NATIONAL ALUMINIUM COMPANY LIMITED

(A Govt. of India Enterprise)

Captive Power Plant Division ANGUL - 759145, Odisha

Tel:-Fax:-

Email:-

∂rder No : CPP/T&C/C20/MC-5466/5500026029/2024/420

NALCO's GSTN:21AAACN7449M1Z9

PAN NO: ATXPS9240E

Date: 31.12.2024

TO: SRI LAXMI ENTERPRISE.

[305808]

BRAMHANIDEIPADA, NEAR HOUSING BOARD LAND PO & PS:

GST REG NO: 21ATXPS9240E1ZB

ANGUL.

EPF NO:

759122 ANGUL

Odisha India

ESI NO:

Tel:06764-234101 Fax:

Email:srilaxmienterprise37@gmail.com

Sub :MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.(SACNo.998719)

Ref :

 REP No.: CPP/T&C/GeM-198/MC-5466/NIT/2024/318 Date:07/12/2024 Our Online Tender ID No.: GEM/2024/B/5675996 Date:07/12/2024 3) Your Online Bid opened on Date:18/12/2024 4) Our Online request for shortfall (through GeM) on Date:18/12.2024 5) Your Online shortfall documents received on Date:19/12/2024 6) LOI No.:CPP/CNT/MC-5466/LOI/2024/416 Date:24.12.2024

7) Refer e-office file no.: 1300-097-12-13/0002/2024-097 (Computer No.105118) for details.

Dear Sir/Madam.

With reference to your offer referred above for the subject tender, NALCO is pleased to confirm accepatance of your offer and award the subject work in your favour with the terms and conditions given hereunder and various annexures enclosed herewith.

(A)

SI No.	Description	Refer Enclosure at
1	TERMS & CONDITION OF CONTRACT/ SCOPE OF WORK / TECHNICAL SPECIFICATION / LIST OF FIM / INSPECTION AND TESTING ETC.	ANNEXURE-IA
2	SPECIAL CONDITIONS OF CONTRACT	ANNEXURE-IB
3	BILL OF QUANTITY & SCHEDULE OF RATES	ANNEXURE-II

(B) CONTRACT VALUE: Rs 60,37,387.53 (Excluding GST of Rs 10,86,729.76)

(C) EFFECTIVE DATE OF CONTRACT: 26.12.2024

(D) CONTRACT PERIOD: 6 MONTHS

(E) PAYMENT TERMS: As per special Instruction

F) MANAGER-IN-CHARGE : SM(Mech.), LSP

(G) EMERGENCY CONTRACT EXECUTION PERIOD: NOT APPLICABLE.

All other terms and conditions not specifically mentioned in this order shall be as per tender stipulations and mutually agreed deviations, and shall remain unaltered. You are requested to acknowledge the receipt of the Work Order / SPO. If we don't receive the same within 7 (seven) days, it will be presumed that you have accepted the Work Order / SPO. You are requested to report to Manager-in-Charge for all matters related to the works, payments etc.

Thanking you

Yours faithfully, For and on behalf of National Aluminium Company Limited

Name: Designation: Address:

CAPTIVE POWER PLANT 1118610

OTHER TERMS AND CONDITIONS OF CONTRACT:

ANNEXURE-IA

HRD Clearance :	APPLICABLE: REF CLAUSE 9.7,19,20 AND 21.6 OF ANNEXURE-A1.
Special Safety /ENV /SA Requirement :	APPLICABLE: 1) GENERAL : REFER CLAUSE No.:21 AND 22 OF ANNEXURE-A1. 2) SPECIAL : REFER CLAUSE OF ANNEXURE-IA AND IB.
GST:	APPLICABLE @18%.
SECURITY DEPOSIT:	APPLICABLE: REF CLAUSE 13 OF ANNEXURE-A1
Execution Of Agreement:	APPLICABLE: REF CLAUSE 12 OF ANNEXURE-A1 AND ANNEXURE-C23 OF NIT.
FIM with Material code & Qty:	AS PER SCOPE OF WORK.
Defect Liability Period(DLP):	1 MONTH
Labour Escalation :	NOT APPL
_abour Component (%) :	
Basic Labour Rate(L0) Rs.:	611.00
POL / Material Escalation :	NOT APPL
BG Against FIM :	APPL (Rs 1,07,937.30)
B Against FIM:	APPL (Rs 4,31,749.20)
BG Against Equipment :	NOT APPL

Special Instructions:

- 1) STATUS OF FIRM-INDIVIDUAL.
- 2) Annexure-IA at page 13 to 31 of the Service Purchase Order may be referred for detailed "Scope of work".
- All other terms and conditions not specifically mentioned in the Service Purchase Order document shall be as per NIT and GCC and shall remain unaltered.
- 4) Preference for engagement of labours under NALCO's contractors establishment may be given to Land Affected Persons.
- 5) You are requested to report to Manager-in-Charge for all matters related to the works, payments etc.in the following address.

Mr G. K. Nayak, SM (MECH.), LSP, Captive Power Plant Division, National Aluminium Co. Ltd., Angul (Dist), ODISHA-759145 E-mail: goutam.nayak@nalcoindia.co.in Mob. No: 9437962968

CC: 1. GM (F) - F.C. No.: 2024W25900/19, 2025W26900/6 Date: 23/12/2024 (Through e-mail)

- 2. GM (H&A), CPP (Through e-mail)
- 3. GGM (E&S) (Through e-mail)
- 4. GM (MECH.), LSP (Through e-mail)
- 5. Manager-in-charge- SM (MECH.), LSP (Through e-mail)
- 6. AGM (IED) (Through e-mail)
- 7. AGM (Vig) S&P (Through e-mail)
- 8. Office copy, 9.Master copy
- 10. Vendor: 02 (Two) copies (one hard copy & another soft copy through e-mail)

TITI 2 24

TITI 2 24

TITI 2 24

TITI 2 24

THE TOTAL TRACTOR ANGUL

CPP, NALCO, ANGUL

Line item	Activity SINo.	Service Description	UOM	QUANTITY	RATE	AMOUNT
No	SINO.				Curr : INR	Curr : INR
(1)	(2)	(3)	(4)	(5)	(6)	(7 = 5 x 6)
1		IPH & BARGE AREA				
ຳ 1	1	O H of Ash Slurry pump	each	8.000	10,195.63	81,565.04
1	2	P M of Ash Slurry pump	each	15.000	4,044.79	60,671.85
1	3	DE/NDE Oil Seal Replacement ASP	each	8.000	1,625.57	13,004.56
1	4	V-Belts Replacement/ Tightening OF ASP	each	15.000	605.86	9,087.90
1	5	Build-up of worm out parts of ASP	Kilogram	38.000	1,700.52	64,619.76
1	6	Pump pulley bolt Tightening & Alignment	each	15.000	832.89	12,493.38
1	. 7	Pump pulley tightening	each	15.000	666.31	9,994.68
1	8	Gland packing replacement of LT pumps	each	75.000	201.86	15,139.50
1	9	Oil change of pumps/G Box/FC/Oil Tank	each	25.000	151.40	3,785.00
1	10	Seal waterline chocking removal of ASP	each	30.000	312.92	9,387.60
1	11	OH of CW/SW pump	each	2.000	4,044.79	8,089.50
1	12	PM of CW/SW pump	each	4.000	1,940.09	7,760.36
1	13	Brg. & Sleeve replacement of FF/HP/LP/CW	each	30.000	1,540.35	46,210.50
1	14	OH/ Replacement of Butter fly valve 350N	NO	3.000	2,717.69	8,153.07
1	15	O H of HP/LP pump	each	2.000	8,089.58	16,179.16
1	16	PM of HP/LP pump	each	4.000	4,044.51	16,178.04
1	17	O H of Seal water Pond pump/Drain pump	each	2.000	2,994.45	5,988.90
1	18	PM of Seal water Pond pump/Drain pump	each	4.000	1,414.92	5,659.6
1	19	Replacement/Repairing of submersible pum	each	5.000	1,507.88	7,539.40
1	20	Replacement/Adjustment/Allignment of cou	each	20.000	1,174.73	23,494.60
1	21	Servicing of Overhead crane	each	3.000	4,047.47	12,142.4
1	22	Valve or NRV Repair/ Replacement	each	35.000	333.16	11,660.60
1	23	Welding	Meter	450.000	296.46	133,407.00
1	24	Gas Cutting	Meter	600.000	227.08	136,248.00
1	25	Painting of equipts/ structures	Square meter	50.000	230.04	11,502.00
1	26	Painting with Synthetic enamel paint	Square meter	1,250.000	190.57	238,212.50
1	27	Erection of cast basalt lined pipe 350NB	NO	6.000	5,870.30	35,221.80
1	28	Removal/Fixing of MS clamps 350/450 NB	NO	60.000	232.73	13,963.80
1	29	Attending/Replacing gland leakage of val	NO	40.000	444.21	17,768.40
1	30	Replacement/Leakage attending of ash dis	NO	26.000	2,033.27	52,865.02
1	31	MS/CI/Bend/Spool/Reducer/Y/T piece repla	NO	12.000	1,518.81	18,225.72
1	32	Dismantling/Removal of Ash disposal pipe	Meter	188.000	489.44	92,014.72
1	33	Erection of Ash disposal pipeline 350NB	Meter	188.000	994.18	186,905.84
1	34	Dismantling/Removal of Ash disposal pipe	Meter	163.000	545.66	88,942.58
1	35	Erection of Ash disposal pipeline 450NB	Meter	163.000	1,373.42	223,867.46
1	36	Erection of cast basalt lined pipe 450NB	NO	4.000	6,629.89	26,519.5
1	37	Fabrication of MS Bend/T/Reducer/Y piece	NO	24.000	3,586.43	86,074.32
1	38	Attending leakage of ash water recycle p	NO	3.000	2,798.49	8,395.4
1	39	Dismantling and fitting of dummy plates/	NO	5.000	807.11	4,035.5
1	40	Ash slurry line valve servicing/replacem	each	23.000	1,933.96	44,481.08
1	41	Suction/Discharge Pipe/Bend/ Y chocking	each	18.000	1,271.90	22,894.20



Line item	Activity SINo.	Service Description	иом	QUANTITY	RATE	AMOUNT
No	7				Curr : INR	Curr : INR
(1)	(2)	(3)	(4)	(5)	(6)	(7 = 5 x 6)
1	42	Manpower assistance for O&M of IPH in Sk	Man Days	546.000	1,050.34	573,485.64
1	43	Manpower assistance for O&M of IPH in Se	Man Days	546.000	888.42	485,077.32
1	44	Manpower assistance for O&M of IPH in Un	Man Days	1,638.000	726.49	1,189,990.62
1	45	Dismantling/Removal of MS and other pipe	Meter	75.000	285.61	21,420.75
1	46	Erection of MS and other pipes(200NB)	Meter	75.000	465.37	34,902.75
1	47	Replacement/Repair valve & NRV(for200NB)	NO	13.000	499.73	6,496.49
1	48	Hydraulic coupling gear box Servicing/Ov	each	5.000	5,409.82	27,049.10
1	49	Hydraulic coupling to Gear box/Motor all	each	8.000	999.47	7,995.76
1	50	HC Gear box to Pump allignment	each '	8.000	999.47	7,995.76
1	51	Hydraulic coupling tube servicing	each	5.000	2,030.66	10,153.30
1	52	Hydraulic coupling Servicing/Overhauling	each	5.000	8,439.40	42,197.00
1	53	Hydraulic coupling oil replacement	each	8.000	878.03	7,024.24
1	54	Filter/Valve/Hose pipe/Cooler servicing	each	20.000	666.31	13,326.20
1	55	Gasket packing replacement of pipeline j	each	20.000	1,437.61	28,752.20
1	56	Oil seal change of Hydraulic Coupling/Ge	each	10.000	3,715.58	37,155.80
1	57	Preventive checking of pumps/Equpts	NO	158.000	525.17	82,976.86
1	58	O H of Ash Water Pump IPH	each	2.000	10,195.61	20,391.22
1	59	P M of Ash Water Pump IPH	each	5.000	4,933.21	24,666.0
1	60	Brg/Sleeve replacement of AW Pumps	each	3.000	2,113.87	6,341.6
1	61	Sump jetting nozzel replacements/body ma	each	38.000	1,020.63	38,783.94
1	62	O H of F/F pump	each	2.000	4,041.35	8,082.70
1	63	PM of F/F pump	each	5.000	2,020.68	10,103.40
1	64	Trail run/inspection of diesel F/F pump	NO	158.000	121.17	19,144.86
1	65	Close open of slurry line plate(spectacl	each	60.000	625.83	37,549.80
1	66	Float level indicator maintenance	each	6.000	222.10	1,332.60
1	67	Ash slurry sump plug gate valve OH/servi	each	6.000	999.47	5,996.82
1	68	Patch welding/Jackting	NO	100.000	796.11	79,611.00
1	69	OH of Turbocirculator	NO	1.000	6,420.24	6,420.24
1	70	PM of Turbocirculator	NO	2.000	3,210.12	6,420.24
1	71	OH of Agitator/stirrer	NO	5.000	2,892.29	14,461.45
1	72	PM of Agitator/stirrer	NO	14.000	1,332.62	18,656.68
1	73	OH of Chemical dosing pumps	NO	5.000	2,665.25	13,326.25
1	74	PM of Chemical dosing pumps	NO	14.000	1,332.62	18,656.68
1	75	OH of sludge pump	NO	1.000	3,715.58	3,715.58
1	76	PM of sludge pump	NO	3.000	1,857.79	5,573.37
1	77	OH of Flash mixture/sludge sump	NO	1.000	3,492.85	3,492.85
1	78	OH of Agitators of Chemical Tanks	NO	5.000	2,665.25	13,326.25
1	79	Turbo circulator wheel allignment/changi	NO	6.000	4,118.24	24,709.44
1	80	Turbo circulator gear box repair/replace	NO	2.000	2,665.25	5,330.50
1	81	Repair/replacement of driving gear box.	NO	1.000	1,998.94	1,998.94
1	82	Alignment of bridge of Clarifloculator	NO .	2.000	4,843.06	9,686.12
1	83	OH of Barge area Recovery Water Pump	each	3.000	8,419.73	25,259.19



ANNEXURE-II

Line item	Activity SINo.	Service Description	UOM	QUANTITY	RATE	AMOUNT
No	SINO.				Curr : INR	Curr : INR
(1)	(2)	(3)	(4)	(5)	(6)	(7 = 5 x 6)
1	84	PM of Barge area Recovery Water Pump	each	9.000	5,209.49	46,885.41
1	85	Gland packing replacement HT motor pumps	each	6.000	2,113.88	12,683.28
1	86		each	63.000	999.47	62,966.61
1	87		NO	7.000	2,088.40	14,618.80
1	88	300NB valve Replacement/Repairing	NO	6.000	1,998.94	11,993.64
1	89	Pontoon maintenance/ Repositioning	NO	2.000	17,424.50	34,849.00
1	90	Manpower assistance for Barge area O&M i	Man Days	546.000	888.42	485,077.32
1	91	Manpower assistance for Barge area O&Min	Man Days	1,092.000	726.49	793,327.08
1	92	Manpower assistance for chemical storage	Man Days	152.000	726.49	110,426.48
1	93	Manpower assistance for Chemical dosing	Man Days	546.000	888.42	485,077.32
1	94	Greasing of Bearings	each	175.000	136.22	23,838.50
1	95	700NB valve Replacement /Repairing	NO 3.000	3.000	3,837.80	11,513.40
1	96 97 98	Replacement/OH of Air release valve	NO	23.000	7,174.57 999.47	165,015.11
1			NO NO			1,998.94
					2,056.81	32,908.96
1	99	Transportation of Material from CPP to I	NO	38.000	1,862.84	70,787.92
1:	100	Transportation of Material from IPH to B	NO	20.000	1,030,25	20,605.00
					TOTAL	7,273,960.8
			Discount in % : 17.00		1,236,573.3	
				Tota	After Discount	6,037,387.52
and to				Pren	nium in % : 0.00	0.0
				Tota	After Premium	6,037,387.52

Total Amount in Words: SIXTY LAKH THIRTY SEVEN THOUSAND THREE HUNDRED EIGHTY SEVEN RUPEES AND FIFTY TWO PAISE (EXCLUDING GST)

Notes for BOQ and SOR:

- (i) The total contract value is limited to Rs 60,37,387.53 (EXCLUDING GST).
- (ii) Rs 71,24,117.29 (Including GST @ 18%).(Ref. Payment Terms of Service Purchase Order).
- (iii) It is the responsibility of the contractor to satisfy the Statutory Authorities in case of any discrepancy arising on account of GST.
- (iv) Prior approval of Competent Authority is required for :
 - a) Execution of AHR items (SI. No. NIL of BOQ) beyond original order quantity.
 - b) Quantity deviation (up ward) in any single item, which has significant impact on the contract value (i.e. above 5% of work order value).
- (v) ALR item: NIL
- (vi) GATE PASS: S.W- 8 / S.S.W- 16 / U.S.W- 25
- ε(vii) Approving authority for this order is GGM (T&C).

THE THEORY NALCO, ANGUL

Line Item No	Activity SINo.	Service Description
1		IPH & BARGE AREA
1	1	O H of Ash Slurry pump
1	2	P M of Ash Slurry pump
1	3	DE/NDE Oil Seal Replacement ASP
1	4	V-Belts Replacement/ Tightening OF ASP
1	5	Build-up of worm out parts of ASP
-1	6	Pump pulley bolt Tightening & Alignment
1	7	Pump pulley tightening
1	8	Gland packing replacement of LT pumps
1	9	Oil change of pumps/G Box/FC/Oil Tank
1	10	Seal waterline chocking removal of ASP
1	11	OH of CW/SW pump
1	12	PM of CW/SW pump
1	13	Brg. & Sleeve replacement of FF/HP/LP/CW
1	14	OH/ Replacement of Butter fly valve 350N
1	15	O H of HP/LP pump
1	16	PM of HP/LP pump
1	17	O H of Seal water Pond pump/Drain pump
1	18	PM of Seal water Pond pump/Drain pump
1	19	Replacement/Repairing of submersible pum
1	20	Replacement/Adjustment/Allignment of cou
1	21	Servicing of Overhead crane
1	22	Valve or NRV Repair/ Replacement

Line Item	Activity SINo.	Service Description
1	23	Welding
1	24	Gas Cutting
1	25	Painting of equipts/ structures
1	26	Painting with Synthetic enamel paint
1	27	Erection of cast basalt lined pipe 350NB
1	28	Removal/Fixing of MS clamps 350/450 NB
1	29	Attending/Replacing gland leakage of val
1	30	Replacement/Leakage attending of ash dis
1	31	MS/CI/Bend/Spool/Reducer/Y/T piece repla
1	32	Dismantling/Removal of Ash disposal pipe
1	33	Erection of Ash disposal pipeline 350NB
1	34	Dismantling/Removal of Ash disposal pipe
1	35	Erection of Ash disposal pipeline 450NB
1	36	Erection of cast basalt lined pipe 450NB
1	37	Fabrication of MS Bend/T/Reducer/Y piece
1	38	Attending leakage of ash water recycle p
1	39	Dismantling and fitting of dummy plates/
1	40	Ash slurry line valve servicing/replacem
1	41	Suction/Discharge Pipe/Bend/ Y chocking
1	42	Manpower assistance for O&M of IPH in Sk
1	43	Manpower assistance for O&M of IPH in Se
1	44	Manpower assistance for O&M of IPH in Un

Line Item No	Activity SINo.	Service Description
1	45	Dismantling/Removal of MS and other pipe
1	46	Erection of MS and other pipes(200NB)
1	47	Replacement/Repair valve & NRV(for200NB)
1	48	Hydraulic coupling gear box Servicing/Ov
1	49	Hydraulic coupling to Gear box/Motor all
1	50	HC Gear box to Pump allignment
1	51	Hydraulic coupling tube servicing
1	52	Hydraulic coupling Servicing/Overhauling
1	53	Hydraulic coupling oil replacement
1	54	Filter/Valve/Hose pipe/Cooler servicing
1	55	Gasket packing replacement of pipeline j
1	56	Oil seal change of Hydraulic Coupling/Ge
1	57	Preventive checking of pumps/Equpts
1	58	O H of Ash Water Pump IPH
1	59	P M of Ash Water Pump IPH
1	60	Brg/Sleeve replacement of AW Pumps
1	61	Sump jetting nozzel replacements/body ma
1	62	O H of F/F pump
1	63	PM of F/F pump
1	64	Trail run/inspection of diesel F/F pump
1	65	Close open of slurry line plate(spectacl
1	66	Float level indicator maintenance

Line Item No	Activity SINo.	Service Description
1	67	Ash slurry sump plug gate valve OH/servi
1	68	Patch welding/Jackting
1	69	OH of Turbocirculator
1	70	PM of Turbocirculator
1	71	OH of Agitator/stirrer
1	72	PM of Agitator/stirrer
1	73	OH of Chemical dosing pumps
1	74	PM of Chemical dosing pumps
1	75	OH of sludge pump
1	76	PM of sludge pump
1	77	OH of Flash mixture/sludge sump
1 .	78	OH of Agitators of Chemical Tanks
1	79	Turbo circulator wheel allignment/changi
1	80	Turbo circulator gear box repair/replace
1	81	Repair/replacement of driving gear box.
1	82	Alignment of bridge of Clarifloculator
1	83	OH of Barge area Recovery Water Pump
1	84	PM of Barge area Recovery Water Pump
1	85	Brg/Sleeve replacement Barge area Recove
1	86	Gland packing replacement HT motor pumps
1	87	HDPE pipe replacement/ relaying/extentio
1	88	300NB valve Replacement/Repairing

Line Item No	Activity SINo.	Service Description	j.
1	89	Pontoon maintenance/ Repositioning	
1	90	Manpower assistance for Barge area O&M i	*
1	91	Manpower assistance for Barge area O&Min	
1	92	Manpower assistance for chemical storage	
1	93	Manpower assistance for Chemical dosing	A STATE OF THE STA
1	94	Greasing of Bearings	*
1	95	700NB valve Replacement /Repairing	
1	96	Emergency ash slurry line leakage attend	1
1	97	Replacement/OH of Air release valve	
1	98	Sleeve coupling cover fixing/Replacing	
1 .	99	Transportation of Material from CPP to I	
1	100	Transportation of Material from IPH to B	

Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 11 of 59

SAP Service Purchase Order

Contains

1st Page

- 1. Bidder Details
- 2. NIT & BID Details
- 3. Contract Period & Values

2nd Page

4. Other Terms & Conditions of Contract

3rd Page

5. Bill of Quantity & Schedule of Rates



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 12 of 59

PART -A

Contract Specific Information



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 13 of 59

ANNEXURE-IA

SUB: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

SCOPE OF WORK:

1. Overhauling of Ash Slurry Pump.

The contractor has to isolate the suction & discharge line as required. Under this scope of work, contractor has to remove all the accessories to dismantle the pump after ensuring electrical and process isolation .Suction cover, suction liner, impeller, bracket side liner, end cover, gland housing etc. are to be cleaned and inspected properly for any abnormality/defects.. Bearing housing to be dismantled and bearings are to be cleaned properly with diesel or kerosene. Inspection of all parts is to be done, damaged bearings and oil seals, 'O' rings to be replaced as per direction of Manager-incharge. Worn out parts are to be replaced as required. Then bearing housing is to be boxed up. Bracket side cover with gland housing liner, expeller and impeller is to be fitted. Casing is to be fitted with suction liner and suction flange. All the fittings like, seal water line, pressure gauge, vent valve and V belts etc. are to be fitted and alignment to be done and belt guard to be positioned, oil is to be topped up in bearing housing and oil seal points to be greased. Necessary coupling and alignment is to be done by the party by engaging high skilled man power. Trial run to be taken up after carrying out necessary changeover of pump series, to entire satisfaction of Manager-in-charge. For overhauling, if minor welding to be required the same to be done with free of cost. After completion, contractor has to return all damaged spares to store as per instruction of Manager-in-charge. Contractor has to arrange hydraulic jack for removing pumps, pulley etc. After completion of work trial run of the pump is to be taken after carrying out necessary changeover of pump series. If the pump is replaced with a new pump, the old pump is to be overhauled and kept ready for future use.

2. PM of Ash Slurry Pump.

The contractor has to isolate the suction & discharge line as required. The pump is to be electrically isolated. Pump to be decoupled. Pump to be dismantled from casing. The casing and all the parts are to be removed and inspected. Worn out parts are to be replaced as per direction of Manager-incharge. Pump is to be assembled and necessary coupling and alignment is to be done. Impeller adjustment is to be done. Proper greasing, cleaning is to be done. Contractor has to issue new materials and return all damaged spares to store as per instruction of Manager-in-charge. The job will be declared complete only after successful trial run.

3. DE/NDE Oil Seal Replacement ASP.

The electrical isolation is ensured before start of work. Suction guard and belts are to be removed. Then pump's pulley is to be removed. End cover of bearing housing is to be dismantled and oil is to be drained into a clean container. Oil seal is to be removed. New oil seal is to be fitted and greasing is to be done, oil is to be topped up and belt guard is to be provided. To remove the pumps pulley, contractor has to arrange the necessary tools and tackles like hydraulic jack and pump etc. to carry out the job. Trial run to be taken after completion of the job.

4. V-Belts Replacement/Tightening of ASP.

Belt guard is to be removed and all the four foundation bolts of motor to be loosened after ensuring electrical isolation. Belts are to be tightened or replaced as per direction of Manager-in-charge. Alignment is to be done and belt guard is to be positioned. Trial run is to be taken. The belts are to be changed in sets. Damaged belts are to be disposed of at designated scrap yard.

5. Built Up of Worn Out Parts of ASP.

The worn out portion of the required item part is to be welded with E-119 electrode or its equivalent and the electrodes are to be checked and certified by EIC prior to start of work. The welded portion to be ground by grinding for proper dimensional accuracy & matching. These parts to be welded with utmost care to avoid cracking.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 14 of 59

6. Pump Pulley Bolt Tightening & Alignment.

The belt guard is to be removed. The belts are to be taken out by loosening the motor foundation bolts. The bolt is to be welded to the pump shaft after doing the required edge preparation. The welding rod is to be used for welding should be CGS 680 L & T make. After the welding the pump pulley is to be positioned back in case it is disturbed. Then belts are to be fitted & pump pulley & motor pulley alignment is to be done. Belt guards is to be fitted & pump trial run is to be taken.

7. Pump Pulley Tightening.

If the pump pulley is in loosened condition over the pump shaft & pump pulley can be positioned back without removal of belt, then removal of belt is not required. The broken bolt can be directly welded to the shaft only by removing the belt guard. After the welding the belt guard is to be fitted back & trial run is to be taken.

8. Gland Packing Replacement of LT Motor Pumps.

The scope covers for all LT motor pumps inside IPH and Barge area i.e. Clear water, HP/LP, Seal water, Drain water, F/F, Sludge Pump, seal water pump etc. The old gland packing is to be removed from the stuffing box after ensuring proper water/slurry line isolation. The new gland packing are to be fitted and trial run to be taken.

9. Oil Change of Pumps/G. Box/FC/Oil Tank.

The used oil is to be removed from the machine & new recommended oil is to be poured in the machine up to the required level as per direction of Manager in charge. The used oil is to be stored. This is valid for running equipment only.

10. Seal Water Line Chocking Removal of ASP.

For clearing chockage in Seal water pipe line or deposited ash/foreign material in the pipe line, open the flanges or valves near the Ash slurry pumps and flushing line till sufficient water comes through the line. The deposited ash/foreign materials is to be cleared either manually or by water jet. Any foreign material in the line should remove. Then all the valves and flanges are to be positioned back & trial run of the pump is to be taken. The job must be carried out under proper supervision and adequate safety measure must be ensured.

11. OH of Clear water /Seal water Pump.

The contractor has to isolate the suction & discharge line as required. Under this scope of work, contractor has to remove all the accessories to dismantle the pump after ensuring electrical and process isolation. The scope includes dismantling of motor, complete pump assembly. All the bearings including ball, thrust, bush etc are to be removed, cleaned thoroughly with kerosene/diesel and inspected for any defects. Column pipe, suction bell, intermediate bell, impellers, line shaft, head shaft, pump shaft etc are to dismantled. All the parts are to be cleaned and inspected. All defective parts are to be repaired/replaced as per the decision of the MIC. Pump to be assembled and necessary coupling and alignment is to be done. Trial run of the pump is to be taken after completion of job. The job will be declared completed only after successful trial run. If the pump is replaced with a new pump, the old pump is to be overhauled and kept ready for future use.

12. PM of Clear water /Seal water Pump.

The contractor has to isolate the suction & discharge line as required. The pump is to be electrically isolated. The casing to be removed and all the parts to be removed and all the parts to be inspected. Worn out parts to be replaced as per direction of Manager-in-charge. Pump is to be assembled and necessary coupling and alignment is to be done. Impeller adjustment is to be done. The job will be declared complete only after successful trial run.

13. Bearing & Sleeve Replacement of FF/HP/LP/CW/SW/Sludge/Drain Pumps.

Pump to be decoupled after ensuring electrical isolation. Defective bearing or sleeve to be dismantled. New bearing or sleeve to be fitted. Bearing to be greased. Gland packing is to be fitted. Alignment is



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 15 of 59

to be done. Trial run of pump is to be taken after completion of job. The job will be declared complete only after successful trial run.

OH & Replacement Butterfly Valves of 350NB.

Butter fly valves installed on different water lines are to be overhauled/replaced as per requirement of Manager-in-charge. The overhauling includes dismantling of the valves, seat adjustment/replacement of neoprene rubber, greasing of the spindle, overhauling of driving mechanism, replacement of gaskets, assembly of the parts and re-erection. The replacement includes change of new valve with gasket and fasteners. The old valve is to be returned to LSP store.

15. OH HP/LP Pump.

Motor is to be decoupled and the same is to be removed after ensuring electrical isolation. Pump is to be isolate the suction & discharge line as required. All the parts like impellers, sleeves, bearings, casings, diffuser etc. to be cleaned properly with diesel or kerosene. Inspection to be done. Defective or damaged parts are to be replaced as per Manager in charge. All the parts to be assembled orderly. Bearings are to be greased. Motor is to be positioned and alignment is to be done. Pump trial run is to be carried out. The job will be declared complete only after successful trial run. If the pump is replaced with a new pump, the old pump is to be overhauled and kept ready for future use.

16. PM HP/LP Pump.

The contractor has to isolate the suction & discharge line as required. The pump is to be electrically isolated. Pump to be decoupled. Pump to be dismantled from casing. The casing and all the parts are to be removed and inspected. Worn out parts are to be replaced as per direction of Manager-in-charge. Pump is to be assembled and necessary coupling and alignment is to be done. Impeller adjustment is to be done. The job will be declared complete only after successful trial run.

17. OH of Seal water pond pump/Drain Pump.

Seal water pond pump/Drain pumps motor to be dismantled and to be taken out after ensuring electrical isolation. Pump's base bolts are to be dismantled and total pump assembly is to be taken out. Bearing, impeller, coupling etc. are to be dismantled and cleaning is to be done. Defective parts are to be replaced as per the direction of Manager in charge. Pump is to be assembled and to be positioned. Motor is to be fitted and alignment is to be done. Greasing of bearings are to be done. The job will be declared complete only after successful trial run. If the pump is replaced with a new pump, the old pump is to be overhauled and kept ready for future use.

18. PM of Seal water pond pump/Drain Pump.

Before start of work proper electrical isolation and permit to work are to be ensured. Sump pump motor to be dismantled and to be taken out. Pump's base bolts are to be dismantled and total pump assembly is to be taken out. Bearing, impeller, coupling etc. are to be dismantled and cleaning is to be done. Worm out or defective parts are to be replaced as per the direction of Manager in charge. Pump is to be assembled and to be positioned. Motor is to be fitted and alignment is to be done. Greasing is to be done and trial run is to be taken. The job will be declared complete only after successful trial run.

19. Replacement/Repair of Submersible pumps.

Submersible pumps are installed in different places of IPH. Which will replace/repair as per the direction of MIC. Before start of work proper electrical isolation and permit to work are to be ensured. Entire pump assembly will be taken out from the bore well or other ponds and cleaning is to be done. Pump to be dismantled from casing. The casing and all the parts are to be removed and inspected. Worn out parts are to be replaced as per direction of Manager in charge. The job will be declared complete only after successful trial run. If the pump is replaced with a new pump, the old pump is to be overhauled and kept ready for future use.

20. Replacement/Adjustment of Coupling.

Before start of work proper electrical isolation and permit to work are to be ensured. The drive coupling is to be either replaced or coupling bolts are to be replaced as per instruction of the MIC.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 16 of 59

The alignment of the coupling is to be checked and adjusted/aligned as per the requirement. Trial run to be checked. The old coupling is to be returned to LSP store after replacement.

21. Servicing of Over Head Crane.

The crane has to be electrically isolated. Greasing to be done at all grease points. All the parts to be cleaned and fasteners are to be tightened. Sling to be inspected and if required the same is to be replaced as per direction of Manager-in-charge. Drum, rope, wheel etc. are to be lubricated properly. Gear box is to be cleaned properly and to be lubricated. Break shoe is to be checked and if required to be replaced. After overhauling, the crane is to be load tested as per direction of engineer in charge. For load testing the loading, unloading & transportation of rolls are to be done by the party at no extra cost to NALCO. Minor cutting and welding if required shall be done by contractor with no extra cost.

22. Valves or NRV Repair/Replacement.

Damaged valves/NRV are to be removed from position and new valve/NRV is to be fitted in position. If nipple found damaged, the same to be removed by cutting and new nipple to be fitted and welded. The cutting and welding to be treated as a part of job and for this no extra claim to be made The scope covers valve/NRV sizes from 15 NB to 50 NB. In case only nipple has damaged, then new nipple to be fitted in new or old valves as per instruction of Manager in charge. The old valve is to be returned to LSP store.

23. Welding.

The contractor has to prepare the edge before the welding as per the requirement of the job. After getting clearance from site-in-charge the welding has to be done with the electrode as specified by manager-in-charge. Necessary steps must be taken for ensuring safe practice in welding appliances. Good quality welding electrodes of appropriate size for mild steel applications must be used. Branded electrodes like MODI, ESAB, D&H, WELDCRAFT etc. must be used. Supply of required welding electrodes, welding machine, tools & tackles, safety appliances & all accessories required for welding are within the scope of the contractor. Necessary steps must be taken for ensuring safety of the work.

24. Gas Cutting.

Contractor has to cut pipes, plates, channels etc. and the cutting charges has to be paid as per running meters basis. Supply of required gases, tools & tackles, safety appliances and all accessories required for gas cutting job are within the scope of the contractor. Necessary steps must be taken for ensuring safe practice in cutting appliances.

25. Painting of Equipments / Structures.

The scope includes application of paints. Paint is to be supplied by NALCO. All the requirements for carrying out painting job like tools & tackles, consumables, scaffoldings etc are included in the scope of the contractor. Paint shall be applied after surface preparation and stage inspections by Manager-in-charge. Surface Preparation: The surface shall be cleaned to remove all the dirt, grease, oil scale and other contamination. When paint is to be applied on damaged paint surface oil & loose flaking paint marks should be removed. First oil & grease should be removed by use of suitable solvents. Then the surface should be washed with clean water and allowed to dry. Before application of paint, the surface should be thoroughly scrubbed & cleaned. Clearance from Manager-in-charge must be taken before application of the paint. Primer, paint & thinner shall be supplied as free issue material. One coat of primer & two coats of paint has to be applied. Inspection will be carried out at every stage of paint application by the Manager-in-charge. If not satisfied at any stage the work should be redone at no extra cost.

26. Painting with Synthetic Enamel Paint.

The scope includes supply & application of paints of approved brand. All the requirements like tools & tackles, consumables, scaffoldings for Painting are included in the scope of the contractor. Paint shall be applied after surface preparation and stage inspections by Manager-in-charge. The surface shall be cleaned to remove all the dirt, grease, oil scale and other contamination. When paint is to be applied on damaged paint surface oil & loose flaking paint marks should be removed. First oil &



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 17 of 59

grease should be removed by use of suitable solvents. Then the surface should be washed with clean water and allowed to dry. Before application of paint the surface should be thoroughly scrubbed & cleaned & clearance of MIC must be taken.

For synthetic enamel painting, the process of application includes

One coat of lead primer.

2) Intermediate coat of high gloss enamel - (Light Shade)

3) Finish coat of high gloss enamel · (Dark Shade)

Application should be as per paint manufacturer's guide lines'. Inspection will be carried out at every stage of paint application by the MIC. If not satisfied at any stage the work should be redone at no extra cost. Documentary evidence has to be produced by the party against purchase of paints. The paints to be used must be of reputed brands like Johnson & Nicholson, Asian Paints & Berger paints only.

27. Erection of Cast Basalt lined pipe (350NB X 6Mtr Length).

Erection of Cast Basalt lined piping system shall include receiving of pipes from Nalco/Site store, loading, unloading, transportation to site. The scope includes, edge preparation, cleaning the pipes with wire brush / water flushing, card board brushing, positioning of pipes over pedestals / anchor blocks, foot bridge, alignment, joining by welding, clit welding on the top of the two pipe joints, anchoring with MS channels, angles, flats, rods etc. by welding and providing clamps on the pipes. If earth excavation or removal of ash is required for erection of pipes, then it is to be done by the party and the same is to be filled after erection job is complete with no extra cost. Scope also includes Old dismantled CB pipe are to be returned to the stores without any extra cost. Leak test is to be done. The job will be declared complete only after successful leak test. If leakage will found, the same work should be redone at no extra cost.

28. Removal/Fixing of MS clamps(350/450NB).

Clamp bolts/ clamps are to be cut and the pipes are to be positioned. New clamps are to be provided. Tack welding is to be done to the clamps with the pipes & foundation bolts. Clamps are to be provided by NALCO as free issue material. Collection of clamps from stores and returning of old/damaged clamps/nut/bolts/fittings to the stores are included in the scope.

29. Attending/Replacing Gland Leakage of Valves.

Gland leakages of various valves are to be attended by opening the gland bush, replacing the new gland packing, tightening of gland follower and gland nuts. The job will be declared complete only after successful leak test. If leakage will found, the same work should be redone at no extra cost.

30. Replacement/ Leakage Attending of Ash Disposal Line Sleeve Coupling.

Erection of Sleeve Coupling shall include receiving of Sleeve Coupling from Nalco/Site store, loading, unloading, transportation to site and return back old material to store. Contractor has to cut the welded bolts and welded sleeve covers. Sleeve coupling has to be dismantled and rubber rings are to be checked. Worn out parts are to be replaced. If required to replace the complete sleeve coupling, the same is to be executed as per the instruction of the Manager in —charge. Leak test is to be done. All the bolts are to be tightened and to be tack welded. Old dismantled materials are to be returned to the stores. Excavation of earth / ash if required for the job, the same is to be carried out by the contractor at no extra cost. The job will be declared complete only after successful leak test. If leakage will found, the same work should be redone at no extra cost.

31. M.S./C.I. Bend/Spool/Reducer/Y/T Piece Replacement.

Contractor has to cut the sleeve coupling bolts fitted with the damaged Cast Basalt/MS/Spool/Y/T piece etc. Then damaged bend/Spool/Reducer/Y/T piece is to be removed after chipping the RCC/PCC grouting block. New Bend/Spool/Y/T piece is to be positioned and welded or coupled with the pipe as per the requirement. Proper anchoring is to be provided. Coupling bolts are to be tag welded. Chipping of existing pedestal/concrete block if required is to be executed by the contractor at no extra cost. The system shall include receiving of pipes/materials from Nalco/Site store, loading, unloading, transportation to site and return back old material to store. The grouting of the same will be executed by civil. The job will be declared complete only after successful leak test. If leakage will found, the same work should be redone at no extra cost.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 18 of 59

32. Dismantling/Removal of disposal pipe line of 350NB.

Dismantling of the existing 350 NB MS ERW ash slurry pipe lines laid on the pedestals / laterals as per the required length by removal of sleeve coupling or by gas cutting as per the instruction of the Manager-in-charge. Transporting of these pipes & fittings from site to Nalco store by suitable lifting equipment's without damaging road/drains /embankments/rock-toe. No extra cost shall be charged for transportation / loading/ unloading. If earth excavation or removal of ash is required for dismantling of pipes, then it is to be done by the party at no extra cost. The deposited ash is to be properly cleaned from inside of the pipes before returning to store.

33. Erection of ash disposal pipe line of 350NB.

Erection of 350NB MS ERW piping system shall include receiving of pipes from Nalco/Site store, loading, unloading, transportation to site. Cutting the pipes to required length, edge preparation, cleaning the pipes with wire brush / water flushing, card board brushing, positioning of pipes over pedestals / anchor blocks, foot bridge, alignment, joining by coupling/welding, anchoring with MS channels, angles, flats, rods etc. by bolting or welding and providing clamps on the pipes.

Synthetic Enamel Painting of pipes must be carried out before erection with extra charges as per item rate under the said item. Billing against erection of pipes will be made only after completion of

synthetic enamel painting of the pipeline.

If earth excavation or removal of ash is required for erection of pipes, then it is to be done by the party and the same is to be filled after erection job is complete at no extra cost. The job will be declared complete only after successful leak test. If leakage will found, the same work should be redone at no extra cost.

34. Dismantling/Removal of Ash disposal pipeline 450NB

Dismantling of the existing 450 NB MS ERW ash slurry pipe lines laid on the pedestals / laterals as per the required length by removal of sleeve coupling or by gas cutting as per the instruction of the Manager-in-charge. Transporting of these pipes & fittings from site to Nalco store by suitable lifting equipment's without damaging road/drains /embankments/rock-toe. No extra cost shall be charged for transportation / loading/ unloading. If earth excavation or removal of ash is required for dismantling of pipes, then it is to be done by the party at no extra cost. The deposited ash is to be properly cleaned from inside of the pipes before returning to store.

35. Erection of Ash disposal pipeline 450NB

Erection of 450NB MS ERW piping system shall include receiving of pipes from Nalco/Site store, loading, unloading, transportation to site. Cutting the pipes to required length, edge preparation, cleaning the pipes with wire brush / water flushing, card board brushing, positioning of pipes over pedestals / anchor blocks, foot bridge, alignment, joining by coupling/welding, anchoring with MS channels, angles, flats, rods etc. by bolting or welding and providing clamps on the pipes.

Synthetic Enamel Painting of pipes must be carried out before erection with extra charges as per item rate under the said item. Billing against erection of pipes will be made only after completion of

synthetic enamel painting of the pipeline.

If earth excavation or removal of ash is required for erection of pipes, then it is to be done by the party and the same is to be filled after erection job is complete at no extra cost. The job will be declared complete only after successful leak test. If leakage will found, the same work should be redone at no extra cost.

36. Erection of cast basalt lined pipe 450NB (450NB X 6Mtr Length)

Erection of Cast Basalt lined piping system shall include receiving of pipes from Nalco/Site store, loading, unloading, transportation to site. The scope includes, edge preparation, cleaning the pipes with wire brush / water flushing, card board brushing, positioning of pipes over pedestals / anchor blocks, foot bridge, alignment, joining by welding, clit welding on the top of the two pipe joints, anchoring with MS channels, angles, flats, rods etc. by welding and providing clamps on the pipes. If earth excavation or removal of ash is required for erection of pipes, then it is to be done by the party and the same is to be filled after erection job is complete with no extra cost. Scope also includes Old



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 19 of 59

dismantled CB pipe are to be returned to the stores without any extra cost. Leak test is to be done. The job will be declared complete only after successful leak test. If leakage will found, the same work should be redone at no extra cost.

37. Fabrication of M.S. Bend /Tee/Reducer/Y pieces

Fabrication of 350/450NB piping system shall include receiving material from stores (Nalco-CPP) loading /unloading, transportation, safe storage, cleaning, by wire brushing, water flushing wherever required, cutting ,welding, levelling, threading, preheating, bending, setting, alignment, gas cutting, welding, liner fixing, flange welding wherever necessary. All necessary bend, Tee, 'Y' piece, Reducers, shall be fabricated from 350/450NB M.S. ERW straight pipes length as per the fabrication drawings/site conditions to be furnished by the contractor and got approved from the MIC.

38. Attending leakage of ash water recycle pipe line (700NB).

Ash water recycle pipeline leakage is to be attended as and when required. The contractor has to mobilize his manpower along with tools and tackles to the spot as per the instruction of site incharge. The scope of work covers patch welding work at the leakage point by arranging excavator, water pumping machine, welding machine, gas cylinders, gas cutting sets, Hydra and other required tools and tackles, transporting to the leakage spot. After completion of welding, if required rapping coating/painting should done as per site requirement instructed by MIC. All Machinery, Transportation, consumables like welding rods, gas, etc is in the scope of the contractor.

39. Dismantling and fitting of dummy plates/through plates

The work includes cutting of the flange bolts for removing/ taking out the dummy/ through plate, cleaning of faces of the flange and providing new dummy / through plate with new gaskets, nuts and bolts. Tack welding of the bolts & nuts after tightening and leakage test is to be done. Selection of dummy and through plates will be done by MIC.

40. Ash Slurry Line Valve Servicing/replacement 450mm:

The valve is to be dismantled and clamping ring, O-ring, U-seals, body seat etc are to be taken and cleaned thoroughly. Eroded/damaged parts are to be replaced as directed by Manager-in-charge. Minor welding is included in the scope. Valve is to be assembled and erected with new gasket and free operation of the valve is to be ensured. If required defective valve is to be dismantled and new valve is to be installed with new gasket packings. If the valve is replaced with a new valve, the old valve is to be overhauled and kept ready for future use. Water is to be charged and valve to be leak tested. Contractor will arrange all the lifting tools for carrying out the job. It include receiving of valve from Nalco/Site store, loading, unloading, transportation to site and return back old material to store.

41. Suction/Discharge pipe/Bend/Y chocking removal.

The associated valves must be closed. If required the suction/discharge side bend/Y/spool/reducer etc. is to be dismantled from its position. The suction pipe including the suction bend/Y are to be cleared off deposited ash/foreign materials either manually or by water jet. Any foreign material in the suction area of sump to be manually removed. Then the suction bend is to be positioned back & trial run of the pump is to be taken. Any scaffolding required for the job is to be done by the party. The job must be carried out under proper supervision and adequate safety measure must be ensured.

42. Man Power Assistance for O&M of IPH in Skilled Category.

For O&M of IPH, (01) One no of manpower in SW category is to be deputed in all shifts (3 shifts x 365 days) for providing necessary assistance required for the smooth running the pump house and return water system of LSP. The manpower deployed will be overall responsible for co-ordination with NALCO personnel & subordinates of the contracting agency for smooth execution of O&M activities of IPH and Barge area.

43. Man Power Assistance For O&M of IPH in Semi-Skilled Category

For O&M of IPH, (01) One no of manpower in SSW category is to be deputed in all shifts (3 shifts x 365 days) for providing necessary assistance required for the smooth running the pump house. The



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 20 of 59

manpower deployed will provide required assistance for facilitating O&M activities of IPH, coordinate with OBPH & Barge Area operators for smooth operation of the LSP system.

44. Man Power Assistance For O&M of IPH in Un-Skilled Category

For O&M of IPH, (03) three nos manpower in USW category is to be deputed in all shifts (3 shifts x 365 days) for providing necessary assistance required for the smooth running the pump house. The manpower deployed will provide assistance for opening and closing of valves, assistance for minor maintenance, for pipe choking clearing, assistance in pump house related works etc.

45. Dismantling/Removal of MS and other pipes (200NB)

Dismantling of the existing pipe lines laid on the pedestals/laterals/supports as per the instruction of the Manager in—charge without damaging any part and transporting the pipes & fittings to the scrap yard /Nalco stores. No extra cost shall be charged for transportation /loading/unloading. If excavation of earth or removal of ash is required for gas cutting /coupling removal, then it is to be done by the contractor at no extra cost. Damaged/removed pipe to be cut into maximum 6 meter length & to be returned to store in clean condition. The deposited ash to be cleaned properly from the inside of the damaged pipe before returning to store. Any scaffolding required for the job will be done by the party with no extra cost. The base rate calculated for ash, water, ash slurry pipe lines of 200 NB .For pipes of different diameter appropriate note (FORMULA-A /B) may be referred as stated in the terms and conditions. The rates for other size pipes (except 450NB) will be determined by the formula given

NOTE:

 For the pipe above 200 NB, the rate shall be 18% above the base rate of 200 NB pipe. For every 50 NB increase in pipe size as per formula-'A'

For pipes/tubes below 200 NB the rate shall be indirect proportional to the rate of 200 NB pipe as
for example for 100 NB pipe, it shall be 200 NB rate 100 for 40 NB pipe, it shall be 200 NB rate x
40/200 & so on.

The rates shall be applicable to the all length and no separate payment shall be made for scaffolding etc. or any such arrangements.

The rates including cutting, levelling, fitment welding, erection of valves, flanges, tees, pipe
fittings etc. if any in the piping system. Cutting and size of pipe ranges from 15 NB to 400 NB.

46. Fabrication / Erection Of Ms and Other Pipes (200NB)

Contractor has to cut the damaged portion of pipe line, clamps and supports etc. at site and these are to be removed. New pipe to be erected and necessary fitting to be fitted such as valves, couplings, clamps, supports etc. and for these no extra claim to be made. If required bends are to be fabricated, only cutting and welding charges are to be paid extra. Leak test to be done by charging the line. Damaged/removed pipe to be cut into maximum 6 meter length & to be returned to store in clean condition. For fabrication and erection of new pipe line, contractor has to shift the new pipe from substore/Central store to work site and necessary fittings to be fitted as per direction of Manager-incharge. If excavation of earth/ash or removal of ash /ash slurry required for pipe erection/positioning, then the same is to be done by the contractor with no extra cost. Any scaffolding required for this job to be done by party with no extra cost. Pipes shall be painted properly with single coat of primer and double coat of synthetic enamel. The base rate calculated for ash,water, ash slurry pipe lines of 200 NB .For pipes of different diameter appropriate note (FORMULA-A /B) may be referred as stated in the terms and conditions. The rates for other size pipes (except 450NB) will be determined by the formula given.

NOTE -

 For the pipe above 200 NB, the rate shall be 18% above the base rate of 200 NB pipe. For every 50 NB increase in pipe size as per formula A'

 For pipes/tubes below 200 NB the rate shall be indirect proportional to the rate of 200 NB pipe as for example for 100 NB pipe, it shall be 200 NB rate 100 for 40 NB pipe, it shall be 200 NB rate x 40/200 & so on.

The rates shall be applicable to the all length and no separate payment shall be made for scaffolding etc. or any such arrangements.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 21 of 59

 The rates including cutting, levelling, fitment welding, erection of valves, flanges, tees, pipe fittings etc. if any in the piping system. Cutting and size of pipe ranges from 15 NB to 400 NB.

Erection of piping system shall include receiving of pipes from Nalco/Site store, loading, unloading.

47. Replacement/Repair of Valve & NRV (for 200 NB size).

The scope is valid for 200 NB size. For other sizes appropriate note (FORMULA-C) may be referred. Contractor has to dismantle the bolts of the flanges and defective valves to be taken out and return the same to store. New valve to be fitted by providing new gasket packing and bolts are to be tightened. Valve to be tested by charging the line. Minor cutting/welding is included in the scope. The scope covers valve size from 50 mm and above (except 450NB slurry valves).

NOTE: -

- 1. For valve 200 NB the rate shall be 25% above the base rate of 200 NB valves, for every 50 NB increase in the valve size as per formula-'C'.
- For valve below 200 NB the rate shall be indirect to proportional is to the rate of 200 NB valve (for 100/200 example for 100 NB valve it shall be 200 NB rate x 100/200 as per formula B'.
- The rate shall be applicable for all types of valves (excluding welded and connection valves) and all materials of construction and pressure rating.
- 4. No separate payment shall be made for erection of valve, if it is a part of erection of piping.
- 5. Erection of valves shall include receiving of valves from Nalco/Site store, loading, unloading.

48. Hydraulic coupling gear box Servicing/Overhauling.

For this job the contractor has to do the following activities.

- 1. Removal of gearbox by de-coupling from both side.
- 2. Contractor has to shift the gear box to a suitable working place. For shifting of gearbox Hydra/Crane will be used.
- 3. Gearbox assembly is to be completely dismantled for inspection of the internal parts like gears, oil seal, pinion etc and bearings. Inspection of the internal parts is to be carried out after proper cleaning with diesel. The contractor has to engage skilled manpower for the job.
- 4. If any parts are found to be defective, the same are to be replaced or repaired as per the instruction of Manager-in-charge. The spares to be replaced if any will be supplied by NALCO free of cost. Then different parts of gear box are to be assembled up to the satisfaction of Manager-in-charge.
- 5. The old oil of the gear box is to be put in an empty barrels and to be shifted to a place as per the instruction of Manager-in- charge. Required quantity of new oil is to be drawn from the stores and to be filled in the gear box after proper cleaning.
- 6. Complete assembled gear box is to be positioned for erection & alignment of the same. The job will be declared complete in all respects only after successful trial run. If the gear box is replaced with a new gear box, the old gear box is to be overhauled and kept ready for future use.

49. Hydraulic coupling to Gear box/Motor alignment.

Under this scope, the contractor has to check the alignment of Hydraulic coupling to Gear box/Motor. If misalignment is observed the party has to carry out the alignment job. Removal and subsequent positioning of equipment is to be carried out by contractor. The contractor has to make arrangement to bring all special tools and tackles like dial gauge, dial gauge frame, feeler gauge etc. The contractor has to engage skilled technicians for the job. The payment will be made as per the No. of alignments checking job carried out by the contractor till final acceptance by MIC. If misalignment found, then the contractor has to repeat the job with no additional cost till proper alignment is achieved. The alignment reading must be verified by manager in charge or supervisor. In the entire process of alignment, if any foundation level problem is observed the same civil engineering job is to be carried out by NALCO.

50. HC Gear box to Pump alignment.

Under this scope, the contractor has to check the alignment of Gearbox to Pump. If misalignment is observed the party has to carry out the alignment job. Removal and subsequent positioning of equipment is to be carried out by contractor. The contractor has to make arrangement to bring all special tools and tackles like dial gauge, dial gauge frame, feeler gauge etc. The contractor has to



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 22 of 59

engage skilled technicians for the job. The payment will be made as per the No. of alignments checking job carried out by the contractor till final acceptance by MIC. If misalignment found, then the contractor has to repeat the job with no additional cost till proper alignment is achieved. The alignment reading must be verified by manager in charge or supervisor. In the entire process of alignment, if any foundation level problem is observed the same civil engineering job is to be carried out by NALCO.

51. Hydraulic coupling tube servicing.

The work involves dismantling of the scoop tube cover along with the cover ring, sleeve & bellows. Then the scoop tube is to be taken out of its housing carefully and it to be cleaned thoroughly with diesel. If required, the contractor has to check its trueness and do the necessary polishing work, if required. Then all the dismantled parts are to be fitted in position for free movement of the scoop tube. If any defective valves found, it has to be replaced as per the instruction of Manager in charge. The job will be declared complete only after successful trial run.

52. Hydraulic coupling Servicing/Overhauling

For this job the contractor has to do the following activities.

1. Removal of Hood, both side gear couplings and top cover of Hydraulic Coupling.

Contractor has to shift the coupling to a suitable working place. For shifting of Hydraulic Coupling Hydra/EOT Crane are to be used.

3. Complete dismantling of the fluid coupling, gear pump and scoop tube etc are to be carried out. Then the internal parts of the fluid coupling like bearings and different parts are to be inspected after proper cleaning of the same. The spares which need replacement will be supplied by NALCO free of cost. The contractor has to engage highly skilled manpower for the same.

4. After completion of job, the different parts of Hydraulic Coupling are to be assembled to the

satisfaction of Manager -in-charge.

5. The old oil of the Hydraulic Coupling is to be put in an empty barrel and to be shifted to a place as per the instruction of Manager in charge. Required quantity of fresh oil is to be drawn from the store and top up in the Hydraulic Coupling tank after through cleaning of the same.

6. Complete assembled fluid coupling is to be shifted to the pump position for erection & necessary arrangement is to be done for proper position of fluid coupling with its auxiliary fitting items. After positioning of fluid coupling, its top cover, hood etc to be fitted in position to complete the Hydraulic Coupling assembly work in all respect.

53. Hydraulic coupling oil replacement

The old oil of the Hydraulic coupling is to be put in an empty barrel and to be shifted to a place as per the instruction of Manager in charge. Required quantity of fresh oil is to be drawn from the store and to be filled in the Hydraulic coupling after proper cleaning of the oil tank & view glass. Before filling new oil in the tank, the following works are to be carried out.

1) Removal of Hydraulic coupling hood cover.

2) Decoupling of both sides couplings & scoop tube connection.

3) Removal of oil tank cover.

4) Removal of hydraulic coupling with proper care.

5) Removal of oil sediments inside the tank & cooler proper cleaning with diesel, mark in cloth & air.

6) After satisfactory cleaning & inspection by the engineer in -charge, the hydraulic coupling is to be placed in position with related oil pipes. After completion of internal work, the oil tank cover to be put in position & bolts are to be tightened. After completion of the entire job, the scoop tube is to be connected as earlier.

54. Filter/Valve/Hose pipe/Cooler servicing.

1. The scope includes overhauling of gear pump of the system. All the cooling water line valves gland packing are to be replaced and stem should be greased. If any defective valves found, it is to be



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 23 of 59

replaced as per the instruction of Manager-in-charge. The contractor has to draw materials from the store and rejected ones are to be returned to sub-store.

Hydraulic coupling oil lines filters and coolers are to be cleaned. Any defective filters & coolers are
to be replaced as per the instruction of Manager in charge.

 If any valves on oil line are found to be defective, those are to be replaced or repaired as per the instruction of Manager-in-charge.

4. Gear pump is to be overhauled when required.

5. Lube oil system foundation area with cooler outer & pipe lines etc are to be cleaned properly.

55. Gasket packing replacement of pipeline joints.

In this scope contractor has to change Gasket of slurry pipeline joints as per instruction of MIC. Due to damage of gaskets, leakage is found in pipelines. Contractor has to open the nut bolts of flanges in pipeline and remove the damaged gaskets, replace with new gaskets. Bolting of all nut bolts are to be carried out after replacement of gaskets. If required nut bolts are to be replaced with new one as per instruction of MIC. If leakage will found after slurry charging, the same will be done again without any extra charge. Gasket and spare parts will be provide by NALCO free of cost. All machinery, tool tackles are in the scope of contractor.

56. Oil seal change of Hydraulic Coupling/gear boxes/pumps (DE/NDE).

Oil seal is to be changed as per instruction of MIC. The pump/gearbox/HC is to be taken out by isolating it from suction side, discharge side & gearbox side. The damaged oil seal is to be replaced with a new seals after dismantling the pump as per instruction of MIC. The pump is to be fitted back in its original position, oil is to be topped up and necessary alignment is to be done and couplings are to be fitted back. Necessary alignment is to be carried out by the party by engaging skilled manpower. The job will be taken as completed only after taking the trial run and no leakage is observed. In case of any leakage or vibration in the equpt the same is to be rectified by the party without any additional cost.

57. Preventive checking of pumps/ Equipments.

The scope covers all the equipment like ash slurry disposal pumps, HP/LP seal water pumps, Ash water recovery pumps, Sludge pumps, F/F pumps, gear box, fluid coupling, and float level system at IPH. The pump gland to be checked against any leakage and to be tightened if required, greasing of all pump and motor if required, oil level to be checked in bearing housing and oil to be topped up if required, gear box & hydraulic unit oil level to be checked and topped up if required, belt condition to be checked, gland drain pipe to be checked against choking or over flow and to be rectified if required. The functioning of float level indicator at ash slurry sumps be checked and to be rectified for smooth operation. The problems noticed in any equipment or valve to be inform to IPH Maintenance I/c and minor problem should be attended immediately. The scope is inclusive of all the above jobs.

58. O H of Ash Water Pump Recovery IPH.

The contractor has to isolate the suction & discharge line as required. The pump is to be electrically isolated. Pump to be decoupled. Under this scope of work, contractor has to remove all the accessories to dismantle the pump after ensuring electrical and process isolation. Suction cover, suction liner, impeller, bracket side liner, end cover, gland housing etc. are to be cleaned and inspected properly for any abnormality/defects.. Bearing housing to be dismantled and bearings are to be cleaned properly with diesel or kerosene. Inspection of all parts is to be done, damaged bearings and oil seals, 'O' rings to be replaced as per direction of Manager-in-charge. Worn out parts are to be replaced as required. Then bearing housing is to be boxed up. Bracket side cover with gland housing liner, expeller and impeller is to be fitted. Casing is to be fitted with suction liner and suction flange. All the fittings like, seal water line; pressure gauge, vent valve etc. are to be fitted and alignment to be done, greasing to be done and coupling to be done after alignment. Necessary coupling and alignment is to be done by the party by engaging skilled man power. Trial run to be taken up after carrying out necessary changeover of pump series, to entire satisfaction of Manager-in-charge. For overhauling, if minor welding to be required the same to be done with free of cost. After completion, contractor has to



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 24 of 59

return all damaged spares to store as per instruction of Manager-in-charge. Contractor has to arrange dial gauges, hydraulic jack for removing pumps, pulley etc. The job will be declared complete only after successful trial run. If the pump is replaced with a new pump, the old pump is to be overhauled and kept ready for future use.

59. P M of Ash Water Pump Recovery IPH.

The contractor has to isolate the suction & discharge line as required. The pump is to be electrically isolated. Pump to be decoupled. Pump to be dismantled from casing. The casing and all the parts are to be removed and inspected. Worn out parts are to be replaced as per direction of Manager incharge. Pump is to be assembled and necessary coupling and alignment is to be done. Impeller adjustment is to be done. Proper greasing, cleaning is to be done. Contractor has to issue new materials and return all damaged spares to store as per instruction of Manager in charge. The job will be declared complete only after successful trial run.

60. Brg/Sleeve replacement of Ash Water Recovery Pumps

Pump is to be decoupled after ensuring electrical isolation. Defective bearing or sleeve are to be dismantled. New bearings or sleeve are to be fitted. Bearings are to be greased. Gland packing is to fitted. Alignment is to be done. Trial run of pump is to be taken after completion of job. Contractor has to issue new bearings and return all damaged bearings to store as per instruction of Manager-incharge. The job will be declared complete only after successful trial run.

61. Sump jetting nozzle replacements/body maintenance.

In this scope contractor has to replace/repair jetting nozzles or pipe fitting to main jetting headers attached to jetting nozzle as per instruction of MIC. Welding, cutting and fitting of nozzle or pipe are in the scope of contractor. If required minor welding cutting in jetting pipe lines to be done by contractor without any additional cost.

62. O H of F/F pump (Both Engine & Motor driven).

The scope involves removal of motor / gear box, dismantling of pump, repair / replacement of worn out parts and cleaning. All rust and seals shall be removed by wire brush or emery cloth or by mechanical means to remove sufficiently the loose rust, scale, old coating. Special care shall be taken to remove grease and oil by means of suitable solvents. The scope also include worn-out portion of the column pipe to be welded/repaired by party. Painting may be done by brush. Motor stool to be painted with chloro rubber paint without any extra cost. The contractor has to show the original challan of the purchase slip on demand by the Manager-in-charge. Red lead primer shall be used for protection against rusting and corrosion. Two coats of chloro rubber paint (Grey / Black) shall be applied over red lead primer. Paint of the following brands is to be used.

a) Asian Paints. b) Johnson & Nicholson. c) Shalimar Paints. d) Berger Paints. e) Nerolac Paint The contractor has to re-weld by suitable electrodes of reputed manufacturers like L&T, D&H, ADVANI, COSMIC FONTECH, ESSAB. MODI etc. only at all such places like support column pipe and other areas wherever there is erosion of parent materials. Consumables like electrodes, Gas etc. will be arranged by the contractor. Reassembly, alignment of pump and motor, normalization and trial run is also covered in this scope. If requires, blue matching of the different mating surfaces are to be done by the contractor without any extra cost.

63. PM of F/F pump.

The contractor has to isolate the suction & discharge line as required. The pump is to be electrically isolated. Decouple the motor. Remove the motor, TBH, Stuffing Box etc. Inspect and replace the bearing of Stuffing Box and Stuffing Box Sleeve, if required. Replace the Gland. Place the Stuffing Box, TBH and Motor. Lub oil to be fill up. Alignment, Coupling and Trail Run of the Pump to be taken after completion of job. The job will be declared complete only after successful trial run.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 25 of 59

64. Trail run/inspection of diesel F/F pump.

In this scope contractor has to check the lub oil level, diesel level of diesel f/f pump tank, and inspection other parts of pump in daily basis and take trail run for checking the healthiness of F/F pump. Which will inform to IPH I/c in daily basis. Minor maintenance like lub oil top-up, diesel top up and tighten of gland etc. are in the scope of this item.

65. Close open of slurry line plate (spectacle) valves.

All the three bolts of plate valve to be loosened. Plate valve to be closed/opened as per direction of Manager-in-charge. 'O' ring to be checked and if required the same to be replaced. All the bolts to be tightened and leak test to be done. If required the accumulated ash in that area is to be cleaned for close open of the valve. The job is to be carried out with co-ordination with operation deptt.

66. Float level indicator maintenance.

Contractor has to take out the float and the rupture portion to be welded. Leak test to be done by putting it in water. Level guide to be greased, sling to be checked and if it found defective. The same to be replaced as per the direction of Manager-in-charge. If the float guide got ruptured, the same is to be replaced. Finally, working condition of the float level indicator is to be checked.

67. Ash slurry sump plug gate valve OH/servicing.

The plug gate valve of ash slurry sump is to be dismantled after electrical isolation. Clamping ring, O-ring, rubber seat, body seat etc are to be taken and cleaned thoroughly. Eroded/damaged parts are to be replaced as directed by Manager-in-charge. Minor welding is included in the scope. Valve is to be assembled and erected with new rubber sealing seat and free operation of the valve is to be ensured. If required, defective valve is to be dismantled and new valve is to be installed. Slurry is to be charged and valve leak test is to be checked. Contractor will arrange all the lifting tools for carrying out the job. It include receiving of valve from Nalco/Site store, loading, unloading, transportation to site and return back old materials to store.

68. Patch welding/ Jacketing.

Suitable size patch welding/Jacketing of pipe is to be done over the leakage area as per instruction of MIC. It includes gas cutting, fitting & welding.

69. OH of Turbocirculator

The scope involves complete check of turbo circulator and its rectification. Checking of all gearboxes, lubrication as required, checking of wheel, alignment of rail tracks, checking of stirrer, if any modification on structural, driving gearboxes and chain of driving gearbox, etc. Minor, welding and cutting are in the scope of contractor. All parts of turbo circulator have to be checked and all worn-out Oil seal of gearbox/pumps /other machines are to be replaced with a new one & oil to be replaced if required as per the decision of the MIC. Any abnormality during trial run has to be rectified by the party without any additional cost. The job will be declared complete only after successful trial run.

70. PM of Turbocirculator

- Checking of oil level, oil condition/oil leakage of gearboxes and corrective action to be taken as required.
- ii) Lubrication of all equipment to be checked & if required greasing or oil top up to be done.
- iii) Driving chain condition is to be checked & accordingly corrective action is to be taken.

71. OH of Agitator/stirrer

The scope of work includes fabrication and erection of agitator/stirrers. The scope involves complete dismantling of gearbox, stirrer/agitator shaft assembly etc. thorough cleaning of parts, repair/replacement of worn out parts, reassembly and alignment of the equipment and successful trial run. If the agitator is replaced with a new agitator, the old agitator is to be overhauled and kept



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 26 of 59

ready for future use. Any type of SS welding required in agitator are included in this scope. Checking of gearbox oil level/oil condition and oil leakage if any. Oil to be topped up/replaced as per the condition of the oil and leakage to be attended if any. Coupling bolt/foundation bolt condition/tightness to be taken as required. The job will be declared complete only after successful trial run.

72. PM of Agitator/stirrer

The scope involves complete dismantling of gearbox, stirrer/ agitator shaft assembly etc. thorough cleaning of parts, repair/replacement of worn out parts, reassembly and alignment of the equipment and successful trial run. If the agitator is replaced with a new agitator, the old agitator is to be overhauled and kept ready for future use. Checking of gearbox oil level/oil condition and oil leakage if any. Oil to be topped up/replaced as per the condition of the oil and leakage to be attended if any. Coupling bolt/foundation bolt condition/tightness is to be taken as required. The job will be declared complete only after successful trial run.

73. OH of Chemical dosing pump

The contractor has to isolate the suction & discharge line as required. Under this scope of work, contractor has to remove all the accessories to dismantle the pump after ensuring electrical and process isolation. The scope includes dismantling of motor, complete pump assembly. All the bearings including ball, thrust, bush etc. are to be removed, cleaned thoroughly with kerosene/diesel and inspected for any defects. Column pipe, suction bell, intermediate bell, impellers, line shaft, head shaft, pump shaft etc. are to dismantled. All the parts are to be cleaned and inspected. All defective parts are to be repaired/replaced as per the decision of the MIC. Pump is to be assembled and necessary coupling and alignment is to be done. After completion of job, Successful trial run is to be taken, including painting of the pump body. The paints will be supplied by contractor. In case of poly dosing pump (stroke adjustment mechanism is also to be dismantled) and readjustment/realignment is to be done as per requirement. The scope also includes dismantling of its suction filter, cleaning of filters and reassembly of the same. The job will be declared complete only after successful trial run. If the pump is replaced with a new pump, the old pump is to be overhauled and kept ready for future

74. PM of Chemical dosing pumps

The scope of work include complete dismantling of the pump parts, replacement / repair of worn out parts reassembly and alignment of the pump and successful trial run including painting of the pump body. The paints will be supplied by contractor. In case of poly dosing pump (stroke adjustment mechanism is also to be dismantled) and readjustment/realignment is to be done as per requirement. The scope also includes dismantling of its suction filter, cleaning of filters and reassembly of the same.

75. OH of sludge pump

The contractor has to isolate the suction & discharge line as required. Under this scope of work, contractor has to remove all the accessories to dismantle the pump after ensuring electrical and process isolation. The scope includes dismantling of motor, complete pump assembly. All the bearings including ball, thrust, bush etc. are to be removed, cleaned thoroughly with kerosene/diesel and inspected for any defects. Column pipe, suction bell, intermediate bell, impellers, line shaft, head shaft, pump shaft etc. are to dismantled. All the parts are to be cleaned and inspected. All defective parts are to be repaired/replaced as per the decision of the MIC. Pump is to be assembled and necessary coupling and alignment is to be done. Trial run of the pump is to be taken after completion of job. The job will be declared complete only after successful trial run. If the pump is replaced with a new pump, the old pump is to be overhauled and kept ready for future use.

Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 27 of 59

76. PM of sludge pump

The contractor has to isolate the suction & discharge line as required. The pump is to be electrically isolated. Pump to be decoupled. Pump to be dismantled from casing. The casing and all the parts are to be removed and inspected. Worn out parts are to be replaced as per direction of Manager-in-charge. Pump is to be assembled and necessary coupling and alignment is to be done. Impeller adjustment is to be done. Proper greasing, cleaning is to be done. Contractor has to issue new materials and return all damaged spares to store as per instruction of Manager-in-charge. The job will be declared complete only after successful trial run.

77. OH of Flash mixture/sludge sump

The scope involves complete dismantling of gearbox, stirrer/ agitator shaft assembly etc. thorough cleaning of parts, repair/replacement of worn out parts, reassembly and alignment of the equipment and successful trial run.

78. OH of Agitators of Chemical Tanks

The scope involves complete dismantling of gearbox, stirrer/ agitator shaft assembly etc. thorough cleaning of parts, repair/replacement of worn out parts, reassembly and alignment of the equipment and successful trial run. If the agitator is replaced with a new agitator, the old agitator is to be overhauled and kept ready for future use.

79. Turbo circulator wheel alignment/changing

Under the scope the wheel has to be removed from position and a new wheel is to be fitted. Alignment to be done. Scaffolding work for the job is included in the scope. The job will be declared complete only after successful trial run.

80. Turbo circulator gear box repair/replacement

Gear boxes of stirrer repair/replacement: The gear box has to be removed from position & completely dismantled. The internals are to be repaired/ replaced wherever required as per instruction of MIC and gear a box is to be put back in position. If the gear box is replaced with a new gear box, the old gear box is to be overhauled and kept ready for future use.

81. Repair/replacement of driving gear box.

For this job the contractor has to do the following activities.

- 1. Removal of gearbox by de-coupling from both side.
- Contractor has to shift the gear box to a suitable working place. For shifting of gearbox hydra is to be be used if required.
- 3. Completely dismantle the assembly inside the gear box like gears, oil seal, pinion etc and bearings and different internal parts are to be inspected after proper cleaning with diesel / kerosene. The spares to be replaced will be supplied by NALCO free of cost. The contractor has to engage skilled manpower for the same.
- 4. If any parts found are to be defective, the same are to be replaced or repaired as per the instruction of Manager-in-charge. Then different parts of gear box will be assembled to the satisfaction of Manager—in-charge.
- 5. The old oil of the gear box is to be put in an empty barrel and to be shifted to a place as per the instruction of Manager-in- charge. Required quantity of new oil is to be drawn from the store and to be filled in the gear box after proper cleaning.
- 6. Complete assembled gear box is to be kept in proper position, erection & alignment is to be done. The job will be declared complete in all respect only after successful trial run.

If the gear box is replaced with a new gear box, the old gear box is to be overhauled and kept ready for future use.

82. Alignment of bridge of Clarifloculator

As per instruction of MIC, contractor has to isolate the Clarifloculator and check the entire bridge structural welding and support, gearboxes, agitators, platforms etc. Inspection of all parts is to be



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 28 of 59

done. Worn out parts are to be replaced as per direction of Manager-in-charge. Proper Alignment is to be done. If minor welding is required to be carried out, the same is to be done with free of cost. Scaffolding work for the job is included in the scope. Trial run to be taken up after carrying out necessary changeover to entire satisfaction of Manager-in-charge.

83. OH of barge area Recovery Water Pump

The contractor has to isolate the suction & discharge line as required. The pump is to be electrically isolated. Pump to be decoupled. Under this scope of work, contractor has to remove all the accessories to dismantle the pump after ensuring electrical and process isolation .Suction cover, suction liner, impeller, bracket side liner, end cover, gland housing etc. are to be cleaned and inspected properly for any abnormality/defects.. Bearing housing to be dismantled and bearings are to be cleaned properly with diesel or kerosene. Inspection of all parts is to be done, damaged bearings and oil seals, 'O' rings to be replaced as per direction of Manager-in-charge. Worn out parts are to be replaced as required. Then bearing housing is to be boxed up. Bracket side cover with gland housing liner, expeller and impeller is to be fitted. Casing is to be fitted with suction liner and suction flange. All the fittings like, pressure gauge, vent valve etc. are to be fitted and alignment is to be done, greasing is to be done and coupling is to be done after alignment. Necessary coupling and alignment is to be done by the party by engaging skilled man power. Trial run is to be taken up after carrying out necessary changeover of pump series, to entire satisfaction of Manager-in-charge. For overhauling, if minor welding is to be required the same is to be done free of cost. After completion, contractor has to return all damaged spares to store as per instruction of Manager in charge. Contractor has to arrange dial gauges, hydraulic jack for removing pumps, pulley etc. The job will be declared complete only after successful trial run. If the pump is replaced with a new pump, the old pump is to be overhauled and kept ready for future use.

84. PM of barge area Recovery Water Pump

The contractor has to isolate the suction & discharge line as required. The pump is to be electrically isolated. Pump to be decoupled. Pump to be dismantled from casing. The casing and all the parts are to be removed and inspected. Worn out parts are to be replaced as per direction of Manager-incharge. Pump is to be assembled and necessary coupling and alignment is to be done. Impeller adjustment is to be done. Proper greasing, cleaning is to be done. Contractor has to issue new materials and return all damaged spares to store as per instruction of Manager-in-charge. The job will be declared complete only after successful trial run.

85. Brg/Sleeve replacement Barge area Recovery Water Pump

Pump to be decoupled after ensuring electrical isolation. Defective bearing or sleeve to be dismantled. New bearing or sleeve to be fitted. Bearing to be greased. Gland packing is to fitted. Alignment is to be done. Trial run of pump is to be taken after completion of job. The job will be declared complete only after successful trial run.

86. Gland packing replacement HT motor pumps

The scope covers for all HT motor pumps inside IPH and Barge area i.e. Ash Slurry Pump at IPH, Ash water recovery pump at IPH, Barge ash water recovery pump. The old gland packing is to be removed from the stuffing box after ensuring proper water/slurry line isolation. The new gland packing are to be fitted and trial run to be taken. In case of any leakage or any abnormality found during trial run, the same is to be rectified by the party without any additional cost.

87. HDPE pipe replacement/ relaying/extension

HDPE pipe to be replacement/ relaying/extension as per instruction of MIC. Payment will be done as no of pieces fitted/replaced (each pipe of 6 mtrs length). If leakage found after line charging the same will be attended again without any extra charges.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 29 of 59

88. 300NB valve Replacement/Repairing

The valve is to be dismantled and clamping ring, O-ring, U-seals, body seat etc are to be taken and cleaned thoroughly. Eroded/damaged parts are to be replaced as directed by Manager-in-charge. Minor welding is included in the scope. Valve is to be assembled and erected with new gasket and free operation of the valve is to be ensured. If required defective valve is to be dismantled and new valve is to be installed with new gasket packings. If the valve is replaced with a new valve, the old valve is to be overhauled and kept ready for future use. Water is to be charged and valve is to be leak tested. Contractor will arrange all the lifting tools for carrying out the job. It include receiving of valve from Nalco/Site store, loading, unloading, transportation to site and return back old material to store.

89. Pontoon maintenance/repositioning

Pontoon is to be repositioned as per decision of MIC. During repositioning of pontoon, contractor may repositioned the pontoon by adding another span of a pontoon or removing same as per requirement. Balancing of pontoon and proper floating is to be ensured. Trial run is to be taken after carrying out necessary positioning of pontoon, to the entire satisfaction of Manager-in-charge. Total manpower, Hydra, chain blocks, all tool tackles, machinery etc. are under scope of contractor. Adequate safety measures are to be taken by contractor, while working in pontoon.

90. Manpower assistance for Barge area O&M in Semi-Skilled category

For O&M of Barge area, (01) One no of manpower in SSW category is to be deputed in all shifts (3 shifts x 365 days) for providing necessary operation and smooth running of the pump house. The manpower deployed will be do required O&M activities of Barge area, co-ordinate with IPH Operation & Maintenance I/c for smooth operation of the LSP return water system. He will operate all 06 (six) return water pumps and also involve in maintenance work of Pontoon & Pumps.

91. Manpower assistance for Barge area O&M in Un-Skilled category

For O&M of Barge area, (02) Two nos of manpower in USW category is to be deputed in all shifts (3 shifts x 365 days) for providing necessary assistance required for the smooth running the pump house. The manpower deployed will provide assistance for opening and closing of valves, assistance for minor maintenance, for Pipe choking removal, assistance in pump house related works, assistance in Barge are peripheral maintenance work like ash slurry header change over etc.

92. Manpower assistance for chemical storage/handling

For safe Chemical storage/handling at IPH, (01) One no of manpower in USW category is to be deputed in all G-shifts for providing necessary assistance for storage/handling of chemicals at IPH. The manpower deployed will provide required assistance for facilitating chemical dosing pump running, chemical dosing/storage/handling, valve close open in chemical hose & clarifloculator etc. All safety appliances for chemical handling like gloves, mask, gum boots, etc. are to be provided by contractor without any extra charges to NALCO.

93. Manpower assistance for Chemical dosing

For Chemical dosing in Clarifloculator of IPH, (01) One no of manpower in SSW category is to be deputed in all shifts (3 shifts x 365 days) for providing necessary assistance required for the smooth chemical dosing in the Clarifloculator. The manpower deployed will provide required assistance for facilitating chemical dosing in Clarifloculator, co-ordinate with O&M activities of IPH & Barge Area operators for smooth operation of the LSP return water system. He will be responsible for smooth operation of chemical dosing. All safety appliances required for chemical dosing like gloves, mask, gum boots, etc. are to be provided by contractor without any extra charges to NALCO.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 30 of 59

94. Greasing of Bearings

The bearings of all pumps and motors of IPH & Barge area to be greased regularly as per requirement /schedule. Supply of Grease Gun for the job is in the scope of the contractor.

95. 700NB valve Replacement /Repairing

The valve is to be dismantled and clamping ring, O-ring, U-seals, body seat etc are to be taken and cleaned thoroughly. Eroded/damaged parts are to be replaced as directed by Manager-in-charge. Minor welding is included in the scope. Valve is to be assembled and erected with new gasket and free operation of the valve is to be ensured. If required defective valve is to be dismantled and new valve is to be installed with new gasket packings. If the valve is replaced with a new valve, the old valve is to be overhauled and kept ready for future use. Water is to be charged and valve to be leak tested. Contractor will arrange all the lifting tools for carrying out the job. It include receiving of valve from Nalco/Site store, loading, unloading, transportation to site and return back old material to store.

96. Emergency ash slurry line leakage attending

Contractor has to isolate that ash slurry header first. Then drain the slurry to a suitable place as instructed by MIC. Before commencement of work, the type of leakage is to be identified at the first place like sleeve coupling leakage, Pipe joint leakage or pipe welding leakage. Accordingly, required machines like welding, cutting, grinding, generator set etc pipe pieces, sleeve coupling, nut bolts, gaskets, hydra etc. is to be transported to the work spot. Worn out parts are to be cut & replaced with new one. If required to replace the complete patch, the same is to be executed as per the instruction of the Manager-in –charge. Leak test is to be done. All the bolts are to be tightened and to be tack welded. Welding, cutting, transportation, machinery, tools and tackles are in the scope of contractor. Nut bolts, gaskets, spare parts i.e. pipe/sleeve coupling, and valves etc are to be drawn from NALCO/LSP store. Old dismantled materials are to be returned to the store. Excavation of earth / ash if required for the job, the same is to be carried out by the contractor at no extra cost. After completion of job, if any leakage is found during header charging, the same is to be rectified by the party without any additional cost.

97. Replacement/OH of Air release valve

The scope of replacement of valve includes removal and re-erection. Erection of the new valve includes welding cutting of pipes, flanges, fixing of the ball valve, gaskets, nuts, bolts and making it leak proof. Overhauling includes dismantling of the valve, replacement of Packing, balls, ball valve, and finally assembly of the valve and its erection. The rate is applicable for all sizes. Contractor has to issue new Air release valve and transport to the side from NALCO store. After fitting return the old Air release valve to NALCO store. The job will be taken as completed only after taking the trial run and no leakage is observed. In case of any leakage is found, the same is to be rectified by the party without any additional cost.

98. Sleeve coupling cover fixing/replacing.

Sleeve coupling cover fixing/replacing will be done as per instruction of MIC. Contractor has to cut the welded part of 350/450NB Sleeve coupling covers for repairing with damaged part as per instruction of MIC/Supervisor. If it is required to replace the complete cover with new one and the same is to be carried out & tag welding on the top is to be done as before. Old dismantled materials are to be returned to the store. Cutting, Welding, Excavation of earth / ash if required for the job, the same is to be carried out by the contractor at no extra cost.

99. Transportation of Material from CPP to IPH.

The scope includes Transportation of mechanical spare items and consumables for O&M of LSP system as per instruction of MIC, from CPP plant NALCO to IPH, Bharatpur and vice versa. It includes total cost towards labour, vehicle, and diesel, driver, loading at source point and unloading



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 31 of 59

destination point. If any damage/loss occurs during material transportation, contractor will bear the same at his own cost. Payment on this account will be made as per no of trips transported.

100. Transportation of Material from IPH to Barge Area

The scope includes Transportation of mechanical spare items and consumables for O&M of LSP system as per instruction of MIC, from IPH, LSP to Mines area /Barge area and vice versa. It includes total cost towards labour, vehicle, and diesel, driver, loading at source point and unloading destination point If any damage/loss occurs during material transportation, contractor will bear the same at his own cost. Payment on this account will be made as per no of trips transported.





Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 32 of 59

ANNEXURE-IB

SUB: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

SPECIAL CONDITINS OF CONTRACT

Spares, fasteners, seals, plates, pipes, gaskets, flanges, fittings, MS plates/sections, including lubricant
oil, grease required for the job will be provided by NALCO. But tools & tackles like spanners, chain
pulley, hydraulic jack, Hydra, Excavator, welding machine, gas cutting equipments, DG welding set
etc. are to be arranged by contractor for erection/ dismantling of pipe and maintenance of equipment.

Erection/overhauling of any equipment/machinery system shall include drawal of materials/spares
from NALCO CPP stores, loading & unloading, transportation to work site. Safe storage of the
materials is the responsibility of contractor. All the worn out/damaged parts are to be returned to
NALCO after reasonable cleaning.

3. The tools, tackles, spares, consumables etc. are to be transported to work site in IPH & Barge Area area by suitable lifting machine (Hydra) and transport vehicle without damaging the road/drain/embankment. Rolling of pipes is strictly prohibited over the road for transportation purpose.

4. For all types of welding works, the contractor has to arrange the welding machine. Wherever the power supply is not available, Diesel Generator Welding set will be arranged by the contractor & transport to the work site for execute the job at his own cost. Nalco will not supply DG welding set. There shall not be any extra payment for the above. It is the responsibility of the contractor to arrange it at his own cost to carry out the job. Delay in execution of job for non-availability of DG welding set will be considered as a negative feature of the contractor

5. It may be noted that wherever welding is involved, the contractor has to use suitable grade of electrode of reputed manufacturer by D&H, L&T, Modi, Maruti and Essab only. The grade of electrode will be intimated to the contractor for various materials by MIC. MIC may verify the supporting bills, gate entry etc. for the electrodes brought to site for use.

6. It is the responsibility of the contractor to keep proper housing keeping/cleaning by keeping the scrap at the designated places and cleaning the area properly after completion of the job. Contractor has to arrange Diesel/ kerosene for cleaning of spare parts or any cleaning work as per requirement. Contractor must return all the damaged spares/ consumables to the central store/sub store or place shown by the MIC within a month after completion of job.

7. Contractor has to arrange residential accommodation at one place for at least 8 persons to attend the emergency/breakdowns jobs during odd hours/holidays/off days within hour of intimation. He should provide communication facility to contact him or his personnel at any time of requirement.

8. While carrying out the break down/maintenance of any equipment, the contractor has to engage the man power beyond the working hours, and also in holidays/off days he has to deploy man power till the completion of the job as per the decision of the Manager-in Charge.

If any excavation of ash/earth is required during execution of the job the same is to be done by the party and the same is to be back filled after completion of the job at no extra cost.

10. Where ever painting is included in the scope of work the contractor must use paints of reputed companies viz. Johnson & Nicholson, Asian paints, Berger paints, Shalimar paints, Nerolac paints only. The Manager-in-charge may verify the supporting bills, gate entry etc. for the paints brought to site for use.

11. The contractor has to ensure load testing of all cranes, hoists & chain pulleys etc. once in a year. If load testing is not carried out twice the amount of respective rate shall be deducted from the bills and the same job will be carried out through other agency at his risk & cost.

12. Erection /Dismantling of pipes include all the supporting/ clamps etc. to be erected / dismantled wherever required.

13. Consumables like electrode, gas, cotton waste, diesel/kerosene, brushes, thinner for paint etc. are to be arranged by contract wherever required at no extra cost.

 Electricity/ water will be provided free of cost wherever available for carrying out the maintenance jobs.

Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 33 of 59

- 15. For free issue of materials, LSP department will issue materials like MS ERW pipes & spares of equipments to the contractor as per the requirement. As the pipes and spares are to be kept inside CPP plant premises, submission of Bank Guarantee & Indemnity bond against the Free Issue Material is not required. However for taking out the materials to outside CPP plant premises, the agency has to submit Indemnity Bond & BG against the same as per GCC.
- 16. Considering total value of FIM that will be issued at a time as Rs. 5,39,686.50,agency is required to submit BG against FIM amounting to Rs. 1,07,937.30 (20% of the value of FIM to be issued) & Indemnity Bond against FIM amounting to Rs. 4,31,749.20 (80% of the value of FIM to be issued).
- 17. It is the responsibility of the contractor to effective deployment of workmen, to ensure compliance of safety norms arrangement of gate passes and other statutory requirements etc. for successful execution of job.
- 18. The contractor must deploy manpower who has good knowledge of equipment.
- 19. The scope includes providing assistance in stores management for activities like shifting of materials (from central stores/storage yard to sub stores/work site), proper segregation/sorting/orderly arrangement of spares at sub-store, helping in record keeping etc.
- 20. For transportation of materials by road, the agency has to arrange vehicle, loading & unloading arrangement, labour, man power/ labour, etc. On request of the agency NALCO may provide railway brake van for material transportation on chargeable basis strictly based on the rack availability.
- 21. The components of Wages which are paid annually (Leave Wages & Bonus) or at the end of the Contract (Retrenchment Benefit & Gratuity) as applicable, is to be retained from the monthly RA Bills of the Contractor based on recommendation/ certification of HRD in respective HR Clearance as these components are not paid on monthly basis. The amount so retained will be released to the Contractor based on recommendation/ certification of HRD on production of documentary evidence against payment of these Wages related components to the Bank accounts of the Workers.
- 22. The Contractor shall have to pay Bonus/ Ex gratia to all his Workmen as per the provisions of the Payment of Bonus Act, 1965 before "Durga Puja" every year or at the time of full and final settlement, if the Contract is completed before "Durga Puja".
- 23. Formula for fabrication and dismantling and erection of piping other than 350NB pipes is as follows:

a) Formula 'A'

R+=R[1+C(D-200)/50]

Where,

R = Base rate for 200 NB pipe size

R+ = Rate for the pipe above 200 NB but below 500 NB.

C = 0.18, Co-efficient for pipe above 200 NB but below 500 NB

D = Nominal bore of pipe.

b) Formula - B'

 $R1 = C1 \times R \times D1$

Where,

D1 = Nominal bore of pipe below 200 NB

R1 = Rate of pipe below 200 NB.

R = Base rate for 200 NB pipe.

C1 = 0.005 Co-efficient for pipe below 200 NB

c) Formula - 'C'

 $R_{V} = R [1 + C_{V} (D-200)/50]$

Where,

Rv = Rate of the valve above 200 NB.

R = Base Rate of 200 NB valve.

Cv = 0.25 (Co-efficient for valve above 200 NB) Rv

D = Nominal bore of valve.

d) Formula - 'D'

Rt = R[1 + C2(t1 - 10)]

Where,

Rt = Rate for pipe above 10 mm thickness



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 34 of 59

R = Base rate for 200 NB pipe.

C2 = 0.03 Co-efficient for pipe whose thickness is more than 10 mm.

t1 = Thickness of the pipe.

d) Formula - 'D': Piping section above 500 NB

 $RB = R [1 + CB (D \cdot 500) / 50]$

Where

RB = Rate for pipe above 500 NB

R = Base rate for 500 NB.

CB = 0.12 Co-efficient for pipe above 500 NB size.

D = NB of the pipe.

e) FORMULA - 'E': Re= {1+0.2(Te-16)} R

Where

Re=Rate for cutting MS/SS plate more than 16mm.

R = Rate for cutting MS/SS plate up to 16mm.

Te= Thickness of the plate more than 16mm.

24. SAFETY & ENVIRONMENT REQUIREMENT

- 1. The contractor shall have to take necessary safety arrangement / precaution for the work men engaged by him and shall be responsible for any First Aid/Emergency treatment for the labourers / workmen engaged by him. In addition he has to abide by all fire, lighting and electrical and safety regulations of the owner. The contractor has to execute the works after taking necessary instructions and safety clearances from the safety officer available at CPP.
- 2. Contractor must ensure use of safety helmets, shoes by all his workmen.
- Use of healthy welding cables and gas hoses, cutting torch and flash back arrester are to be ensured.
- 4. Proper safety appliances such as welding screen, safety goggles, hand gloves, nose masks are to be provided to the workmen by the contractor.
- 5. The contractor has to maintain good housekeeping in the working area.
- Scrapes and unserviceable spares are to be returned to the designated area after completion of the job. Any lapses in the said job will be carried out at their risk & cost.
- All electrical connections are to be taken from power supply cabinet installed at different locations with plug and socket arrangement only.
- 8. The Contractor is required to abide by the environmental policy of NALCO.

25. PRE-MEDICAL CHECK UP:

It is the responsibility of the contractor to ensure that his employees are medically examined by a registered medical practitioner and the medical report to be submitted to HRD department once in a year in the prescribed format. The format will be issued by the HRD department. The report shall be submitted to HRD department before the issue of the gate pass. The contractor shall also submit a copy of the same to In-charge, Occupational Health Centre (OHC), CPP.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 35 of 59

2189

568656/2024/T&C-CPP

नालको 🔊 NALCO

TENDER No.: CPP/F&C/GeM-188/MC-5466/NIT/2024/318 Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF 1PH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 109 of 133

ANNEXURE-C21

PRE CONTRACT INTEGRITY PACT

Courses

This precised precountries Agreement (hereinafter called the integrity Pact) is made an \$\frac{1}{2}\$—they of the month of \$\frac{1}{2}\$—2024, 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 Pensined Office at NALCO Bhawan, PH, Nayapalla Bhabanesware 751013. Odishis, India (referred to as NALCO) extent through Shri Rejesh Sarkar, DGM(Cerunia), Tender & Contract, CPP thereinafter called the DEVNET, which corporation shall mean and include, volcas the context otherwise requires, his concentral in office and assignal of the First Part and M/s \$\frac{\text{RL}}{2}\text{LOXIM}, \text{End Cartact, CPP thereinafter called the PHDDER / Selfer which expression shall mean and include, unless the context otherwise requires, his accessors and permitted assignal of the Second Part.

WILDREAS THE BUYER PROPOSES TO PROCURE MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF 1PH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH' and the BIDDEFGSeler is willing to offerful soffered the story and

MINES VOID' FOR 6 MONTH: and the BIDDERGSeler is willing to offered the store and WHEREAS the BIDDER is a present company? gable company? Government undertaking? partnership or gistered extent agency, constituted in accordance with the relevant law in the matter and the BUYER is a Company under the administrative central of the Ministry of Mines, Cost, of India. NOW THEREFORE

To aveid all forms of corruption by following a system that is fair, transporter and free from any embours a projected domings prior to during and subsequent to the currency of the contract to be covered my with a view to

Easiling the BUYER to obtain the desired said stores equipment at a competitive price in conformity with the defined opening atoms by avaiding the high cost and the distortionary impact of corruption on public procurectors and

Employing HODFifts to abstrain from briting or indulging in any corrupt practice in under to secure the contract by providing measurance to them that their competitors will also abstrain from bribing and other corrupt practices and the HUYER will comment to prevent corruption, in any form, by its efficials by following transpars or precedings:

The parties have to hereby agree to enter into this Integrity Pact and agree as follows:

Commitments of the SUYER.

1.1 The RUYER undertailes that no official of the RUYER, connected directly or indirectly with the extract, will consend take a primitive for or accept, etc. By or through intermediaries, any bribe, anneal-various, gift, reword, favour or any material or innesterial benefit or any other advantage from the RUDER, atthougher themselves or for any person or organisation or third party related to





CAPTIVE POWER PLANT

CAPTIVE POWER PLANT 1118508

Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 36 of 59

'568656/2024/T&C-CPP

लिको 🦪 NALCO

ALCO Subject:

Subject: MECHANICAL MAINTENANCE & MANDOWER ASSISTANCE FOR OPERATION OF UPH & DARGE AREA OF LSP "ASH DISPOSM. SYSTEM TO MINES VOID" FOR 8 MONTH.

CPP/T&C/GeM-198/MC-5466/NIT/2024/318

Page 110 of 17

the contract meaches of far an advantage in the hilding process, hall evaluation, contracting or soul executation process in large to the contract.

- 2. The BLYER will, divine the presentant stage to at all BIODERs alike and will provide to all BIODERs, the same intential in a full not broad any such information or any particles BIODERs which enables dead on advantage to that particular BIODERs in companion to other BIODERs.
- 14. Millio officials of the IA VER will report to the appropriate Government office acts attempted or constituted to indice of the above consultrigate to well as any substantial secretion of such a locality.
- because we would provide norms as long on the part of each of transfer by reported to the DMDER of the DMYRE with pull and would be fine and the stone is provided from found to be on a the life BMYRE in conserved from their processings, or any other action as decimed in anothering numbed to the first one to entire the BMYRE and such a present shall be deduced from further deciment of the transfer process. In such a case while an enquiry is being conducted by the SMYRE the proceeding a conducted by the contract would not remarked.

Commitments of BIDDERs

- 3. The SHIDER commute we have take all measures according to prevent correct reserves surfan it stays and illegal activities during any stay of sa hall or during one pre-rounds over a serious research state in order to second the correct or in further one to serious mand in particular communities if in that allowing it.
- 3.1 The BEDDER will not once the rily or through intermediance, any bride, gits consideration award france are monored or moments of souther or other advantage commercial section in the state of individual of our inferral of the RUVER, connected directly or individual with the other process or to now pleasant examinence that party related to the contract in architecture of the contract in architecture.
- The HIRDER fortion molecular that it has been seen affection processed to the discussion to the structure of the structure of the HIRDER of the structure of the period of the HIRDER of the structure of the fortion of the structure of the structure of the original of the structure of the structu
- 13 Billio Billio Alad disclose the name and a Mess of significant consensations and Lefon BiDDES. In J. The less their first content on hydron as exists.
- 1.1 Millioffice shall disclose the present to be made by then to agents a backers or very other in expectacy in connection with the hold removat.





2190

Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 37 of 59

2191

568656/2024/T&C-CPP

नालको 🔊 NALCO

TENDER No.: CPP/T&C/GeM-198/MC 1-469/NIT/2024/318 Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF JPH & RARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 111 of 13.

3. The BUDDER either while presenting the teder during preventract repotintions or before signing the courses, shall duedone any payments be has made, it committed to or intends to make to our sale of the BUYER or their family members, agents, brokers or any other intermediaries in

and than with the content and the details of services agreed upon for such payments.

The BIDDER will not colline with other parties interested in the contract to impair the stan-passacy, fairness and progress of the bidding process, bid evaluation, contracting and amplementation of the contract.

1.7 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and Biggal activities.

The BUDDER shall not use improperly, for purposes of competition or personal gain, or pass on to whose the information seemed by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic that coverer. The BUDDER also undertakes to exorcise due and adequate core lest any such information as divulged.

3.9 The HillDER commits to refrain from giving any complaint directly or through any other manner scales in supporting it with full and verticable fact.

3.10 The DIFFDES shall not quarticate or sause to inclinate any third person to commit any of the actions investigated above.

At the 1s there are employed of the Bedder or any purson arting on the behalf of the Bidder, other director is indirectly, we are house of any of the officers of the Buyer, or alternatively, if any relative of an efficer of the Buyer has functual interestitable in the Bidder's firm, the same shall be disclosed by the Bidder'st the time of him of tender.

The term "relative" for this purpose would be as defined in Section 6 of the Companies Act 1956.

3.15 The Bollor shall not lend to be borrow any money from or enter informmetary dealings or transactions, directly or indirectly, with king coplayee of the Bayer.

3.1) Stilder(s): Contrictus(s) who have signed the integrity part shall not approach the courts while representing the matter to IEMs and shall start for their electrical matter and representation.

The finding declares that no provious transgression occurred in the last three years immediately soften against of this integrate Park, while may schor company in any country in respect of any overlift practices employed neglecture for with my Public Sector Emergrise in India or any these remotes the partition in holes that could distrib Bridge's exclusion from the tendor process.

1.2 The Bubby agrees that if it makes increase statement on this subject, indice can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Sanctions for Violations ;





CAPTIVE POWER PLANT 1118654

CAPTIVE POWER PLANT

1118507



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 38 of 59

2192

'568656/2024/T&C-CPP

नालको 🔼 NALCO

Subject MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF 19H & BANGE AREA OF LSP 'ASH DISPOSAL SYSTEM TO MINES VOID' FOR \$ MONTH.

TENDER No.: CPP T&C GeM-188 MC-5466 MF/2021 318 Page 112 of 151

1 continues of the observed previous to the Biblioth or are incompleted by it or action on the continues of the following making the second of the following many when we continued to the BOVEP of the Continues of the following many when we continued?

former deads and appropriate the contract and an extraction of the state of the property of the state of the

The Property of the control of the C

 To mean upper control the matter of plantin second, without sector, and cond-to-size to the MITMETS.

The reserver all comes are not pead by the IR VEE and in case of an Indian HIRBER with motion in the reserver of 2 is before them the personner Proper Leading Barr of State Birch at the white motion is a SERVER from a content of the chain holds with a reserver of the behavior of the EDECH from the IRBER from a content of the content of the transfer of the content of the content

to a result the about book quantity and performance bond a warrant bond of temporal to the Billiotti momentum recover the payments, already made to the BI VER away with inter-

The special content of the content of the special property and the leaders of the content of

The action to Middle their parties only in former highly process of SALOS or a incommunity strik of the cone, which were by Saloka expensed at the Toronton of the MINNER.

they to express of substantial evaluations the Parties BIDDERS by any mobile and expected action to secure of second the secure of

In case where a preside factor, of the dark have been president as a post of are sense as a president to the body of the same shall not be opened.

We describe a Participants that groups if a fermion for the BYSP to fail at the arrival attention restauration and research improved an incomplete between Participants.

(a) The IQ VER will be concluded to be an energy of the extension time of all pairs of help of the first of the Point o





Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 39 of 59

2193

568656/2024/T&C-CPP

नालको 🔊 NALCO

ALCO

Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 113 of 133

TENDER No.: CPP/T&C/GeM-198/MC-5/66/NIT/202-P318

> the Lemma Penal Code 1860 or Prevention of Corruption Act, 1988 or any other statute enected for prevention of corruption.

- 5.4 The decision of the MUYER to the effect that a breach of the provisions of this Part has been exposited by the RIDDER shall be find and conclusive on the BIDDER. However, the RIDDER was approach the independent Manitorial appointed for the purposes of this Part.
- Independent External Monitors (IEMs):
- 6.1 The DETER has a panel of independent External Monters thereinafter referred to as IEMs) for this Part in causultation with the Central Vigitance Commission as mentioned in NALCO's NETNALARY's website (www.naltoindia.sam).
- (c) The tack of the HMAs shall be to review independently and objectively, whether and to what extent the natures occupy with the obligations under this Pact.
- 6.3 The itials shall not be subject to instructions by representatives of the parties and perform their functions sentrally and independently.
- 6.1 Both the parties accept that the IFMs have the right to access all the documents relating to the propert 'procurement including minutes of meetings.
- 6.4 As soon as the IEM notices or his versus to believe, a violation of this Part, he will so inform the Authority designated by the BUYER.
- The BHIDERO accepts that the IRM has the right to access without restriction to all Project for the mission of the BUNER including that provided by the BUDER. The BIDERR will also creat the BEM upon his request and demonstration of a welld interest, americated and demonstrated to a welld interest, americated and demonstrated to a welld interest, americated and demonstrated to case to his project decamentation. The same is applicable to Subscript The BIDDER! Subscript and demonstrated with confidentiality.
- The RUYER will provide to the 1860 surficient information about all meetings among the parties related to the Proper provided such meetings could have an impact on the contractual telations between the poeties. The parties will offer to the RM the option reparticipate in such meetings.
- the 1924 will amount a serate a report to the designated Authorny of BUYER / Secretary in the the reference within 5 to 10 weeks from the date of reference or intimation to his by the BUYER / 613 DEER and should be occurred arise, submit proposals for correcting problematic situations.
- 5. Facilitation of Investigation?

In case of any allegation of violation of any provisions of this Poet or payment of commission, the ICMs 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 challegach to I possible help for the purpose of such examination.

Law and Place of Jurisdiction:

8



CAPTIVE POWER PLANT 1.118468

CAPTIVE POWER PLANT 1118506



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 40 of 59

2194

·568656/2024/T&C-CPP

SAMONE MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF HEL & BARGE AREA OF LSP SAIL DISPOSAL SYSTEM TO MINES VOID FOR 6 MONTH. नालको 💮 NALCO TENDER No.: CENTAC GEM-108 MC-2466 NEW 2014 ANS Page 114 of Log the Party spices of John Lee Wester Conference on paralleles with our dis-Other Legal Actions? In a straight street the mathematical part particle without members to the fitted action there the service according with the production of the extent law in face relation to the extent (ii) The Agricultural of the are represented upon a property Control of the Alis a distance quantities by the contract of the fielders denoted after the contract the tork process Born their considerable following the considerable and to be one of where the training of the later of the part of special shows makes it is well as all Description of CAUS CAUCA the problem is a relative to detail the transfer and the result the principle of the Part shall in the could be the country parameter server and to an Aremost in the expend $((x_0, x_0)) = C_0(x_0, x_0, x_0) + (x_0(x_0, x_0)) + (x_0(x_0, x_0)) + (x_0(x_0)) + (x_0(x_0)$ THEUL 17 P/204 BUTTER 25 - Aug Obere Shri Beyon Sarker DGM Ceremol, Tentar & Central CPP Farmery NALCO

. 15.30 - 1.10-05833 : 10-06-160-16391 Binaya Dehing



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 41 of 59

PART -B

General Instructions to Contractors



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 42 of 59

ANNEXURE-A1

- SCOPE OF WORK: The Scope of Work shall be as detailed in enclosed at Annexure-IA. The work shall be carried out as per direction of Engineer-in-charge/Manager-in-charge subject to Special Conditions of Contract given in Annexure-IB.
 - 1.1. The Engineer-in-Charge for subject work is as mentioned in Page-1. Sl. No. F. You are requested to report to him for all matter relating works, payment etc.
- 2. SPECIAL CONDITIONS OF CONTRACT: As per Annexure-IB
- QUANTITY & RATE: The quantity & rate schedule is enclosed at Annexure-II.
- 4. QUANTITY VARIATION: The Quantities mentioned in the schedule are approximate in nature and may vary by a wide margin for which the contractor shall have no option but to execute the works, as per direction of the Engineer-in-charge at the same rates, terms & conditions.
- 5. GENERAL INFORMATION:
 - 5.1. Wherever transport of material is applicable, the contractor has to ensure that goods carried during transportation do not exceed permitted laden weight as certified by registering authority for the respective vehicles.
 - 5.2. Wherever applicable Bank Guarantee are to be submitted in Nalco's revised prescribed format only from NALCO's approved Banker.
 - 5.3. Letter / Fax of Intent is an acceptance of offer and the tenderer should communicate the acceptance of the same within 7 days of issue of Letter / Fax of Intent, failing which it will deemed to have been accepted by the tenderer.

6. CONTRACT DOCUMENT:

- 6.1. The contract shall comprise NIT documents, contractor's offer, pre-award negotiation documents, minutes of meetings, letter of acceptance, concerned drawings if any, work order and its subsequent amendments / addendums / corrigendum.
- 6.2. All other terms and condition shall be as General Condition of contract, special condition of contract and the NIT documents subject to the deviations mutually agreed between NALCO and the contractor. In case of any contradiction between the provision of Annexure- A1 and special conditions of contract/ scope of work / technical specification, the provisions in the later will prevail
- 6.3. The documents as stated below shall constitute the integral part of the Contract:
 - 6.3.1. Conditions of Integrity Pact.
 - 6.3.2. SAP Service Purchase Order with Bill of Quantity.
 - 6.3.3. Scope of Work/Technical Specifications.
 - 6.3.4. Drawings if any.
 - 6.3.5. Special Conditions of Contract.
 - 6.3.6. General instructions to contractors
 - 6.3.7. General Conditions of Contract (GCC)
 - 6.3.8. Relevant Indian Standards.
- 6.4. If any varying of conflicting situation arises in any of the document forming part of the Contract, NALCO's decision with regard to intention/interpretation of the document and the decision shall be final and binding on the parties.
- 7. 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 carry out 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.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 43 of 59

8. ENERGY/WATER/GROUND/BUILDING PREMISES:

- 8.1. Provision of Power/Water/Land/Building to Contractor's Works.
 - 8.1.1. Lump Sum Turn Key (LSTK) Contracts- Electricity charges shall be billed @ Rs.4.30 /KWH on meter reading. Water charges will be billed on monthly basis by Estate department, @ Rs. 150.00 per month or part thereof. Ground/Building Premises inside plant will be provided without any rent. However, Building premises provided inside Township will be on chargeable basis as per Rent Circular.
 - 8.1.2. Other than LSTK Contracts: If Electricity and Water is required for the work to be executed, it will be supplied by Nalco free of cost from any suitable point. The contractor shall have to make arrangements, at his own cost, for tapping and using the power/water so required as per advice EIC/MIC. Ground/Building Premises will be provided without any rent.
 - 8.1.3. For availing Electrical energy, the contractor shall have to provide, at his own cost, a MCB (Miniature Circuit Breaker) at the point of power supply by Nalco. The MCB shall have to be of a suitable capacity as decided by Nalco's electrical authorities for the concerned area and shall have to be replaced, as and when warranted, on the grounds of changed power requirements or the MCB having been defective and/or damaged.
- 8.2. Power and Water Supply to Contractor's <u>Establishment</u>: The following points shall be complied in addition to Nalco GCC Clause No. 2.3 for giving power supply to Contractors' Establishments:
 - 8.2.1. Power and Water supply will be provided to the contractor to whom the permission has been granted by Estate Department to have establishment in the township/plant as per requirement. Ground/Building Premises inside plant will be provided without any rent. However, building premises provided inside Township will be on chargeable basis as per Rent Circular.
 - 8.2.2. Contractor have to make all arrangements to receive power from designated panels by laying necessary cables and installing suitable distribution board. They have to apply to Estate department through the Engineer-in-Charge. The application will be made in prescribed format and a completion certificate by licensed electrical contractor will be enclosed. The representative of DGM (Elect) will inspect the installation and after getting their clearance, power supply will be charged. The individual establishments are to be maintained and managed by contractors as per IE rules.
 - 8.2.3. At the time of charging of power supply, initial meter reading will be jointly noted by representatives of contractor, Estate Department and Electrical Department.
 - 8.2.4. Every month, energy meter reading will be jointly taken by representatives of Estate Department and Electrical Department. Electricity Bill will be raised by Estate Department @ Rs.4.30 per KWH basing on the meter reading as per the prevailing rate. However, the rate is subject to revision time to time.
 - 8.2.5. Water charges will be billed on monthly basis by Estate department, @ Rs. 150.00 per month or part thereof. However, the rate is subject to revision from time to time.
 - 8.2.6. The contractor has to deposit Water & Electrical Charges on monthly basis. While processing any Final Bill relating to any work, the contractor has to submit clearance certificate from Estate Department covering period under Final Bill.
 - 8.2.7. While processing final bill of the contractor they must enclose Disconnection Certificate from Estate Department for power/water supply connection or Certificate regarding Continuation of connection due to other valid contract with proper reference through concerned EIC & Estate Department.
 - 8.2.8. The final bill will not be processed without compliance of the above. (Supporting document to be attached).



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 44 of 59

- 8.3. The contractor must dismantle the structure constructed by him for the purpose of office-cumstore on completion of the contract as per the provision of GCC clause no.2.4.2. If the same is not dismantled within two months of completion of contract, he will not be issued any tender paper or will not be allowed to participate in any tender. Besides with-holding of final bill, other penal action as per contract / Law as deemed fit may be initiated against the contractor.
- 8.4. Following penal actions shall be initiated against the unauthorized occupant;
 - 8.4.1. Disconnection of power and water supply lines to be made,
 - 8.4.2. Penal rent @ Rs.10,000/- per month Plus GST as applicable or part thereof towards the ground rent and 20 (twenty) times penal rent towards electricity and water charges shall be recovered,
 - 8.4.3. Initiation of eviction proceedings in the Estate Court for outside Plant establishments
- CONTRACTOR'S OBLIGATIONS AND PENALTY FOR NON-COMPLIANCE: The contractor shall abide by the following obligations during execution of contract against deployment of contract labours.
 - 9.1. If found suitable, Preference for engagement of labourers under NALCO's contractors establishment may be given to the land affected persons.
 - **9.2.** The Contractor shall not engage any contract labour having unsound mind, criminal record, and poor health or having record not suitable from security point of view to NALCO.
 - 9.3. The contractor has to ensure that no contract labour should enter the plant/work premises without valid photo pass.
 - 9.4. The contractor shall ensure that no contract labour should leave the work place/plant before time without authorization/gate pass/ permission of the representative of contractor, to check frequent entry/exit, which may also cause security/administrative inconvenience.
 - 9.5. The disputes of the Contractor's labourers are to be settled by individual contractor. In no case NALCO, as the Principal Employer will enter into the matter except witnessing the proceedings, if required by the Statutory Authorities.
 - 9.6. The contractor shall have valid labour license during the execution of the contract, wherever applicable. The contractor shall not engage child labourers, in compliance to statutory requirement.
 - 9.7. PF & ESI A/c Codes: The contractor must possess independent Account Codes from the concerned Regional Provident Fund Commissioner for PF and also independent Account Code from the concerned Regional Director, ESIC for ESI, as applicable.

10. RECOVERY TOWARDS COMPENSATION FOR DELAY:

- 10.1. Repetitive O&M Contracts Recovery towards compensation for delay shall not be applicable for this type of contract, unless otherwise mentioned separately in Special Conditions of Contract (Annexure-IB).
- 10.2. Other Contracts- Recovery towards compensation for delay shall be applicable for this type of contract. In case the contractor fails to complete the work within the stipulated period, the contractor shall be liable for a penalty @ 1% (one) of the contract value per week of delay subject to a maximum of 10% (Ten) of the value of the contract, unless otherwise mentioned separately in the Special conditions of contract. (Annexure-IB). GST as applicable shall also be recovered.
- CONTRACT PERIOD: Time of completion is the essence of the Contract. The contract period for this
 work is as mentioned in Page-1 from the Effective date of contract.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 45 of 59

12. EXECUTION OF CONTRACT AGREEMENT:

- 12.1. The contractor shall have to execute an agreement on Rs.50/- non-judicial stamp paper to be purchased from any stamp vendor under the jurisdiction of the Odisha High Court, in the specific format (Annexure-C23 of NIT). Issuing authority of work order shall sign the agreement on behalf of NALCO. The agreement shall not be required to be executed for work orders of value less than or equal to Rs.1,00,000/-.
- 12.2. The agreement should be submitted to T&C Department, within 10 days of issuance of LOA/LOI or at least 10 days prior to effective date mentioned in the Service Purchase Order.
- 12.3. Contract Agreement is mandatory before starting of work. EIC/MIC will ensure before Gate Pass is issued.
- 12.4. No bill shall be payable unless the agreement is signed, if signing of agreement is applicable

13. SECURITY DEPOSIT:

13.1. On receipt of the order, the successful bidder shall deposit with NALCO an amount; equivalent to 10% of the order value for value of contracts not exceeding Rs. 1.0 crore, 7.5% for the value of contracts over Rs. 1.0 crore up to Rs. 5.0 crores, and 5% of the value of contracts over Rs. 5.0 crores by the person(s), here in after called as contractor as Security Deposit within 21 days from the date of issue of Service Purchase Order/LOA/LOI. This amount will have to be suitably enhanced to the tune of above percentage of the executed value.

Alternatively, Initial Security Deposit amounting to 2.5% of the contract value shall have to be deposited, within 21 days of receipt of Service Purchase Order /LOA/LOI by him. In this case, the balance amount of the security deposit shall be recovered through deductions from bills as indicated under Payment term.

In case the successful bidder fails to submit the ISD /SD, with in a period of 21 days from the date of issue of Service Purchase Order / LOI, the ISD amount along with a simple interest @12% per annum as penalty, applicable from the date of Service Purchase Order till the date of submission of ISD or submission of 1st RA bill, shall be recovered starting from 1st RA bill.

- 13.2. The contractor can submit the initial SD or total SD in the form of either bank draft or bank guarantee from any NALCO approved bank in the prescribed format {ref Annexure-C14}
- 13.3. The Earnest Money Deposited along with the tender, by the successful bidder, if any shall be adjusted towards security deposit / initial security deposit.
- 13.4. The performance security /SD will be released along with release of final bill if there is no DLP or on successful completion of the DLP, with certification of Manager-in charge / Engineer-in charge. The vendor has to claim such refund along with Final Bill or within 15 days from the closure of DLP as the case may be.

14. BANK GUARANTEES: -

- 14.1. The Party/Contractor has to submit Bank Guarantee against Performance Guarantee Bond (PGB), Security deposit (SDBG), Free Issue Material (FIMBG), Advance BG (ADVBG), Performance Bank Guarantee (PBG), and Contract Cum Performance Guarantee (CPBG) where ever applicable.
- 14.2. The BG in prescribed format (Annexure-C11 to Annexure-C16 of NIT) should be issued by approved Banks listed at Annexure-C17 of NIT having its branch at Angul/Bhubaneswar and the BG should be registered in Structured Financial Messaging System (SFMS) for BG Conformation and Lodging of claim. Place of Encashment may be limited to Angul/Bhubaneswar only.
- 14.3. The original BGs should be sent by the Bank directly in the address of EIC/MIC mentioned in the Work Order through Registered/Speed Post with AD. It may be noted that the BG Format requires mentioning of the address, Phone, Fax no. and email ID of the issuing Bank. On receipt of Original BG, it will be forwarded to Finance by EIC/MIC through Inter Office Memo (IOM).



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 46 of 59

- 14.4. Each BG contains a start date, expiry date and claim date. The validity of BG (Start date to expiry date) should cover the Contractual execution period. A further claim period of 3 months is required to lodge a claim for extension/encashment of BG if necessary. Therefore, the claim date should be 3 months beyond the expiry date. If a consolidated BG is provided including claim period, 3 months will be considered as claim period and accordingly BG extension should be provided to cover Contract requirement.
- 14.5. BG extension whenever required should ideally be provided 15 days prior to Expiry date from the same Banker against the Original BG with reference to the Contract. However, in specific cases if a new BG from a different bank is provided against the Original BG the subsequent BG should also cover the obligations under original BG period. The subsequent banker has to give an undertaking in this regard in their BG forwarding letter in letter head.

15. SECRECY TERMS: -

- 15.1. The contractor shall use all the documents, drawings, data & information of proprietary in nature, received from NALCO, solely for the purpose of performing and carrying out the obligations on their part under this contract. He shall not disclose the same to any other person except to the extent required in the performance of the work and shall maintain the utmost secrecy. Contractor and NALCO shall bind their employees, who are involved in engineering of the project by a suitable secrecy contract. The documents, drawings, data and information received from NALCO shall not be used by contractor for any other purpose and will also keep them confidential. All data, documents and information provided by Contractor during the course of execution of the work will be treated as confidential by NALCO and will not be released to any third party, without specific written permission of Contractor.
- 15.2. Breach of Secrecy: In case of breach of secrecy by the Contractor, Nalco will have right to terminate contract, forfeit security deposit and claim damages from the party.

16. GATE PASS & SECURITY:

- 16.1. Normally before starting of work, EIC/MIC will ensure that Contract Agreement is signed otherwise, Gate Pass should not be allowed. Therefore, the contractor shall have to produce the Contract Agreement and arrange valid gate pass for the labour/ workers engaged by him in order to enter into the factory premises if the work is to be executed inside the plant.
- 16.2. Issue & Use of Electronic ID Card: All the contract workers will be provided with electronic entry/exit pass by CISF before mobilization of site/commencement of work by the contractor. All contract workers shall use this ID/Punch cards for making entry into /exit from the plant. After expiry of the contract, ID/Punch card will be surrendered by the workers at the time of closure of contract through the contractor. In case of loss /missing of ID/Punch card, contractor has to deposit Rs. 200/- per card in the cash counter of NALCO for issue of fresh identity card. Incase of discontinuation of job by the workers, the cards will be surrendered to the CISF under intimation to unit HRD.
- 16.3. Attendance of contractor's workers will be regulated through biometric punching systems. In case of discrepancy, decision of EIC/MIC will be Final & Binding on the contractor.

16.4. Use of Online Contract Labour Management System (CLMS):

An online Contract Labour Management System (CLMS) has been launched across NALCO w.e.f. 01.07.2017. As per the portal architecture, every contractor employing contract labour in NALCO shall have to use this online portal for various activities like safety clearance, issue of gate pass, application for license in Form II, issue of certificate from Principal Employer (NALCO) in Form III for obtaining license from the Central Labour Department, preparation of monthly wage sheets, issue of wage slips, employment cards, preparation and filing of returns, maintenance of statutory registers etc. The contractors have to use the CLMS for entering relevant data about themselves and the labour engaged by them for getting the benefits of the system. Since the package has been developed as per the mandate given by the Management and is being closely monitored by the Ministry of Mines as an item on the DASHBOARD, use of the system is mandatory for the contractor.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 47 of 59

16.5. TIME OF WORK: The factory timings are as follows:

'A' shift-6.00 AM to 2.00 PM, 'B' shift-2.00 PM to 10.00 PM, 'C' shift-10.00 PM to 6.00 AM, 'G' shift-8.00 AM to 5.00 PM (with 1.00 Hr lunch break from 1PM to 2PM)

17. SUPERVISION:

- 17.1. The contractor shall have to work as per direction of the Manager-in-charge and shall report to him daily regarding day-to-day progress. The contractor shall give full access to the Manager-in-charge / authorized representative of NALCO to inspect day-to-day work executed by the contractor. Besides, the Contractor will take full responsibility to ensure proper workmanship, good quality of work and supervision during the contract period without any additional cost.
- 17.2. Under prevailing statute, the supervision should be carried out by a capable competent person.

18. MATERIAL TOOLS & TACKLES:

18.1. The contractor shall have to make his own arrangement for supply and storage of his materials / consumables and general tools, tackles, welding sets, electrodes, chain pulley blocks, slings, gas welding/cutting sets, in connection with execution of work. No extra payment shall be applicable for such provisions. Wherever required consumables of approved quality like general purpose welding electrodes, cleaning agents, Oxygen gas, D.A. gas, etc to execute the contract shall be in Contractor's scope and contractor must arrange these materials at their own cost unless mentioned otherwise in the tender documents attached herewith. Apart from the above any job /tender specific requirement of materials is indicated in special condition of contract.

18.2. FREE ISSUE MATERIALS / CONSUMABLES:

Unless mentioned otherwise in the attached tender documents, Argon Gas & Co₂ gas will be supplied by Nalco as Free Issue Item if required for the work executed inside plant. The contractor will do transportation from issue point to work site.

Issue of cement and steel as Free Issue shall be governed by clauses 52 to 54 of GCC unless mentioned otherwise in scope of work / special conditions / BOQ or elsewhere in this tender document subject to the followings:

- 18.2.1. For issue of materials within plant boundary wall limit, the contractor shall submit only indemnity bond for the entire value of materials issued to them free of cost as per clause 53 (ix) of GCC.
- 18.2.2. For the materials which are issued for outside plant boundary such as Ash Pond area, Intake Pump House, Lean Slurry area, Bidyut Nagar Colony, township, CISF Barrack etc, the contractor shall furnish Bank Guarantee equivalent to 20% of the value of material and indemnity bond equivalent to 80% value of materials being issued to the contractor.
- 18.2.3. For materials taken out side plant to the vendor's shop, Bank Guarantee equivalent 100% of the value of the materials will be submitted by the vendor before taking out the materials.
- 18.2.4. The Indemnity bond and the Bank Guarantee shall remain valid till the material account is totally settled. The BG and Indemnity Bond shall be submitted in the prescribed format available in the Pact-C of NIT document.
- 18.2.5. The materials drawn if any by the party as "free issue materials" from NALCO should be reconciled. The reconciliation statement of free issue items / materials should be submitted to the EIC/MIC for certification to be submitted along with RA Bill. The final reconciliation statement should be submitted along with final bill for release of final payment.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 48 of 59

19. PAYMENT OF WAGES TO ENGAGED LABOUR AT SITE:

19.1. Payment of wages to the labour employed by the contractor shall be as per the Central Government notification fixing minimum wages for different categories of labour in Central Public Enterprises from time to time plus an additional element as indicated below (as a part of wages). The contractor shall have to make labour payment accordingly, along with applicable statutory benefits. The contractor shall have to make labour payment accordingly, along with applicable statutory benefits.

SL. NO.	CATEGORY	MINIMUM RATES OF WAGES PAYABLE INCLUSIVE OF WAGES FOR WEEKLY OFF, VDA & CANTEEN SUBSIDY W.E.F. 01.10.2024					
		Minimum Wage Rates (Inclusive of Wages for Weekly Off & VDA) (In Rs.)	Additional Element (In Rs.)	Canteen Subsidy (In Rs.)	Total (In Rs.)		
1	Unskilled Worker (USW)	526.00	55.00	30.00	611.00		
2	Semi-Skilled Worker (SSW)	655.00	55.00	30.00	740.00		
3	Skilled Worker (SW)	783.00	55.00	30.00	868.00		
4	Highly Skilled Worker (HSW)	912.00	55.00	30.00	997.00		

- 19.2. The contractor has to ensure payment of minimum bonus @ 8.33% on the notified minimum wages for each category including the additional elements but excluding canteen subsidy (Considering minimum salary as Rs.7000/- per month) to all his workmen engaged in the contract annually.
- 19.3. As per statutory provisions, contractors will have to pay the monthly wages of contract labourers latest by 10th of subsequent month as well as deposit the statutory contributions within due date. In case of failure to do so, NALCO as principal employer will pay wages/release the payments to the concerned labourers at any time after the 10th of subsequent month without any further intimation.
- 19.4. If the date of payment is beyond 10th of subsequent month or there is direct payment, Nalco reserves the right to recover up to 25% as administrative charge on the amount of labor payment plus GST on administrative charges in the RA/Final Bill.
- 19.5. The contractor failing to make payment of labour wages as per applicable Law, may be debarred / banned for conducting future business with NALCO.
- 19.6. Wage & other payments to the workmen engaged by the contractor should be made through Bank and the amount should be deposited in the respective account of the individual workmen within the stipulated period as per statute. The copy of the payment sheet along with the copy of bank statement is to be submitted to executing dept. & HRD dept. for necessary verification and record. One-time contract up to 89 Days and emergency contract may be excluded from this purview.
 - 19.7. PRICE VARIATION FOR LABOUR: Price variation for Labor (Wherever applicable): On subsequent revision of applicable minimum wages to be notified by NALCO from time to time the differential wage and associated components will be reimbursed based on actual payment to workmen, excluding OT amount and Administrative Charges on production of documentary proof to HR Dept regarding payment through bank.
- **19.8. PRICE VARIATION FOR FUEL:** Price variation on Fuel is normally not allowed. If price variation on Fuel is applicable it will be regulated as per the Special Conditions of Contract.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 49 of 59

20. LABOUR LAWS:

- 20.1. The contractor shall abide by all applicable statutory provisions in respect of workmen deployed by him to the satisfaction of Central & State Government Authority. The contractor shall comply with the provisions of all statutes and amendments thereof at their cost for different legislations as under. The contractor shall have to abide by and comply with any Modification/ Change/ Amendment to the existing laws or introduction of any new law relating to the work and rules framed there under from time to time. The list is indicative and not exhaustive.
 - 20.1.1. Building & other Construction Workers (RE & CS) Act 1996
 - 20.1.2. Child Labor (Prohibition & Regulation) Act 1986,
 - 20.1.3. Employees' Provident Fund and Miscellaneous Provisions Act, 1952.
 - 20.1.4. Employees' State Insurance Act, 1948.
 - 20.1.5. Factories Act, 1948
 - 20.1.6. Industrial Dispute Act 1947,
 - The Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1976
 - 20.1.8. The Maternity Benefit Act 1961
 - 20.1.9. Minimum wages Act 1948.
 - 20.1.10. Payment of Wages Act 1936,
 - 20.1.11. Payment of Bonus Act 1965,
 - 20.1.12. Payment of Gratuity Act, 1972
 - 20.1.13. Employees' Compensation Act 1923.
 - 20.1.14. Contract Labour (R&A Act, 1970)

21. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM:

- 21.1. Safety: The contractor shall have to take necessary safety arrangements/ precautions for the workmen engaged by him and shall be responsible for any First Aid / Emergency treatment for his labours / workmen. In addition, the contractor shall have to abide by all fire & safety regulations of the owner. The contractor has to execute the works after taking necessary instruction & safety clearance from the safety officer.
- 21.2. All lifting/handling tools & tackles deployed by the contractor should have been load-tested as per the prevailing rules & regulations. Mobile equipments such as Truck, Tractors, Tippers, Dumpers etc. shall have valid fitness certificate with due insurance required as per the prevailing rules & regulations. Wherever transport of material is applicable, the contractor has to ensure that goods carried during transportation do not exceed the permitted laden weight as certified by registering authority for the respective vehicles.
- 21.3. Personal Protective Equipment (PPE): The contractor shall have to provide all the necessary PPE to the workmen engaged by them as per the requirement, area wise as mentioned in the PPE format. In case the contractor fails to provide PPEs as per requirement, at the time of starting the job, they will not be allowed to carry out the assigned job. PPEs can be got issued from NALCO on request with recovery of purchase cost, plus administrative charge @25% of Procurement cost as penalty plus GST on administrative charges as applicable. (Annexure-A3 of NIT).
- 21.4. The contractor, before starting the work, shall collect a copy of the safety manual from Safety Department and shall abide by all instructions mentioned therein.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 50 of 59

- 21.5. The contractor shall be responsible to promote awareness on the OSHAS requirements among the workmen engaged by them for the subject job and ensure adherence to sound OSHAS related practices as detailed in the "Occupation Health & Safety Policy" enclosed herewith. The contractor shall be responsible for abiding by all the applicable provisions of safety code of contractors which is available in the NALCO web site. The contractor shall contact Safety Dept. for getting necessary advice/compliances as required.
- 21.6. Medical Checkup of Workmen: Contractors will have to submit medical certificate from a Govt. Hospital or registered medical practitioner in the prescribed format for the workmen engaged by him along with application for gate pass and for annual renewal. No gate pass will be issued/renewed unless the medical certificate is enclosed along with the application.
- 21.7. The contractor shall be fully responsible for accidents caused due to him or his agents workmen's negligence or carelessness in regard to the observance of the safety requirements and shall be liable to pay compensations for injuries.
- 21.8. Without prejudice to the right conferred by the Clause 16.7 above for stoppage of work for violating of safety requirements, the contractor shall be liable for penalty up to ` 3,000/- for the first violation and up to ` 5,000/- for the second violation. For the third violation, he shall be liable to be debarred from further contracts up to a period of one year minimum from the date of completion of jobs in hand.
- 21.9. The Engineer in-charge executing the contract will assess the penalty amount having regarded to all the circumstances, in particular the nature and the gravity of the violation & will issue a show-cause notice specifying therein the proposed penalty. Considering the cause shown by the Contractor, if any the Engineer in-charge executing the contract shall pass final orders which shall then be final and binding on the contractor. The penalty amount shall be recoverable from any bill and / or EMD / SD or the Contractor without any further reference to him.
- 21.10. Whenever work at height is involved, contractor must obtain working at height permit form concerned Dept. for these persons required to do work at height as per Appendix-C mentioned in safety code for contractors.

22. ENVIRONMENTAL REQUIREMENTS:

- 22.1. The contractor shall be responsible to promote awareness on the Environmental requirements among the workmen engaged by them for the subject job and ensure adherence to sound environmental practices as detailed in the "General Environmental Requirement & Environmental Policy" enclosed at Annexure-A7 of NIT.
- 22.2. The contractor shall remove all the waste/debris generated during the work on each occasion & dispose off to a place identified by Manager-in-charge. The thorough up-keeping of the work spot before the contractor leaves the work spot is essential. In case the contractor fails to comply with the above, the owner may get the up-keeping done & recover expenses incurred plus administrative charge @25% of the expenses incurred as penalty plus GST on administrative charges as applicable from the contractor.

23. ENERGY MANAGEMENT SYSTEM (ISO 50001):

- 23.1. The Energy Policy of NALCO is attached (Annexure-A6 of NIT). The Service Provider needs to comply all the requirements of the Policy in consultation with the Manager-in-Charge of the contract.
- 23.2. Mandatory guidelines for saving any form of energy: Energy is lifeline of an Organization and SMELTER / CPP, NALCO is implementing Energy Management Systems (EnMS) ISO 50001 in all activities. The contractual service providers are advised to train his workmen for practicing the following "Dos & Don'ts" while executing the assigned work at site.
- 23.3. The Energy Policy of NALCO is attached. The Service Provider needs to comply all the requirements of the Policy in consultation with the Manager-in-Charge of the contract.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 51 of 59

	WHAT TO DO?		WHAT NOT TO DO?			
1.	Use compressed air for instrument cleaning if advised by NALCO	1.	Never open any compressed air for body / dress/ vehicle cleaning.			
2.	Close water line valves if they are in open condition	2.	Never allow any water line in open condition.			
3.	Use water for instrument equipment cleaning if advised by NALCO	3.	Never use any water line of the plant for cleaning of bicycles / vehicles.			
4.	Use LPG for cooking if at all required	4.	Never use any electrical heater for cooking or room heating.			
5.	Switch off lights/ fans in day time when not required	5.	Never waste electricity in any way.			
6.	Touch only that part of equipment for which you are authorized by the Engr. I/C	6.	Never touch any isolators / switches of any equipment.			
7.	Handle coke, pitch, oil (FO, HSD, LDO) & LPG with due care as they are costly.	7.	Never waste any quantity coke, pitch, oil (FO, HSD, LDO) & LPG a drop of any types of oil.			

24. QUALITY OF WORK:

- 24.1. The contractor shall execute the job under their adequate supervision of experienced and qualified personnel in accordance with the best engineering practices and the specification laid down in the enclosed Annexures. NALCO may inspect the work any time without notice to the contractor and may order re-execution of sub-standard work reserving the right to recover compensation in terms of GCC.
- 24.2. Inspection and test procedure given in the relevant clauses of the contract or BIS codes or other codes in practices as specified in the Scope of work / Special Conditions of Contract should be strictly followed.
- 24.3. Contractor shall use instruments calibrated in a Laboratory, accredited to NABL / Laboratory approved by the manufacturer for measurements/tests/inspection.

25. DEFECT LIABILITY PERIOD (DLP):

- 25.1. The DLP shall be governed by the detailed terms and conditions stipulated in clause 65 and 68 of GCC. The defect liability period shall be reckoned from the date of completion of the contract period for supply and workmanship unless mentioned otherwise in Scope of Work / Special Condition of Contract. Duration of DLP is mentioned at Page.2.
- 25.2. DLP for SPECIALISED WORKS:
 - 25.2.1. Water proofing (Below or above ground) and Roof treatment works -10 YEARS
 - 25.2.2. Post construction Anti-termite treatment 5 YEARS
 - 25.2.3. Weather proof Paint works 4 YEARS
- 25.3. In some cases appropriate DLP can be considered depending upon the nature of the job.

26. PAYMENT TERMS:

26.1. The contractor will complete the measurement of work done for the billing period in consultation with EIC/MIC. They will process the RA Bill along with necessary documents as defined under "Billing & Invoicing" for release of payment. It will be processed for release of payment after deductions in compliance to different statutes and retentions as recommended by EIC/MIC. Amount payable will be subjected to further adjustments against outstanding receivables against the vendor if any. The net amount will be paid online through RTGS/NEFT/IMPS/Internet Banking or any other online facility provided by our banker. Charges if any levied by respective banks, is to be borne by respective parties.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 52 of 59

- 26.2. If the contract value is Rs.20,000/- or less, full and final bill will be admitted.
- 26.3. Payment against RA Bill will be considered only when the remaining period of the contract is not less than Billing Period defined in the contract or the remaining value of contract is not less than average periodic value executed up to previous RA Bill. In case the remaining period of contract is less than the billing period or the remaining value of contract is less than average periodic value executed up to previous RA Bill, specific declarations that "Final Bill will be submitted in time" will be sought from the contractor with certification by EIC/MIC before processing of RA Bill.
- 26.4. On award of the contract to the party, it becomes mandatory by the contractor to enclose a deviation statement with RA bill once the executed value of the work has reached 80% of the awarded value.
- 26.5. In case of Lump sum / Turnkey contract, the payment shall be released according to approved Billing schedule and Payment Terms specified in special conditions of contract.
- 26.6. Payment of GST is subject to reflection of the party's invoice in GSTR 2A/Anx-2 (GST new return) of NALCO. If the vendor fails to comply for two consecutive periods against one order, no further payment will be released till compliance is made by 'FILLING' up to last period. If a vendor submits proof of filing GSTR1 duly authenticated by Vendor on the Main page containing Nalco's GSTIN with 'FILLED' status and detail list of invoices generated from their GST login, for Invoices already paid by Nalco, then basic amount of subsequent Invoices may be released. However GST withheld will be released after checking of GSTR2A.
- 26.7. GST TDS as applicable at the prevailing rate on the gross amount billed shall be deducted from the contractor's bill.
- 26.8. Cess will be deducted from Gross bill value as per Building and Other Construction Workers' (RE&CS) Act 1996 for Township construction contracts. (construction, alteration, repairs, maintenance, demolition in relation to buildings, streets, roads, drainage, electrification, distribution of power, water works, communication works etc.)
- 26.9. Payment against Final Bill will not be released if royalty clearance certificate as stated under Royalty Clearance is not submitted by the vendor.

27. BILLING & INVOICING:

- 27.1. Measurement of the work done, during a period, against a Contract is very much essential for correct accounting. This is more so necessary at the end of each financial year. Therefore the contractors are expected to stick to the periodic billing schedule as per the Order. The billing system followed in Nalco is called Running Account Bills (RA Bills) to be generated in prescribed format through ERP system based on measurement of work done during a period with certification by Contractor and approval by EIC/MIC. RA Bills will be sequentially numbered and the last RA Bill will be called nth RA & Final Bill.
- 27.2. Period of raising RA Bill and GST Invoice will normally be 1 month unless otherwise specified in Special Condition of Contract. GST Invoice amount should always match to RA Bill / Final Bill amount.
- 27.3. The RA Bill (in duplicate) will be accompanied by
 - 27.3.1. Joint Measurement Sheet signed by Contractor & EIC/MIC.
 - 27.3.2. R.A. Bill Form signed by Contractor & EIC/MIC.
 - 27.3.3. Human Resource Dept. (HRD) Clearance (if applicable)
 - 27.3.4. Safety Certificate in 1st RA Bill issued by Safety Dept
 - 27.3.5. Any other document required by EIC/MIC or as per directive from statutory authorities.
 - 27.3.6. Deviation statement once the executed value reaches 80% of the Order value.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 53 of 59

27.4. Similarly, in addition to above the Final Bill (in quadruplicate) will be accompanied by

- 27.4.1. Material Reconciliation Statement for Free Issue Material, (if applicable)
- 27.4.2. Stores Issue Voucher, Stores Return Voucher, Material Transfer Voucher if any.
- 27.4.3. No claim certificate duly signed by the contractor. (Annexure-C28 of NIT)
- 27.4.4. No due certificate from suggested by MIC. (Annexure-C28 of NIT)
- 27.4.5. Work Completion certificate from EIC/MIC. (Annexure-C29 of NIT)
- 27.4.6. Deviation Statement
- 27.4.7. Handing over / taking over certificate (wherever applicable)
- 27.4.8. Satisfactory commissioning protocol (wherever applicable)
- 27.4.9. Royalty clearance certificate (wherever applicable)
- 27.4.10. Electrical License (if required)
- 27.4.11. Dismantling of Temp Structure, Disconnection of Water/Elect. & Clearance of Charges.
- 27.4.12. Note: Certificates not applicable to a particular work will be certified by the MIC.
- 27.4.13. Anti-Profiteering Declaration Format
- 27.4.14. As per Rule-47 of GST Act, time limit for issuing Tax Invoice is 30 days from the date of Supply of Service. Therefore RA/Final Bill must be submitted within 15 days from the end of the billing period. Any delay more than 30 days from Completion of Work will be considered as a failure in contractual terms and the contract may be closed exparte on the basis of certification of measurement and amount payable/recoverable considering all recoveries into account by the EIC/MIC. Decision of EIC/MIC shall be final & binding on the contractor. Besides above, the contractor may be treated as dormant or non-responsive and may affect assignment of further business to the vendor.
- 27.5. Party has to provide the copy of the Income Tax Return for each of the two previous Financial Years for which due date of filling of Income Tax Return has expired with self-certification is mandatory along with each GST Tax Invoice else suitable provisions of Act will be applicable.
- 27.6. Vendor / Party categorised / designated as "specified person" under Section 206AB of Income Tax Act, 1961 shall be liable for TDS at higher rate as provided under the said section, by NALCO. So, Vendors / Contractors are advised to submit self-certified copies of Income Tax return (ITR) for each of the Two Previous Years for which due date for filling of ITR has expired, along with the Invoice / Bill so as to facilitate NALCO, verify the applicability of Section 206AB.

28. TAXES & DUTIES:

28.1. GOODS & SERVICES TAX (GST)

- 28.1.1. The Rates indicated in Annexure-II are inclusive of all but exclusive of GST.
- 28.1.2. The contractor must provide GST No including copy of Registration Certificate.
- 28.1.3. The Trade Name in GST Certificate should match to the name in vendor code and name in the Cheque. The Legal name in the GST Certificate should match to Legal Name in the PAN. In case of a Company or a Firm all the names should be same. But in case of Sole Proprietorship, the Legal Name and Trade Name may be different.
- 28.1.4. The contactor should submit the GST Invoice as per the format Annexure-C9 of NIT providing HSN / SAC Code (first 6 digits) and GSTIN of both Vendor and Nalco in the form of Business to Business (B to B) transaction.
- 28.1.5. As per Rule-46 of GST Act, the Serial Number of Tax Invoice should be maximum up to 16 digits, and should be unique for a Financial Year.
- 28.1.6. As per Rule-47 of GST Act, time limit for issuing Tax Invoice is 30 days from the date of Supply of Service.
- 28.1.7. Payment of GST is subject to compliance as stated in Payment Terms.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 54 of 59

- 28.1.8. The contractor shall be fully & solely responsible to the statutory authorities for compliance of all the provisions of GST and other statutory provisions applicable to this work as a service provider either already enacted or to be enacted from time to time during contractual period.
- 28.1.9. NALCO reserves the right to recover any penalty and Interest imposed on NALCO by the concerned statutory authorities due to non-fulfillment of GST compliance by the service provider.

28.2. Anti-Profiteering Clause (Sec 171 of CGST Act) Applicable for Indian Bidders)

- 28.2.1. If any new Tax/Taxes is introduced on sale of goods/service. 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 wherever less than the incidence of existing taxes, then the Vendor shall pass on to Owner, the benefits thereof by way of commensurate reduction in the basic price w.r.t. Input Tax benefit and reduction in Tax chargeable to Nalco w.r.t. Output Tax benefits in connection with goods and/or services provided.
- 28.2.2. If on the other hand, the incidence of tax/taxes is in excess of the incidence of existing tax/taxes, the Owner on submission of satisfactory proof, shall reimburse the Vendor the additional incidence of tax provided they are within the contractual completion date.
- 28.2.3. The Vendor has to provide a declaration along with the Tender that they will abide by the requirements under CI 171 of CGST Act, 2017.

29. INCOME TAX:

- 29.1. The contractor must provide PAN including copy of Registration Certificate.
- 29.2. Income Tax TDS as applicable at the prevailing rate on the gross amount billed shall be deducted from the contractor's bills.
- 29.3. The contractor shall be fully & solely responsible to the statutory authorities for compliance of all provisions applicable to this work as a service provider under Income Tax Act, already enacted or to be enacted from time to time during contractual period.
- 29.4. NALCO reserves the right to recover any penalty and interest imposed on NALCO by the concerned statutory authorities due to non-fulfillment of all provisions applicable to this work as a service provider under Income Tax Act, already enacted or to be enacted from time to time during contractual period.
- 29.5. Party has to provide the Copy of Income Tax Return for each of the Two previous Financial Years for which due date for filling of Income Tax Return has expired with self-certification is a mandatory requirement else suitable provisions of Act will be applicable.
- 30. CESS UNDER RE&CS ACT: Cess will be deducted as per Workers' (RE&CS) Act 1996 and as stated under payment terms.
- 31. ROYALTY CLEARANCE: As per Mines and Minerals Act of Govt. of Odisha the contractor is required to pay royalty for various types of construction materials (minor minerals) used in the work. The royalty charges shall have to be deposited in the office of Tahsildar from whose jurisdiction the minerals have been lifted and submitted along with Final Bill.
- 32. Other Terms & Conditions: The conditions mentioned in this work order are some of the important salient points. All the detailed terms, conditions & guidelines available in the NIT will be binding/applicable for this work order.

33. CONTRACT CLOSURE:

- 33.1. Completion of work assigned through the contract within contractual period is both a contractual obligation and legal obligation on both the parties to the contract i.e. Contractor and Nalco. Closure of contract is achieved in stages through contractual terms or through mutual agreement/settlement. Submission of Final Bill is the 1st stage of closure. Successful completion of Defect Liability Period and Performance Guarantee Period is the 2nd Stage of closure. Settlement of all outstanding payables and receivables is the 3rd stage of closure.
 - 33.1.1. It will be the responsibility of the Contractor in all three stages to lodge necessary claims with EIC/MIC and settle it as follows.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 55 of 59

- 33.1.2. 1st stage Submission of Final Bill, and Performance Guarantee Bond (PGB) maximum within 3 months from the end date of contract period.
- 33.1.3. 2nd stage Submission of Claim letter for release of SD/PBG maximum within 15 days from the date of closure of Guarantee/DLP.
- 33.1.4. 3rd stage Settlement of all outstanding relating to the Contract, before release of Contract Completion Certificate (Annexure-C29 of NIT) by EIC/MIC with concurrence of Finance regarding Contract Execution Value.
- 33.1.5. NALCO reserves the right to short close the contract by serving 15 days' notice to the contractor, when either the contract value or the assigned BOQ quantity has already been executed. The decision of NALCO in this regard shall be final & binding on the contractor.

34. BLACKLISTING/BANNING/SUSPENSION/DELISTING OF BUSINESS/HOLIDAY LIST

- 34.1. Blacklisting: Blacklisting of any agency/ firm/ contractor working with the Company may be resorted to in following cases:
 - 34.1.1. If the Proprietor or Partner or Director of the Firm is convicted by a Court of Law, following prosecution under the normal process of Law for an offence involving moral turpitude in relations to business dealings;
 - 34.1.2. If security considerations including the question of loyalty to the State warrant as per recommendations of Ministry of Home Affairs.
 - 34.1.3. If there is justification for believing that the Proprietor or Partner or Director (or Employee) of the Firm has been guilty of malpractices such as bribery, corruption, cheating, fraud, substitution of bid or theft or any other illegal activities while carrying out the work etc.
 - 34.1.4. If the Firm refuses/fails to return the Company's dues without adequate cause;
 - 34.1.5. If the Firm is blacklisted by any Department of the Central Government/ State Government.
 - 34.1.6. If the Firm is a confirmed evader of Central / State taxes/duties for which NALCO has received notice from the concerned department of Central / State Govt.
 - 34.1.7. Misbehavior/ threatening of departmental supervisory staff during work execution.
 - 34.1.8. Constant non-achievement of milestones on insufficient and imaginary grounds and non-adherence to quality specifications despite being pointed out.
 - 34.1.9. Persistent & intentional violation of important conditions of contract.
 - 34.1.10. Submission of false/ fabricated/ forged documents for consideration of a bid.
 - 34.1.11. If declared bankrupt or insolvent.
- 34.2. Banning: In case where the conduct of the firm is not serious enough to merit blacklisting but removing the name from the registered vendors of NALCO is justified in the interest of the company, the firm/company shall be banned from doing business with NALCO for a period up to 3 years but not less than one year. The reasons for banning are listed below. This list is illustrative only and not exhaustive.
 - 34.2.1. Any failure to execute the contract satisfactorily.
 - 34.2.2. Offence except criminal, such as moral turpitude, fraud, theft, unlawful activities within the premises of the company (Plant or Township) by the contractor or their workmen.
 - 34.2.3. Defaults such as failing in disbursements of wages of the workmen/contract labourers in time at least twice in a contract period.
 - 34.2.4. Submission of false declaration / documents in the offer.
 - 34.2.5. Misconduct / misbehavior of the contractor or any of the workers engaged by them.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 56 of 59

- 34.2.6. Non-compliance of environment, safety and health requirements including use of proper PPEs.
- 34.3. Suspension of Business: Temporary Suspension of business may be ordered without any notice, where full enquiry into the allegation is pending and may entail the blacklisting of the firm/ party/ contractor, if the allegation is proved. The list of the suspended party will be circulated to all Units and the reasons of suspensions shall not be communicated to the firm confirmed. Suspension of business may also be considered if the fir resorts to any legal dispute by filing suite in a court of law.

34.4. Delisting from Vendor List against all Contracts:

- 34.4.1. Party's performance is being evaluated through online assessment system by the respective Managers-in-Charges for the works being executed at site / at party's premises.
- 34.4.2. The assessment ratings are reviewed and the contractors are reminded for improvement in next assessment period if their performance rating is poor.
- 34.4.3. If two consecutive assessments of a contract are Very poor in a single evaluation / Safety & Environmental requirements compliance is not O.K. / SA 8000:2008 Compliance is not OK, then the concerned Vendor will be delisted for one year for that particular job subject to approval by Competent Authority of NALCO and the vendor will be intimated through a letter.
- 34.4.4. The delisted Vendor may be re-enlisted upon the request of the Vendor on completion of the de-listment period and subsequent approval by Competent Authority of NALCO.
- 34.4.5. If any vendor is Black-listed / Banned by any units of NALCO, the Vendor will also be delisted.
- 34.4.6. In case the performance of the vendor is found to be unsatisfactory by the Manager-incharge, the vendor may not be considered in future tender for similar jobs.
- 34.5. NALCO will issue show-cause notice giving 15 days' time to the contractor to respond the same in cases of debarring/ blacklisting/ banning/ suspension of business with the party.
- 34.6. If any varying of conflicting situation arises in any of the document forming part of the Contract, NALCO's decision with regard to intention/interpretation of the document and the decision shall be final and binding on the parties.

35. TERMINATION OF CONTRACT:

- 35.1. If the performance is found unsatisfactory during the period of contract, the contract will be terminated with short notice of 15 days and the same shall be carried out by any other agency at the risk & cost of the contractor. Other penal actions such as forfeiture of EMD and Security Deposit and debarring the contractor for participating in future tenders of NALCO may also be taken as per clause no. given in this Annexure-A1 of NIT.
- 35.2. If the Government of India or any Statutory Authority/empowered to do so, decides/directs to terminate the Contract, the contract shall be terminated without any notice and for that contractor shall not be entitled to any claim such as extra claim, loss, loss of profit etc. against NALCO. The settlement of the dues of contractor shall be done on the basis of execution of actual work in accordance with the terms & conditions of contract.
- 35.3. Short Closure of Contract: NALCO reserves the right to short close the contract by serving 15 days' notice to the contractor, when either of the contract value is executed or the assigned BOQ quantity is exhausted. The decision of NALCO in this regard shall be final & binding on the contractor.

36. ARBITRATION:

The clause No.87 of General Conditions of contract shall be applicable in case of any dispute or difference whatsoever, which may arise at any point of time. Subject to all other provisions contained in clause 87 of GCC, the provisions of the Arbitration and Conciliation Act, 1996 or any statutory



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 57 of 59

modification or re-enactment thereof and the rule made there under, and for the time being in force shall apply to the arbitration proceeding under this clause.

 JURISDICTION: For all disputes arising out of this contract, jurisdiction of honourable courts in Angul, Odisha shall apply. The contract is constructed according to and governed by laws in force in India.





Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 58 of 59

Annexure-C32

Format:- (To be submitted at the time of release of Final Due)

ANTI-PROFITEERING DECLARATION FORMAT

To whomsoever if may concern.

I, Mr.		, Proprietor/		(other authorized
signatories) of M/s			hereby solemi	nly and sincerely declare
				, me/my firm/my
company has abided b	y all Tax Laws and Ru	les including but r	not limited to S	ection 171 of the Central
Goods and Services T	ax Act, 2017.	3		
I further declare that,	me/my firm/my compa	ny, in furtherance	and in compli	ance to the said section,
have not made profit	out of reduction in Inp	out Tax benefits w	vhereever app	licable and reduced Tax
charged to 'Nalco' w.r	t. Output Tax benefits	in connection with	goods and/or	services provided.
I also declare that "Co	mmensurate benefit of	reduction in rate	of tax or benef	it of input tax credit in the
Purchase Order / Wo	rk Order / Contract No.			. Dt has been
passed on to NALCO.				
I further declare that t	he foregoing is true an	d correct and the	same is a lega	al obligation and failure to
fulfil if could result in p	penalties under the law			
Date:	-			
Place:	_ To be sign	ed by the authoriz	ed person und	der the firm's seal.



Subject: MECHANICAL MAINTENANCE & MANPOWER ASSISTANCE FOR OPERATION OF IPH & BARGE AREA OF LSP "ASH DISPOSAL SYSTEM TO MINES VOID" FOR 6 MONTH.

Page 59 of 59

PART -C

Formats for Contract Execution

SI. No.	Description	Annexure
1.	Safety guidelines	Annexure-A2
2.	PPE Matrix/Requirements	Annexure-A3
3.	Environmental policy	Annexure-A4
4.	OHS Policy & Quality Policy	Annexure-A5
5.	Social Accountability (SA) / Energy policy	Annexure-A6
6.	General Environment Requirement / Minimum safety equipment	Annexure-A7
7.	Tax invoice	Annexure-C9
8.	Bank Mandate for e-Payment	Annexure-C10
9.	Indemnity Bond – FIM	Annexure-C11
10.	Bank Guarantee CPGB	Annexure-C13
11.	Bank Guarantee Performance Security	Annexure-C14
12.	Bank Guarantee FIM	Annexure-C15
13.	Bank Guarantee Advance	Annexure-C16
14.	List of standardized banks	Annexure-C17
15.	SAC codes for Services & HSN codes for supply	Annexure-C18
16.	Pre-contract Integrity pact	Annexure-C21
17.	Agreement	Annexure-C23
18.	No Claim/No due certificate	Annexure-C28
19.	Completion certificate	Annexure-C29
20.	Completion certificate (For work orders issued after 1st August 2020)	Annexure-C29 A
21.	Anti-Profiteering Declaration Format (To be submitted at the time of release of Final Due)	Annexure-C32
22.	General Conditions of Contract (GCC)	

The above formats are available in the NIT document in the online portal vide Tender id no. **GEM/2024/B/5675996**.