporate suitable eligibility criteria and additional terms and conditions only using various filters and ATC module available in e-bidding / RA modules of GeM. Buyers are not allowed to incorporate eligibility criteria and / or additional / special terms and conditions exterior to the GeM portal by making reference to any other website / documents etc.

- (h) In case, two or more acceptable bidders are found to have quoted identical lowest bid price, Buyer has to conduct Reverse Auction for the required Goods among all technically qualified bidders in case of bids for Goods. In case of Services bids, if the multiple L-1 bidders have quoted the lowest allowed price for that service, Buyer shall place the Contract by selection of a bidder amongst the L-1 bidders through a Random Algorithm executed by GeM system.
- (i) The Buyer reserves the right to accept/reject any bid including the lowest bid received through e-bid and/or annul the e-bidding process.
- (j) The participating bidders shall not disclose details of their bids or other details of their e-bids to other bidders or indulge in any anti-competitive behaviour including price manipulation in violation of Competition Act, 2002, as amended from time to time.
- (k) The Buyer/GeM will not be held responsible for consequential damages such as no internet connection, no power supply, system problems, loss of electronic information, power interruption etc.
- (l) Against any bidding or RA conducted on GeM, if a bidder quotes Nil Charges/consideration, the bid shall be treated as non- responsive and will not be considered.
- (m) There shall be no Bid Security for Bids / RA having estimated value less than INR 5 lakh. For bids / RA having estimated value more than INR 5 Lakh, while finalizing e-Bid / RA, Buyer shall indicate the exact amount of Bid Security required to be submitted by bidders. Scanned copy of the same shall be uploaded by Seller in the online bid and hard copy of the same will have to be submitted directly to the Buyer within 5 working days of bid opening, failing which the bid may be treated as incomplete & may lead to rejection of the bid by buyer without making any reference to the seller.

GeM recommends quantum of Bid Security @ 1% of estimated value of procurement. The Buyer also has the option to select Bid Security between 0.5% to 5%. The same should be valid for 45 days beyond the bid validity. No interest shall be payable upon the Bid Security / EMD or any other amounts payable by the Seller to the Buyer under the Contract. Following categories of Sellers shall however, be exempted from furnishing Bid Security:

i. Micro and Small Enterprises (MSEs) who are holding valid Udyam Registration and are manufacturer of the offered Product

or Service (Primary Product / Service - in case of bunch bid with total value wise evaluation) and give specific confirmation to this effect at the time of bid submission and claim EMD exemption and whose credentials are validated online through Udyam Registration website of Ministry of MSME and also through supporting document uploaded during bidding process and validated by the Buyer. State Government Buyers may, however, choose to exempt only MSEs from the State of Bid Inviting Authority by specifying the same in ATC of the Bid. In case no such ATC is included, eligible MSEs of all states are exempted.

- ii. Start-ups as recognized by Department for Promotion of Industry and Internal Trade (DPIIT), holding valid Startup Recognition Certificate which is to be uploaded while bidding and claiming EMD exemption and to be validated by the Buyer. Bidder to ensure that turnover for any of the financial years has not exceeded beyond limits prescribed in the certificate / Start Up scheme of DPIIT.
- iii. KVIC, ACASH, WDO, Coir Board, TRIFED and Kendriya Bhandar.
- iv. Sellers who have got their credentials verified through the process of Vendor Assessment by Vendor Assessment Agencies for the Primary Product / Primary Service for which Bid / RA hasbeen invited and holding valid Vendor Assessment or Vendor Assessment Exemption Report / confirmation (Seller to upload VA report / VAE confirmation to be validated by the Buyer).
- v. Sellers / Service Provider having annual turnover of INR 500 Crore or more, at least in one of the past three completed financial year(s)
- vi. Sellers / Service Providers holding valid BIS License for the Primary Product Category whose credentials are validated through BIS database and through uploaded supporting documents to be validated by the buyer.
- vii. Central / State PSUs.
- viii. Seller / Service Provider registered with designated Agency / Authority as specified in the bid document by the Buyer such bidder shall have to upload scanned copy of relevant valid registration document in place of Bid Security document while bidding.

#### Note:

- 1) No EMD to be taken from exempt category of sellers even by way of specific clauses mentioned in ATC / STC. Such clauses which are against the GeM GTC, will be treated as null and void.
- 2) However, State Government / State Autonomous / State Local Bodies / State PSU / Cooperatives may choose to seek EMD from MSE bidders by specifying the same in ATC / STC of the Bid. In case no such clause is included in ATC / STC, EMD exemption as per para (m) above shall prevail.
- (n) Bid Security submitted by the bidder shall be forfeited, if the bidder:
  - i. Withdraws or modify or impairs or derogates from the bid in any respect within the period of validity of its bid; or
  - ii. If it comes to notice that the information / documents furnished in its bid is false, misleading or forged; or
  - iii. Fails to furnish requisite performance security within stipulated time required as per e-bid / RA conditions.
- (o) Notwithstanding above, GeM SPV / GeM Admin also reserve the right to debar such seller from GeM portal. Such debarment shall be forminimum 3 months initially on first such offence and on repeat offence, the debarment period can be increased suitably by GeM SPV / GeM Admin. By submitting a bid on GeM, the Bidder explicitly undertakes to abide by the above clause.
- (p) Earnest money of unsuccessful bidders shall be returned within 15 days after the award of contract or expiry of bid validity, whichever is earlier. However, in case of two packet or two stage bidding, Bid securities of unsuccessful bidders during first stage i.e. technical evaluation should be returned within 15 days of declaration of result of first stage itself i.e. technical evaluation. Earnest money of successful bidder shall be returned within 15 days after receipt of Performance Security / e-PBG.
- (q) In case of RA, Start / Reference Price and Step Value of Decrement shall be indicated to the Bidders at the start of the auction. Any participating bidder can bid one or multiple Step Decrement lower than the prevailing Lowest Bid at that time.
- (r) The Bidder shall be able to view Bid Start Price, Bid Decrement Value, Prevailing Lowest Bid value and last Bid Placed by him. Whenever a

lower price bid is received in the closing moment i.e. within 15 minutes of existing end time of Reverse Auction, the end time of reverse auction shall be extended automatically by another 15 minutes. All participant sellers of that RA shall be allowed to submit revised bid under the RA. The same process shall be repeated, if there is another lower bid received in the RA during last 15 minutes of RA.

- (s) GeM / Buyer shall not have any liability to bidders for any interruption or delay in access to the GeM site / Reverse Auction link etc, irrespective of the cause.
- (t) By creating a bid on GeM, the Buyer undertakes as under:

"I confirm that this tender document complies with the "Public Procurement (Preference to Make in India) Order, 2017, as amended from time to time" issued by DIPP and "Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012, as amended from time to time "issued by MoSME".

#### Note:

However, State Government / State Autonomous / State Local Bodies / State PSU / Cooperatives may choose to follow Make in India and MSE policy in line with State's own Procurement Policy by specifying the same in ATC / STC of the Bid.

#### (u) Bid to RA:

While creating bid on GeM, Buyer shall have the provision to select Bid to RA option. If this option is selected by the Buyer at the time of bid creation, Sellers would be required to submit their Technical and Commercial bids before bid closure. After completion of technical evaluation by the Buyer, Reverse Auction would be conducted as per Bid to RA qualification rule selected by the buyer, which have been stated below:

#### 1) Bid to RA with 50% elimination rule:

Reverse Auction would be conducted amongst first 50% of the technically qualified bidders arranged in the order of prices from lowest to highest. Number of sellers eligible for participating in RA would be rounded off to next higher integer value if number of technically qualified bidders is odd (e.g. if 7 bids are technically qualified, then RA will be conducted amongst L-1 to L-4). In case number of technically qualified bidders are 2 or 3, RA will be between all without any elimination. If Buyer has chosen to split the bid amongst N sellers, then minimum N sellers would be taken to RA round.

In case Primary products of only one OEM are left in contention for participation in RA based on lowest 50% bidders qualifying for RA, the number of sellers qualifying for RA would be increased to get at least products of one more OEM (directly participated or through its reseller) if available. Further, if bid(s) of any seller(s) eligible for MSE preference is / are coming within price band of 15% of Non MSE L-1 or if bid of any seller(s) eligible for Make in India preference is / are coming within price band of 20% of non MII L-1, then such MSE / Make in India seller shall also be allowed to participate in the RA process.

#### 2) Bid to RA with H-1 elimination rule:

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 be allowed to participate in RA in following cases:

- (a) If number of technically qualified bidders are only 2 or 3.
- (b) If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
- (c) In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
- (d) 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.
- (e) 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

After the RA process, the award of contract(s) shall be made by the buyer keeping in view the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 and Public Procurement (Preference to Make-in-India) Order, 2017 as amended from time to time.

(v) In case any Seller / Service provider has been debarred in any particular Department / Organization, Buyers of that particular Department / Organization only shall have the right to disqualify such Sellers / Service providers at the time of technical evaluation of Bids during the period of debarment, subject to the condition that orders of such debarment has been taken with approval of Competent Authority of that Department /

Organization and has been communicated to the concerned Seller / Service Provider before bid opening date.

- (w) GeM is an end to end on-line procurement portal and not a tender publishing portal. GeM has detailed GTC, product / service specific STC and a rich ATC library in-built in the portal which can be used to create a comprehensive bid document. Based on the available terms and conditions, there is hardly any need to add any additional conditions to be attached with any GeM bid. However, for inclusion of some clause which is considered absolutely necessary for that particular bid for reasons to be explained in detail, a provision for inclusion of additional conditions in the bid through corrigendum is available in Request Management System. Only indispensable conditions that are not covered in and are not in conflict with GeM GTC, Product / Service STC and the standard ATC library, and which are in compliance with the Govt. orders on Public Procurement and are not restrictive and not against the core principals of transparency, fairness and efficiency enshrined in GeM, can be requested through RMS ATC request for making part of GeM bid through corrigendum. Each such request has to be made only after due approval of the Competent Authority in Buyer Organization confirming that the request has been made with the approval of the Competent Authority. Buyer organization shall be solely responsible for the impact of the requested clauses on the bidding process and its outcome. The clauses which are already covered in standard ATC library available on GeM Portal, will not be allowed through RMS.
- (x) Determination of eligibility in case of products requiring BIS License: In case the bid requires availability of BIS License, bidder has to upload currently valid and operative BIS License copy (Valid on the date of bid opening) to be considered eligible. Submitted BIS License may be in the name of Bidder / OEM or in the name of the Manufacturer to whom the OEM has outsourced manufacturing of his brand of product. The name of the Brand of the offered product should be mentioned in the BIS License. BIS certificate issued under Compulsory registration Scheme for electronic products to OEM/Brand owners for the products marketed under their brand name wherein their products are manufactured at third-party manufacturing unit is valid and is allowed for participation in the bids floated on GeM. The Manufacturer's Authorization in all such cases wherein the manufacturing is done by a third party shall be issued by the Brand owner / OEM and not by the third-party manufacturing unit mentioned in the BIS certificate.

(y) Bid Splitting: In case of critical / vital / safety / security nature of the item, and / or large quantity under procurement and / or urgent delivery requirements and / or inadequate vendor capacity, Buyer may decide to have more than one source of supply. In such cases Buyer may opt for Bid Splitting while creating the bid on GeM, clearly indicating the Bid Splitting ratio in which order will be split among L-1, L-2, L-3, etc. as per ratio of splitting pre- disclosed in the bid. After technical and financial evaluation, before splitting the quantity, it should be ensured by the Buyer that the L1 price is reasonable. After deciding the acceptable reasonable price, L1 would be awarded contract for at least the first / highest percentage indicated in the bid splitting ratio. For the rest of the bid quantity, the L-1 rates / lowest accepted rate will be counter offered to the next higher quoting bidder(s) for price matching. On acceptance of the counter offer, the order will be placed on next higher quoting bidder(s) for the respective percentage. In case of non- acceptance of the counter offer by the next higher quoting bidder(s), a similar offer shall be made to L3 and L4, and so on. In case counter offered rates are not accepted for ratio of splitting quantity as per bid document by any of the subsequent bidders, the left over quantity will be divided between bidders who have accepted the rates in the ratio of their originally allocated quantities subject to their confirmation and after getting consent on mutually agreed delivery schedule for the additional quantity.

#### 5. Contract(s):

Following documents shall be construed to be part of the contract generated through GeM:

- i. Scope of supply including price as enumerated in the Contract Document.
- ii. General Terms and Conditions (GTC).
- iii. Product / Service specific Special Terms and Conditions (STC).
- iv. Product / Track / Domain Specific STC of Particular Service including its SLA (Service Level Agreement)
- v. Bid / RA specific Additional Terms and Conditions (ATC).

The Terms and Conditions stipulated in STC & SLA will supersede those in GTC and Terms and Conditions stipulated in ATC will supersede those in GTC and STC in case of any conflicting provisions.

#### 6. Prices:

i. Offer price on GeM portal: The prices of the offered Goods or Services shall be firm and fixed at any point of time and shall be indicated in INR for each accounting unit. The Seller can choose to offer Goods or Services with uniform all inclusive unit price for deliveries at locations across India on All India basis or for specified locations selected at the time of product listing. As such, for supply of Goods contract, no additional charges such as local levies / transportation / loading unloading charges etc., shall be payable over and above the contract price. For selected freight intensive products, as notified on GeM, the Seller may quote unit price inclusive of GST with delivery charge(s) (including transportation, loading unloading and local levies) payable extra as defined in the relevant categories. In respect of items requiring installation and / or commissioning and other services (as indicated in technical details of the item), the charges for the same shall also be included in the offered price on GeM.

Once a Buyer carts a particular quantity of offered Goods / Service, during carting period as notified from time to time on GeM, rates for carted quantity, for that buyer, are frozen for the period as specified on the portal against any upward revision by seller. However, advantage of any downward revision in the offer price of carted item shall be automatically provided to the buyer.

By offering their product and fulfilling the basic need of regular updating of the stock on GeM as stipulated on the portal, the Seller agrees for the acceptance of the order placed through the Direct purchase and L1 purchase without any need for any acceptance or confirmation. The seller commits to hold the price and offer as valid till the date seller itself removes the product offer from GeM or changes the price in compliance with online price change guidelines / rule engines applicable in that category. The action as deemed fit may be initiated for the declining of the such orders as incident policy of the GeM.

- ii. Offer price in e-bidding: Bidder is required to indicate offer price in the price schedule as provided in the bidding document. Complete breakup of price as required must be indicated. However, evaluation of the bid shall be on the basis of total all inclusive, landed price at consignee destination (unless otherwise specified in the ATC).
- iii. **Offer price in RA:** Bidder is required to indicate total offer price. Evaluation of the bid shall be on the basis of total all inclusive, landed

price at consignee destination (unless otherwise specified in the ATC). Successful bidder shall have to provide complete breakup of the quoted price in the required price bid format before award of contract.

iv. **Transaction / Annual Milestone Charge:** Sellers / Buyers will have to pay Transaction Charge and / or Annual Milestone Charge, wherever applicable, as per extant Revenue Policy of GeM.

#### 7. Performance Security and Performance:

- i. There shall be no Performance security requirement for contracts:
  - a) Placed under Direct Purchase / L-1 Purchase Option under Para (i) and (ii) of GFR rule 149;
  - b) Placed through Bids / RA with estimated bid value up to INR 5 Lakh (in case of Goods contracts); and
  - c) Placed through Bids / RA with estimated bid value up to INR 5 Lakh (in case of Services contracts)
  - ii. In case of contracts placed following e-Bidding / RA, Performance Security valid for 2 months beyond the date of completion of all contractual obligations including warrantee obligations, will be obtained from the successful Bidder, for ensuring due performance of the contract. The Buyer has the option to select Performance Security up to 5% of the value of contract (as per GFR quantum of Performance Security should be between 3 % to 5 % of the value of contract). While finalizing e- Bid / RA, Buyer shall indicate the percentage (%) of Performance Security required to be submitted by successful bidders. In case of any extension of contract obligation period, the seller shall be liable to suitably extend the validity of the Performance Security.

Such Performance Security must be submitted by Seller to the Buyer within 15 days of award of contract on GeM. The payments to the seller shall become due only after receipt of Performance Security by the Buyer and verification of its genuineness. No interest shall be payable upon the Performance Security / PBG or any other amounts payable by the Seller to the Buyer under the Contract.

If the Seller fails or neglects to observe or perform any of his obligations under the contract it shall be lawful for the Buyer to forfeit either in whole or in part, the Performance Security furnished by the Seller. If the Seller duly performs and completes the contract in all respects the Buyer shall,

refund the Performance Security, as the case may be, to the Seller within 30 days of completion of all contractual obligations by the Seller.

#### 8. Duties & Taxes:

- i. Offer Prices on GeM shall be on all inclusive basis i.e. including all taxes, duties, local levies / transportation / loading-unloading charges etc. In the case of Bid / RA, complete break-up of the quoted price in the required price bid format shall furnished by the Bidder, before award of contract.
- ii. Any Statutory variation in the rate of GST, taking place between the Bid Submission by seller and Bid End Date, shall be to the Seller's account. Hence, Seller must ensure that any Statutory variation in the rate of GST till Bid EndDate is duly incorporated in the bid submitted by the seller. In case seller fails to incorporate the same in bid, the seller will not be eligible for claiming anychange in price due to such Statutory variation.
- iii. Statutory variation in the rate of GST, taking place between the Bid end date and the original / refixed delivery period, shall be to the Buyer's account. Forclaiming any change in price due to such Statutory variation, the seller shall have to lodge claim before the Buyer providing documentary evidence of change in rate of GST taking place after Bid end date and the date of supply within the original / refixed delivery period along with an undertaking that the provisions of anti-profiteering clause under GST Act have been complied with.

In respect of contracts awarded under Direct Purchase and L-1 purchase, Statutory variation taking place after date of award of contract shall only be admissible subject to submission of documentary evidence and anti-profiteering compliance certificate to the Buyer. Changing Seller's offered price on GeM portal immediately after any such change in GST rates is sellers responsibility and in case of failure on part of seller, no increase shall be admissible for such changes taking place before award of contract under Direct Purchase and L-1 purchase.

- iv. No increase in price on account of statutory increase in the rate of GST takingplace during the period of delivery period extension with liquidated Damages shall be admissible. Nevertheless, the Buyer shall be entitled to the benefit of any decrease in price on account of reduction in GST taking place during extended delivery period.
- v. The Bill Form / On-line invoice shall be generated by the Seller which may inter-alia include the following confirmations from the Seller:

- a. Certified that the Goods and Services Tax (GST) charged on this Bill is not more than what is payable under the provision of the relevant Act or the Rules made there under.
- b. Certified that the goods on which GST has been charged have not been exempted under the GST Act or the rules made there under and the charges on account of GST on these goods are correct under the provisions of that Act or the Rules made there under.
- c. Certified that the Seller is registered with above indicated GSTIN as dealer in the State where in their Billing address is located for the purpose of GST.
- d. The seller shall provide an undertaking that the provisions of antiprofiteering clause under GST Act have been complied with.
- vi. The on-line bill form / invoice generated on GeM is not a replacement for the GST invoice. The proper GST invoice as per requirements of GST rules shall be sent by the seller to the buyer / consignee directly along with the Goods / Services as and when deliveries are made to the consignee.
- vii. Seller shall comply with all the necessary statutory compliances, including but not limited to, GST registration in line with the extant provisions of GST Act, providing GST invoices or other documentation as per GST Law relating to the supply of Goods or Services, uploading the details of the invoices, payment of taxes, timely filing of valid statutory returns for the tax period in the GST portal, etc.

In case the Input Tax Credit of GST is denied or demand is recovered from Buyer on account of any act/omission of the Seller in this regard, the Seller shall be liable in respect of all claims of tax, penalty and / or interest, loss, damages, costs, expenses and liability that may arise due to such non-compliance. Buyer shall have the right to recover such amount from any payments due to the Seller or from Performance Security, or any other legal recourse from the said Seller. If any tax is required to be paid by the Seller in pursuance of any demand from tax authorities, on account of Seller's suppression of facts, fraud or willful misstatement of facts while offering the products or submitting the bids, then the same shall not be passed on to Buyer through debit notes or Invoices or Supplementary Invoices and the seller shall be solely liable for payment of the same.

#### 9. Integrity Pact:

All the Users in GeM i.e. Seller as well as Buyer agree not to indulge in any corrupt practices including without limitation any activity or action to influence the transaction on any aspect of contract and commit to take all measures necessary to prevent corruption maintaining complete transparency and fairness in all activities related to GeM. Users agree to follow and adhere with the Integrity Pact guidelines provided on GeM Portal.

#### 10. Guarantee and Warrantee:

- i. The Goods/Services supplied under the Contract(s) shall be inaccordance with the contract specifications & quality and the Goods shallbe brand new and have standard Guarantee/Warrantee for one year periodfrom the date of final acceptance by the consignee unless otherwise specified in category specifications, specific Bid / RA. Seller, at the timeof listing their product on GeM portal or offering their products against any Bid / RA, may accordingly provide longer Guarantee/Warrantee period (i.e. more than 1 year) and in such case, Guarantee/Warrantee period stipulation made in category specifications / Bid / RA document, shall prevail over standard Guarantee / Warrantee period of 1 year stipulated in these General Terms and Conditions.
- Notwithstanding the fact that the Buyer or its Quality Assurance Officer may have inspected and/or approved / accepted the said Goods, it is further guaranteed that if during the said guarantee / warrantee period, the Goods be discovered not to conform to the requisite description and quality and/or not giving satisfactory performance or have deteriorated, and the decision of the Buyer in that behalf shall be final and binding on the Seller and the Buyer shall be entitled to call upon the Seller to rectify and/or replace the Goods or such portion thereof as is found to be defective by the Buyer within 7 days. Otherwise, the Seller shall pay to the Buyer such compensations that may arise by reasons of the warranty therein contained. In cases requiring Spares, the Seller guarantees that they will supply Spare Parts, if and when required on agreed basis for an agreed price for a minimum period of three years from the date of expiry of warrantee period (unless otherwise specified in STC / ATC). The agreed basis could be, including but without any limitation, an agreed discount on the published catalogue or an agreed percentage of profit on the landed cost. The aforesaid provisions made specifically for Goods, shall also be applicable for Services to the extent the same are practically possible.

#### 11. Buyer / Consignee's Right of Rejection (Return Policy):

- i. The Goods delivered shall bear the self-certified Manufacturer's/Seller's Warranty/Guaranty. Buyer / Consignee shall have the right to inspect the supplied Goods themselves and/or through their appointed agency at consignee's own cost, at Consignee's site(s) after receipt and accept or reject on proper justification any consignment of the Goods received within a period of 10 days (unless otherwise specified in STC or ATC) of receipt of consignment of goods. The date of receipt shall be reckoned from the date of receipt of the Goods as notified in the Provisional Receipt Certificate (PRC) which will be issued online by consignee immediately after receipt of Goods.
- ii. In case of Service contract, the Buyer reserves right to reject the same in conformance with the terms and conditions of the agreed Service Level Agreement (SLA). However, such right to reject services offered by the Seller under the contract shall be exercised by the Buyer within 10 days (unless otherwise specified in STC or ATC) of the date of receipt of the Service. The date & time of start and completion of the Service, shall be indicated by the Seller while raising on- line invoice for a specified period of Service as per Service Level Agreement (SLA). The date of such invoice or the date of completion of the service, whichever is later shall be reckoned as date of receipt of the Service.
- iii. On Acceptance / Part Acceptance or Rejection of Goods / Services, Consignee will issue an online 'Consignee's Receipt cum Acceptance Certificate' (CRAC), which will form the basis of Payments to the Seller.
- iv. No payment shall be made for rejected goods or services. After intimation of the rejection / part rejection by the Buyer/ Consignee, the Seller shall be liable to remove / lift back such rejected Goods within 10 days without any extra charge/cost to the Buyer / Consignee failing which suitable ground rent / warehousing charges would be payable by the Seller to the Buyer / Consignee. If the Seller fails to remove / lift back such rejected Goods within reasonable time period, the Buyer / Consignee shall have the right to dispose off such rejected goods at the risk and cost of the seller.

#### 12. Payment Authority and Payment Terms:

Payments shall be made to the Seller in the manner below:

#### i. For Goods:

In case of goods, 100% payment will be released within ten (10) days of issue of consignee receipt-cum-acceptance certificate (CRAC) and on-line submission of bills unless otherwise specified in STC / ATC.

#### ii. For Services:

In case of services, 100% payments on the basis of monthly (unless otherwise specified) bills will be paid within ten (10) days of issue of consignee receipt- cum- acceptance certificate (CRAC) and on-line submission of bills unless otherwise specified in STC / ATC.

#### 13. Terms of Delivery:

All the Goods or Services in the GeM shall be offered on Free Delivery at Site basis including loading/unloading. In respect of items requiring installation, commissioning and other services in the scope of supply (as indicated in respective product category specification / STC / ATC), the cost of the same shall also be included in the offer price.

#### 14. Delivery Period

Seller shall indicate the quantity which can be supplied over the specified time period(s). The Seller would offer these details, which would constitute the part of the awarded Contract(s) in the GeM and would make a binding Contract between the Seller & the Buyer. Any modification thereto shall be mutually agreed and incorporated in the Contract. This Delivery Period/Time shall be deemed to be essence of the Contract and delivery must be completed not later than such date(s).

#### 15. Extension of Delivery Period and Liquidated Damages:

Buyer may, on the request of the Seller or otherwise, extend the delivery date suitably subject to the following conditions:

i. The original Delivery Period may be re-fixed by the Buyer without any Liquidated damages subject to Force Majeure conditions mentioned below and also on the ground/reasons of delay attributable to the Buyer /

Consignee.

- ii. For other cases, provided the price trend is not lower, the Delivery Period may be suitably extended for which an amount equal to the Liquidated Damages for the extended period(s) for delay in the supply of the Goods/Services after the expiry of contract delivery period /re-fixed delivery period, shall be recovered from the Seller as mentioned hereinafter for the extended period. No increase in price on any ground after the original/re-fixed delivery date shall be admissible during such extended period(s). Nevertheless, the Buyer shall be entitled to the benefit of any decrease in price on account of reduction in GST taking place during extended delivery period.
- iii. **Liquidated Damages**: If the Seller/Service Provider fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% of the contract value of delayed quantity per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value of delayed quantity without any controversy/dispute of any sort whatsoever.

## iv. Force Majeure Conditions:

If at any time during the continuance of the Contract, the performance in whole or in part by either party of any obligation under this Contract shall be prevented or delayed by the reasons of any war, hostility, acts of the public enemy, epidemics, civil commotion, sabotage, fires, floods, explosion, quarantine restrictions, strikes, lockouts or act of God (but not including negligence or wrongdoing, predictable/seasonal rain) provided notice of happening of such event duly evidenced with documents is given by one party to the other within 10 days from the date of occurrence thereof, neither party shall be by reasons of such event, be entitled to terminate the Contract nor shall either party have any claim for damages against the other in respect of such non-performance or the delay in performance, and deliveries under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Buyer as to whether the deliveries have been so resumed or not, shall be final and conclusive, Provided further that if the performance in whole or part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 90 days, either party may at its option terminate the contract provided also that the Buyer shall be at liberty to take over from the Seller at a price to be fixed by Buyer, which shall be

final, all unused, undamaged and accepted material, bought out components and Goods in course of manufacture in the possession of the Seller at the time of such termination or such portion thereof as the Buyer may deem fit excepting such materials, bought out components and Goods as the Seller may with the concurrence of the Buyer elect to retain.

#### 16. Dispute resolution between the buyer and the seller / service provider

#### 16.1 Conciliation:

- i. The Parties (i.e., the Buyer and the Seller/ Service Provider) undertake that any conflict or dispute that may arise between them shall first be dealt with in the manner stated below, irrespective of any other recourse, which any Party may have in law or in equity.
- In the event of any conflict or dispute arising out of or in connection with the Contract placed through GeM, the Parties shall endeavor to settle such disputes amicably. If a dispute is not resolved within 30 (thirty) days after a written notice of any dispute by one Party to the other, the same shall then be resolved through the mechanism of a Dispute Resolution Committee. This Dispute Resolution Committee shall comprise of representatives of both the Buyer and the Seller / Service Provider and shall be chaired by the Primary User of the Buyer organization/department or any other person as authorized by the Primary User. If the Dispute Resolution Committee is not able to resolve the matter within 30(thirty) days of its formation, the dispute shall then be referred to Arbitration.

#### 16.2 Arbitration:

In the event of any conflict / dispute arising out of or in connection with the Contract placed through GeM, which has not been resolved in accordance with the procedure laid down in Clause 16.1 above, the aggrieved Party may invoke Arbitration by sending a written notice to the other Party. The procedure for appointment of the Arbitral Tribunal shall be as follows.

- i. In cases where the total value of the Contract is less than INR 1, 00, 00,000/- (Indian Rupees One Crore only) the same shall be referred to a sole arbitrator mutually appointed by both the Parties.
- Where the total value of the Contract exceeds INR 1,00,00,000/- (Indian Rupees One Crore only), the arbitration shall be conducted by a quorum of three arbitrators. Each party shall be entitled to appoint an arbitrator and the two party-appointed arbitrators shall within 30 (thirty) days from their

nomination, appoint a third arbitrator i.e., the Presiding Arbitrator.

- iii. In case of failure to appoint the Presiding Arbitrator within a period of 30 (thirty) days from the date of nomination of the two arbitrators by the respective parties, the aggrieved party shall approach the High Court (under whose jurisdiction the principal place of business of the Buyer department/ organization is located) to appoint the Presiding Arbitrator as per the provisions of the Arbitration and Conciliation Act, 1996 (as amended up to date).
- iv. The arbitration shall be conducted in the English language. Arbitration proceedings can also be conducted online, as per the discretion of the Arbitral Tribunal.
- v. The cost of the Arbitration shall be equally borne by both the Parties.
- vi. The award of the arbitrator shall be final and binding on the Parties to the Contract. The arbitration shall be governed by the Arbitration and Conciliation Act, 1996, as amended from time to time. The seat of arbitration shall be at the place where the principal place of business of the Buyer department / organization is located.
- vii. The Contract shall be interpreted and governed in all respects in accordance with the laws of India. All disputes in connection with or arising out of the Contract, shall be subject to the exclusive jurisdiction of the Court within the local limits of whose jurisdiction principal place of business of the Buyer department / organization is located.
- 16.3 Both the Parties understand and agree that GeM being an Intermediary cannot be made a party to any dispute in connection with or arising out of the Contract and/or the arbitration proceedings between the Parties
- 16.4 Where the arbitral award is for the payment of money, no interest shall be payable on whole or any part of the money for any period till the date on which the award is made.

#### 17. Laws Governing the Contract:

- i. The contract shall be governed by the laws of India for the time being in force.
- ii. Irrespective of the place of delivery, the place of performance or the place of payment under the contract, the contract shall be deemed to have been made at

the registered address of the Buyer and / or Primary Buyer.

- iii. Jurisdiction of Courts: The courts of the place from where the contract has been made shall alone have jurisdiction to decide any dispute arising out of or in respect of the contract.
- iv. GeM SPV would not be a party to any such litigation.
- v. In case any Seller / Service provider makes GeM a party / respondent in any case involving any dispute between Buyer and Seller arising out of a concluded contract or arising out of bidding process initiated / concluded by the Buyer on GeM, it would be obligatory on the part of the Buyer to represent GeM also through their Counsel / Lawyer in the proceedings before the legal authority and ensure timely filing of replies / affidavits, etc. provided by GeM also through their Counsel / Lawyer before the concerned legal authority during the course of litigation. A standard reply on behalf of GeM, covering following aspects shall be incorporated in all replies / affidavits filed by the Buyer in such cases:

"Government e-Marketplace is a National Public Procurement Portal; an endto- end online Marketplace for Central and State Government Ministries / Departments, Central & State Public Sector Undertakings (CPSUs & SPSUs), Autonomous institutions and Local bodies, for procurement of common use goods & services. Prima facie, the dispute in the present case appears to be between the Buyer and Seller arising out a contract placed / bid created by the Buyer on Government e-Marketplace. As per Clause 16, Clause 17 and Clause 22 of the General Terms and Conditions of Government e-Marketplace (duly accepted by the Buyer and Seller), GeM is not to be made a party to any dispute between the Buyer and the Seller. As such Government e-Marketplace is liable to be deleted from the array of parties.

In light of the above, we request your goodself to kindly delete Government e-Marketplace from the array of parties."

#### 18. Limitation of Liability:

In any event, neither party shall be liable for any special, incidental, punitive, exemplary or consequential damages arising out of or in connection with the Contract entered between the parties. The aggregate liability of either party, whether under the contract, in tort or otherwise, shall not exceed the total contract value, provided that this limitation shall not apply to:

- (i) Any obligation or claim arising out of or in connection with any third party claim of IPR infringement,
- (ii) In the event of any gross negligence or willful misconduct on part of

either party, as finally judicially determined by a court of competent jurisdiction.

#### 19. Termination for Default:

If the seller does not perform its obligations within the Delivery Period / Date mentioned in the Contract, the same would constitute the breach of the Contract and the Buyer shall have the right to Cancel or Withdraw the Contract for the unsupplied portion after the expiry of the original, extended or re-fixed delivery date or period stipulated in the Contract. Such cancellation of contract on account of non - performance by the Seller would entitle the Buyer to forfeit the performance security besides other actions such as downgrading the Seller's rating or debarment from the GeM for specified period as decided by GeM on merits.

#### 20. Closure of Transaction:

After satisfactory completion of all the obligations under the Contract and release of payments for the goods / services, the transaction shall be treated as closed.

#### 21. Grounds for Administrative Action

- i) Administrative actions may be taken by GeM against the Buyer or the Seller either suo-moto on the basis of the platform mechanisms identified through analytics or on the basis of a complaint or report made to GeM by any stakeholders or any third party information or upon Court order, inter –alia, for non-adherence to the GeM Website Policies including Terms and Conditions and the Incident Management Policy published on the GeM Website.
- ii) The Seller would be liable for administrative actions such as suspension / debarment / removal from GeM, if they fail to abide by any of the Website Policies including the terms & conditions stipulated in this document and/or on anyone or more of the following grounds:
  - (a) Listing the products/services not in the relevant categories and/or listing the same with vague/conflicting product specifications/details and irrelevant product photographs.
  - (b) Offering Goods / Services without having proper authorization
  - (c) Supplies goods of inferior/ substandard quality
  - (d) Supplies or offers to supply refurbished or counterfeit or fake

products

- (e) Withdraws or modify or impairs or derogates from the bid in any respect within the period of validity of its bid;
- (f) Seller furnishes inaccurate, false, misleading or forged or fails to furnish any information / documents, within the prescribed time limits, to GeM or to a Buyer, including during e-Bidding/ RA process;
- (g) Fails to furnish requisite performance security within stipulated time required as per e-bid / RA conditions;
- (h) Fails to update GeM about any change in information furnished within the prescribed time limits;
- (i) Executes services without conforming to requirement given in Service Level Agreement (SLA);
- (j) Fails to execute an order/ contract or fail to execute it satisfactorily
- (k) Is declared bankrupt or insolvent;
- (l) Fails to produce the requisite documents/ information during the course of inspection / assessment at any stage;
- (m) Performs any activity which is listed as prohibited activities on GeM.
- (n) On any other ground for which, in the opinion of GeM, the retention of the seller or any of its offered product in GeM is not in Public Interest.

**Note:** The grounds mentioned above are illustrative only. Users are also advised to read the list of prohibited activities published on the website.

- iii) Notwithstanding anything contained in the GTC, GeM reserves the right to cancel or annul the registration of any Seller or remove any of the Good/Services listed by a Seller on the GeM Website to comply with any provision of the Applicable Laws and / or Court Orders.
- iv) GeM may take an administrative action in terms of the GeM Website Policies against a Buyer which may include reporting of any breach or misconduct to the Buyer Primary User and/or to the competent authority and GeM reserves the right to review the rating of such Buyer, and / or block Buyer's account for such time as considered appropriate by GeM.
- v) The Seller and the Buyer understands that the grounds for administrative action as provided under the Contract are only

indicative and additional grounds may be provided under the GeM Website Policies including the Incident Management policy. The Seller/Buyer warrants to abide by all additional grounds as may be specified by GeM in the GeM Website Policies from time to time.

## 22. Role of Government E- Marketplace - Gem SPV

Government e-Marketplace – GeM SPV is the owner of the GeM portal which monitors and supervises all the business transactions on the portal. The role and responsibilities of the company are as under:

- 22.1 To develop, operate and maintain technology driven e-marketplace, through a Managed Service Provider (MSP), to be used by government agencies for procurement of various goods and services in a transparent and efficient manner.
- 22.2 Overall supervision and monitoring of GeM portal operations, policy management, finalization and implementation of various business processes and work flows in adherence with the applicable law and executive orders issued from time to time. To provide tools for online Bidding, on-line Reverse Auction and Business Analytics Tools on GeM.
- 22.3 To work continuously for improvements in the Business Processes and Work Flows for various activities / functions on GeM based on feedback from various stakeholders to enhance transparency, efficiency, competitiveness, equality, economy in procurement of goods and services by government agencies.
- 22.4 To finalize General Terms and Conditions for sale and purchase of Goods and Services on GeM, Product / Service Specific Special Terms and Conditions, Special Terms and Conditions for Bunching of Goods / Services, Bid Specific Special Conditions, Project Specific Special Conditions etc.
- 22.5 To finalize, upload and approve Technical Specification Frameworks for various item / service categories on GeM and to monitor conformity of offered products to the larger framework so finalized and uploaded.
- 22.6 To decide addition / deletion of any of the offered product(s)/Product category (ies) and their framework of technical parameters on GeM.
- 22.7 To work and co-ordinate with different Organizations/Departments / Agencies for integration of their Databases with the GeM portal on real time basis for the purpose of verification/authentication of data

entries made by stakeholders.

- 22.8 To offer and manage Demand Aggregation services for identified categories across buyers with assured reasonability of price, recommending for placement of orders by individual buyers
- 22.9 To co-ordinate with MSP for conducting workshops for the various Stakeholders in capacity building and in change management associated with the implementation of technology enabled procurement process.
- 22.10 To monitor MSP that the Buyers, Sellers and Service Providers are being assisted properly by them to onboard their goods and services on the GeM platform.
- 22.11 To identify and offer services of 3rd parties for Vendor Assessment relating to technical, financial capacity, past experience of sellers including manufacturing / testing facilities / quality control arrangement(s) of manufacturing premises and/or any of the premises related to manufacturing process of products / services offered by the seller / service provider on GeM.
- 22.12 To identify and offer services of 3rd parties for testing and certifying the quality of the product offered/ supplied, through documents, test reports/ certificates, testing at any independent lab or through inspection/testing by its authorized representative/s at firm's premises or at user's premises, that buyer choose to use.
- 22.13 Overall monitoring and management of Call Centre/Help desk operations being provided by the MSP.
- 22.14 Removal / debarring the Sellers/Buyers and Goods / services in GeM.
- 22.15 Management of complaints and their redressal mechanism in GeM (not disputes related to concluded contracts).
- 22.16 To identify, integrate and manage MoUs with verifying, certifying and validating entities across government(s) and also professional agencies to reinforce the online paperless, contactless and cashless system on GeM.
- 22.17 To issue Notices, Circulars, News, Flashes, Updates etc in GeM
- 22.18 Reporting and MIS mechanism in GeM
- 22.19 Any other related activities in the GeM
- 22.20 In exceptional circumstances, for ensuring propriety of procurement processes or to obviate possible misuse of GeM functionalities, GeM

SPV as GeM Admin may keep any Bidding / RA process on hold for some time as considered appropriate.

22.21 To take approved User Charges from Buyers and Sellers for the various transactions on the GeM portal as decided and notified on the GeM portal.

#### 23. Miscellaneous Provisions

23.1 **Assignment:** Users understand and agree that the GTC, STC and ATC provisions, rights and obligations granted by GeM are non-transferrable or assignable by the User to any third party, without the prior written consent of GeM.

If same is permitted by GeM, all the conditions, rights and obligations of the GTC or any on–going STC/ATC shall also be binding upon such third party assignee besides the User.

23.2 Indemnification: The Seller shall at all time indemnify Buyer against all suits and claims which may be made in respect of the goods/services for infringement of any right protected by patent, registration of designs or trade mark. Provided always that in the event of any claim and suit in respect of alleged breach of patent, registered designs or trade-mark being made against the Buyer, the Buyer shall notify the Seller/ Service Provider of the same who shall at its own expense either settle any such disputeor conduct and litigation that may arise there from.

Buyers and Sellers agree to indemnify, defend and hold harmless GeM, its officials, Managed Service Provider (herein after individually and collectively referred to as "indemnified parties") from and against any and all losses, liabilities, claims, suits, proceedings, penalties, interests, damages, demands, costs and expenses (including legal and other statutory fees and disbursements in connection therewith and interest chargeable thereon) asserted against or incurred by the indemnified parties that arise out of, result from, or in connection with

- 23.2.1 Breach of the contract(s); or
- 23.2.2 Any claims made by any third party due to, or arising out of, or in connection with, use of the Website; or
- 23.2.3 Any claim made by any third party regarding content/information or materials provided by Seller cause any

#### General Terms and Conditions on GeM 4.0 (Version 1.14)

#### dt 31st Jan 2024

damage to a third party; or arising out of, or in connection with, use of the Website.

23.2.4 Violation of any intellectual property rights or any other rights.

Once GeM notifies the Buyer/ Seller of such claims, they shall defend and indemnify GeM for the same. Further, in no case they shall compromise or settle any claim or admit any liability on the part of GeM without the express or prior written consent of GeM which can be withheld or denied or modified by GeM in its sole discretion or as per the Applicable Laws.

- 23.3 Severability: If due to any change in Applicable laws, certain part of the GTC or any applicable STC or any provisions of the GeM policies or portions thereof, becomes unenforceable, the remaining provisions shall continue in full force and effect so as to give effect to the intent of the parties.
- **Website Terms and Policies Updation**: Buyers and Sellers are advised to check the website terms and conditions as well as policies such as Privacy Policy and the Website Disclaimer at all times, as GeM may update the Website and such terms from time to time.
- 23.5 List of Prohibitive Activities (Suggestive and Non-Exhaustive):

LIST OF PROHIBITIVE ACTIVITIES: The following is an indicative list of prohibitive activities which the Buyers and the Sellers registered on GeM platform shall not perform on the GeM platform. A breach of any of the prohibited activities shall give the right to GeM under the Applicable Laws or in terms of these GTC or the GeM Website Policies to take administrative action which may include partial or permanent disabling of account on GeM Website, debarment etc. Additionally, GeM may remove any non-compliant information and reserves the right to preserve and share with the appropriate authority such information and associated records for investigation purposes. The Buyer and the Seller understand that this list is only indicative and additional activities may be prohibited under the GeM Website Policies. The Buyers and the Sellers shall undertake to provide their full support that may be required by GeM for removal and disabling of the non-compliant information. The prohibited activities include:

(i) Indulging in cyber-crime or other criminal activities which can become a threat to GeM, GeM Website, to the Government of India or to any State Government or Government Agency.

- (ii) Advertising, exhibiting, representing, publishing, pronouncing, listing, delivering, offering to sell or selling any kind of Goods/Services which can cause any kind of infringement or disparagement of intellectual property rights.
- (iii) Selling refurbished, counterfeit and/or fake Goods / Services under a brand or misusing others brand name.
- (iv) Offering to sell or selling above the MRP any Goods or misrepresenting the MRP.
- (v) Delivering some other Goods or Services instead of the Goods or Services Contracted for or delivering empty parcels or used Goods in breach of the terms of the Contract.
- (vi) Offering to sell or selling freebies which are 'Not for sale' Goods.
- (vii) Listing of the Goods on GeM Website without authorization to sell Goods manufactured by the OEM in open market or without proper authorization, if any required, for providing the Service.
- (viii) Listing of the Goods or Services is done on GeM Website without guarantee/warranty or without a genuine guarantee/warranty.
- (ix) Listing of the Goods or Services in irrelevant or inappropriate categories or with vague or conflicting specifications or description (including descriptive or pictorial description).
- (x) The Buyer /Seller registering on GeM and/or offering or buying the Goods and/or Services and/or participating in e-bidding/reverse auction on GeM, without the requisite authorization to enter into contract on behalf of the concerned legal entity. Failing which such individual(s) shall be individually liable for its actions and also for any liability arising out of such actions.
- (xi) If any Seller has been debarred from GeM then such Seller or their authorized sellers shall also not be permitted to register and offer/sell their products on GeM and / or participate in Bids / RA on GeM.
- (xii) Using GeM prices for making procurement outside GeM Portal.
- (xiii) Splitting of demands by creating multiple Bids/RAs of same goods / services or making repeated procurements of same goods/services through Direct Purchase / L-1 buying as per rule 149(i) and 9(ii) of GFR-2017.
- (xiv) Uploading goods / services containing information that
  - (a) Belongs to another person and to which the user does not have

any right to;

- (b) Is grossly harmful, harassing, blasphemous, defamatory, obscene, pornographic, paedophilic, libellous, invasive of another's privacy, hateful, or racially, ethnically objectionable, disparaging, relating or encouraging money laundering or gambling, or otherwise unlawful in any manner whatever;
- (c) Harm minors in any way;
- (d) Infringes any patent, trademark, copyright or other proprietary rights;
- (e) Violates any law for the time being in force;
- (f) Deceives or misleads the addressee about the origin of such messages or communicates any information which is grossly offensive or menacing in nature;
- (g) Impersonate another person;
- (h) Contains software viruses or any other computer code, files or programs designed to interrupt, destroy or limit the functionality of any computer resource;
- (xv) Threatens the unity, integrity, defence, security or sovereignty of India, friendly relations with foreign states, or public order or causes incitement to the commission of any cognizable offence or prevents investigation of any offence or is insulting any other nation.
- (xvi) Achieving or trying to achieve illegal access to features on GeM Website not specifically authorized or exceeding the scope of authorized access to or other features of the GeM Website;
- (xvii) Obstructing or causing GeM to lose (in whole or in part) the services provided by any internet service provider ("ISPs") or carrying out any cyber security incident;
- (xviii) Sending unsolicited emails, bulk messaging, auto messaging, junk email, spam and like.

#### 24. Incident management Policy on GeM:

GeM is a trust based system and self- declaration is the key, along with a strong automated process to penalize any deviant behaviour on part of Sellers / Buyers. For this purpose, deviations from the terms and conditions of procurement on GeM, including general terms and conditions, special and additional terms and conditions and any other relevant Government

rules and guidelines, are termed as "deviation". A deviation can occur while listing the products on GeM, at pre- contract stage, during bidding or at post contract stage on GeM. The mechanism for reporting and initiating action on such deviation has been detailed in the Incident Management Policy available on GeM portal under Resources. All stakeholders of GeM shall be bound by the actions as detailed in the Incident Management Policy.

All administrative actions under this Incident management Policy, taken by GeM against any of the stakeholders shall not cause any limitation on the legal and/or contractual remedies including any financial recoveries, available to Buyers/Sellers under the Terms and Conditions of contract and / or GeM policies. In case the Buyer / Seller choose to pursue any of these remedies, GeM shall not be made party to such proceedings /remedial actions taken by Buyer/Seller under the contractual provisions.

If any individual has registered multiple proprietorship concerns as separate seller entities on GeM under different business names (with same PAN), all such Seller entities would be equally impacted by the action taken against any one of such entities for his default / deviation under incident management policy.

All the allied firms, as per definition of DOE's OM number F.1/20/2018-PPD dated 02/Nov/2021, will be equally impacted by the action taken against any one of such entities for the default / deviation under Incident Management Policy.

## Following is the definition of allied firms:

All concerns which come within the sphere of effective influence of the debarred firms shall be treated as allied firms. In determining this, the following factors may be taken into consideration:

- a. Whether the management is common.
- b. Majority interest in the management is held by the partners or directors of banned / suspended firm.
- c. Substantial or majority shares are owned by the banned/ suspended firm and by virtue of this it has a controlling voice.
- d. Directly or indirectly controls or is controlled by or is under common control with another bidder.
- e. All successor firms will also be considered as allied firms.

#### 25. Use of Aadhaar Number in GeM:

Purpose of the Aadhaar authentication in GeM is to identify the user using eKYC. GeM has provisioned the option for Sellers and Buyers to provide virtual Aadhaar ID instead Aadhaar number. GeM receives First Name, Last Name, Mobile Number, Email ID, DOB and Gender details. It is used to link the mobile number with the user who is registering on GeM; on which subsequently OTP is sent for achieving the property of non-repudiation in different artefacts / documents generated on GeM. GeM has provisioned an alternative Identity Information option through PAN based verification to Sellers.

# 26. Compliance of Restrictions under Rule 144 (xi) of GFR 2017 as per DOE Order (Public Procurement No.4) dated 23.02.2023 (as amended from time to time)

Restrictions on procurement from a bidder of a country which shares a land border with India

- I. a) Any bidder from a country which shares a land border with India will be eligible to bid in this tender, whether of goods or services (including consultancy services and non-consultancy services), only if the bidder is registered with the Competent Authority.
  - b) Further, any bidder (including an Indian bidder) who has a Specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to bid in any procurement whether of goods or services (including consultancy services and non-consultancy services) only if the bidder is registered with the Competent Authority.
- II. The requirement of registration for bidders covered by I (b) above will be applicable for all procurements where bids are issued / published after 01.04.2023.
- III. "Bidder" (Seller / Service Provider) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- IV. "Bidder (or entity) from a country which shares a land border with India"

for the purpose of the Order means:

- a. An entity incorporated, established, or registered in such a country; or
- b. A subsidiary of an entity incorporated, established, or registered in such a country; or
- c. An entity substantially controlled through entities incorporated, established, or registered in such a country; or
- d. An entity whose beneficial owner is situated in such a country; or
- e. An Indian (or other) agent of such an entity; or
- f. A natural person who is a citizen of such a country; or
- g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- V. The beneficial owner for the purpose of (iv) above will be as under
  - 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. Explanation
    - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
    - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
  - 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
  - 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
  - 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

- 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- VI. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VII. The registration shall be valid at the time of submission of bid and at the time of acceptance of bid.
- VIII. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.
- IX. "Transfer of Technology" means dissemination and transfer of all forms of commercially usable knowledge such as transfer of know-how, skills, technical expertise, designs, processes and procedures, trade secrets, which enables the acquirer of such technology to perform activities using the transferred technology independently.

Any false declaration and non-compliance of the above would be a ground for debarment and further legal action in accordance with law.

## **27: Caution Money Deposit:**

- (i) All sellers on GeM are required to deposit a one-time amount as under as caution money:
  - 1. Seller Turnover less than 1 Crore: INR 5,000/-
  - 2. Seller Turn over > 1 Crore but < 10 Crore: INR 10,000/-
  - 3. Seller Turn over > 10 Crore: INR 25,000/-
- (ii) The above caution money shall remain at the disposal of GeM SPV. This can be forfeited in part or in full (as per approval of CEO (GeM)) in following circumstances:
  - (a) Failure of the seller in executing any GeM contract or if the Seller fails or neglects to observe or perform any of his obligations under the contract (applicable only in respect of contracts that did not have provision of Performance Security).

- (b) Withdraws any bid submitted on GeM within the period of validity of the bid.
- (c) Fails to furnish requisite performance security as per GeM e-bid / RA conditions.
- (iii) In case the Caution Money of any seller is forfeited in full or part and his caution money deposit goes below the threshold indicated in para 1 above, the seller account shall be put on hold till the seller re-coups the caution Money account to required value. Seller's stock will become zero for all categories and seller will not be allowed to update anything till the caution money is topped up to minimum required amount.
- (iv) Forfeiture of caution money as per above shall be over and above any other actions taken against such sellers as per GeM Incident Management Policy and shall be without any prejudice to the rights and remedies available to GeM and / or Buyer as per provisions of the relevant contracts.

#### 28: CMS 3.0 and OEM - Reseller responsibility matrix:

GeM has implemented enhanced Catalogue Management System (CMS 3.0) on GeM Portal. The Primary Objective of CMS 3.0 is to offer higher level of ownership & accountability to OEMs & its approved Resellers while maintaining Efficiency, Transparency & Inclusiveness of GeM. Complete and detailed Obligations and Privileges matrix of the different stakeholders in different quadrants is given in CMS document available on GeM Portal and OEMs and Resellers are bound to operate on GeM in compliance with the CMS document as updated from time to time.

- 1. CMS Quadrant 1 (CMS Q1): Product offers in categories under Q1 will be solely offered by GeM validated OEMs. OEM shall be exclusively responsible for maintaining currency and sanity of catalogue and its offer in the Market Place. OEM shall be absolutely and exclusively responsible and be legally liable for sanity and quality of offers including Warranty and After Sales Service obligations.
- 2. CMS Quadrant 2 (CMS Q2): OEMs as well as pre-Authorized Resellers can offer products in Q2. OEMs shall operate Market Place subject to providing its complete list of Open market authorized sellers along with formal commitment to list and maintain all appropriate and current Product Catalogue for pairing by its Resellers.OEM shall be absolutely and exclusively responsible and be legally liable for sanity and quality of catalogues including Warranty and After Sales Service

obligations. Authorize Resellers shall beresponsible for Pairing their offer with the already existing Product Catalogue created by the OEM. However, resellers can Update their Offer Price, Stock and Delivery Locations solely at their own discretion and shall be solely responsible for the same.

- 3. CMS Quadrant 3 (CMS Q3): Catalogue creation in categories under Q3 can be from OEMs and/or their Resellers concurrently. In case OEM has not created Product Catalogue, Resellers of OEMs are also permitted to do the same. However, OEM can manage resellers and catalogues (when registered on GeM and taken OEM Dashboard). Further, OEM shall be responsible for the following:
  - Maintain the Catalogue by adding / updating the Products / Services, Specifications, MRP & Offers specific to Product / Service
  - Provide list of all its resellers and shall respond as per Service Level commitments to queries relating to Product Specifications / Services and / or verification of a Reseller, failing which they shall own responsibility of all and every fall out, by any act of such Resellers and / or offer of an insane catalogue.
  - Validating & verifying the Catalogue uploaded by Reseller
  - Assume all responsibility and legal liability for sanity and quality of offers including Warranty and After Sales Service obligations

However, resellers can update their Offer Price, Stock and Delivery Locations solely at their own discretion and shall be solely responsible for the same.

4. CMS Quadrant 4 (CMS Q4): Catalogue creation in categories under Q4 can be done by OEMs as well as by any Reseller also. However, OEM (when registered on GeM and taken OEM Dashboard) shall be responsible for Validating & verifying the Catalogue uploaded by Reseller, Maintaining the Catalogue by adding/updating the Specifications, MRP etc. specific to catalogue. However, there is no requirement of any endorsement or authorization of the reseller by the OEM. Resellers can Update their Offer Price, Stock and Delivery Locations solely at their own discretion and shall be solely responsible for the same. Reseller will also be responsible for providing Replacement Warranty in case of Q4 products and Buyer shall not be

required to take up with OEM for any warranty claims.

**5. CMS (Special Category):** The Special Category is a specialized segment outside the four quadrants for select few categories that require a customized behavior such as Self-Help Groups (SHG) categories.

In Q3 and Q4, in case of re-sellers, if the reseller has not been approved as an authorized re-seller by the OEM on GeM, the re-seller is required to give an undertaking as under while uploading the product, while accepting any order and while participating in any bid:

"I hereby undertake that I have made arrangements for getting the stores from authorized distributor / dealer / channel partner of the OEM of the offered product. At the time of delivery of goods, I will provide necessary chain documents to prove that the supplied goods are genuine and are being sourced from authorized distributor / dealer / channel partner of the OEM. In case of any complaint from the Buyer / Consignee about genuineness of the supplied products, I shall be responsible for providing genuine replacement supplies."

By uploading any product on GeM or accepting any order on GeM or by participating in any bid on GeM, the re-seller is deemed to have given above undertaking and is liable for compliance of the same.

Further in view of the on-line verification of Seller credentials by the OEM on GeM platform, there is no need for Buyer to ask for or insist on furnishing of OEM authorization in bids in respect of "OEM verified Catalogue" offered by "OEM Verified Reseller". OEM authorization is also not required to be sought and checked by Buyers in case of bids for products in Q1 or Q2.

#### 29: One Bid per Bidder

A Bidder shall submit only one bid in a particular bidding process (unless otherwise allowed in the bid STC / ATC conditions). In case of a holding company having more than one independent manufacturing units or more than one unit having common business ownership / management, only one unit should quote. Similar restrictions shall apply to closely related sister companies. Bidder's sister/ Associated/ Allied concern(s) participating or applying against the same tender, shall lead to disqualification of Bidders. Sister / Associated / Allied concern means a company, society, partnership firm or proprietorship firm having one or more common persons as Director /

Partner/ Member/ Owner. A Bidder who submits more than one bid will cause all the proposals submitted in the particular bid to be disqualified. In relation to the above, a person will include firm(s) of Proprietorship / Partnership Firm / Limited Liability Partnership / Private Limited / Limited company / Society registered under Society's Act / Statutory Bodies / any other legal entity, as the case may be, & will be deemed to have submitted multiple bids in a particular bid if a person bids in any of the two formats given below:

- i. individual or proprietorship format and/or
- ii. a partnership or association of persons format and/or
- iii. a company format

## Whereby,

- A company shall for this purpose include any artificial person whether constituted under the Indian laws or of any other country.
- A person shall be deemed to have bid in a partnership format or in association of persons format if he is a partner of the firm which has submitted the bid or is a member of any association of persons which has submitted a bid.
- A person shall be deemed to have bid in a company format if the person holds:
  - i. More than 10% (ten percent) of the voting share capital of the company which has submitted a bid, or
  - ii. Is a director and / or Key Managerial Personnel of the company which has submitted a bid, or
  - iii. Holds more than 10% (ten percent) of voting share capital in and/or is a director and / or Key Managerial Personnel of a holding company of that company which has submitted the bid.

By making a bid pursuant to the Tender Documents, the bidder / tenderer shall be deemed to have declared that the bidder / tenderer has not made anyother bid or multiple bids as understood or deemed in terms of this clause.

All the bids of a bidder who has submitted multiple bids, as per the clause, shall be rejected and Bid Security for all such bids shall be forfeited, not by way of penalty or liquidated damages but by way of reimbursement of the pre-estimated costs likely to be incurred by the buyer towards bidding process and in the scrutiny & evaluation of bids.

In addition to the above, bidders found to be in contravention to the said clause will be liable for administrative actions.

## 30: Push Button Procurement (PBP)

In line with Department of Expenditure OM No. F.6/7/2022-PPD dated 6th September, 2022, "Push Button Procurement (PBP)" for small value procurements will be available on GeM with the following conditions:

- a. PBP will be made only through bidding (PBP through Direct Purchase, L-1, Custom bid, etc. are not permitted).
- b. The total procurement value of the specific case is not to exceed INR 5,00,000 /- (inclusive of all taxes).
- c. PBP will be additional method of procurement and procuring entities are free to use or not to use this additional method of procurement.
- d. PBP method can be used only in case at least five bids are received. In case of less than five bids are received, the procurement is to restart using usual procurement method.
- e. Buyer is to ensure that no splitting of requirement is being done so as to bring procurement under PBP method.
- f. Once PBP bid is invited, contract will be placed directly without any human intervention (provided condition (d) above is complied).
- g. PBP will be permitted only for such categories, where at least ten sources are listed.

Push button procurement process is very simple and user friendly and mostly automated.

#### A) Buyer PB procurement:

- i. Buyer will select a product from marketplace, do product comparison, etc.
- ii. Thereafter instead of directly placing order on the L-1, the buyer will create a Push Button Procurement Notice by selecting the L-1 product which is otherwise eligible for L-1 purchase.
- iii. Clicking on "Create PBP Notice" will give an option to Buyer to decrease the quantity and delivery period at consignee level. This is enabled for Buyers to seek quotations for lower delivery periods and quantity lower than Minimum Order Quantity (MOQ) otherwise offered by the sellers in marketplace.

iv. Per unit L-1 price will be set as ceiling price for that PBP Notice.

#### B) PBP Notice content and validations:

- i. The PBP Notice will contain all biddable specification parameters as per GeM category definition [excluding the text input parameters of the product chosen by Buyer, Consignee-wise Quantity and Consignee-wise Delivery Period.
- ii. Bunching of items is not allowed in PBP Notices.
- iii. The estimated all-inclusive bid value should be less than or equal to INR 5,00,000 based on the system identified L-1 price estimation for the quantity to be procured.
- iv. PBP Notice will include ONLY GeM GTC and category specific Special Terms and Conditions (STC), integrity pact, land border sharing countries declaration etc. Buyer is not allowed to push any new specification parameter or any Additional T&C.
- v. PBP Notice have participation time of 3 days and offer validity of 10 days

#### C) Seller participation:

- i. PBP notices is published on GeM portal under a separate tab for anyone to see.
- ii. All sellers/service providers can view the PBP Notices created for their category in their dashboard.
- iii. By participating in PBP, Sellers unconditionally accept the GTC and STC, integrity pact, price declaration and other conditions part of the PBP Notice floated before participation.
- iv. Sellers will offer their matching product and price against the PBP Notice by clicking on "Offer Price" and submission of price and compliance of T&C. This offer price will be applicable only for that PBP Notice.
- v. Seller/Service Provider can participate in a PBP Process only once and there is no option to withdraw.

- vi. PBP participation will be without EMD and against Bid Securing Declaration only.
- vii. Per unit price to be entered by the seller will have to be less than the L-1 price set as ceiling price in PBP Notice.

#### D) Procurement Decision:

- i. System/Buyer will open offers after PBP end date and time.
- ii. System will check if offers are received from at least 5 sellers offering products of at least two (2) different OEMs and total L1 value is less than or equal to INR 5,00,000.
- iii. Buyer will not get any access to see list of participating bidders or Seller details.
- iv. If all conditions as defined above are satisfied, system will automatically prompt Buyer to create order on L1 by providing details related to financial approval, paying authority and payment mode etc. as applicable to buyer.
- v. In case of multiple L1 System would place order on seller with maximum Seller Rating on GeM
- vi. If adequate number of offers are not received or total L1 value is more than INR 5,00,000 system will cancel the PBP Notice. A message will be displayed to the buyer stating Due to insufficient participation in the PBP, you cannot create an order against this PBP. You may go ahead and procure L1 in marketplace through L-1 Purchase after Comparing and verifying price reasonableness or create a regular bid / RA to get better response.
- vii. System will not allow same buyer to use PBP to BUY SAME ITEM in case of failure of the PBP for next 30 days.
- viii. System generated contract will have complete specification of the product offered by seller, Consignee-wise Quantity, Consignee-wise Delivery Period and GeM GTC and category specific STC etc.





# GENERAL CONDITIONS OF CONTRACT

## NATIONAL ALUMINIUM COMPANY LIMITED NALCO BHAWAN, P-1 NAYAPALLI, BHUBANESWAR – 751 013

Web site: nalcoindia.com



## **INDEX**

Sl.No	Title	Page No.
1.	Definitions and Interpretation (Section-1)	
1.1	Definitions	
2.	Facilities to Contractor (Section-II)	
2.1	Location of Site climatic conditions and Access by Road	
2.1.1	Location of Site	
2.1.2	Access by Road	
2.2	Water Supply	
2.3	Power Supply	
2.4	Land for Contractor's field office, godown and workshop	
2.5	Land and Residential Accommodation	
	General Instructions to Tenderers (Section-III)	
3.	Submission of Tender:	
4.	Documents:	
4.1.2	Details to be submitted along with the tender	
4.2	All pages to be initiated	
4.3	Rates to be in figures and words	
4.4	Corrections and Erasures	
4.5	Signature of Tenderer	
4.6	Witness	
5	Transfer of Tender Documents	
6	Earnest Money	
7	Validity	
8	Addends/ Corrigenda	
9	Right of Owner to accept or reject Tender	
10	Time Schedule	
11	Collection of data Tenderer's responsibility	
12	Retired Government or Company Officers	
13	Signing of the Contract	
14	Field Management and Controlling Authority	
15	Note to schedule of Rates	
	General Obligations (Section-IV)	
16	Interpretation of contract documents	
17	Special Conditions of Contract	
18	Tenderer to obtain his own information	
19	Security Deposit	
20	Forfeiture of Security Deposit	
21.	Time of Performance	
22.	Extension of Time	
23.	Force Majeure	
24.	Compensation for delay.	
25.	Failure by the contractor to comply with the provisions of the	
	contract.	



2.6		1
26.	Contractor remains liable to pay compensation if action not taken	
27	under Clause 25.	
27.	No Compensation for alteration in or restriction of work.	
28.	Change in Constitution	
29.	Termination of Contract for death	
30.	Members of the Owner not individually liable	
31.	Owner not bound by personal representations	
32.	Contractor's Office at Site	
33.	Contractor's subordinate staff and their conduct	
34.	Sub-letting of work	
34.1	General	
34.2	Sub-Contracting of works	
34.3	List of sub-contracted works to be supplied	
34.4	Contractor's liability not limited by sub-contractors	
34.5	Owner may terminate sub-contracts	
34.6	No remedy for action taken under this clause	
35.	Power of Entry	
36.	Contractor's responsibility with other agencies	
37.	Other agencies at site	
38.	Serving of Notices	
38.1	To the Contractor	
38.2	To the Owner	
39	Rights of various interests	
40	Patents, Royalties, Rent and excavated material	
41.	Liens	
41.1	General	
41.2	Nothing extra for adverse sub-soil conditions	
41.3	Slip and Falls in excavation	
41.4	No compensation in case of change on location of site	
	Performance of Work (Section V)	
42.	Execution of Works	
43.	Coordination and inspection of works	
44.	Work on monsoon and dewatering	
45.	Work on Sundays and Holidays	
46.	General Conditions of Construction and Erection Work	
47.	Drawing to be supplied by the Owner	
48.	Drawings to be supplied by the Contractor	
49.	Setting out works	
50.	Responsibility for Level and Alignment	
50.1	General	
50.2.	Lighting, Watch and Ward	
51.	Materials to be supplied by Contractor	
52.	Stores supplied by the Owner	
53	Conditions for issue of materials	
54.	Return of Surplus	
51. 52. 53	Materials to be supplied by Contractor Stores supplied by the Owner Conditions for issue of materials	



55.	Materials obtained from dismantling	
56.	Articles of value found	
57.	Inspection of works	
58.	Assistance to the Engineer	
59.	Discrepancies between Instructions	
60.	Alterations in specifications & designs and extra works	
61.	Action where no specification is issued	
62.	Abnormal Rates	
63.	Test for quality of Works	
64.	Samples	
65.	Liabilities for defect imperfections etc and rectification's thereof	
66.	Suspension of works	
67.	Possession prior to completion	
68.	Twelve months period of liability form the date of issue fo	
00.	completion certificate	
68.1	Guarantee	
68.2	Suggestions to fulfill the guarantees	
68.3	Care of works	
68.4	Defects prior to taking over	
68.5	Defects after taking over	
68.6	Guarantee/ Transfer of Guarantee	
	Certificate and Payments (Section-VI)	
69.	Schedule of Rates and Payments.	
69.1	Contractor's Remuneration.	
69.2	Schedule of Rates to be inclusive.	
69.3	Schedule of Rates to cover constructional plant, materials, labour	
	etc.	
69.4	Schedule of Rates to cover royalties, rents and claims	
69.5	Schedule of Rates to cover taxes and duties.	
69.6	Schedule of Rates to cover risks of delays.	
69.7	Schedule of Rates can not be altered.	
70.	Procedure for measurement/ billing of work in progress.	
70.1	Measurements.	
70.2	Billing.	
70.3	Secured Advance on materials.	
70.4	Dispute in mode of measurement.	
70.5	Rounding of Amounts	
71.	Lumpsum in Tender	
72.	Running Account payment to be regarded as advances	
73.	Notice of claims for additional payment	
74.	Payment of Contractor's Bill	
75.	Receipt for payment.	
76.	Completion Certificate.	
76.1	Application for completion certificate.	
76.2	Completion Certificate.	



	Proposal forms - (Appendixes)	-
C.	Security Deposit Guarantee Bond	
	Proforma of Agreement Security Deposit Guarantee Bond	
A. B.		
Λ	Proforma (Section-X) Proforma of Bank Guarantee.	
105.	Use of intoxicants.	
104.	Treatment of Contractor's Staff in Owner's Hospital	
103.	Out Break of infectious diseases.	
102.	Preservation of peace.	
101.	Mines Act.	
100.	Explosives.	
99.	Precautions against fire.	
98.	Temporary combustible Structures.	
97.	Care in handling Inflammable gas.	
96.	General Safety	
95.	Excavation and Trenching.	
94.	Scaffolding.	
93.	Contractor's Barricades.	
92.	General Rules.	
91.	First Aid and Industrial Injuries	
90.	Safety Regulations	
89.	General	
	Safety Code (Section-IX).	
88	Jurisdiction/ Governing Laws	
87.	Arbitration	
86.	Health and sanitary arrangements for workers	
85.	Contractor to Indemnify the Owner	
84.	Implementation of Apprentices Act 1961.	
83.	Labour laws.	
	Labour Laws and Arbitration (Section – VIII)	
82.	Demurrage dues.	
81.	Damage to property or to any person or any third party	
80.5	Transit Insurance	
80.4	Accident or Injury to workmen	
00.5	Owner	
80.3	Any other insurance required under law or regulations or by	
80.2	Workmen compensation and employer's liability insurance	
80.1	Employees State Insurance act.	
80.	Insurance	
79.	Taxes, duties, octroi etc.	
78.	Certificate and payments no evidence of completion.  Taxes and Insurance (Section –VII)	
77.	Final Decision and final Certificate.	
77	Completion Documents.	



IA.	Details of works of similar nature and magnitude carried out
	during the last 5 years.
IB.	Concurred commitments of the tenderer
II	Details of equipment, tools tackle.
III.	Details of Minimum manpower proposed to be deployed on this
	work.
IV.	Organisation Chart showing no. of qualified engineers and
	supervision)
V.	List of proposed sub-contractors.
VI.	Progress Billings.
VII.	Information about Tenderers (Form H)
VIII	List of enclosures (Form-I)
IX.	Exceptions and Deviations (Form –J)



## **SECTION - 1**

## **DEFINITIONS AND INTERPRETATION**

#### 1. **DEFINITION & INTERPRETATION:**

#### 1.1 Definition:

In the contract (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires.

1.1.1 The 'Owner' shall mean the National Aluminium Company Limited (NALCO), a Company incorporated under the Companies Act, 1956 having its registered office at IDCO Tower, 8<sup>th</sup> Floor, Janapath, Bhubaneswar –751007 or any other place as modified subsequently and shall include its Chairman-cum-Managing Director or other Administrative Officers authorised to deal with these presents are concerned on his behalf posted in the any of the Offices of NALCO and shall also include Owner's successors and assignees.

The Chairman-cum-Managing Director has nominated the following persons as the representative of the 'Owner' for the purpose of all contractual matters.

Smelter - General Manager (Smelter)
CPP - General Manager (CPP)
Mines - General Manager (Mines)
Alumina - General Manager (Alumina)

- 1.1.2 The 'Tender' shall mean the tender submitted by the tenderer for acceptance by the Owner.
- 1.1.3. The 'Chairman-cum-Managing Director' shall mean the Chairman-cum-Managing Director of National Aluminium Co. Ltd., or his successors in office as designated by the Owner.
- 1.1.4. The 'Project Head' shall mean General Manager/ Deputy General Manager of the Project of National Aluminium Company Ltd., or his successor in office or his authorised representative.
- 1.1.5. The 'Contractor' shall mean the person or persons, firm or company whose tender has been accepted by owner and includes the contractor's legal representatives, his successors and permitted assigns.
- 1.1.6. The 'Sub-contractor' shall mean any person or firm or company (other than the contractor to whom any part of the work has been entrusted by the contractor, with the written consent of the owner or his representative and the legal representatives, successors and permitted assignee of such person, firm or company.



- 1.1.7. The 'Engineer-in-Charge' shall mean the person nominated by the Owner from time to time and shall include those who are expressly authorised by the Owner to act for and on his behalf for all function pertaining to operation of this contract. All functions pertaining to the operation of contract means all acts necessary for execution of the contract coordinating between the different agencies and final closing of the contract.
- 1.1.8. The 'Works' shall mean and include all works to be executed in accordance with the contract or part thereof as the case may and shall include all extras, addition, altered or substituted works as required for the purpose of the contract or as may be required to be executed by the owner/ engineer-incharge.
- 1.1.9. The 'Contract' shall mean the agreement between the Owner and the contractor for the execution of the works including therein all documents such as the invitation to tender, instructions to Tenders, General Conditions of Contract, Special Conditions of Contract, Job Specifications, General Requirements, Time Schedule of Completion of Job, Drawings, Letter of Intent awarding the work, Agreed variations, if any etc.
- 1.1.10. The 'Contract Document' shall mean collectively the tender documents, designs, drawings specifications, agreed variations, if any and other documents constituting the tender and acceptance thereof.
- 1.1.11. 'Constitutional Plant' shall mean all appliances or things of whatsoever nature required in or about the execution, completion or maintenance of the works or temporary works (as hereinafter defined) but does not include materials or other things intended to form of forming part of the permanent work.
- 1.1.12. 'Temporary Works' shall mean all temporary works of every kind required in or about the execution, completion or maintenance of the works.
- 1.1.13. 'Specifications' shall mean all directions, various technical specification, provisions, and requirements, attached to the contract, which pertain to the method and manner of performing the work or works to the quantities and qualities of the work or works and the materials to be furnished under the contract for the work or works as may be amplified or modified by the Owner or the Engineer-in-charge during the performance of Contract in order to provide the unforeseen conditions or in the best interests of the work or works. It shall also include the latest edition including all addenda/ corrigenda or relevant Indian Standard Specifications and other relevant codes.
- 1.1.14. 'Plans' shall mean all maps, sketches, and layouts as are incorporated in the contract in order to define broadly the scope and specifications of the work or works, and all reproductions thereof.



- 1.1.15. 'Drawings' shall include maps, plans and tracings or prints thereof with any modifications approved in writing by the Engineer-in-Charge and such other drawings as may, from time to time, be furnished or approved in writing by the Engineer-in-charge.
- 1.1.16. 'Foreign consultant' shall mean a person, agency or firm including their successors and assigns, who are nonresidents of India and are responsible for supply of process Technology for expansion plant based on review of existing plant including material flow, energy balance, additional facilities and improvement on the basis of the recent experience.
- 1.1.17. 'Indian Consultant' shall mean a person, agency or firm including their successors and assign who are responsible for detailed engineering and construction management of the project.
- 1.1.18. 'Project manager' shall mean the authorised representative of the consultant posted at site. He shall be responsible for supervision of the work by the contractors as well as coordinate with different agencies within the organisation or otherwise.
- 1.1.19. 'Site' shall mean the lands and other places on, under in or through which the permanent works are to be carried out and any other lands or places provided by the owner for the purpose of the contract.
- 1.1.20. 'Notice in writing or written Notice' shall mean a notice in written, typed or printed characters sent (unless delivered personally or other wise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received in the ordinary course of post it would have been delivered.
- 1.1.21. The 'Completion Certificate' shall mean the certificate to be issued by the owner or his representative when the works have been completed to his satisfaction.
- 1.1.22. The 'Final Certificate' in relation to the work shall mean the certificate regarding the satisfactory compliance of the various provisions of the contract to be issued by the owner or his representative after the period of liability is over.
- 1.1.23. 'Approved' shall mean approved in writing including subsequent written conformation of previous verbal approval and 'Approval' means approved in writing including as aforesaid.
- 1.1.24. The 'Period of Liability' in relation to a work means the specified period from the date of issue of completion certificate up to the date of issue of final certificate which the contractor stands responsible for rectifying all defects that may appear in the works.



- 1.1.25. The 'Appointing Authority' for the purpose of arbitration shall be the Chairman and managing Director or any other person so designated by him.
- 1.1.26. The 'Alteration Variation Order' means an order given in writing by the Engineer-in-Charge/ owner to effect additions to or deletions from or alteration in the works.
- 1.1.27. 'Letter of Intent' shall mean an intimation by a letter to tenderer that the tender has been accepted in accordance with the provisions contained in the letter.
- 1.1.28. 'Days' means a day of 24 hours from mid night irrespective of the number of hours worked in that day.
- 1.1.29. 'Working Day' mean any day which is not declared to be holiday or rest day by the Owner.
- 1.1.30. 'Week' means a period of any consecutive seven days.
- 1.1.31. 'Metric System': All technical documents regarding the construction of works are given in the metric system and all work in the project should be carried out accordingly to the metric system. All documents concerning the work shall also be maintained in the metric system.
- 1.1.32. 'Value of Contract' shall mean the sum accepted or the sum calculated in accordance with the prices accepted in tender and / or the contract rates as payable to the contractor for the entire execution and full completion of the work.
- 1.1.33. 'Headings and Marginal Notes' in these contract documents are given solely for facility of reference and are not part of the contract documents and are not to be taken into account in the interpretation of the provisions of the contract.
- 1.1.34. 'Language for Drawings & Instruction': All the drawings, titles, notes, instruction, dimensions etc. shall be in English Language.
- 1.1.35. 'Singular and Plural': The singular shall include the plural and vice versa wherever the context so requires.



## **SECTION - II**

#### 2. FACILITIES TO CONTRACTOR

## 2.1 Location of Sites and Access by Road:

## 2.1.1 Locations of Sites:

The general information about Mines Alumina, Aluminium Smelter and Captive power Plants furnished below is of indicative nature only and shall not be considered as binding in any way on the Owner and shall not govern either the scope of work or the nature of the respective rights and the obligations of the parties to such contract.

## (a) Alumina Plant and Mines:

Alumina plant is on south-western side of the Panchpatmali hill near Damanjodi village in Koraput District, Orissa State. The site is situated at 12 Km from the national highway No. 43 off Semiliguda village. The Alumina Plant Site has the form of saddle between groups of low hills. The location of Red Mud Pond is in the natural basis of hills situated at a distance of 2 Km from the western side of the plant. The Bauxite mine is located at 14 Km away from the Alumina Plant Site.

## (b) Smelter Plant:

Aluminium Smelter is on the Southern side of National Highway No. 42, with its approximate latitude and longitude as 20°51'N and 85°10'E respectively. The area, at a higher elevation in comparison with adjacent land, is not subjected to either normal or flash foods. The prevalent directions of wind are from North-West and West.

#### (c) Captive Power Plant:

Captive Power Plant is located at Angul, District Angul, Orissa on the south of Talcher Thermal Power Station of Orissa State Electricity Board the main plant site is about 3 Km on the north of the junction of the National Highway Nos. 42 and 23, between the villages Balaram Prasad Patna and Gotamara. The access roads to the main plant site may be taken from either of the highways.

## 2.1.2. Access by Road:

Contractor, if necessary, shall build other temporary access roads to the actual site of construction for his own work at his own cost. The Contractor shall be required to permit the use of the roads so constructed by him for vehicles of any other parties who may be engaged on the project site. The Contractor shall also facilitate the construction of the permanent roads should the construction thereof start while he is engaged on this work. He shall make due allowance in his tender for any inconvenience he anticipates on such account.

Non-availability of access roads, railway siding and railway wagons for the use of contractor shall in no case condone any delay in the execution of works not be the cause for any claim for compensation against the Owner.



## 2.2 Water Supply:

- 2.2.1. Unless other wise provided in the Contract, the Contractor shall be responsible for the arrangements to obtain supply of water necessary for the works, his labour colony, his workshops, his offices etc. All pumping installations, pipe network and distribution system will have to be carried out by the Contractor at his own cost.
- 2.2.2. The Owner may agree to supply water to the Contractor for use in the Owner's works on specified terms and conditions as shall be determined by the Owner, which shall be binding on the Contractors. The tenderer is however required to exercise his option to receive such water supply from Owner's main at the time of submission of his tender.
- 2.2.3. When the water is supplied by the Owner, the Owner's main will be within 500 metres form the site of work. The Contractor shall provide at his own cost, all necessary ferrules, pipes, fitting, couplings and tanks and temporary works required and he shall maintain all such works in satisfactory condition. The Contractor shall remove all such works and shall re-instate and make good any work disturbed, to the satisfaction of the Engineer-in-Charge.
- 2.2.4. In the event of the Contractor's drawing water from the Owner's main/source, he shall not claim any compensation for interruption or failure of Owner's water supply caused due to any reasons beyond the control of the owner.
- 2.2.5. The water so supplied by the Owner shall be free of cost for the Constructional work only.

## 2.3. Power Supply:

2.3.1 Subject to availability, Owner will supply power at 400/440 V at only one point at the nearest substation, from where the contractor will make his own arrangement for temporary distribution. The point of supply will not be more than 500 Metres away from the Contractor's premises. All the works will be done as per IEA regulations and passed by the Engineer-in-The temporary line will be removed forthwith after the completion of work or if there is any hindrance caused to the other works due to the alignment of these lines, the contractor will re-route or remove the temporary lines at his own cost. The Contractor at his cost will also provide suitable electric metres, fuses, switches, etc. for purposes of payment to the Owner which should be in the custody and control of the Owner. The cost of power supply shall be payable to the owner every month. Rs. 1/- per kWh for power, which will be deducted from the running bills. The owner shall not, however, guarantee the supply of electricity and no compensation for any failure or short supply of electricity will be entertained and this does not relieve the contractor of his



responsibility for timely completion of this works as stipulated in the contract.

- 2.3.2 It shall be the responsibility of the contractor to provide and maintain the complete installation of the load side of the supply with due regard to safety requirement at site. All cabling, equipment, installations etc. shall comply in all respects with the latest statutory requirements and safety provisions i.e. as per and the Central/ State Electricity Acts and Rules etc. The Contractor will ensure that his equipment and Electrical wiring etc. are installed modified, maintained by a licensed Electrician/ Supervisor. A rest certificate is to be produced to the Engineer-in-Charge for his approval, before power is made available.
- At all times, IEA regulations shall be followed failing which the Owner has a right to disconnect the power supply without any reference to the contractor. No claim shall be entertained for such disconnection by the Engineer-in-Charge. Power supply will be reconnected only after production of fresh certificate from authorised electrical supervisors.
- 2.3.4 The Owner is not liable for any loss or damage to the Contractor's equipment as a result of variation in voltage or frequency or interruption in power supply or other loss to the Contractor arising there from.
- 2.3.5 The Contractor shall ensure that the Electrical equipment installed by him are such that average power factor does not fall below 0.90 at his premises. In case power factor falls below 0.90 in any month, he will reimburse to the Owner at the penal rate determined by the Owner for all units consumed during the month.
- 2.3.6 The Power supply required for Contractor's colony near the plant site will be determined by the Owner and shall as per state Electricity Board's Rules and other Statutory provisions applicable for such installations from time to time. In case of power supply to Contractor's colony, the power will be made available at a single point and the Contractor shall make his own arrangement at his own cost for distribution to the occupants of the colony as per Electricity Rules & Acts. The site area and colony shall be sufficiently illuminated to avoid accidents.
- 2.3.7 The Contractor will have to provide and install his own light and power meters, which will be governed as per Central/ State Government Electricity Rules. The meters shall be sealed by the Owner.
- 2.3.8 In case of damage to any of the Owner's equipment on account of fault, intentional or unintentional on the part of the Contractor the Owner reserves the right to recover the cost of such damage from the contractor's bill. Cost of HRC Fuses replaced at the Owner's terminals due to any fault



in the Contractor's installation shall be to contractor's account at the rates decided by the Engineer-in-Charge.

- 2.3.9 Only motors upto 3 HP will be allowed to be started direct on line. For motors above 3 HP and up to 100 HP a suitable starting devices approved by the Engineer-in-Charge shall be provided by the Contractor For Motor s above 100 HP slipping induction motors will suitable starting devices as approved by the Engineer-in-Charge shall be provided by the Contractor.
- 2.3.10 The Contractor shall ensure at his cost that all electric lines and equipment and all installations are approved by the State Electricity Inspector before power can be supplied by the Owner.
- 2.3.11 The total requirement of power shall be indicated by the tenderer along with his tender.

## 2.4. Land for Contractor's Filed Office, Godown and Workshop:

2.4.1. The Owner will at his discretion and convenience and for the duration of the execution of the work may provide the land for construction of Contractor's field office, godown, workshops and assembly yard required for the execution of the contract nearer to the site.

The Contractor shall at his cost construct all these temporary buildings structures and provide suitable water supply and sanitary arrangement as approved by the Engineer-in-Charge and other inspectorates.

2.4.2. On completion of the works undertaken by the Contractor, he shall remove all temporary works erected by him and have the site cleared as directed by Engineer-in-Charge. If the Contractor fails to comply with these requirements, the Engineer-in-Charge has the right to remove any structure, such surplus, rubbish materials and depose off the same as he deems fit and get the site cleared and the contractor shall forthwith pay the amount of all expenses so incurred and shall have no claim in respect of any such surplus materials disposed as aforesaid. The Owner reserves the right to ask the Contractor at any time during the pendancy of the contract, to vacate the land by giving 7 (seven) days notice on security reasons or on national interest or otherwise. A token rent of Rs. 100/- (Rupees One hundred only) per hectare or part thereof per annum or part thereof shall be charged for the land so made available.

Land provided shall be solely on licence basis which is terminable by at any time without notice or without assigning any reasons. In the event of any such termination or the termination of the contract/completion thereof, the contractor shall forthwith vacate the premises.



## 2.5. Land for Residential Accommodation:

Land for residential accommodation for staff and labour may be made available at the discretion of the Engineer-in-Charge and rent for the same will be as decided by the Engineer-in-Charge according to location and the area occupied by the Contractor.



## SECTION - III GENERAL INSTRUCTIONS TO TENDERERS

#### 3. SUBMISSION OF TENDER:

- 3.1. The documents issued to the tenderers shall be as follows:
- (i) One complete set of tender documents as per index sheet and drawings marked 'ORIGINAL' (To be submitted along-with the quotation).
- (ii) One complete set of tender documents as per index sheet marked 'TENDERER'S COPY' (To be retained by the tenderer for reference).
- 3.1.1. The tender documents shall be in 2 parts viz. Technical Bid and Price Bid. Technical and Price Bid should be put in separate sealed cover and marked with the tender reference and name of the work. In addition, a note on the Price Bid "Quotation do not open" is to be superscribed. Both the sealed covers are to be put in a single sealed cover. The name of the work the tender reference and date of opening are to be superscribed on this sealed envelope also.

The technical Bid shall be opened in the first instance. Clarifications, confirmations, if any, shall be obtained with regard to technical specifications. After technical specifications are firmed up, if a tenderer revises his price bid, he is required to submit justification in support of the revision made. The price bid shall be opened thereafter.

- 3.2. If Addenda/ Corrigenda are issued to this tender document, they must be signed, submitted along-with the tender documents. The tenderer should write clearly the revised quantities in schedule of Rates of Tender Document and should price the work based on revised quantities when amendments on quantities are issued in addenda.
- 3.3. Tenderers are advised to submit quotations based strictly on the terms and conditions and specifications contained in the tender documents and not stipulate any deviations. Should it however become unavoidable, deviations should be stipulated in the prescribed proforma only, contained in the proposal form. Owner reserves the right to evaluate the quotations containing deviations having financial implications, by adding the cost for such deviations are determined by Owner.
- 3.4. Tenders should be submitted in double sealed envelope with the name of work superscribed thereon and with the note "QUOTATION DO NOT OPEN" written prominently. The full name, postal address and telegraphic address of the tenderer shall be written on the bottom left hand corner of the sealed cover.

## 4.0. **DOCUMENTS**:



- 4.1.1 Bidders shall submit with his bids the particular/ documents as envisaged from Appendix (i) to (x) along with tentative construction net work/ Bar chart for completion of work taking into account various intermediate completion milestones/ component milestones and the overall completion of work under the contract.
- 4.1.2. Details to be submitted along with tender:

The tenders, as submitted will consist of the following:

The technical Bid and Price Bid shall be submitted as stated in para 3.1.1 Documents to be attached with price bid.

(i) Complete set of the tender document (marked ORIGINAL) as issued duly filled in by the tenderer as prescribed in different clauses of the tender document, signed and date affixed.

Documents to be attached with Technical Bid.

- (ii) Earnest money in the manner specified in Clause 6 hereof.
- (iii) The following proposal forms in FIVE copies
  - (a) Details of works of similar nature and magnitude carried out during last 5 years as per the Appendix -1(A)
  - (b) Concurrent commitments of the tenderer as per the Appendix -1(B).
  - (c) Details of equipments, tools and tackles proposed to be deployed for this work as per the Appendix (II).
  - (d) Details of manpower proposed to be deployed for this work as per the Appendix (III), indicating the qualification.
  - (e) Site organisation chart showing number of qualified engineers and supervisors etc. indicating their bio-data as per the Appendix (IV), indicating the qualification.
  - (f) List of proposed sub-contractors to be deployed as per the Appendix -(V).
  - (g) Progress Billing as per the Appendix (VI).
  - (h) Information about tenderers as per the Appendix (VII).
  - (i) List of enclosures as per the Appendix (VIII).
    - a) Power of attorney
    - b) Income tax & Sales tax clearance certificate.
    - c) Solvency certificate from nationalised Bank
    - d) Documents showing annual turnover.
  - (j) Exception and deviation which tenderer may desire to stipulate as per Appendix (IX).

## 4.2 All pages to be initialled:



All signatures in tender documents shall be dated, as well as the pages of all sections of tender documents shall be initialled at the lower right hand corner or signed wherever required in the tender papers by the tenderer or by a person holding power of attorney authorising him to sign on behalf of the tenderer before submission of tender.

## 4.3. Rates to be in Figures and Words:

The tenderer shall quote in English, in figures and in words for the rates and amount tendered by him in the Schedule of Rates forming part of the documents, in such a way that interpolation is not possible. The amount of each item shall be worked out and entered and requisite total given of all items. The tendered amount for the work shall be entered in the tender and duly signed by the tenderer.

If some discrepancies are found between the rates given in works and figures or the amount shown in the tender, the following procedure shall be followed:-

- a) When there is difference between the rates in figures and words, the rate which corresponds to the amount worked out by the tenderer shall be taken as correct.
- b) When the rate quoted by the tenderer in figures and words tally but the amount is incorrect, the rate quoted by the tenderer shall be taken as correct.
- c) When it is not possible to ascertain the correct rate by either of above methods the rate quoted in words shall be taken as correct.

## 4.4. Corrections and Erasures:

All corrections and alterations in the entries of tender papers shall be signed in full by the tenderer with date. No erasures or over writings are permissible.

## 4.5. Signature of Tenderer:

- 4.5.1. The tender shall contain the name, residence and place of business of person or persons making the tender and shall be signed by the tenderer with his usual signature. Partnership firms shall furnish the full names of the partners in the tender. It should be signed in the partnership's name by all the partners or by duly authorised representative followed by the name and designation of the person signing. Tender by a corporation shall be signed by an authorised representative and a power of attorney on the behalf shall accompany the tender. A copy of constitution of the firm with names of all partners shall be furnished.
- 4.5.2. When the tenderer signs a tender in a language other than English, the total amount tendered should in addition be written in the same language. The signature should be attested by at least one witness.



**4.6 Witness:** Witness and sureties shall be persons of status and property. Their name occupation and address shall be stated below their signature.

#### 5. TRANSFER OF TENDER DOCUMENTS:

Transfer of tender document purchased by one intending tenderer to another is no permissible.

## **6. EARNEST MONEY:**

- 6.1. The tenderer must pay earnest money as given in the Letter/ Notice Inviting Tenders. Tenders not accompanied with earnest money deposit will be rejected. The earnest money can be paid in cash or by crossed demand draft or fixed deposit or Bank Guarantee from any Nationalised/ Scheduled Bank or Insurance Guarantee in the prescribed proforma as indicated in the tender document in favour of National Aluminium Company Ltd.
- 6.2. The Bank Guarantee so furnished by the tenderer shall be only in the proforma prescribed by the Owner and valid for six months from the date of opening of the tender. No interest shall be paid by the Owner on the Earnest Money deposited by the tenderer.
- 7. **VALIDITY:** Tender submitted by tenderers shall remain valid for acceptance for a period of four months from the date of opening of the tender. The tenderers shall not be entitled during the said period of four months, without the consent in writing of the Owner, to revoke or cancel his tender or to vary the tender given or any term thereof. In case of tenderer revoking or canceling his tender or varying any terms in regard thereof without the consent a Owner in writing, the earnest money paid by him along-with the tender shall be forfeited.

#### 8. ADDENDA/ CORRIGENDA:

- 8.1. Addenda/ Corrigenda to the tender documents may be issued prior to the date of opening of the tenders to clarify documents or to reflect modification in the design or contract terms.
- 8.2. The Addenda/ Corrigenda will be issued in duplicate to each person or organisation to whom a set of tender documents has been issued. Each recipient should acknowledge the receipt of the same and attach one copy of the addenda/ corrigenda along-with his offer. All addenda/ corrigenda issued shall become part of Tender Documents.

#### 9. RIGHT OF OWNER TO ACCEPT OR REJECT TENDER:

9.1. The right to accept the tender will rest with the Owner. The Owner further does not bind himself to accept the lowest tender and reserves the authority to reject any or all the tenders received without assigning any reason whatsoever. The whole work may be split up between two or more contractors or accepted in part (not entirely) if considered expedient. The quoted rates would hold good for such eventualities. Tenders in which any of the particulars and prescribed information are missing or incomplete in any respect and / or the prescribed conditions are not



fulfilled are liable to be rejected. The decision for the owner in respect of the above shall be final and binding on the contractor.

9.2.Canvassing in connection with tenders is strictly prohibited. The submitted tenders of the tenderers who resort to canvassing are liable to rejection. Tenders containing uncalled remarks or any additional conditions are liable to be rejected.

#### 10. THE SCHEDULE:

- 10.1. The work shall be executed strictly as per the Time Schedule given in Appendix –1. The period of construction given in time Schedule includes the time required for mobilisation as well as testing, rectification if any, re-testing and completion in all respects to entire satisfaction of the Engineer-in-Charge.
- 10.2. A joint programme of execution of the work will be prepared by the Engineer-in-Charge and contractor based on priority requirement of this project. This programme will take into account the time of completion mentioned in 19.1 above and the time allowed for the priority works by the Engineer-in-Charge.
- 10.3. Monthly/ weekly construction programme will be drawn up by the Engineer-in-Charge jointly with the Contractor, based on availability of work fronts and the joint construction programme as per 10.2 above. The contractor shall scrupulously adhere to these targets/ programs by deploying adequate personnel construction tools and tackles and he shall also supply himself materials of his scope of supply in good time to achieve the targets/ programmes. In all matters concerning the extents of targets set out in the weekly and monthly programmes and the degree of achievement, the decision of the Engineer-in-Charge will be final and binding on the contractor.

#### 10.4. CONSTRUCTION SCHEDULE AND PRESENTATION:

The construction schedule shall be in the form of network of PERT CHART/CPM or other suitable presentation for the programme of the work indicating therein the different components item of works and time required for completion of each components item wise/ month wise season wise so as to complete the work in all respects within the stipulated period. Before award of the work the contractor is also required to make the presentation to satisfy owner of their proposal for construction schedule in the form of BAR CHART and organizational resources, equipments, machinaries, manpower to be deployed for timely completion of the project.

#### 11. TENDERER'S RESPONSIBILITY:

The intending tenderers shall be deemed to have visited the site and familiarised themselves thoroughly with the site conditions before submitting the tender. Non-familiarity with the site conditions will not be considered a reason either for extra claims or for not carrying out the works in strict conformity with the drawings and specifications.

#### 12. RETIRED GOVERNMENT OR COMPANY OFFICERS:



No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering department of the State/ Central Government or of the owner is allowed to work as a contractor for a period of two years after his retirement from Government service or from the employment of the Owner without the previous permission of the Owner. The contract if awarded, is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person, who had not obtained permission of the owner as aforesaid before submission of tender or engagement in the contractor's service as the case may be.

## 13. **SIGNING OF THE CONTRACT:**

The successful tenderer shall be required to execute an agreement with the Owner in the proforma attached with tender document within 10 days of the receipt by him of the notification of acceptance of the tender. In the event of failure on the part of the successful tenderer to sign the agreement within the above stipulated period, the earnest money or his initial security deposit will be forfeited and the acceptance of the tender shall be considered as cancelled. No bills shall be payable unless the agreement is executed.

## 14. FIELD MANAGEMENTS AND CONTROLLING AUTHORITY:

- 14.1 The field management will be responsibility of the Project Manager posted at site by the consultant and nominated by the owner. The Project manager shall work in accordance with the directions given to him from time to time by the project head.
- 14.2. The Engineer-in-Charge shall only co-ordinate with the other agencies engaged to work at site, to ensure minimum disruption of work carried out by different agencies. It shall be the responsibility of the contractor to plan and execute the works strictly in accordance with site instructions and avoid hindrance to the works being executed by other agencies. The instructions of the Engineer-in-Charge shall be binding on the contractor.

## 15. NOTE TO SCHEDULE OF RATES:

- 15.1. The schedule of rates should be read in conjunction with all the other sections of the tender.
- 15.2. The tenderer shall be deemed to have studied the drawings, specifications and details of work to be done within time schedule and to have acquainted himself of the conditions prevailing at site.
- 15.3. Rates must be filled in the original tender document. If quoted in separate typed sheets, no variation in time description or specification shall be accepted. Any exceptions taken by the tenderer to the schedule of rates shall be brought out in the terms and conditions of offer.
- 15.4. The quantities shown against the various items are only approximate. Any increase or decrease in the quantities shall not form the basis of alternation of the rates quoted and accepted.
- 15.5. The owner reserves the right to interpolate the rates for such items of work falling between similar items of lower and higher magnitude.



# **SECTION - IV GENERAL OBLIGATIONS**

#### 16. INTERPRETATION OF CONTRACT DOCUMENTS:

- 16.1. Complete documents forming the contract are to be taken as mutually explanatory. Should there by any discrepancy, inconsistency, error or omission in the contracts or any of them the matter may be referred to Engineer-in-Charge who shall give decisions and Issue to the contractor instructions directing in what manner the work is to be carried out. The decision of Engineer-in-Charge shall be final and conclusive and the contractor shall carry out work in accordance with this decision.
- 16.2. Works shown in the drawing but not mentioned in the specification or described in specification but not shown in the drawings shall nevertheless be deemed to be included in the same manner as if they had been specifically shown upon the drawings as well as described in the specifications.
- 16.3. Unless otherwise stated specifically, the 'singular' shall also mean 'plural' and vice versa wherever the context so requires words implying 'persons' shall include relevant 'corporate companies or registered association' or 'body of individuals' or 'firm of partnership' as case may be.

## 17. SPECIAL CONDITIONS OF CONTRACT:

- 17.1. Special Conditions of Contract shall be read in conjunction with the General Condition of Contract Specifications of work, drawing and any other documents forming part of this contract wherever the context so requires.
- 17.2. Notwithstanding the sub-divisions of the documents into the separate sections and volumes each part shall be deemed to be supplementary to complementary of every other part and shall be read with and into the contract so far as it may be practicable to do so.
- 17.3. In case of any discrepancy between various sections of the contract, the following order of preference shall be observed.
  - (1) Schedule of quantities
  - (2) Technical specifications
  - (3) Special Conditions of Contract
  - (4) General Conditions of Contract
- 17.4. Wherever it is mentioned in the specifications that the Contractor shall perform certain work or provide certain facilities it is understood that the Contractor shall do so at his cost.
- 17.5. The materials, design and workmanship shall satisfy the relevant Indian Standard, the job specifications contained herein and codes referred to.



Where the job specifications stipulate the requirements in addition to those contained in the standard codes and specification, these additional requirements hall also be satisfied.

#### 18. Tenderer to Obtain his Own Information:

- 18.1. The tenderer shall for all purposes and whatsoever reason may be, deemed to have himself independently obtained all necessary information for the purpose of preparing his tender. The correctness of the details given in the Tender Document as guideline information to help the tenderer but to make-up the tender is not guaranteed.
- 18.2. The tenderer shall be deemed to have examined the tender documents, to have obtained his own information in all matters whatsoever that might influence carrying out of the works at the scheduled rates and satisfied himself to the sufficiency of his tender. Any error in description or quantity or omission therefrom shall not vitiate the contract or release the contractor from executing the work comprised in the contract according to drawings and specifications at the scheduled rates. He is deemed to know the scope, nature and magnitude of the works, the requirements of materials and labour involved etc. and as what works he has to complete in accordance with the contract document whatever be the defects, omissions or errors that may be found in the Contract Document. The contractor shall be deemed to have visited site and surroundings areas, to have satisfied himself to the nature of all existing structures, and also as to the nature and the conditions of available facilities like Railways, roadways, bridges culverts, means of transport and communications like by land, water or air and possible interruptions thereto the access to and egress from site and to have made enquiries, examined satisfied himself of the sites for obtaining sand, stones, bricks and other materials, the sites for disposal of surplus materials, the available accommodation like depots, buildings as may be necessary for executing and completing the works, to have made local independent enquiries as to the sub-soil water and variations thereof, storms, prevailing winds and climatic conditions and all other similar matters affecting the works. He is deemed to have acquainted himself his liability for payment of Government Taxes, Customs Duties and other charges.
- 18.3. Any neglect or failure on the part of the tenderer in obtaining necessary and reliable information or issues stated at 18.2 or any other matters affecting the contract shall not relieve him from any risks or liabilities or the entire responsibility for completion of the works at the scheduled rates and time in strict accordance with the contract documents.
- 18.4. Any change in layout due to site conditions or technological requirement shall be binding on the contractor and no extra claim on this account shall be entertained.



18.5. No verbal agreement or inference from conversation with any officer or employee of the Owner either before, during or after the execution of the contract agreement shall in any way affect or modify and of the terms or obligations herein contained.

## 19. Security Deposit:

- 19.1. A sum of 10% of the accepted value of the tender or actual value of the work done whichever is higher for contracts not exceeding Rs. 1 Crore, 71/2 % for the value of contracts over Rs. 1 up to Rs. 5 crores and 5% for the value of contracts over Rs. 5 crores shall have to be deposited by the person/ persons (hereinafter called as contractor) as security deposit with the owner until the expiry of defect liability period.
- 19.2. This may be deposited initially at 2 ½% of the value of the contract (referred as initial Security deposit) within 20 days of receipt by him of the notification of acceptance of tender and the balance will be recovered in installments through the deduction @ 10% of the gross value of the each running account bill for the contract upto Rs. 1 crore, 71/2 % for contract between Rs. 1 to Rs.5 crores and 5% for contract over Rs. 5 crores, till total security deposit is collected. No further deduction from the bills will be made on this account subject to clause 19.6 below.
- 19.3. Alternatively the contractor may at his option to deposit the full amount percentage as mentioned 19.1 above towards deposit within 10 days of issue of notification accepting his tender. This amount will have to be suitably enhanced to the tune of above percentage of the executed value.
- 19.4. The earnest money deposited with the tender shall be adjusted towards security deposit.
- 19.5. Contractor can furnish the initial or total security deposit amount (a) in Demand Draft or (b) through a Bank Guarantee from any Scheduled bank in the prescribed proforma.
- 19.6. If contractor /sub-contractor or their employees damages, breaks, deface or destroy the property belonging to the owner or other during the execution of the contract, the same shall be made good by the contractor at his own expense and in default thereof; the Engineer-in-Charge may cause the same to be made good by other agencies and recover expenses form the contractor (for which the certificate of Engineer-in-Charge shall be final).
- 19.7. All compensation or other sums of money payable by the contractor to the Owner or recoveries to be made under terms of this contract may be deducted from or paid by the sale of a sufficient part of his security deposit or from any sums which may be due or may become due to the contractor by the Owner on any account whatsoever. In the event of his security being reduced by reasons of any such deduction or sale, the contractor shall within ten days



thereafter make good in cash, bank drafts, any sum or sums which may have fallen short or Security deposit amount or any part thereof. No interest shall be payable by the Owner for sum deposited as security deposit.

19.8. The security deposit will be refunded after the expiry of the period of liability as stipulated in the contract.

## **20.** Forfeiture of Security Deposit:

Whenever any claim against the Contractor for the payment of a sum of money arises out of or under the contract, the Owner shall be entitled to recover such sum by appropriating in part or whole the security deposit of the contractor, and to sell any Government securities, etc. forming whole or part of such security deposit. In the event of security being insufficient or if no security has been taken from the contractor, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the contractor. The contractor shall pay to the Owner on demand any balance remaining due.

In the event of any breach by the contractor or any loss or damage occasioned to the owner which in the opinion of the owner has arises, the decision where of shall be final and binding on the contractor or in the event of the termination of the contract for any such breach, the security deposit is liable to be forfeited. The decision of forfeiture by the Owner shall be final and binding on the contractor.

## 21. Time of performance:

The work covered by this contract shall be commenced within twenty one days after the issue of the letter of acceptance of tender and be completed in stages on or before the dates as mentioned in the time schedule of completion of works. The contractor should bear in mind that time is the essence of the contract, unless such time be extended pursuant to the provision of clause No.22 Request for Revision of Construction time after tenders are opened will not receive consideration. The above period of twenty one days is included within the overall completion schedule, not over and above the completion time.

## 22. Extension of Time.

22.0. The application for extension of time is to be given to project head through the engineer –in-charge and the project head may authorise extension of time after considering the due merits.

Whenever extension of time is granted by the project head, the same shall be on the existing terms and conditions of the contract and without any additional financial liability to the Owner. The contractor in any case shall have no claim whatsoever for any type of compensation on account of any delay attributable to any one.



## 23. Force Majeure:

- 23.1 Any delays in or failure of the performance of either parties thereto shall not constitute default hereunder or give rise to any claims for damages, if any, to the extent such delays or failure of performance caused by occurrences such as acts of God or the public enemy, expropriation or confiscation of facilities by Government authority, compliance with any order or request of any Governmental authorities, acts or war rebellion, sabotage, fire, floods, explosions riots or illegal strikes, provided always that such occurrences result in impossibility of performances of the contract.
- Only events of Force Majeure which impedes the execution of the contract at the time of its occurrence shall be taken into cognizance.

## 24. Compensation For Delay:

- 24.1. Time is essence of the contract. In case the contractor fails to complete the work within the stipulated period, he shall be liable to pay to the Owner as compensation, an amount equal to 1% of the value of contract per week of the delay subject to a maximum of 10% of the value of the contract. This is a genuine pre-estimate of the loss/ damage which will be suffered on account of delay /breach on the part of the contractor and he agrees to pay the said amount on demand without going in for any proof of the actual loss or damages caused by such delay/ breach.
- 24.2. To ensure good progress during execution of work, the contractor shall be bound in all case in which the time allowed for any work exceeds by one month to complete one-fifth of the work before one-fourth of the time allowed under the contractor has elapsed, three-eighth of the work before the half of such time has elapsed and three-fourth of the work before three-fourth of such time has elapsed. In the event of the contractor failing to comply with this condition, he shall be liable to pay as compensation for delay an amount as stipulated above. The compensation for delay so paid shall not relieve the contractor from his obligations to complete the work or from any other obligations and liabilities under this contract.

## 25. Failure by the Contractor to Comply with the Provisions of the Contract:

- 25.1. If the contractor refuses or fails to execute the work or any separate part thereof with such diligence as will ensure its completion within the time specified in the contract or extension thereof or fails to perform any of his obligation under the Contract or in any manner commits a breach of any of the provisions of the contract it shall be open to the Owner at its option by written notice to the Contractor to: -
- (a) Determine the Contract: In which event the Contract shall stand terminated and shall cease to be in force and effect on and from the date appointed by the Owner on that behalf, whereupon the contractor shall stop forth with any of the contractor's work then in progress, except such work as the Owner may, in writing, requires to be done to safeguard any property or work, or



installations from damage, and the owner, for its part, may take over the work remaining unfinished by the Contractor and complete the same through fresh contractor or by other means, at the risk and cost of the Contractor, and any of his sureties if any, shall be liable to the owner for any excess cost occasioned by such work having to be so taken over and completed by the Owner over and above the cost at the rates specified in the schedule of quantities and rates.

- (b) Without determining the Contract: To take over the work of the contractor or any part thereof and complete the same through a fresh contractor or by other means at the risk and cost of the Contractor. The contractor and any of his sureties are liable to the Owner for any excess cost over and above the cost at the rates specified in the schedule of quantities/ rates, occasioned by such works having been taken over and completed by the Owner. Besides, the contractor shall also be liable for any compensation accruing under clause 24.
- (c) In other cases, the decision of the Owner is binding on the contractor.
- 25.2. In such events of clause 25.1 (a) or (b) above
- (a) The whole or part of the security deposit furnished by the Contractor is liable to be forfeited without prejudice to the right of the Owner to recover from the contractor the excess cost referred to in the sub-clause aforesaid, the Owner shall also have the right of taking possession and utilizing in completing the works or any part thereof, such of materials, equipment and plants available at work site belonging to the contractor as may be necessary and the Contractor shall not be entitled for any compensation for use or damage to such materials, equipment and plant.
- (b) The amount that may have become due to the Contractor on account of work already executed by him shall not be payable to him until after the expiry of six (6) calendar months reckoned from the date of termination of contract or from the taking over of the work or part thereof by the Owner as the case may be, during which period the responsibility for faulty materials or workmanship in respect of such work shall under the contract, rest exclusively with the contractor. This amount shall be subject to deduction of any amounts due from the Contractor to the Owner under the terms of the contract authorised or required to be reserved or retained by the Owner.
- 25.3. Before determining the contract as per clause 25.1 (a) or (b) provided in the judgement of the Owner, the default or defaults committed by the Contractor is/are curable and can be cured by the Contract if an opportunity given to him, then the Owner may issue notice in writing calling the Contractor to cure the default within such time specified in the notice.
- 25.4. The Owner shall also have the right to proceed or take action as per 25.1 (a) or Clause 25.1(b) above, in the event that the contractor becomes bankrupt, insolvent, compounds with his creditors, assigns the contract in favour of his



creditors or any other person or persons or being a company or a corporation goes into liquidation, provided that in the said events it shall not be necessary for the Owner to give any prior notice to the contractor.

25.5. Termination of the Contract as provided for in sub-Clause 25.1 (a) above shall not prejudice or affect their rights of the Owner which may have accrued upto the date of such termination.

## 26. Contractor Remains Liable to Pay Compensation if Action Not Taken Under Clause 25.

In any case in which any of the powers conferred upon the owner by clause 25 hereof shall have become exercisable and the same had not been exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall not withstanding be exercisable in the event of any further case of default by the contractor for which by any clause or clauses hereof he is declared liable to pay compensation amount to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Owner putting in force the powers vested in him under the proceeding clause no. 25 he may if he do so desires, take possession of all or any tools and plants, materials and stores in or upon the works of the site thereof belonging to the contractor or procured by him and intended to be used for the execution of the work or any part thereof paying or allowing for the same in account at the contract rates or in case of these not being applicable at current market rates to be certified by the Engineer-in-Charge whose certificate thereof shall be final, otherwise the Engineer-in-Charge may give notice in writing to the contractor or his clerk of the works, foremen or other authorised agent, requiring him to remove such tools, plant, materials or stores form the premises (within a time to be specified in such notice), and in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expenses or sell them by auction or private sale on account of the contract and at his risk in all respects without any further notice as to the date, time or place of sale and the certificate of the Engineer-in-Charge as to the expense of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

## 27. No Compensation For Alteration in or Restriction of Work:

At any time from the commencement of the work if the Owner decides for whatsoever reason, not to carryout the whole work or part thereof as specified in the tender, then owner shall give notice in writing of the fact to the contractor, who shall have no claim to any payment or compensation on whatsoever account (profit or advantage which he might have derived by executing the work in full) neither shall he have any claim for compensation by reason of any alterations having been made from the original specifications, drawings, designs and instructions which may involve any curtailment of the work as originally contemplated.



## 28. Change in Constitution:

When the contractor is a partnership firm the prior approval in writing from the Owner shall be obtained before any changes are made in the constitution of the firm, where the contractor is an individual or a Hindu undivided family business concern. Such approval as aforesaid shall, like wise be obtained before such contractor enters into any agreement with other parties, where under the reconstituted firm would have the right to carry out the work hereby undertaken by the contractor. In either case if prior approval is not obtained. The contractor shall be deemed to have been allotted in contravention of Clause - 34 hereof and the action and consequence shall ensure as provided in that clause.

#### 29. Termination of Contract For Death:

If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies or if the contractor is a partnership concern and one of the partners dies then, unless the Owner is satisfied that the legal representative of the individual or the proprietary concern or the surviving partners are capable of carrying out and completing contract, he (the Owner) is entitled to cancel the contract for the uncompleted part without being in any way liable for any compensation payment to the estate of the diseased contractor and/or to the surviving partners of the contractor's firm on account of the cancellation of contract. The decision of the Owner in such assessment shall be final and binding on the parties. In the event of such cancellation, the Owner shall not hold the estate of the diseased contractor and / or the surviving partners of the contractor's firm liable for any damages for noncompletion of contract.

## **30.** Members of the Owner Not individually Liable:

No Director or official or employee of the Owner shall in any way be personally bound or liable for the acts or obligations of the Owner under the contract or answerable for any default or omission in the observance or performance of the acts, matters or things which are herein contained.

## 31. Owner Not Bound by Personal Representation:

The Contractor shall not be entitled to any increase on the scheduled rates or any other rights or claims whatsoever by reason of any representation, explanation, statement or alleged understanding promise or guarantees given or to have been given to him by any person.

## **32.** Contractors Office at Site:

The Contractor shall provide and maintain an office at the site for the accommodation of his agent and staff and such office shall be open at all reasonable hours to receive instructions, notices or other communications. The contractor at all time shall maintain a site instruction book and compliance of these shall be communicated to the Engineer –in-Charge from time to time and the whole document to be preserved and handed over after completion of works.



#### 33. Contractor's Sub-ordinate Staff and their conduct:

- 33.1. The contractor on award of the work shall name and depute a qualified engineer having sufficient experience in carrying out work of similar nature to whom the equipment, materials if any, shall be issued and instruction for works given. The contractor shall also provide to the satisfaction of the Engineer-in-charge sufficient and qualified staff to supervise the execution of the works, competent sub-agents, foremen and leading hands including those specially qualified by previous experience to supervise the types works comprised in the contract in such manner as will ensure the best quality and expeditious working. At any time of in the opinion of the Engineer-in-Charge any additional, qualified experienced staff is considered necessary, they shall be employed by the contractor without additional charge. The contractor shall ensure to the satisfaction of the Engineer-in-Charge that sub-contractors, if any, shall provide competent and efficient supervision over the work entrusted to them.
- 33.2. If any of the contractor's sub-contractor's, agents, sub-agents, assistants, foremen or any employee in the opinion of Engineer-in-Charge be guilty of any misconduct or be incompetent or insufficiently qualified or negligent in the performance of their duties or that in the opinion of the Owner Engineer-in-Charge, undesirable for administrative or any other reasons, for such or person (s) to be employed on the works, then at the directions of Engineer-in-Charge the Contractor shall at once remove such person (s) from employment with the works without the written permission of the Engineer –in-Charge. Vacancy so created shall be immediately filled at the expenses of the contractor by a qualified and competent substitute. Should the contractor be requested to repatriate any person removed from the works he shall do so and shall bear all costs in connection therewith.
- 33.3. The contractor shall be responsible for the proper behaviour of all the staff, foremen, workmen and others, shall exercise proper degree of control over them and in particular without prejudice to the said generality the contractor shall be bound to prohibit/ prevent any employees from trespassing or acting in any way detrimental or prejudicial to the interest of the community or the properties or the occupiers of land or properties in the neighborhood. In the event of such trespassing, the contractor shall be responsible for all consequent claims or actions for damages or injury or any other grounds whatsoever. The decision of the Engineer-in-Charge upon any matter arising under this clause shall be final.
- 33.4. If and when required by the Owner, all contractor's personnel entering upon the owner's premises shall be properly identified by badges of a type acceptable to the owner which must be worn at all times on Owner's premises.



33.5. It is made clear that no relationship of employer and employee is created between the owner and the contractor labourer and no claim for employment of any such labourer shall be tenable or entertained.

## 34. Sub-Letting Work:

34.1. No part of the contract nor any share or interest there in shall in any manner or degree be transferred, assigned or sublet by the contractor directly or indirectly to any person, firm or corporation whatsoever except as provided for in the succeeding sub-clauses without the consent in writing of the Owner.

## 34.2. Sub – Contracting of Works:

The Engineer-in-Charge may give written consent to sub-contract for the execution of any part of the works at the site, provided the contractor submits each individual sub-contract to the Engineer-in-Charge for approval of mode of operation and agency for the work. The contractor is advised not to enter into contract before the consent of Engineer-in-Charge.

#### 34.3. List of sub-contracted works to be furnished:

At the commencement of each month, the contractor shall furnish to the Engineer-in-charge, a list of sub-contractors, persons or firms engaged by the contractor and worked at the site during the previous month with particulars like general nature of the sub-contract or works done by them.

## 34.4. Contractor's liability not Limited by Sub-Contractors:

Notwithstanding any sub-letting with such approval as aforesaid and notwithstanding that the Engineer-in-Charge shall have received copies of any sub-contracts, the contractors shall be and shall remain solely responsible for the quality and proper and expeditious execution of the works and the performance of all the conditions of the contract in all respects as if such sub-contract or sub-letting had not taken place, and as if such work had been done directly by the contractor.

#### 34.5. Owner may terminate sub-contracts:

If any sub-contractor engaged upon the works at the site executes any work which in the opinion of the Engineer-in-Charge is not in accordance with the contract documents, the owner may by written notice to the contractor request him to terminate such sub-contract. The contractor upon the receipt of such notice shall terminate and dismiss the sub-contract and the sub-contractor. The owner shall have the right to remove such sub-contractor from the site if contractor fails to vacate the sub-contractor immediately.

## 34.6. No remedy for action taken under this clause:

For action taken by the owner under the clause shall not relieve the contractor of any of his liabilities under the contract or give rise to any right or compensation, extension of time or otherwise.

## 35. Power of Entry:



If the contractor shall not commence the work in the manner described in the contract documents or if he at any time in the opinion of the Engineer-in-Charge.

- (i) fail to carry on the works in conformity with the contract documents or
- (ii) fail to carry on the works in accordance with the contract schedule or
- (iii) substantially suspend work or the works for a period of fourteen days without authority from the Engineer-in-Charge or
- (iv) fail to carry on and execute the works to the satisfaction of Engineer-in-Charge or
- (v) fail to supply sufficient or suitable constructional plant, temporary works, labour materials or other things or
- (vi) Commit, suffer or permit any other breach of any of the provisions of the contract on his part to be performed or observed or persist in any of the above mentioned breaches of the contract for fourteen days, after notice in writing shall have been given to the contractor by the Engineer-in-Charge requiring such breach to be remedied or
- (vii) If the contractor abandons the works or
- If the contractor during the continuance of the contract shall become (viii) bankrupt, make any arrangement or composition with his creditors, or permit any execution to be levied or go into liquidation whether compulsory or voluntary not being merely a voluntary liquidation for the purpose of amalgamation or reconstruction then in any such case, the owner shall have the power to enter upon the works and take possession thereof and of the materials, temporary works, constructional plant, and stock thereon, and to revoke the contractor's licence to use the same, and to complete the works by his agents, other contractors, or workmen, or to relate the same upon any terms and to such other person, firm or corporation as the Owner in his absolute discretion may think proper to employ and for the purpose aforesaid to use or authorize the use of any materials, temporary works, constructional plant, and stock as aforesaid, without making payment or allowance to the contractor for the said materials other than such as may be certified in writing by the Engineer-in-Charge to be reasonable, and without making any payment or allowance to the contractor for the use of temporary said works, constructional plant and stock or being liable for any loss or damage thereto and if the Owner shall by reason or his taking possession of the work or of the works being completed by other contractor (due account being taken of any such extra work or works which may be omitted) than the amount of such excess as certified by the Engineer-in-Charge shall be deducted form any money which may be due for work done by the contractor under the contract and not paid for any deficiency shall forthwith be made good and paid to the Owner by the contractor and the Owner shall have power to sell in such manner and for such price as he may think fit all or any of the constructional plan, materials etc. constructed by or belonging to and



to recoup and retain the said deficiency or any part thereof out of the proceeds or the sale.

## **36.** Contractor's Responsibility with other Agencies:

- Without repugnance to any other condition, it shall be the responsibility of 36.1 the contractor executing the work of civil construction to work in close cooperation and to coordinate in the works with the mechanical, electrical, air-conditioning and intercommunication contractors and other agencies or their authorised representatives, in providing the necessary grooves, recesses, cuts and opening etc. in wall, slabs beams and column etc. and making good the same to the desired finish as per specification, for the placement of electrical and intercommunication cables, conduits, air-conditioning inlets and outlets, grills and other equipment in the false ceiling and other partitions, the contractor before starting up the work shall in consultation, with the electrical, mechanical, inter-communication, air-conditioning contractors and other agencies prepare and put up a joint scheme, showing the necessary opening, grooves, recesses, cuts, the methods of fixing required for the works of the aforesaid, and the finishes therein, to the Engineer-in-Charge and get the approval. The contractor before finally submitting the scheme to the Engineer-in-Charge, shall have the written agreement of the other agencies. The Engineer-in-Charge, before communicating his approval to the scheme, with any required modifications shall get the final agreements of all the agencies, which shall be binding. No claim shall be entertained on account of the above
- 36.2 The contractor shall conform in all respect with the provisions any statutory regulation, ordinance or bye-laws of any local or duly constituted authorities or public bodies which may be applicable from time to time to the works or any temporary works. The contractor shall keep the Owner indemnified against all penalties and liabilities of every kind, arising out of non-adherence to such statues, ordinances, laws, rules, regulations, etc.

#### 37. Other Agencies at Site:

The contractor shall have to execute the work in such place and condition where other agencies will also be engaged for other works such as site grading, filling and leveling, electrical and mechanical engineering works etc. No claim shall be entertained due to work being executed in the above circumstances.

#### 38. Serving of Notices:

#### **38.1.** To the Contractor:

Any notice may be served on the contractor or his duly authorised representatives at the job site or by registered mail directly to the address furnished by the contractor. Proof of issue of such notice should be conclusive of the contractor having been duly informed of the contents.

#### 38.2. To the Owner:



Any notice to be given to the Owner under the terms of the contract shall be served by sending the same by Registered mail to or delivering the same at the respective site offices of M/s. National Aluminium Co. Ltd. addressed to the head/ site in-charge.

## 38.3. Rights of various Interests:

- (i) The Owner reserves the right to distribute the work between more than one contractor. The contractor shall cooperate and afford the other contractors all reasonable opportunity for access to the works for the carriage and storage of materials and execution of their works.
- (ii) Wherever the work being done by any department of the Owner or by the contractor employed by the Owner as per the contingent upon work covered by this contract, the respective rights and various interests involved shall be determined by the Engineer-in-Charge to secure the completion of the various portions of the work in general harmony.

## 40. Patents, Royalties, Rent and Excavated Material:

- 40.1. The contractor, if licensed under any patent covering equipment, machinery, materials or compositions of matter to be used or supplied or methods and process to be practiced or employed in the performance of this contract, agrees to pay all royalties and licence fees which may be due with respect thereto. If any equipment, machinery, materials composition matters, to be used or supplied or methods and processes to be practiced or employed the performance of this contract, is covered by a patent under which the contractor is not licensed then the contractor before supplying or using the equipment, machinery, materials, composition, method or processes shall obtain such licenses and pay such royalties and license fees as may be necessary for performance of this contract. In the event the contractor fails to pay any royalty or obtain any such license, any suit for infringement of such patents which is brought against the contractor or the Owner as a result of such failure will be defended by the contractor at his Own expense and the contractor will pay damages and costs awarded in such suit. The contractor shall promptly notify the Owner if the contractor has acquired knowledge of any plant under which a suit for infringement could be reasonably brought because of the use by the owner of any equipment, machinery, materials, process, methods, to be supplied hereunder. The contractor agrees to and does hereby grant to Owner, together with the right to extent the same to any of the subsidiaries of the Owner as irrevocable, royalty-free licence to use in country, any invention made by the contractor or his employee in or as a result of the performance of the work under the contract.
- 40.2. All charges on account of royalty, tollage, rent octroi terminal or sales tax and/ or other duties or any other levy on materials obtained for the work or temporary work or part thereof (excluding materials provided by the Owner) shall be borne by the contractor.



40.3. The contractor shall not set or otherwise dispose of or remove except for the purpose of this contract, the sand stone, clay, ballast, earth, rock or other substances, or materials obtained from any excavation made for the purpose of the works or any building or produce upon the sited at the time of delivery of the possession thereof, but all such substances, materials buildings and produce shall be the property of the Owner provided that contractor may with the permission of the Engineer-in-Charge, use the same for the purpose of the works by payment of cost of the same at such a rate as may be determined by the Engineer-in-Charge.

The Owner shall indemnify and save harmless the contractor from any loss on account of claims against contractor for the contributory infringement of patent rights arising out and based upon the claim that the use by the Owner of the process included in the design prepared by the Owner and used in the operation of the plant infringes on patent right. With respect of any subcontract entered into by the contractor pursuant to the provisions on the respect to any sub-contract entered into by the contractor pursuant to the provisions of the relevant clause thereof, the contractor shall obtain from the sub contractor an undertaking to provide the Owner with the same patent protection that contractor is required to provide under the provisions of this clause.

#### 41. Liens:

41.1. If at any time there should be evidence or any lien, claim for which the Owner might have become liable, which is chargeable to the contractor, then the Owner may pay and discharge the same and deduct the amount so paid from any amount which may be or may become due and payable to the contractor, if any lien or claim remain unsettled after all payments are made, the contractor shall refund or pay to the Owner the cost such lien or claim including all payment and reasonable expenses. Owner reserves the right to the same.

## 41.2. Nothing Extra for Adverse Sub-Soil Conditions:

The nature of sub-soil of the work site varies widely horizontally and vertically. The KI and KII values also vary widely from place to place. In addition the water bearing seems are also conspicuous with the water table at a depth of 0.75 to 3.0 metres from ground level. A number of cohesive and non-cohesive strata are available particularly everywhere. The contractor shall have to make cuts and resort to pumping with due care to avoid collapsing of sides and occurrence of 'Piping'. The Contractor shall also be careful to avoid occurrence of excessive 'heaving' by avoiding keeping the excavation proposed to atmosphere for a longer period.

41.3. Slips and falls in excavation shall be cleared by the contractor at his own cost.



Excessive heaving shall have to cut and refill with lean concrete by the contractor at his own cost. The contractor shall have to adopt under-water work in case of occurrence of piping/ quick condition without any additional cost to the Owner.

The contractor will be paid for the earthwork as per the drawing. The slopes etc. as required for the safety of the work has to be provided as per the decision of the Engineer-in-Charge at his own cost. All types of dewatering including seepage, rain water entering. The earthwork in excavation or from any other source is to be done by the contractor at his own cost till the completion of foundation upto ground level including back filling.

## 41.3. No Compensation in case of change of Location of site:

Change of location of site do not invalidate the contract and tenderer have no claim for any compensation for such changes.



## SECTION – V PERFORMANCE OF WORK

#### 42. Execution of Works:

All the work shall be executed in strict conformity with the provisions of the contract documents explanatory detailed drawings, specifications and instructions by the Engineer-in-Charge whether mentioned in the contract or not. The contractor shall be responsible for ensuring that works are executed in the most substantial, proper and workman like manner using the quality materials and labour, through out the job Completion in strict accordance with the specifications and to the entire satisfaction of the Engineer-in-Charge.

## 43. Coordination and inspection of Works:

The coordination and inspection of the day-to-day work under the contract shall be the responsibility of the Engineer-in-Charge or his authorised representative. A work order book will be maintained by the contractor for each sector in which the aforesaid written instructions will be entered. These will be signed by the contractor or his authorised representative by way of acknowledgement within 12 hours.

## 44. Works in Monsoon and Dewatering:

- 44.1 The execution of work may entail working in the monsoon also. The contractor must maintain a minimum labour force as may be required for the job. And plan execute the construction and erection according to the prescribed schedule. No extra will be considered for such work in monsoon.
- 44.2 During monsoon and other period, it shall be the responsibility of the contractor to keep the construction work site free from water at his own cost.

## 45. Work on Sundays and Holidays:

For carrying out works on Sundays and holidays, the contractor will to keep Engineer-in-Charge or his representative at least two days in advance and obtain permission in writing. The contractor shall observe all labour laws and other statutory rules and regulations in force. In case of any violation of such laws, rules and regulations, consequence if any, including the cost thereto shall be exclusively borne by the contractor and the Owner shall have no liability whatsoever on his account.

## 46. General Conditions of Construction and Erection Work:

46.1 The working time at the time of work is 48 hours per week. Overtime work is permitted in case of need and the owner will not compensate the same. Shiftworking at 2 or 3 shifts per day will become necessary and the contractor should take this aspect into consideration for formulating his rates for quotation. No extra claims will be entertained by the Owner on this account.



- The contractor must arrange for the placement of workers in such a way that the delayed completion of the work or any part thereof or for any reason whatsoever will not affect their proper employment. The Owner will not entertain any claim for old time payment whatsoever.
- 46.3 The contractor shall submit to the Engineer-in-Charge reports at regular intervals regarding the state and progress of work. The contract shall provide display boards showing progress and labour strength at work site, as directed by the Engineer-in-Charge.
- 46.4 The site of work will be released progressively in stages and no claim for any compensation or damages will be tenable for non-release of the entire site at a time.

## 47. Drawings to be supplied by Owner:

- 47.1 The drawings attached with tender are only for the general guidance to the contractor to enable him to visualise the type of work contemplated. The contractor will be deemed to have studied the drawings and formed an idea about the total work involved.
- 47.2 In the Course the progress of work detailed working drawings on the basis of which actual execution of the work has to proceed, shall be furnished in stages. The contractor shall be deemed to have gone through the drawings supplied to him thoroughly and carefully, in conjunction will all other connected drawings and discrepancies if any, shall be brought to the notice of the Engineer-in-Charge, before actually carrying out the works.
- 47.3 Copies of all detailed working drawings relating to the works shall be kept at the contractor's office on the site and shall be made available to the Engineer-in-Charge at any time during the contract period. The drawings and other documents issued shall be returned to the Owner on completion of the works.

## 48. **Drawings to be supplied by the Contractor**:

- 48.1 The drawings/data which are to be furnished by the contractor are enumerated in the special conditions of contract and shall be furnished within the specified time
- Where approval of drawings for manufacture/construction/fabrication has been specified it shall be contractor's resposibility to have these drawings prepared as pe r the directions of Engineer-in-Charge and get them approved before proceeding with manufacture/construction/fabriction works as the case may be. Any changes that may have become necessary in these drawings during the execution of the work shall have to be carried out by the contractor to the satisfaction of Engineer-in-Charge at no extra cost. All final approved drawings shall bear the certification stamp duly signed by both the contractor and the Engineer-in-Charge as indicated below.



"Certified true for				
Agreement No				
Signed (Contractor) (Engineer-in-Charge)				

- 48.3 A period of 3 weeks from the date of receipt shall be required for approval of drawings by the Engineer-in-Charge.
- 48.4 As built drawing showing all Corrections, adjustments etc. shall be furnished by the Contractor in five copies and one transparent to record purposes to the owner

## 49 Setting Out Works:

- 49.1 The Engineer-in-Charge shall furnish to the contractor with only the four corners of the work site that is plant boundary limits, and a level bench mark only. The contractor shall set out the works, provide an efficient staff for the purpose and shall be solely responsible for the accuracy of such setting out.
- 49.2 The contractor shall provide, fix and be responsible for the maintenance of all stacks, templates, level marks, profiles and other similar things and shall take all necessary precautions to prevent their removal or disturbance. He shall be responsible for their consequences arising of such removals, disturbances corrections thereon and for their efficient and timely reinstatement. The contractor shall also be responsible for the maintenance of all existing survey marks, boundary marks, distance marks and centre line marks, either existing or supplied and fixed by the contractor. The work shall be set out to the satisfation of the Engineer-in-Charge. The approval thereon or jointing with the contractor by the Engineer-in-Charge in setting out the work, shall not relive the contractor of any of his responsibilities.
- 49.3 Before beginning the work the contractor shall at his own cost, provide all necessary reference and level posts-pegs, bamboos, flags, ranging rods, strings, and other materials for proper layout of the work in accordance with the scheme for bearing marks acceptable to the Engineer-in-Charge. The centre, longitudinal, face and cross lines shall be marked by means of small masonry pillars. Each pillar shall have distinct mark at the centre to eable the theodolite to be set over it. No work shall be started until all these points arechecked and approved by Engineer-in-Charge in writing, but such approval shall not relieve the contractor of any of his responsibilities. The contractor shall also provide all labour, materials and other facilities as necessary, for the proper checking or layout and inspection of the points during construction.
- 49.4 Pillars bearing geodetic marks located at the sites of units of works under construction should be protected and faced by the contractor.



49.5 On completion of work, the contractor must submit the geodetic documents according to which the work was carried out.

## **50.** Responsibility for Level and Alignment:

50.1 The contractor shall be entirely and exclusively responsible for the horizontal and vertical alignment, the level and correctness of every part of the work shall rectify effectually any errors or imperfections therein. Such rectification shall be carried out by the contractor at his own cost, when instructions are issued to that effect by the Engineer-in-Charge.

## 50.2 Lighting, Watch & Ward:

The contractor shall in connection with works provide and maintain at his own cost all lightings, guards, fencing and watch and ward and the security of the entire work in progress in cluding all the machineries, materials shall be the responsibility of the contractor till taken over by the owner by way of the written taking over certificate.

## 51. Materials to be Supplied by Contractor:

- 51.1 The contractor shall procure and provide the whole of the materials required for the construction including M.S. Rods, Cement and other building materials, tools, tackles, construction plant and equipment for the completion and maintenance of the work except the materials which will be issued by the Owner and shall make his own arrangement for procuring such materials and for the transport thereof. The owner may give necessary recommendation to the respective authorities, if so desired by the contractor, but assumes no further responsibility of any nature. The owner will insist on the procurement of materials which has the approval of Indian Standards Institution having ISI stamp and/or which are supplied by reputed suppliers borne on DGS & D list.
- 51.2 The contractor shall properly store all materials either issued to him or brought by him to the worksite to prevent damages due to rain, wind, direct exposure to sun etc. as also from theft, pilferage, etc. for proper and speedy execution of his works. The contractor shall maintain sufficient stocks of all meterials required by him.
- 51.3 No material shall be despatched from the contractor's stores before obtaining the approval in writing of the Engineer-in-Charge.
- All plants, tools and other materials brought by the contractor to the site must be declared at the time of bringing the same to the site.

#### **52.** Stores Supplied by the Owner:

52.1 If the specification of the work provides for the use of any material other than Steel & Cement of special description to be supplied from the Owner's stores or it is required that the contractor shall use certain stores to be provided by



the Engineer-in-Charge, such materials and stores, and price to be charged therefore as hereinafter mentioned being so far as practicable for the convinience of the contractor, but no so as in way to control the meaning or effect of the contract, the contract shall be bound to purchase and shall be supplied much materials and stores as are from time to time required to be used by him for the purpose of the contract only. The sums due from the contractor for the value of materials supplied by the Owner will be recovered from the Running Account Bill on the basis of actual consumption of materials (after taking into account any wastage allowance as may be provided for in the contract). The contractor should raise requisite copies of indents in a proforma as prescribed by the Engineer-in-Charge and no claim whatsoever will be entertained by the Engineer-in-Charge on this account. After completion of the works, the contractor is required to account as per relevant clauses in this document, for the full quantity of materials supplied to him.

52.2The value of the stores/materials as may be supplied to the contractor by the Owner will be debited to the contractor's account at the rates shown in the schedule of materials and if they are not entered in the schedule, they will be debited at cost price, which for the purpose of thecontract shall include the cost of carriage and all other expenses whatsoever such as normal storage supervision charges which shall have been incurred in obtaining the same at the Owner's stores. All materials so supplied to the contractor shall remain the obsolute property of the Owner and shall not be removed on any account from the site of the work and shall be at all times open for inspection to the Engineer-in-Charge. Any such materials remaining unused at the time of the completion or termination of the contract shall be returned to the Owner's stores or at a place as directed by the Engineer-in-Charge in perfectly good condition at contractor's cost.

#### 52.3 Steel & Cement:

- 52.3.1 If the specification of the work provides for the use of steel or cement such items of steel and cement to the extent required as per the specification of the works, shall be supplied at Owner's stores by the Owner for utilisation in the work on non-chargable basis from time to time depending upon the progress of the work. The tender rates shall be exclusive of the cost of steel and cement to be supplied as per the specification of the work, However, in case of flats and chequeuered plates the same have to be procured by the contractor at his own cost.
- 52.3.2 Such materials of steel and cement shall be issued only for permanent works and not for making other temporary works etc. Contractor shall bear all cost including lifting and loading carting from issue points to work site/contractor stores, custody and handling etc. and return of surplus serviceable/unserviceable materials to owner's store or other places to be designed by owner and no separate payment for such expenditure shall be made.



- 52.3.3 Items of steel as per specification of the work as mentioned above shall be supplied in the available length only. No claim on account of supply of non-standard length shall be entertained. Steel materials shall be issued on actual weight basis.
- 52.3.4 Cement as mentioned above will be supplied to the contractor a receive from the manufacturer/stockist. The theoretical weight of each bag of cement supplied will be considered as 50 Kg.

## 52.3.5 Scraps & Surplus Material:

The Contractor shall return all the surplus/unutilised as well as the scraps and wastages out of the materials supplied to him to the Owner's stores in a perfectly good condition at the contractor's cost. However, the following scraps allowances are permissible.

_	<u>Unac</u>	countable	<b>Accountable</b>
(i)	Cement	3%	Nil
(ii)	Reinforcement Steel	$\frac{1}{2}\frac{0}{0}$	2.5%
(iii)	Steel structural (Plates & Sect	ions) ½%	4.5%
(iv)	M.S. Plates for fabrication of	Pipes ½%	As per cutting diagrams
			approved by Engineer-in-
			Charge before cutting and
			fabrication.

## 52.3.6 Return of unutilised/surplus materials and scrap/wastage:

In respect of any utilised/surplus quantities of cement and steel supplied by not accounted for and or returned by the contractor shall pay to the Owner amounts at the penal rate of twice the SAIL, Bhubaneswar Stock-yard rate of that particular section of steel and cement as the case may be as on the date of accountability. If the Contractor fails to return the scraps/wastage generated as per the above percentage, recovery of such scrap/wastage shall be made at the rate of Rs. 7000/- per tonne.

The charging of penal rate shall be without the prejudice to the other remedies or action available to the owner against the contractor including any criminal action.

## 52.3.7. Accounting for Materials:

Every month the Contractor shall submit a statement for all the materials supplied to him by the owner in the proforma prescribed by the Engineer-in-Charge.

- 52.3.8 On completion of the work, the Contractor shall submit material appropriation statement for the materials supplied to him by the Owner.
- **52.3.9** All materials supplied to the contractor shall remain the absolute property of the all times and title therein shall not pass to the contractor at any time. The possession of the materials in the hands of the contractor is only for the



purpose of incorporating the same in the Owner's work. The material supplied shall not be removed by the contractor on any account from the site of work and shall be at all times open for inspection by the Engineer-in-Charge or owners reprsentative. The contractor shall not use the materials supplied to him for any purpose or work other than the work, which the said materials are supplied.

## 53. Conditions for issue of Materials:

- (i) Materials specified as to be issued by the Owner will be supplied to the contractor by the Owner from his stores. It shall be the responsibility of the contractor to take delivery of the materials and arrange for its loading, transport and unloading at the site work at his own cost. The material shall be issued during the working hours of his Stores and as pe the rules of the Owner framed from time to time.
- (ii) The contractor shall bear all incidental charges for the storage and safe custody of materials at site after these have been issued to him.
- (iii) The contractor shall construct suitable godown at the site of work for storing the materials safe against damage by rain, dampness, fire, theft, etc. He shall also employ necessary watch and ward establishment for the purpose.
- (iv) Materials specified as to be issued by the Owner shall be issued in standard sizes as obtained from the manufacturers.
- (v) It shall be duty of the contractor to inspect the materials supplied to his at the time of taking delivery and satisfy himself that they are in good condition. After the materials have been delivered by the Owner, it shall be the responsility of the contractor to keep them in good condition and if the materials are damaged or lost, at any time, they shall be repaired and or replaced by him at his own cost according to the directions of the Engineer-in-Charge.
- (vi) The Owner shall not be liable for delay in supply or non-supply of any materials, which the Owner has unertaken to supply where such failure or delay is due to natural calamities, act of enemies, transport and procurement difficulties and any circumstances beyond the control of the Owner. In no case, the contractor shall be entitled to claim any compensation or loss suffered by him on his account.
- (vii) It shall be the responsibility of the contractor to arrange in time all materials required for the works other than those to be supplied by the Owner. If however in the opinion of the Engineer-in-Charge the execution of the work. Is likely to be delayed due to the contractor's inability's to make arrangements for supply of materials which normally he has to arrange for, the Engineer-in-Charge shall have the right at his own discretion to issue such materials if available with the Owner or procure the materials from the market or elswhere. The contractor will be bound to take such materials at the rates decided by the Engineer-in-Charge. This however, does not in anyway absolve the contractor from responsibility of making arrangement for the supply of such materials in part or in full, should such a situation occur nor shall this constitute a reason for the delay in the execution of the work.



- (viii) Non of the materials supplied to the contractor will be utilised by the contractor for manufacturing item which can be obtained as supplied from standard manufacturer in finished form unless approved by Engineer-in-Charge in writing.
- (ix) The contractor shall, if desired by the Engineer-in-Charge, be required to execute an indemnity bond in the prescribed form for safe custody, usage and accounting of all materials issued by the Owner.
- (x) The contractor shall furnish to Engineer-in-Charge sufficiently in advance a statement showing his requirements of the quantities of the materials to be supplied by the Owner and the time when the same will be required by him for the works, so as to enable the Engineer-in-Charge to make necessary arrangement for procurement and supply of material.
- (xi) Account of the materials to be issued by the Owner shall be maintained by the contractor indicating the daily receipt, consumption and balance in hand in a manner prescribed by the Enginner-in-Charge. All connected papers requisitions, issues returns etc. shall be always available for inspection in the contractor's office at site.
- (xii) The contractor should see that only the required quantities of materials are got issued. The contractor shall not be entitled to cartage and incidential charges for returning the surplus materials, if any, to the stores, place of issue or to the place as directed by the Engineer-in-Charge.
- (xiii) Materials/equipment supplied by Owner shall not be utilised for any other purpose (s) than issued for.
- (xiv) The owner may issue the material in phases at his discretion keeping in view the programmes of the work.
- (xv) In case of free issue of materials, the contractor shall submit an indemnity bond in the prescribed format for 80% (eighty) value of the materials and a bank guarantee for 20% (twenty) of the value of the materials. The indemnity bond and bank guarantee shall be valid till the material acount is totally settled.

## 54. **Return of Surplus:**

Notwithstanding anything contained to the contrary in any or all the clauses of this contract where any materials for the execution of the contract are procured with the assistance of the Owner either by issue from Owner's stock or purchases made under orders, or permits or licences issued by government the contractor shall hold the said materials as trustee for the owner and use such materials economically and solely for the purpose of the contract and not dispose them off without the permission of the Owner and return, if required by the project head all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on his being paid or credited such price as the Project head shall determine having due regard so the condition of the materials. The price allowed to the contractor however, shall not exceed the amount charged to him excluding the storage charges, if any. The decision of the project head shall be final and conclusive in such matter. In the event of breach of the aforesaid conditions, the contractor shall, in the terms of the licences, or permits and/ or



for criminal breach of trust, be liable to compensate the Owner at double rate or any higher, in the event of those materials at the time having higher rate or not being available in the market, then any other rate to be determined by the project head and his decision shall be final and conclusive.

## 55. Materials Obtained From Dismantling:

If the contractor in the course of execution of the work is called upon to dismantle any part for reasons other than those stipulated in clauses 57 and 65 hereunder, the materials obtained in the work of dismantling etc. will be considered as the Owner's property and will be disposed off to the best advantage of the Owner.

## 56. Articles of Value Found:

All gold silver and other materials of any descriptions, precious stones, coins, treasures, relics, antiques and other similar things which shall be found, in, under or upon the site, shall be property of the Owner and the contractor shall duly preserve the same to the satisfaction of the Engineer-in-Charge and shall from time to time delivery the same to such person or persons indicated by the Owner.

## 57. **Inspection of Works:**

- 57.1 The Engineer-in-Charge will have full power and authority to inspect the works in progress at any time wherever the premises/ workshops situated, of the Contractor, person, firm or corporation where works in connection with the contract may be or where materials are being or intended to be supplied. The contractor shall afford or procure every facility and assistance to Engineer-in-Charge carry out such inspection. The contractor shall, at all time during the usual working hours and at all other times at which reasonable notice of the intention of the Engineer-in-Charge or his representative to visit the works shall have been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing be present for the purpose. Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.
- 57.2The contractor shall give not less than seven days notice in writing to the Engineer-in-Charge before covering up or otherwise placing beyond reach of inspection and measurement any work in order that the same may be inspected and measured. In the event of failure of above the same shall be uncovered and all facilities made available again at contractor's expense for carrying out such measurement or inspection.
- 57.3The contractor is to provide at all times during the progress of the work and maintenance period proper means at access with ladders gangways etc. and the necessary attendance to move and adopt as directed for inspection or measurement of the works by the Engineer-in-Charge.

## 58. Assistance to the Engineer:

The Contractor shall make available to the Engineer-in-Charge free of cost all necessary instructions and assistance in checking of settling out of works and



in the checking of any works made by the contractor for the purpose 0f setting out and taking measurements of work.

# 59. Discrepancies between instructions:

Should any discrepancy arise between the various instructions furnished to the contractor or his agents or staff or if any doubt arises on the meaning or implementation of any such instructions or should there be any difference of opinion on the issues, the contractor shall refer the matter immediately in writing to the Engineer-in-Charge whose decisions thereon shall be final and conclusive. No claim on losses alleged to have been caused by such discrepancies between instructions, doubts or misunderstanding shall in any event be admissible.

# 60. Alterations in Specifications and Designs and Extra Works:

- (a) The Project Head shall have power to make any alterations, in omission from additions to or substitutions, for the schedule of rates, the original specifications, drawings and instructions that may appear to him to be necessary or advisable during the progress of the work, and the contractor shall be bound to carry out such altered/ extra/ new items of work in accordance with any instructions which may be given to him in writing signed by the Project Head and such alterations, omissions, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work. The time of completion of work may be extended for the part of the particular job at the discretion of the Project Head for any such alterations, additions, or substitutions of the work, as he may consider as just and reasonable. The rates for such additional, altered or substituted work under the clause shall be worked out in accordance with the following provisions:-
- (b) If the rates for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract.
- (c) If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from rates for similar class of work as are specified in the contract for the work. The opinion of the Project head as to whether or not the rates can be reasonably so derived from the items in this contract will be final and binding on the contractor.
- (d) If the rates for the additional, altered or substituted work can not be determined in the manner specified in sub-clause (a) & (b) above, then the contractor shall within 7 days of the date of receipt of order to carry out



the work, inform the Project Head of the rate which it is his intention to charge for such class of work, supported by analysis of the rate or rates claimed, and the project Head shall determine the rate or rates on the basis of the prevailing market rates of materials plus labour cost including equipment hire charge at schedule of hourly/ daily rates plus 15% to cover contractor's supervisions overhead and profit and pay to the contractor accordingly. The opinion of the Project Head to current market rates of the materials and the quantum of labour and equipment involved per unit of measurement will be final and binding on the contractor. The schedule of hourly/ daily rates shall be as enclosed.

# 61. Action Where no Specification is issued:

In case of any class of work for which there is no such specification supplied by the Owner as is mentioned in the tender document such work shall be carried out in accordance with the Indian Standard Specifications. If the Indian Standard Specifications do not cover the same, the work should carried out as per standard Engineer in Practice subject to the approval of the Engineer-in-Charge.

#### **Abnormal Rates:**

The contractor is expected to quote the rate for each item after careful analysis of cost involved for the satisfactory performance and completion of item work considering all specifications and conditions of contract. This will avoid loss of profit or gain in case of curtailment or change in specification for any other item. In case the rate quoted by the tenderer for any item are usually high or unusually low it will be sufficient cause of the rejection of the tender unless the Owner is convinced about the reasonableness of the analysis for such rate furnished by the tenderer (on demand) after scrutiny.

#### 63. Tests For Quality Works:

- 63.1 All materials and workmanship shall be of the respective kinds described in the contract documents and in accordance with the instructions of the Engineer-in-Charge and shall be subjected from time to time to such tests at contractor's cost as the Engineer-in-Charge may direct at the place of manufacture or fabrication or at the site or at all or any such places. The contractor shall provide assistance, instruments, machines, labour and materials as are required for examining, measuring and testing any workmanship as may be selected and required by the Engineer-in-Charge.
- 63.2 All the tests that will be necessary in connection with the execution of the work as decided by Engineer-in-Charge shall be carried out at the field testing laboratory of this Owner if available by paying the charges as decided by the Owner from time to time. In case of non-availability of testing facilities with the Owner, the required laboratory as directed by Engineer-in-Charge.
- 63.3 If any tests are required to be carried out in connection with the work or materials or workmanship not supplied by the contractor, such tests shall be



carried out by the contractor as per the instructions of Engineer-in-Charge and cost of such tests shall be reimbursed by the Owner.

## 64. Samples:

The contractor shall furnish to the Engineer-in-Charge for approval when request or if required by the specifications, adequate samples of all materials and finished to be used in the work. Such samples shall be submitted before the work is commenced and in sample time to permit tests and examinations thereof. All materials furnished and finishes applied in actual work shall be fully equal to the approved samples.

# 65 Liabilities for Defect, Imperfections etc. and Rectifications Thereof:

If it shall appear to the Engineer-in-Charge that any work has been executed with unsound, imperfect or unskilled workmanship, or with materials of any inferior description, or that any matrials or articles provided by the contractor for the execution of work are unsound or of quality inferior to that contracted for, or otherwise not in accordance with the contract, the contractor shall on demand in writing from the Engineer-in-Charge or his authorised representative specifying the work, materials or articles complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify or remove and reconstruct that work so specified and provide other proper and suitable materials or articles at his own charge and cost, and in the event of failure to do so within a period to be specified by the Engineer-in-Charge in his demand aforesaid, the Engineer-incharge may on expiry of notice period rectify or remove, and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be at the risk and expense in all respects of the contract. The decision of the Engineer-in-Charge as to any question arising under this clause shall be final and conclusive.

# 66. Suspension of Works:

- (i) Subject to the provision of sub para (ii) of this clause, the contractor shall if orderded in writing by the Engineer-in-Charge., or his representative, temporarily suspend the works or any part thereof such period and such time as so orderded and shall not, after receiving such written orders, proceeds with the work therein, orderded to be suspended until he shall have received a written order to proceed therewith. The contractor shall not be entitled to claim compesation for any loss or damage sustained by him by reason of temporary suspension of the works aforesaid. An extension of time for completion, corresponding with the delay caused by any such suspension of the works as aforesaid will be granted to the contractor should be apply for the same provided that the suspension was not consequent to any default or failure on the part of the contractor.
- (ii) In case of suspension of entire work, orderded in writing by the Enginner-in-Charge, for a period of more than two months, the contractor shall have the option to terminate contract.



# **67.** Possession Prior to Completion:

The Engineer-in-Charge shall have the right to take possession of or any completed or partially completed work or part of the work. Such possession or use shall not be deemed to be an acceptance of any work completed in accordance with the contract. If such prior possession or use by the Engineer-in-Charge delay the progress of work, equitable adjustment in the time of completion will be made and the contract agreement shall be deemed to be modified accordingly.

# Twelve months Period of Liability from the Date of Issue of Completion Certificate:

- 68.1 The contractor shall gurantee the installation/work for a period of 12 months from the date of completion of work as certified by the Engineer-in-Charge which is indicated in the completion certificate. Any damage or defect that may arise though remained undeiscovered at the time of issue of completion certificate, connected in any way with the equipment or materials supplied by him or in the workmanship shall be rectified or replaced by the contractor at his own expenses as deemed necessary by the Engineer-in-Charge or in default the Engineer-in-Charge may cause the same to be made good by other agency and deduct expenses (of which the certificate or Engineer-in-Charge shall be final) from any sums that may be then or at any time thereafter become due to the contractor or from his security deposit, or the proceeds of sale thereof or of a sufficient portion thereof.
- 68.2 If the contractor feels that any variation in work or in quality of materials or proportions would be beneficial or necessary to fulfil the guarantees called for, he shall bring this in writing to the notice of the Engineer-in-Charge.

#### 68.3 Care of works:

From the commencement of completion of the work, the contractor shall take full responsibility for the care of all works including all temporary works and in case any damage, loss or injury shall happen to the work or to any part thereof or to any temporary works from any cause whatsoever, shall at his own cost repair and make good the same so that on completion the work shall be in good order and in conformity in every respects with the requirements of the contract and the Engineer-in-Charge's Instructions.

# **68.4** Defects Prior to Taking Over:

If at any time before the work is taken over, the Engineer-in-Charge shall:

(a) Decide that any work done or materials used by the contractor or any subcontractor is defective or not in accordance with the contract, or that the works or any portion therof are defective, or do not fulfil the requirements of contract (allsuch matter, being hereinafter, called 'Defects' in this clause) and (b) as soon as reasonably practicable gives to the contractor notice in writing of the said decision specifying particulars of the defects claimed to exist or to have occurred then the contractor shall at his own expenses and with all speed make good the defects so specified.



In case contractor shall fail to do so, the Owner may take, at the cost of contractor, such steps as may in all circumstances be reasonable to make good such defects. The expenditure so incurred by the owner be recovered from the amount due to the contractor. The decision of the Engineer-in-Charge with regard to the amount to be recovered from the contractor will be final and binding on the contractor. As soon as the works have been completed in accordance with the contract (except minor respects that do not affect their use for the purpose for which they are intended and except for maintenance thereof provided in clause 68.1 of General Conditions of Contract) and have passed the tests on completion, the Engineer-in-Charge shall issue a certificate (hereinafter called completion certificate) in which he shall certify the date on which the works have been so completed and have passed the said tests and the Owner shall be deemed to have taken over the works on the date so certified. If the works have been divided into various groups in the contract, the Owner shall be entitled to take over any group or groups before the other or others.

#### 68.5 Defect After Taking Over:

In order that the contractor could obtain a completion certificate he shall make good with all possible speed, any defect arising from the defective materials supplied by the contractor or that may have been notices or developed, after the works or group of the works has been taken over, the period allowed, for carrying our such work will be normally one month. If any defect be not remedied within a reasonable time, the owner may proceed to do the work at contractor's Risk and expenses and deduct from the final bill such amount as may be decided by the Owner.

If by reason of any default on the part of the contractor a completion certificate has not been issued in respect of every portion of the works within one month after date fixed by the contract for the completion of the works, the Owner shall be a liberty to use the work or any portion therof in respect of which a completion certificate has not been issued, provided that the works or the portion thereof so used as aforesaid shall be afforded reasonable opportunity for completion of these works for the issue of completion certificate.

#### 68.6 Guarantee/Transfer of Guarantee:

For works like water-proofing, acid & alkali resisting materials, preconstruction soil treatment against termite or any other specialized works etc. the contractor shall invariable engage sub-contractors who are specialists in the field and firms or repute and such a sub-conractor shall furnish guarantees for their workmanship to the Owner, through the contractor. In case such a sub-contractor/firm is not prepared to furnish a guarantee to the owner, the contractor shall give that guarantee to the Owner directly.



# SECTION – VI CERTIFICATE AND PAYMENT

#### **69. SCHEDULE OF RATE AND PAYMENTS:**

#### 69.1 **Contractor's Remuneration:**

The price to be paid by the Owner to the contractor for the whole of the work done and for the performance of all the obligations undertaken by the contractor under the contract document shall be ascertained by the application of the respective schedule of rates (the inclusive nature of which is more particularly defined by way of application but not of limitation, with clause No. 69.2) and payment to be made accordingly to the work actually executed and approved by the Engineer-in-Charge. The sum so ascertained shall(exception only as and to the extent expressly provided here in ) constitute the sole and inclusive of remunaeration of the contractor under the contract and no further or other payment whatsoever shall be or become due or payable to the contractor under the contract.

#### 69.2 Schedule of Rates to the Inclusive:

The prices/rates quoted by the contractor shall remain firm till the issue of final certificate and shall not be subject to escalation. Schedule of rates shall be deemed to include and cover all costs, expenses and liabilities of every description and all risks of every kind to be taken in executing, completion and handing over the work to the Owner by the contractor. The contractor shall be deemed to have known the nature, scope, magnitude and the extent of the works and materials required though the contract document may not fully and precisely furnish them. Hr shall make such provision in the schedule of rates as he may consider necessary to cover the cost of such items of work and materials as may be reasonable and necessary to completer the work. The opinion of the Engineer-in-Charge as to the items of work which are necessary and reasonable for completion of work shall be final and binding on the contract documents.

Generality of this present provision shall not be deemed to cut down or limited in any way because in certain cases it may and in other cases it may not expressly stated that the contractor shall do or perform a work or supply articles or perform with services at his own cost or without addition of payment or without extra charge or works to the same effect or that it may be stated or not stated that the same are included in and covered by the schedule of rates.

# 69.3 Schedule of rates to cover Constructional Plant, Materials. Labours etc.:

Without in any way limiting the provision of other subclauses the schedule of rates shall be deemed to include the cover the cost of all constructional plant, temporary works (except as provided for herein), pumps, materials, labour, insurance, fuel, stores, and appliances to be supplied by the contractor and all other matters in connection with each items in the schedule of quantities and



the execution of the works or any portion thereof finished complete in every respect and maintained as shown or described in the contract documents or as may be ordered in writing during the continuance of the contract.

# 69.4 Schedule of Rates to cover Royalties, Rents and Claims:

The schedule of rates shall be deemed to include and cover the cost of all royalties and fees for the articles, processes, protected by letters, patent or otherwise incorporated in or used in connection with the works, also all royalties, rents, and other payments in. connection with obtaining materials of whatsoever kind for the works and shall include an indemnity to the owner which the contractor hereby gives against all actions, proceedings, claims, damages, costs and expenses arising from the incorporation in or use on the works of any such articles, processes or charges if levied on materials, equipment or machinery to be brought to site for use on work, shll be borne by the contractor.

#### 69.5 Schedule of Rates to cover taxes and duties:

No exemption or reduction of custom duties, excise duties, sales tax, quay or any port duties, transport charges, stamp duties or Central or State Government or Local Body (or from any other body) or Municipal Taxes or duties, taxes or charges whatsoever will be granted or obtained and all expenses of which shall be deemed to be included in and covered by the schedule of rates. The contractor shall be obtain and pay for all permits or other privileges necessary to complete the work.

# 69.6 Schedule of Rates to cover Risk of Delay:

The schedule of rates shall be deemed to include and cover the risk of all responsibilities of delay and interference with the contractor's conduct of work which occur from any cause including orders of the owner in the exercise of his powers and on account of extension of time granted due to various and for all other possible or probable causes of delay.

#### 69.7 Schedule of Rates cannot be altered:

For work under unit rate basis no alteration will be allowed in the schedule of rates by reasons of works or any part of them being modified, altered, extended, diminished or omitted. The schedule of rates is of fully inclusive rates which have been fixed by the contractor and agreed to by the Owner and cannot be altered.

69.7.1 The schedule of rates to cover for working in operating plant. Contractor's rates shall be deemed to include taking into account that he has to work in operating plant and shall take sufficient care in moving the plants, equipments and materials from one place to another, so that they do not cause any damage to any person or to the property of the owner or to thirty party including over head and underground cable/pipe lines. In the event of such damages including eventual loss of production and operation of the plant or services in any plant or establishment as estimated by the owner or ascertained or by the



third party shall be borne by the contractor. Since the work is to be executed for the expansion of the plant, the rate of the contractor shall also deem to include all interference/obstruction/interruption for which no compensation shall be paid to be contractor.

## 70. Procedure For Measurement/ Billing of Work in Progress:

70.1 All measurements shall be in metric system. All the works in progress will be jointly measured by the representative of the Engineer-in-Charge and the contractor's authorised agent progressively. Such measurements will be got recorded in the measurement book by the Engineer-in-Charge or his authorised representative and signed in token of acceptance by the contractor or his authorised representative.

For the purpose of taking joint measurement the contractor's representative shall be bound to be present whenever required by the Engineer-in-Charge. If, however, he absents for any reason whatsoever the measurements will be taken by the Engineer-in-Charge or his representative and this will be deemed to be correct and binding on the contractor.

# 70.2 Billing:

The contractor will submit a bill in approved proforma in accordance with the contract terms and the agreed billing schedules in quintuplicate to the Engineer-in-Charge giving abstract and detailed measurement for the various items executed during a month, before the expiry of the first week of the succeeding month. The Engineer-in-Charge shall take or cause to be taken the requisite measurements for the purpose of having the same verified and the claim as far as admissible, adjusted, if possible, before the expiry of 10 days form presentation of the bill.

- 70.2.1 The bill shall be submitted by the contractor in computerised formats approved by the owner. The bills along-with floppies containing measurement of work, particulars of materials, recoveries etc. have to be submitted to the owner.
- 70.2.2 For lump-sum contracts, the payment will be according to agreed billing schedule. No adjustment shall be allowed in lump-sum prices for any variations in the quantities, specifications etc. shall take or a cause to be taken the requisite measurement for the purposes of having the same verified and the claim as far as admissible, adjusted, if possible, before the expiry of 10 days from presentation of the bill.

#### **70.3** Secured Advance on Materials:

In case of tenders for completed items of works, contractor may be allowed "Secured Advance" on the security of materials brought to site for execution of the contracted items of work to the extent of 75% of the value of materials which go into the completed works as assessed by the Engineer-in-Charge provided that the materials are of an imperishable nature and that formal



agreement is drawn up with the contractor under which the Owner secures a lien on the materials and is safe guarded against losses due to the contractor postponing the execution of the work or to the improper storage &/or misuse of the materials and against the expenses entitled for their proper watch and safe custody. Recoveries of advances so made would not be postponed until the whole of the work entrusted to the contractor is completed. They should be adjusted from his running account bills for work done as the materials are used, the necessary deductions being made whenever the items of work in which they are used and billed for.

# **70.4 Dispute in Mode of Measurement:**

In case of any dispute as to the made of measurement not covered by the contract to be adopted for any item of work, mode of measurement as per latest Indian Standard Specifications shall be followed.

# **70.5** Rounding of Amounts:

In calculating the amount of each item due to the contractor in every certificate prepared for payment, sum of less than 50 paisa shall be omitted and the total amount on each certificates shall be rounded off to the nearest, i.e. sum of less than 0.50.p shall be omitted and sums of 0.50p and more upto one rupee shall be reckoned as one rupee.

#### 71. LUMPSUMS IN TENDER:

For the item in tender where it includes lumpsum in respect of parts of work, the contractor shall be entitled to payment in respect of the items at the same as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-Charge capable of measurement, or determination, the Owner may at his discretion pay the lumpsum amount entered in the tender or a percentage thereof and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regards to any sum payable to him, under the provisions of this clause.

# 72. RUNNING ACCOUNT PAYMENTS TO BE REGARDED AS ADVANCE:

All Running Account Payment shall be regarded as Payments by way of advance against the final payment only and not as payment for work actually done and completed, and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due Performance of the contract, or any part thereof, in this respect, or of the accruing of any claim by the contractor, nor shall it, conclude, determine or affect in any way the powers of the Owner under these conditions or any of them as to the final settlement and adjustments of the accounts or otherwise, or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within one month from the sate of physical completion of the work, otherwise,



the Engineer-in-Charge's certificate of the measurement and of total amount payable for the work accordingly shall be final and binding on all parties.

#### 73. NOTICE OF CLAIMS FOR ADDITIONAL PAYMENT:

Should the contractor consider that he is entitled to any extra payment or compensation or to make any claims whatsoever in respect of the works arising under the terms of this contract he shall forthwith give notice in writing to the Engineer-in-Charge that he claims extra payment within ten days from the ordering of any work or happening of any event upon which the contractor bases such claims and such notice shall contain full particulars of the nature of such claims with necessary particulars as above within the time above specified shall be an absolute waiver thereof. No omission by the Owner to reject any such claim and no delay in dealing therewith shall be waiver by the Owner of any right in respect thereof.

#### 74. PAYMENT OF CONTRACTOR'S BILL:

No payment shall be made for works estimated to cost less that Rs. 10,000/-till the whole of the work shall have been completed and a certificate of completion given. But in case of works estimated to cost more that Rs. 10,000/- the contractor, on submitting the bill thereof be entitled to receive a monthly payment proportionate to the part thereof approved and passed by the Engineer-in-Charge, whose certificate of such approval and passing of the sum so payable be final and conclusive against the contractor. This payment will be made after making necessary deductions as stipulated elsewhere in the contract document for materials, security deposit etc. or any statutory recoveries.

Payment due to the contractor shall be made by the Owner, by Crossed Account Payee Cheque forwarding the same to registered office or the notified office of the contractor. In no case will owner be responsible if the Cheque is mislaid or misappropriated by un-authorised person/ persons. In all cases, the contractor shall present his bill duly pre-receipted on proper revenue stamp.

All payment shall be made in Indian Currency.

# 75. Receipt For Payment:

Receipt for payment made on account of work when executed by a firm, must be signed by a person holding due power of attorney in this respect on behalf of the contractor, except when the contractors are described in their tender as limited company in which case the receipts must be signed in the name of the company by one of its principal officers or by some other persons having authority to give effectual receipt for the company.

#### **76.** Completion Certificate:

# **76.1.** Application for completion certificate:



When the contractor fulfils his obligation under clause 69.4 he shall be eligible to apply for completion certificate in respect of the work by submitting the completion documents along with such application for completion certificate.

The Owner or his representative shall normally issue to the contractor the completion certificate within one month after receiving an application therefor from the contractors after verifying from the completion documents and satisfying himself that the work has been completed in accordance with and as set out in the construction and erection drawings, and the contract documents.

The contractor, after obtaining the completion certificate, is eligible to present the final bill for the work executed by him under the terms of contract.

## **76.2.** Completion Certificate:

Within one month of the completion of work in all respects, the contractor, shall be furnished with a certificate by the owner or his representative of such completion but no completion certificate shall be given not shall the work be deemed to have executed until all, scaffolding, surplus materials and rubbish is cleared off the site completely not until the work shall have been measured by the Engineer-in-Charge, whole measurement shall be binding and conclusive. The work will not be considered as complete and taken over by the owner, until all the temporary work, labour and staff colonies etc. constructed are removed and work site cleared to the satisfaction of the Engineer-in-Charge.

If the contractor shall fail to comply with the requirements of this clause on or before the date fixed for the completion of the work, the Engineer-in-Charge may at the expenses of contractor remove such scaffolding, surplus materials and rubbish and dispose off the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall forthwith pay the amount for all expenses so incurred and shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

#### Completion Certificate shall be in 3 parts as follows:

- (1) Physical/ Mechanical Completion work.
- (2) Satisfactory completion of commissioning of equipment with load.
- (3) Satisfactory completion of guarantee.

The contractor shall clearly indicate the 3 dates separately.

# **76.3.** Completion Documents:

For the purpose of Clause 76 the following documents will be deemed to form the completion documents:

(i) The technical documents according to which the work was carried out.



- (ii) Three sets of construction drawings showing therein the modification and corrections made during the course of execution and signed by the Engineer-in-Charge.
- (iii) Completion Certificate for embedded and covered –up works.
- (iv) Certificate of final levels as set out for various works.
- (v) Certificate of tests performed for various works.
- (vi) Material appropriation statement to the materials issued by the owner for the works and list of surplus materials returned to the owner's store duly supported by necessary documents.
- (vii) Physical/ Mechanical Completion work.
- (viii) Satisfactory completion of commissioning of equipment with load.
- (ix) Satisfactory completion of guarantee.

The Contractor shall clearly indicate the 3 dates separately.

#### 77. Final Decision And Final Certificate:

Upon the expiration of the period of liability and subject to the Engineer-in-Charge being satisfied that the works have been duly maintained by the contractor during monsoon or such period as herein provided in clause 68.1 and that the contractor has in all respect duly made up all subsidence and performed all his obligations under the contract, the Engineer-in-Charge shall (without prejudice to the right of the Owner to retain the provisions of relevant clause hereof) otherwise give a certificate, herein referred to as the final certificate, to the effect and the contractor shall not be considered to have fulfilled the whole of his obligations under the contract until Final Certificate shall have been given by the Engineer-in-Charge notwithstanding any previous entry upon the work and taking possession, working or using of the same or any part thereof by the Owner.

# 78. Certificate And Payments No Evidence of Completion:

Except the final certificate no other certificate or payment against a certificate or on general account shall be taken to be an admission by the Owner of the due performance of the contract of any part thereof or of occupancy or validity of any claim by the Contractor.

# SECTION – VII



# TAXES AND INSURANCE

#### 79. TAXES, DUTIES, OCTROI ETC.

79.1. The Contractor shall defray all charges, such as rent, toll local taxes excise duty, other payments and compensations, if any, in connection with the procurement and handling of materials, fabrication and execution of works or any method or process connected with the works or Temporary works.

Sales Tax or any other tax on materials required for the works as also Tax on works contract shall be payable by the Contractor and the Owner will not entertain any claim whatsoever in this regard.

79.2. Notwithstanding anything contained elsewhere in the contract, the owner shall deduct at source from the payments due to the contractor, the taxes as required under Section -13–AA of the Orissa Sales Tax Act or as amended from time to time or under any other statue. The amounts so deducted shall be deposited by the Owner with the Sales Tax authorities as per Law. It is for the contractor to deal with the Sales Tax authorities directly in respect of any claim or refund relating to the above deductions and the owner shall not be liable or responsible for any claims or payments or reimbursement in this regard.

#### **80.** INSURANCE:

Contractor shall at his own expense carry and maintain insurance with reputed insurance companies to the satisfaction of the Owner as follows:

#### **80.1** Employees State Insurance Act:

The contractor agrees to and does hereby accept full and exclusive liability for compliance with all obligations imposed by the Employees State Insurance Act., 1948, and the contractor further agrees to defend, indemnify and hold Owner harmless form any liability of penalty which may be imposed by the Central, State or Local authority by the reason of any asserted violation by contractor or Sub-contractor of the Employee's State Insurance Act, 1948 and also from all claims, suits or proceeding that may be brought against the Owner arising under, growing out of or by reasons of the work provided for by this contract whether brought by employees of the contractor, by third parties or by Central or State Government authority or any political sub-division thereof.

The contractor agrees to fill in with the Employees State Insurance Corporation, the Declaration Forms and all forms which may be required in respect of the contractor's or sub-contractor's employees, whose aggregate remuneration is Rs. 560.00 per month or less and who are employed in the work provided for or those covered by ESI from time to time under the Agreement. The contractor shall deduct and secure the agreement of the sub-contractor to deduct the employee's contribution as per the first schedule of the Employee's State Insurance Act from wages and affix the employee's



contribution cards at wages payments intervals. The contractor shall remit and secure the agreement of the sub-contractor to remit to the State Bank of India, Employees State Insurance Corporation Account, the employee's contribution as required by the Act. The contractor agrees to maintain all cards and records as required under the Act in respect of employees and payments and the contractor shall secure the agreement of the sub-contractor to maintain such records. Any expenses incurred for the contributions, making contributions or maintaining records shall be to the contractor's or sub-contractor's account.

The Owner shall retain such sum as may be necessary from the total contract value until the contractor shall furnish satisfactory proof that all contribution as required by the Employees State Insurance Act, 1984, have been paid. This will be pending on the contractor when the Employees State Insurance Act is extended to the place of work.

# **80.2** Workmen Compensation and Employees Liability Insurance:

Insurance shall be affected for all the contractor's employees engaged in the performance of this contract. If any of the work is subject, the contractor shall require the sub-contractor to provide workmen's compensation and employer's liability insurance for the latter's employees if such employees are not covered under the contractor insurance.

#### 80.3 Any other insurance required under Law or Regulations or by Owner:

Contractor shall also carry and maintain any and all other insurance, which he may be required under any law or regulation from time to time. He shall also carry and maintain any other insurance, which may be required by the Owner.

#### **80.4** Accident or Injury to workmen:

The owner shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workman or other person in the Employment of the contractor or any sub-contractor save and except and accident or injury resulting from any act or default of the Owner, his agents or servants and the contractor shall indemnify and keep indemnified the Owner against all such damages and compensation (save and except as aforesaid) and against all claims, demands, proceeding, costs, charges and expenses, whatsoever in respect or in relation thereto.

#### **80.5** Transit Insurance:

In respect of all items to be transported by the Contractor to the site of work, the cost of transit insurance should be borne by the contractor and the quoted price shall be inclusive of this cost.

# 81 DAMAGE TO PROPERTY OR TO ANY PERSON OR ANY THIRD PARTY:

81.1 Contractor's rate shall deem to include taking into account that he has to work in operating plant and shall take sufficient care in moving the plants, equipment and materials from one place to another so that they do not cause



any damage to any person or to the property of the Owner or to a third party including over head and underground cables, pipelines. In the event of such damages including eventual loss of production and operation of the plants or services in any plant or establishment as estimated by the Owner or ascertained or by the third party shall be borne by the Contractor.

- 81.2 Contractor shall also be responsible for making good to the satisfaction of the Owner any loss or any damage to all structures and properties belonging to the Owner or being executed or procured or being procured by owner or by other agency within the premises of all the work or Owner. If such loss or damages is due to fault and or the negligence or willful acts or omission of the contractors, his employees, agents, representatives or sub-contractors.
- 81.3 The contractor shall indemnify and keep the owner harmless of all claims for damages to property other than owner's property arising under or by reason of this contract if such claims result from the fault and/ or negligence or willful acts or omission of the contractor, agents, representative or sub-contractor.

#### **B2 DEMURRAGE DUES:**

The contractor shall pay demurrage charges incurred by the Owner because of the contractor's failure to load or unload any goods or materials within the time allowed by the Railway and/ or Transport Agency for such loading or unloading as charges incurred by the contractor within the permissible time as also charges due on consignments booked by or to him. In case the contractor fails to pay these charges, these charges shall be deducted from any sums, which may be due or become due to the contractor in terms of this contract and/ or any other contract.



# SECTION – VIII LABOUR LAWS AND ARBITRATION

#### 83 LABOURER LAWS:

Contractor shall comply with any and all laws, ordinances, regulations and decision of courts (which shall be deemed to be a part of this Agreement) concerning the health, sanitary arrangements, wages, welfare, safety and employment of any and all of his workers upon the Project or any portion thereof and shall exclusively bear the consequences of failure to comply therewith Contractor shall Indemnify and hold Engineer and Owner harmless from any claims, fines or penalties which may be made against Engineer or Owner as result of Contractor's failure to fulfil these obligations.

Without limiting the generality of the foregoing, Contractor shall fully comply with.

The contractor shall obtain clearance from the Labour Department regarding the compliance of the labour laws on 6 monthly basis and submit to the owner for record.

- (i) No labour below the age of 18 (eighteen) years shall be employed on the work.
- (ii) The contractor shall not pay less than what is provided under law to labourers engaged by him on the work.
- (iii) The contractor shall at his expense comply with all labour laws and keep the Owner indemnified in respect thereof.
- (iv) The contractor shall pay equal wages for men and women in accordance with applicable labour laws.
- (v) If the contractor is covered under the contractor labour (Regulation and Abolition) Act, he shall obtain a licence from licensing authority (i.e. office of the labour commissioner) by payment of necessary prescribed fee and the deposit, if any, before starting the work under the contract.
- (vi) The Contractor shall employ labour in sufficient numbers either directly or through sub-contractors to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the Contract and to satisfaction of the Engineer-in-Charge. The contractor shall not employ in connection with the works any person who has not completed his 18 (eighteen) years of age.
- (vii) The Contractor shall furnish to the Engineer-in-Charge the distribution return of the number and description, by trades of the work people



employed on the works. The Contractor shall also submit on the 4<sup>th</sup> and 19<sup>th</sup> of every month to the Engineer-in-Charge a true statement showing in respect of the second half of the preceding month and the first half of the current month (1) the accidents that occurred during the said fortnight showing the circumstance-under which they happened and the extent of damage and injury caused by them and (2) the number of female workers who have been allowed Maternity benefit as provided in the Maternity Benefit Act 1961 or Rules made thereunder and the amount paid to them.

- (viii) The contractor shall comply with the provisions of the payment of Wages Act 1936, Minimum Wages Act 1938, Employees Liability Act 1928. Workmen's Compensation Act, 1923, Industrial Dispute Act 1947, the Maternity Benefit Act 1961, Employees Provident Fund Act, 1952 and Contract Labour regulation and abolition Act 1937, Employment of Children Act 1938 or any modifications thereof or any other law relating thereto and rules made thereunder from time to time.
- (ix) The Engineer-in-Charge shall on a report having been made by an Inspecting Officer as defined in Contract Labour (Regulation and Abolition) Act 1970 have the power to deduct from the moneys due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker or Workers by reason of nonfulfillment of the Conditions of the Contractor for the benefit of workers, non-payment of wages or of deductions made from his or their wages which are not justified by the terms of the Contract or non-observance of the said regulations.
- (x) The Contractor shall indemnify the Owner against any payments to be made under and for the observance of the provisions of the aforesaid Acts without prejudice to his right to obtain indemnity from his subcontractors. In the event of the contractor committing a default or breach of any of the provisions of the aforesaid Acts as amended from time to time, of furnishing any information or submitting or filling any Form/Register/Slip under the provisions of these Acts which is materially incorrect then on the report of the inspecting Officers the Contractor shall without prejudice to any other liability pay to the owner a sum not exceeding Rs. 50.00 as liquidated damages for every default, breach of furnishing, making submitting, filling materially incorrect statement as may be fixed by the Engineer-in-Charge and in the event of the contractor's default continuing in this respect the liquidated damages may be enhanced to Rs. 50.00 per day of default subject to a maximum of one percent of the estimated cost of the works put to tender. The Engineer-in-Charge shall deduct such amount from bills or security deposit of the Contractor and credit the same to the welfare fund constituted under these acts. The decision of the Engineer-in-Charge in this respect shall be final and binding.



# 84 Implementation Of Apprentices Act 1961:

The contractor shall comply with the provisions of the Apprentices Act 1961 and the Rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Engineer-in-Charge may, at his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising of any violation by him of the provisions of the Act.

# 85 Contractor to Indemnify the Owner:

85.1 The contractor shall indemnify the Owner and every member, Officer and employee of the owner, also the Engineer-in-Charge and his staff against all actions, proceedings, claims, demands costs and expenses whatsoever arising out of or in connection with the matter referred to in clause 81 and elsewhere and all actions, proceedings, claims demands costs and expenses which may be made against the Owner for or in respect of or arising out of any failure by the contractor in the performance of his obligations under the contract. The Owner shall not be liable for or in respect of any demand or compensation payable by law in respect or in consequence of any accident or injury to any workman or other person in the employment of the contractor or his subcontractor and contractor shall indemnify and keep indemnified the Owner against all such damage and compensation and against all claims, damages, proceedings, costs, charges and expenses whatsoever thereof or in relation thereto

# 85.2 Payment of Claims and Damages:

Should the Owner have to pay any money in respect of such claims or demands as aforesaid the amount so paid and the cost incurred by the Owner shall be charged to and paid by the Contractor and the contractor shall not be at liberty to dispute or question the right of the Owner to make such payments notwithstanding the same may have been made without his consent or authority or in law or otherwise to the contrary.

85.3 In every case in which by virtue of the provisions of section 12, sub-section (i) of workmen's compensation Act, 1923 or other applicable provision of Workman Compensation act or any other act, the Owner is obliged to pay compensation to workman employed by the contractor in execution of the works, the Owner will recover from the contractor the amount of the compensation so paid, and without prejudice to the rights of Owner under section 12, sub-section (2) of the said act. Owner shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due to the contractor whether under this contract or otherwise. The Owner shall not be bound to contest any claim made under section 12 sub-section (I) of the said Act except on the written request of the contractor and upon his giving to the Owner full security for all costs for which the Owner might become liable in consequence of contesting such claims.



# 86. Health and Sanitary Arrangements For Workers:

- 86.1 In respect of all labour directly or indirectly employed in the works for the performance the contractor's part of this agreement, the contractor shall comply with or cause to be complied with all the rules and regulations of the local sanitary and other authorities or as framed by the Owner from time to time for the protection of health and sanitary arrangements for all workers.
- 86.2 The contractor shall provide in the labour colony all amenities such as Electricity, water and other sanitary and health arrangements. The Contractor shall also provide necessary surface transportation to the place of work and back to the colony for their personnel accommodated in the labour colony.

#### 87. Arbitration:

All disputes or differences whatsoever which shall at any time arise between the parties hereto touching or concerning the works or the execution or maintenance thereof of the contract or the rights touching or concerning the works or the execution or maintenance thereof of this contract or the construction meaning operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after completion of the contract or whether before or after determination, fore closure or breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding shall after written notice by either party to the contract to the other of them and to the Appointing Authority hereinafter mentioned be referred for adjudication to a sole Arbitrator to be appointed as hereinafter provided.

For the purpose of appointing the sole Arbitrator referred to above, the Appointing Authority will send within thirty days of receipt of the notice, to the contractor a panel of three names of persons.

The contractor shall on receipt of the names as referred selected any one of the person names to be appointed as a sole Arbitrator and communicate his name to the Appointing Authority within thirty days of receipt of the names. The appointing Authority shall there upon without any delay appoint the said person as the sole Arbitrator. If the contractor fails to communicate such selection as provided above within the period specified, the Appointing Authority shall make the selection and appoint the selected person as the sole Arbitrator.

If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacate his office due to any reason whatsoever sole Arbitrators shall be appointed as aforesaid. The work under the contract shall, however continue during the arbitration proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issues notices to both the parties fixing the date of the first hearing.



The Arbitrator may, from time to time, with the consent of the parties, enlarge the time for making and publishing the award.

The Arbitrator shall give a separate award in respect of each dispute or difference and shall give a reasoned and speaking award/ awards.

The venue of arbitration shall be at Bhubaneswar. However, if the situation so warrants, it may, as and when required, be held at the place where the site of work is situated

The fees, if any, of the Arbitrator shall, if required to be paid before the award is made and published be paid half and half by each of the parties. The costs of the reference and of the award including the fees, if any of the Arbitrator shall be in the discretion of the Arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid may fix or settle the amount of costs to be so paid.

The award of the arbitrator shall be final and binding on both the parties.

Subject to aforesaid, the provisions of the Arbitration Act 1940 or any statutory modification or re-enactment thereof and the rules made thereunder, and for the time being in force shall apply to the arbitration proceeding under this clause.

For Public Sector Enterprises guidelines as per the circular of BPE No. 15/9/86-BPE (FIN) dated 30.03.89 as amended time to time will be followed.

#### 88. Jurisdiction/ Governing Laws:

#### (a) Jurisdiction:

For all disputes arising of this contract, the jurisdiction shall be lie under the jurisdiction of direct courts in the respective areas in the State of ORISSA (India) only.

#### (b) Governing Laws:

The contract shall be governed by and constructed according to the laws in force in INDIA



# SECTION – IX SAFETY CODE

#### 89. GENERAL:

Contractor shall adhere to safe construction practice and guard against hazardous and unsafe working conditions and shall comply with Owner's safety rules as set forth herein. Prior to start of construction, contractor will be furnished copies of Owner's 'Safety Code' for information and guidance, if it has been prepared.

#### 90. SAFETY REGULATIONS:

- 90.1. In respect of all labour, directly or indirectly employed in the work for the performance of contractor's part of this agreement, the contractor shall at his own expense arrange for all the safety provisions as per (i) Safety codes of CPWD & Indian Standards Instructions (ii) The electricity Act, (iii) The Mines Act, and (iv) Regulations. Rules and orders made thereunder and such other acts as applicable.
- 90.2. The contractor shall observe and abide by all fire and safety regulations of the Owner. Before starting construction work, contractor shall consult Owner's Safety Engineer or Engineer-in-Charge and must make good to the satisfaction of the Owner any loss or damage due to fire to any portion of the work done under this contract or to any of the Owner's existing property.

# 91. First Aid and Industrial Injuries:

- (i) Contractor shall maintain first aid facilities for his employees and those of his subcontractors.
- (ii)Contractors shall make outside arrangements for ambulance service and for treatment of industrial injuries. Name of those providing these services shall be furnished to Owner prior to start of constructions and their telephone numbers shall be prominently posted in Contractor's field office.
- (iii)All critical industrial injuries shall be reported promptly to owner, and a copy of Contractor's report covering each personal injury requiring the attention of a physical shall be furnished to the Owner.

#### 92. General Rules:

Smoking within the Battery Areas, rank farm, or dock limits in strictly prohibited. Violators of the "No Smoking" rules shall be discharged immediately".

#### 93. Contractor's Barricades:

(i) Contractor shall erect and maintain barricades required in connection with his operation to guard or protect.



- (a) Excavations.
- (b) Hosting Areas.
- (c) Areas adjudged hazardous by Contractor's or Owner's Inspectors.
- (d) Owner's existing property subject to damage by Contractor's operation.
- (e) Rail road unloading spots.
- (ii) Contractor's employees and those of his sub-contractors shall become acquainted with Owner's barricading practice and shall respect the provisions thereof.
- (iii) Barricades and hazardous areas adjacent to but not located in normal routes of travel shall be marked by red flasher lanterns at nights.

## 94. Scaffolding:

- (i) Suitable scaffoldings should be provided for workmen for all works that cannot safety be done from the ground or from solid construction except such short period works as can be done safely from ladders. When a ladder is used a Mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than 1 in 4 (1 horizontal and 4 vertical).
- (ii) Scaffolding or staging more than 4 metres above the ground or floor swing on suspended from an overhead support or erected with stationary support shall have a guard rail properly attached, bolted, braced and otherwise retarded at least one metre high above the floor or platform of such scaffolding or staging and extending along with entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- (iii) Working platform, gangways and stairways should be so constructed that they should not sag unduly or unequally and if the height of the platform of gangway or the stairway is more than 4 metres above ground level or floor level, they should closely boarded, should have adequate width and should be suitable fastened as described in (ii) above.
- (iv) Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1 metre.
- (v) Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be security fixed. No portable single ladder shall be over 9 metres in length. The width between the side rails in run ladder shall in no case be less than 30 cm. For ladder upto and including 3 metres in length; for longer ladders this width should be



increase at least 15 mm for each additional metre of length. Uniform step spacing shall not exceed 30 cms. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or public. The contractor shall also provide all necessary fencing and lights to protect the workers and staff from accidents, and shall be bound to bear the expenses of defence of every suit, action or other proceedings of law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit or action or proceedings to any such person or which may with the consent of the contractor be paid to compromise any claim by any such person.

## 95. Excavation and Trenching:

All trenches 1.2 metres or more in depth, shall at all times be supplied with at least one ladder for each 50 M length or fraction thereof.

Ladder shall be extended from bottom of the trench to at least 1 metre above the surface of the ground. The sides of the trenches which are 1.5 metres in depth shall be stepped back to give suitable slope, or securely held by timber bracing, so as to avoid the danger of sides to collapse. The excavated materials shall not be placed within 1.5 metres of the edge of the trench or half of the trench width whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or under-cutting shall be done.

# 96. General Safety:

- (i) Before any demolition work is commenced and also during the process of the demolition work.
- (a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- (b) No electric cable or apparatus which is liable to be a source of danger shall remain electrically charged.
- (c) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
- (ii) All necessary personal safety equipment as considered adequate by the Engineer-in-Charge, should be kept available for the use of the persons employed at the site and maintained condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by persons concerned as outlined below:



- (a) Workers employed on mixing asphalt materials, cement and lime mortars shall be provided with protective footwear and protective gloves.
- (b) Those engaged in white washing and mixing or stacking of cements bags or any materials which are injurious to the eyes shall be provided with protective goggles.
- (c) Those engaged in welding and cutting works, shall be provided with protective face and eye –shields, hand gloves etc.
- (d) Stonebreakers shall be provided with protective goggle and protective clothing and seated at sufficiently safe intervals.
- (e) When workers are employed in sewers and manholes which are in use, the contractor shall ensure that the manhole cover are opened and are ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or board to prevent accident to the public.
- (f) The contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age of 18 years are employed on the work of lead painting, the following precautions should be taken:
  - (1) No paint containing lead or lead products shall be used except in the form paste or readymade paint.
  - (2) Suitable facemasks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
  - (3) Overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash them on cessation of work.
- (iii) When the work is done near any place where there is a risk of drowning all necessary safety equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.
- (iv) Use of hoisting machines and tackles including their attachments anchorage and supports shall conform to the following standard or conditions:
  - (a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defect and shall be kept in good working order.
  - (b) Every rope used in hoisting or lowering materials or as means of suspension shall be of durable quality and adequate strength and free from patent defects.



- (c) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding which or give signals to the operator.
- (d) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or lowering or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be marked with the safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
- (e) In case of department machines, the safe working load shall be notified by the Engineer-in-Charge. As regards contractor's machines, the contractor shall notify the safe working load of the machine to the Engineer-in-Charge, whenever he brings any machinery to site of work and get it verified by the Engineer-in-Charge.
- (v) Motors, gears, transmission lines, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safe-guards. Hoisting appliances should be provided with such means as to reduce to the minimum the accidental descent of the load, adequate precaution should be taken to reduce to the minimum the risk of any part or parts of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energized, insulating mats, wearing apparel such as gloves sleeves and boots as may be necessary should be provided. The workers shall not wear any rings, watches and carry keys or other materials, which are good conductors or electricity.
- (vi) All scaffolding, ladders and other safety devices mentioned or described herein shall be maintained in safe conditions and no scaffoldings, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of works.
- (vii) These safety provisions should be brought to the notice of all concerned by displaying on a notice board at a prominent place at the work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
- (viii) The ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the welfare officer Engineer-in-Charge or safety Engineer of the Administration or their representatives.
- (ix) Notwithstanding the above clauses there is nothing in these to exempt the contractor from the operations of any other Act or rules in force in the Republic of India. The works throughout, including any temporary works, shall be carried out in such a manner as n9ot to interfere in any way whatsoever with the traffic on any roads or footpaths at the site or in vicinity thereto or any existing works whether the property of the Administrations or of a third party.



# 97. Care in handling Inflammable gas:

The Contractor has to ensure all precautionary measures and exercise utmost care in handling the inflammable gas cylinder/ inflammable liquids/ paints etc. as required under the law and/ or as advised by the fire authorities of the Owner.

#### 98. Temporary Combustible Structures:

Temporary combustible structures will not be built near or around work site.

# 99. Precautions Against Fire:

The Contractor will have to provide Fire Extinguisher/ Fire Buckets and drums at work site as recommended by Engineer-in-Charge. They will have to ensure all precautionary measures and exercise utmost care in handling the inflammable gas cylinders/ inflammable liquid/ paints etc. as advised by Engineer-in-Charge. Temporary combustible structures will not be build near or around the work-site.

#### 100. Explosives:

Explosives shall not be stored or used on the works or on the site by the contractor without the permission of the Engineer-in-Charge in writing and then only in the manner and to the extent to which such permission is given. When explosives are required for the works they shall be stored in a special magazine to be provided at the cost of the contractor in accordance with the Explosive Rules. The contractor shall obtain the necessary licence for the storage and the use of explosives and all operations in which or for which explosives are employed shall be at sole risk and responsibility of the contractor and the contractor shall indemnify the owner against any loss or damage resulting directly or indirectly therefrom.

#### 101. Mines Act:

- 101.1 Safety Code: The contractor shall at his own expense arrange for the safety provisions as required by the Engineer-in-Charge in respect of all labour directly employed for performance of the works and shall provide all facilities in connection therewith. In case the Contractor fails to make arrangements and provides necessary facilities as aforesaid. The Engineer-in-Charge shall be entitled to do so and recover the costs thereof from the Contractor.
- 101.2 Failure to comply with Safety code or the provisions relating to report on accidents and to grant of maternity benefits to female worker shall make the Contractor liable to pay Company liquidated damages an amount not exceeding Rs. 50/- for each default or materially incorrect statement. The decision of the Engineer-in-Charge in such matters based on reports from the Inspecting Officer or from representatives of Engineer-in-Charge shall be final and binding and deductions for recovery of such liquidated damages may be made from any amount payable to the Contractor from all the provisions of the Mines Act 1952 or any statutory modification's or re-enactment thereof the time being in force and any Rules and Regulations made thereunder in respect of all the



persons employed by him under this contractor and shall indemnify the Owner from and against any claim under the Mines Act or the rules and regulations framed thereunder by or on behalf of and persons employed by him or otherwise.

#### 102. Preservation of Peace:

The Contractor shall taken requisite precautions and use his best endeavors to prevent any riotous or unlawful behaviour by or amongst his workmen and other employed on the works and for the preservation of peace and protection of the inhabitants and Security of property in the neighborhood of the work. In the event of the Owner requiring the maintenance of a special Police force at or in the vicinity of the site during the tenure of works, the expenses thereof shall be borne by the Contractor and if paid by the Owner shall be recoverable from the Contractor

#### 103. Outbreak of Infectious Diseases:

The Contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer-in-Charge's Representative. Should Cholera, Plague or other infectious diseases break out the Contractor shall burn the huts, bedding clothes and other belonging of or used by the infected parties and promptly erect new huts on healthy sites as required by the Engineer-in-Charge failing which within the time specified in the Engineer's requisition, the work may be done by the Owner and the cost thereof recovered from the Contractor.

# 104. Treatment of Contractor's Staff in Company's Hospital:

The Contractor and his staff, other than labourers and their families requiring medical aid from the Owner's hospitals and dispensaries will be treated as private patients and charged accordingly. The contractor's labourers and their families will be granted from treatment in the Owner's hospitals and dispensaries where no other hospitals or dispensaries are available provided the contractor pays the cost of medicines dressing and money accordingly to the normal scale as also additional charges if any for special examination e.g. X- Ray etc.

#### 105. Use of Intoxicants:

The sale of dent spirits or other intoxicating beverages upon the work in any of the buildings, encampments or tenements owned, occupied by or within the control of Contractor or any of his employee is forbidden and the contractor shall exercise his influence and authority to the utmost extent to secure strict compliance with this condition.

In addition to the above, the contractor shall abide by the safety code provision as per CPWD safety code and Indian Standard Code framed from time to time.

4.



GENERAL CONDITIONS OF CONTRACT

# PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

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

B. G. 1	. No	Date:		
1.	WHEREAS, M/s National Aluminium Com India Enterprise), having its Corporate Off Nayapalli, Bhubaneswar (hereinafter called expression shall unless repugnant to the sub representatives, successors and assigns) had Tender No	fice at NALCO BHAWAN, P-1 ("Company"/ "Owner" which oject or context includes its legal as issued tender paper vide itsfor		
	tender") to M/s.  Tenderer(s)" which expression shall unless reincludes their legal representatives, successor and conditions of the said tender, the tender for Rs. (Rupees	(here in after called the said epugnant to the subject or context ors and assigns and as per terms er shall submit a Bank guarantee		
2.	WE	the amount due and payable under on a demand from the Company which is final and binding, the awal of the tender or any material the tender by way of any loss or ffered by the Company by reason any of the terms and conditions the letter of Intent Agreement durantee is forfeited. Any such hall be conclusive as regards the er this guarantee, However, our coted to an amount not exceeding		
3.	We undertake to pay to the Company withstanding any dispute or disputes raised proceeding pending before any office, cour liability under this present guarantee being payment so made by us under this bond so liability for payment there under. Our liab conditional on the owner proceeding against the conditional or the conditional o	by the tenderer (s) in any suit or t or tribunal relating thereto our absolute and unequivocal. The hall be a valid discharge of our bility to pay is not dependent or		

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 tenderer(s) but shall in all respect 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					
6.	That the Owner Company will have full I without affecting this guarantee to postpone. The exercise of any of the power of the own	e for any time or from time to time.				
7.	Notwithstanding anything contained herein before, our liability shall not exceed Rs(Rupees					
8.	WeBank, 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 on the request of Tenderer (s).					
Date						
	Bank					
Corpo	rate Seal of the Bank	By its constitutional Attorney				
		Signature of duly Authorised person On behalf of the Bank With seal & signature code				
(BGs t	to be furnished from any of the banks listed in	n Annexure)				



# PROFORMA FOR BANK GUARANTEE FOR SECURITY DEPOSIT

B. G. No Date:
In consideration of National Aluminium Company Limited (A Government of India Enterprise), having its Corporate Office at NALCO BHAWAN, P-1 Nayapalli, Bhubaneswar (hereinafter called "Company"/ "Owner" which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) having agreed to exempt M/s (Hereinafter called "the said Contractor (s)/ Seller(s)" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns) from the demand under the terms and conditions of Contract(s)/ Order(s) No, dt
2. We
3. We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the contractor (s)/ Seller(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment thereunder. 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 respect 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. WeBank 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 discharges the guarantee.

said Contract(s)/Order(s) have been fully and p contractor(s) and accordingly discharges the guaran	properly carried out by the said
6. We	ithout affecting in any manner our conditions of the said Contract(s)/ne said Contractor(s) Seller(s) form a time to time any of the powers actor(s)/ Seller(s) and to forbear or the said Contract(s)/ Order(s) and reason of any such variations, or Seller(s) or for any forbearance, act indulgence by the Company to the or thing whatsoever which under
7. Notwithstanding anything contained herein be Rs(RupeestillUnless a demand or claim under the three months from the date of expiry we shall be under this guarantee.	only) and shall remain in force is Guarantee is made on us within
8. WeBank, lastly undertake n its currency except with the previous consent of the undertake to keep this Guarantee renewed from Contractor(s)/ Sellers(s).	e Company in writing. We further
Date	Bank
Corporate Seal of the Bank	By its constitutional Attorney
	Signature of duly Authorised person On behalf of the Bank

With seal & signature code

(BGs to be furnished from any of the banks listed in Annexure)



# PROFORMA FOR CONTRACT CUM PERFORMANCE GUARANTEE BY SELLER/ CONTRACTOR.

(To be executed on non-judicial stamped paper of appropriate value) **B. G. No. Date.** 

AND WHEREAS one of the conditions of the "said contract" is that "contractor(s)/seller(s) 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 defect liability obligations" and the performance guarantee obligations of the contractor(s)/seller(s) for execution/supplies made under the "said contract."

- 3. We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the contractor (s)/ Seller(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment



thereunder. 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 respect 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.

- 8. 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)/ Sellers(s).

Date	Bank
Corporate Seal of the Bank	By its constitutional Attorney
-	Signature of duly Authorised person on behalf
	of the Bank with seal & signature code
(BGs to be furnished from any o	of the banks listed in Annexure.)



B.G. No.

#### GENERAL CONDITIONS OF CONTRACT

Date:

# **BANK GUARANTEE FOR ADVANCE PAYMENT**

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

				nium Company I	,	
	Nayapalli, E	Bhubaneswar	(hereinat	orate Office at fter called "Cor	npany"/ "O	wner" which
	-			to the subject or signs) having ag		_
				(Rupees		
		(he	re in after	called "the said	Contractor	(s)/ Seller(s)"
	-		-	ugnant to the su	•	
		-		ors and assigns) for der dated		
	a bank guara					production of
2	Wa		D	ant having ita k	wanah affia	a at da
2.	hereby agree guarantee wi	and undert thout any de	ake to pay mur, mere	ank having its to y the amount du ely on a demand of y which is final	e and payal from the Co	ble under this mpany stating
	claimed is du suffered by t	ie by way of he Company	f loss or d by reason	amage caused to n of non-paymen	or would be t / adjustme	e caused to or ent of any part
			-	o the company of terms and condi	-	-
	` '	` '	-	s of the Contrac		
	-		` '	r(s). Any such d		
	•			regards the amou		
	restricted	nis guarantee to	e, Howeve an	r, our liability un amount	not	exceeding
		• •		only).	1100	moodamg

- 3. We undertake to pay to the Company any money so demanded not withstanding any claim dispute or disputes raised by the contractor (s)/ Seller(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment thereunder. Our liability to pay is not dependable 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 tenderer(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said tender are fulfilled.



- 5. We .......Bank Ltd. further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the finalisation of the said tender and that it shall continue to be enforceable till the said tender is finally decided and order placed on the successful tenderer(s) and/or till all the dues of the company under/ or by virtue of the said tender 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 tender have been fully and properly carried out by the said tenderer(s) and accordingly discharges the guarantee.
- 6. That the Owner/Company will have full liberty without reference to us and without affecting this guarantee to postpone for any time or from time to time, the exercise of any of the power of the owner under the tender.
- 8. 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 on the request of the Tenderer(s).

Date.....Bank

Corporate Seal of the Bank

By its constitutional Attorney Signature of duly Authorised person On behalf of the Bank With seal & signature code

BGs to be furnished from any of the banks listed in Annexure.



# **LIST OF STANDARDISED BANKS**

# 1. SCHEDULED PUBLIC SECTOR BANKS (INDIAN)

- 1. State Bank of India.
- 2. State Bank of Bikaner and Jaipur
- 3. State Bank of Hyderabad
- 4. State Bank of Indore.
- 5. State Bank of Mysore.
- 6. State Bank of Patialia.
- 7. State Bank of Saurashtra
- 8. State Bank of Travancore.
- 9. Allahabad Bank
- 10. Andhra Bank
- 11. Bank of Boroda
- 12. Bank of India
- 13. Bank of Maharashtra
- 14. Canara Bank
- 15. Central Bank of India
- 16. Corporation Bank
- 17. Dena Bank
- 18. Indian Bank
- 19. Indian Oversea Bank
- 20. Oriental Bank of Commerce
- 21. Punjab National Bank
- 22. Punjab and Sid Bank
- 23. Syndicate Bank
- 24. Union Bank of India
- 25. United Bank of India
- 26. UCO Bank
- 27. Vijaya Bank.

(Twenty Seven Banks)



### 2. SCHEDULED PRIVATE SECTOR BANKS (INDIAN):

- 1. Vysya Bank
- 2. UTI Bank Ltd.
- 3. SBI Commercial & International Bank Ltd.
- 4. ICICI Banking Corporation Bank Ltd.
- 5. HDFC Bank Ltd.
- 6. IDBI Bank Ltd.

#### (Six Banks)

### 3. SCHEDULED FOREIGN BANKS:

- 1. American Express Bank Ltd.
- 2. ANZ Grindlays Bank Plc
- 3. Bank of American NT & SA
- 4. Bank of Tokyo Ltd,
- 5. Banque Nationale de Paris
- 6. Barclays Bank Plc
- 7. Citi Bank N.A.
- 8. Deutsche Bank A.G.
- 9. Hongkong & Shanghai Banking Corporation.
- 10. Standard Chartered Bank
- 11. The Chase Manhattan Bank Ltd.
- 12. Dresdner Bank AG.

(Twelve Banks)



#### APPENDIX-I A

## DETAILS OF WORKS OF SIMILAR NATURE & MAGNITUDE CARRIED OUT DURING THE LAST 5 YEARS

Sl.	Name of work	<b>Estimated</b>	When	When	Date of	Remarks
No.	done	cost	started	completed	Completion	
					As per contra	ıct

- **Note:** 1. In the remarks column, please state whether the works stated above are carried out by you in the name of the Firm in which the present Bid is submitted or any other names. If later, state the relationship of the firm and also a copy of the Partnership Deed.
  - 2. Please enclose the true copy of the certificate issued by the authorities, if any.

Signature of Bidder



					_	_
A 1	nn	_ N	$\mathbf{I}$	IV	- 1	
$\Delta$	22	$\vdash$		ΙX		-
/ 1				1/1		

<b>N</b> T	- C	TT71 .
Name	0I	Work:

Name of Tenderer:

## CONCURRENT COMMITMENTS OF THE TENDERER

Full Postal Address of Client & Name of Officer-in-Charge	Description of the work	Value of contract	Date of commenceme nt of work	Scheduled Completion period	Percentage Completion as on date	Expected date of completion	Remarks if any

SIGNATURE OF TENDERER



APPENDIX-II

NAME OF WORK:

NAME OF TENDERER:

### **DETAILS OF EQUIPMETNS, TOOLS TACKLES**

Tenderer shall submit herein details of equipment, tools, tackles, etc required to perform the work and shall note in each case whether the same is (a) already owned by tenderer and available for use on this contract (b) anticipated to be hired by Contractor or (c) anticipated to be purchased by Contractor, in case of (a) anticipated (b) and (c) Location of hirer or supplier shall be stated.

Sl. No.	Description, Make Mode & Capacity	Year of Manufacture	Category (a) or (b) or (c) below	Location	Remarks
(1)	(2)	(3)	(4)	(5)	(6)

- 2. Contractor agrees to augment the above chart with additional number/ categories of equipment, if required to complete the work within the agreed time schedule of completion and directed by the Engineer-in-charge.
- 3. In case of hiring of equipment form other agencies, copies of the arrangements made with the hirer/ supplier shall have to be furnished.

SIGNATURE OF TENDERER



APPENDIX – III

## DETAILS OF MINIMUM MANPOWER PROPOSED TO BE DEPLOYED ON THIS WORK

Sl. No.	Details of Manpower	No.	Remarks

Note:

Please furnish the above details in two categories – To be deployed by (I) Contractor and (ii) Sub- contractors.

Minimum manpower deployment shall be based broadly as above and will be modified as mutually agreed to suit the detailed construction programme jointly worked out; further if any additional man power is required for completion of work in time, the same shall be provided by you as directed by Engineer without any extra cost.

The manpower proposed to be deployed in the work needs to be given quarter wise separately for direct personnel of the contractor and the manpower proposed to be deployed through the sub-contractors.



#### APPENDIX - IV

# ORGANISATION CHART SHOWING NO. OF QUALIFIED ENGINEERS & SUPERVISORY PERSONNEL ETC.

Sl.	Details of personnel to be	No.
No.	deployed on this work	

**Note:** Names and short resume of their experiences may also be given for key personnel.

The tentative chart of your site organisation as above furnished by you shall be subject to variation to suit the construction programme/ requirement and as directed by Owner/ Engineer.



#### APPENDIX – V

#### LIST OF PROPOSED SUB CONTRACTORS

Sl.	Name of	Description of	Amount (Rs.)
No.	sub-contractor	work or trade	

- 1) Types of work executed by the sub-contractors.
- 2) The particulars of clients where the sub-contractors did the works.
- 3) Approximate value of the work carried by the sub-contractors in the last 3 years.

(Signature of Bidder)



APPENDIX - VI

#### PPROGRESS BILLINGS

(Bidder's anticipated progress billing month by month to be inserted here)

Tentative construction schedule indicating the expected dates of start of activity is to be given by the contractor. This schedule shall be updated within specified milestones from time to time depending upon the availability of fronts equipment and priorities fixed by Engineer. Contractor shall submit within 15 days of the date of letter of intent programme/ schedule for supply of items covering all phases of work including design, procurement, manufacture, assembly, fabrication, testing, transportation, erection, testing at site and commissioning matching the overall completion schedule.

The billing as well as all the connected documents shall be computerized.

(Signature of Bidder)



APPENDIX - VII

#### NAME OF WORK:

#### NAME OF TENDERER:

## **INFORMATION ABOUT TENDERERS (FORM – H)**

- 1.0. In case of Individual:
- 1.1. Name of Business:
- 1.2. Whether his business is registered:
- 1.3. Date of Commencement of Business:
- 1.4. Whether he pays Income Tax over Rs. 10,000/- per year:
- 2.0. In case of Partnership:
- 2.1. Name of Partnership with qualification:
- 2.2. Whether the Partnership is Registered:
- 2.3. Date of Establishment of firm:
- 2.4. If each of the partners of the firm pays Income Tax over Rs. 10,000/- a year and if not, who of them pays the same.
- 3.0. In case of Limited Liability Company or Company Limited by Guarantees:
- 3.1. Amount of paid of capital:
- 3.2. Name of Directors:
- 3.3. Date of Registration of Company:
- 3.4. Copies of the Balance Sheet of the Company of the last two years:

Copies of audited Profit & Loss Account and the Balance sheet shall be enclosed in case of Individuals, partnerships as well as limited companies for the last 3 years.

( Signature of Tenderer)
Name & Address of the Tenderer



APPENDIX – VIII

#### NAME OF WORK:

#### NAME OF TENDERER:

#### <u>LIST OF ENCLOSURES (FORM – I)</u>

The tenderer is required to enclose the following documents as part of his tenderer.

- 1. Power of attorney of the signatory to the tender.
- 2. Income Tax/ Sales Tax Clearance Certificate in the proforma prescribed by the Govt. of India.
- 3. Documents showing annual turnover for similar works for the past two years such as annual report, profit and loss account etc.
- 4. Solvency Certificate by Nationalized Schedule Bank.

#### **Signature of Tenderer**

\*\* In absence of Income Tax Clearance Certificate tenderer may not be awarded the work tendered for as per Central Govt. Directives.



APPENDIX – IX

NAME OF WORK:

NAME OF TENDERER:

## **EXCEPTION AND DEVIATION (FORM – J)**

As pointed out in the NIT/ LIT, tenderer may stipulate here exceptions and deviations to the tender conditions, if considered un-avoidable.

Sl. No.	Page No. of tenderer document	Sl. No. of tender document	Subject	Deviation

SIGNATURE OF TENDERER



## **AMENDMENT TO GCC**

SI No	Clause No	Brief Description of Clause	Modification
01	2.3	Power Supply	i.) Clause No. 2.3 of General Condition of Contract stands modified to the following extent:
			The cost of construction power appearing in the 10 <sup>th</sup> and 11 <sup>th</sup> line as Rs 1/- per kwh shall be read as Rs.2.85 (Rupees two and eighty five praise only) per kwh
	2.3.10		The state Electricity Inspector appearing in the second line shall be read as 'Central Electricity Authority at Chennai'.
02	2.4	Land for Contractor's Field office, Godown and	Clause No. 2.4 of General Condition of Contract modified to the following extend:
		Workshop	"The owner shall provide land to the Contractor for their offices, go-down and workshop "
03	2.5	Land for Residential Accommodation	Clause No. 2.5 of General Condition of Contract modified to the following extend:  "The land for residential accommodation for
			staff and labour may be made available to Contractor outside plant boundary limit."
04	22	Extension of time	The word "any one" appearing in the end of the second para of Clause No. 22.0 shall be read as "OWNER".
05	52.3.6	Return of unutilised materials and scrap/wastage	i. The words "SAIL, Bhubaneswar stock yard rate" appearing in 3 <sup>rd</sup> line of first para shall be replaced by "Landed cost"
			ii. The words "Rs.7000/- per tonne" appearing in last para shall be replaced by " twice the landed cost of materials"
06	53 (xv)	Conditions for issue of materials	The contents of the sub-clause No.53.(xv) shall stand deleted and replaced with the following: "For the free issue materials, the following norms shall be adopted:  i. For issue of materials within plant boundary wall limit, the Contractor shall submit only
			indemnity bond for the entire value of the materials issued to them free of cost as Clause 53 (ix) of GCC.  ii. For the materials which are issued to out
	1	<u> </u>	101 the materials which are issued to out



			side plant boundary like township etc., the Contractor shall furnish Bank Guarantee equivalent to 20 % of value of materials and indemnity bond for the 80 % value of the materials.  iii. For materials taken out side Damanjodi/ Angul to the vendor's Shop, 100 % Bank Guarantee against value of the materials will be submitted by the vendor before taking of the materials. The Indemnity Bond and the Bank Guarantee shall remain valid till the material account is totally settled.
7	60 ( c)	Alterations in Specifications and Design and Extra Works	The words "including equipment hire charges at Schedule hourly/ daily rates" appearing in 7 <sup>th</sup> line shall be replaced by the words " prevalent at site the time of execution".
8	60(d)	Alterations in Specifications and Design and Extra Works	Add new sub-Clause 60(d) as follows:  "The quoted prices/rates indicated in Schedule of Rates shall remain firm for all variations in contract value within range of (+) 50 % and (-) 25 % for the entire duration of the contract. In case the actual contract value varies from the awarded contract value beyond the above mentioned limit than adjustment to contract value shall be made in accordance with procedure specified in proforma for adjustment for increase/ decrease in contract value enclosed as per Annexure in SCC".
9	76.3(ii)	Completion documents	Clause No. 76(ii) of General Condition of Contract shall be replaced by: "Six sets of construction drawings showing there in execution of the work duly approved by Engineer-in-charge and one set of reproducible on polyester film."
10	80.1	Employees State Insurance Act	Delete the word "whose aggregate remuneration is Rs.560.00 per month or less and" appearing in the 3 <sup>rd</sup> & 4 <sup>th</sup> line of the 2 <sup>nd</sup> para of this sub clause.
11	New Sub clause	-	Add a new clause designated as Sub clause 80.6 after existing Cl no. 80.5,  "80.6 – The contractor shall comply with all relevant and applicable statutory provisions in respect of the workers engaged by him at his cost and above stipulation are only indicative are not exhaustive."



12	83 (viii)	Labour Laws	Clause 83 (viii) of GCC shall be modified to the following extent:
			Add the words "all relevant statutes at their own costs including" between the words "provisions of" and "the payment of Wages Act 1936" appearing in the first line of this sub-clause.
			Provided further that- a) The payment of minimum wages to the contract labourers shall be as per the rates notified by the Central Government, as per Minimum Wages Act-1948 and as adopted/circulated by the NALCO Management from time to time <i>plus</i> additional element of Rs.12.00 (Rupees twelve only) and statutory dues thereon.
			b) The minimum wage as notified by the Chief Labour Commissioner (Central) has a variable component as Special Allowance which is linked to average AICPI for Industrial workers, which keeps on changing every six months. The contractor has to absorb all such variations due to increase in Minimum wage in their quoted price, and no claim whatsoever on this account shall be entertained.
			c) The classification of workers in different categories will be as per the notification issued by the Central Government fixing the minimum wages for the above scheduled appointment. Where the minimum wages notified by the concerned State Government are higher than the rates notified by Central Government, the State Government rates should apply in concerned scheduled employment as long as the same remains higher than the Central Government rates.
13	New Clause	Jurisdiction/ Governing Law	Add a new clause designated as Sub clause 88 (c) after existing Cl no. 88 (b)
			All the works that will be carried out inside the factory premises shall attract the provisions of



			factory act for the contract labourers engaged therein.  The Contractor, before commencement of work will arrange medical examination at his cost and shall submit the certificate of fitness in respect of the workers in the prescribed form from the nearby District HQ hospital or any Govt. Hospital for his workers, who will be handling or working with hazardous substance.
14	79	Taxes & Duties	In respect of contracts having more than one year, the medical check up of such workers shall have to be repeated by the contractor on completion of every one year.  The rates quoted by the tenderer will cover all the taxes, duties, and levies as applicable on the date of bid/ revised bid (if any).  In case of any imposition of new taxes by Govt notification at a later date, same shall be
			reimbursed to the contractor against submission of authentic document towards payment of such taxes by them.  - In case of revision of rate of Works Contract Tax by Govt notification, same shall be reimbursed to the contractor against submission of documentary evidence towards payment of such extra amount by them.