

भारत सरकार / GOVERNMENT OF INDIA
अंतरिक्ष वभाग / DEPARTMENT OF SPACE
क्रय यूनिट-III / PURCHASE UNIT-III
वक्रम साराभाई अंतरिक्ष केंद्र / VIKRAM SARABHAI SPACE CENTRE
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CORRIGENDUM ON EXPRESSION OF INTEREST

No. PCM/CSG/APD/NTPF-EOI-01/2023

Date: 23/02/2023

सरकार स्वा मत्व कंपनी प्रचा लत (गोको) वधा में ना भक ईंधन कॉम्प्लेक्स, हैदराबाद में स्था पत वीएसएससी की नियोबियम थर्मट उत्पादन सु वधा में नियोबियम थर्मट के प्रचालन, उत्पादन तथा आपूर्ति के लए “अ भरु च की अ भव्यक्ति” पर संशोधन ।

CORRIGENDUM ON “EXPRESSION OF INTEREST” FOR OPERATION, PRODUCTION AND SUPPLY OF NIOBIUM THERMIT AT NIOBIUM THERMIT PRODUCTION FACILITY OF VSSC, SET UP AT NUCLEAR FUEL COMPLEX, HYDERABAD ON “GOVERNMENT OWNED COMPANY OPERATED (GOCO) MODE.

इच्छुक प्रत्या शत निर्माता हमारे संदर्भ सं. PCM/CSG/APD/NTPF-EOI-01/2023 का उद्धरण करते हुए 07/04/2023 [16:00 Hrs.] को या उससे पहले निम्न लखत पते पर अपनी अ भरु च की अ भव्यक्ति दे सकते हैं।

This corrigendum is issued for the incorporation of Annexures regarding list of Main Operations and shifting planning, Details of auxiliary operations and requirement of chemicals and consumables for **OPERATION, PRODUCTION AND SUPPLY OF NIOBIUM THERMIT AT NIOBIUM THERMIT PRODUCTION FACILITY OF VSSC, SET UP AT NUCLEAR FUEL COMPLEX, HYDERABAD ON “GOVERNMENT OWNED COMPANY OPERATED (GOCO) MODE.** Interested parties may furnish their Expression of Interest in Sealed Envelope quoting our Reference No. PCM/CSG/APD/NTPF-EOI-01/2023 on or before 07/04/2023 [16:00 Hrs] to the following address:

नोट:- मेक इन इंडिया नीति के अनुसार केवल श्रेणी-I और श्रेणी-II के स्थानीय आपूर्तिकार इस बोली में भाग लेने के पात्र हैं।

Note:- Only Class-I and Class-II Local suppliers as per Make in India policy are only eligible to participate in the bid

वरि. क्रय एवं भंडार अ धकारी / Sr. Purchase & Stores Officer,
क्रय यूनिट III / Purchase Unit- III,
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तिरुवनंतपुरम / Thiruvananthapuram- 695022.
फोन / Ph: 0471-256 3775/3609

EOI documents are available at our website www.isro.gov.in and www.vssc.gov.in.

हस्ताक्षरित /sd/-

वरि.प्रधान, क्रय एवं भंडार /Sr.Head, Purchase & Stores

List of Main Operations and shift planning

S.No	Operation	Batch Capacity	Batch Time	Shifts	Manpower Requirement
1.	Dissolution	200 kg	16 hrs	I+II	2 operators, 2 work assistants
2.	Neutralization of residue	As per generation	2 hours	G	
3.	Filtration (Filter press operation)	200 ltrs	8 hrs	G	
4.	Solvent preparation	1000 ltrs	3 hrs	G	2 operators
5.	Ta. Feed Preparation	1000 ltrs	5 hrs	I+II	
6.	Ta.Scrub, Ta. Strip preparation, Nb Scrub & strip preparation	1000 ltrs	3-4 hrs	G	
7.	Tantalum Extraction	Continuous		I+II+III	6 operators
8.	Nb Feed Preparation	1000 ltrs		I+II	2 operators
9.	Nb Solvent Extraction	Continuous	5 hrs	I+II+III	
10.	Ta. Precipitation	750 ltrs	16 hrs	I+II	2 operators
11.	Ta. Filtration & Repulping	500 ltrs	16 hrs	G	
12.	Nb.Precipitation	750 ltrs	16 hrs	I+II	2 operators
13.	Nb Filtration & repulping	500 ltrs	16 hrs	G	
14.	Nb Calcination	100 kg	24 hrs	I+II+III	3 operators
17.	Liner heat curing & Oxide Preheating	2 liners	16 hrs	I+III	
15.	Rodmilling & Sieving	50 kg	8 hrs	G	1 operator
16.	Reduction Liner preparation - Refractory lining	1 liner	4-6 hrs	G	1 operator + 1 assistant
	Crushing & Slag removal	1 liner	4 hrs	G	
18.	Alumino thermic reduction	10 kg oxide	30 min	G	2 operators
19.	Hydriding	100 kg	48 hrs	I+II	4 operators
21.	Dehydriding	100 kg	48 hrs	I+II	
22.	Effluent Neutralisation	2000 ltrs	4 hrs	G	3 operators
23.	Filtration (Filter press operation)	2000 ltrs	8 hrs	G	
24.	Solidwaste drying & packing			G	
25.	HF fume scrubbing			G	1 operator
26.	NH3 fume scrubbing like chiller operation, scrub solution preparation, blow down, transfer to ETP etc.			G	

Each shift shall be manned by 1 supervisor.

Details of auxiliary operations

S.No	Description
1	Shifting of raw materials from Stores to Site
2	Shifting of ore drums from storage area to process area, declamping of drum covers, dewatering of drums, cleaning & shifting of drying trays, scooping out wet ore & charging into trays for drying, loading trays into oven for drying, discharging trays from oven, packing dry ore into bags & shifting the ore bags to dissolution area
3	Charging Ore into screw feeder hopper
4	Unloading, packing & shifting dissolution residue to WSDF
5	Sampling, Handing over samples to ChemLab
6	Unloading niobium hydroxide/Tantalum hydroxide cake from filter, addition of wet cake into repulping tank, repulping, discharging cake into bags, shifting the bags to calcination area
7	Cleaning of trays, Charging Nb(OH) ₅ into trays, loading trays into furnace for calcination
8	Discharging trays from calcination furnace, packing into bags & shifting the bags to oxide area
9	Loading of preheated/calcined oxide into rod mill, grinding, unloading, sieving, packing
10	Refractory lining on reduction retorts
11	Chipping of high alumina cement from used liners, removal of alumina slag from reduced mass, packing of chipped cement mass & slag into bags, shifting of bags to storage area
12	Shifting of lime bags from stores, storage sheds to lime treatment area, unloading of bags into lime preparation tank, dusting & stacking of empty bags.
13	Shifting & cleaning of trays, charging of wet solid waste into trays for drying, packing the solid waste into HDPE bags, stitching the bags, shifting the bags to storage bay,
14	loading the solid waste bags into container for disposal as & when required.
15	Cleaning used HF carboys & transfer of neutralized solution to ETP
16	Misc material handling activities

For auxiliary operations, unskilled labour may be sufficient. No. of manpower may be decided suitably.

Annexure-3

Requirement of Chemicals & Consumables

Particulars	Unit	Actual Qty	Specific requirement (per MT of Ore)
<i>Raw Material</i>			
CT Ore	Kg	15800.00	
<i>Consumables</i>			
Tech. HF	Kg	60000	3797
Sulphuric Acid (98%)	Kg	38000	2405
TBP	Kg	6000	380
Kerosene	ltr	6000	380
Ammonia	Kg	7000	443
Quick lime	Kg	215000	13608
Soda Ash	Kg	148340	9389
Sodium Hydroxide	kg	25000	1582
Ammonium Bicarbonate	kg	1700	108
Hydrogen gas	m ³	540	34
Aluminum metal powder	kg	2000	127
High Alumina cement	kg	12000	759
Argon gas	m3	36	2
DM water	m3	90	6
Industrial grade water (process)	m3	2100	133
Industrial grade water (ETP)	m3	500	32
Steam	kg	40000	2532
Alum	kg	1000	63