दूरध्वनी / Tel: 6656 4021 फॅक्स / Fax: 91-(22)-22612404 टेलेक्स / Telex: 81-11-81047 MBPT IN E-mail : <u>dc@mumbaiport.gov.in</u> Visit us at http://www.mumbaiport.gov.in

- Shiles

SAGARMALA





उप संरक्षक का कार्यालय, समुद्री विभाग, पोर्ट भवन, १ ला माला, शूरजी वल्लभदास मार्ग, बॅलार्ड इस्टेट, मुंबई : 400 001. Deputy Conservator's Office, Marine Department, Port Bhavan, 1<sup>ST</sup> Floor, Shoorji Vallabhdas Marg, Ballard Estate, Mumbai - 400001.

## No. DEMC/ EMC(HWAN)-01/2024/

To Prospective Bidders

## Sub : EMC(HWAN)-01/2024-

-Budgetary Quotation for Collection and Analysis of Harbour Water samples, Marine Sediment samples, Ambient Air samples and Noise quality monitoring in the Mumbai Port limit for a period of 3 years.

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Mumbai Port Authority intends to engage an Environmental parameter monitoring laboratory having valid licence from Ministry of Environment & Forest and Climate Change (**MoEF & CC**) for Collection and Analysis of Harbour Water samples, Marine Sediment samples, Ambient Air samples and Noise quality monitoring in the Mumbai Port limit for a period of 3 years. The details of parameters to be tested are enclosed as Bill of Quantity (BOQ).

2. The laboratory/office of the bidder/firm shall be located within Municipal limits of Mumbai (or) Mumbai suburbs, Navi Mumbai, Thane, Kalyan.

3. You are requested to furnish the rates against each item and submit the sealed Budgetary Quotation for the same in the box provided at following address. The Budgetary Quotation may be submitted to -

The Harbour Master Mumbai Port Authority Port House, 1<sup>st</sup> Floor Shoorji Vallabhdas Marg, Ballard Estate Mumbai - 400 001. Ph: (022)66564022

3. If any clarification is required, you are requested to contact on <u>hm@mumbaiport.gov.in</u> or <u>kp.shingh@mumbaiport.gov.in</u>

4. The Budgetary Quotation should reach the above address on (or) before 06.03.2024 @1500 hrs. The above information will be displayed on MbPA website under tenders.

DA: Bill of Quantity

Yours faithfully

# DIRECTOR ENVIRONMENTAL MANAGEMENT CE

## SECTION A -HARBOUR WATER SAMPLES

# SCHEDULE OF QUANTITIES AND RATES

Sr. No	Description	No. of Samples	Rate Per Sample	Amount (Rs.)
INO		Samples	(Rs.)	(KS.)
	Collection of Harbour Water Samples			
1.	from 11 locations at High and Low	792		
	water of Spring And Neap Tide (Total			
	22 samples per month) and carrying	(22 x 36)		
	out analysis of following parameters			
	once in a month.			
	(i) Colour & Odour (ii)Turbidity			
	(iii)PH (iv)DO (v)BOD (vi)TSS			
	(vii)Oil & Grease (viii)Nitrate			
	(ix)Nitrite (x)Ammonia (xi)Phosphate			
	(xii)Petroleum Hydrocarbon (xiii)			
	Polyaromatic Hydrocarbon (xiv) Fecal			
	Coliform (xv) Bioassay Test &			
	(xvi)Phenol			
-	Collection of Harbour Water Samples	0.54		
2	from 11 locations at High and Low	264		
	water of Spring And Neap Tide (Total	(22 4		
	22 samples) and carrying out analysis	$(22 \times 4)$		
	of following parameters once in	x 3)		
	three month.			
	(i) Mercury (Hg) (ii) Cadmium (iii)			
	Lead (Pb)			
3	Collection of habour water samples	288		
	from 4 locations along the navigational			
	route of the channel at High and Low	(8 x 36)		
	water of Spring And Neap Tide (Total			
	8 samples per month) and carrying			
	out analysis of following parameters			
	once in a month.			
	(i)Colour & Odour (ii) pH (iii)			
	Dissolved Oxygen (DO) (iv) Fecal			
	Coliform (v) Sludge Deposit, Solid			
	Refused Floating Oil, Grease & Scum.			

**NOTE : Locations for Sr. No. 1,2** - (i)B.P.X.(ii)Ferry Wharf(iii)Kasara Basin(iv)Haji Bunder (v) Kerosene wharf (vi)Pir Pau (vii)Jawahar Dweep (viii)Gateway (ix)Sassoon dock (x) I.D. Lock Gate (xi) 12 B. I.D.

	1			
4.	Collection of Marine samples at 4	24		
	locations along the navigational route			
	of the channel and carrying out	(4 x 2 x		
	analysis for the following	3)		
	parameters once in six months.			
	Physical Parameter			
	(A)(i) Light Penetration			
	<b>Biological Parameters</b>			
	( <b>B1</b> )(i) Chlorophyll (ii) Primary			
	Productivity (iii) Phytoplankton			
	(iv) Zooplanktons,			
	(B2) (i) Benthic Meio (ii) Benthic			
	Macro			
	Collection of Marine sediments at 4	24		
5.	locations along the navigational route	24		
5.	of the channel and carrying out	(4 x 2 x		
	analysis for the following physio-			
		3)		
	chemical parameters once in six			
	months			
	(i) Texture, (ii) Total Organic Carbon			
	(iii) Phosphorous			
	(iv)Total Petroleum Hydrocarbon			
	(v)Polyaromatic hydrocarbon,			
	(vi)Zinc, (vii)Lead, (viii)Cadmium,			
	(ix)Mercury,			
	(x)Copper, (xi)Cobalt, (xii)Nickel			
	(xiii) Iron (xiv)Chromium			
6.	Occasional Testing of Oil/ bilge water	18	825	
	from Ship and polluted Oily Water			
	Samples to check the matching of			
	samples using F.T.I.R. or any other			
	suitable method and submitting results.			
	Notes: i) MbPT will collect samples			
	and handover to Contractor. ii)			
	Contractor can arrange to get these			
	samples tested in other laboratories.			
	iii) These tests are to be carried out as			
	and when required. (This rate is based			
	on M/s. Geo Chem's bill in 2018			
	escalated to present level.			
Α	Total Amount for A			
	Exclusive of GST			
•	•			

**Locations for Sr. No. 3,4,5** – Navigational channel (i) Off 2<sup>nd</sup> Chemical berth (ii) North Karanja (iii)Sunk Rock (iv) Off Middle Ground

### SECTION B -AMBIENT AIR QUALITY AND NOISE QUALITY

#### SCHEDULE OF QUANTITIES AND RATES

Sr. No	Description	No. of Samples	Rate Per Sample (Rs.)	Amount (Rs.)
1.	Analysis of ambient air samples <b>per month</b> at two locations approved by Mumbai Port Trust including collection of samples by fine dust sampler (FDS) & respirable dust sampler (RDS) for 24 hrs. for the following parameters i) PM 10 ii) PM 2.5 iii) SO2, iv) NOx v) CO for the period of three years.	-	(RS.)	
2.	Noise Quality Monitoring in MbPT dock area at two location approved by MbPT, <b>once in three months</b> for the period of three years.	24 Samples 2 x 4 x 3)		
3.	Sampling and analysis of hydrocarbon (VOC's) samples in ambient air using methods for measurement of Air Pollution as per IS 5182 (Part 11) of latest edition from Second Liquid Chemical Berth, Pir Pau for the following parameters – VOC's as Benzene, Toluene and Xylene .One sample per month.	-		
4.	Sampling and analysis of VOC as <b>Benzene</b> in ambient air per month one sample from each location at Yellow Gate Indira Dock and Orange Gate Prince's Dock (OGPD) (or) at locations as approved by Director (PCC), MbPT.	-		
5.	Transportation of Machinery & technicians required for collection of samples for air, noise and VOC at designated location in Mumbai Port Trust premises from BPX (Ballard Pier) to Pir Pau (Mahul, Chembur) etc. complete as directed.	36 months		
В	Total amount for B exclusive of GST			
	Grand Total = $A + B$			

**NOTE : Locations for Sr. No.1 (Any 2 out of 4)** – (i) Ambedkar Bhavan,Blue gate, Indira Dock/B.P.X. building, (ii)Green gate, Indira Dock. **OR** 

(i) Pir Pau, MbPT Fire Station, Mahul village, Chembur (ii) MbPA Hospital premises, Wadala.

Locations for Sr. No.2(Any 2 out of 4) – (i) Ship Breaking Yard at Darukhana, Reay Road. (ii)CME workshop at Mazagaon(iii) Hughes dry dock at Indira Dock (or) Blue gate, Indira Dock (iv)Orange Gate at Prince's Dock (OGPD).

### **Terms & conditions :**

- 1. Above tests are carried out as per mentioned frequency.
- 2. The laboratory/office of the bidder/firm shall be located within Municipal limits of Mumbai (or) Mumbai suburbs, Navi Mumbai, Thane, Kalyan, Vasai, Virar, Panvel,
- 3. MbPA will provide **boat facility free of cost** for collection of water and marine sediment samples.
- Laboratory and key personnel should be recognized by <u>Ministry of Environment and Forest</u> (MoEF & CC).
- 5. Detailed Reports and Summary report should be submitted by Authorised signatory in format acceptable to MoEF & MPCB in every month along with scanned copies in PDF format. Scanned copies of Consolidated reports are also to be submitted in PDF format.
- 6. No material, services and workmen will be supplied by Mumbai Port Authority to carry out work.

7. in PDF format.

8. No material, services and workmen will be supplied by Mumbai Port Authority to carry out wor