

**EHS/MoEF/2024-130**

**30/11/2024**

To  
The Director,  
Regional Office (South Eastern Zone)  
Ministry of Environment, Forests and Climate Change  
1<sup>st</sup> and 2<sup>nd</sup> Floor, Handloom Export Promotion Council,  
34, Cathedral Garden Road,  
Nungambakkam, Chennai-600034

Dear Sir,

Sub: Half Yearly EC (Environment Clearance) Compliance Report- regd.

Ref: 1. F. No. J-11011/51/2016-IA. II(I) dated 14.07.2017  
2. F. No. J-11011/51/2016-IA. II(I) dated 07.01.2021  
3. F. No. J-11011/51/2016-IA. II(I) dated 27.06.2022

Please find the attached half yearly compliance report of Environment Clearance issued by MOEFCC for enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P2O5 and other auxiliary facilities within the existing Fertilizer Complex.

Period of submission : **April- 2024 to September-2024**  
Unit : Coromandel International Limited, Visakhapatnam

Thanking You,

For Coromandel International Limited



**M. Gnanasundaram**  
VP – Head Manufacturing

  
NAG/DNR  
Encl : a/a 

CC: The Member Secretary, Head Office-APPCB, Vijayawada  
Joint Chief Environmental Engineer, APPCB, Zonal Office, Visakhapatnam  
Environmental Engineer, APPCB, Regional Office, Visakhapatnam

## EHS2-Vizag-Coromandel

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**From:** Nagarjuna-P-Mgr-EHS-Vizag-Coromandel  
**Sent:** 01 December 2024 18:21  
**To:** ecompliance-ap@gov.in; rovspappcb@gmail.com; zovspappcb  
**Cc:** EHS2-Vizag-Coromandel; Nageswara Rao G-AsstMgr-EHS-Vizag-Coromandel; Subhradip Mondal-Mgr-Environment-Vizag-Coromandel; Nagaraju D-AGM-EHS-Vizag-Coromandel; Vinod Kumar Mishra-Sr.GM-EHS-Vizag-Coromandel  
**Subject:** Half Yearly EC (Environment Clearance) Compliance Report- regd.  
**Attachments:** EC PA SA EXPANSION (Apr-24 to Sep-24).pdf

Dear Sir,

Ref: 1. F. No. J-11011/51/2016-IA. II(I) dated 14.07.2017  
2. F. No. J-11011/51/2016-IA. II(I) dated 07.01.2021  
3. F. No. J-11011/51/2016-IA. II(I) dated 27.06.2022

Please find the attached half yearly compliance report of Environment Clearance issued by MOEFCC for enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P2O5 and other auxiliary facilities within the existing Fertilizer Complex and "Change in location of new 1500 MTPD Sulphuric Acid (100%) Plant within the existing fertilizer complex" and "to add Desalination Plant with Capacity of 15 MLD".

**Period of submission : April -2024 to September -2024**  
**Unit : Coromandel International Limited, Visakhapatnam**

Regards,  
Nagarjuna P  
Manager-Environment  
9100443439

**SAVE ENVIRONMENT SAVE LIFE**

  
**Coromandel**  
FUTURE POSITIVE  
**Coromandel International Limited**  
Sriharipuram, Malkapuram PO  
Visakhapatnam-530 011  
Andhrapradesh, India.  
F: +91 891-2578400  
W: [www.coromandel.biz](http://www.coromandel.biz)  
A MURUGAPPA GROUP COMPANY

## Coromandel International Limited, Visakhapatnam

### Compliance status of Environment clearance

1. F. No. J-11011/51/2016-IA. II(I) dated 14.07.2017
2. F. No. J-11011/51/2016-IA. II(I) dated 07.01.2021
3. F. No. J-11011/51/2016-IA. II(I) dated 27.06.2022

(For the period from April -2024 to September -2024)

Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD)  $P_2O_5$  and other auxiliary facilities within the existing Fertilizer Complex, Sriharipuram, Vishakhapatnam District, Andhra Pradesh by M/s Coromandel International Limited (Formerly M/s. Coromandel Fertilizer Limited) - Environmental Clearance –reg.

S.No.	Condition	Compliance
<b>A. Specific Conditions:</b>		
i.	Green Belt of 10 M wide (Perennial trees) to be developed in three sides of plant periphery totaling 145 acre area.	We have developed the green belts across the boundary walls Photographs are attached in Enclosed in <b>Annexure - 01</b> . The existing green belt area (120 acres) is more than 33% of the requirement. However, the plantation efforts will be continued.
ii.	The present fresh water requirement is 8700 m <sup>3</sup> /day. Additional fresh water for the proposed enhancement is to be limited to 1650 m <sup>3</sup> /day. The total fresh water requirement post enhancement shall not exceed 10350 m <sup>3</sup> /day. The present sea water requirement for once through cooling is 63000 m <sup>3</sup> / day and the same will be increased post enhancement to 84600 m <sup>3</sup> / day.	Agreed. The project is completely implemented. The new water balance is limited to 10350 m <sup>3</sup> /day from GVMC and 6 MLD from the De-salination plant for which necessary approvals from concerned authorities are in place.
iii.	No ground water shall be used.	Existing water source is GVMC (local Municipal Body), no ground water source is used.
iv.	Post enhancement, the SO <sub>2</sub> emissions from Sulphuric acid plant-I and sulphuric acid plant-2 shall be maintained at 1 kg/MT and 0.65 kg/ MT.	Noted & maintained
v.	Imported coal/ rice husk/bagasse fired	Complied.

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	boiler of 40 TPH will be installed with ESP and 56 m stack height with SO <sub>2</sub> emissions limited to 1188 Kg/ day.	Coal fired boiler has been provided a stack of 56 mts in height.
vi.	Existing two nos of LSHS fired boilers will be kept on standby mode.	LSHS Fired boilers on standby only.
vii.	The gaseous emissions (SO <sub>2</sub> , NO <sub>x</sub> , NH <sub>3</sub> ) and particulate matter from various process units shall conform to the norms prescribed by the CPCB/SPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.	<p>Complied.</p> <p>All the stacks are provided/attached with Scrubbers as detailed below:</p> <p>SAP Plants: Alkali scrubbers  PAP Plant: Fumes scrubber &amp; FRU unit  Complex Stacks: 4 stage scrubbers  New PAP units: Scrubbers kept in place.  Ball Mill: Bag Filters kept in inline  Coal Fired Boiler: ESP kept in Line.  The emissions are maintained within the prescribed limits by CPCB/SPCB.  Copy of the acknowledgment herewith is enclosed as <b>Annexure - 2</b></p>
viii.	Ambient air quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> September, 2009. The levels of PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , Ammonia, shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the concerned State Pollution Control Board (SPCB).	<p>Complied</p> <p>We are conducting the Ambient Air Monitoring and checking as per the National Ambient Air quality standards notified by MoEF, Govt notification GSR 826 (E), dt 16.09.2009. We have provided display Board at main gate of the company.</p> <p>Monitoring reports are submitted to the concerned authorities.  A copy of the acknowledgment herewith is enclosed as <b>Annexure – 03</b></p>
IX.	No process effluent shall be discharged in and around the project site. Process effluents shall be treated in ETP. Sewage shall be treated in STP. Both treated sewage water and process effluents shall be recycled/reused within factory premises to achieve zero discharge except during the rainy season.	<p>All the process effluent is being treated in ETP.</p> <p>Sewage treated in STP and treated water is being used for plantation</p>



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x.	Risk assessment plan to be prepared and implemented.	complied
xi.	In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions should conform to the limits stipulated by the concerned SPCB.	<p>Complied.</p> <p>All the necessary precautions for closed transport of raw materials and operations will be implemented for limiting of fugitive emissions.</p> <p>Emissions are maintained within CPCB/SPCB prescribed limits.</p> <p>A copy of the third-party analysis reports herewith is enclosed as <b>Annexure - 04</b></p>
xii.	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	<p>Complied</p> <p>DGs are only on standby and an acoustic enclosure provided.</p>
xiii.	The company shall construct the garland drain all around the project site to prevent runoff of any chemicals containing waste into the nearby water bodies. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.	<p>Complied</p> <p>Garland drains have been provided. Effluent is being treated in ETP</p>
xiv.	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes. Measures shall be taken for firefighting facilities in case of emergency.	<p>Complied.</p> <p>CFO has obtained Order No. APPCB/VSP/65/CFO/HO/1967 - 04/08/2023</p>
xv.	The by-products which fall under the purview of the Hazardous Waste Rules, be handled as per the provisions of the said Rules and necessary permissions shall be obtained under the said rules.	<p>Complied</p> <p>We will handle by-products that fall under the purview of the Hazardous Waste Rules in accordance with the provisions of these rules and obtain the necessary permissions as required.</p>
xvi.	Spent catalysts and used oil shall be sold to authorized recyclers /re-processors only.	Complied. As per the existing procedure, respective wastes are sent to authorized

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	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA),1989.	recyclers/PCB approved TSDFs.
xvii.	The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).	Complied
xviii.	All the commitments made during the Public Hearing/Public Consultation meeting held on 8th December, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.	Noted and being followed.
xix.	Remote operated valve placed on NH3 line to avoid leakage/equipment check shall be performed to ensure that remote operated valve (ROV) is all time is functional.	Complied and PM schedule adhered
xx.	At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.	Complied. A copy of the submitted half-yearly CSR report is enclosed in <b>Annexure – 05</b>
XXI.	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Complied and continued as per the Factories Act.
xxii.	Provision shall be made for the housing for the construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so	Complied.

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	that there is no impact on the surrounding environment.	
xxiii.	An Environment Cell will be set. up and a regular environmental manager having PG qualification in environmental sciences/environmental engineering to be appointed for looking after the environmental management practices in the plant.	Complied A separate environment management cell at the corporate level headed by AVP, HSE & A separate environment cell plant level headed by Plant EHS level are in place
	<b>B. GENERAL CONDITIONS:</b>	
i.	The project authorities must strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), State Government and any other statutory authority.	Agreed.
ii.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Agreed.
iii.	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied We have installed 03 numbers of online ambient air monitoring stations and we have also monitored the ambient air through a third party at 05 Locations. The reports are submitted regularly.
iv.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.	It is being Complied.
v.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of	Complied and noise levels are within the standards prescribed. A copy of the third-party noise monitoring reports herewith is enclosed as <b>Annexure - 06</b>

## Coromandel International Limited, Visakhapatnam

	noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	
vi.	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	complied
vii.	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Training is being imparted regularly to employees. Pre employment medical check is part of HR policy before joining. Annual medical checkup is being undertaken regularly for all the employees.
viii.	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	Complied
ix.	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.	Complied as per the submitted CSR plan A copy of the Half Yearly CSR report herewith is enclosed as <b>Annexure - 05</b>
x.	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Complied as per the submitted CSR plan A copy of the Half Yearly CSR report herewith is enclosed as <b>Annexure - 05</b>
xi.	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Complied A separate environment management cell at the corporate level headed by AVP, HSE & A separate environment cell plant level headed by Plant EHS level are in place. We have engaged NABL &

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		MoEFCC accredited Lab to carry out the Environmental monitoring regularly
xii.	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	Complied
xiii.	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	Complied We have sent all copies to the concerned local authorities
xiv.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as bye-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Complied Compliance reports are sent regularly and the same are uploaded to the company website.the company website link is <a href="http://www.coromandel.biz/sustainability">www.coromandel.biz/sustainability</a> com A copy of the submitted Half yearly is enclosed in <b>Annexure – 07</b>
xv.	The environmental statement for each financial year ending 31st March in Form-Vas is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Complied. The environmental statement for the year FY:2024-25 has been submitted on 27-09-2024 Copy of the acknowledgment herewith is enclosed as <b>Annexure-08</b> .

**Coromandel International Limited, Visakhapatnam**

xvi.	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <a href="http://moef.nic.in">http://moef.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied
xvii.	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Complied. The projects were completed with the internal accruals.

## Coromandel International Limited, Visakhapatnam

Compliance to Amended Environmental Clearance dated 07.01.2021

F. No. J-11011/51/2016-IA-II (I) dt 7<sup>th</sup> January 2021

Proposed setting up of new 1500 MTPD Sulphuric acid (100%) plant within the Existing Fertilizer Complex, for total Sulphuric acid production of 3600 MTPD at Sriharipuram, Vishakhapatnam district, Andhra Pradesh, without increase pollution load and total production of NP/NPK (3900 MTPD) and Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited (Formerly M/s Coromandel Fertilizers limited).

Sl. No	Para of EC issued by MoEF&CC	Description/Conditions	Compliance
1	Subject	Proposed setting up of new 1500 MTPD Sulphuric acid (100%) plant within the Existing Fertilizer Complex, for total Sulphuric acid production of 3600 MTPD at Sriharipuram, Vishakhapatnam district, Andhra Pradesh, without increase pollution load and total production of NP/NPK (3900 MTPD) and Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited (Formerly M/s Coromandel Fertilizers limited).	-
2	Point 2	The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for <u>setting up of new 1500 MTPD Sulphuric acid (100%) plant within the Existing Fertilizer Complex, for total Sulphuric acid production of 3600 MTPD at Sriharipuram, Vishakhapatnam district, Andhra Pradesh, without increase pollution load and total production of NP/NPK (3900 MTPD) and Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited (Formerly M/s Coromandel Fertilizers limited)</u>	-
3	Point 3	Existing land area is <u>313 Acres</u> , of which 120 acres is developed as greenbelt. <u>Additional cost of the project is ~ 400 Crore.</u> The additional estimated cost of various environmental management programs in the proposed project is ~ 10 Cr which is	Agreed and noted for compliance

## Coromandel International Limited, Visakhapatnam

		<p>around 2.5% of proposed Additional project cost. <u>In order to achieve consented production of 3900 MTPD NP/NPK production, the facility intends to adopt the following modifications and upgrades in the upstream of the complex fertilize manufacturing units:</u></p> <ul style="list-style-type: none"> <li>• Installation of Additional 1500 MTPD of Sulphuric Acid production plant along with existing 2100 MTPD Sulphuric Acid Plant (SAP-1 (1700 MTPD) &amp; SAP2 (400 MTPD)). Total production capacity of Sulphuric acid shall be 3600 MTPD</li> <li>• Use of low sulphur coal in coal fired boiler and optimizing operations of existing sulphuric acid plant – I and coal fired boiler for no change in SO<sub>2</sub> emission from the sanctioned emission load.</li> <li>• Existing Phosphoric acid plant with production capacity of 1400 MTPD</li> <li>• Provision of Sulfuric Acid storage capacity of 2 x 5000 MT + 2 X 12,500 MT +1500 MT along with existing storage capacity of 15,000 MT</li> </ul>	
4	Point 4	<p>Power requirement will be increased from <u>20 MW to 21 MW</u>. The facility has contracted grid power of 12 MW, 5 MW from APGPCL and in-house steam turbine capacity of 5MW. The net available power for the existing operation is in the order of 22 MW. Hence the available power is adequate to meet the total requirement of <u>21 MW</u> post enhancement.</p>	Agreed
5	Point para3 4	<p>Fresh water requirement will be increased from 10350 m<sup>3</sup>/day to 14550 m<sup>3</sup>/day, which will be sourced from Greater Vishakhapatnam Municipal Corporation (GVMC). Sea water consumption will be same i.e 84600 m<sup>3</sup>/ day.</p>	Agreed and noted for compliance



## Coromandel International Limited, Visakhapatnam

6	A-Specific Condition 1	Green Belt of 10 M wide (Perennial trees) to be developed in three sides of plant periphery totaling <u>120 acre area</u> .	Agreed. The existing green belt area is more than 33% of the requirement. However, the plantation efforts will be continued.
7	A-Specific Condition 1	The present freshwater requirement is <u>10350 m3/day</u> . <u>Additional fresh water for the proposed enhancement will be 4200 m3/day</u> . <u>The total freshwater requirement post enhancement shall not exceed 14550 m3/day</u> . The present sea water requirement for once through cooling will remain to be <u>84600 m3 / day</u> .	Agreed
8	A-specific Condition 4	Post amendment, the SO2 emissions from Sulphuric acid plant-I and sulphuric acid plant-2 shall be maintained at 0.8 kg/MT and 0.65 kg/ MT and in Sulphuric Acid Plant-3 shall be maintained at 0.75 kg/MT.	Noted and complying.s

## Annexure - 1



















**TEAM****ORIGINAL**

Form-No. TCL/L/GF/RF-138

**Labs and Consultants****Registered Office :**

B-115, 116, 117 &amp; 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

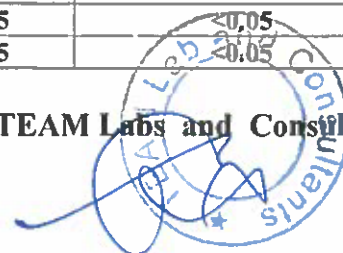
Recognised as Environmental Laboratory under Environmental (Protection) Act 1986

NABL Accredited Laboratory (Certificate No. TC-12956)

**TEST REPORT**

Test Report No.		TLC/V/Env/CIL/17/0924		dt.01.10.2024
Description of Test		Ambient Air quality Monitoring inside the CIL		
Name of the client		Coromandel International Limited, Visakhapatnam		
Location of sampling		Stations as per details given		
Period of Monitoring		For the Month ofSEPTEMBER-2024		
Summary of Ambient Air quality Monitoring Data for the Month of SEPTEMBER-2024				
Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate –13 (Near Bagging plant)
PM2.5	Minimum	22	26	22
	Maximum	40	42	42
	98%tile	40	42	42
	Average	32	35	37
PM 10 µg/M <sup>3</sup>	Minimum	50	52	68
	Maximum	78	80	80
	98%tile	78	80	80
	Average	65	68	74
SO <sub>2</sub> µg/M <sup>3</sup>	Minimum	12.5	13.2	12.9
	Maximum	20.2	23.5	15.5
	Average	16.4	18.9	14.4
	98%tile	20.2	23.5	15.5
NO <sub>x</sub> µg/M <sup>3</sup>	12.4	13.5	15.8	11.6
	Maximum	21.3	22.4	19.5
	98%tile	21.3	22.4	19.5
	Average	17.4	18.8	18.1
NH <sub>3</sub> mg/M <sup>3</sup>	Minimum	0.01	0.01	0.01
	Maximum	0.04	0.05	0.03
	98%tile	0.04	0.05	0.03
	Average	0.025	0.03	0.02
O <sub>3</sub> µg/M <sup>3</sup>	Minimum	10	10	10
	Maximum	22	22	20
	98%tile	22	22	20
	Average	16	16	15
CO mg/M <sup>3</sup>	Minimum	0.1	0.1	0.1
	Maximum	0.2	0.2	0.3
	98%tile	0.2	0.2	0.3
	Average	0.15	0.15	0.2
Pb µg/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05
C6H6 ng/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05
B(a)P ng/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05
As ng/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05
Ni ng/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05

For TEAM Labs and Consultants



## Registered Office :

B-115, 116, 117 &amp; 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

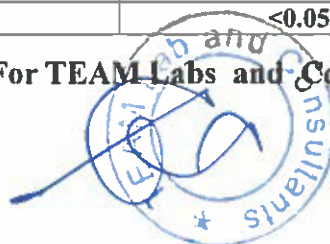
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## TEST REPORT

Test Report No.		TLC/V/Env/CIL/18/0924	dt.01.10.2024
Description of Test		Ambient Air quality Monitoring inside the CIL unit	
Name of the client		Coromandel International Limited, Visakhapatnam	
Location of sampling		Stations as per details given	
Period of Monitoring		For the Month ofSEPTEMBER-2024	
Summary of Ambient Air quality Monitoring Data for the Month of SEPTEMBER-2024			
Parameters		AAQ-4 Station at Warf	AAQ-5 Station near VST
PM2.5	Minimum	24	25
	Maximum	39	39
	98%tile	39	39
	Average	32	32
PM 10 µg/M <sup>3</sup>	Minimum	50	50
	Maximum	75	76
	98%tile	75	76
	Average	63	64
SO <sub>2</sub> µg/M <sup>3</sup>	Minimum	10.9	10.8
	Maximum	16.0	16.7
	Average	13.4	13.8
	98%tile	16.0	16.7
NO <sub>x</sub> µg/M <sup>3</sup>	Minimum	12.5	12.6
	Maximum	18.8	18.8
	98%tile	18.8	18.8
	Average	15.6	15.8
NH <sub>3</sub> mg/M <sup>3</sup>	Minimum	0.01	0.01
	Maximum	0.04	0.05
	98%tile	0.04	0.05
	Average	0.02	0.03
O3 µg/M <sup>3</sup>	Minimum	10	10
	Maximum	20	20
	98%tile	20	20
	Average	15	15
CO mg/M <sup>3</sup>	Minimum	0.1	0.1
	Maximum	0.2	0.3
	98%tile	0.2	0.3
	Average	0.15	0.2
Pb µg/M <sup>3</sup>	<0.05	<0.05	<0.05
C6H6 ng/M <sup>3</sup>	<0.05	<0.05	<0.05
B(a)P ng/M <sup>3</sup>	<0.05	<0.05	<0.05
As ng M <sup>3</sup>	<0.05	<0.05	<0.05
Ni ng/M <sup>3</sup>	<0.05	<0.05	<0.05

For TEAM Labs and Consultants





AAQM VST



AAQM Wharf



## Labs and Consultants

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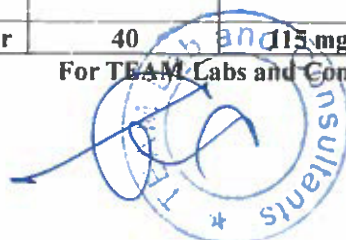
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## TEST REPORT

Test Report No	TLC/V/Env/CIL/16/0924			dt.01.10.2024	
Description of Test	Source Emission Monitoring inside the CIL				
Name of the client	Coromandel International Limited, Visakhapatnam				
Location of sampling	stacks attached to respective plants as per details given				
SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OFSEPTEMBER-2024					
S.No	Stack attached to	Flow rate NM³/Hr	parameters	Conc. mg/NM³	APPCB Standard Limit
1	Complex A	294385	Particulate matter	18	45 mg/NM³
			Ammonia	70	165.0 mg/NM³
			Fluoride	1.2	4.0 mg/NM³
2	Complex B	285151	Particulate matter	19	45 mg/NM³
			Ammonia	82	165.0 mg/NM³
			Fluoride	1.1	4.0 mg/NM³
3	Complex C	202349	Particulate matter	20	45 mg/NM³
			Ammonia	52	165.0 mg/NM³
			Fluoride	1.1	4.0 mg/NM³
4	Sulphuric acid plant-1	97903	Sulphur dioxide	0.42Kg/MT (260mg/NM³)	1 Kg/MT
			Sulphur trioxide	0.032Kg/MT (20mg/NM³)	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM³
5	Sulphuric acid plant-II	26955	Sulphur dioxide	0.143Kg/MT (90mg/NM³)	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM³
6	Phosphoric acid plant-1	132864	Particulate matter	25	50 mg/NM³
			Fluoride	3.9	20 mg/NM³
7	Rock grinding unit (Old)	7346	Particulate matter	40	50 mg/NM³
			Total Fluoride	4.3	20 mg/NM³
8	Wharf Boiler	10797	Particulate matter	47	115 mg/NM³
9	Phosphoric acid plant-2	37545	Particulate matter	29	50 mg/NM³
			Total Fluoride	4.2	20 mg/NM³
10	Rock grinding unit (New)	7067	Particulate matter	43	50 mg/NM³
			Total Fluoride	3.1	20 mg/NM³
11	New SAP-3	48990	Sulphur dioxide	0.05Kg/MT (60mg/NM³)	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM³
12	DG1	11800	Particulate matter	42	115 mg/NM³
13	DG2	12148	Particulate matter	40	115 mg/NM³

PHAP-2 29-

For TEAM Labs and Consultants





**Coromandel International Limited**

Post Box No. 1116, Sriharipuram, Malkapuram Post  
Visakhapatnam - 530 011, Andhra Pradesh, India  
Tel : 91-891-2578400  
DID : 91-891-2893+Extn No  
Website : www.coromandel.biz  
CIN : L24120AP1961PLC000892  
GSTIN : 37AAACC7852K1ZC

**EHS/APPCB/2024 - 103**

**04-10-2024**

To,

The Environmental Engineer,  
Regional Office, 3<sup>rd</sup> Floor  
A.P. Pollution Control Board,  
Visakhapatnam - 530018

Dear Sir,

**Sub: Submission of Environmental Monitoring Reports for the month September' 2024 – Reg.**

**Ref: I) CFO Order No: APPCB/VSP/65/CFO/HO/1967 - 04/08/2023**

With reference to above we are here with attaching the analysis reports of the third party for the month of September' 2024. The following are the analysis reports:

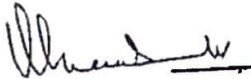
1. National Ambient Air Quality
2. Noise Monitoring Reports
3. STP Outlet Water Quality
4. ETP Outlet Water Quality
5. Piezo Well Water Quality
6. Stack Monitoring Reports
7. Ground Water Reports

This is for your kind information & Records

Thanking you,

Yours faithfully,

**for Coromandel International Limited**



**Gnanasundaram M**  
**Vice President & Head Mfg.**

  
NAG



**EHS/APPCB/2024 - 103**

**04- 10 -2024**

To,

The Environmental Engineer,  
Regional Office, 3<sup>rd</sup> Floor  
A.P. Pollution Control Board,  
Visakhapatnam -530018

Dear Sir,

**Sub: Submission of Environmental Monitoring Reports for the month September' 2024 – Reg.**

**Ref: I) CFO Order No: APPCB/VSP/65/CFO/HO/1967 - 04/08/2023**

With reference to above we are here with attaching the analysis reports of the third party for the month of **September' 2024**. The following are the analysis reports:

1. National Ambient Air Quality
2. Noise Monitoring Reports
3. STP Outlet Water Quality
4. ETP Outlet Water Quality
5. Piezo Well Water Quality
6. Stack Monitoring Reports
7. Ground Water Reports

This is for your kind information & Records

Thanking you,

Yours faithfully,

**for Coromandel International Limited**



**Gnanasundaram M**  
**Vice President & Head Mfg.**

  
**NAG**

## Labs and Consultants

## Registered Office :

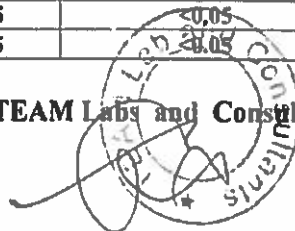
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## TEST REPORT

Test Report No.	TLC/V/Env/CIL/17/0924		dt.01.10.2024	
Description of Test	Ambient Air quality Monitoring inside the CIL			
Name of the client	Coromandel International Limited, Visakhapatnam			
Location of sampling	Stations as per details given			
Period of Monitoring	For the Month ofSEPTEMBER-2024			
Summary of Ambient Air quality Monitoring Data for the Month of SEPTEMBER-2024				
Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	22	26	22
	Maximum	40	42	42
	98%tile	40	42	42
	Average	32	35	37
PM 10 $\mu\text{g}/\text{M}^3$	Minimum	50	52	68
	Maximum	78	80	80
	98%tile	78	80	80
	Average	65	68	74
SO <sub>2</sub> $\mu\text{g}/\text{M}^3$	Minimum	12.5	13.2	12.9
	Maximum	20.2	23.5	15.5
	Average	16.4	18.9	14.4
	98%tile	20.2	23.5	15.5
NO <sub>x</sub> $\mu\text{g}/\text{M}^3$	Minimum	12.4	13.5	11.6
	Maximum	21.3	22.4	19.5
	98%tile	21.3	22.4	19.5
	Average	17.4	18.8	18.1
NH <sub>3</sub> $\text{mg}/\text{M}^3$	Minimum	0.01	0.01	0.01
	Maximum	0.04	0.05	0.03
	98%tile	0.04	0.05	0.03
	Average	0.025	0.03	0.02
O <sub>3</sub> $\mu\text{g}/\text{M}^3$	Minimum	10	10	10
	Maximum	22	22	20
	98%tile	22	22	20
	Average	16	16	15
CO $\text{mg}/\text{M}^3$	Minimum	0.1	0.1	0.1
	Maximum	0.2	0.2	0.3
	98%tile	0.2	0.2	0.3
	Average	0.15	0.15	0.2
Pb $\mu\text{g}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
C6H6 $\text{ng}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
B(a)P $\text{ng}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
As $\text{ng}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
Ni $\text{ng}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05

For TEAM Labs and Consultants



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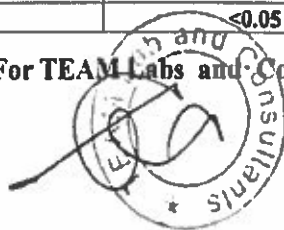
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**TEST REPORT**

Test Report No.		TLC/V/Env/CIL/18/0924	dt.01.10.2024
Description of Test		Ambient Air quality Monitoring inside the CIL unit	
Name of the client		Coromandel International Limited, Visakhapatnam	
Location of sampling		Stations as per details given	
Period of Monitoring		For the Month ofSEPTEMBER-2024	
Summary of Ambient Air quality Monitoring Data for the Month of SEPTEMBER-2024			
Parameters		AAQ-4 Station at Warf	AAQ-5 Station near VST
PM2.5	Minimum	24	25
	Maximum	39	39
	98%tile	39	39
	Average	32	32
PM 10 µg/M <sup>3</sup>	Minimum	50	50
	Maximum	75	76
	98%tile	75	76
	Average	63	64
SO <sub>2</sub> µg/M <sup>3</sup>	Minimum	10.9	10.8
	Maximum	16.0	16.7
	Average	13.4	13.8
	98%tile	16.0	16.7
NO <sub>2</sub> µg/M <sup>3</sup>	Minimum	12.5	12.6
	Maximum	18.8	18.8
	98%tile	18.8	18.8
	Average	15.6	15.8
NH <sub>3</sub> mg/M <sup>3</sup>	Minimum	0.01	0.01
	Maximum	0.04	0.05
	98%tile	0.04	0.05
	Average	0.02	0.03
O <sub>3</sub> µg/M <sup>3</sup>	Minimum	10	10
	Maximum	20	20
	98%tile	20	20
	Average	15	15
CO mg/M <sup>3</sup>	Minimum	0.1	0.1
	Maximum	0.2	0.3
	98%tile	0.2	0.3
	Average	0.15	0.2
Pb µg/M <sup>3</sup>	<0.05	<0.05	<0.05
C6H6 ng/M <sup>3</sup>	<0.05	<0.05	<0.05
B(a)P ng/M <sup>3</sup>	<0.05	<0.05	<0.05
As ng M <sup>3</sup>	<0.05	<0.05	<0.05
Ni ng/M <sup>3</sup>	<0.05	<0.05	<0.05

For TEAM Labs and Consultants



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**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30E/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	As per details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70dB)
VST Terminal		
Night	Storage Trucks Area	54
	Control Room	50
	VST Gate	49
	Transformer Area	60
	LOCATION / AREA	NOISE LEVEL LIMITI (75dB)
Day	Storage Trucks Area	65
	Control Room	66
	VST Gate	64
	Transformer Area	69

For Team Labs Consultants



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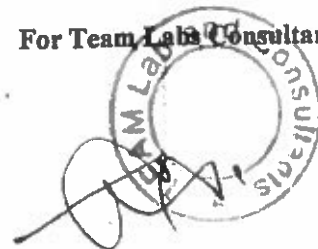
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**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30D/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	As per details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70dB)
	WHARF	
Night	Control Room	52
	Trucks loading Area	50
	Boiler Area	58
	Bearth Area	62
	LOCATION / AREA	NOISE LEVEL LIMITI (75dB)
Day	Control Room	65
	Trucks loading Area	70
	Boiler Area	63
	Bearth Area	65

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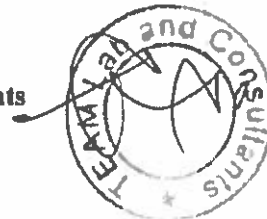
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**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30C/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70 dB)
Night	1St Gate	52
	2nd Gate	54
	3rd Gate (Plant)	55
	4th Gate	52
	5th Gate	48
	6th Gate	50
	7th Gate	55
	8th Gate	56
	9th Gate	54
	Contractor gate	50
	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
Day	1St Gate	68
	2nd Gate	64
	3rd Gate (Plant)	67
	4th Gate	62
	5th Gate	63
	6th Gate	68
	7th Gate	60
	8th Gate	65
	9th Gate	66
	Contractor gate	62

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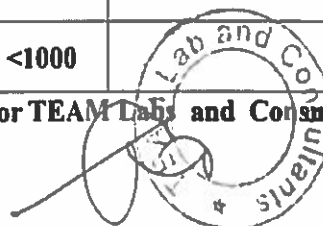
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**TEST REPORT**

Test Report No.		TLC/V/Env/CFL/22/0824			dt.01.10.2024
Description of Test		STP Outlet water Analysis			
Name of the client		Coromandel International Limited, Visakhapatnam			
Location of sampling		STP Out Let samples			
Date of Collection		17.09.2024			
Analysis report of STP Outlet water for the Month of SEPTEMBER-2024					
1	PH		7.6	6.5-8.5	IS:3025 Part 11-1983
2	Total Suspended Solids	mg/l	20	100	IS:3025 Part 17-1984
3	Oil & Grease	mg/l	NIL	10	IS:3025 Part 39-1991
4	Ammonical Nitrogen	mg/l	6.0	50	APHA4500C
5	Free Ammonical Nitrogen	mg/l	0.1	4.0	APHA4500C
6	Total Kjeldal Nitrogen	mg/l	18	75	APHA4500B
7	Nitrate Nitrogen	mg/l	0.1	20	APHA4500D
8	Cyanides as CN	mg/l	<0.1	0.1	SM 4500CN E
9	Arsenic as As	mg/l	<0.02	0.2	SM3125
10	Vanadium as V	mg/l	<0.1	0.2	SM3125
11	Hexa valent Chromium as Cr <sup>6+</sup>	mg/l	<0.02	0.1	SM3125
12	Total Chromium	mg/l	<0.01	2.0	SM3125
13	Fluoride as F <sup>-</sup>	mg/l	0.5	10	SM 4500 F- D
14	Phosphates as P	mg/l	0.1	5	APHA4500D
15	BOD	mg/l	16	30	IS:3025 Part 44-1993
16	COD	mg/l	80	250	IS:3025 Part 58-2006
17	Temperature difference between intake water and outlet	°C	03	5°C	
18	Fecal Coliform (FC)	1000MP N/100ml	400	<1000	

For TEAM Labs and Consultants



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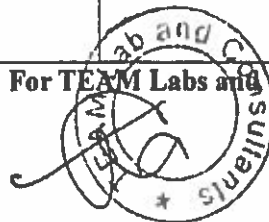
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**TEST REPORT**

Test Report No.		TLC/V/Env/CFL/24/0824			dt.01.10.2024
Description of Test		ETP Outlet water Analysis			
Name of the client		Coromandel International Limited, Visakhapatnam			
Location of sampling		ETP Out let samples			
Date of Collection		21.08-2024			
Analysis report of ETP Outlet water for the Month of August -2024					
S.No	Parameter	units	ETP Outlet	APPCB LIMIT	Protocol
1	PH		7.7	6.5-8.5	IS:3025 Part 11-1983
2	Total Suspended Solids	mg/l	22	100	IS:3025 Part 17-1984
3	Oil & Grease	mg/l	NIL	10	IS:3025 Part 39-1991
4	Ammonical Nitrogen	mg/l	15	50	APHA4500C
5	Free Ammonical Nitrogen	mg/l	0.2	4.0	APHA4500C
6	Total Kjeldal Nitrogen	mg/l	24	75	APHA4500B
7	Nitrate Nitrogen	mg/l	0.1	20	APHA4500D
8	Cyanides as CN	mg/l	<0.1	0.1	SM 4500CN E
9	Arsenic as As	mg/l	<0.02	0.2	SM3125
10	Vanadium as V	mg/l	<0.1	0.2	SM3125
11	Hexa valent Chromium as Cr 6+	mg/l	<0.02	0.1	SM3125
12	Total Chromium	mg/l	<0.01	2.0	SM3125
13	Fluoride as F-	mg/l	0.8	10	SM 4500 F- D
14	Phosphates as P	mg/l	0.4	5	APHA4500D
15	BOD	mg/l	14	30	IS:3025 Part 44-1993
16	COD	mg/l	70	250	IS:3025 Part 58-2006
17	Temperature difference between intake water and outlet	0C	27.5	NA	

For TEAM Labs and Consultants



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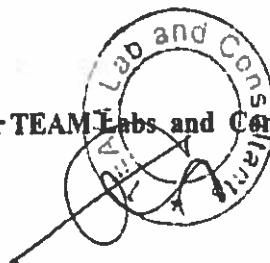
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**TEST REPORT**

Test Report No		TLC/V/Env/CFL/21A/0924	dt.01.10.2024
Description of Test		Peizo wells Water analysis	
Name of the client		Coromandel International Limited, Visakhapatnam	
Location of sampling		Stations as per details given	
Date of Sample collection		As per details given	
No	Date	Location of Peizo-well	F- mg/L
1	23.09.2024	CFL - colony	0.3
2	23.09.2024	Near 4 OP Gate	0.5
3	23.09.2024	Near 7 <sup>th</sup> gate	0.4
4	23.09.2024	CRC	0.4
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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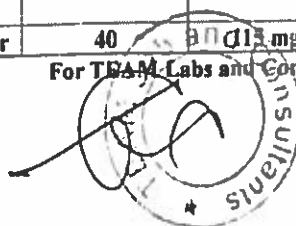
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**TEST REPORT**

Test Report No		TLC/V/Env/CIL/16/0924		dt.01.10.2024	
Description of Test		Source Emission Monitoring inside the CIL			
Name of the client		Coromandel International Limited, Visakhapatnam			
Location of sampling		stacks attached to respective plants as per details given			
SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF SEPTEMBER-2024					
S.No	Stack attached to	Flow rate NM <sup>3</sup> /Hr	parameters	Conc. mg/NM <sup>3</sup>	APPCB Standard Limit
1	Complex A	294385	Particulate matter	18	45 mg/NM <sup>3</sup>
			Ammonia	70	165.0 mg/NM <sup>3</sup>
			Fluoride	1.2	4.0 mg/NM <sup>3</sup>
2	Complex B	285151	Particulate matter	19	45 mg/NM <sup>3</sup>
			Ammonia	82	165.0 mg/NM <sup>3</sup>
			Fluoride	1.1	4.0 mg/NM <sup>3</sup>
3	Complex C	202349	Particulate matter	20	45 mg/NM <sup>3</sup>
			Ammonia	52	165.0 mg/NM <sup>3</sup>
			Fluoride	1.1	4.0 mg/NM <sup>3</sup>
4	Sulphuric acid plant-I	97903	Sulphur dioxide	0.42Kg/MT (260mg/NM <sup>3</sup> )	1 Kg/MT
			Sulphur trioxide	0.032Kg/MT (20mg/NM <sup>3</sup> )	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
5	Sulphuric acid plant-II	26955	Sulphur dioxide	0.143Kg/MT (90mg/NM <sup>3</sup> )	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
6	Phosphoric acid plant-I	132864	Particulate matter	25	50 mg/NM <sup>3</sup>
			Fluoride	3.9	20 mg/NM <sup>3</sup>
7	Rock grinding unit (Old)	7346	Particulate matter	40	50 mg/NM <sup>3</sup>
			Total Fluoride	4.3	20 mg/NM <sup>3</sup>
8	Wharf Boiler	10797	Particulate matter	47	115 mg/NM <sup>3</sup>
9	Phosphoric acid plant-2	37545	Particulate matter	29	50 mg/NM <sup>3</sup>
			Total Fluoride	4.2	20 mg/NM <sup>3</sup>
10	Rock grinding unit (New)	7067	Particulate matter	43	50 mg/NM <sup>3</sup>
			Total Fluoride	3.1	20 mg/NM <sup>3</sup>
11	New SAP-3	48990	Sulphur dioxide	0.05Kg/MT (60mg/NM <sup>3</sup> )	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
12	DG1	11800	Particulate matter	42	115 mg/NM <sup>3</sup>
13	DG2	12148	Particulate matter	40	115 mg/NM <sup>3</sup>

For TEAM Labs and Consultants



**Labs and Consultants****Registered Office :**

B-115, 116, 117 &amp; 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

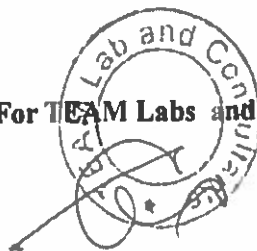
Recognised as Environmental Laboratory under Environmental (Protection) Act 1986

NABL Accredited Laboratory (Certificate No. TC-12956)

**TEST REPORT**

Test Report No		TLC/V/Env/CIL/21/0924		dt.01.10.2024	
Description of Test		CIL Surrounding village wells-Ground water analysis			
Name of the client		Coromandel International Limited, Visakhapatnam			
Location of sampling		Stations as per details given			
Date of Sample collection		23.09.2024			
NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonical Nitrogen mgpl
1	Kamaladevi colony-1	7.7	Nil	0.2	Nil
2	Kamaladevi colony-2	7.4	Nil	0.3	Nil
3	Yeduruvanipalem-1	7.6	Nil	0.2	Nil
4	Yeduruvanipalem-2	7.5	Nil	0.3	Nil
5	Mulagada-1	7.4	Nil	0.3	Nil
6	Mulagada No.2	7.5	Nil	0.3	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

For TEAM Labs and Consultants



**TEAM**ORIGINAL

Form-No. TCLL/GF/RF-138

**Labs and Consultants****Registered Office :**

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**TEST REPORT**

Test Report No		TLC/V/Env/CIL/30/0424		dt.01.05.2024
Description of Test		Fugitive Emissions at workplace-NH3		
Name of the client		Coromandel International Limited, Visakhapatnam		
Location of sampling		As provided below		
Period of Collection		APRIL-2024		
Duration of sampling		8 Hrs		
Protocol		IS:5182 Part 25		
S No.	Plant/Department	Location/area	Result NH3 mg/m3	Time-weighted average concentration 8 hr allowed per Factories act schedule 2
1	A-TRAIN	Reactor top area	1.5	17.41 mg/m <sup>3</sup>
		granulator surrounding	0.9	
		Pre scrubber area	2.6	
		dryer area	2	
2	B-TRAIN	Reactor top area	1.9	
		granulator surrounding	1.2	
		Pre scrubber area	2.9	
		dryer area	2.1	
3	C-TRAIN	Reactor top area	1.3	
		granulator surrounding	0.7	
		Pre scrubber area	2.9	
		dryer area	2.5	
4	AAST	Storage tank area	1.5	
		Ammonia Storage facility area	0.5	

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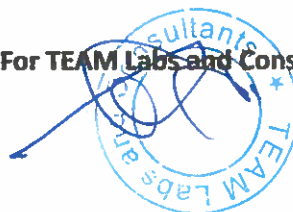
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**TEST REPORT**

<b>Test Report No</b>		<b>TLC/V/Env/CIL/31/0424</b>		<b>dt.01.05.2024</b>
<b>Description of Test</b>		<b>Fugitive Emissions at workplace-SO<sub>2</sub></b>		
<b>Name of the client</b>		<b>Coromandel International Limited, Visakhapatnam</b>		
<b>Location of sampling</b>		<b>As provided below</b>		
<b>Date of Collection</b>		<b>15.04.2024 to 24.04.2024</b>		
<b>Duration of sampling</b>		<b>8 Hrs</b>		
<b>Protocol</b>		<b>IS:5182 Part 02</b>		
<b>S No.</b>	<b>Plant/Department</b>	<b>Location/area</b>	<b>Result SO<sub>2</sub> Mg/M<sup>3</sup></b>	<b>Time-weighted average concentration 8 hr allowed per Factories act schedule 2</b>
<b>1</b>	<b>SAP-1</b>	<b>IAT area</b>	<b>1.4</b>	<b>5.24 Mg/M<sup>3</sup></b>
		<b>Furnace area</b>	<b>2.5</b>	
		<b>Hot gas filter area</b>	<b>1.6</b>	
		<b>Scrubber area</b>	<b>1.2</b>	
<b>2</b>	<b>SAP-2</b>	<b>IAT area</b>	<b>1.4</b>	
		<b>Furnace area</b>	<b>2.5</b>	
		<b>Hot gas filter area</b>	<b>1.6</b>	
		<b>Scrubber area</b>	<b>1.2</b>	
<b>3</b>	<b>SAP-3</b>	<b>IAT area</b>	<b>1.4</b>	
		<b>Furnace area</b>	<b>2.5</b>	
		<b>Hot gas filter area</b>	<b>1.6</b>	
		<b>Scrubber area</b>	<b>1.2</b>	
<b>4</b>	<b>Wharf area</b>	<b>Molten Sulphur Storage tanks</b>	<b>0.6</b>	
		<b>Sulphuric acid Storage tanks</b>	<b>0.5</b>	

For TEAM Labs and Consultants





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**TEST REPORT**

Test Report No		TLC/V/Env/CIL/32/0424		dt.01.05.2024
Description of Test	Fugitive Emissions at workplace-SPM			
Name of the client	Coromandel International Limited, Visakhapatnam			
Location of sampling	As provided below			
Period of of Collection	APRIL-2024			
Duration of sampling	8 hrs			
Protocol	IS5182 Part 23			
S No.	Plant/Department	Location/area	Result SPM mg/m3	Time weighted average concentration 8 hr allowed per OSHA For total dust
1	A-TRAIN	Near granulator	2.1	15.0 mg/m3
		Bins area	2.2	
		Screen section	1.9	
		Recycle conveyor	2.5	
2	B-TRAIN	Near granulator	1.9	
		Bins area	2	
		Screen section	1.8	
		Recycle conveyor	2.3	
3	C-TRAIN	Near granulator	3.2	
		Bins area	2.5	
		Screen section	1.7	
		Recycle conveyor	2.5	
4	PAP - I	Reactor area (PAP-I)	2.3	
		Dust Bins area(PAP-I)	2.8	
		Head drum area(PAP-I)	1.4	
		RG - I (OBM)	3.5	

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Description of Test		Fugitive Emissions at workplace-SPM			
Name of the client		Coromandel International Limited, Visakhapatnam			
Location of sampling		As provided below			
Period of of Collection		APRIL-2024			
Duration of sampling		8 hrs			
Protocol		IS5182 Part 23			
S No.	Plant/ Depart ment	Location/area	Result SPM mg/m3	Time weighted average concentration 8 hr allowed per OSHA For total dust	
5	PAP - 2	Reactor area(PAP-II)	1.5	15.0 mg/m3	
		Dust Bins area(PAP-II)	1.6		
		Head drum area(PAP-II)	1.9		
		RG - 2 (NBM)	2.8		
6	SAP	Melter area (SAP-I)	2.2		
		Rock feeding area(SAP-I)	3		
		RMH area (SAP-I)	3.1		
		Melter area (SAP-II)	2.7		
		Rock feeding area(SAP-II)	2.1		
		RMH area (SAP-II)	2.8		
		Melter area (SAP-III)	2.4		
		Rock feeding area(SAP-III)	3.2		
		RMH area (SAP-III)	3.5		

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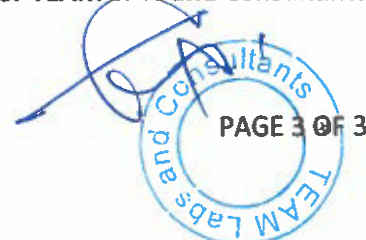
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Name of the client	Coromandel International Limited, Visakhapatnam			
Location of sampling	As provided below			
Period of Collection	APRIL-2024			
Duration of sampling	8 hrs			
Protocol	IS5182 Part 23			
S No.	Plant/Department	Location/area	Result SPM mg/m3	Time weighted average concentration 8 hr allowed per OSHA For total dust
7	Bagging Plant	PH Main godown	1.9	15.0 mg/m3
		BP-II godown area	2.3	
		Auto bagging (BP-I)	0.9	
		Auto bagging (BP-II)	0.5	
8	Treatment Plants	ETP Entrance	0.7	
		STP Entrance	0.4	
9	Raw Material Storage area	Rock godown near 4Op	2.4	
		Sulphur godown near Garage	2.5	
		Urea godown at Bagging plant	1.5	

For TEAM Labs and Consultants



EHS/APPCB/2024-113

Dated: 28/10/2024

To

The Member Secretary  
Andhra Pradesh Coastal Zone Management Authority  
(APCZMA), D.No.33-26-14 D/2, Near Sunrise Hospital,  
Chalamavari Street, Kasturibaipet, Vijayawada-520010.

**SUB:** Submission of the CER/CSR Report for the period of April 2024 to September 2024

**Ref:** EC number F. No. 11-35/2015-IA-III, Dated 27 June 2017

Dear Sir,

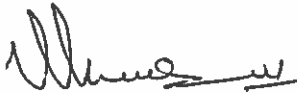
This has reference to above mentioned subject, we are submitting the detailed report of CSR/CER activities carried out by Coromandel International Limited, Vizag during the period from April 2024 to September 2024.

We recognize the importance of sustainable business practices and are committed to making a positive impact on society and the environment.

The above submission is in line with EC compliance & Record please.

Thanking you,

Yours faithfully,  
For **COROMANDEL INTERNATIONAL LIMITED**



**Gnanasundaram M**  
Vice President & Head Manufacturing.

NAG  
NAG/DNR

Enclosure: CSR/CER Report

<Dial 18002666868> <Wear Masks. Stay Safe>  
RN541808665IN IVR:8278541808665  
RL MALKAPURAM S.O <530011>  
Counter No:1.29/10/2024.11:23  
To:THE MEMBER SE.D NO 33-26-14 D/  
PIN:520010. Venkateswarapuram S.O  
From:COROMANDEL .POST BOX NO 1116  
Wt:78gms.REG=17.0  
Amt:43.66.Tax:6.66.Amt.Paid:44.00(Cash)  
<Track on www.indiapost.gov.in>  
<Dial 18002666868> <Wear Masks. Stay Safe>

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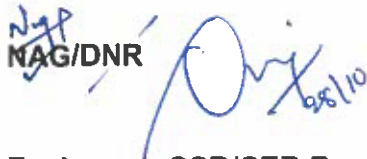
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For **COROMANDEL INTERNATIONAL LIMITED**



**Gnanasundaram M**  
**Vice President & Head Manufacturing.**

  
NAG/DNR

**Enclosure:** CSR/CER Report

# **CSR initiatives Report**

**April 2024 to Sep 2024**

## Approved Vs Spent– 24-25

S.No	Domain	Spent Budget
1	Health	25.20
2	Education	26.23
3	Community development	10.68
Total		62.11

**April 2024 to Sep 2024**

## Coromandel Medical center

Sl No	Name of the Month	No of benefitted
1	April	2439
2	May	1906
3	June	2589
4	July	2410
5	Aaugust	2589
6	Sep	2365
	<b>Total</b>	<b>14298</b>





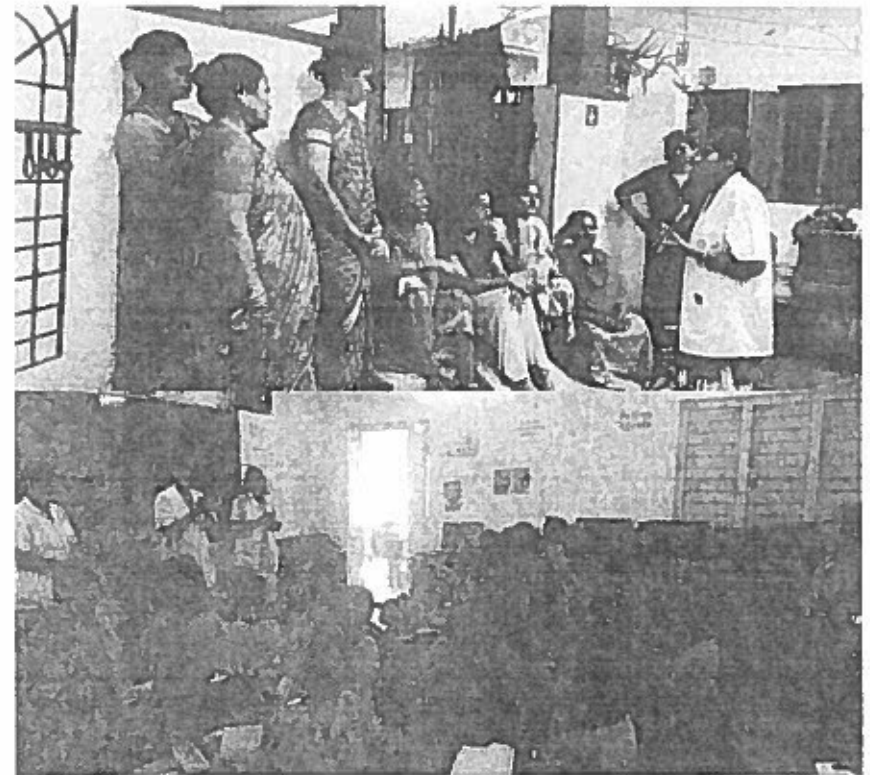
## Dental screening service inauguration @CMC

- the Dental Screening Services at our CMC was inaugurated by our President & CHRO, Shri Arun Leslie George. Mr. Gnanasundaram, Vice President & Head - Mfg; Mr. GSV Raja, AVP & Head of HR; the Unit HR Head; and the Senior Leadership Team participated along with local community at CMC.
- During the event, they provided a comprehensive briefing on the CMC services, engaged with community members, and distributed tailoring kits to women to support and enhance their livelihoods. Additionally, we presented furniture to the community halls to benefit local residents. The community members were deeply moved by these contributions, and the CHRO expressed his appreciation for the CSR initiatives led by the Vizag Unit
- **Initiative on 22<sup>nd</sup> Aug 2024**



## Integrated Behavioral change communication

- Comprehensive Health Outreach project aimed at strengthening local health resources and improving health outcomes in our community. The project will leverage local community structures and ambassadors for health outreach, focusing on diseases such as Tuberculosis, vector-borne diseases, Diabetes Mellitus, Hypertension, menstrual health, and adolescent health education.
- No of Beneficiaries April 2024 to Sep 2024: **28460**



## Computer Lab Inaugurated By District Collector

- On 26<sup>th</sup> Sept 2024, Vizag Unit has inaugurated Computer lab as part of CSR Project towards enhancing education and digital literacy of the nearby Community students.
- Shri M. N. Harendhira Prasad, IAS – Collector & District Magistrate – Visakhapatnam in presence of Shri R. V Ramana – Regional Deputy Director - Zone 1 – Visakhapatnam, Shri B. Narasimha Patrudu – 65<sup>th</sup> Ward Corporator – GVMC & Mr. SrinivasaRao- Principal, ITI-Gajuwaka has inaugurated the Computer Lab at Pedagantyada, Gajuwaka Govt Model ITI. Vice President & Unit Head, Head CSR and DGM HR
- 80 Nos of Blankets to ITI Hostel Students have been distributed by Honorable Collector.

Benefitted **900** ITI Students



## Science lab Inaugurated By TDP State President

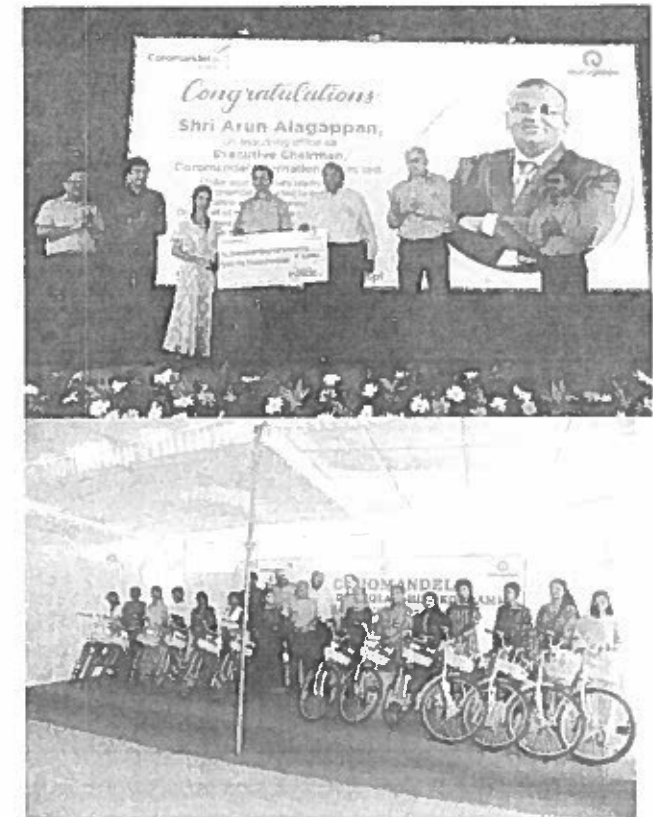
- Shri Palla Srinivasa Rao – TDP State President & MLA Gajuwaka Constituency along with Mrs. L Chandrakala – District Educational Officer, Mr. P Srinivasa Rao – 65<sup>th</sup> Ward Corporator has inaugurated the Science Lab at ZP High School on 26<sup>th</sup> Sep 2024
- Mr. Gnanasundaram – VP & unit head along with Mr. JayaGopal Chathur- Head CSR & Mr. Srinivasa Rao – DGM – HR participated
- Shri Palla Srinivasa Rao in his address has thanked the Coromandel management for recognizing the need of the students and appreciated Vizag Unit for its passion towards executing projects in the field of Education and Community development

Benefitted **1600** school children



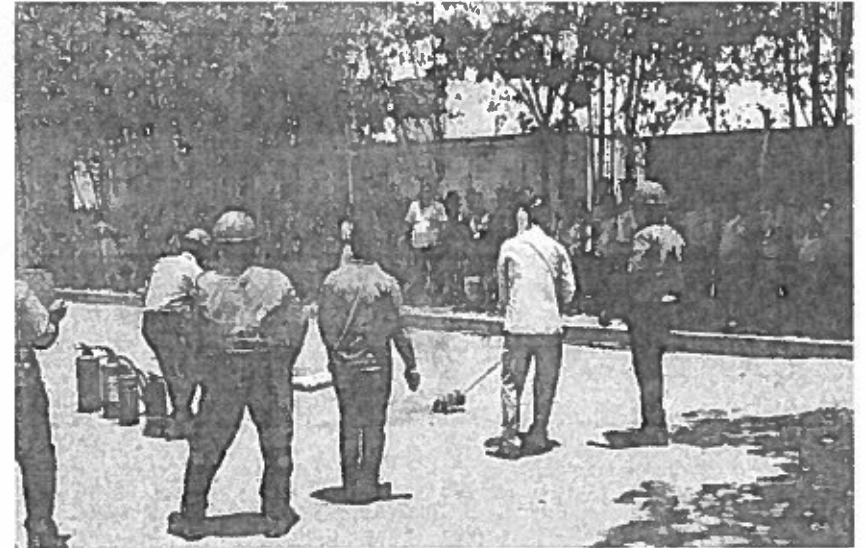
## Girlchild Scholarship Distribution

- Organised Coromandel Girlchild Scholarship
- The Program Chief guest Executive Chairman Shri Arun Alagappan and senior leadership
- Total 79 scholarship we provided 22 Bicycles
- Children and parents felt very happy



# National Fire Safety Week

- As part of National Fire Safety Week Coromandel conducted Awareness sessions and Fire equipment's demo session at ZP High school Mindi.
- Total 125 children & teachers got benefited.
- Prize distribution also done by the Coromandel officials



## Infra Support to the Govt. Schools

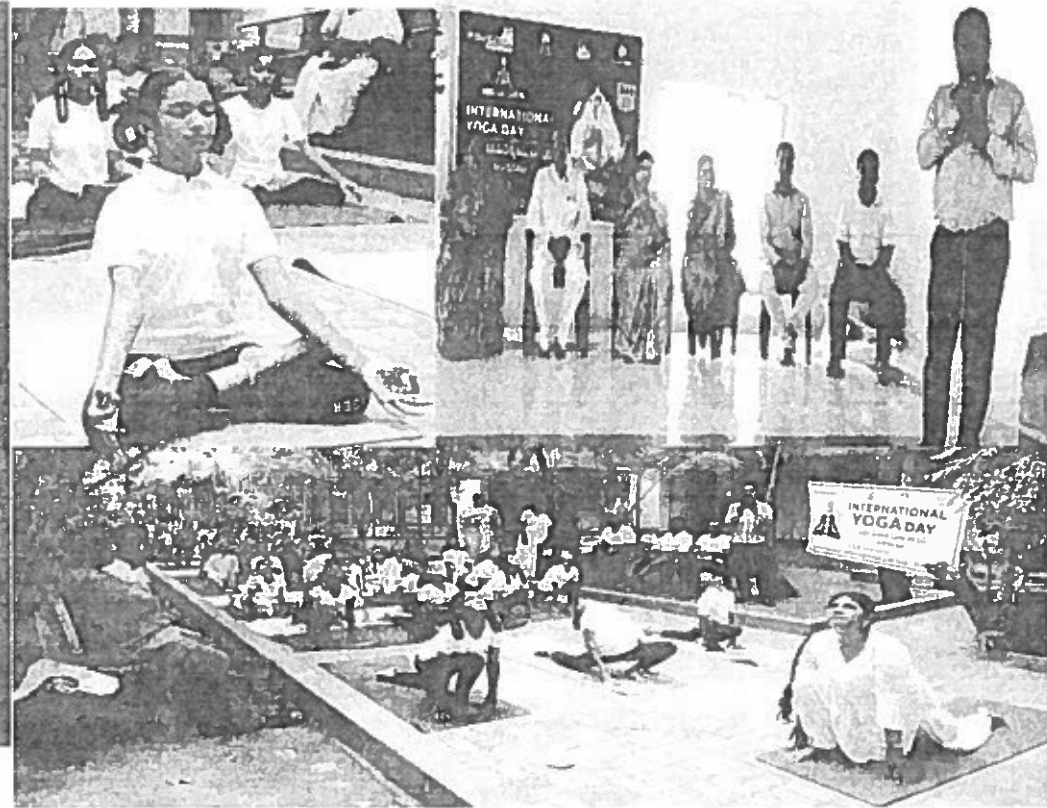
- We handed over tables, almirahs and chairs to 5-GVMC Primary School, 4 Govt High schools and 5-Anganwadi Centre's to enhance infrastructure facilities.
- Teachers & Community Members participated and expressed their gratitude to Coromandel.

1. Chairs
2. Tables
3. Almirah



## International Yoga Day Celebrations 21<sup>st</sup> June 2024

- Coromandel organized International Yoga Day on June 21, 2024, at ZP High School, Mindi.
- where 150 children participated. Another Yoga Day celebration occurred at Pilakavanipalem Community, with 78 women participated
- The event aimed to increase awareness of the advantages of engaging in yoga and to foster its comprehensive approach to promoting health and well-being.
- The event was implemented by Pathriji Pyramid Spiritual Trust, Visakhapatnam.





## Teachers' day celebrations

- We organized Teacher's Day celebrations on September 5, 2024, at CRC.
- A total of 110 teachers participated in the event, which was attended by Chief Guests Mandal Revenue Officer (MRO) Mrs. Tarakeswari Garu, Head HR R. Srinivasarao Garu and the Coromandel Ladies Association (CLA).
- Mr. Balaji garu explained and aware school First Aid Kit, school safety awareness. Felicitated 12 best teachers
- The program was successfully completed. Our COO Mr. Amir Alvi and Unit Head Mr. Gnanasundaram also participated in the event, offering their encouragement and best wishes to all the teachers.

MEO, teachers and the MRO were very pleased to attend the event and expressed their appreciation to Coromandel Management.



## Honourable Governor of AP has given an appreciation award to Coromandel

- The District Administration Organised Divya kala Mela at AU marine Ground Visakhapatnam on 19<sup>th</sup> Sep 2024.
- Honourable Governor of AP has given an appreciation award to Coromandel international Limited in recognition for providing wheel chairs to physically challenged persons in the presence of Honourable Union minister of social justice and empowerment Dr.Veerndher Kumar guest of honor,I, Mr Bharath Member of parliament Visakhapatnam.Mr.Baburao Rajyasabha and District collector & Magistrate Shri Harendhira Prasad
- The award has been received by VP & Head Manufacturing M Gnanasundaram, Head CSR Jayagopal and Head HR Srinivasarao



## Women Livelihood stall 21<sup>st</sup> Sep 2024

- MD sir Visited & Observed the Community women stall like jute bags/jewellery making/Margam design and Beauty parlour, and MD sir appreciated women livelihood project.
- Total selling 3800/-Jute bags and Jewellery materials



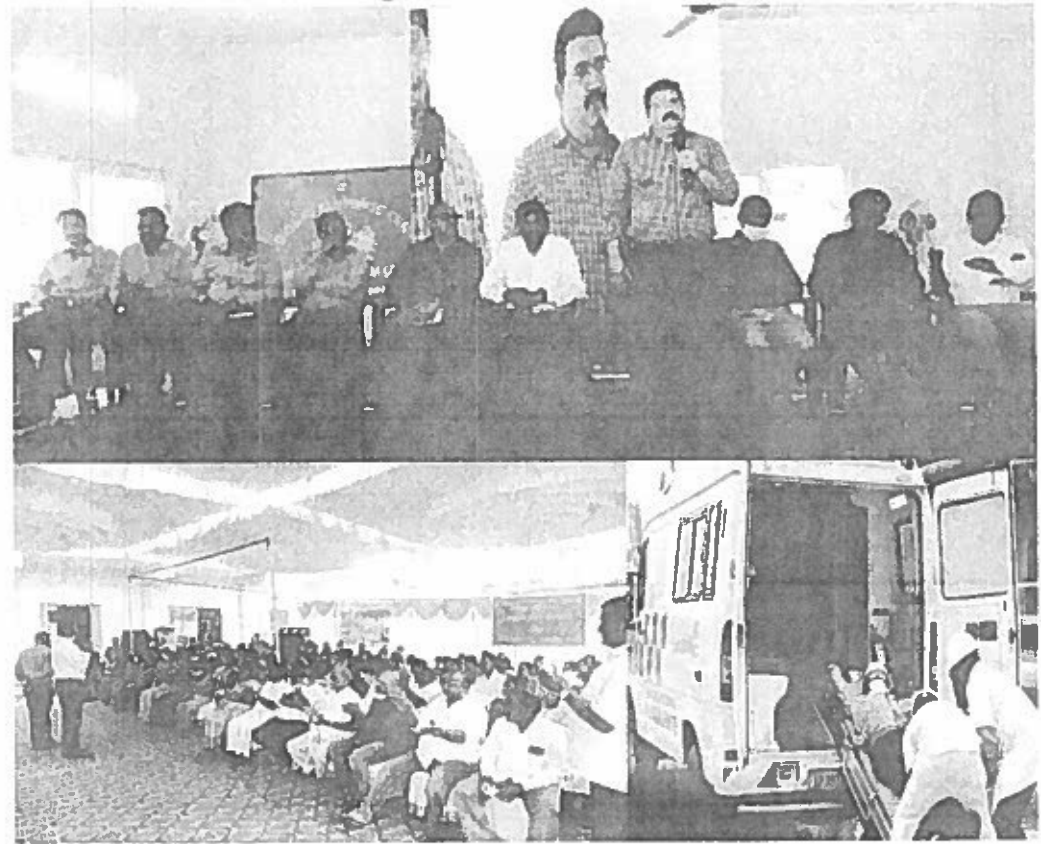
## Women Livelihood Training Certificate Ceremony

- As part of Community development Coromandel initiated Women livelihood trainings.
- Like Maggam work, Jute bag work, Handmade jewellery, Beautician course trainings
- And 4 batches we trained total 120 women.
- Distributed Certificates and training kits to the all women
- 1<sup>st</sup> April 2024



## Offsite Mock drill @ Pilakavanipalem

- We Organised Offsite Mock drill on 28<sup>th</sup> June 2024 at Pilakavanipalem village.
- Participated District Authorities and the factories department officials commended our efforts towards a successful demonstration in our systematic emergency preparedness and capabilities.
- Total participated village peoples 250



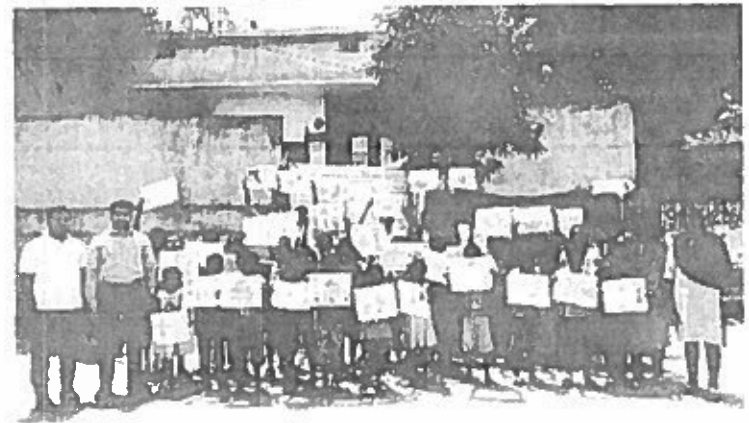
## Wheelchairs Hand overing to District Administration

- The handing over ceremony took place at our Coromandel Recreation Centre in Visakhapatnam Manufacturing Unit, where we honoured to have esteemed guests Mrs. Ramamani, Assistant Director of Industries, and Ms. Sunita, Industrial Promotion Officer in presence of Mr. Amir Alvi, President & Head of Manufacturing, along with Mr. M. Gnanasundaram, HODs and representatives from our HR department.
- the 100 Wheelchairs were branded with Coromandel logo and post-election, they will be used in the Public Health Centres.



## World Environment Day Celebrations 5<sup>th</sup> June-2024

- As part of our CSR initiative for World Environment Day,
- we organized celebrations at Mulagada and Yedurivanipalem to mark the occasion, saplings
- were planted on the Mukhyamantri Arogya Kendra premises with the participation of our employees and Hospital staff to foster eco-friendly practices
- and raise awareness, cloth bags were distributed to the community members
- And also we Organised Drawing competition on environment day related to community Children at Yedurivanipalem.





## Eco Vizag cloth bags launched by GVMC Commissioner

- Coromandel's social responsibility initiatives are inspiring," said GVMC Commissioner Sampath Kumar. "The use of cloth bags for saving the environment is very important. The commissioner inaugurated 30,000 bags under the 'Swach Sarvekshana 2024 ECO Vizag' initiative by Coromandel Fertilizers in his chamber. In this regard, Coromandel's Vice President M. Gnanasundram first presented a flowering tree and congratulated him.
- As part of their social responsibility, they are giving 15,000 bags to GVMC, and the remaining will be distributed for free to the public in various markets and the city. Speaking on this occasion, the commissioner expressed his determination to make Vizag the cleanest city in the country for Swach Sarvekshana 2024. He emphasized the importance of public collaboration and the need to raise awareness among people to use environmentally friendly products, praising Coromandel for providing these bags. The event was attended by Coromandel Head HR R. Srinivasa Rao, Senior Manager HR K. Srikant, PR Consultant U. S. Sharma and me.





# World Breastfeeding week

- we Organised world Breastfeeding celebration Month in August, our CMO Dr. Uday and field Health workers delivered an informative health talk to community breastfeeding mothers, emphasizing the significance of breastfeeding in providing optimal nutrition, boosting the immune system, and promoting mother-child bonding
- 1.Importance of breastfeeding for optimal growth and development
- 2.Essential diet and nutrients for mothers to produce high-quality breast milk:
- 3. Balanced meals rich in whole foods
- 4.Hydration and electrolyte intake
- 5.Foods that support lactation (e.g., oats, fenugreek)
- 6.Potential risks of not breastfeeding:
- 7.Hampered growth and development
- 8.Delayed uterus involution (return to pre-pregnancy size)
- 9.Increased risk of infections and diseases
- Dr. Uday addressed various questions and concerns raised by the community, providing clarity and reassurance on common issues. This empowered the community with knowledge and confidence to embrace breastfeeding and ensure the best possible start for their little ones
- **Initiative in August 2024 no of beneficiaries : 30**



## Road Safety barricades Handed over to Commissioner of Police Visakhapatnam

- 50 road safety barricades have been handed over by Mr M Gnanasundaram Vice president & Head Mfg. Coromandel international limited to Shri Shanka brata Bagchi, Commissioner of police Visakhapatnam
- Our Head HR Mr. R Srinivasa Rao garu, Circle inspectors Mr.Koteswarao garu from Gajuwaka, Sub inspector Mr. Apparao garu from Malkapuram and Deputy Manager-CSR Mr. S Venkataramana have participated in the program.
- Unit Head Explained about the CSR initiatives and Public Relations which includes modernization of Police fitness Centre, Renovation of Malkapuram Police Station etc. Also explained about the rigorous safety standards followed at Coromandel and shared the proud moment of achieving Prestigious International safety award of 'Sword of Honour' from British Safety Counsel, United Kingdom.
- Commissioner of Police appreciated our Coromandel management for extending the support to the society.
- Initiative on 12<sup>th</sup> Aug 2024



## Support to the Anganwadi's by Coromandel Ladies Association

- Our Coromandel Ladies Association visited the Anganwadi centre at Mulagada Village
- Handed over essential materials to enhance their facilities.
- Additionally, we established a Nutrition garden to support their needs
- Teachers, Parents and ICDS Supervisor Ms. Varalakshmi felt very happy ,Total benefitted children is 20.



## Library for children supported by CLA

- Coromandel Ladies Association donated to Library Cupboards & Books to ZP High school Mindi
- Library set up handed overed by MD sir & COO sir
- Children & Teachers felt very happy

Total children Benefitted: 684



**Employees  
volunteerism**

Month	No. Of Employees	Voluntary Hours	CLA	Voluntary Hours
Apr-24	33	91	10	15
May-24	18	18	0	0
Jun-24	44	124	7	14
Jul-24	12	26	10	10
Aug-24	43	80	13	26
Sep-24	46	77	10	20

**TEAM**ORIGINAL

Form-No. TCL/UGF/RF-138

**Labs and Consultants****Registered Office :**

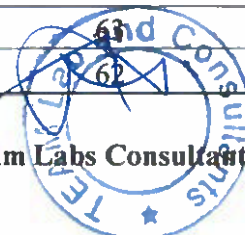
B-115, 116, 117 &amp; 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Gol, New Delhi  
NABL Accredited Laboratory**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
DEPARTMENT / SECTION	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
A-Train	Granulator	72
	Screen Area	64
	Dryer	70
	Control Room	66
	Ground floor	68
	Air preheater	63
B-Train	Granulator	70
	Screen Area	62
	Dryer	74
	Control Room	63
	Ground floor	70
	Air preheater	71
C-Train	Granulator	68
	Screen Area	64
	Dryer	73
	Control Room	60
	Near the Entrance	64
	Air preheater	65
Phosphoric Acid Plant -1	Control Room	56
	Vaccum pump area	70
	Top of the Reactor	72
Phosphoric Acid Plant -2	Near Evaporatar Pumps	71
	Top of the Reactor	70
	Acid Tanks	62
	Control Room	60
PAP -1 Belt Filter - 1	Ground Floor	67
	Vacc.Pump	63
	Filter Area	62

For Team Labs Consultants





**Labs and Consultants****Registered Office :**

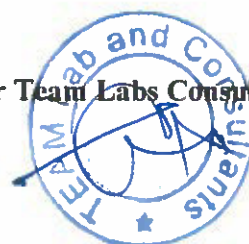
B-115, 116, 117 &amp; 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

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NABL Accredited Laboratory**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30A/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
DEPARTMENT / SECTION	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
PAP - 2 Belt Filter -2	Belt Filter Ground Floor	63
	Vaccum pump area	70
	Filter Area	71
Rock Grinding -1	Control Room	60
	Near Ball Mill	64
Rock Grinding - 2	Control Room	60
	Near Ball Mill	70
Sulfuric Acid Plant -1	Blower Area	65
	DCS room	62
	Near Acid Tank	72
	Near New SAP Blower	59
	Melter Area	60
Sulfuric Acid Plant -2	Blower Area	64
	DCS room	66
	Near Acid Tank	71
	Near New SAP Blower	72
	Stack Area	66
	Melter Area	65
Sulfuric Acid Plant -3	Sulfuric Acid tanks	62
	Cooling towers	63
	M S tanks	62

For Team Labs Consultants



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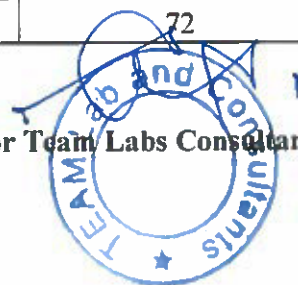
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**TEST REPORT**

Test Report No	TLC/V/Env/CIL/3B/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	As per details provided	
Date of collection	SEPTEMBER-2024	
DEPARTMENT / SECTION	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
Old bagging plant	Ground Floor	67
	Automatic Bagging Machine-A	62
	Automatic Bagging Machine-B	60
	Automatic Bagging Machine-C	73
	Control Room	63
	BIN floor	65
New bagging plant	Automatic Bagging Machine	68
	Control Room	59
TG Plant	Near TG(Ground Floor)	60
	Control Room	62
G-Sulphur	Sulphur Pit	68
	Conveyor Area	66
ETP	Control Room	63
	Pumps Area	69
Boiler	Near Boiler	71
	Boiler Outlet	73
	ASH Silo	60
	Control Room	62
Utility	HP to LP make up	66
	Utility Control Room	64
	Utility Room o/s Boiler	70
	Feed Water pump area	73
	Compressor Section	72

For Team Labs Consultants



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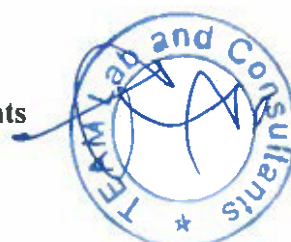
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**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30C/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70 dB)
Night	1St Gate	52
	2nd Gate	54
	3rd Gate (Plant)	55
	4th Gate	52
	5th Gate	48
	6th Gate	50
	7th Gate	55
	8th Gate	56
	9th Gate	54
	Contractor gate	50
	LOCATION / AREA	NOISE LEVEL LIMITI (75 dB)
Day	1St Gate	68
	2nd Gate	64
	3rd Gate (Plant)	67
	4th Gate	62
	5th Gate	63
	6th Gate	68
	7th Gate	60
	8th Gate	65
	9th Gate	66
	Contractor gate	62

For Team Labs Consultants



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**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30D/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70dB)
WHARF		
Night	Control Room	52
	Trucks loading Area	50
	Boiler Area	58
	Bearth Area	62
	LOCATION / AREA	NOISE LEVEL LIMITI (75dB)
Day	Control Room	65
	Trucks loading Area	70
	Boiler Area	63
	Bearth Area	65

For Team Labs Consultants



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**TEST REPORT**

Test Report No	TLC/V/Env/CIL/30E/0924	DATE 01-10-2024
Description of Test	Noise Level Monitoring	
Name of the client	Coromandel International Limited, Visakhapatnam	
Location of sampling	Asper details provided	
Date of collection	SEPTEMBER-2024	
	LOCATION / AREA	NOISE LEVEL LIMITI (70dB)
VST Terminal		
Night	Storage Trucks Area	54
	Control Room	50
	VST Gate	49
	Transformer Area	60
	LOCATION / AREA	NOISE LEVEL LIMITI (75dB)
Day	Storage Trucks Area	65
	Control Room	66
	VST Gate	64
	Transformer Area	69

For Team Labs Consultants



**EHS/MoEF/2023-097****01/12/2023**

To  
The Director,  
Regional Office (South Eastern Zone)  
Ministry of Environment, Forests and Climate Change  
1<sup>st</sup> and 2<sup>nd</sup> Floor, Handloom Export Promotion Council,  
34, Cathedral Garden Road,  
Nungambakkam, Chennai-600034

Dear Sir,

Sub: Half Yearly EC (Environment Clearance) Compliance Report- regd.

Ref: 1. F. No. J-11011/51/2016-IA. II(I) dated 14.07.2017  
2. F. No. J-11011/51/2016-IA. II(I) dated 07.01.2021  
3. F. No. J-11011/51/2016-IA. II(I) dated 27.06.2022

Please find the attached half yearly compliance report of Environment Clearance issued by MOEFCC for enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P2O5 and other auxiliary facilities within the existing Fertilizer Complex.

Period of submission : Apr'23 to Sep'23  
Unit : Coromandel International Limited, Visakhapatnam

Thanking You,

For Coromandel International Limited



**Gnanasundaram M**  
Vice President & Head Mfg

  
NAG/DNR  
Encl : a/a

CC: The Member Secretary, Head Office-APPCB, Vijayawada  
Joint Chief Environmental Engineer, APPCB, Zonal Office, Visakhapatnam  
Environmental Engineer, APPCB, Regional Office, Visakhapatnam



## EHS2-Vizag-Coromandel

---

**From:** Nagarjuna-P-Mgr-EHS-Vizag-Coromandel  
**Sent:** 01 December 2023 17:20  
**To:** eccompliance-ap@gov.in; rovspappcb@gmail.com; zovspappcb  
**Cc:** EHS2-Vizag-Coromandel; Subhradip Mondal-Mgr-Environment-Vizag-Coromandel; Nagaraju D-AGM-EHS-Vizag-Coromandel; Vinod Kumar Mishra-Sr.GM-EHS-Vizag-Coromandel  
**Subject:** Half Yearly EC (Environment Clearance) Compliance Report- regd.  
**Attachments:** EC Compliance PA SA EXPANSION Apr-23 to Sep -23.pdf

Dear Sir,

Ref: 1. F. No. J-11011/51/2016-IA. II(I) dated 14.07.2017  
2. F. No. J-11011/51/2016-IA. II(I) dated 07.01.2021  
3. F. No. J-11011/51/2016-IA. II(I) dated 27.06.2022

Please find the attached half yearly compliance report of Environment Clearance issued by MOEFCC for enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P2O5 and other auxiliary facilities within the existing Fertilizer Complex and "Change in location of new 1500 MTPD Sulphuric Acid (100%) Plant within the existing fertilizer complex" and "to add Desalination Plant with Capacity of 15 MLD".

**Period of submission : Apr'23 to Sep'23**  
**Unit : Coromandel International Limited, Visakhapatnam**

Regards,  
Nagarjuna P  
Manager-Environment  
9100443439

**SAVE ENVIRONMENT SAVE LIFE**

  
**Coromandel**  
FUTURE POSITIVE  
**Coromandel International Limited**  
Sriharipuram, Malkapuram PO  
Visakhapatnam-530 011  
Andhrapradesh, India.  
F: +91 891-2578400  
W: [www.coromandel.biz](http://www.coromandel.biz)  
A MURUGAPPA GROUP COMPANY

## Coromandel International Limited, Visakhapatnam

### Compliance status of Environment clearance

1. F. No. J-11011/51/2016-IA. II(I) dated 14.07.2017
2. F. No. J-11011/51/2016-IA. II(I) dated 07.01.2021
3. F. No. J-11011/51/2016-IA. II(I) dated 27.06.2022

(For the period from Apr-2023 to Sep-2023)

Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD)  $P_2O_5$  and other auxiliary facilities within the existing Fertilizer Complex, Sriharipuram, Vishakhapatnam District, Andhra Pradesh by M/s Coromandel International Limited (Formerly M/s. Coromandel Fertilizer Limited) - Environmental Clearance –reg.

S.No.	Condition	Compliance
<b>A. Specific Conditions:</b>		
i.	Green Belt of 10 M wide (Perennial trees) to be developed in three sides of plant periphery totaling 145 acre area.	The existing green belt area is more than 33% of the requirement. However, the plantation efforts will be continued.
ii.	The present fresh water requirement is 8700 m <sup>3</sup> /day. Additional fresh water for the proposed enhancement is to be limited to 1650 m <sup>3</sup> /day. The total fresh water requirement post enhancement shall not exceed 10350 m <sup>3</sup> /day. The present sea water requirement for once through cooling is 63000 m <sup>3</sup> / day and the same will be increased post enhancement to 84600 m <sup>3</sup> / day.	Agreed. The project is completely implemented. The new water balance is limited to 10350 m <sup>3</sup> /day.
iii.	No ground water shall be used.	Existing water source is GVMC (local Municipal Body), no ground water source is used.
iv.	Post enhancement, the SO <sub>2</sub> emissions from Sulphuric acid plant-I and sulphuric acid plant-2 shall be maintained at 1 kg/MT and 0.65 kg/ MT.	Noted & maintained
v.	Imported coal/ rice husk/bagasse fired boiler of 40 TPH will be installed with ESP and 56 m stack height with SO <sub>2</sub> emissions limited to 1188 Kg/ day.	Complied.
vi.	Existing two nos of LSHS fired boilers will be	LSHS Fired boilers on standby only.

## Coromandel International Limited, Visakhapatnam

	kept on standby mode.	
vii.	The gaseous emissions (SO <sub>2</sub> , NO <sub>x</sub> , NH <sub>3</sub> ) and particulate matter from various process units shall conform to the norms prescribed by the CPCB/SPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.	<p>Complied.</p> <p>All the stacks are provided/attached with Scrubbers as detailed below:</p> <p>SAP Plants: Alkali scrubbers  PAP Plant: Fumes scrubber &amp; FRU unit  Complex Stacks: 4 stage scrubbers  New PAP units: Scrubbers kept in place.  Ball Mill: Bag Filters kept in inline  Coal Fired Boiler: ESP kept in Line.  The emissions are maintained within the prescribed limits by CPCB/SPCB.</p>
viii.	Ambient air quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> September, 2009. The levels of PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , Ammonia, shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the concerned State Pollution Control Board (SPCB).	Complied
IX.	No process effluent shall be discharged in and around the project site. Process effluents shall be treated in ETP. Sewage shall be treated in STP. Both treated sewage water and process effluents shall be recycled/reused within factory premises to achieve zero discharge except during the rainy season.	<p>All the process effluent is being treated in ETP.</p> <p>Sewage treated in STP and treated water is being used for plantation</p>
x.	Risk assessment plan to be prepared and implemented.	complied
xi.	In plant control measures for checking fugitive emissions from all the vulnerable sources shall	Complied.

## Coromandel International Limited, Visakhapatnam

	be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions should conform to the limits stipulated by the concerned SPCB.	All the necessary precautions for closed transport of raw materials and operations will be implemented for limiting of fugitive emissions.  Emissions are maintained within CPCB/SPCB prescribed limits.
xii.	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	DGs are only in standby and acoustic enclosure provided.
xiii.	The company shall construct the garland drain all around the project site to prevent runoff of any chemicals containing waste into the nearby water bodies. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.	Garland drains have been provided. Effluent is being treated in ETP
xiv.	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes. Measures shall be taken for firefighting facilities in case of emergency.	Complied. CFO has been obtained Order No. APPCB/VSP/65/CFO/HO/1967 - 30/09/2022
xv.	The by-products which fall under the purview of the Hazardous Waste Rules, be handled as per the provisions of the said Rules and necessary permissions shall be obtained under the said rules.	Complied
xvi.	Spent catalysts and used oil shall be sold to authorized recyclers /re-processors only. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA),1989.	Complied. As per the existing procedure, respective wastes are sent to authorized recyclers/PCB approved TSDFs.
xvii.	The company shall strictly follow all the recommendations mentioned in the Charter on	Complied

## Coromandel International Limited, Visakhapatnam

	Corporate Responsibility for Environmental Protection (CREP).	
xviii.	All the commitments made during the Public Hearing/Public Consultation meeting held on 8th December, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.	Noted and being followed.
xix.	Remote operated valve placed on NH3 line to avoid leakage/equipment check shall be performed to ensure that remote operated valve (ROV) is all time is functional.	Complied and PM schedule adhered
xx.	At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.	CSR expenditure is being spent as per the 5% of the project cost.
XXI.	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Complied and continued as per the factories act.
xxii.	Provision shall be made for the housing for the construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	Complied.
xxiii.	An Environment Cell will be set. up and a regular environmental manager having PG qualification in environmental sciences/environmental engineering to be appointed for looking after the environmental management practices in the plant.	Environmental Management Cell is presently headed by AGM-EHS and is supported by environmental manager.
	<b>B. GENERAL CONDITIONS:</b>	
i.	The project authorities must strictly adhere to the stipulations made by the state Pollution	Agreed.

## Coromandel International Limited, Visakhapatnam

	Control Board (SPCB), State Government and any other statutory authority.	
ii.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Agreed.
iii.	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied. There are two monitoring locations one in upwind and one in down wind direction, towards, Mulagada & Gullapalem.
iv.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.	It is being Complied.  Find enclosed Annexure-01 Environment monitoring reports for your reference.
v.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Complied and noise levels are within the standards prescribed.  Find enclosed Annexure-01 Environment monitoring reports for your reference.
vi.	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	complied
vii.	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular	Training is being imparted regularly to employees. Pre employment medical check is part of HR policy before joining. Annual medical checkup is being



## Coromandel International Limited, Visakhapatnam

	basis. Training to all employees on handling of chemicals shall be imparted.	undertaken regularly for all the employees.
viii.	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	Complied
ix.	The company shall undertake all relevant measures for improving the socio-- economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.	Complied as per the submitted CSR plan
x.	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Complied as per the submitted CSR plan
xi.	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Environmental Management Cell is presently headed by AGM-EHS. In house laboratory is in place to monitor emissions & effluent.
xii.	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	Complied
xiii.	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	complied
xiv.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data	Complied

## Coromandel International Limited, Visakhapatnam

	(both in hard copies as well as bye-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	
xv.	The environmental statement for each financial year ending 31st March in Form-Vas is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	<p>Complied and environmental statement for FY:2022-23 has been submitted on 28.09.2023.</p> <p>Find enclosed Annexure-02 Form-V acknowledgement copy for your reference.</p>
xvi.	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <a href="http://moef.nic.in">http://moef.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied
xvii.	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Complied

## Coromandel International Limited, Visakhapatnam

Compliance to Amended Environmental Clearance dated 07.01.2021

F. No. J-11011/51/2016-IA-II (I) dt 7<sup>th</sup> January 2021

Proposed setting up of new 1500 MTPD Sulphuric acid (100%) plant within the Existing Fertilizer Complex, for total Sulphuric acid production of 3600 MTPD at Sriharipuram, Vishakhapatnam district, Andhra Pradesh, without increase pollution load and total production of NP/NPK (3900 MTPD) and Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited (Formerly M/s Coromandel Fertilizers limited).

Sl. No	Para of EC issued by MoEF&CC	Description/Conditions	Compliance
1	Subject	Proposed setting up of new 1500 MTPD Sulphuric acid (100%) plant within the Existing Fertilizer Complex, for total Sulphuric acid production of 3600 MTPD at Sriharipuram, Vishakhapatnam district, Andhra Pradesh, without increase pollution load and total production of NP/NPK (3900 MTPD) and Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited (Formerly M/s Coromandel Fertilizers limited).	-
2	Point 2	The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for <u>setting up of new 1500 MTPD Sulphuric acid (100%) plant within the Existing Fertilizer Complex, for total Sulphuric acid production of 3600 MTPD at Sriharipuram, Vishakhapatnam district, Andhra Pradesh, without increase pollution load and total production of NP/NPK (3900 MTPD) and Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited (Formerly M/s Coromandel Fertilizers limited)</u>	-
3	Point 3	Existing land area is <u>313 Acres</u> , of which 120 acres is developed as greenbelt. <u>Additional cost of the project is ~ 400 Crore.</u> The additional estimated cost of various environmental management programs in the proposed project is ~ 10 Cr which is	Agreed and noted for compliance

## Coromandel International Limited, Visakhapatnam

		<p>around 2.5% of proposed Additional project cost. <u>In order to achieve consented production of 3900 MTPD NP/NPK production, the facility intends to adopt the following modifications and upgrades in the upstream of the complex fertilize manufacturing units:</u></p> <ul style="list-style-type: none"> <li>• Installation of Additional 1500 MTPD of Sulphuric Acid production plant along with existing 2100 MTPD Sulphuric Acid Plant (SAP-1 (1700 MTPD) &amp; SAP2 (400 MTPD)). Total production capacity of Sulphuric acid shall be 3600 MTPD</li> <li>• Use of low sulphur coal in coal fired boiler and optimizing operations of existing sulphuric acid plant – I and coal fired boiler for no change in SO<sub>2</sub> emission from the sanctioned emission load.</li> <li>• Existing Phosphoric acid plant with production capacity of 1400 MTPD</li> <li>• Provision of Sulfuric Acid storage capacity of 2 x 5000 MT + 2 X 12,500 MT +1500 MT along with existing storage capacity of 15,000 MT</li> </ul>	
4	Point 4	<p>Power requirement will be increased from <u>20 MW to 21 MW</u>. The facility has contracted grid power of 12 MW, 5 MW from APGPCL and in-house steam turbine capacity of 5MW. The net available power for the existing operation is in the order of 22 MW. Hence the available power is adequate to meet the total requirement of <u>21 MW</u> post enhancement.</p>	Agreed
5	Point para3 4	<p>Fresh water requirement will be increased from 10350 m<sup>3</sup>/day to 14550 m<sup>3</sup>/day, which will be sourced from Greater Vishakhapatnam Municipal Corporation (GVMC). Sea water consumption will be same i.e 84600 m<sup>3</sup>/ day.</p>	Agreed and noted for compliance

## Coromandel International Limited, Visakhapatnam

6	A-Specific Condition 1	Green Belt of 10 M wide (Perennial trees) to be developed in three sides of plant periphery totaling <u>120 acre area</u> .	Agreed. The existing green belt area is more than 33% of the requirement. However, the plantation efforts will be continued.
7	A-Specific Condition 1	The present freshwater requirement is <u>10350 m3/day</u> . <u>Additional fresh water for the proposed enhancement will be 4200 m3/day</u> . <u>The total freshwater requirement post enhancement shall not exceed 14550 m3/day</u> . The present sea water requirement for once through cooling will remain to be <u>84600 m3 / day</u> .	Agreed
8	A-specific Condition 4	Post amendment, the SO2 emissions from Sulphuric acid plant-1 and sulphuric acid plant-2 shall be maintained at 0.8 kg/MT and 0.65 kg/ MT and in Sulphuric Acid Plant-3 shall be maintained at 0.75 kg/MT.	Noted. These are applicable only after the capacity enhancement through the addition of Sulphuric Acid Plant -3 in which the SO2 shall be maintained at 0.75 kg/MT. We have already requested to accord a line of confirmation in this regard.

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Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Govt, New Delhi  
NABL Accredited Laboratory**TEST REPORT****Test Report No.TLC/V/Env/CFL/20/0423****dt.02.05.2023****Description of Test:** Ambient Air Quality Monitoring outside the CFL**Name of the client:** Coromandel International Limited, Visakhapatnam**Location of sampling:** Near Warf**Date of Collection:** As per details Given**Analysis Report for the Month of APRIL-2023**

Date of monitoring	Time	PM <sub>2.5</sub> Limit 60 µg/m <sup>3</sup>	PM <sub>10</sub> Limit 100 µg/m <sup>3</sup>	SO <sub>2</sub> Limit 80 µg/m <sup>3</sup>	NO <sub>x</sub> Limit 80 µg/m <sup>3</sup>
26.04.2023 To 27.04.2023	09.00 to 09.00 hrs	36	78	14.0	19.4

All values are given in µg/m<sup>3</sup>**For TEAM Labs and Consultants**



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**TEST REPORT**

Test Report No.TLC/V/Env/CFL/20/0523

dt.01.06.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

Date of Collection: As per details Given

**Analysis Report for the Month of MAY-2023**

Date of monitoring	Time	PM <sub>2.5</sub> Limit 60 $\mu\text{g}/\text{m}^3$	PM <sub>10</sub> Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
25.05.2023 To 26.05.2023	09.00 to 09.00 hrs	38	85	15.7	20.4

All values are given in  $\mu\text{g}/\text{m}^3$ 

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**TEST REPORT**

Test Report No.TLC/V/Env/CFL/20/0623

dt.01.07.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

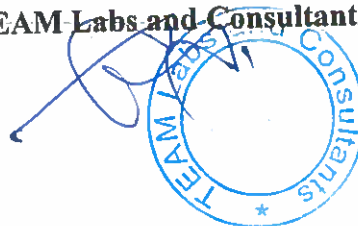
Date of Collection: As per details Given

**Analysis Report for the Month of JUNE-2023**

Date of monitoring	Time	PM <sub>2.5</sub> Limit 60 $\mu\text{g}/\text{m}^3$	PM <sub>10</sub> Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
28.06.2023 To 29.06.2023	09.00 to 09.00 hrs	40	88	16.2	22.8

All values are given in  $\mu\text{g}/\text{m}^3$ 

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**TEST REPORT**

Test Report No.TLC/V/Env/CFL/20/0723

dt.01.08.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

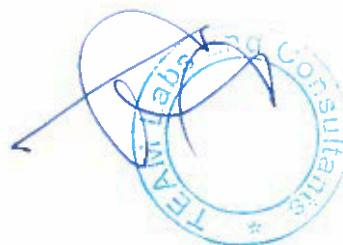
Date of Collection: As per details Given

**Analysis Report for the Month of JULY-2023**

Date of monitoring	Time	PM <sub>2.5</sub> Limit 60 µg/m <sup>3</sup>	PM <sub>10</sub> Limit 100 µg/m <sup>3</sup>	SO <sub>2</sub> Limit 80 µg/m <sup>3</sup>	NO <sub>x</sub> Limit 80 µg/m <sup>3</sup>
28.07.2023 To 29.07.2023	09.00 to 09.00 hrs	36	80	14.2	16.8

All values are given in µg/m<sup>3</sup>

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Laboratory Recognised by Ministry of Environment, Forests and Climate Change, GoI, New Delhi  
NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CFL/20/0823

dt.01.09.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

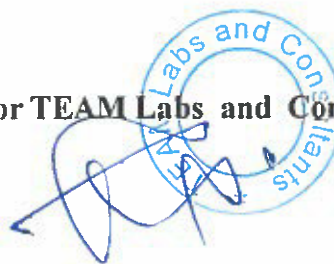
Date of Collection: As per details Given

**Analysis Report for the Month of AUGUST-2023**

Date of monitoring	Time	PM <sub>2.5</sub> Limit 60 $\mu\text{g}/\text{m}^3$	PM <sub>10</sub> Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
29.08.2023 To 30.08.2023	09.00 to 09.00 hrs	44	90	16.8	21.4

All values are given in  $\mu\text{g}/\text{m}^3$ 

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**TEST REPORT**

Test Report No.TLC/V/Env/CFL/20/0923

dt.03.10.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Near Warf

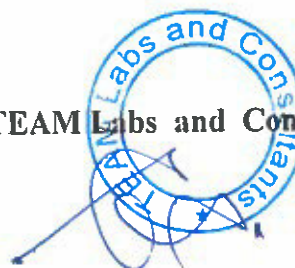
Date of Collection: As per details Given

**Analysis Report for the Month of SEPTEMBER-2023**

Date of monitoring	Time	PM 2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
30.09.2023 To 01.10.2023	09.00 to 09.00 hrs	35	78	12.2	15.8

All values are given in  $\mu\text{g}/\text{m}^3$ 

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/12/0423

dt.02.05.2023

Description of Test: Ambient Air quality Monitoring inside the CFL  
Name of the client: Coromandel International Limited, Visakhapatnam  
Location of sampling: Stations as per details given  
Period of Monitoring : For the Month of APRIL-2023

**Summary of Ambient Air quality Monitoring Data for the Month of APRIL-2023**

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	30	36	34
	Maximum	41	42	43
	98%tile	41	42	43
	Average	37	39	39
PM 10	Minimum	62	68	62
	Maximum	75	82	82
	98%tile	75	82	82
	Average	70	75	76
SO <sub>2</sub>	Minimum	13.9	22.0	12.8
	Maximum	21.5	26.8	15.0
	Average	18.5	24.2	13.9
	98%tile	21.5	26.8	15.0
NO <sub>x</sub>	Minimum	17.9	22.2	16.3
	Maximum	23.3	27.2	18.5
	98%tile	23.3	27.2	18.5
	Average	21.2	24.1	17.2
NH <sub>3</sub>	Minimum	0.01mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>	0.01 mg/M <sup>3</sup>
	Maximum	0.03mg/M <sup>3</sup>	0.04mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>
	98%tile	0.03mg/M <sup>3</sup>	0.04mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>
	Average	0.02mg/M <sup>3</sup>	0.03mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>

All values are expressed in µg/m<sup>3</sup>  
except Ammonia

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/12/0523

dt.01.06.2023

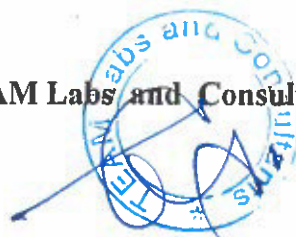
Description of Test: Ambient Air quality Monitoring inside the CFL  
Name of the client: Coromandel International Limited, Visakhapatnam  
Location of sampling: Stations as per details given  
Period of Monitoring : For the Month ofMAY-2023

**Summary of Ambient Air quality Monitoring Data for the Month ofMAY-2023**

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	32	34	36
	Maximum	43	44	45
	98%tile	43	44	45
	Average	38	39	40
PM 10	Minimum	62	69	69
	Maximum	79	84	82
	98%tile	79	84	82
	Average	71	76	77
SO <sub>2</sub>	Minimum	14.7	23.1	13.8
	Maximum	23.3	28.5	15.5
	Average	19.6	25.0	14.7
	98%tile	23.3	28.5	15.5
NO <sub>x</sub>	Minimum	18.1	22.8	15.9
	Maximum	22.9	26.7	19.6
	98%tile	22.9	26.7	19.6
	Average	21.0	24.3	18.5
NH <sub>3</sub>	Minimum	0.01mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>	0.01 mg/M <sup>3</sup>
	Maximum	0.03mg/M <sup>3</sup>	0.04mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>
	98%tile	0.03mg/M <sup>3</sup>	0.04mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>
	Average	0.02mg/M <sup>3</sup>	0.03mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>

All values are expressed in  $\mu\text{g}/\text{m}^3$   
except Ammonia

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/12/0623

dt.01.07.2023

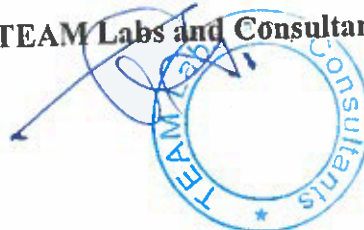
Description of Test: Ambient Air quality Monitoring inside the CFL  
Name of the client: Coromandel International Limited, Visakhapatnam  
Location of sampling: Stations as per details given  
Period of Monitoring : For the Month of JUNE-2023

**Summary of Ambient Air quality Monitoring Data for the Month of JUNE-2023**

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	28	30	29
	Maximum	42	43	44
	98%tile	42	43	44
	Average	37	39	39
PM 10	Minimum	58	61	62
	Maximum	78	85	83
	98%tile	78	85	83
	Average	70	76	76
SO <sub>2</sub>	Minimum	13.4	14.7	11.0
	Maximum	24.5	28.5	16.0
	Average	20.6	25.0	14.5
	98%tile	24.5	28.5	16.0
NO <sub>x</sub>	Minimum	16.6	16.8	14.7
	Maximum	24.3	27.2	20.2
	98%tile	24.3	27.2	20.2
	Average	21.4	23.8	18.5
NH <sub>3</sub>	Minimum	0.01mg/M <sup>3</sup>	0.01mg/M <sup>3</sup>	0.01 mg/M <sup>3</sup>
	Maximum	0.03mg/M <sup>3</sup>	0.04mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>
	98%tile	0.03mg/M <sup>3</sup>	0.04mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>
	Average	0.02mg/M <sup>3</sup>	0.03mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>

All values are expressed in  $\mu\text{g}/\text{m}^3$   
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dt.01.07.2023

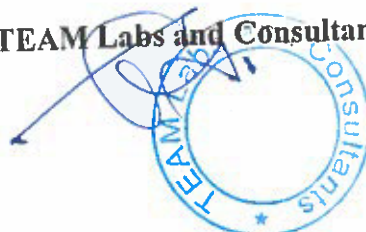
Description of Test: Ambient Air quality Monitoring inside the CFL  
Name of the client: Coromandel International Limited, Visakhapatnam  
Location of sampling: Stations as per details given  
Period of Monitoring : For the Month of JUNE-2023

**Summary of Ambient Air quality Monitoring Data for the Month of JUNE-2023**

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	28	30	29
	Maximum	42	43	44
	98%tile	42	43	44
	Average	37	39	39
PM 10	Minimum	58	61	62
	Maximum	78	85	83
	98%tile	78	85	83
	Average	70	76	76
SO <sub>2</sub>	Minimum	13.4	14.7	11.0
	Maximum	24.5	28.5	16.0
	Average	20.6	25.0	14.5
	98%tile	24.5	28.5	16.0
NO <sub>x</sub>	Minimum	16.6	16.8	14.7
	Maximum	24.3	27.2	20.2
	98%tile	24.3	27.2	20.2
	Average	21.4	23.8	18.5
NH <sub>3</sub>	Minimum	0.01mg/M <sup>3</sup>	0.01mg/M <sup>3</sup>	0.01 mg/M <sup>3</sup>
	Maximum	0.03mg/M <sup>3</sup>	0.04mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>
	98%tile	0.03mg/M <sup>3</sup>	0.04mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>
	Average	0.02mg/M <sup>3</sup>	0.03mg/M <sup>3</sup>	0.02mg/M <sup>3</sup>

All values are expressed in  $\mu\text{g}/\text{m}^3$   
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## TEST REPORT

Test Report No.TLC/V/Env/CIL/12/0823

dt.01.09.2023

Description of Test:

Ambient Air quality Monitoring inside the CFL

Name of the client:

Coromandel International Limited, Visakhapatnam

Location of sampling:

Stations as per details given

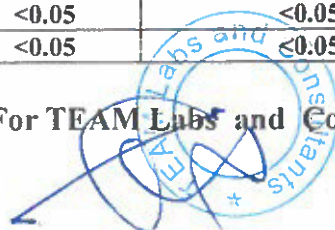
Period of Monitoring :

For the Month of AUGUST-2023

Summary of Ambient Air quality Monitoring Data for the Month of AUGUST-2023

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	30	34	32
	Maximum	43	45	40
	98%tile	43	45	40
	Average	37	40	36
PM 10 $\mu\text{g}/\text{M}^3$	Minimum	54	60	60
	Maximum	80	82	75
	98%tile	80	82	75
	Average	71	75	69
SO <sub>2</sub> $\mu\text{g}/\text{M}^3$	Minimum	13.8	14.9	9.5
	Maximum	22.3	27.0	14.8
	Average	19.7	22.8	13.3
	98%tile	22.3	27.0	14.8
NO <sub>x</sub> $\mu\text{g}/\text{M}^3$	Minimum	15.0	13.8	12.8
	Maximum	22.8	26.0	18.2
	98%tile	22.8	26.0	18.2
	Average	20.3	21.1	15.5
NH <sub>3</sub> $\text{mg}/\text{M}^3$	Minimum	0.01	0.01	0.01
	Maximum	0.02	0.03	0.01
	98%tile	0.02	0.03	0.01
	Average	0.015	0.02	0.01
O <sub>3</sub> $\mu\text{g}/\text{M}^3$	Minimum	10	10	10
	Maximum	18	20	12
	98%tile	18	20	12
	Average	11.8	14.5	10.25
CO $\text{mg}/\text{M}^3$	Minimum	0.1	0.1	0.1
	Maximum	0.1	0.2	0.2
	98%tile	0.1	0.2	0.2
	Average	0.1	0.12	0.11
Pb $\mu\text{g}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
C6H6 $\text{ng}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
B(a)P $\text{ng}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
As $\text{ng}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05
Ni $\text{ng}/\text{M}^3$	<0.05	<0.05	<0.05	<0.05

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### TEST REPORT

Test Report No.TLC/V/Env/CIL/12/0923

dt.03.10.2023

Description of Test:

Ambient Air quality Monitoring inside the CFL

Name of the client:

Coromandel International Limited, Visakhapatnam

Location of sampling:

Stations as per details given

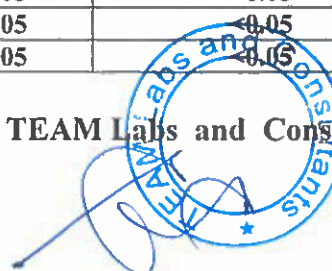
Period of Monitoring :

For the Month ofSEPTEMBER-2023

Summary of Ambient Air quality Monitoring Data for the Month ofSEPTEMBER-2023

Parameters		AAQ-1 Station at the Top of Cafeteria	AAQ-2 Station near DG sets	AAQ-3 Station at Gate -13 (Near Bagging plant)
PM2.5	Minimum	28	26	25
	Maximum	40	42	41
	98%tile	40	42	41
	Average	35	35	34
PM 10 µg/M <sup>3</sup>	Minimum	55	50	48
	Maximum	74	79	72
	98%tile	74	79	72
	Average	67	67	64
SO <sub>2</sub> µg/M <sup>3</sup>	Minimum	11.2	10.5	8.9
	Maximum	18.0	24.3	14.9
	Average	15.4	18.1	12.5
	98%tile	18.0	24.3	14.9
NO <sub>x</sub> µg/M <sup>3</sup>	Minimum	13.8	19.3	11.3
	Maximum	20.4	25.0	16.8
	98%tile	20.4	25.0	16.8
	Average	17.8	22.2	14.4
NH <sub>3</sub> mg/M <sup>3</sup>	Minimum	0.01	0.01	0.01
	Maximum	0.02	0.03	0.012
	98%tile	0.02	0.03	0.012
	Average	0.015	0.017	0.011
O <sub>3</sub> µg/M <sup>3</sup>	Minimum	8	8	8
	Maximum	14	18	14
	98%tile	14	18	14
	Average	11.2	13.5	11.2
CO mg/M <sup>3</sup>	Minimum	0.1	0.1	0.1
	Maximum	0.1	0.2	0.2
	98%tile	0.1	0.2	0.2
	Average	0.1	0.14	0.13
Pb µg/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05
C6H6 ng/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05
B(a)P ng/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05
As ng/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05
Ni ng/M <sup>3</sup>	<0.05	<0.05	<0.05	<0.05

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/15/0423

dt.02.05.2023

Description of Test: Surrounding village wells-Ground water analysis

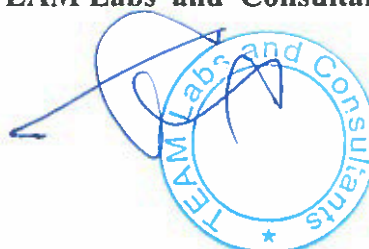
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 25.04.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica l Nitrogen mgpl
1	Kamaladevi colony- No.1	7.6	Nil	0.2	Nil
2	Kamaladevi colony- No.2	7.4	Nil	0.3	Nil
3	Yeduruvanipalem-1	7.3	Nil	0.3	Nil
4	Yeduruvanipalem-2	7.4	Nil	0.3	Nil
5	Mulagada No.1	7.3	Nil	0.3	Nil
6	Mulagada No.2	7.4	Nil	0.3	Nil
7	Mulagada No.3	7.5	Nil	0.3	Nil
8	Kodipandala dibba	7.4	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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Test Report No.TLC/V/Env/CIL/15/0523

dt.01.06.2023

Description of Test: Surrounding village wells-Ground water analysis

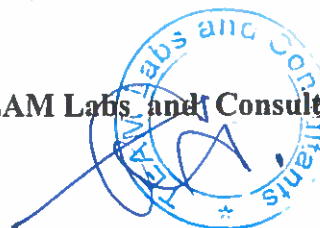
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 20.05.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica I Nitrogen mgpl
1	Kamaladevi colony- No.1	7.8	Nil	0.3	Nil
2	Kamaladevi colony- No.2	7.7	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.5	Nil	0.3	Nil
4	Yeduruvanipalem-2	7.4	Nil	0.2	Nil
5	Mulagada No.1	7.5	Nil	0.3	Nil
6	Mulagada No.2	7.6	Nil	0.2	Nil
7	Mulagada No.3	7.7	Nil	0.3	Nil
8	Kodipandala dibba	7.4	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/15/0623

dt.01.07.2023

Description of Test: Surrounding village wells-Ground water analysis

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 22.06.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica I Nitrogen mgpl
1	Kamaladevi colony- No.1	7.8	Nil	0.3	Nil
2	Kamaladevi colony- No.2	7.7	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.5	Nil	0.3	Nil
4	Yeduruvanipalem-2	7.4	Nil	0.2	Nil
5	Mulagada No.1	7.5	Nil	0.3	Nil
6	Mulagada No.2	7.6	Nil	0.2	Nil
7	Mulagada No.3	7.7	Nil	0.3	Nil
8	Kodipandala dibba	7.4	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/15/0723

dt.01.08.2023

Description of Test: Surrounding village wells-Ground water analysis

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 17.07.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica I Nitrogen mgpl
1	Kamaladevi colony- No.1	7.7	Nil	0.2	Nil
2	Kamaladevi colony- No.2	7.8	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.7	Nil	0.2	Nil
4	Yeduruvanipalem-2	7.8	Nil	0.2	Nil
5	Mulagada No.1	7.5	Nil	0.3	Nil
6	Mulagada No.2	7.6	Nil	0.2	Nil
7	Mulagada No.3	7.7	Nil	0.2	Nil
8	Kodipandala dibba	7.6	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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Test Report No.TLC/V/Env/CIL/15/0823

dt.01.09.2023

Description of Test: Surrounding village wells-Ground water analysis

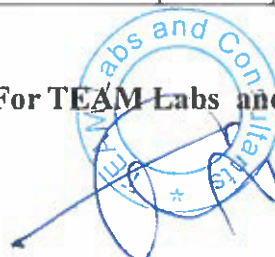
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 19.08.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonical Nitrogen mgpl
1	Kamaladevi colony- No.1	7.6	Nil	0.2	Nil
2	Kamaladevi colony- No.2	7.7	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.5	Nil	0.2	Nil
4	Yeduruvanipalem-2	7.7	Nil	0.2	Nil
5	Mulagada No.1	7.5	Nil	0.3	Nil
6	Mulagada No.2	7.5	Nil	0.2	Nil
7	Mulagada No.3	7.6	Nil	0.2	Nil
8	Kodipandala dibba	7.6	Nil	0.2	Nil
	Proocol	IS:3025 Part 11- 1983	APHA4500D	SM 4500 F- D	APHA4500C

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/15/0923

dt.03.10.2023

Description of Test: Surrounding village wells-Ground water analysis

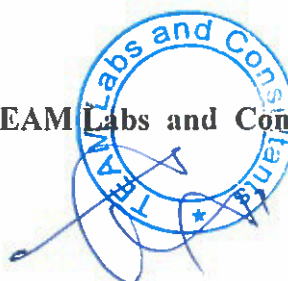
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection: 28.09.2023

NO	Location of well	pH	PO4 mgpl	F- mgpl	Ammonica I Nitrogen mgpl
1	Kamaladevi colony- No.1	7.7	Nil	0.2	Nil
2	Kamaladevi colony- No.2	7.7	Nil	0.2	Nil
3	Yeduruvanipalem-1	7.6	Nil	0.2	Nil
4	Yeduruvanipalem-2	7.8	Nil	0.2	Nil
5	Mulagada No.1	7.7	Nil	0.3	Nil
6	Mulagada No.2	7.5	Nil	0.2	Nil
7	Mulagada No.3	7.7	Nil	0.2	Nil
8	Kodipandala dibba	7.8	Nil	0.2	Nil
	Proocol	IS:3025 Part 11-1983	APHA4500D	SM 4500 F- D	APHA4500C

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Test Report No.TLC/V/Env/CFL/16/0423

dt.02.05.2023

Description of Test: Peizo wells analysis

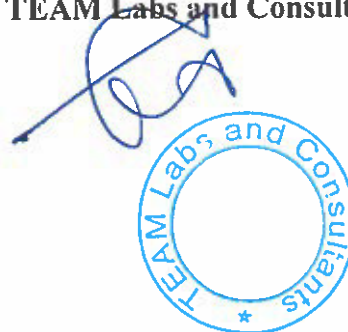
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	25.04.2023	CFL - colony	0.4
2	"	Near 4 OP Gate	0.5
3	"	Near 7 <sup>th</sup> gate	0.5
4	"	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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**TEST REPORT**

Test Report No.TLC/V/Env/CFL/16/0523

dt.01.06.2023

Description of Test: Peizo wells analysis

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	20.05.2023	CFL - colony	0.5
2	„	Near4 OP Gate	0.6
3	„	Near 7 <sup>th</sup> gate	0.5
4	„	CRC	0.7
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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Test Report No.TLC/V/Env/CFL/16/0623

dt.01.07.2023

Description of Test: Peizo wells analysis

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	16.06.2023	CFL - colony	0.5
2	"	Near 4 OP Gate	0.6
3	"	Near 7 <sup>th</sup> gate	0.5
4	"	CRC	0.7
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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**TEST REPORT**

Test Report No.TLC/V/Env/CFL/16/0723

dt.01.08.2023

Description of Test: Peizo wells analysis

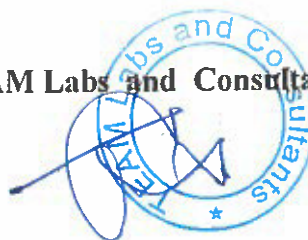
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	18.07.2023	CFL - colony	0.4
2	18.07.2023	Near4 OP Gate	0.5
3	18.07.2023	Near 7 <sup>th</sup> gate	0.6
4	18.07.2023	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CFL/16/0823

dt.01.09.2023

Description of Test: Peizo wells analysis

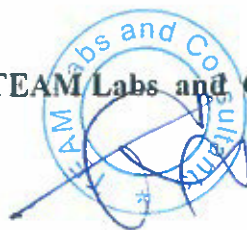
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	12.08.2023	CFL - colony	0.4
2	12.08.2023	Near 4 OP Gate	0.5
3	12.08.2023	Near 7 <sup>th</sup> gate	0.6
4	12.08.2023	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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**TEST REPORT**

Test Report No.TLC/V/Env/CFL/16/0923

dt.03.10.2023

Description of Test: Peizo wells analysis

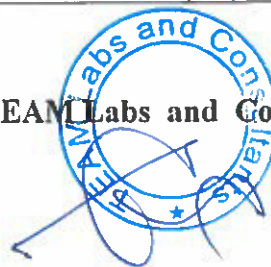
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	26.09.2023	CFL - colony	0.5
2	26.09.2023	Near4 OP Gate	0.6
3	26.09.2023	Near 7 <sup>th</sup> gate	0.7
4	26.09.2023	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/11/0423

dt.02.05.2023

Description of Test:

Source Emission Monitoring inside the CFL

Name of the client:

Coromandel International Limited, Visakhapatnam

Location of sampling: stacks attached to respective plants as per details given

**SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF APRIL-2023**

S.No	Stack attached to	Flow rate NM <sup>3</sup> /Hr	parameters	Conc. mg/NM <sup>3</sup>	APPCB Standard Limit
1	Complex A	194615	Particulate matter	22	45 mg/NM <sup>3</sup>
			Ammonia	95	165.0 mg/NM <sup>3</sup>
			Fluoride	0.6	4.0 mg/NM <sup>3</sup>
2	Complex B	182573	Particulate matter	24	45 mg/NM <sup>3</sup>
			Ammonia	105	165.0 mg/NM <sup>3</sup>
			Fluoride	1.4	4.0 mg/NM <sup>3</sup>
3	Complex C	171260	Particulate matter	20	45 mg/NM <sup>3</sup>
			Ammonia	90	165.0 mg/NM <sup>3</sup>
			Fluoride	1.2	4.0 mg/NM <sup>3</sup>
4	Sulphuric acid plant-I	96029	Sulphur dioxide	0.081Kg/MT (60mg/NM <sup>3</sup> )	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
5	Sulphuric acid plant-II	24581	Sulphur dioxide	0.029Kg/MT (20mg/NM <sup>3</sup> )	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
6	Phosphoric acid plant-1	158651	Particulate matter	20	50 mg/NM <sup>3</sup>
			Fluoride	6.8	20 mg/NM <sup>3</sup>
7	Rock grinding unit (Old)	8593	Particulate matter	27	50 mg/NM <sup>3</sup>
			Total Fluoride	2.1	20 mg/NM <sup>3</sup>
8	Wharf Boiler	7257	Particulate matter	40	115 mg/NM <sup>3</sup>
9	Phosphoric acid plant-2	26241	Particulate matter	24	50 mg/NM <sup>3</sup>
			Total Fluoride	2.2	20 mg/NM <sup>3</sup>
10	Rock grinding unit (New)	7623	Particulate matter	45	50 mg/NM <sup>3</sup>
			Total Fluoride	3.8	20 mg/NM <sup>3</sup>

For TEAM Labs and Consultants



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## TEST REPORT

Test Report No.TLC/V/Env/CIL/11/0523

dt.01.06.2023

Description of Test:

Source Emission Monitoring inside the CFL

Name of the client:

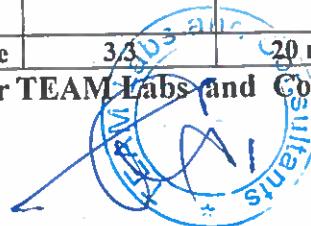
Coromandel International Limited, Visakhapatnam

Location of sampling: stacks attached to respective plants as per details given

SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OFMAY-2023

S.No	Stack attached to	Flow rate NM <sup>3</sup> /Hr	parameters	Conc. mg/NM <sup>3</sup>	APPCB Standard Limit
1	Complex A	204895	Particulate matter	20	45 mg/NM <sup>3</sup>
			Ammonia	66	165.0 mg/NM <sup>3</sup>
			Fluoride	0.9	4.0 mg/NM <sup>3</sup>
2	Complex B	196420	Particulate matter	22	45 mg/NM <sup>3</sup>
			Ammonia	85	165.0 mg/NM <sup>3</sup>
			Fluoride	1.3	4.0 mg/NM <sup>3</sup>
3	Complex C	196883	Particulate matter	18	45 mg/NM <sup>3</sup>
			Ammonia	72	165.0 mg/NM <sup>3</sup>
			Fluoride	1.4	4.0 mg/NM <sup>3</sup>
4	Sulphuric acid plant-1	92518	Sulphur dioxide	0.125Kg/MT (95mg/NM <sup>3</sup> )	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
5	Sulphuric acid plant-II	266931	Sulphur dioxide	0.048Kg/MT (30mg/NM <sup>3</sup> )	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
6	Phosphoric acid plant-1	155293	Particulate matter	19	50 mg/NM <sup>3</sup>
			Fluoride	5.8	20 mg/NM <sup>3</sup>
7	Rock grinding unit (Old)	9009	Particulate matter	25	50 mg/NM <sup>3</sup>
			Total Fluoride	2.3	20 mg/NM <sup>3</sup>
8	Wharf Boiler	8571	Particulate matter	35	115 mg/NM <sup>3</sup>
9	Phosphoric acid plant-2	26867	Particulate matter	22	50 mg/NM <sup>3</sup>
			Total Fluoride	2.1	20 mg/NM <sup>3</sup>
10	Rock grinding unit (New)	8316	Particulate matter	39	50 mg/NM <sup>3</sup>
			Total Fluoride	3.3	20 mg/NM <sup>3</sup>

For TEAM Labs and Consultants



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**TEST REPORT****SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF JUNE-2023**

S.No	Stack attached to	Flow rate NM <sup>3</sup> /Hr	parameters	Conc. mg/NM <sup>3</sup>	APPCB Standard Limit
1	Complex A	201864	Particulate matter	22	45 mg/NM <sup>3</sup>
			Ammonia	65	165.0 mg/NM <sup>3</sup>
			Fluoride	1.0	4.0 mg/NM <sup>3</sup>
2	Complex B	192974	Particulate matter	20	45 mg/NM <sup>3</sup>
			Ammonia	90	165.0 mg/NM <sup>3</sup>
			Fluoride	1.8	4.0 mg/NM <sup>3</sup>
3	Complex C	195186	Particulate matter	19	45 mg/NM <sup>3</sup>
			Ammonia	85	165.0 mg/NM <sup>3</sup>
			Fluoride	1.6	4.0 mg/NM <sup>3</sup>
4	Sulphuric acid plant-1	98724	Sulphur dioxide	0.299Kg/MT (215mg/NM <sup>3</sup> )	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
5	Sulphuric acid plant-II	30430	Sulphur dioxide	0.164Kg/MT (90mg/NM <sup>3</sup> )	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
6	Phosphoric acid plant-1	159643	Particulate matter	30	50 mg/NM <sup>3</sup>
			Fluoride	8.8	20 mg/NM <sup>3</sup>
7	Rock grinding unit (Old)	8316	Particulate matter	30	50 mg/NM <sup>3</sup>
			Total Fluoride	3.3	20 mg/NM <sup>3</sup>
8	Wharf Boiler	8292	Particulate matter	24	115 mg/NM <sup>3</sup>
9	Phosphoric acid plant-2	26506	Particulate matter	32	50 mg/NM <sup>3</sup>
			Total Fluoride	4.8	20 mg/NM <sup>3</sup>
10	Rock grinding unit (New)	8177	Particulate matter	35	50 mg/NM <sup>3</sup>
			Total Fluoride	3.8	20 mg/NM <sup>3</sup>

For Team Labs and Consultants





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**TEST REPORT**

Test Report No.TLC/V/Env/CFL/16/0723

dt.01.08.2023

Description of Test: Peizo wells analysis

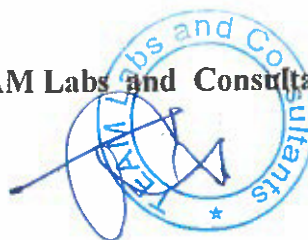
Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Stations as per details given

Date of Sample collection : As per details given

No	Date	Location of Peizo-well	F- mg/L
1	18.07.2023	CFL - colony	0.4
2	18.07.2023	Near 4 OP Gate	0.5
3	18.07.2023	Near 7 <sup>th</sup> gate	0.6
4	18.07.2023	CRC	0.6
		IS10500 Permissible limit	1.5
	Protocol		SM 4500 F- D

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/11/0823

dt.01.09.2023

Description of Test:

Source Emission Monitoring inside the CFL

Name of the client:

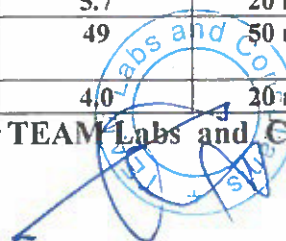
Coromandel International Limited, Visakhapatnam

Location of sampling: stacks attached to respective plants as per details given

**SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF AUGUST-2023**

S.No	Stack attached to	Flow rate NM <sup>3</sup> /Hr	parameters	Conc. mg/NM <sup>3</sup>	APPCB Standard Limit
1	Complex A	194605	Particulate matter	21	45 mg/NM <sup>3</sup>
			Ammonia	90	165.0 mg/NM <sup>3</sup>
			Fluoride	1.4	4.0 mg/NM <sup>3</sup>
2	Complex B	183191	Particulate matter	20	45 mg/NM <sup>3</sup>
			Ammonia	80	165.0 mg/NM <sup>3</sup>
			Fluoride	2.0	4.0 mg/NM <sup>3</sup>
3	Complex C	187851	Particulate matter	24	45 mg/NM <sup>3</sup>
			Ammonia	65	165.0 mg/NM <sup>3</sup>
			Fluoride	1.6	4.0 mg/NM <sup>3</sup>
4	Sulphuric acid plant-I	100877	Sulphur dioxide	0.170Kg/MT (120mg/NM <sup>3</sup> )	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
5	Sulphuric acid plant-II	32449	Sulphur dioxide	0.117Kg/MT (60mg/NM <sup>3</sup> )	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
6	Phosphoric acid plant-1	143374	Particulate matter	40	50 mg/NM <sup>3</sup>
			Fluoride	8.1	20 mg/NM <sup>3</sup>
7	Rock grinding unit (Old)	8316	Particulate matter	48	50 mg/NM <sup>3</sup>
			Total Fluoride	4.7	20 mg/NM <sup>3</sup>
8	Wharf Boiler	8466	Particulate matter	31	115 mg/NM <sup>3</sup>
9	Phosphoric acid plant-2	27662	Particulate matter	42	50 mg/NM <sup>3</sup>
			Total Fluoride	5.7	20 mg/NM <sup>3</sup>
10	Rock grinding unit (New)	8177	Particulate matter	49	50 mg/NM <sup>3</sup>
			Total Fluoride	4.0	20 mg/NM <sup>3</sup>

For TEAM Labs and Consultants



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**TEST REPORT**

Test Report No. TLC/V/Env/CIL/11/0923

dt.03.10.2023

Description of Test:

Source Emission Monitoring inside the CFL

Name of the client:

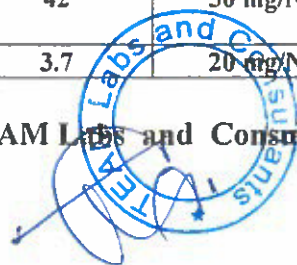
Coromandel International Limited, Visakhapatnam

Location of sampling: stacks attached to respective plants as per details given

**SOURCE/ STACK EMISSION MONITORING FOR THE MONTH OF SEPTEMBER-2023**

S.No	Stack attached to	Flow rate NM <sup>3</sup> /Hr	parameters	Conc. mg/NM <sup>3</sup>	APPCB Standard Limit
1	Complex A	196883	Particulate matter	18	45 mg/NM <sup>3</sup>
			Ammonia	95	165.0 mg/NM <sup>3</sup>
			Fluoride	1.2	4.0 mg/NM <sup>3</sup>
2	Complex B	188955	Particulate matter	22	45 mg/NM <sup>3</sup>
			Ammonia	75	165.0 mg/NM <sup>3</sup>
			Fluoride	1.9	4.0 mg/NM <sup>3</sup>
3	Complex C	200182	Particulate matter	20	45 mg/NM <sup>3</sup>
			Ammonia	72	165.0 mg/NM <sup>3</sup>
			Fluoride	1.5	4.0 mg/NM <sup>3</sup>
4	Sulphuric acid plant-I	99750	Sulphur dioxide	0.154Kg/MT (110mg/NM <sup>3</sup> )	1 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
5	Sulphuric acid plant-II	31884	Sulphur dioxide	0.126Kg/MT (66mg/NM <sup>3</sup> )	0.65 Kg/MT
			Sulphur trioxide	Nil	0.35 Kg/MT
			Acid mist	Nil	20 mg/NM <sup>3</sup>
6	Phosphoric acid plant-1	143822	Particulate matter	36	50 mg/NM <sup>3</sup>
			Fluoride	6.9	20 mg/NM <sup>3</sup>
7	Rock grinding unit (Old)	8455	Particulate matter	45	50 mg/NM <sup>3</sup>
			Total Fluoride	3.9	20 mg/NM <sup>3</sup>
8	Wharf Boiler	8728	Particulate matter	38	115 mg/NM <sup>3</sup>
9	Phosphoric acid plant-2	28097	Particulate matter	40	50 mg/NM <sup>3</sup>
			Total Fluoride	4.4	20 mg/NM <sup>3</sup>
10	Rock grinding unit (New)	7900	Particulate matter	42	50 mg/NM <sup>3</sup>
			Total Fluoride	3.7	20 mg/NM <sup>3</sup>

For TEAM Labs and Consultants



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Test Report No.TLC/V/Env/CIL/14/0423

dt.02.05.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

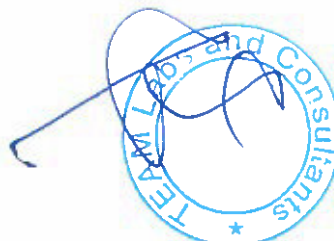
Location of sampling: Gullalapalem

Date of Collection: As per details given

**Analysis Report for the Month of APRIL-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
03.04.2023	24	45	10.2	13.3
06.04.2023	26	50	11.3	14.7
10.04.2023	28	55	10.4	15.6
12.04.2023	30	60	9.7	14.4
17.04.2023	32	65	12.2	17.7
19.04.2023	28	59	10.8	15.3
24.04.2023	25	53	9.5	14.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

For TEAM Labs and Consultants



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NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CIL/13/0423

dt.02.05.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

Date of Collection: As per details given

**Analysis Report for the Month of APRIL-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
03.04.2023	28	57	10.1	13.3
06.04.2023	27	56	9.8	14.3
10.04.2023	30	60	12.7	16.6
12.04.2023	32	65	13.0	16.6
17.04.2023	29	60	10.2	15.5
19.04.2023	30	64	11.2	17.2
24.04.2023	26	55	9.7	13.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in  $\mu\text{g}/\text{m}^3$ 

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/13/0523

dt.01.06.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

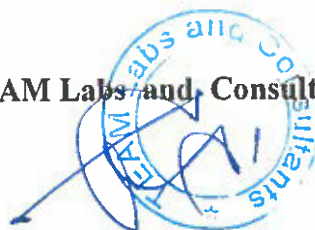
Date of Collection: As per details given

**Analysis Report for the Month of MAY-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
02.05.2023	30	58	11.5	15.5
04.05.2023	28	55	10.6	14.3
09.05.2023	31	62	12.5	16.6
11.05.2023	32	66	14.7	18.2
15.05.2023	28	58	10.5	15.5
19.05.2023	30	62	9.9	16.6
20.05.2023	27	56	9.2	14.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in  $\mu\text{g}/\text{m}^3$ 

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/14/0523

dt.01.06.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

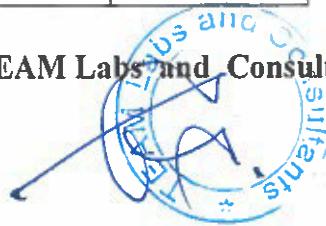
Location of sampling: Gullalapalem

Date of Collection: As per details given

**Analysis Report for the Month of MAY-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
02.05.2023	27	52	10.5	13.5
04.05.2023	29	54	12.0	15.8
09.05.2023	28	53	10.4	15.6
11.05.2023	31	62	12.7	19.5
15.05.2023	32	66	14.0	20.2
19.05.2023	28	58	1.2	16.9
20.05.2023	25	53	9.2	14.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/14/0523

dt.01.06.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

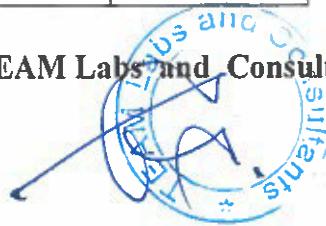
Location of sampling: Gullalapalem

Date of Collection: As per details given

**Analysis Report for the Month of MAY-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
02.05.2023	27	52	10.5	13.5
04.05.2023	29	54	12.0	15.8
09.05.2023	28	53	10.4	15.6
11.05.2023	31	62	12.7	19.5
15.05.2023	32	66	14.0	20.2
19.05.2023	28	58	1.2	16.9
20.05.2023	25	53	9.2	14.7
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

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**TEST REPORT****Test Report No.TLC/V/Env/CIL/13/0623****dt.01.07.2023**

**Description of Test:** Ambient Air Quality Monitoring outside the CFL  
**Name of the client:** Coromandel International Limited, Visakhapatnam  
**Location of sampling:** Mulagada  
**Date of Collection:** As per details given

**Analysis Report for the Month of JUNE-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
05.06.2023	31	60	11.5	13.8
07.06.2023	30	58	12.0	16.3
13.06.2023	32	62	12.5	16.6
15.06.2023	34	66	14.2	18.2
20.06.2023	25	55	10.2	15.5
23.06.2023	20	56	8.0	10.8
26.06.2023	29	60	9.7	14.3
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in  $\mu\text{g}/\text{m}^3$

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/14/0723

dt.01.08.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

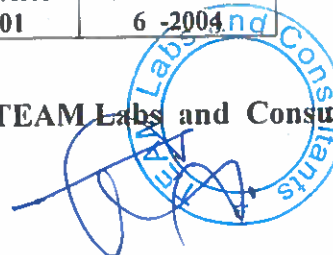
Location of sampling: Gullalapalem

Date of Collection: As per details given

**Analysis Report for the Month of JULY-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
05.07.2023	22	48	9.5	12.6
08.07.2023	24	50	10.2	13.3
10.07.2023	22	45	9.4	11.8
13.07.2023	19	40	8.6	10.5
18.07.2023	16	34	7.4	9.8
22.07.2023	14	30	7.0	9.5
24.07.2023	15	38	8.0	10.8
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

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**TEST REPORT**

Test Report No.TLC/V/Env/CIL/13/0723

dt.01.08.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

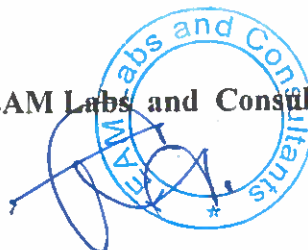
Date of Collection: As per details given

**Analysis Report for the Month of JULY-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
05.07.2023	28	54	11.0	13.8
08.07.2023	26	55	10.5	14.2
10.07.2023	30	60	11.8	15.2
13.07.2023	20	42	9.7	13.5
18.07.2023	18	40	8.0	10.6
22.07.2023	16	35	7.8	10.0
24.07.2023	20	40	8.0	10.8
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in  $\mu\text{g}/\text{m}^3$ 

For TEAM Labs and Consultants



**Labs and Consultants****Registered Office :**

B-115, 116, 117 &amp; 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Govt, New Delhi  
NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CIL/14/0823

dt.01.09.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Gullalapalem

Date of Collection: As per details given

**Analysis Report for the Month of AUGUST-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
02.08.2023	28	58	9.8	14.2
04.08.2023	26	55	10.0	13.5
09.08.2023	30	60	9.6	12.7
11.08.2023	32	57	11.2	15.0
16.08.2023	27	52	9.5	11.6
18.08.2023	15	38	8.0	10.2
21.08.2023	24	50	9.7	12.2
Protocol	Gravi metric, CPCB annual	IS5182 PART- 23 -2006	IS5182 PART-2 - 2001	IS5182 PART-6 -2004

For TEAM Labs and Consultants

**Labs and Consultants****Registered Office :**

B-115, 116, 117 &amp; 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Govt, New Delhi  
NABL Accredited Laboratory**TEST REPORT**

Test Report No.TLC/V/Env/CIL/13/0823

dt.01.09.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

Date of Collection: As per details given

**Analysis Report for the Month of AUGUST-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
02.08.2023	26	54	10.8	14.0
04.08.2023	27	55	9.9	13.2
09.08.2023	32	64	11.0	16.3
11.08.2023	25	50	10.2	13.5
16.08.2023	28	56	9.7	13.2
18.08.2023	12	38	8.1	11.3
21.08.2023	26	54	9.1	10.9
Protocol	Gravi metric, CPCB anual	IS5182 PART-23 - 2006	IS5182 PART-2 - 2001	IS5182 PART-6 - 2004

All values are given in  $\mu\text{g}/\text{m}^3$ 

For TEAM Labs and Consultants



**Labs and Consultants****Registered Office :**

B-115, 116, 117 &amp; 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Govt, New Delhi

NABL Accredited Laboratory

**TEST REPORT**

Test Report No.TLC/V/Env/CIL/13/0923

dt.03.10.2023

Description of Test: Ambient Air Quality Monitoring outside the CFL

Name of the client: Coromandel International Limited, Visakhapatnam

Location of sampling: Mulagada

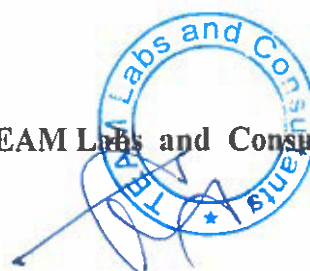
Date of Collection: As per details given

**Analysis Report for the Month of SEPTEMBER-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
04.09.2023	24	52	9.8	11.6
06.09.2023	20	48	8.0	10.8
11.09.2023	22	50	8.3	11.2
13.09.2023	15	38	7.8	10.2
19.09.2023	20	44	8.6	12.2
21.09.2023	25	48	9.5	13.8
25.09.2023	26	54	9.7	14.2
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 6 -2004

All values are given in  $\mu\text{g}/\text{m}^3$ 

For TEAM Labs and Consultants





**Labs and Consultants****Registered Office :**

B-115, 116, 117 &amp; 509, Annapurna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.

Ph. : (O) 040-23748555 / 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

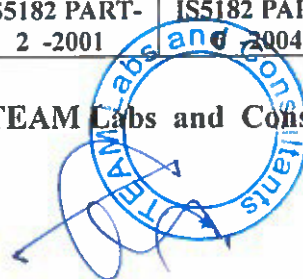
Laboratory Recognised by Ministry of Environment, Forests and Climate Change, Gol, New Delhi

NABL Accredited Laboratory

**TEST REPORT****Test Report No.TLC/V/Env/CIL/14/0923****dt.03.10.2023****Description of Test: Ambient Air Quality Monitoring outside the CFL****Name of the client: Coromandel International Limited, Visakhapatnam****Location of sampling: Gullalapalem****Date of Collection: As per details given****Analysis Report for the Month of SEPTEMBER-2023**

Date of monitoring	PM2.5 Limit 60 $\mu\text{g}/\text{m}^3$	PM10 Limit 100 $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> Limit 80 $\mu\text{g}/\text{m}^3$	NO <sub>x</sub> Limit 80 $\mu\text{g}/\text{m}^3$
04.09.2023	25	52	9.5	13.3
06.09.2023	22	46	8.8	12.4
11.09.2023	20	42	7.8	10.6
13.09.2023	16	35	7.2	10.6
19.09.2023	21	45	9.7	12.8
21.09.2023	25	48	9.5	11.6
25.09.2023	27	50	10.1	13.8
Protocol	Gravi metric, CPCB anual	IS5182 PART- 23 -2006	IS5182 PART- 2 -2001	IS5182 PART- 2 -2004

For TEAM Labs and Consultants



**Coromandel International Limited**

Post Box No. 1116, Sriharipuram, Malkapuram Post  
Visakhapatnam - 530 011, Andhra Pradesh, India  
Tel : 91-891-2578400 to 2578416  
DID : 91-891-2578417/18/19  
Fax : 91-891-2577665/2516164  
Website : www.coromandel.biz  
CIN : L24120AP1961PLC000892

Date:28.09.2023

EHS/APPCB/2023-78

To  
The Member Secretary,  
A.P. Pollution Control Board,  
D.No.33-26-14D/2, Near Sunrise Hospital,  
Pushpa Hotel Centre,  
Chalamalavari Street, Kasturibaipet,  
Vijayawada-520 010

sairakeshni@gmail.com, Nasik

RH951559924IN IVR:827875155992 भारतीय डाक  
RL MALKAPURAM S.O <530011>  
Counter No:1.29/09/2023.11:29  
To:FORM V THE ME,APPCB VIJAYAWADA  
PIN:520010, Venkateswarapuram S.O  
From:EHS HOD,COROMANDEL INTER  
Wt:246gms  
Amt:82.00(Cash)  
<Track on www.indiapost.gov.in>

Sub: Submission of Environmental Statement in Form-V for the financial year 2022-23 as per the  
Environmental Protection Act -1986 reg.

Ref: 1. Consent Order No: APPCB/VSP/65/CFO/HO/1967 - 30/09/2022  
2. Consent Order No: 7055/APPCB/20-VSP/CFO/VSP/2021 - 01/11/2021  
3. Consent Order No: APPCB/VSP/VSP/65/CFO/HO/2020 - 23/12/2020

Dear Sir,

We are enclosing herewith the Environment Statement for the financial year 2022-23 ending with  
31<sup>st</sup> March 2023 in prescribed Form-V with respect to Coromandel International Ltd. along with  
relevant annexures.

This is submitted as per the guidelines of Environment protection act -1986

Thanking you

Yours faithfully  
For Coromandel International Limited

  
M. Gnanasundaram  
VP & Head - Manufacturing

  
Encl: As above

Cc: 1. The Joint Chief Environmental Engineer, Zonal Office, APPCB, Visakhapatnam-18  
2. The Environmental Engineer, Regional Office, APPCB, Visakhapatnam-18

## EHS2-Vizag-Coromandel

---

**From:** Nagarjuna-P-Mgr-EHS-Vizag-Coromandel  
**Sent:** 29 September 2023 13:02  
**To:** rovspappcb@gmail.com; rovsp-ee1@appcb.gov.in; zovspappcb  
**Cc:** EHS2-Vizag-Coromandel; Subhradip Mondal-Mgr-Environment-Vizag-Coromandel; Nagaraju D-AGM-EHS-Vizag-Coromandel; Vinod Kumar Mishra-Sr.GM-EHS-Vizag-Coromandel  
**Subject:** Submission of CIL-Form-V (Environmental Statement) for the period of 2022-2023  
**Attachments:** CIL-Vizag-Form -V 2022-2023.pdf

Dear Sir,

Here we are **submitting the Environmental Statement , Form-V** as per Environmental Protection Act, 1986 by **Coromandel International Limited, Visakhapatnam for the period of 2022-2023.**

Same original copy of Form-V along with backup documents we have submitted to Head office, APPCB, Vijayawada through postal on **29.09.2023** and same copy submitted to your regional and zonal office today.

Again, we have submitted the same copy through mail as per your instruction.

Regards,  
Nagarjuna P  
Manager-Environment  
9100443439

**SAVE ENVIRONMENT SAVE LIFE**

  
**Coromandel**  
FUTURE POSITIVE  
**Coromandel International Limited**  
Sriharipuram, Malkapuram PO  
Visakhapatnam-530 011  
Andhrapradesh, India.  
F: +91 891-2578400  
W: [www.coromandel.biz](http://www.coromandel.biz)  
A MURUGAPPA GROUP COMPANY

**Coromandel International Limited**  
Post Box No. 1116, Sriharipuram, Malkapuram Post  
Visakhapatnam - 530 011, Andhra Pradesh, India  
Tel : 91-891-2578400  
DID : 91-891-2893+Extn No  
Website : www.coromandel.biz  
CIN : L24120AP1961PLC000892  
GSTIN : 37AAACC7852K1ZC

Date: 27.09.2024

EHS/APPCB/2024-099

To  
The Member Secretary,  
A.P. Pollution Control Board,  
D.No.33-26-14D/2, Near Sunrise Hospital,  
Pushpa Hotel Centre,  
Chalamalavari Street, Kasturibaipet,  
Vijayawada-520 010

RN541800070IN IVR:8278541800070  
RL MALKAPURAM S.O <530011>  
Counter No:1.27/09/2024.14:16  
To:THE MEMBER SE,APPCB VIJAYAWADA  
PIN:520010, Venkateswarapuram S.O  
From:EHS HOD COR.FORM 5 WHARF  
Wt:250gms,REG=17.0  
Amt:96.76,Tax:14.76,Amt.Paid:97.00(Cash)  
<Track on www.indiapost.gov.in>  
<Dial 18002666868> <Wear Masks. Stay Safe>

Sub: Submission of Environmental Statement in Form-V for the financial year 2023-24 as per the  
Environmental Protection Act -1986 reg.

Ref: 1. Consent Order No: APPCB/VSP/VSP/65/HO/CFO/2020 – 23/12/2020

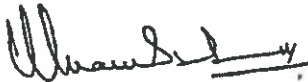
Dear Sir,

We are enclosing herewith the Environment Statement for the financial year 2023-24 ending with  
31<sup>st</sup> March 2024 in prescribed Form-V with respect to Coromandel International Ltd. along with  
relevant annexures.

This is submitted as per the guidelines of Environment protection act -1986

Thanking you

Yours faithfully  
For Coromandel International Limited



M. Gnanasundaram  
VP & Head - Manufacturing

Ny  
NAG

Encl: As above

- Cc: 1. The Joint Chief Environmental Engineer, Zonal Office, APPCB, Visakhapatnam-18  
2. The Environmental Engineer, Regional Office, APPCB, Visakhapatnam-18



Date:27.09.2024

EHS/APPCB/2024-099

To  
The Member Secretary,  
A.P. Pollution Control Board,  
D.No.33-26-14D/2, Near Sunrise Hospital,  
Pushpa Hotel Centre,  
Chalamalavari Street, Kasturibaipet,  
Vijayawada-520 010

Sub: Submission of Environmental Statement in Form-V for the financial year 2023-24 as per the  
Environmental Protection Act -1986 reg.

Ref: 1. Consent Order No: APPCB/VSP/VSP/65/HO/CFO/2020 – 23/12/2020

Dear Sir,

We are enclosing herewith the Environment Statement for the financial year 2023-24 ending with  
31<sup>st</sup> March 2024 in prescribed Form-V with respect to Coromandel International Ltd. along with  
relevant annexures.

This is submitted as per the guidelines of Environment protection act -1986

Thanking you

Yours faithfully  
For Coromandel International Limited



M. Gnanasundaram  
VP & Head - Manufacturing

  
NAG

Encl: As above

Cc: 1. The Joint Chief Environmental Engineer, Zonal Office, APPCB, Visakhapatnam-18  
2. The Environmental Engineer, Regional Office, APPCB, Visakhapatnam-18

**FORM – V**  
(See rule 14)

**Environmental Statement (Audit Report) for the financial year ending  
31<sup>st</sup> March 2024**

**PART – A**

I)	Name and address of the owner/occupier of the industry, operation or process.	Coromandel International Limited (Sulphuric acid storage & handling facilities at Wharf Area), Post Box No. 1116, Sriharipuram, Malkapuram Post, Visakhapatnam-530 011 Occupier: Mr. Sankarasubramanian (Managing Director)
II	Production Capacity	1.Storage and handling of Sulphuric Acid – 02 X 12500 MT – Total : 25000 MT 2.Unloading facilities from ship at Wharf area 3.Transfer pipelines from at Wharf area to the plant
III	Year of Establishment	1967
II)	Date of the last Environmental Audit Report submitted.	28/09/2023

**PART – B**

**Water and Raw Material Consumption**

I)	<b>Water consumption m<sup>3</sup>/d (average break-up) year 2023-24</b>		
	WATER : 02 KLD		
		Water consumption per unit of products M <sup>3</sup> /MT	
	Name of products	During the previous financial year	During the current financial year
		NA	NA
II	<b>Raw material consumption</b>		
	Name of raw materials	Name of products	Consumption of raw material per unit of output (MT/MT)
			During the current financial year 2022-23
			During the current financial year 2023-24
	Ref: Annexure – 1		

**PART – C**

**Pollution generated**

**(Parameters as specified in the consent issued)**

I)	Pollutants	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants discharges (mass/Volume)	Percentages of variation from prescribed standards with reasons
	(a) Water (b) Air	Ref: Annexure – 2		

**PART – D**  
**Hazardous Wastes**  
**(As specified under hazardous wastes Management and Handling Rules, 1989 and amendment 2016)**

Stream	Name of the Hazardous waste	Total Quantity	
		During the previous financial year 2022-23	During the current financial year 2023-24
Nil			

**PART –E**  
**Solid Wastes**

		Total Quantity (MT)	
		During the previous financial year 2022-23	During the current financial year 2023-24
a)	From process	Not Applicable	
b)	Process pollution control facilities		
c)	Quantity recycled or re-utilized		
	i) sold		
	ii) Disposed		

**PART – F**

**Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes**

We are generating a very minimal quantity of used oil and tank bottom sludge. Whatever we do generate is sent to the main plant. The Hazardous Waste Annual Returns Form - IV has been submitted, including information from the main plant.

**Ref: Annexure – 3**

**PART – G**

**Impact of the pollution control measures on conservation of natural resources and consequently on the cost of production.**

This plant is used solely for raw material storage, there are no operations conducted here.



**PART – H**

**Additional investment proposal for environmental protection including abatement of pollution:**

Note : It is considered part of the main plant investments.

**Environment Improvement Measures Refer Annexure – 04.**

**PART – I**

Any other particulars in respect of environment protection and abatement of pollution:

A report covering various efforts made by Coromandel International Limited for control of environmental pollution along with details of processes adopted in various units is given in savings made by some other activities and savings through Energy Conservation.

**Refer Annexure - 05 & 06**

**Your faithfully,  
For Coromandel International Limited,**



**M. Gnanasundaram  
VP & Head – Manufacturing**



### Annexure-1

Raw materials Consumption 2023-2024			
Name of the Raw material: Rock phosphate			
S. No	Details of Description	Unit of measurement	Qty.
1	Opening Stock on 01 <sup>st</sup> April 2023	MT	0
2	Received Qty.	MT	262019
3	Consumption Qty.	MT	<b>262019</b>
4	Closing stock on 31 <sup>st</sup> March 2024	MT	0

Raw materials Consumption 2023-2024			
Name of the Raw material: Sulphuric Acid			
S. No	Details of Description	Unit of measurement	Qty.
1	Opening Stock on 01 <sup>st</sup> April 2023	MT	21057.985
2	Received Qty.	MT	433679.8
3	Consumption Qty.	MT	<b>431165.8</b>
4	Closing stock on 31 <sup>st</sup> March 2024	MT	23571.971

Raw materials Consumption 2023-2024			
Name of the Raw material: Molten sulphur			
S. No	Details of Description	Unit of measurement	Qty.
1	Opening Stock on 01 <sup>st</sup> April 2023	MT	13446.697
2	Received Qty.	MT	83808
3	Consumption Qty.	MT	<b>94910.02</b>
4	Closing stock on 31 <sup>st</sup> March 2024	MT	2344.677

Raw materials Consumption 2023-2024			
Name of the Raw material: LSHS			
S. No	Details of Description	Unit of measurement	Qty.
1	Opening Stock on 01 <sup>st</sup> April 2023	MT	20.07
2	Received Qty.	MT	576.718
3	Consumption Qty.	MT	<b>585.328</b>
4	Closing stock on 31 <sup>st</sup> March 2024	MT	11.46

Raw materials Consumption 2023-2024			
Name of the Raw material: LDO			
S. No	Details of Description	Unit of measurement	Qty.
1	Opening Stock on 01 <sup>st</sup> April 2023	Litres	9268
2	Received Qty.	Litres	0
3	Consumption Qty.	Litres	<b>6626</b>
4	Closing stock on 31 <sup>st</sup> March 2024	Litres	2642

## Annexure - 2

Environment Quality Report					
I)	Pollutants	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants discharges (mass/Volume)	APPCB limit mg / lt.	Percentages of variation from prescribed standards with reasons
	<b>Air</b>				
		Emissions, TPA	Emissions, mg/Nm <sup>3</sup>	APPCB limit mg/Nm <sup>3</sup>	No Variation from Standards
1	<b>Wharf Boiler</b>				
	SPM	--	33.25	115	

### AAQMS Monitoring at Wharf

PCB Limit	AAQ-1 station at the Top of WHARF											
	Limit 60	Limit 100	Limit 80	Limit 80	Limit 0.4	Limit	Limit	Limit	Limit	Limit	Limit	Limit
	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
Parameters	PM 2.5	PM 10	SO2	NOx	NH3	O3	CO	Pb	C6H6	B(a)P	As	Ni
2023 – 24 Average	31.33	70.04	14.95	14.67	0.03	21.33	0.28	<0.5	<0.5	<0.5	<0.5	<0.5

**EHS/APPCB/2024-040**

**Date: 06.05.2024**

To  
The Environmental Engineer,  
A.P. Pollution Control Board,  
D.No. 33-26-14 D/2,  
Near Sunrise Hospital,  
Pushpa Hotel Centre,  
Chalamalavari Street,  
Kasturibaipet, Vijayawada – 520010

Dear Sir,

RH461132235IH IVR:8278461132235  
RL MALKAPURAM S.O <530011>  
Counter No:1.07/05/2024.10:33  
To:THE ENVIRONME.APPCB KASTURIBAI  
PIN:520010, Venkateswarapuram S.O  
From:COROMANDEL .EHS HOD MALKAPUR  
Wt:240gms.REG=17.0  
Amt:31.86(Cash)Tax:4.86  
<Track on www.indiapost.gov.in>  
<Dial 18002666868> <Wear Masks. Stay Safe>

**Sub: Coromandel International Limited- Visakhapatnam-Submission of Hazardous  
Waste Annual Returns in Form-4 – FY2023-2024 - Regarding.**

**Ref: Hazardous and Other Wastes (Management and Transboundary Movement) Rules,  
2016**

We are herewith furnishing annual returns (for the period April'23 to March'24) in **Form-4** as  
per "**Hazardous and Other Wastes (Management and Transboundary Movement) Rules,  
2016**" and amendment thereof under **E (P) Act, 1986**.

Kindly acknowledge the receipt of same.

Thanking you,

Yours Truly,

**For COROMANDEL INTERNATIONAL LIMITED**



**Gnanasundaram M**  
**Vice President & Head Manufacturing.**



**Encl. As above**

**CC to: i) The Environmental Engineer, Regional Office, APPCB, Visakhapatnam.**

**EHS/APPCB/2024-040**

**Date: 06.05.2024**

To  
The Environmental Engineer,  
A.P. Pollution Control Board,  
D.No. 33-26-14 D/2,  
Near Sunrise Hospital,  
Pushpa Hotel Centre,  
Chalamalavari Street,  
Kasturibaipet, Vijayawada – 520010

Dear Sir,

Sub: Coromandel International Limited- Visakhapatnam–Submission of Hazardous  
Waste Annual Returns in Form-4 – FY2023-2024 - Regarding.

Ref: Hazardous and Other Wastes (Management and Transboundary Movement) Rules,  
2016

We are herewith furnishing annual returns (for the period April'23 to March'24) in Form-4 as  
per “Hazardous and Other Wastes (Management and Transboundary Movement) Rules,  
2016” and amendment thereof under E (P) Act, 1986.

Kindly acknowledge the receipt of same.

Thanking you,

Yours Truly,

**For COROMANDEL INTERNATIONAL LIMITED**



**Gnanasundaram M**  
**Vice President & Head Manufacturing.**


  
**NAG/DNR**

**Encl. As above**

CC to: i) The Environmental Engineer, Regional Office, APPCB, Visakhapatnam.



FORM-4																												
[See rules 6(5), 13(8), 16(6) and 20(2)]																												
FORM FOR FILING ANNUAL RETURNS																												
(To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period April to March)																												
1	Name and address of facility:	Coromandel International Limited, Sriharipuram, Malkapuram (PO), Visakhapatnam-530011, Andhra Pradesh, India. Phone: 0891-2578400																										
2	Authorisation No. and Date of issue:	Authorization no. APPCB/VSP/65/CFO/HO/1967 Issued date: 30.09.2022 Valid Upto 31.08.2027																										
3	Name of the authorised person and full address with telephone, fax number and e-mail:	M. Gnanasundaram VP-Head Manufacturing Sriharipuram, Malkapuram (PO), Visakhapatnam-530011, Andhra Pradesh, India. Phone: 0891-2578400																										
4	Production during the year (product wise), wherever applicable	: Complex plant : Sulphuric acid : Phosphoric acid	1165048 861859 370617	MT/Annum																								
<b>Part A. To be filled by hazardous waste generators</b>																												
1	Total quantity of waste generated category wise		<table border="1"> <thead> <tr> <th>Name of the Hazardous waste</th> <th>Quantity generated</th> </tr> </thead> <tbody> <tr> <td>1) Acid residues (Tank bottom sludge)</td> <td>25.000 MT</td> </tr> <tr> <td>2) Sulphur muck (Sulphur sludge)</td> <td>940.000 MT</td> </tr> <tr> <td>3) Spent Catalyst</td> <td>48.820 MT</td> </tr> <tr> <td>4) Used lubricating oil/drain oil</td> <td>13.620 KL</td> </tr> <tr> <td>5) Detoxified Containers</td> <td>2438.000 No's</td> </tr> <tr> <td>6) LSHS Sludge</td> <td>4.070 MT</td> </tr> <tr> <td>7) Scrubbing sludge</td> <td>395.000 MT</td> </tr> <tr> <td>8) ETP sludge</td> <td>490.000 MT</td> </tr> <tr> <td>9) Off specified ,expired chemicals &amp; lab chemicals etc.</td> <td>0.000 MT</td> </tr> <tr> <td>10) Glass wool</td> <td>0.000 MT</td> </tr> <tr> <td>11) Insulation Puf</td> <td>0.000 MT</td> </tr> </tbody> </table>		Name of the Hazardous waste	Quantity generated	1) Acid residues (Tank bottom sludge)	25.000 MT	2) Sulphur muck (Sulphur sludge)	940.000 MT	3) Spent Catalyst	48.820 MT	4) Used lubricating oil/drain oil	13.620 KL	5) Detoxified Containers	2438.000 No's	6) LSHS Sludge	4.070 MT	7) Scrubbing sludge	395.000 MT	8) ETP sludge	490.000 MT	9) Off specified ,expired chemicals & lab chemicals etc.	0.000 MT	10) Glass wool	0.000 MT	11) Insulation Puf	0.000 MT
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<b>FORM-4</b>			
<i>[See rules 6(5), 13(8), 16(6) and 20(2)]</i>			
<b>FORM FOR FILING ANNUAL RETURNS</b>			
[To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period April to March]			
3	Quantity utilised in-house, if any -	Name of the Hazardous waste	Quantity utilised
		1) Acid residues (Tank bottom sludge)	28 MT
		2) Sulphur muck (Sulphur sludge)	995 MT
		3) Scrubbing sludge	410 MT
		3) ETP sludge	560 MT
4	Quantity in storage at the end of the year -	Name of the Hazardous waste	Quantity Storage
		1) Acid residues (Tank bottom sludge)	0 MT
		2) Sulphur muck (Sulphur sludge)	0 MT
		3) Spent Catalyst	15 MT
		4) Used lubricating oil/drain oil	0 KL
		5) Detoxified Containers and container liners	90 No's
		6) LSHS Sludge	0 MT
		7) Scrubbing sludge	25 MT
		8) ETP sludge	0 MT
		9) Off specified ,expired chemicals & lab	0 MT
		10) Glass wool	0 MT
		11) Insulation Puf	0 MT
<b>Part B. To be filled by Treatment, storage and disposal facility operators</b>			
1	Total quantity received -	:	
2	Quantity in stock at the	:	
3	Quantity treated -	:	
4	Quantity disposed in landfills as such and after treatment -	:	
5	Quantity incinerated (if applicable) -	:	
6	Quantity processed other than specified above -	:	
7	Quantity in storage at the end of the year -	:	
<b>Part C. To be filled by recyclers or co-processors or other users</b>			
1	Quantity of waste received during the year - (i) domestic sources	:	
2	Quantity in stock at the beginning of the year -	:	
3	Quantity recycled or co-processed or used -	:	
4	Quantity of products dispatched (wherever applicable) -	:	
5	Quantity of waste generated -	:	
6	Quantity of waste disposed -	:	
7	Quantity re-exported (wherever applicable)-	:	
8	Quantity in storage at the end of the year -	:	
Date : 06.05.2024 Place: Visakhapatnam.		 Signature of the Occupier or Operator of the disposal facility	

# COROMANDEL VIZAG

## Sustainability Measures

### SUB: Environmental – Energy Conservation

Name of the Project: 1650 MTPD Sulphuric Acid plant III

Problems faced before implementation of initiative:

- Higher energy consumption for 45 MT/Hr. steam Generation from Steaming coal

Brief Description: 1650 MTPD Sulphuric Acid Plant III installed, generating 87 MT / Hr., high pressure waste steam at 69kgf/cm<sup>2</sup>g 485 °C. High pressure & temperature steam turbine results in lower Specific Steam Consumption of 4.0 MT / MWH. Old Condensing turbine was medium pressure 31kgf/cm<sup>2</sup>g 315°C with 5.8 MT/MW Specific Steam Consumption. Innovation enabled higher power generation

Technology: Monsanto Enviro Chem Systems USA, Engineering – Thyssenkrupp Industrial Solutions, India.

Cost – Rs 4300 million      Annual Savings 72765000 kWh      Annual Savings Rs 466 million  
Payback 111 month      Completed Date Aug 2023

Challenges faced during the project:

1. Technical Know How for modern Energy Efficient Sulphuric Acid Plant
2. Availability of expertise for taking up modern technologies

Prevailing practice in the industry: Maximise deployment of Carbon free Energy.



# COROMANDEL VIZAG

## Sustainability Measures

### SUB: Environmental – Energy Conservation

Name of the Project: Installation of 11KV Automatic Power Factor controlling system

Problems faced before implementation of initiative:

- Grid power factor is at 0.970 lag and power factor to be maintained at unity for ideal conditions.
- Existing installed HT capacitor bank are not sufficient to meet the required capacitive load of the plant which is required to maintain unity power factor. This is due to the increase in plant loads subsequently.

Brief Description: Installation of Automatic Power Factor controlling panels comprising

1. 11 KV Limiting Reactors 2.12 MVAR – 3 no's
2. 100 Kvar, 440V, 3Ph, 50Hz, CLMD 83 Capacitor – 30 no's
3. 11kV, 2500kVAr APFC with 6% inrush current – 1 no.
4. 11kV, 2000kVAr APFC with 6% inrush current – 1 no.

New generation technology considered as an alternative to conventional technology / method to limit the short circuit levels at existing substations

Cost – Rs 29.5 million      Annual Savings 1703451 kWh      Annual Savings Rs 11 million  
Payback 32 month      Completed Date Jan 2024

Benefits: 1) After installing additional capacitor bank panels, power factor of around 0.995 lag at grid side is being achieved from Feb-24 which will reduce the losses and improve the power factor which will in turn give us power saving.

Challenges faced during the project:

- 1) Subsequent increase in Power capacity addition continuously.

Prevailing practice in the industry: Install capacitor banks whenever power load increases



# COROMANDEL VIZAG

## Sustainability Measures

### SUB: Environmental – Energy Conservation

Name of the Project: Replacement of age-old Air conditioner units with modern 3 Star Units

Problems faced before implementation of initiative:

- Higher Energy Consumption

Brief Description: 41 no's age-old Air conditioner units replaced by modern 3 Star Units.

Cost – Rs 2.384 million      Annual Savings 48441 kWh      Annual Savings Rs 0.1 million  
Payback 92 month      Completed Date Jan 2024

Benefits:

- 1) Improved Air Conditioning
- 2) Lower Energy Consumption

Challenges faced during the project: None.

Prevailing practice in the industry: Maximise deployment of modern 3 Star AC Units.



# COROMANDEL VIZAG

## Sustainability Measures – Kaizens – Zero cost Measures

### SUB: Environmental – Energy Conservation

Name of the Project: Installation of AC controls, closure to respective AC Units

Problems faced before implementation of initiative:

- Higher Energy Consumption
- II AC unit running even when not required, as its temperature control is not close by



Brief Description: Installed AC temperature control sensors closure to respective AC Units,

Cost – Rs NIL million      Annual Savings 21406 kWh      Annual Savings Rs 0.14 million  
Payback 0 month      Completed Date Nov 2023

Benefits:

- 1) Improved Air Conditioning
- 2) Lower Energy Consumption

Challenges faced during the project: None.

Prevailing practice in the industry: Installation of AC controls closure to place of use is a best practice.



# COROMANDEL VIZAG

## SUB: Environmental – Sea Water Solution to Raw Water needs.

Name of the Project: 6000 M<sup>3</sup>/Day Sea Water Reverse Osmosis Desalination Plant

Problems faced before implementation of initiative:

1. Limited availability of Raw water for plant expansion
2. Regular Line leaks along 10 Kilometer long TSR Water Pipeline.

Brief Description: Sea Water undergoes rapid floatation pretreatment, in Direct Air Floatation system for removal of Algae. Filtration of sea water is carried out by reverse osmosis, which involves forcing water at high pressure through a membrane that retains up to 99% of impurities. Desalinated Water is utilised in process plants as raw water, part of the desalinated water also undergoes post-treatment in mixed bed Ion Exchanger where it is demineralized.

Cost of Project: Coromandel: INR 30 Cr, INR Veolia – 40 Cr, Total INR 70 Cr

Benefits:

1. Support Plant expansion.
2. High purity demineralised water

Challenges faced during the project:

- Higher energy consumption for desalination by Reverse Osmosis 4.8 kWh/M<sup>3</sup> Water

Prevailing practice in the industry:

Enabling and securing access to water resources at a permeate salinity / Total dissolved solids level of 200 ppm, by exploiting an inexhaustible natural resource with high salinity of 37000 ppm.





# COROMANDEL VIZAG

## SUB: Environmental – Nature Conservation - Greening within Fence

Name of the Project: **Greening within Fence** - Miyawaki Plantation

Problems faced before implementation of initiative:

1. Degraded land that has been used for construction and nonagricultural purposes.

Brief Description: Miyawaki Plantation involves plantation of trees, native to the area, with species that complement each other. As saplings receive sunlight from the top and grow upward, rather than sideways. It helps prevent growth of weeds, by avoiding sunlight reaching the soil.

S.no.	Area Of plantation	No. of plants	Year	Cost
1	Phase - 1	3000	2021-22	INR 7,61,607
2	Phase - II	10000	2021-22	INR 47,57,706
3	Phase - III	10000	2022-23	INR 50,00,000
4	Phase - IV	25000	2023-24	INR 1,24,00,000
5	Phase - V	3500	2023-24	INR 12,26,592

Greenery in more than 120 acres out of 320 acres industrial site (37.5%), adherence to better than regulatory norm.

Cost of the project: Rs. 136 Lakh Year 2023-24, No of Plants – 28500 no's

Benefits:

1. Creating Carbon sink in the area.
2. Control of fugitive emissions due to road traffic

Challenges faced during the project:

- Challenging sediment conditions, acidic soils necessitating laying of proper soil.



Prevailing practice in the industry:

Driving Compliance to APPCB order that 33% of industrial site around a factory is to be green.

# COROMANDEL VIZAG

## SUB: Environmental – Abating Noise

Name of the Project: **Modern Steam Vent Silencers**

Problems faced before implementation of initiative:

1. High noise during venting of high-pressure steam.

Brief Description: Performance of Vent Silencers is achieved by a 2-stage noise reduction approach.

Stage 1 –The inlet diffuser is effective in attenuating frequencies of sound and distributing the flow evenly to the 2nd stage.

Stage 2 – Sound reduction comprises of absorptive elements positioned within the silencer case thus absorbing acoustic energy out of the steam prior to exiting the atmosphere.

Benefits:

1. Noise-less steam venting.

Challenges faced during the project:

- Design Known how of modern steam vent silencers.

Prevailing practice in the industry:

Enabling Compliance to APPCB order that noise levels in the industry should be within 75 db during daytime and 70 db. during nightttime.



# COROMANDEL VIZAG

## SUB: Environmental – Dust Control during Solids Material Handling

Name of the Project: Steam, Air & Water Curtain for Dust Control during Solid Sulphur Handling

Problems faced before implementation of initiative:

1. Higher dust emissions during Solid Sulphur handling as the following existing measures have limited control of dust emissions.
  - a. Rubber & Canvas apron serves to contain dust, however, is limited due to access through several openings in the apron.
  - b. Bag filter creates a negative atmosphere and removes airborne dust, is limited due to dilution air entry through several openings and huge power consumption.

Brief Description: Low pressure smothering steam, Fine mist of Water and Air are released to create positive pressure around the emission points and act as a curtain, at various dust emission points during Solids Sulphur handling in Sulphuric Acid Plant – III.

Benefits:

1. Environment Compliance – Control of dust under positive pressure.
2. Better work place ambience

Challenges faced during the project:

- Fine mist of water and steam smothering increases acidity in solid sulphur
- Excessive load on Bag filters.

Prevailing practice in the industry:

Ensuring Compliance to APPCB order on fugitive Dust emissions < 50 mg/NM3



# COROMANDEL VIZAG

## SUB: Environmental – Effluent Control Better than regulatory norms

Name of the Project: Fresh Water Surface Condenser for Turbo Generator III

Problems faced before implementation of initiative:

1. Sea Water has worst Corrosion characteristics, hence special Cu: Ni 70:30 tubes used
2. Higher tube side Scaling due to sea water contaminants, requiring automatic cleaning using circulating rubber sponge balls.
3. Use of sodium hypochlorite, or chlorine, to ensure there is no marine growth on the pipes or the tubes. However, circulating water returning to the sea is affected.

Brief Description: Fresh Water Surface Condenser for Turbo Generator III, which rejects the heat from condensing steam in surface condenser to air in a cooling tower using fresh water as circulating heat transfer medium.

Benefits:

1. Better Environment –
  - a. Capacity of air environment to absorb heat is higher than heat rejection to water.
  - b. Heat of water needs to be released to air through water evaporation, hence direct discharge of heat to air is better option.
  - c. Marine environment is least effected.

Challenges faced during the project:

- Higher liberation of heat in factory premises
- Large quantity of fresh water consumed.

Prevailing practice in the industry:

Fresh Water Surface Condenser is a better option for condensing type-high pressure steam turbine.





# COROMANDEL VIZAG

**SUB: Environmental – Effluent Control Better than regulatory norms**

Name of the Project: **Zero Liquid Discharge Facility**

Problems faced before implementation of initiative:

1. Loss of containment
2. Poor Control of final effluent quality

Brief Description: Installation of Zero Liquid Discharge Systems

Technology used: The major sources of effluent are overflows and spillage of process drains of Sulphuric acid plant, cooling tower blow down and leachate water from Gypsum Pond. Installed water recovery pits along with agitators for water conservation by recovery and reuse.

Benefits:

1. Compliance to APPCB order.
2. Control on liquid effluents.

Challenges faced during the project:

Design and Installation of Gradient Floor for recovery, separate process and storm water drains and recovery pits.

Prevailing practice in the industry: Zero liquid discharge by installing process and storm water drains and recovery pits is well established. All new plants to be designed for ZLD



# COROMANDEL VIZAG

SUB: Environmental – Effluent Control Better than regulatory norms

Name of the Project: **Cooling Tower Water Conductivity meter for blowdown control**

Problems faced before implementation of initiative:

1. Lack of online control for blowdown
2. Excessive Water consumption

Brief Description: Installation of Conductivity meter on cooling tower water system, for controlling Blowdown

Benefits:

1. Control on liquid effluents.

Challenges faced during the project:

Letting management realize on the need to have online Conductivity meter for cooling tower blowdown control

Prevailing practice in the industry: Boiler Blowdown control by installing conductivity meter is good water conservation practice.



# COROMANDEL VIZAG

## SUB: Environmental – Dust Control Better than regulatory norms

Name of the Project: **Dust control while preparing lime solution**

Problems faced before implementation of initiative:

1. Dust generation during mixing of lime in Lime Slurry Preparation Tank

Brief Description: Installation of Air Operated Diaphragm Pump

Benefits:

1. Control on Dust generation.

Challenges faced during the project:

Know how on operation of Air Operated Diaphragm Pump and its applications.

Prevailing practice in the industry: Installation of Air Operated Diaphragm Pump is a best practice in Lime Addition to Lime Slurry Preparation Tank/



Lime Dust generation while dumping into Lime slurry Preparation Tank



Air Operated Diaphragm Pump



Lime Powder flow through hose without dust generation



# COROMANDEL VIZAG

## SUB: Environmental – Emission & Effluent Control measures

Name of the Project: **Installation of Continuous Emission Monitoring system**

Compliance to CPCB Guidelines: Use of CEMS to continuously collect, record & report emission data of SO<sub>2</sub> for monitoring compliance to Sulphuric Acid Plant emission standards.

Problems faced before implementation of initiative:

1. Heights of stacks, Corrosive environment & Stack structure conditions restrict regular maintenance work at height.

Brief Description: Installed Online stack emissions monitoring system The standard CEM system consists of a sample probe, filter, sample line (umbilical), gas conditioning system, calibration gas system, and a series of gas analyzers which reflect the parameters being monitored. A Data Acquisition and Handling System (DAHS) receives the signal output from each analyzer, which is then simultaneously transmitted live to CPCB / APPCB Servers in order to collect and record emissions data

Technology used:

- SO<sub>2</sub> measurement – Non-Dispersive Ultraviolet Absorption spectroscopy

Benefits: Self-regulation of Industry

Challenges faced during the project:

- Moisture in stack – availability of suitable material of construction

Prevailing practice in the industry:

Compliance to APPCB order



# COROMANDEL VIZAG

## SUB: Environmental – Emission & Effluent Control measures

Name of the Project: **Quality Assurance Laboratory Fumes Scrubber**

Problems faced before implementation of initiative:

- Quality Assurance Laboratory Fumes let to atmosphere.

Brief Description: Fumes Scrubber

Technology used: The scrubber system consists of a void tower crossflow Gas Scrubber with a Gas Scrubber Fan drawing gases from the various emission points of the Quality Assurance Laboratory and discharging them to the Stack.

The gases enter the gas scrubber through the bottom. They are washed with an aqueous solution. This solution circulates through the pumps. The make-up is done by process water. The bleed of the scrubber is pumped to ETP for treatment & reuse.

Benefits: Scrubbing of Gases for Fumes control

Challenges faced during the project:

- Water balance & effluent control of scrub liquor

Prevailing practice in the industry: Gas scrubbing ensures sustainable emission control.



# COROMANDEL VIZAG

## SUB: Environmental – Soil Rejuvenation

Name of the Project: **Garden Compost**

Problems faced before implementation of initiative:

- Lower Soil Nutrients in around Housing Colony.

Brief Description: Garden Compost

Technology used: Small Pits were dug in around each house in housing colony. is as simple as collecting yard waste or the organic materials in your trash (such as fruit and vegetable peels) to fill a pit. Over the course of a year or so, the material will decompose.

Benefits: The decomposed organic material is then added to soil to provide nutrients to sustain plant growth. Compost also helps to improve soil structure and supports soil microbes that are integral to plant health.

Challenges faced during the project: Some people believe learning how to compost is too complicated, it smells bad, and it's messy. This may be true if you compost the wrong way,

Prevailing practice in the industry: Compost is a natural alternative for Garden rejuvenation.





# COROMANDEL VIZAG

## SUB: Environmental – Monitoring

Name of the Project: **Ammonia Leak Detectors & Siren**

Problems faced before implementation of initiative:

- Non availability of information on Gas leak emissions to employees & Public

Brief Description: Siren and Ammonia Leak detectors installed at Mulagada village and at crossroad at Gate No 9, to alert Public on Ammonia Leak

Benefits: On Site Emergency Control.

Challenges faced during the project: Public unrest on Gas leaks in neighborhood villages.

Prevailing practice in the industry: Installation of leak detectors & Siren is a best practice.



# COROMANDEL VIZAG

## SUB: Environmental – Water Conservation

Name of the Project: **Sewage Treated Water for Gardening**

Problems faced before implementation of initiative:

- Fresh Water availability limited for Gardening.
- Utilisation of Sewage Treated Water in production process limited.

Brief Description: Installed Sewage Treated Water storage Tank, irrigation water lines for plantation at Harita Vanam

Benefits:

1. Water Conservation by avoiding freshwater use.
2. Ecological conservation by enabling zero effluent discharge.
3. Proper operation of Sewage Treatment Plant is ensured, else presence of pathogenic bacteria will harm Green plantation as well as contaminate groundwater.

Challenges faced during the project: A large percentage of domestic & industrial water users are afraid to use this technology to supply water (direct reuse) because of the potential presence of pathogenic organisms. However, most people are willing to accept reused wastewater for lawn irrigation and for cooling purposes in industrial processes.

Prevailing practice in the industry: Suitability of this technology, especially where there is a water deficit for several months of the year, implementation of wastewater recycling or reuse by industries can reduce demands for water of potable quality, and also reduce impacts on the environment.



# COROMANDEL VIZAG

## SUB: Environmental – Water Conservation

Name of the Project: **Rainwater Harvesting**

Problems faced before implementation of initiative:

- Fresh Water availability limited.

Brief Description: Installed Rainwater Harvesting System for Control Rooms

Benefits:

1. Water Conservation by avoiding freshwater use.

Challenges faced during the project:

1. Limited storage of rainwater.
2. Lot of dust accumulated in collection area, is washed away into rainwater collection system during rain, clogging drains as well as acidic & huge sediment water to plantation can harm plantation.

Prevailing practice in the industry: Rainwater harvesting is the viable technology used to conserve rainwater by collecting, storing, conveying, and purifying of rainwater that runs off from rooftops, parks, roads, open grounds, etc. for later use.



## SUB: Environmental – Water Conservation

Name of the Project: **Startup Tail Gas Scrubber**

Problems faced before implementation of initiative:

- High SO<sub>2</sub> emissions through stack during cold startup and process upsets.

Brief Description: Installed Start -up Tail Gas Scrubber where upward process gas flows is scrubbed by countercurrent Sodium Hydroxide solution in a packed Absorber, where SO<sub>2</sub> reacts with NaOH to form sulphite and sulphate salts (Na<sub>2</sub>SO<sub>3</sub> , NaHSO<sub>3</sub> , Na<sub>2</sub>SO<sub>4</sub>).

Scrubber operates with close pH control on absorbing solution.

Benefits:

1. SO<sub>2</sub> emission control.

Challenges faced during the project:

1. Density control – Higher density of absorbing solution causes clogging of absorber and leads to SPM carryover.
2. Low pH of Absorbing solution causes loss of Absorption.
3. Requires automatic process control.

Prevailing practice in the industry: Startup Tail Gas Scrubber for Sulphuric Acid Plant is as part of compliance to APPCB / CPCB guidelines.





**Annexure-5**

**Environmental Control Measures  
Coromandel International Limited  
Visakhapatnam**

<b>s.no</b>	<b>EHS (2023-24)</b>	<b>Rs. Lakhs</b>
1	Super heater replacement along with inlet & outlet ducts	650
2	Procurement of Heat Exchanger for evaporators with Carbon fiber reinforced graphite tubes - 1 No	150
3	Dilution cooler - replacement	150
4	Road Sweeping Machine	110
5	Sulphuric acid piping in Complex-ABC Train replacement with Alloy 20	80
6	Lightening protection phase - 3	80
7	B-Tr Dryer separator vessel & C-Tr Pre-scrubber vessel renewal	70
8	Critical flow meters	60
9	LECO sulphur analyzer	55
10	Miyawaki plantation Phase - V	11
11	SAP 1&2 cooling tower blowdown water recovery pumping system	25
12	Desalination plant of 6 MLD Capacity	3000
	Total	4441

<b>s.no</b>	<b>EHS (2022-23)</b>	<b>Rs. Lakhs</b>
1	Green Building	20
2	Solar Street lighting	7.1
3	LED lighting	5
4	Replacement of age-old Air conditioner	15
5	Battery Operated Electric Automotive	10
6	Haritha Vanam Red soil	16
7	Miyawaki Phase-III & IV	174
8	Evaporator - II Steam Condensate recovery	33
9	2 km plant bypass road	1370
10	Anion Rinse Water Recovery system	61
11	CAAQMS & OCEMS (New & O&M)	100
12	STP Capacity Enhancement	50
13	ETP sludge storage shed	150
14	Digital Display Board	3.0
15	NOx Analyzer	14

	<b>Total</b>	<b>2028.1</b>
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<b>s.no</b>	<b>EHS (2021-22)</b>	<b>Rs. Lakhs</b>
1	Water recovery by rainwater harvesting	100
2	Gypsum Pond Leachate Recovery System	670
3	Installation of impervious HDPE Geo permeable membrane liner	650
4	Renovation of Online Continuous Emission Monitoring system	180
5	Renovation of Continuous Ambient Air Quality Monitoring system	70
6	Harithavanam Grass Cover	24
7	Miyawaki PH-II	45.6
8	Prill Tower area Grass	12
9	Colony Plantation	2
10	Green Visakha	271
11	Wharf plantation	2
	<b>Total</b>	<b>2026.6</b>

<b>s.no</b>	<b>EHS (2020-21)</b>	<b>Rs. Lakhs</b>
1	Green Visakha Plantation	266
2	CAAQMS at Garage location	49
3	EPR Charges for Plastic Waste Management	80
	<b>Total</b>	<b>395</b>

<b>s.no</b>	<b>EHS (2019-20)</b>	<b>Rs. Lakhs</b>
1	Green Visakha Plantation	140
2	HDPE liner for Gypsum Pond	1300
	<b>Total</b>	<b>1440</b>

<b>s.no</b>	<b>EHS (2018-19)</b>	<b>Rs. Lakhs</b>
1	Green Visakha Plantation	100.0
2	Gypsum Neutralization Unit	70.0
3	Drains Improvement (PA Plant)	25.0
4	Energy Efficient lighting at plants	20.0
5	Grass plantation at gypsum Pond on trials	5.0
	<b>Total</b>	<b>220.0</b>

<b>s.no</b>	<b>EHS (2017-18)</b>	<b>Rs. Lakhs</b>
1	Oil Skimmer	25.0
2	Green Visakha Plantation	50.0
3	PAP & remining stacks analysers	43.0
4	Gypsum Neutralization Unit	1000.0
	Process Drains Improvement (PA Plant)	130.0
	<b>Total</b>	<b>1248.0</b>

<b>s.no</b>	<b>EHS (2016-17)</b>	<b>Rs. Lakhs</b>
1	Oil spill recovery equipment	46.0
2	Sewage Treatment Plant	51.0
3	A , B Train – Online monitoring & Closed Circuit Camera	63 .0
	<b>Total</b>	<b>160.0</b>

<b>s.no</b>	<b>EHS (2015-16)</b>	<b>Rs.Lakhs</b>
1	Ambient Air Quality – 3 <sup>rd</sup> stations ( replacement to Cyclone damaged )	50.0
2	Online Monitoring equipment ( Complex plant C train)	18.0
3	Plantation ( inside + outside )	54.0
4	Improvements in Effluent Handling	55.0
	<b>Total</b>	<b>177.0</b>

<b>s.no</b>	<b>EHS (2014-15)</b>	<b>Status</b>	<b>Rs.Lakhs</b>
1	Replacement of damaged insulation due to HUd-Hud Cyclone	2014-15	230
2	Mechanical Plate exchanger replacement at SAP-I	2014-15	80
3	Pre-scrubber tank replacement	2014-15	18
4	REPL. OF BME CANDLES FOR SAP-1 AND SAP-2	2014-15	40
5	Replacement of Dedusting system ay Ctrain Cyclone ducts	2014-15	32
	<b>Total, Rs/-</b>		<b>400</b>

<b>s.no</b>	<b>EHS (2013-14)</b>	<b>Status</b>	<b>Rs.Lakhs</b>
1	Green Belt Development by TERI on Gypsum pond	2013-14	250

2	REPL. OF BME CANDLES FOR SAP-1 AND SAP-2	April'13	62
	<b>Total,Rs/-</b>		<b>312</b>

<b>s.no</b>	<b>EHS (2012-13)</b>	<b>Status</b>	<b>Rs.Lakhs</b>
1	3 <sup>rd</sup> online AAQM station	March'13	60
2	Green Visakha -15000 saplings	March'13	58
3	A,B TRAIN COOLER CYCLONE DUCTING,RENEWAL	Nov'12	22
	<b>Total,Rs/-</b>		<b>140</b>

<b>s.no</b>	<b>EHS (2011-12)</b>	<b>Status</b>	<b>Rs.Lakhs</b>
1	Portable workplace monitoring system	May'12	10
2.	Green Visakha at Air port	March'13	50
	<b>Total,Rs/-</b>		<b>60</b>

	Capex -EHS(2010-11)	Status	Rs. Lacs
1	Effluent / Storm Water drains management	Feb'2011	30.00
2	Ambient Air Quality monitoring Station	March'2011	60.00
3	Effluent Treatment Plant(ETP)	August'2011	1600.00
4	HDPE lining -Gypsum siding area (About 5 acres)	July'2010	150.00
5	Telescopic chutes for Rock Go down	Feb'2011	45.00
6	Structural Stability	2010-11	120.00
7	Replacement of BME candles for FAT & DT	March'2011	40.00
8	AAQM Station at Mulagada village	Nov'2010	22.00
	<b>Total(Lacs)</b>		<b>2067.00</b>

<b>2009-10</b>		<b>(Rupees lakhs)</b>	
<b>Sl. no.</b>	<b>Measure</b>	<b>Year installed</b>	<b>Cost Rs. Lakhs</b>
1.	HDPE lining Gypsum area – 5 acres	2009	100.00
2.	Water Conservation	2009	50.00
3.	Improvement to storm water drain system	2009	30.00
4.	Greenbelt Development	2009	17.00
5.	Start up Alkali Scrubber at 1400 MTPD sulfuric acid plant to reduce SO2 emissions	2009	135.00
6.	Fire water system for AAST	2009	30.00
7.	Ambient air monitoring station(AAQM)	2010	75.0
8.	Study of scrubbing system at complex plant	2009	10.00
9.	Filling of Black cotton soil at 7 <sup>th</sup> gate	2010	15.00
	<b>TOTAL(Lacs)</b>		<b>462.00</b>

Sl. no.	Measure	Year installed	Cost Rs. Lakhs
10.	Installed Dry gypsum Disposal system at Phosphoric acid plant	April'2009	2900
11.	BME candles for Final absorption tower of SAP-II	2008	10
12.	Procured road sweeping machine to reduce dust emission during movement of vehicles inside the plant roads	2008	17
13.	Installation of Alkali start-up scrubber for 300 MTPD sulfuric acid plant to reduce SO <sub>2</sub> emission during start-up	2008	99
14.	Installation of new bag-filter in place of existing bag-filter at wharf new silo for reduction of fugitive dust emissions	2008	14
15.	Replacement of bag-filter at old ball mill of rock-grinding unit	2007	18
16.	Installation of Air Pre-heater in Trains 'B' & 'C' of complex plant	2006	320
17.	Installation of Air Pre-heater in Train-A of complex plant	2006	165
18.	Installation of Telescopic chute (2 Nos.) at Wharf New Silo	2006	13
19.	Installation of pipe conveyor at wharf in place of cross conveyor.	2005	175
20.	Hazardous waste handling and disposal system	2004	5
21.	Installation of telescopic chute at rock phosphate storage godown.	2004	30
22.	Replacement of fume gas scrubber at phosphoric acid plant.	2004	150
23.	Installation of de-dusting system at rock phosphate unloading area.	2004	10
24.	Installation of new Screw Unloader System in place of gantry grab bucket system and construction of silo and overhead pipe conveyor at wharf	2003	2000
25.	Installation of new bag filter for storage silo at wharf area in place of existing one.	2003	20
26.	New SO <sub>2</sub> on-line analyser was installed at sulphuric acid plant.	2002	8

Sl. no.	Measure	Year installed	Cost Rs. Lakhs
27.	Ground rock transfer system from rock grinding station to phosphoric acid plant modified from pneumatic system to pipe conveying system.	2002	200
28.	Bag-filter was installed on inclined conveyor at wharf area.	2002	2
29.	Additional bag-filter at rock grinding unit	2001	5
30.	New scrubbing system for train 'B'	2001	550
31.	New scrubbing system for train 'A'	2000	550
32.	Telescopic chutes (2 nos.)	2000	12
33.	Pollution control equipment for new complex Train 'C'	2000	833
	<b>TOTAL Rs./ lakhs</b>		<b>8106</b>



**BEFORE THE YEAR 2000**

34.	Telescopic chute, emulsifier nozzles & bag filter at wharf area	1999	10
35.	Renewal of bag filter at rock grinding	1998	15
36.	Molten sulfur handling facility	1997	1050
37.	Reinstallation of high capacity effluent pumps	1996	50
38.	Renewal of bag filter at phosphoric acid plant	1995	5
39.	Green-belt development	-	20
40.	Revamping of sulfuric acid plant converter & use of high active ring shaped catalyst.	1994	450
41.	Modification of recirculation pumps in effluent treatment plant	1994	35
42.	Fluorine recovery unit	1994	320
43.	LPG/Naphtha fumes monitor for leak detection	1993	4
44.	Installation of continuous pH meter for DT acid cooler exit water	1993	2
45.	Replacement of cold heat exchanger	1992	80
46.	Fluoride analyser for effluent analysis	1992	4
47.	Installation of continuous SO <sub>2</sub> , analyser for stack in sulfuric acid plant	1992	15
48.	Installation of dust control system in bagging plant	1992	12
49.	Installation dust control system at wharf silo	1992	13
50.	Monitoring equipment viz. High volume samplers, ammonia sensors.	1990 & 91	5
51.	Effluent recycle scheme in complex plant	1989	12
52.	Construction of effluent treatment plant	1989	250
53.	Installation of bag filters in rock grinding plant	1989	12
54.	Construction of new F.A.T. in sulfuric acid plant	1989	20
55.	Extension of fume scrubber stack in phosphoric acid plant	1988	6
56.	Installation of fumes scrubber in phosphoric acid plant	1987	30
57.	Installation of mist eliminator candles in sulfuric acid plant	1987	10
58.	Rinse water recovery scheme in utilities plant	1984	3

<b><u>BEFORE THE YEAR 2000</u></b>			
59.	Replacement of conventional catalyst to more active type (Ring)	1980	60
60.	Conversion of sulfuric acid process to DCDA technology	1975	250
61.	High efficiency Venturi scrubbers in complex plant	1967	27
62.	Dust cyclones in complex plant	1967	6
63.	Installation of dust cyclones in phosphoric acid plant	1967	4
	<b>TOTAL</b>	<b>Rs/ lakhs</b>	<b>2796</b>

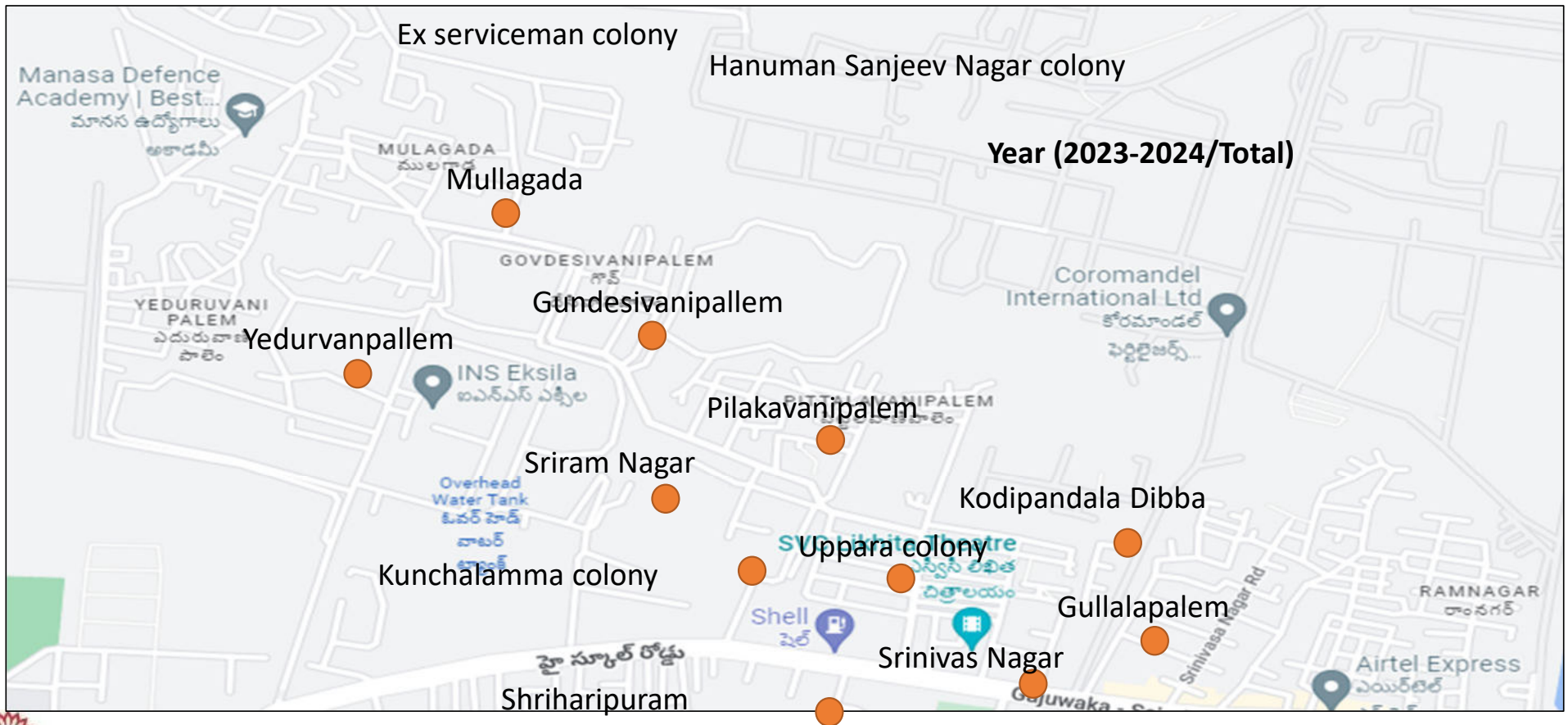
**Note: Total investment from 1967 to 2012-13 = 13631 lakhs**  
**Capital investment for 2013-14 = 312 lakhs**  
**Investments in 2014-15 = 400 lakhs**  
**In 2015-16 = 177 lakhs**  
**In 2016-17 = 160 lakhs**  
**In 2017-18 = 1248 lakhs**  
**In 2018-19 = 220 lakhs**  
**In 2019-20 = 1440 lakhs**  
**In 2020-21 = 395 lakhs**  
**In 2021-22 = 2026 lakhs**



**CSR**  
**Annual report 2023-2024**

**Vizag**

# Mapping villages-Total bEN -217134



## Approved Vs Spent– 23-24

S.No

Domain

Spent (Lacs)

1

Community Development

133.00

2

Health

73.79

3

Education

85.67

Total

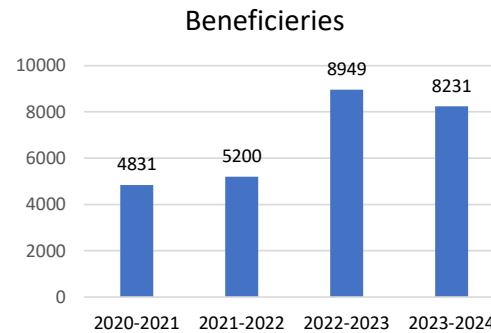
292.46

Spent  
Matrix

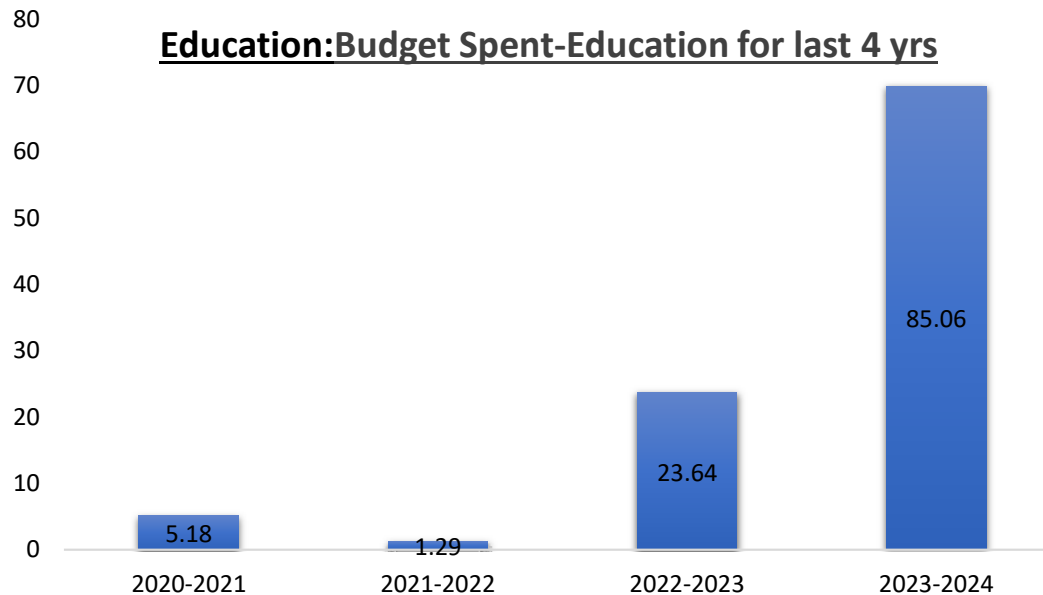
# CSR Initiative-Education

## Key Highlights of the Last 4 Year

- Chemistry its FUNdametals
- Renovated Social welfare Girls hostels
- Coromandel Girlchild scholarship
- Champs Life skill development to children
- Karadi path Magic English
- School infra



## Education: Budget Spent-Education for last 4 yrs

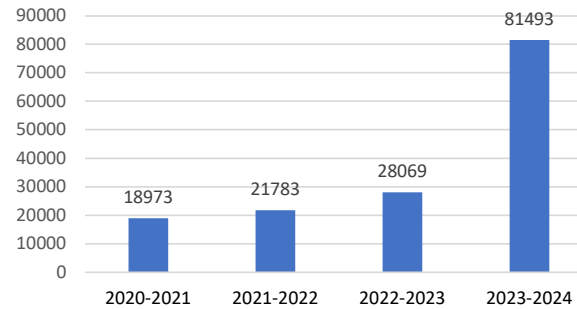


# CSR Initiative-Health

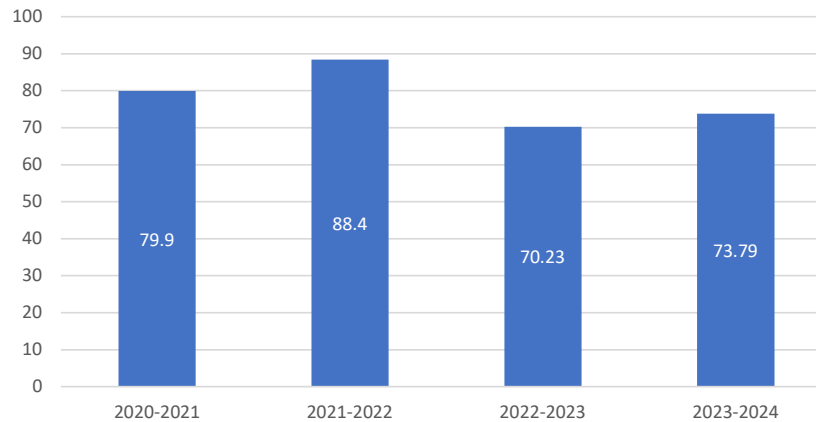
## Key Highlights of the last 4Years

- New Coromandel Medical centre
- IBCC
- Eye screening camp
- Women & Children Medical camp
- Anti-Larval & Fogging
- Health & Nutrition program

Beneficiaries



Health



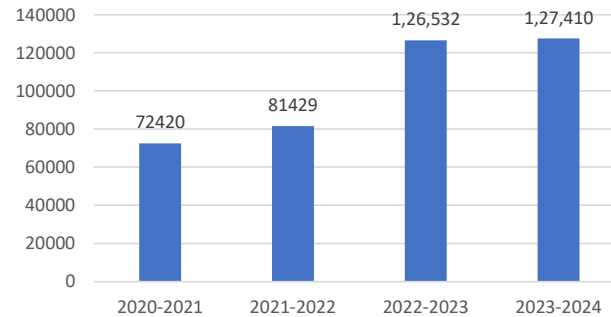


# CSR Initiative-Community development

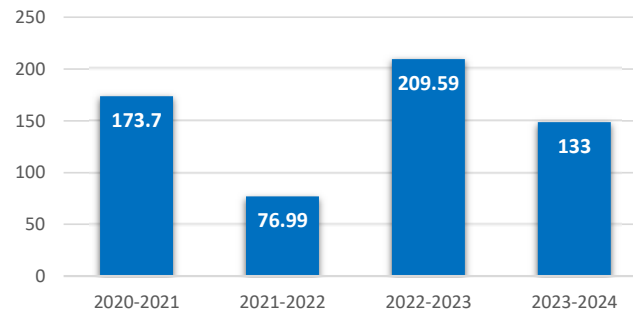
## Key Highlights of the Year

- Community infra
- Women livelihood –Ekka
- Community Bore Motor wells
- Community Open Gyms-
- Inter village sports for youth
- Women sports
- RO water plant
- World environment day
- Govt ITI Computer Lab
- Renovated Fire station

Beneficiaries



Annual Budget Expenditure  
Community Development





# Coromandel Prayog Utsav

- Coromandel Prayog Utsav (Mega Science Fair) on 29th Feb 2024.
- Mr. Husaian, Revenue Divisional Officer, Prof. Murthy garu, HoD of Journalism & Mass Communication & Dean Examinations of Andhra University, Mr. Rama Rao, Dy. Director of Social Welfare were the Chief Guests of the program.
- Total No of schools attended :29
- No of projects :150
- Total children attended :450

# Inauguration of Coromandel Science Laboratory @ Mindi High School

- Coromandel Science Laboratory was Inaugurated by Mr. Gudivada Amaranth, IT & Industrial Minister, Mr. Tippala Nagireddy, MLA of Gajuwaka at Govt High school Mindi on 26<sup>th</sup> June-2023.
- No. of Beneficiaries - 740







Coromandel Science Laboratory @ Malkapuram GVMC High School inaugurated by Mr. Arun Leslee George, President & CHRO of Coromandel International Limited

30<sup>th</sup> Aug'23

No. of Beneficiaries - 1190



## Coromandel Girl Child Scholarship Program

- Organized Coromandel Girl child Students success meet-2023.
- Coromandel Ladies Association recognized and encouraged 23 children who secured 510 marks and also state level rankers from Malkapuram GVMC High school
- Beneficiaries - 70 scholarship children
- Our scholarship- SSC children attended the examination out of 23 no's got 500 above marks



# Teacher training workshop

- Organized 2 days Teachers training workshop on 12<sup>th</sup> & 13<sup>th</sup> Oct 2023 at Our CRC
- To ensure teachers in these schools have access to tested teaching learning materials in both print and multimedia formats to empower the students improve their English Language proficiency
- To empower the Teachers, use audio and video tools in govt schools through the implementation of the Karadi path Program.
- Participated Mandel educational officer, cluster recourse person ,Govt school teachers and our HR dept



## New Coromandel Medical Centre Inauguration

- New Coromandel Medical Centre Inaugurated by Shri Nageswarao garu, DMHO along with 58<sup>th</sup> ward Corporator, Mr.Gnanasundaram-VP & Unit Head, Mr.Jayagopal- CSR Head , Mr.Srinivasrao, DGM-HR
- DMHO appreciated coromandel management for their support towards health care services to the community.



- Initiated on 15<sup>th</sup> Nov 2023







# Women & children Medical camp



- We Organized a dedicated Medical camp for Community Women & children (Up to 13years of age) at Gullalapalem & Mulagada villages and offered various services like ECG,RBS,LFT,HBSAg,CBC,ESR,THYROID PROFILE,BLOOD GROUP,URIC ACID,CERVICAL CANCER SCREENING etc.
- Provided Six services  
Gynaecology/Paediatric/Orthopaedic/Nutrition /Dentist/General physician.
- Total conducted 2 villages on 3rd & 10<sup>th</sup> Dec 2023 total 541 beneficiaries benefitted they're of the programme and expressed their gratitude to the coromandel management for Organized this camp at their villages. Peoples participated from Gullalapalem & Mulagada.

# World breast feeding week celebrations

- Coromandel International limited, is closely working around 5 Anganwades (Mulagada/Pilakavanipalem/Gullalapalem/Sriharipura m/Yeduruvanipalem) nearby plant surrounding areas. We have conducted World Breastfeeding Week celebrations supported with Integrated Child Development Services (ICDS)
- Total pregnant & Lactation women covered 180 Nos and we provided Nutrition kits and participated Local corporator/ICDS Project director/Anganwadi teachers





# Integrated Behavior Change Communication (IBCC)

- We have organised IBCC Project- Integrated Behavior Change communication to community.
- Health awareness/Hypertension/hand wash/Adolescent/Nutrition to community members.



## School Medical Camps

- Dental screening, Eye screening and Anemic screening camp 4 Govt primary and 4 High schools and total covered 9 Govt. Schools.
- As per requirement provided Dental kits & Anemic kits to school children.
- 3370 children in 8 Govt. Schools.





# Eye screening camp @ Community



We organized Eye screening camp Yeduruvanipalem and Pilakavanipalem villages and no of Benefitted 490

## Anti Larval & Fogging

- Anti-Larval & Fogging Sprayed to Project villages.
- To avoid & control the seasonal diseases like Dengue, Malaria- Anti-Larval & Fogging Spray to 11 major community villages.





# Diabetic awareness Run

- Every year Coromandel Employee We Organized Diabetic Awareness Programme.
- Participated 98 employees provided participate certificates





## Community Hall Inauguration- Gondesivanipalem (58<sup>th</sup> ward)

- 58<sup>th</sup> ward Community hall Inaugurated by Anand Kumar YSRCP in charge and MSME Chairman and 58<sup>th</sup> ward Corporator Mrs.Lavanya and community leaders on 14<sup>th</sup> Aug 2023
- 110 families benefitted & 600 peoples covered.







## Community Hall Inauguration-Hanuman Sanjivani colony (60<sup>th</sup> ward)

- Community hall Inaugurated by Mr. A Anandkumar MSME Chairman and west zone YSRCP in charge, 60<sup>th</sup> ward corporator Mr. Suresh and community leaders on 14<sup>th</sup> Aug 2023
- 320 families benefitted 1600 peoples covered.
- 2 community halls works under process





## 10 Community Borewells installed



- Established 10 community bore wells in 10 locations
- Borewells inaugurated by Mr.Adari Anand kumar YSRCP In charge west zone & MSME Chairperson and 58<sup>th</sup> ward Corporator.
- 2023-2024 we initiated 4 Motor bore wells four villages



## 4 Community Open Gyms Established

- Established 4 Community Open Gyms
  - Yeduruvanipalem
  - Pilakavanipalem
  - Gullalapalem
  - Ex servicemen colony





# Coromandel Inter-village Cricket Tournament 2023-24

- Coromandel encouraged youth and conducted Sports and games every year to create a healthy atmosphere among the community
- Organized Inter-village cricket tournament at Coromandel Cricket Ground
- 18 Teams participated in this event.
- Winners Yeduruvanipalem and Runners Pilakavanipalem





# World Environment day

- World Environment day celebrated and distributed the cloth bags to the Public and 30 Tree plantation at social welfare Girls hostels.
- Local Corporator, Police dept and local community members participated.



## Coromandel Ladies Association Initiatives

- World food day
- National Cancer day
- Printer, game kits, stationary support to Social welfare Girl hostel children
- Wheelchairs support
- Blanket supported to poor people
- Women's day celebration





## Skill Development for women

- We established 4 Skill development program.  
Each program batch consists of 30 women
  - Budget Rs. 5Lakhs x 4 = Rs.20.0 Lakhs
- 1.Maggam work
  - 2.Jute bag
  - 3.Handmade jewellery
  - 4.Beautician







murugappa



## Women's day celebrations

- 2023- Women's day celebrations, involving Community women members.
- 273 community women participated





# Beat Plastic Pollution



Distribution of cloth bags in presence of **District Collector (Dr. A.MALLIKHARJUNA)** and **Mr. Y.V. Subba Reddy (Chairman – TTD)**



# Mega Beach cleaning

- Every year Coromandel Employee volunteers participated in Mega beach cleaning event as a part of Social cause.
- Total - 40 Employee voluntarily engaged in the event.
- District Collector,GVMC Commissioner and IT Minister Mr.Amaranath



## Road Safety awareness to Govt schools

- Every year we ensure Road safety awareness to 8 Govt schools. Conducted the quiz competition provided Prizes
- Risk and property Reduced our surround plant area Govt schools





## Renovation of Social welfare Girls Hostels



Dayal Nagar Girls Hostel



Nadupuru Girls Hostel



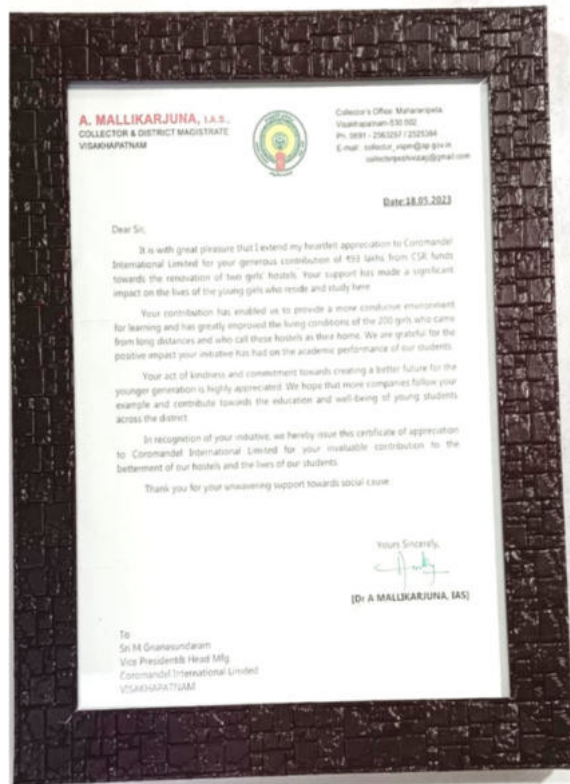
Social welfare Girls Hostels Inaugurated by District Collector







# Social welfare Girl's hostel report Hand overed to District collector



## Appreciation letter From District Collector



# Coromandel ladies Association

- Coromandel Ladies Association visited and interacted with Social welfare Girl Children at Nadupuru.
- Ladies Association Provided Stationery and Games kits to school children.
- Ladies Association conducted Health Hygiene awareness session to children.
- 30 tree Plantation carried out by the team.





## Coromandel Ladies Association visited to Social welfare Girls PG hostel Dayal Nagar

- Coromandel Ladies Association visited and interacted with Social welfare Girl PG students at Nadupuru.
- Ladies Association supported scanning printer to Hostel students.
- Awareness created on Personal Hygiene by Dr.Madhulatha.
- 30 tree Plantation carried out by the team.



## PRSI National CSR Award

- Received First Prize in best CSR Programme for promoting Science & Technology.
- Award presented by Mr. Rajiv Ranjan Misra, Dhruva Jyoti Patil.





## Malkapuram Police station Renovation

- Renovated Malkapuram Police station and it was inaugurated by Mr. Anand Reddy, DCP Zone 2, Mr. Gnanasundaram-Vice President & Mr. GSV Raja, AVP HR of Coromandel along with Mr. Demudu Babu garu, Station Officer of Malkapuram Police Station







150 Safety Barricades to Police & surrounding communities

## Fire Station Renovation jobs @ Pedagantyada

- Inaugurated by Mr.Niranjanreddy,  
Regional Fire officer, Mr. M.  
Gnanasundaram, Vice President of  
Coromandel along with Mr. Renukaiah,  
District Fire officer





**Thank You**