

CFO – Wharf Date : 23-12-2020

CFO –NO APPCB/VSP/VSP/65/HO/CFO/2020 Date: 23-12-2020

APPCB

pcb.ap.gov.in/PCBLive/ForIndustry/Submission_Compliance_of_EC_CFE_CFO_Direction

HOME ABOUT US FOR INDUSTRY FOR PUBLIC CONTACT US LOGINS

Compliance of EC/CFE/ CFO/ Directions

For submission of compliance reports by the Industries

| | |
|------------------------------------|--|
| 1.Compliance Report : * | 2.CTO Order Number * |
| CTO | CFO-NO APPCB/VSP/VSP/65/HO/CFO/2020 |
| 3.CTO Order Issued On * | 4.CTO Order Issued By * |
| 12/23/2020 | I lead Office |
| 5. District : * | 6. Category Type : * |
| Visakhapatnam | Red |
| 7. Name Of Industry : * | 8. Address : * |
| Coromandel International Ltd. | Coromandel International Ltd., P.O No. 125, Sriharipur |
| 9. Email : * | 10. Phone : * |
| nagarajud@coromandel.murugappa.com | 8790035522 |
| 10. Status of Compliance : * | 11. Upload the Compliance Report : * |
| Complied | Choose File CFO.pdf |

Note : *

☐ CFE/CFO : Please note that under Section 42(f) of Water (P CP) Act, 1974 giving any information which he is required to give under this Act, knowingly or willfully makes a statement which is false in any material particular shall be Punishable

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hmr2Cs

Submit

EHS/APPCB/2024 - 152

Date: 30.12.2024

To
The Environmental Engineer,
Andhra Pradesh Pollution Control Board,
Regional Office, Behind RTA Office,
Madhavadhara VUDA Colony,
Visakhapatnam – 530 018

Sub: Submission of Six-monthly compliance report as on 30.12.2024 for Consent for Operation order Issued for Storage of Sulphuric acid, Unloading at wharf and transportation through pipelines to Sriharipuram Unit

Ref : 1. CFO No - APPCB/VSP/VSP/65/HO/CFO/2020 – Date 23/12/2020
2. APPCB Notice No - PCB/RO-VSP/6 months compliance/2018 – Date 05. 07.2018

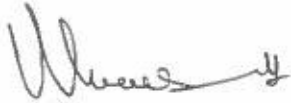
With reference to the above subject, herewith we are submitting the Six monthly condition wise compliance report as on 30.12.2024 of stipulated conditions in Consent For Operation issued vide Order No. APPCB/VSP/VSP/65/HO/CFO/2020 –23/12/2020 of M/s Coromandel International Limited, Sriharipuram Visakhapatnam For Storage of Sulphuric acid, Unloading at wharf and transportation through pipelines to Sriharipuram Unit duly Certified by M/sTEAM Labs and Consultants NABL accredited Laboratory after carrying out site visit during the period 18.12.2024 and 19.12.2024 is enclosed for records.

This is for information please.

Thanking you,

Yours faithfully

For Coromandel International Limited



Gnanasundaram M
Vice President & Head Mfg.


NAG 30/12/24

Enclosures: 1. CFO compliance report
2. NABL accreditation Certificate



**ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE, VISAKHAPATNAM**

**R LAKSHMI NARAYANA
ENVIRONMENTAL ENGINEER**

Plot No.14, Flat No.103 & 104, Journalist Colony,
Marripalem VUDA Colony, Opp: Spencers
Visakhapatnam - 530009
Ph: 0891 - 2755356

Notice .No. /PCB/RO-VSP/6 months compliance/2018 -

Date:05/07/2018

Sub:- APPCB, RO, VSP – Non-submission of the Half yearly compliance report of CFO & HWA Conditions – Notice issued – Reg.

Ref:- CFO & HWA Order issued by APPCB from time to time to the industries.

@@@

WHEREAS, you are operating the industry in the jurisdiction of Visakhapatnam and obtained CFO of the Board from time to time.

WHEREAS, the APPCB has issued CFO & HWA Order by stipulating certain conditions to comply with.

WHEREAS, while issuing CFO and Auto Renewal CFO Orders, the Board stipulated a condition “The facility shall submit the compliance report to all the stipulated conditions for Consent for Operation for every six months i.e. on 1st of January and 1st of July of every year.”

In view of the above, you are hereby directed to submit the CFO & HWA compliance report for every six months i.e. on 1st of January and 1st of July of every year.

You are requested to follow the above instructions without fail.

**Raavi
Lakshmi
Narayana**

ENVIRONMENTAL ENGINEER

Digitally signed by
Raavi Lakshmi
Narayana
Date: 2018.07.05
13:52:59 +05'30'



**National Accreditation Board for
Testing and Calibration Laboratories**

CERTIFICATE OF ACCREDITATION

TEAM LABS AND CONSULTANTS

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

**B-115,116,117 & 509, ANNAPURNA BLOCK, ADITYA ENCLAVE, AMEERPET, HYDERABAD, TELANGANA,
INDIA**

in the field of

TESTING

Certificate Number: TC-12956

Issue Date: 24/01/2024

Valid Until: 23/01/2026

**This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued
satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)**

Name of Legal Entity: TEAM LABS AND CONSULTANTS

Signed for and on behalf of NABL



**N. Venkateswaran
Chief Executive Officer**

Registered Office : B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038.
Ph. : (O) 040-23748555, 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Branch Office : # 24-4-11, Darul Fateh Building, 1st Floor, Harbour Road, Visakhapatnam-530 001.
Ph. : (O) 0891-2748699, Cell : 9849033397, E-mail : teamlabsvizag@gmail.com

Coromandel International Limited, Visakhapatnam
Consent Order No: APPCB/VSP/VSP/65/HO/CFO/2020 – 23/12/2020
From the period of June - 2024 to November -2024

| S.No. | Consent Order Condition | Compliance |
|---------------------|--|---|
| SCHEDULE – A | | |
| 1 | Any up-set condition in any industrial plant / activity of the industry, which result in, increased effluent / emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits | Noted by industry for compliance. |
| 2 | The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board. | Noted. This facility is storage facility only. No generation of wastewater. |
| 3 | All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable. | Complied. PLI policy no. 9600036243300000001 obtained as per the Public Liability Insurance Act, 1991. A copy of PLI policy, which is valid up to 31.03.2025, herewith enclosed as Annexure-01 for your reference. |
| 4 | The industry should put up two sign boards (6x4 ft. each) at publicly visible places at the main gate indicating the products, effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises. | Complied Placing the sign boards at plant main operating plant entrance. herewith Image is enclosed as Annexure-02 for your reference. |
| 5 | Notwithstanding anything contained in this consent order, the Board hereby reserves the right and powers to review / revoke any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board. | Noted by industry for compliance. |
| 6 | The industry shall ensure that there shall not be any change in the process technology, source & composition of raw materials and scope of working without prior approval from the Board. | Noted by industry for compliance. |
| 7 | The applicant shall submit Environment statement | Complied. |



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| S.N o. | Consent Order Condition | Compliance |
|--------|--|---|
| | Form V before 30th September every year as per Rule No. 14 of E(P) Rules, 1986 & amendments thereof. | The environmental statement for the year FY:2023-24 was submitted by Industry vide letter no. EHS/APP/2024-099 dated 27.09.2024. Copy of acknowledgment herewith enclosed as Annexure-03. |
| 8 | The applicant should make applications through Online for renewal of Consent (under Water and Air Acts) and Authorization under H&OW (M&TM) Rules, 2016 at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the Board. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. The person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the State Pollution Control Board. | Noted by Industry for compliance. |
| 9 | Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to Appellate authority constituted under Section 28 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981. | Noted by Industry for compliance |
| 10 | The industry shall be liable to pay Environmental Compensation / Other Environmental Taxes, if any environmental damage caused to the surroundings, as fixed by the Collector & District Magistrate or any other competent authority as per the Rules in vogue | Noted by Industry for compliance |
| 11 | The industry may explore the possibility of tapping | Noted by Industry |

(ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)

Recognised as Environmental Laboratory under Environmental (Protection) Act 1986

NABL Accredited Laboratory (Certificate No. TC-12956)

EIA Consultancy Accredited by NABET, Quality Council of India.

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| S.N o. | Consent Order Condition | Compliance |
|------------------------|---|---|
| | the solar energy for their energy requirements. | |
| SCHEDULE-B | | |
| WATERPOLLUTION: | | |
| 1 | There shall not be any spillages of chemicals / effluents on ground. The industry shall provide proper dyke wall around the acid storage tanks lined with acid proof bricks. | Dyke wall with collection system & recycle pump and sump facility is provided |
| 2 | The spillages if any shall be collected properly and the same shall be treated in the ETP located in the plant premises. | No effluents are generated from the process as it is a storage tank facility only. |
| 3 | Proper drainage system shall be maintained so that rain water shall not be allowed to mix with either trade or domestic effluents. | 1. storm water drains Constructed 2. Dyke wall with collection system & recycle pump and sump facility is provided |
| AIRPOLLUTION | | |
| 4 | The industry shall comply the standards for emission and discharges for all other parameters as per the standards notified by MoEF, Vide GSR No. 446 (E), Dt.13.06.2011. and amendments thereof, for Pesticides manufacturing & Formulation industry. | Not applicable as the activity is related to storage of sulphuric acid only. |
| 5 | The industry shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10 microns) - 100 micro grams/ m3; PM2.5 (Particulate Matter size less than 2.5 microns) - 60 µg/ m3; SO2 - 80 micro grams/ m3; NOx - 80 micro grams/m3, outside the factory premises at the periphery of the industry. Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009 Noise Levels: Day time - (6 AM to 10 PM) - 75 dB (A) Night time - (10 PM to 6 AM) - 70 dB (A). | Noted & complied. Monthly Monitoring reports enclosed Nov-2024 reports as Annexure-04 for reference. |
| 6 | The industry shall comply with emission limits for DG sets of capacity upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 and G.S.R.448(E), dated 12.07.2004 under the Environment (Protection) Act Rules. In case of DG sets of capacity more than 800 KW shall comply | Noted and complied DG sets as standby only. |

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| | with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment (Protection) Act, 1986. | |
| 7 | The industry shall ensure that there shall be no emissions from the Sulphuric acid handling area ie. from ship, storage tanks and pipelines etc... | Complied. |
| 8 | The industry shall share the updated onsite emergency plan with the surrounding organizations i.e. Indian Navy and M/s. HPCL- Visakh Refinery. | Complied Industry participated in mutual aid mock drills along with Navy & HPCL |
| 9 | The industry should maintain thick green belt to cover at least 33% of the total area. | Complied. Industry developed greenbelt more than 33% |
| 10 | The facility shall provide and operate SCADA (Supervisory Control and Data Automation) system for flow and controlling of valves etc and Integrated Management System for maintaining and operating the pipelines efficiently. | Complied . The existing pipeline is currently monitored through DCS systems with isolatable sections placed at 5 locations. |
| 11 | The facility shall take all precautionary safety measures during operation of pipeline. | Complied. complying with process safety management system and all safety measures |
| 12 | Only flame proof motors shall be used in the facility. | complied. |
| 13 | Emergency visual indicators which carry the following information shall be installed at the main gate and other important points in the facility so that all employees can access critical information within 2 minutes declaring an emergency a. Emergency level b. Evacuation distance. c. Location of incident. d. Other locations at risk e. Which direction to evacuate in f. Usable assembly points. g. Distinct warning sirens shall be used for different emergency levels. | Complied. Boards erected indicating the nearest assembly point. Emergency response plan and safe assembly points were displayed in various locations |
| 14 | The power mains switches shall be such that the power to the facility be shut without affecting power for emergency utilities, control room, sprinkler systems, ROVs, emergency material transfer pumps, telephones, etc. | Complied. Provided emergency power supply |
| 15 | Mock drills shall be conducted at least twice a year. | Complied |

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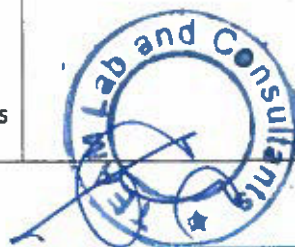
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| 16 | Employees shall be trained in spill control and containment, fire fighting, rescue and medical emergency management. | 1. Tier 1 compliance as per coast guard requirement 2. employees are trained on the emergency response plan & fire fighting on yearly basis as part of the employee safety training conducted on module basis. |
| 17 | The Disaster Management Plan (DMP) shall be updated every year or if any changes are made in the installation. or other outside facilities which may materially affect the installation. | Being Complied |
| 18 | The facility shall enter into a mutual aid scheme with other facilities, which are in position to provide emergency aid. | M/s Coromandel is a mutual aid member with M/s HPCL & M/s APCL |
| 19 | Escape pathways from various places where people work shall be marked with yellow road paint and sign boards. | complied |
| 20 | Yellow coloured windsock(s) shall be positioned such that they are easily visible to all persons in the plant. One of them shall be lit at night. | complied |
| 21 | The onsite emergency control room shall contain the following material: a. Phones – external and internal b. Plant layout and plant vicinity maps c. Coloured pins and flags to mark the maps. d. A wall blackboard e. Non-sparking electrical fittings and non-static and non-sparking carpet. f. Emergency lighting g. Walkie-talkie sets. h. Respirators, personal protection clothing, non-sparking tools. i. Loud hailers j. Keys to safety equipment store. k. A list of employees and contract workers with their home addresses, telephone numbers. l. A list of employees and contract workers working in each shift – to be updated as | Complied All the details are presented in the Emergency control room located at the entrance of Industry The same is also being maintained at the fertilizer wharf shift engineer office. |



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| | necessary. m. Important telephone numbers of civil authorities hung on a wall. n. At least 3 copies of the DMP. | |
| 22 | A safety policy shall be written and circulated amongst all employees along with material safety data sheets and other safety information. | complied |
| 23 | No smoking booths, canteens and other voluntary ignition sources shall not be permitted within the facility. | complied |
| 24 | Unauthorized personnel shall not be allowed inside the facility. | Complied. Ensuring the same through CCTV surveillance and Visitor management system. |
| 25 | Proof of having insured the facility under the public liability insurance act shall be submitted to the Regional Office – Visakhapatnam annually. | Complied. PLI policy no. 9600036243300000001 obtained as per the Public Liability Insurance Act, 1991. A copy of PLI policy, which is valid up to 31.03.2025 Herewith enclosed PCB submitted acknowledgement copy as Annexure-01 for your reference. |
| Special Conditions | | |
| 26 | The industry shall submit a copy of the NOC issued by the Andhra Pradesh State Disaster Response and Fire Service Dept., (APSDRFSD) at concerned Regional Office, APPCB. | Complied |
| 27 | The industry shall prepare a safety report and carry out an independent safety audit report of the respective industrial activities including chemical storages / isolated storages by an expert not associated with such industrial activity as required under Rule 10 of MSIHC Rules, 1989 and get it approved by the Factories Dept., and submit the compliance along with copy of the safety report, safety audit report and safety certificate at concerned Regional Office, APPCB. | Complied The periodic statutory external Safety Audit As per schedule, was conducted for every year and every 3 years Safety Report as per Rule 10 of MSIHC Rules, 1989 by competent & experienced third-party auditors. Recommendations are being complied. Herewith enclosed PCB submitted acknowledgement copy as Annexure-05 for your reference. |

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| 28 | The industry shall identify major accident hazard chemicals & list out the hazardous chemicals endangered to human health & environment, and the details shall be furnished to the Factories Department and the Regional Office, APPCB time to time duly certifying the same by the industry. Further, the industry shall extend training to the working personnel while handling hazardous chemicals for the prevention of accidents and necessary antidotes to ensure safety, as per the MSIHC Rules, 1989. | List of accident hazard chemicals was submitted. i. Industry impart Safe handling of hazardous chemicals training to all relevant staff and in addition Ten No.s of employees have undergone Specialized Course for Competent Supervisors working in Hazardous Industries under Section 41 C (b) of Factories Act, 1948. ii. Moreover, as per Process Safety Competency part of PSM, Job specific trainings are being imparted periodically to the employees. In 2021 Industry achieved 2.5 man-days of mandatory training on Process Safety and Emergency response to all relevant employees and contract workmen. iii. All visitor are given mandatory safety awareness including emergency response plan prior to their entry to Industry premises. SOP of Antidotes and usage is available. At Occupational Health Centre (OHC) Industry maintain inventory of all required antidotes. |
| 29 | The industry shall carryout calibration of safety equipment and leak detection systems at regular intervals and shall certify the same with the Factories Department. That certified copy shall be submitted to the APPCB, Regional Office. The industry shall install fluorescent Wind Vane at the highest point in the industry premises. | Certificate of inspection for pressure vessels is being obtained by an approved competent authority (third party) on annual basis, as per A.P Factories Rules under Rule No 56. All trip interlocks are being tested once in a year as part of AI (asset integrity program). |
| 30 | The industry shall inventory the hazardous wastes and its quantities stored within the industry premises as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) and shall furnish | No hazardous waste being generated from this facility |

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| | the details to Regional Office, APPCB on a monthly basis duly certifying the same by the industry. | |
| SCHEDULE-C | | |
| 1 | The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made thereunder. | Noted by Industry |
| 2 | The authorization shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board. | Noted by Industry |
| 3 | The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization. | Noted by Industry |
| 4 | Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization. | Noted by Industry |
| 5 | The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular intervals of time; | Emergency Response Procedure (ERP) is prepared and followed by M/s Coromandel International Limited and mock drills being conducted half yearly |
| 6 | The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guideline on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty". | Not applicable as the importing only sulphuric acid. Hazardous waste generation is NIL |
| 7 | It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility. | Noted by Industry |
| 8 | An application for the renewal of an authorization shall be made as laid down under these Rules. | Noted by Industry |
| 9 | Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time. | Noted by Industry |
| Specific conditions: | | |
| 10 | The industry shall comply with the provisions of | Noted by Industry. No hazardous waste |

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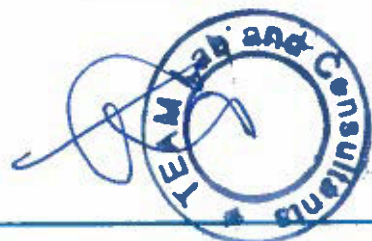
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Ph. : (O) 040-23748555, 23748616, Fax : 040-23748666, Email : teamlabs@gmail.com

Branch Office : # 24-4-11, Darul Fateh Building, 1st Floor, Harbour Road, Visakhapatnam-530 001.
Ph. : (O) 0891-2748699, Cell : 9849033397, E-mail : teamlabsvizag@gmail.com

Coromandel International Limited, Visakhapatnam

| S.N o. | Consent Order Condition | Compliance |
|-----------|--|--|
| | HWM Rules, 2016 in terms of interstate transport of Hazardous Waste and manifest document prescribed Under Rule 18 and 19 of the HWM Rules, 2016 | generated from this facility |
| 11 | The industry shall not store hazardous waste for more than 90 days as per the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 | Noted. No hazardous waste generated in this facility |
| 12 | The industry shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal to the manufacturers / dealers on buyback basis. | Noted. No hazardous waste generated from this facility |
| 13 | The industry shall maintain 7 copy manifest system for transportation of waste generated and a copy shall be submitted to concerned Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card. | Noted. No hazardous waste generated from this facility |
| 14 | The industry shall maintain proper records for Hazardous and Other Wastes stated in Authorisation in Form-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form-4 as per Rule 20 (2) of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 | Noted. No hazardous waste generated from this facility |
| 15 | The industry shall comply with the provisions of HWM Rules, 2016 in terms of interstate transport of Hazardous Waste and manifest document prescribed Under Rule 18 and 19 of the HWM Rules, 2016. | Noted. No hazardous waste generated from this facility |
| 16 | Hazardous Waste annual return shall be filed by June 30th for the period ensuring 31st March of the year. | Noted. No hazardous waste generated from this facility |



(ENGINEERS & CONSULTANTS IN POLLUTION CONTROL)

NABL Accredited Laboratory

Laboratory Recognised by Ministry Environment, Forests and Climate Change, GoI, New Delhi
EIA Consultancy Accredited by NABET, Quality Council of India.

EHS/APPCB/2024-030

Dated:22/04/2024

To
The Environmental Engineer,
Regional Office, 3rd Floor
A.P. Pollution Control Board,
Visakhapatnam -18

Dear Sir,

Sub: Submission of Public Liability Act copy (Policy No. 96000036243300000001).

Ref: i) CFO Order No: APPCB/VSP/65/CFO/HO/1967 - 04/08/2023
ii) CFO Order No: 7055/APPCB/ZO-VSP/CFO/VSP/2021-01/11/2021
iii) CFO Order No: APPCB/VSP/VSP/65/HO/CFO/2020 - 23/12/2020

With reference to above as per the general condition point No 43 specified in CFO Order No: APPCB/VSP/65/CFO/HO/1967 - 04/08/2023 and Schedule – A in condition no : 03 in CFO Order No: 7055/APPCB/ZO-VSP/CFO/VSP/2021-01/11/2021 & CFO Order No: APPCB/VSP/VSP/65/HO/CFO/2020 - 23/12/2020, we are herewith submitting the Public Liability Act Policy copy for the period of

Policy Period:

From : 01/04/2024
To Midnight of : 31/03/2025

This is for your kind information & Records
Thanking you,

Yours Truly
For Coromandel International Limited



Gnanasundaram M
Vice President & Head Manufacturing.



Encloser: PLA copy



POLICY SCHEDULE FOR PUBLIC LIABILITY (Act Only) INSURANCE

UIN NUMBER - IRDAN190P0076100001

| | | | | | |
|-------------------|---|--|----------------|---|--|
| Insured's Name | : | M/S.COROMANDEL INTERNATIONAL LIMITED | | | |
| Insured's Details | | Issuing Office Details | | | |
| Customer ID | : | PO59235971 | Office Code | : | HYDERABAD LCBO 960000 (960000) |
| Address | : | COROMANDEL HOUSE, D.NO:1-2-10,SARDAR PATEL ROAD,SECUNDERABAD. SECUNDERABAD ,TELANGANA, 500003 | Address | : | LARGE CORPORATE AND BROKERS OFFICE, 7C,7TH FLOOR, SURYA TOWERS, S.P.ROAD, SECUNDERABAD ,500003 |
| Phone No | : | | Phone No | : | 4027810302 |
| E-mail/Fax | : | MittalA@coromandel.murugappa.com, / | E-mail/Fax | : | nia.960000@newindia.co.in / |
| PAN No | : | AAACC7852K | S.Tax Regn. No | : | AAACN4165CST178 |
| GSTIN/UIN | : | 36AAACC7852K2ZD / NA | GSTIN | : | 36AAACN4165C3ZQ |
| | : | | SAC | : | 997139 (Other non-life insurance services excl RI) |

| | | | | | |
|---------------------|---|---|--|---|---|
| Policy Details | | | | | |
| Policy Number | : | 96000036243300000001 | Business Source Code | : | |
| Period of Insurance | : | From: 01/04/2024 12:00:01 AM To: 31/03/2025 11:59:59 PM | Dev.Off. level/Broker/Corp. Agent/Web Aggregator/CPSC User | : | Marsh India Insurance Brokers Pvt. Ltd. - (2D10672900) Marsh_India_121400 - (2D10685525), |
| Date of Proposal | : | 01-Apr-24 | Agent/Bancassurance/S pecified Person | : | |
| Prev. Policy no. | : | 62030036233300000001 | Phone No | : | 7045922442, 8657561533 / NA |
| Client Type | : | Corporate | E-mail/Fax | : | Kamal.Pherwani@marsh.com, Pravin.chandvekar@marsh.com / / |

| Premium(₹) | ERF Premium(₹) | GST(₹) | Total (₹) | Total (₹ in words) | Receipt No. & Date |
|------------|----------------|--------|-----------|---|-------------------------------------|
| 230765 | 230765 | 41,538 | 5,03,068 | RUPEES FIVE LAC THREE THOUSAND SIXTY-EIGHT ONLY | 9600008124000000002 4 - 02/04/24 |

Details of risk covered under current year policy:

| Retroactive Date | Paid Up Capital | No Of Locations Involved | AOA | AOA:AOY | AOY | Annual Turnover - Previous Year | Annual Turnover - Proposed Year | Deductible S | No of workmen | No of Other Employee |
|------------------|-----------------|--------------------------|----------|---------|-----------|---------------------------------|---------------------------------|--------------|---------------|----------------------|
| 01/04/2012 | <= 15 Crore | 19 | 50000000 | 1:3 | 150000000 | 150000000000 | 250000000000 | 14000 | 3000 | |

Retroactive Dates

| Retroactive Date Details | Date | Paid Up Capital | No Of Locations Involved | AOA | AOA:AOY | AOY | Annual Turnover - Previous Year | Annual Turnover - Proposed Year | Deductibles | No of workmen | No of Other Employee |
|--------------------------|------------|-----------------|--------------------------|----------|---------|----------|---------------------------------|---------------------------------|-------------|---------------|----------------------|
| RETROACTIVE DATE 1 | 01/04/2012 | <=15Crore | 19 | 50000000 | 1.3 | 15000000 | 150000000000 | 250000000000 | 14000 | 3000 | |

RETRO-DATE IS SUBJECT TO LESSER OF LIMITS - NARROWER OF COVER.

Extensions under the Policy

| Name of the Extension | Sub Limit of the Extension | Deductibles of the Extension |
|-----------------------|----------------------------|------------------------------|
|-----------------------|----------------------------|------------------------------|

Signature Not Verified
Digitally signed by DHIRAJ KUMAR
Date: 2024.04.02 13:41:29 +05'30'IST



| | | |
|---------------------------|--|------------|
| Special Conditions | AS PER POLICY-19 NO.OF LOCATIONS AS PER LIST ATTACHED HEREWITH AS PER PUBLIC LIABILITY ACT POLICY Absolute exclusion for losses directly or indirectly arising out of contributed to by or resulting from Coronavirus (Covid 19 and /or nCov 2019) or any mutations or variations thereof. | |
| Special Exclusions | NA | |
| Special Excess/Deductible | 0 | |
| Retroactive Dates | | Date |
| Retroactive date | | 01/04/2012 |

The Policy shall be subject to PUBLIC LIABILITY (Act Only) INSURANCE Policy clauses attached herewith.

| Clauses | Description | |
|-------------------------|-------------|---------------|
| Premium and GST Details | | |
| | Rate of Tax | Amount in INR |
| Premium | | ₹ 4,61,530 |
| SGST | 9 | 20769 |
| CGST | 9 | 20769 |
| IGST | 0 | 0 |

In witness whereof the undersigned being duly authorised by the Insurers and on behalf of the Insurers has (have) hereunder set his (their) hand(s) on this 02nd day of April,2024.

For and on behalf of
The New India Assurance Company Limited

Date of Issue: 02/04/2024

Duly Constituted Attorney(s)

Stamp Duty under the Policy is ₹1

Mudrank _____ Dt. _____ consolidated Stamp Fees Paid by Pay Order Number _____ vide receipt number _____ dt. _____.

We hereby declare that though our aggregate turnover in any preceding financial year from 2017-18 onwards is more than the aggregate turnover notified under sub-rule (4) of rule 48, we are not required to prepare an invoice in terms of the provisions of the said sub-rule.

Tax Invoice No : 96000024E0000029

IRDA Registration Number: 190
NIA PAN NUMBER: AAACN4165C

दिन्यू इंडिया एश्योरन्स कंपनी लिमिटेड

बृहत्कॉर्पोरेट एवम ब्रोकर्स कार्यालय - ९६०००

7th मंजिल, सूर्या टावर्स, एसडी रोड, सिकंदराबाद

५००००३, तेलंगाना

दूरभाष - ०४०-२७८१०३००, २७८१०३०२

फैक्स - ०४०-६६२६४४४३

हिन्दी हमारी राष्ट्रभाषा है, सारे देश की आशा है।



Leadership and Beyond

The New India Assurance Co Ltd

Large Corporate and Brokers Office - 960000

7th Floor, C Block, Surya Towers, SP Road,

Secunderabad - 500 003, Telangana

Telephone - 040 27810300, 27810302

Fax - 040 66264443

India's Premier General Insurance Company

Schedule attached to and forming part of policy no. 96000036243300000001

List of 19 Locations attached and forming part of Public Liability (Act only) Policy no: 96000036243300000001, Policy period : 01-04-2024 to 31-03-2025.

With reference to the captioned subject following are the list of Locations

1. M/S Coromandel International Ltd-VISAKHAPATNAM
2. M/S Coromandel International Ltd-KAKINADA
3. M/S Coromandel International Ltd-ENNORE
4. M/S Coromandel International Ltd-RANIPET
5. M/S Coromandel International Ltd-THANE
6. M/S Coromandel International Ltd-NAVI MUMBAI.
7. M/S Coromandel International Ltd-UNIT 1, JAMMU
8. M/S Coromandel International Ltd-UNIT2, BARIBRAHMANA, JAMMU
9. M/S Coromandel International Ltd, UMBERGAON
10. M/S Coromandel International Ltd, GIDC, NANDESARI
11. M/S Coromandel International Ltd, PALI
12. M/S Coromandel International Ltd, RAIBARELI
13. M/S Coromandel International Ltd, MADRI-UDAIPUR
14. M/S Coromandel International Ltd, JAGPURA-KOTA
15. M/S Coromandel International Ltd, MUNIRABAD
16. M/S Coromandel International Ltd, ANKHALESHWAR
17. M/S Coromandel International Ltd, DAHEJ
18. M/S Coromandel International Ltd -NIMRANI
19. M/S Coromandel International Ltd Super Phosphate factory, ENNORE

For The New India Assurance Company

Authorised Signatory

EHS2-Vizag-Coromandel

From: Nageswara Rao G-AsstMgr-EHS-Vizag-Coromandel
Sent: 24 April 2024 16:10
To: rovspappcb@gmail.com
Cc: Nagarjuna-P-Mgr-EHS-Vizag-Coromandel; EHS2-Vizag-Coromandel; Subhradip Mondal-Mgr-Environment-Vizag-Coromandel; Nagaraju D-AGM-EHS-Vizag-Coromandel; Vinod Kumar Mishra-Sr.GM-EHS-Vizag-Coromandel
Subject: CIL-Vizag submission of special conditions reports
Attachments: Submission of AAQMS online data for the six months as per EC complex PAP.crdownload; Submission of SAP -3 & Desalination plant Fire NOC.crdownload; Submission of monthly Piezo Well analysis report as per EC complex PAP.crdownload; Submission of Piezo Well analysis report as per CFO.crdownload; Public Liability Policy (PLI) April - 2024-2025 (Policy No. 96000036243300000001).pdf

Dear Sir,

Here we are submitting the following Special Conditions reports for your consideration.

1. Public Liability Act copy (Policy No. 96000036243300000001).
2. Fire NOC
3. Piezo well water analyses Quarterly reports as per CFO
4. Piezo well water analyses monthly reports as per EC
5. AAQMS online data reports as per EC

The same original copy along with backup documents we submitted on **23.04.2024** to your regional office. Again, we have submitted the same copy through mail as per your instruction.

Thanks & Regards,
Nageswara Rao G



Coromandel International Limited

Sriharipuram, Malkapuram PO

Visakhapatnam-530 011

Andhrapradesh, India.

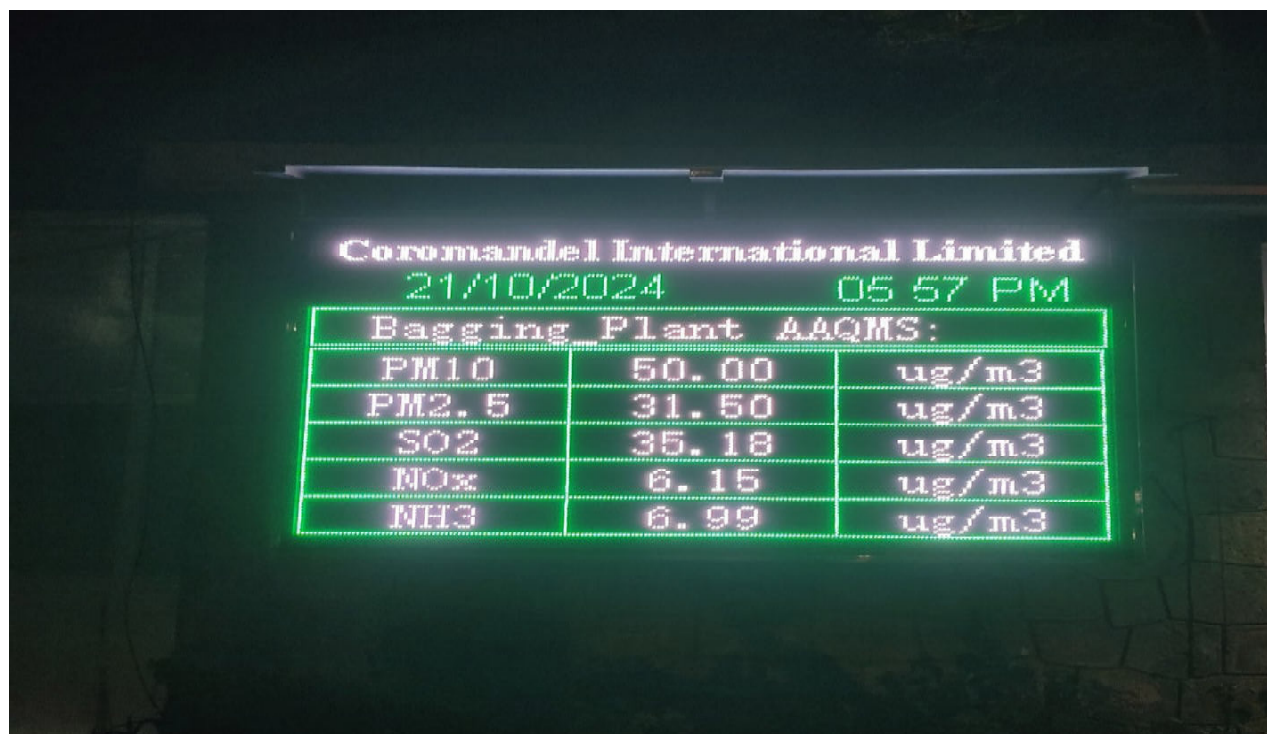
F: +91 891-2578400

W: www.coromandel.biz

A MURUGAPPA GROUP COMPANY

DISPLAY BOARD & APPCB DATA

bagging-plant AAQM



The photograph shows a digital display board with a black background and green text. The board displays the company name 'Coromandel International Limited', the date '21/10/2024', and the time '05 57 PM'. Below this, it says 'Bagging_Plant AAQMS:' followed by a table of air quality data.

| Coromandel International Limited | | |
|----------------------------------|-------|-------|
| 21/10/2024 05 57 PM | | |
| Bagging_Plant AAQMS: | | |
| PM10 | 50.00 | ug/m3 |
| PM2.5 | 31.50 | ug/m3 |
| SO2 | 35.18 | ug/m3 |
| NOx | 6.15 | ug/m3 |
| NH3 | 6.99 | ug/m3 |

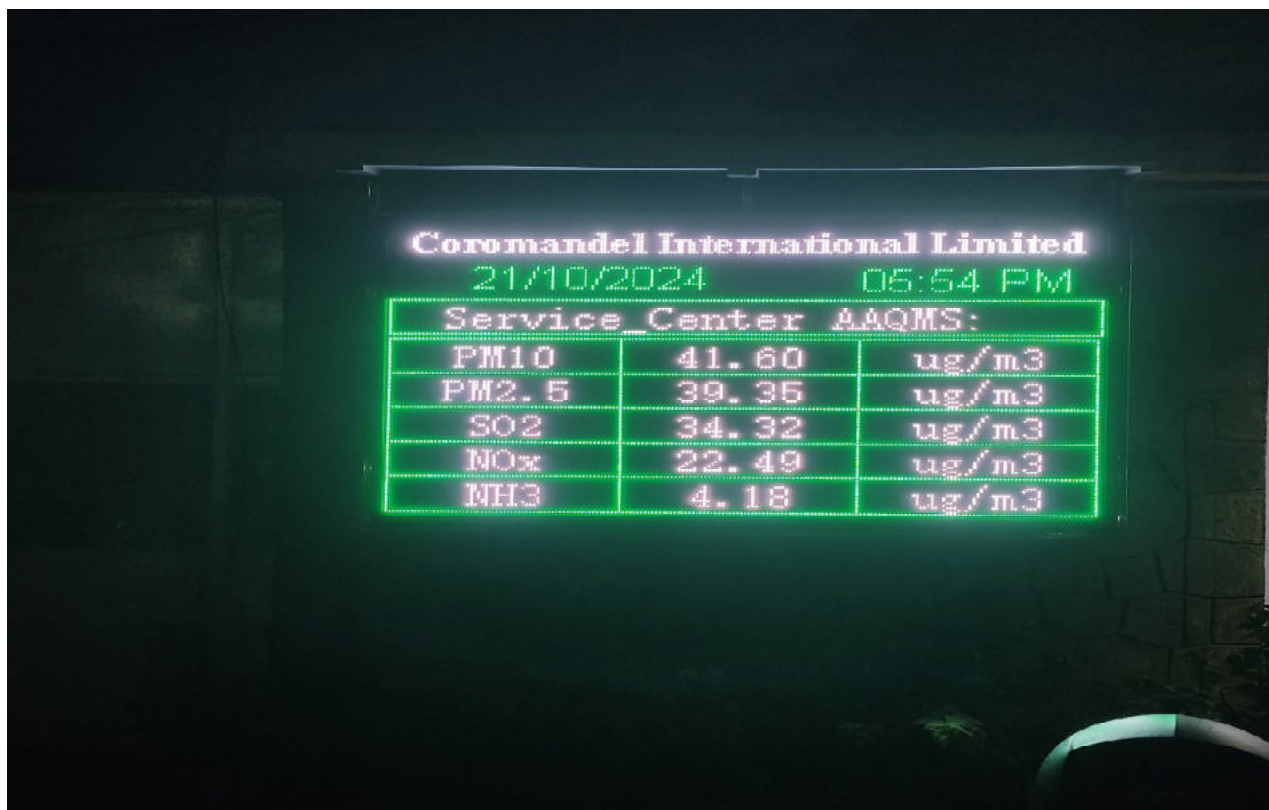
Garage AAQM



The photograph shows a digital display board with a black background and green text. The board displays the company name 'Coromandel International Limited', the date '21/10/2024', and the time '05:55 PM'. Below this, it says 'Near_Garage AAQMS:' followed by a table of air quality data.

| Coromandel International Limited | | |
|----------------------------------|-------|-------|
| 21/10/2024 05:55 PM | | |
| Near_Garage AAQMS: | | |
| PM10 | 74.78 | ug/m3 |
| PM2.5 | 50.36 | ug/m3 |
| SO2 | 26.60 | ug/m3 |
| NOx | 8.96 | ug/m3 |
| NH3 | 0.64 | ug/m3 |

Service Centre AAQM



The image shows an LED display with a green border and text. At the top, it reads 'Coromandel International Limited' in red, followed by the date '21/10/2024' and time '05:54 PM' in green. Below this, the title 'Service_Center AAQMS:' is displayed in green. A table follows with five rows of air quality data. The columns are labeled with pollutant names, numerical values, and units. The pollutants listed are PM10, PM2.5, SO2, NOx, and NH3, all measured in ug/m3.

| | | |
|----------------------------------|-------|-------|
| Coromandel International Limited | | |
| 21/10/2024 05:54 PM | | |
| Service_Center AAQMS: | | |
| PM10 | 41.60 | ug/m3 |
| PM2.5 | 39.35 | ug/m3 |
| SO2 | 34.32 | ug/m3 |
| NOx | 22.49 | ug/m3 |
| NH3 | 4.18 | ug/m3 |

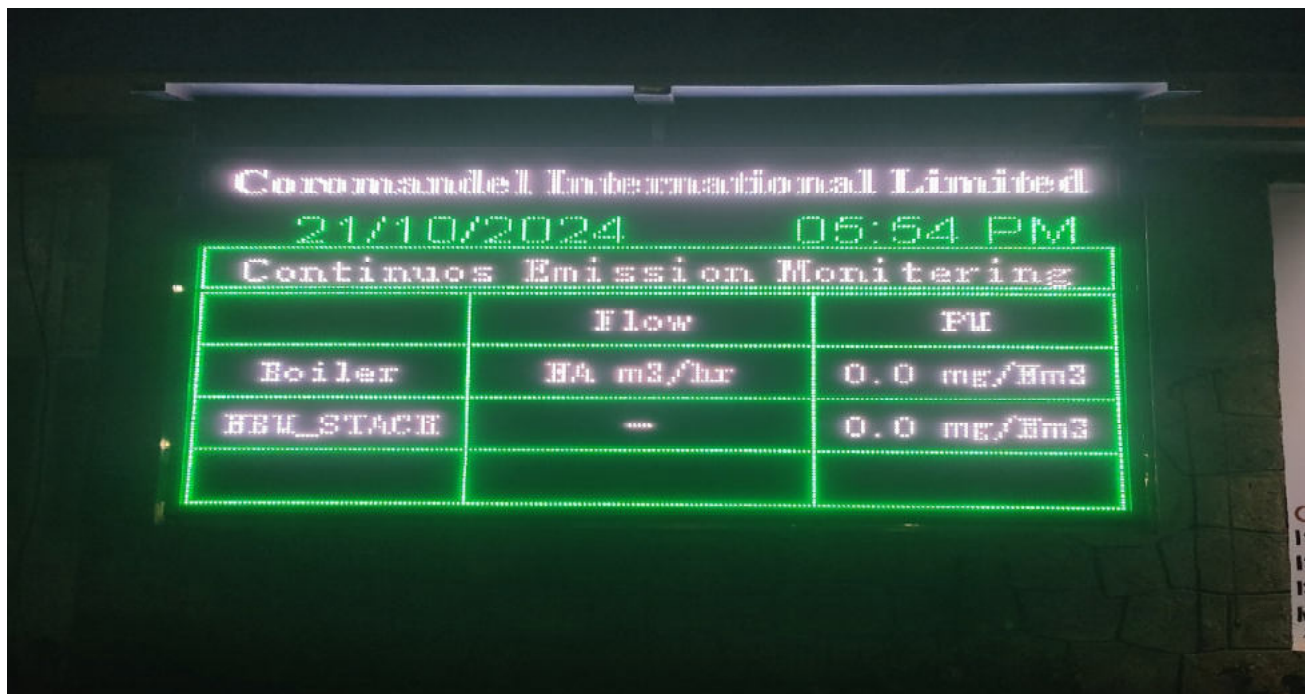
Outlet



The image shows an LED display with a green border and text. At the top, it reads 'Coromandel International Limited' in red, followed by the date '21/10/2024' and time '05:54 PM' in green. Below this, the title 'Effluent Monitoring' is displayed in green. A table follows with four rows of effluent data. The columns are labeled with location names, Flow, pH, and Fluoride. The locations listed are ETP_Outlet, Final_Outlet, and Near_CTBD. The Flow is measured in m3/h, pH is in pH, and Fluoride is in mg/l.

| | | | |
|----------------------------------|----------|---------|----------|
| Coromandel International Limited | | | |
| 21/10/2024 05:54 PM | | | |
| Effluent Monitoring | | | |
| | Flow | pH | Fluoride |
| ETP_Outlet | 0.0 m3/h | - | - |
| Final_Outlet | - | 7.58 pH | - |
| Near_CTBD | - | - | 2.2 mg/l |

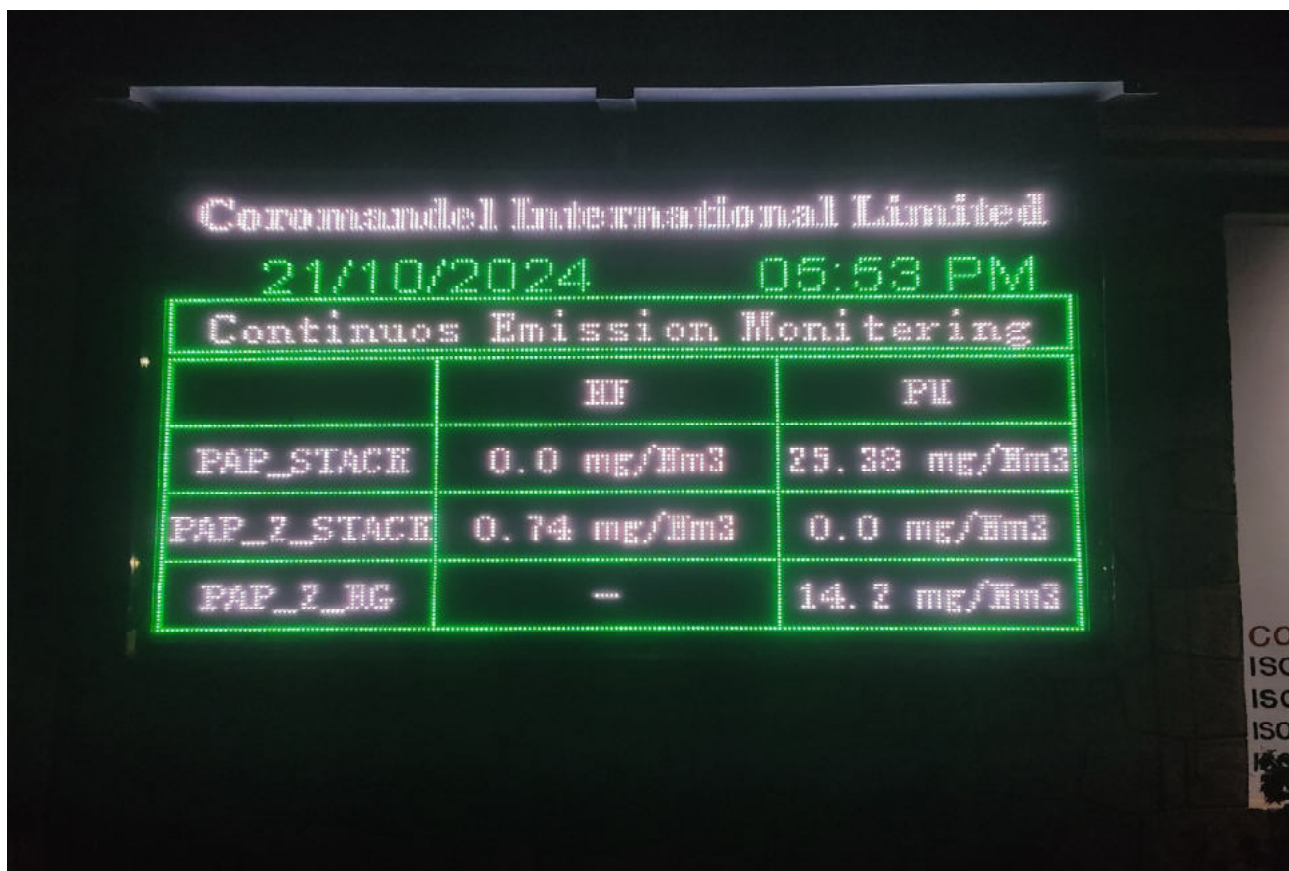
Stack Emission



Coromandel International Limited
21/10/2024 05:54 PM
Continuous Emission Monitoring

| | Flow | PU |
|-----------|----------|------------|
| Boiler | 84 m3/hr | 0.0 mg/Hm3 |
| HEU_STACK | - | 0.0 mg/Hm3 |

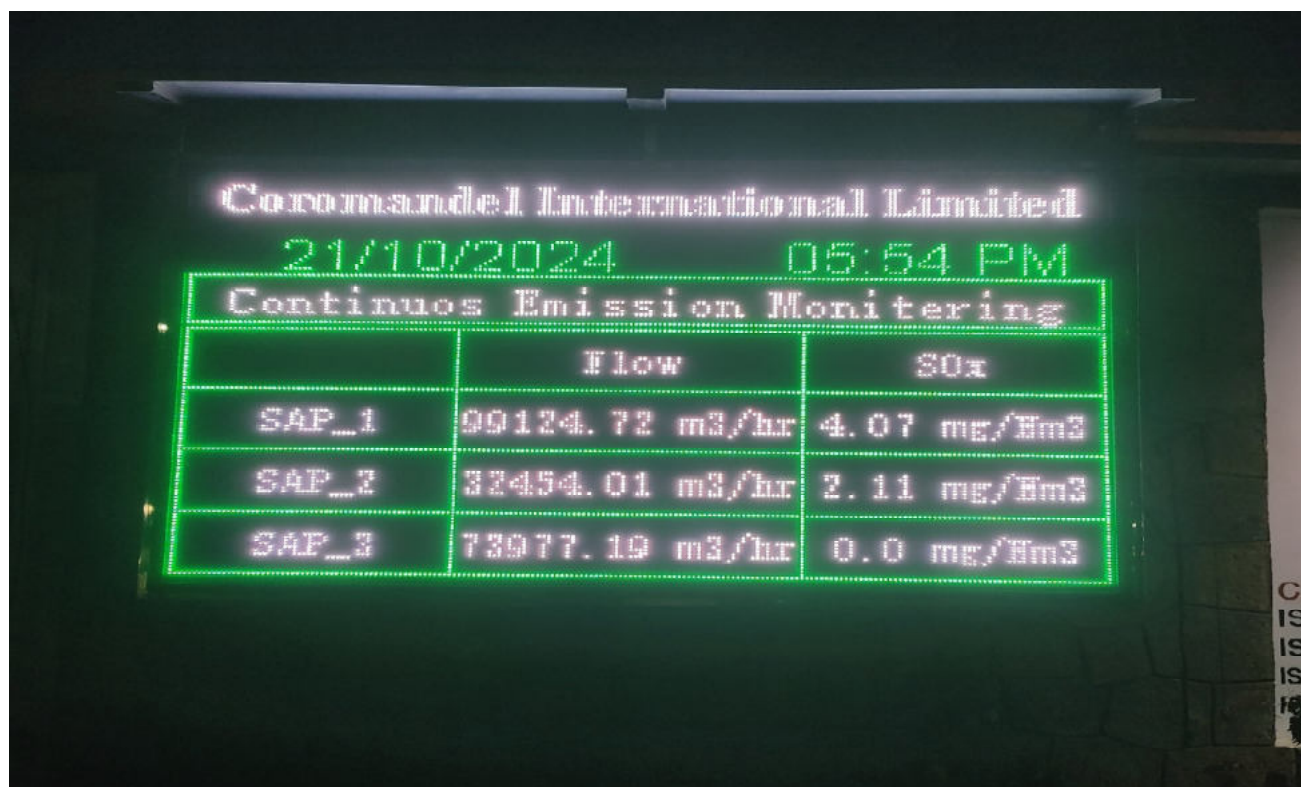
Stack Emission



Coromandel International Limited
21/10/2024 05:53 PM
Continuous Emission Monitoring

| | HF | PU |
|-------------|-------------|--------------|
| PAP_STACK | 0.0 mg/Hm3 | 25.38 mg/Hm3 |
| PAP_2_STACK | 0.74 mg/Hm3 | 0.0 mg/Hm3 |
| PAP_2_HG | - | 14.2 mg/Hm3 |

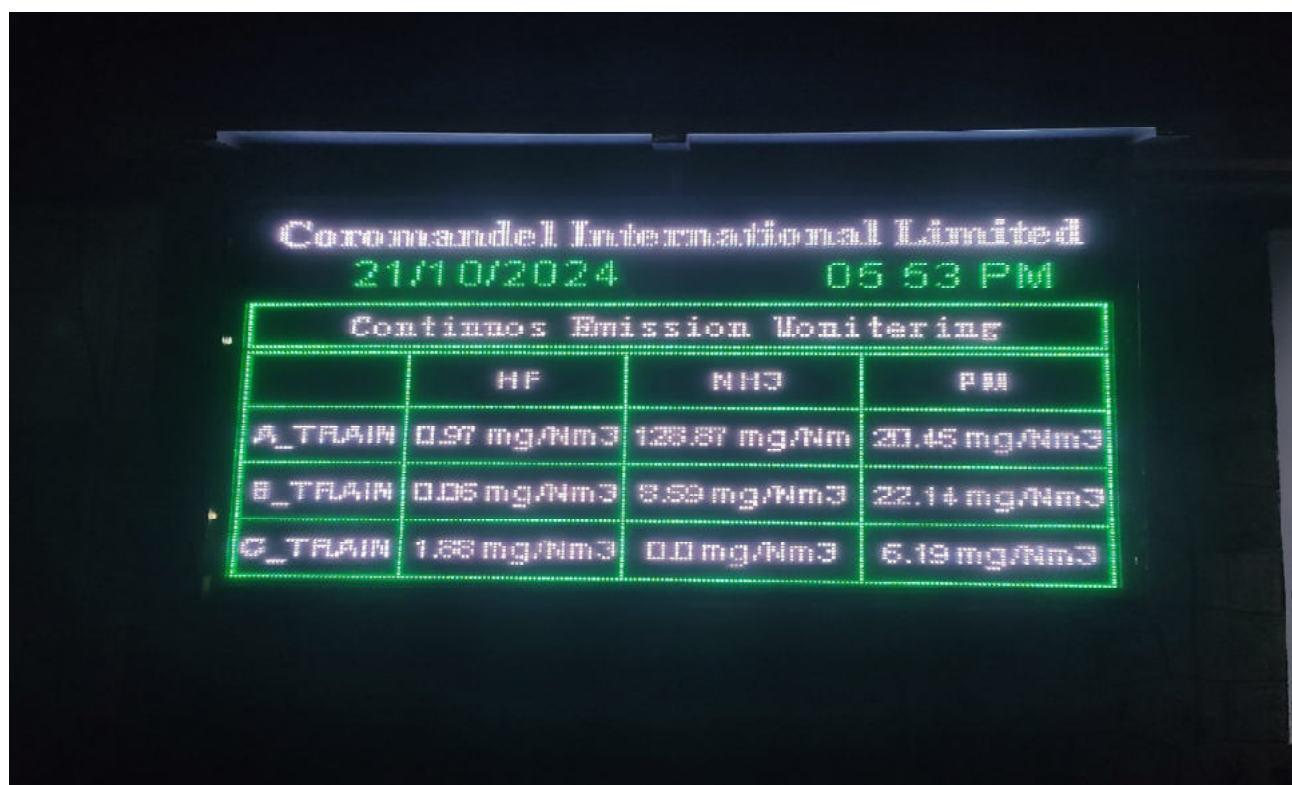
Stack Emission



Coromandel International Limited
21/10/2024 05:54 PM
Continuous Emission Monitoring

| | Flow | SOx |
|-------|----------------|-------------|
| SAP_1 | 99124.72 m3/hr | 4.07 mg/Hm3 |
| SAP_2 | 32454.01 m3/hr | 2.11 mg/Hm3 |
| SAP_3 | 73977.19 m3/hr | 0.0 mg/Hm3 |

Stack Emission



Coromandel International Limited
21/10/2024 05:53 PM
Continuous Emission Monitoring

| | HF | NH3 | PM |
|---------|-------------|---------------|--------------|
| A_TRAIN | 0.97 mg/Nm3 | 128.87 mg/Nm3 | 20.45 mg/Nm3 |
| B_TRAIN | 0.05 mg/Nm3 | 8.59 mg/Nm3 | 22.14 mg/Nm3 |
| C_TRAIN | 1.88 mg/Nm3 | 0.0 mg/Nm3 | 6.19 mg/Nm3 |

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
31st 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
31st 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
31st 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) | Water consumption m ³ /d (average break-up) year 2023-24 | | |
| | WATER : 02 KLD | | |
| | | Water consumption per unit of products M ³ /MT | |
| | Name of products | During the previous financial year | During the current financial year |
| | | NA | NA |
| II | Raw material consumption | | |
| | 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 st April 2023 | MT | 0 |
| 2 | Received Qty. | MT | 262019 |
| 3 | Consumption Qty. | MT | 262019 |
| 4 | Closing stock on 31 st 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 st April 2023 | MT | 21057.985 |
| 2 | Received Qty. | MT | 433679.8 |
| 3 | Consumption Qty. | MT | 431165.8 |
| 4 | Closing stock on 31 st 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 st April 2023 | MT | 13446.697 |
| 2 | Received Qty. | MT | 83808 |
| 3 | Consumption Qty. | MT | 94910.02 |
| 4 | Closing stock on 31 st 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 st April 2023 | MT | 20.07 |
| 2 | Received Qty. | MT | 576.718 |
| 3 | Consumption Qty. | MT | 585.328 |
| 4 | Closing stock on 31 st 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 st April 2023 | Litres | 9268 |
| 2 | Received Qty. | Litres | 0 |
| 3 | Consumption Qty. | Litres | 6626 |
| 4 | Closing stock on 31 st 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 |
| | Air | | | | |
| | | Emissions, TPA | Emissions, mg/Nm ³ | APPCB limit mg/Nm ³ | No Variation from Standards |
| 1 | Wharf Boiler | | | | |
| | 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 ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ |
| 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,

RH461132235TH 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,

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2016**” and amendment thereof under E (P) Act, 1986.

Kindly acknowledge the receipt of same.

Thanking you,

Yours Truly,

For COROMANDEL INTERNATIONAL LIMITED



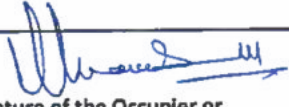
Gnanasundaram M
Vice President & Head Manufacturing.


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 | | | | | | | | | | | | | | | | | | | | | | | | |
| Part A. To be filled by hazardous waste generators | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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/draind 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 & 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/draind 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 |
| 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/draind 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Quantity dispatched | (i) to disposal facility (Ramky) (ii) to recycler or co-processors or pre-processor (iii) Others | <table border="1"> <thead> <tr> <th>Name of the Hazardous waste</th> <th>Quantity dispatched</th> </tr> </thead> <tbody> <tr> <td>1) Spent Catalyst</td> <td>33.820 MT</td> </tr> <tr> <td>2) LSHS Sludge</td> <td>6.770 MT</td> </tr> <tr> <td>3) Off specified ,expired chemicals & lab chemicals etc.</td> <td>0 MT</td> </tr> <tr> <td>4) Glass wool</td> <td>0 MT</td> </tr> <tr> <td>5) Insulation Puf</td> <td>0 MT</td> </tr> <tr> <td>1) Used lubricating oil/draind oil</td> <td>14.020 KL</td> </tr> <tr> <td>2) Detoxified Containers and container liners</td> <td>2348 No's</td> </tr> <tr> <td>---</td> <td>---</td> </tr> </tbody> </table> | | Name of the Hazardous waste | Quantity dispatched | 1) Spent Catalyst | 33.820 MT | 2) LSHS Sludge | 6.770 MT | 3) Off specified ,expired chemicals & lab chemicals etc. | 0 MT | 4) Glass wool | 0 MT | 5) Insulation Puf | 0 MT | 1) Used lubricating oil/draind oil | 14.020 KL | 2) Detoxified Containers and container liners | 2348 No's | --- | --- | | | | | | |
| Name of the Hazardous waste | Quantity dispatched | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1) Spent Catalyst | 33.820 MT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2) LSHS Sludge | 6.770 MT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3) Off specified ,expired chemicals & lab chemicals etc. | 0 MT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4) Glass wool | 0 MT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5) Insulation Puf | 0 MT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1) Used lubricating oil/draind oil | 14.020 KL | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2) Detoxified Containers and container liners | 2348 No's | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| --- | --- | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| FORM-4 | | | |
|--|--|--|-------------------|
| <i>[See rules 6(5), 13(8), 16(6) and 20(2)]</i> | | | |
| 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] | | | |
| 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 |
| Part B. To be filled by Treatment, storage and disposal facility operators | | | |
| 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 - | | |
| Part C. To be filled by recyclers or co-processors or other users | | | |
| 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/cm²g 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/cm²g 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 M³/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/M³ 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.

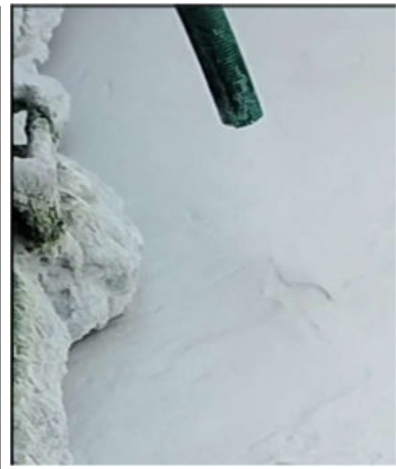
Prevailing practice in the industry: Installation of Air Operated Diaphragm Pump is a best practice in Lime Addition to Lime Slurry Preparation Tank/



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 SO₂ 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:

- SO₂ 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 SO₂ 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 SO₂ reacts with NaOH to form sulphite and sulphate salts (Na₂SO₃ , NaHSO₃ , Na₂SO₄).

Scrubber operates with close pH control on absorbing solution.

Benefits:

1. SO₂ 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**

| s.no | EHS (2023-24) | Rs. Lakhs |
|-------------|--|------------------|
| 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 |

| s.no | EHS (2022-23) | Rs. Lakhs |
|-------------|---|------------------|
| 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 |

| | | |
|--|--------------|---------------|
| | Total | 2028.1 |
|--|--------------|---------------|

| s.no | EHS (2021-22) | Rs. Lakhs |
|-------------|--|------------------|
| 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 |
| | Total | 2026.6 |

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

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

| s.no | EHS (2018-19) | Rs. Lakhs |
|-------------|---|------------------|
| 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 |
| | Total | 220.0 |

| s.no | EHS (2017-18) | Rs. Lakhs |
|-------------|---------------------------------------|------------------|
| 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 |
| | Total | 1248.0 |

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

| s.no | EHS (2015-16) | Rs.Lakhs |
|-------------|--|-----------------|
| 1 | Ambient Air Quality – 3 rd 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 |
| | Total | 177.0 |

| s.no | EHS (2014-15) | Status | Rs.Lakhs |
|-------------|--|---------------|-----------------|
| 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 |
| | Total, Rs/- | | 400 |

| s.no | EHS (2013-14) | Status | Rs.Lakhs |
|-------------|---|---------------|-----------------|
| 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 |
| | Total,Rs/- | | 312 |

| s.no | EHS (2012-13) | Status | Rs.Lakhs |
|-------------|--|---------------|-----------------|
| 1 | 3 rd 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 |
| | Total,Rs/- | | 140 |

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

| | 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 |
| | Total(Lacs) | | 2067.00 |

| 2009-10 | | (Rupees lakhs) | |
|----------------|---|-----------------------|-----------------------|
| Sl. no. | Measure | Year installed | Cost Rs. Lakhs |
| 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 th gate | 2010 | 15.00 |
| | TOTAL(Lacs) | | 462.00 |

| 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 ₂ 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 ₂ 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 |
| | TOTAL Rs./ lakhs | | 8106 |

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 ₂ , 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 |

| <u>BEFORE THE YEAR 2000</u> | | | |
|------------------------------------|---|------------------|-------------|
| 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 |
| | TOTAL | Rs/ lakhs | 2796 |
| | | | |

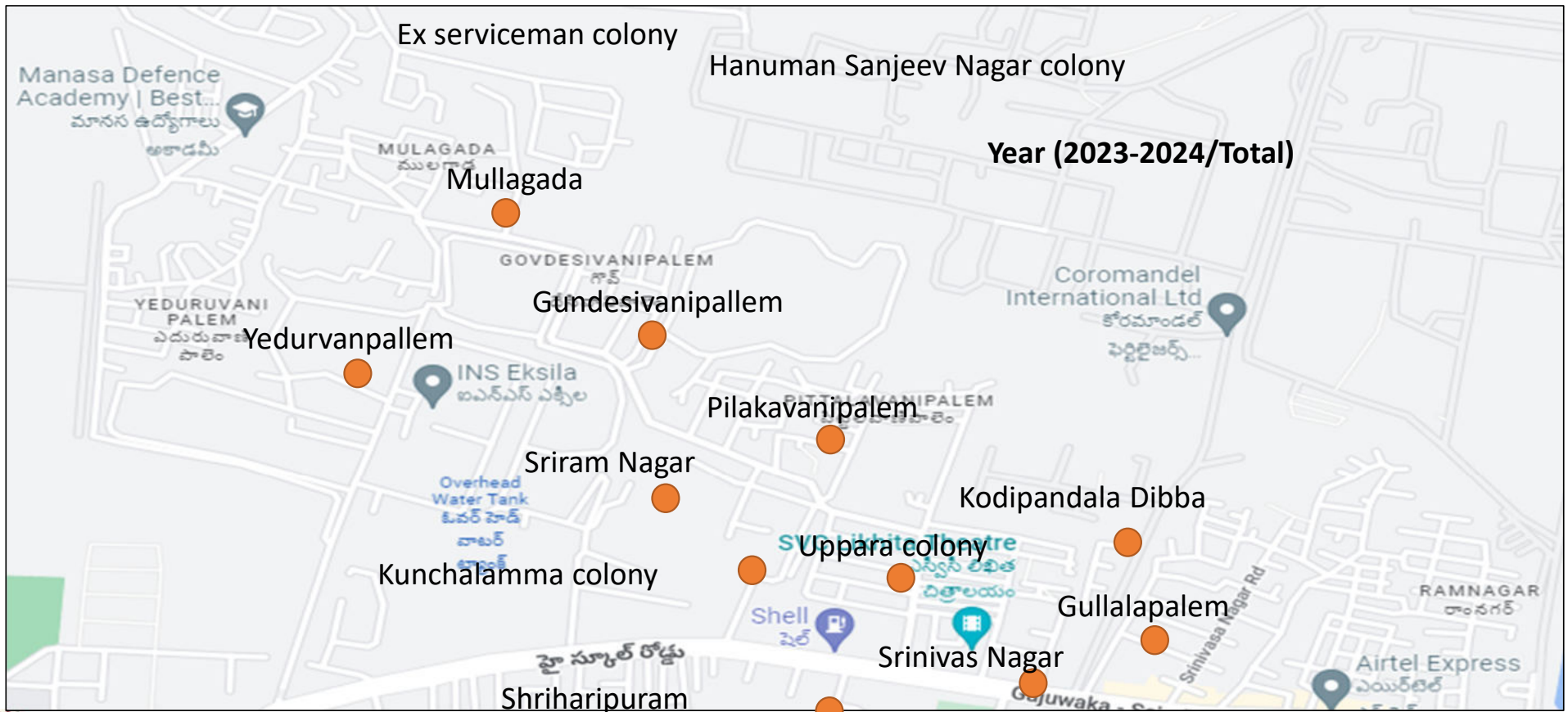
Note: Total investment from 1967 to 2012-13 = 13631 lakhs
Capital investment for 2013-14 = 312 lakhs
Investments in 2014-15 = 400 lakhs
In 2015-16 = 177 lakhs
In 2016-17 = 160 lakhs
In 2017-18 = 1248 lakhs
In 2018-19 = 220 lakhs
In 2019-20 = 1440 lakhs
In 2020-21 = 395 lakhs
In 2021-22 = 2026 lakhs



CSR
Annual report 2023-2024

Vizag

Mapping villages-Total bEN -217134



Approved Vs Spent– 23-24

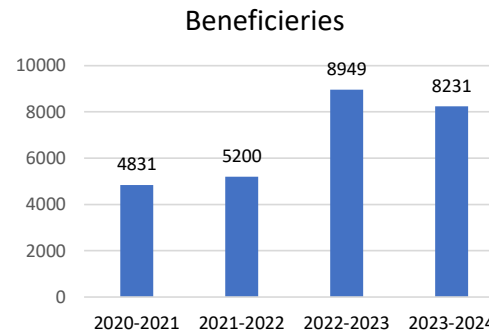
Spent
Matrix

| S.No | Domain | Spent (Lacs) |
|-------|-----------------------|--------------|
| 1 | Community Development | 133.00 |
| 2 | Health | 73.79 |
| 3 | Education | 85.67 |
| Total | | 292.46 |

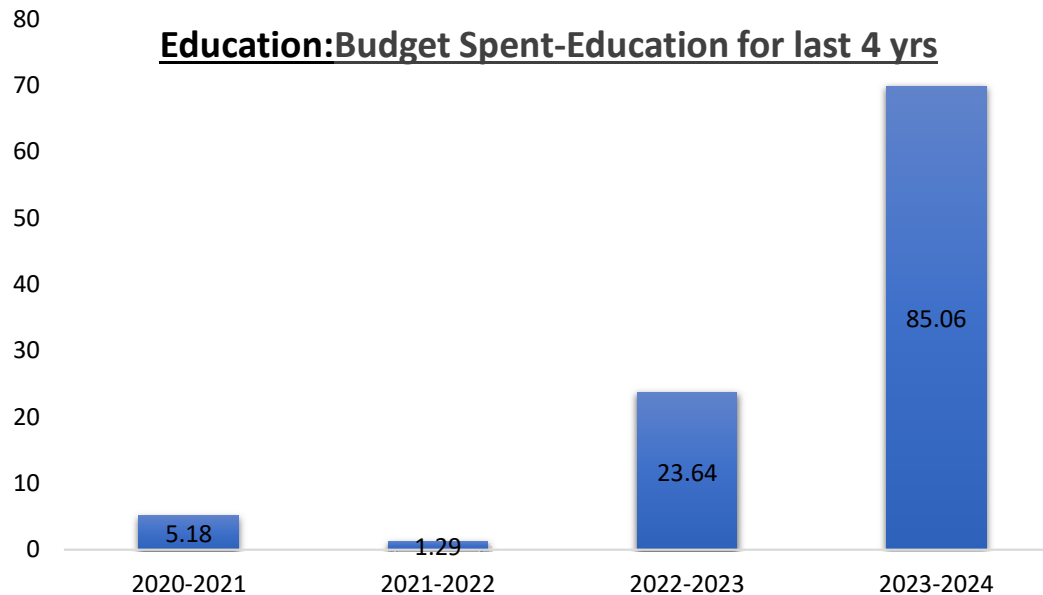
CSR Initiative-Education

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

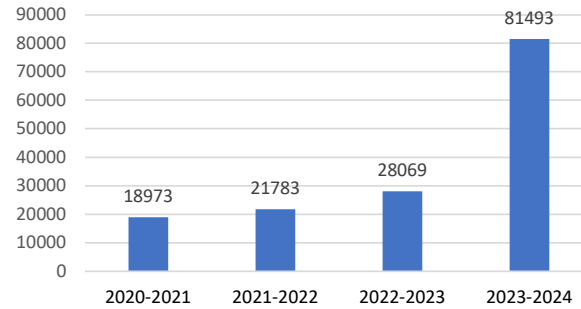


CSR Initiative-Health

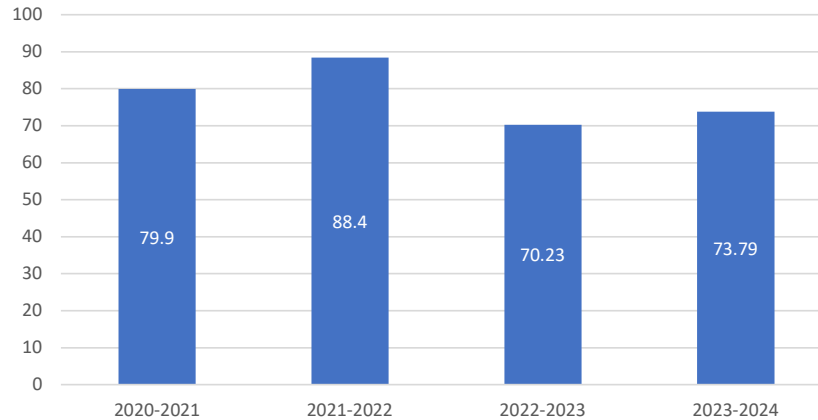
Key Highlights of the last 4Years

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

Beneficiaries



Health

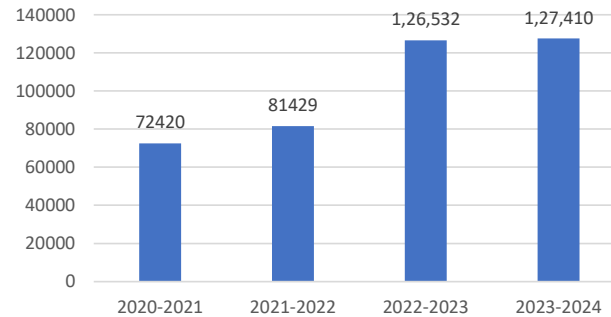


CSR Initiative-Community development

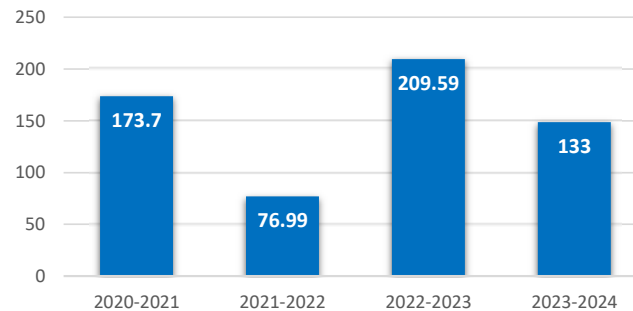
Key Highlights of the Year

- 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 26th 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

30th 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 12th & 13th 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 58th 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 15th 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 & 10th 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 (58th ward)

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





Community Hall Inauguration-Hanuman Sanjivani colony (60th ward)

- Community hall Inaugurated by Mr. A Anandkumar MSME Chairman and west zone YSRCP in charge, 60th ward corporator Mr. Suresh and community leaders on 14th 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 58th 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





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



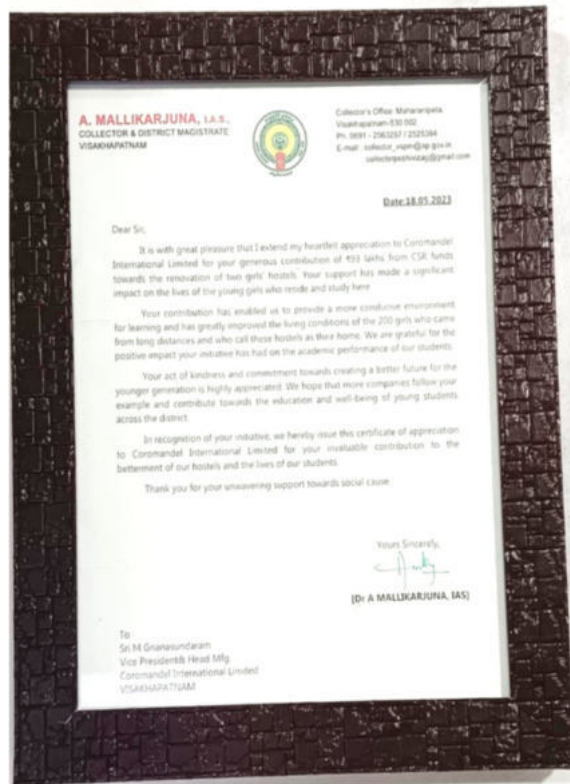
Nadupuru Girls Hostel



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

EHS/APPCB/2024 - 137

05-12-2024

To,

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

Dear Sir,

Sub: Submission of Environmental Monitoring Reports for the month **November' 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 **November' 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/DNR 



EHS/APPCB/2024 - 137

05-12-2024

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Labs and Consultants

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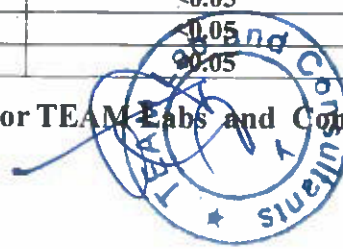
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TEST REPORT

| | | | |
|---|---------|--|------------------------|
| Test Report No. | | TLC/V/Env/CIL/18/1124 | dt.02.12.2024 |
| 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 ofNOVEMBER-2024 | |
| Summary of Ambient Air quality Monitoring Data for the Month of NOVEMBER-2024 | | | |
| Parameters | | AAQ-4 Station at Warf | AAQ-5 Station near VST |
| PM2.5 | Minimum | 32 | 37 |
| | Maximum | 40 | 44 |
| | 98%tile | 40 | 44 |
| | Average | 37 | 40 |
| PM 10 µg/M³ | Minimum | 64 | 72 |
| | Maximum | 82 | 84 |
| | 98%tile | 82 | 84 |
| | Average | 74 | 77 |
| SO₂ µg/M³ | Minimum | 15.0 | 16.9 |
| | Maximum | 17.2 | 19.5 |
| | Average | 16.0 | 17.9 |
| | 98%tile | 17.2 | 19.5 |
| NOₓ µg/M³ | Minimum | 17.5 | 18.5 |
| | Maximum | 19.4 | 20.2 |
| | 98%tile | 19.4 | 20.2 |
| | Average | 18.5 | 19.7 |
| NH₃ mg/M³ | Minimum | 0.02 | 0.04 |
| | Maximum | 0.03 | 0.06 |
| | 98%tile | 0.03 | 0.06 |
| | Average | 0.024 | 0.46 |
| O₃ µg/M³ | Minimum | 15 | 16 |
| | Maximum | 20 | 20 |
| | 98%tile | 20 | 20 |
| | Average | 17 | 18 |
| CO mg/M³ | Minimum | 0.2 | 0.2 |
| | Maximum | 0.3 | 0.3 |
| | 98%tile | 0.3 | 0.3 |
| | Average | 0.25 | 0.28 |
| Pb µg/M³ | <0.05 | <0.05 | <0.05 |
| C6H6 ng/M³ | <0.05 | <0.05 | <0.05 |
| B(a)P ng/M³ | <0.05 | <0.05 | <0.05 |
| As ng/M³ | <0.05 | <0.05 | <0.05 |
| Ni ng/M³ | <0.05 | <0.05 | <0.05 |

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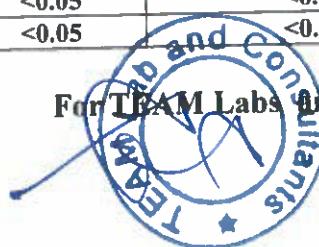
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TEST REPORT

| | | | | |
|---|---|---------------------------------------|----------------------------|--|
| Test Report No. | TLC/V/Env/CIL/17/1124 | | dt.02.12.2024 | |
| 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 ofNOVEMBER-2024 | | | |
| Summary of Ambient Air quality Monitoring Data for the Month of NOVEMBER-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 | 32 | 35 | 33 |
| | Maximum | 41 | 42 | 41 |
| | 98%tile | 41 | 42 | 41 |
| | Average | 37 | 39 | 37 |
| PM 10 $\mu\text{g}/\text{M}^3$ | Minimum | 66 | 69 | 64 |
| | Maximum | 80 | 84 | 78 |
| | 98%tile | 80 | 84 | 78 |
| | Average | 74 | 76 | 73 |
| SO ₂ $\mu\text{g}/\text{M}^3$ | Minimum | 15.0 | 20.5 | 14.2 |
| | Maximum | 23.0 | 25.4 | 16.6 |
| | Average | 19.5 | 23.3 | 15.5 |
| | 98%tile | 23.0 | 25.4 | 16.6 |
| NO _x $\mu\text{g}/\text{M}^3$ | Minimum | 17.4 | 20.9 | 16.3 |
| | Maximum | 22.7 | 25.5 | 19.5 |
| | 98%tile | 22.7 | 25.5 | 19.5 |
| | Average | 20.3 | 22.9 | 17.5 |
| NH ₃ mg/M^3 | Minimum | 0.020 | 0.04 | 0.02 |
| | Maximum | 0.04 | 0.06 | 0.03 |
| | 98%tile | 0.04 | 0.06 | 0.03 |
| | Average | 0.035 | 0.046 | 0.025 |
| O ₃ $\mu\text{g}/\text{M}^3$ | Minimum | 15 | 16 | 15 |
| | Maximum | 22 | 24 | 20 |
| | 98%tile | 22 | 24 | 20 |
| | Average | 19 | 21 | 17 |
| CO mg/M^3 | Minimum | 0.1 | 0.2 | 0.1 |
| | Maximum | 0.3 | 0.3 | 0.3 |
| | 98%tile | 0.3 | 0.3 | 0.3 |
| | Average | 0.22 | 0.25 | 0.2 |
| Pb $\mu\text{g}/\text{M}^3$ | <0.05 | <0.05 | <0.05 | <0.05 |
| C6H6 ng/M^3 | <0.05 | <0.05 | <0.05 | <0.05 |
| B(a)P ng/M^3 | <0.05 | <0.05 | <0.05 | <0.05 |
| As ng/M^3 | <0.05 | <0.05 | <0.05 | <0.05 |
| Ni ng/M^3 | <0.05 | <0.05 | <0.05 | <0.05 |

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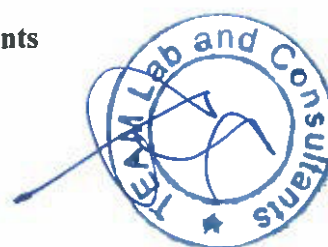
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TEST REPORT

| | | |
|----------------------|---|----------------------------|
| Test Report No | TLC/V/Env/CIL/30C/1124 | DATE 02-12-2024 |
| Description of Test | Noise Level Monitoring | |
| Name of the client | Coromandel International Limited, Visakhapatnam | |
| Location of sampling | Asper details provided | |
| Date of collection | NOVEMBER - 2024 | |
| | LOCATION / AREA | NOISE LEVEL LIMITI (70 dB) |
| Night | 1St Gate | 50 |
| | 2nd Gate | 54 |
| | 3rd Gate (Plant) | 56 |
| | 4th Gate | 52 |
| | 5th Gate | 50 |
| | 6th Gate | 52 |
| | 7th Gate | 54 |
| | 8th Gate | 51 |
| | 9th Gate | 61 |
| | Contractor gate | 50 |
| Day | | NOISE LEVEL LIMITI (75 dB) |
| | 1St Gate | 62 |
| | 2nd Gate | 60 |
| | 3rd Gate (Plant) | 65 |
| | 4th Gate | 61 |
| | 5th Gate | 60 |
| | 6th Gate | 65 |
| | 7th Gate | 60 |
| | 8th Gate | 63 |
| | 9th Gate | 60 |
| | Contractor gate | 61 |

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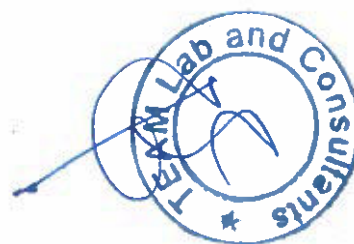
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| | | |
|----------------------|---|----------------------------|
| Test Report No | TLC/V/Env/CIL/30E/1124 | DATE 02-12-2024 |
| Description of Test | Noise Level Monitoring | |
| Name of the client | Coromandel International Limited, Visakhapatnam | |
| Location of sampling | Asper details provided | |
| Date of collection | NOVEMBER - 2024 | |
| | LOCATION / AREA | NOISE LEVEL LIMITI (70dB) |
| | VST Terminal | |
| Night | Storage Trucks Area | 52 |
| | Control Room | 46 |
| | VST Gate | 50 |
| | Transformer Area | 58 |
| | | NOISE LEVEL LIMITI (75 dB) |
| Day | Storage Trucks Area | 60 |
| | Control Room | 62 |
| | VST Gate | 61 |
| | Transformer Area | 69 |

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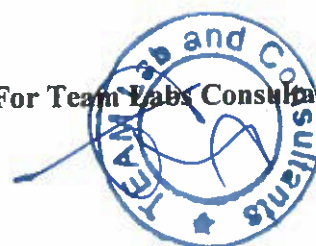
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| | | |
|----------------------|---|----------------------------|
| Test Report No | TLC/V/Env/CIL/30D/1124 | DATE 02-12-2024 |
| Description of Test | Noise Level Monitoring | |
| Name of the client | Coromandel International Limited, Visakhapatnam | |
| Location of sampling | Asper details provided | |
| Date of collection | NOVEMBER - 2024 | |
| | LOCATION / AREA | NOISE LEVEL LIMITI (70dB) |
| WHARF | | |
| Night | Control Room | 40 |
| | Trucks loading Area | 52 |
| | Boiler Area | 62 |
| | Bearth Area | 60 |
| | | NOISE LEVEL LIMITI (75 dB) |
| Day | Control Room | 66 |
| | Trucks loading Area | 65 |
| | Boiler Area | 60 |
| | Bearth Area | 69 |

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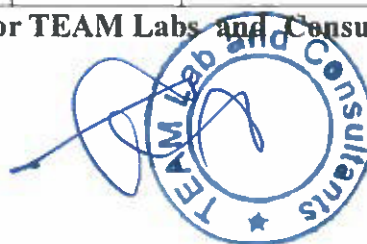
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TEST REPORT

| | | | | | |
|--|--|---|-------|---------|----------------------|
| Test Report No. | | TLC/V/Env/CFL/22/0824 | | | dt.02.12.2024 |
| 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 | | 16.11.2024 | | | |
| Analysis report of STP Outlet water for the Month of NOVEMBER-2024 | | | | | |
| 1 | PH | | 7.6 | 6.5-8.5 | IS:3025 Part 11-1983 |
| 2 | Total Suspended Solids | mg/l | 18 | 100 | IS:3025 Part 17-1984 |
| 3 | Oil & Grease | mg/l | NIL | 10 | IS:3025 Part 39-1991 |
| 4 | Ammonical Nitrogen | mg/l | 5.5 | 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 ⁶⁺ | mg/l | <0.02 | 0.1 | SM3125 |
| 12 | Total Chromium | mg/l | <0.01 | 2.0 | SM3125 |
| 13 | Fluoride as F ⁻ | mg/l | 0.5 | 10 | SM 4500 F- D |
| 14 | Phosphates as P | mg/l | 0.2 | 5 | APHA4500D |
| 15 | BOD | mg/l | 17 | 30 | IS:3025 Part 44-1993 |
| 16 | COD | mg/l | 75 | 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 | 500 | <1000 | |

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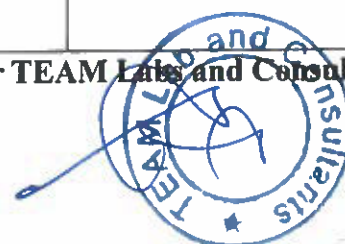
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TEST REPORT

| | | | | | |
|---|--|---|------------|-------------|----------------------|
| Test Report No. | | TLC/V/Env/CFL/24/1124 | | | dt.02.11.2024 |
| 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 | | 16-11-2024 | | | |
| Analysis report of ETP Outlet water for the Month of – NOVEMBER -2024 | | | | | |
| S.No | Parameter | units | ETP Outlet | APPCB LIMIT | Protocol |
| 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 | 12 | 50 | APHA4500C |
| 5 | Free Ammonical Nitrogen | mg/l | 0.2 | 4.0 | APHA4500C |
| 6 | Total Kjeldal Nitrogen | mg/l | 30 | 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 | 1.0 | 10 | SM 4500 F- D |
| 14 | Phosphates as P | mg/l | 0.8 | 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 | 30 | NA | |

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TEST REPORT

| | | | |
|----------------------------------|-------------------|--|----------------------|
| Test Report No | | TLC/V/Env/CFL/21A/1124 | dt.02.12.2024 |
| 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 | 22.11.2024 | CFL - colony | 0.4 |
| 2 | " | Near4 OP Gate | 0.5 |
| 3 | " | Near 7th gate | 0.4 |
| 4 | " | CRC | 0.5 |
| | | IS10500 Permissible limit | 1.5 |
| Protocol | | | SM 4500 F- D |

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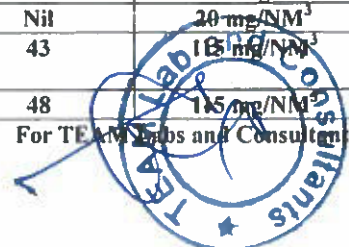
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TEST REPORT

| | | | | | |
|---|----------------------------------|---|--------------------|--|--------------------------|
| Test Report No | | TLC/V/Env/CIL/16/1124 | | dt.02.12.2024 | |
| 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 OFNOVEMBER-2024 | | | | | |
| S.No. | Stack attached to | Flow rate NM ³ /Hr | parameters | Conc. mg/NM ³ | APPCB Standard Limit |
| 1 | Complex A | 282609 | Particulate matter | 18 | 45 mg/NM ³ |
| | | | Ammonia | 62 | 165.0 mg/NM ³ |
| | | | Fluoride | 0.9 | 4.0 mg/NM ³ |
| 2 | Complex B | 257666 | Particulate matter | 18 | 45 mg/NM ³ |
| | | | Ammonia | 68 | 165.0 mg/NM ³ |
| | | | Fluoride | 1.0 | 4.0 mg/NM ³ |
| 3 | Complex C | 215727 | Particulate matter | 20 | 45 mg/NM ³ |
| | | | Ammonia | 48 | 165.0 mg/NM ³ |
| | | | Fluoride | 1.1 | 4.0 mg/NM ³ |
| 4 | Sulphuric acid plant- 1 | 97903 | Sulphur dioxide | 0.304Kg/MT (220mg/NM ³) | 1 Kg/MT |
| | | | Sulphur trioxide | 0.028Kg/MT (20mg/NM ³) | 0.35 Kg/MT |
| | | | Acid mist | Nil | 20 mg/NM ³ |
| 5 | Sulphuric acid plant- II | 26619 | Sulphur dioxide | 0.167Kg/MT (105mg/NM ³) | 0.65 Kg/MT |
| | | | Sulphur trioxide | Nil | 0.35 Kg/MT |
| | | | Acid mist | Nil | 20 mg/NM ³ |
| 6 | Phosphoric acid plant-1 | 131104 | Particulate matter | 28 | 50 mg/NM ³ |
| | | | Fluoride | 4.3 | 20 mg/NM ³ |
| 7 | Rock grinding unit (N-1)PAAP1 | 6653 | Particulate matter | 42 | 50 mg/NM ³ |
| | | | Total Fluoride | 3.8 | 20 mg/NM ³ |
| 8 | Rock grinding unit (N-3)PAAP2 | 7067 | Particulate matter | 35 | 50 mg/NM ³ |
| | | | Total Fluoride | 3.1 | 20 mg/NM ³ |
| 9 | Wharf Boiler | 10769 | Particulate matter | 42 | 115 mg/NM ³ |
| 10 | Phosphoric acid plant-2 | 37794 | Particulate matter | 30 | 50 mg/NM ³ |
| | | | Total Fluoride | 3.9 | 20 mg/NM ³ |
| 11 | Rock grinding unit (N-2)PAP1 | 6237 | Particulate matter | 47 | 50 mg/NM ³ |
| | | | Total Fluoride | 4.0 | 20 mg/NM ³ |
| 12 | New SAP-3 | 47948 | Sulphur dioxide | 0.041Kg/MT (60mg/NM ³) | 1 Kg/MT |
| | | | Sulphur trioxide | Nil | 0.35 Kg/MT |
| | | | Acid mist | Nil | 20 mg/NM ³ |
| 13 | DG1 | 11426 | Particulate matter | 43 | 115 mg/NM ³ |
| 14 | DG2 | 1180 | Particulate matter | 48 | 115 mg/NM ³ |

For TEAM Labs and Consultants



Labs and Consultants**Registered Office :**

B-115, 116, 117 & 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/21/1124 | | dt.02.12.2024 | |
| 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 | | 20.11.2024 | | | |
| NO | Location of well | pH | PO4 mgpl | F- mgpl | Ammonical Nitrogen mgpl |
| 1 | Kamaladevi colony-1 | 7.7 | Nil | 0.3 | Nil |
| 2 | Kamaladevi colony-.2 | 7.5 | Nil | 0.2 | Nil |
| 3 | Yeduruvanipalem-1 | 7.5 | Nil | 0.3 | Nil |
| 4 | Yeduruvanipalem-2 | 7.6 | Nil | 0.3 | Nil |
| 5 | Mulagada-1 | 7.5 | Nil | 0.2 | 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





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 : 37AAACC7852K12C

EHS/APPCB/2024-126

13th November 2024

To,

Environmental Engineer
 A.P. Pollution Control Board
 Regional Office
 Visakhapatnam – 530 018

Sub: Submission of safety audit report by Coromandel International Limited,
 Visakhapatnam –Reg.

Ref: Special condition number 49 in CFO order no: APPCB/VSP/VSP/65/CFO/HO/1967
 Dt:04.08.2023 and Special condition number 27 in wharf area CFO order no:
 APPCB/VSP/VSP/65/HO/CFO/2020 Dt:23.12.2020.

Dear Sir,

This is bringing to your kind information that, we have submitted the safety audit report
 by Coromandel International Limited, Visakhapatnam to the Factories Department Dated
 27.07.2024 and acknowledge received.

The same acknowledgement copy, we are submitting to your good selves as part of
 general condition number 49 in CFO order no: APPCB/VSP/VSP/65/CFO/HO/1967
 Dt:04.08.2023 and Special condition number 27 in Wharf area CFO order no:
 APPCB/VSP/VSP/65/HO/CFO/2020 Dt:23.12.2020.

Hence you are requested to acknowledge receipt of the report.

Yours Truly

For Coromandel International Limited, Visakhapatnam

Gnanasundaram M
Vice President & Head Manufacturing

NAG/DNR
 Enclosure: Annexure:01 Safety audit Compliance report.



EHS/APPCB/2024-126

13th November 2024

To,

Environmental Engineer
A.P. Pollution Control Board
Regional Office
Visakhapatnam – 530 018

Sub: Submission of safety audit report by Coromandel International Limited, Visakhapatnam –Reg.

Ref: Special condition number 49 in CFO order no: APPCB/VSP/VSP/65/CFO/HO/1967 Dt:04.08.2023 and Special condition number 27 in wharf area CFO order no: APPCB/VSP/VSP/65/HO/CFO/2020 Dt:23.12.2020.

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The same acknowledgement copy, we are submitting to your good selves as part of general condition number 49 in CFO order no: APPCB/VSP/VSP/65/CFO/HO/1967 Dt:04.08.2023 and Special condition number 27 in Wharf area CFO order no: APPCB/VSP/VSP/65/HO/CFO/2020 Dt:23.12.2020.

Hence you are requested to acknowledge receipt of the report.

Yours Truly

For Coromandel International Limited, Visakhapatnam



Gnanasundaram M
Vice President & Head Manufacturing


NAG/DNR
Enclosure: Annexure:01 Safety audit Compliance report.

O/C

27.07.2024

EHS/DCIF/2024-25/July-03

To
The Deputy Chief Inspector of Factories,
Door No. 50-50-35/8, Guru Charan Marg,
BS Lay Out, Seetammadhara,
Visakhapatnam - 13.

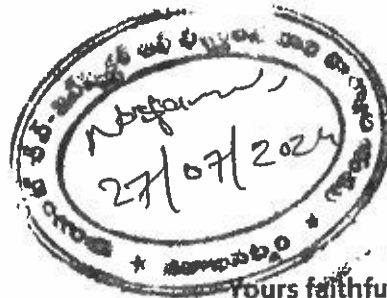
Sub: Submission of External Safety Audit for the year 2024 report & compliance status - Reg.
Ref: Inspection Order Dated : 12.01.2024

Dear Sir,

With reference to the above-mentioned subject, we are here with submitting the External Safety Audit for the year 2024 report conducted by M/s Lumen Engineering Associates at Coromandel International Limited, Visakhapatnam along with compliance status for your records.

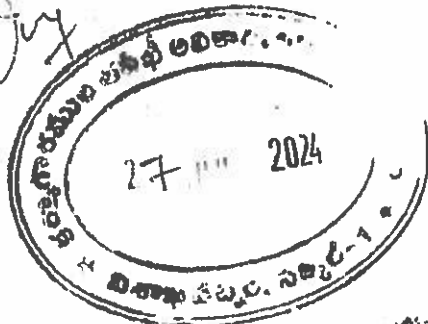
Kindly acknowledge the receipt of the same.

Thanking you Sir,

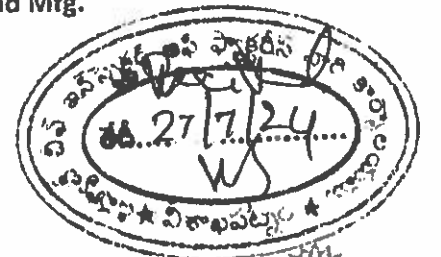


Yours faithfully,
For Coromandel International Limited,

M Gnanasundaram,
VP & Head Mfg.



The Joint Chief Inspector Of Factories, Visakhapatnam.
The Inspector Of Factories, Visakhapatnam.



Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|---|---|
| 1 | Recommending allotting parking area for visitors and other vehicles at wharf silo area and mark pathway for the vehicles and men movement to avoid any incidents. | Noted and will be followed. Parking area for visitors and other vehicles at wharf silo area will be identified and pathway will be marked to avoid incidents. TCD: 31.10.2024 |
| 2 | MSDS in short form (Important precautions) of Ammonia and other chemicals to be displayed. | Complied Mini MSDS / One Page MSDS prepared for ammonia, Phosphoric Acid, Sulphuric Acid and displayed at prominent location. |
| 3 | Walkway Handrails on jetty to be strengthen towards the sea water side. While carrying any work by either contract or permanent staff at the edges of jetty, provide life jackets at the site of activity instead of bringing them from control room after an incident. | Complied Corroded Handrails repair job done, and Life buoys placed at fertilizer berth in case of any untoward incident. |
| 4 | Diesel tank for fire pump to be equipped with a vent and Secondary containment for the diesel tank leaks to be arranged. | Noted and will be followed. Job Planned and targeted to complete the same by TCD - 15.08.2024 |
| 5 | Diesel engine provided for fire water pumps should in auto mode. | Noted and will be followed. Installation of new pumps (Same capacity with enhanced pump head)- procurement under progress. TCD - 30.09.2024 |
| 6 | Signages representing Diesel storage, No Smoking etc., to be displayed. | Complied Signage Boards / Paintings provided. |
| 7 | Painting frequencies to be increased as Corrosion levels are high at Molten sulphur Pipeline supporting structure running along the jetty. | Noted and will be followed. TCD - 31.08.2024 |
| 8 | The contract personnel working at the area are to be briefed about the hazards of ammonia and the control measures to be taken in case of ammonia release and the assembly points they need to go in case of emergency. | Complied Hazards of ammonia and control measures are being briefed in daily pep talks and also during ammonia ship unloading in presence of Operations team and Safety team. |
| 9 | Regular Painting to be done to avoid Conveyor structure corrosion which was observed during audit rounds. | Noted and will be followed : TCD - 10.08.2024 |
| 10 | Recommending study on Lightening protection for total wharf area by an expert team and implement the recommendations. | Complied Lightening protection study has been carried out for overall plant. |

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|---|---|
| 11 | Maintaining checklist prior to the Ammonia ship unloading activity is found to be good practice. So also, it is being signed by the Naval officers. | Good practices are being followed |
| 12 | GATE # 8, damaged boundary wall observed leading to trespassing into the approved factory premises. | Noted and will be followed. Temporary fencing done and construction of boundary wall being followed by IOCL. TCD- 30.12.2024 |
| 13 | GATE#8, New rock Silo - Civil reinforcement rods are exposed around the silo. Stability of the silo is at stake. | Noted and will be followed. Scaffolding work initiated for Civil works at silo area TCD: 30.10.2024 |
| 14 | Gate No#8: Rock silo vertical ladder is corroded. All vertical ladders are to be provided with vertical life lines with fall arresters. | Noted and will be followed. Work initiated and under progress. TCD-30.08.2024 |
| 15 | Recommended to provide water curtain/mist system at crossover bridge at Gate No:8&9. | Complied water curtain provided crossover bridge at Gate No:8&9. |
| 16 | Zebra lines are to be marked with display boards on the road at | Complied Zebra lines marked & Safety Signages displayed |
| 17 | Which are the rooms are not having stability certification by the competent person under Rule 12c of Factories Rules. | Complied Stability certification done by the competent person under Rule 12c of Factories Rules. |
| 18 | Authorized person, electrical license holders list is not displayed in any of the MCC , panel rooms. | Complied License holders displayed. |
| 19 | Wharf transformer area - walk way blocked. (cut tree branches and vegetation) | Complied Debris cleared and Vegetation removed. Walkway is now clear. |
| 20 | Silica gel not in good condition at the breather of transformer | Complied. Silica gel replaced. |
| 21 | 250 KV - DG set exhaust not as per the PCB - stack height norms. | Noted and will be followed. Work initiated TCD: 30.12.2024 |
| 22 | WHARF berth area (ELECTRICAL Panel beside - FIRE WATER DIESEL ENGINE) - no rubber mat. Panel is exposed to rain water splashing. | Complied Rubber mat provided. |
| 23 | Nitrogen vessels, air receiver tanks and adsorbers are to be tested and certified by the competent person under Rule-56 of Factories Rules. | Complied. Inspection is carrying out by certified competent person in regular intervals as per AP factory rule |

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|--|--|
| | | 56. Thickness monitoring: Once in every 6 months. Hydrotest: Once in every 2 years. |
| 24 | Safety relief valves are to be tested and record is to be maintained. | Complied Safety relief valves tested by competent person and records being maintained. |
| 25 | Fire hydrant line at this area is corroded, required to be updated. | Complied Fire hydrant line painting works under progress TCD:30.09.2024 |
| 26 | Air Receivers, Nitrogen receives, pressure plants are to be hydrostatically tested and certified by the competent person once in two years as per Rule-56 of Factories Rules, if the equipment is under factories approved plan. | Complied. Inspection is carrying out by certified competent person in regular intervals as per AP factory rule 56. Thickness monitoring: Once in every 6 months. Hydrotest: Once in every 2 years. |
| 27 | It the equipment's falls under dock area: all the equipment's like lifting equipment's, safety belts, pressure vessels, Hoses, Lifting Cages, pipe lines, etc., to be certified by the Dock Labour Act. | Complied. Inspection is carrying out by Dock safety certified competent person in regular intervals. Thickness monitoring: Once in every 6 months. Hydrotest: Once in every 2 years. |
| 28 | Damaged wire rope sling was observed on the rack at jetty. | Complied. Removed and sent to scrap yard for disposal through assembly. |
| 29 | Recommended to have Air/Gas tight cabins/control rooms for the persons who are continuously on the jetty may get direct exposure to the ammonia. | Noted and will be followed. Suitable vendor will be explored for Air/Gas tight cabins/control rooms at jetty area. TCD – April 2025 |
| 30 | Auto water curtain/mist system is required to be provided at MOV. | Noted and will be followed. MOV procurement under progress. In Meanwhile provided with manual isolation valve. TCD-30.09.2024 |
| 31 | Molten Sulphur Tanks: H ₂ S gas detection with alarm system is required to be provided at the top of the tank. | Noted and will be followed. Portable gas detectors are readily available. Procurement of fixed gas detectors will be installed TCD- 30.11.2024 |
| 32 | Molten Sulphur Tanks: Dry creepers running on live electrical lines could lead to fire hazard, | Complied. |

Coromandel International Limited, Visakhapatnam

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|--|--|
| | recommending exterminating dry grass creeping onto electrical lines. | Regular maintenances were done and being followed. |
| 33 | Molten Sulphur Tanks: Vegetation around the Tanks to be scrapped at regular intervals or Consider paving the area with cement / concrete, to avoid vegetation growth. | Complied. Being followed |
| 34 | Auto CO2 flooding system is recommended to provided for all electrical panels. | Noted and will be followed. Installation of fire suppression system at AAST Area works started. TCD: 30.03.2025 |
| 35 | LSHS & LDO tanks : flooring is required to be done inside the dyke (Wharf). | Noted and will be followed. Budget estimated and work initiated for flooring inside dyke area. TCD:30.11.2024 |
| 36 | Boiler control room: smoke detection with alarm system is to be provided. | Noted and will be followed. Smoke detectors procurement in progress TCD: 30.10.2024 |
| 37 | Ammonia Storage Tanks are to be provided with water curtain/Mist system to cover the entire tank from top to bottom. | Complied. Provided the Water curtain and Oscillating Monitor system as per M/S Chola Design and Risk assessment. |
| 38 | It is strongly recommended that an advanced continues monitoring system to be adopted for the entire ammonia pipeline from jetty to plant. | Noted and will be evaluated. Evaluation and Discussions for the proposal in progress TCD:30.03.2025 |
| 39 | It was observed that at present condition monitoring system of the ammonia pipe lines , ammonia tanks, valves and other ammonia handling equipments found to be not as per the inspection standards. | Complied. Inspection is carrying out by Dock safety certified competent person in regular intervals.Thickness monitoring: Once in every 6 months.Hydrotest: Once in every 2 years. |
| 40 | All the pressure vessels or plant are to be certified by the competent person as per Rule-56 of A.P.Factories Rules. | Complied |
| 41 | Quantitative risk assessment is required to be conducted for the ammonia handling system with various scenarios including worst case scenario. | Noted and will be followed. Quantitative risk assessment by M/s DNV is Under progress (Site assessment completed and report preparation is under progress). TCD: 30.11.2024 |

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|--|--|
| 42 | Recommended to weld the primary flanges at the top of the AAST. | Noted and will be followed. Planned during De-commissioning of Ammonia tank TCD:30.05.2025 |
| 43 | All the safety relief valves provided in ammonia handling system are to be tested and to be certified by the competent person at least once in a year. | Complied. Safety relief valves are testing once in a year and witnessing by competent person. |
| 44 | Ship unloading control station sprinkler system is corroded, it is to be attended. | Complied Painting completed for the corroded area. |
| 45 | Walk way supporting legs and other fitting which are corroded are to be replaced at the earliest at the top of the tanks. | Noted and will be followed. Planned during De-commissioning of Ammonia tank TCD:30.05.2025 |
| 46 | Ammonia receiver and condenser at compressor area are to be provided with water curtain system. | Complied Water curtain provided. |
| 47 | Recommending reviewing painting intervals to avoid Flair stack structure corrosion. | Complied. Paintings intervals being reviewed. |
| 48 | SOP's of safe handling of LPG and Signages denoting storage of LPG, Do's and Don'ts along with No-smoking to be displayed. | Complied. Safety signages provided. |
| 49 | Sprinkler system above LPG cylinders to be studied. | Complied. Manual water Sprinklers provided. |
| 50 | Flange bonding is required to be provided for LPG pipe line flanges. | Noted and will be followed. Few damaged flanges bonding were replaced and remaining will be completed. TCD:30.08.2024 |
| 51 | Non destructive testing to be conducted for all LPG pipe lines to know the condition of the pipe lines. | Complied. Visual inspection for every 6 months, and thickness monitoring, NDT for every 2 years as per PSMS. |
| 52 | Hydrostatic pressure testing to be conducted at least once in five years for the LPG pipe lines and record is to be maintained. | Noted and will be followed. TCD: April 2025 |
| 53 | Safe Unloading procedure need to be displayed in bilingual language which could be understand by locals and others. | Noted and will be followed. Procedure available and same will be displayed in bilingual language. TD: 15.09.2024 |

Coromandel International Limited, Visakhapatnam

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|---|--|
| 54 | Corrode flanges won't be allowing static discharge, recommending replacing MS flanges with SS to allow static continuity. | Noted and will be evaluated. |
| 55 | Lightening arrestors to be marked on a plant layout individually according to the installed locations with covering diameter to get a clear understanding that total plant locations are covered and protected from lightening. | Noted and will be evaluated TCD 28.09.2024 |
| 56 | All the pipelines need to be painted according to IS-2379-1990 along with flow directions. | Noted and will be followed. TCD : 10.08.2024 |
| 57 | Condition monitoring of all storage tanks and Pipe lines to be monitored at regular intervals like NDT tests like Di-penetration test. | Complied Visual inspection for every 6 months, and thickness monitoring, NDT for every 4 years as per PSMS. |
| 58 | As tanks roof condition may not estimated, recommending in providing separate walkway to reach maintenance areas at top of the tanks. | Complied For sulphuric acid tanks, We are using robotic crawler for accessing the thickness of the tank roofs wherever platforms not available. |
| 60 | Lots of vegetation growth and tall trees are inside the PESO approved tank farm area -LSHS Tank Area | Complied. All Trees are cut removed and fencing installed as per PESO guidelines. |
| 61 | Hand rail on the top of the storage tanks are corroded, it is to be replaced-LSHS ,HSD tank area -TG/DG area. | Noted and will be followed. Corroded handrails will be replaced. Work initiated. TCD: 25.08.2024 |
| 62 | Hazard Analysis and Risk Assessment (HARA) report with various threat zones is required to be prepared and implemented. | Complied. |
| 63 | PESO license with expiry date is required to be displayed on the tank. | Complied. Displayed on PESO tanks at SAP3 area. |
| 64 | Tank area flooring is required to be done inside the dyke. | Complied. Flooring provided for kerosene tank. |
| 65 | SOP's of safe handling of LPG and Signages denoting storage of LPG, Do's and Don'ts along with No-smoking to be displayed. | Complied. Safety signages provided. |
| 66 | Sprinkler system is required to be provided inside the LPG storage cylinders. | Complied Manual Sprinklers provided |

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|---|--|
| 67 | License is required to be displayed at the entrance of the room | Complied. Displayed PESO license. |
| 68 | Recommended to provided static discharge pads before entering into room. | Noted and will be followed. TCD - 30.09.2024 |
| 69 | Door earthing is required to be done for main door of the storage room. | Complied. |
| 70 | LPG leak detector calibration tag is to be maintained. | Complied. Tag Provided. |
| 71 | Cylinders are to be chained. | Noted and will be followed. Work in progress TCD: 10.08.2024 |
| 72 | Noise levels to be Monitored, recorded and displayed at all locations with PPE (ear plugs) if necessary. | Complied. |
| 73 | Sulphuric acid piping flange guards are found damaged / hanging out of the flange, at some locations, recommending replacing the same. | Complied |
| 74 | It was observed that batteries are at C-Train control room, These batteries are to keep in separate room. | Noted and will be followed. Action for Separate room for batteries are planned. TCD: 30.11.2024 |
| 75 | Ammonia flow control station & pressure control valve station: it is required to provided water curtain system and safety relief valves are to be tested, record is to be maintained. | Complied |
| 76 | Driers are to be certified by the competent person under Rule-61O of A.P. Factories Rules. | Complied Complex Dryer is not suitable for Rule 61(O) because it is not a flammable or explosive mixture of air and a flammable substance. Hot air is used as the drying medium, and there is no fuel or combustion process, eliminating any scope for an explosive mixture. |
| 77 | Usage of Wheel chocks to be mandatory during unloading molten sulphur and also a horizontal lifeline for hooking Full body harness during climbing onto vehicle. | Noted and will be followed. Usage of Wheel chocks are using as mandatory during unloading molten sulphur and Horizontal lifeline for hooking Safety harness planned : TCD :April 2025 |
| 78 | It was observed that wheel blocks are not provided to the truck unloading the molten sulphur. Provide | Noted and will be followed. TCD : 20.08.2024 |

Coromandel International Limited, Visakhapatnam

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|--|--|
| | instructions display at the area regarding unloading of the molten sulphur and also hazards during unloading of molten sulphur. Also consider a horizontal life line for hooking Full body harness during climbing onto vehicle. | |
| 79 | Dyke volume is required to be maintained based on the number of tanks and capacities. | Noted and will be followed. Detailed study for dyke volume calculations under progress with technical team TCD: 30.04.2025 |
| 80 | Safe handling procedure need to be displayed in bilingual language which could be understand by locals and others. | Complied Displayed Safe handling procedure |
| 81 | Consider providing life lines with fall arrestor system for opening man holes of road tankers. | Noted and will be followed. Lifeline system provided at bagging trucks area and road tankers will be initiated. TCD: April 2025 |
| 82 | Condition monitoring of all storage tanks and Pipe lines to be monitored at regular intervals like NDT tests like Di-penetration test. | Complied. Visual inspection for every 6 months, and thickness monitoring, NDT for every 4 years as per PSMS. |
| 83 | All chemical storage tanks, pipe lines are to be tested and certified by the competent person under Schedule XV, Rule-95 of A.P>Factories Rules. | Complied. Inspection is carrying out for every 2 years by certified competent person. |
| 84 | Consider preparing and displaying Compatibility chart at all Raw material stores and basing on it stacking to be initiated. | Complied Displayed the compatibility chart at prominent locations |
| 85 | Firefighting facilities are required to be provided as per the standard requirements. | Noted and will be followed. Projects of Fire Hydrant Phase 2A and 2B under progress. TCD: 30.11.2024 |
| 86 | Storage racks are to be tested and certified by the competent person. | Noted and will be followed. TCD : 20.08.2024 |
| 87 | Material handling procedure is to be developed for various type of materials.Cold room: It is required to have through study on safety of materials storage inside the cold room | Noted and will be followed. Study on cold room storage will be carried out TCD:30.12.2024 |
| 88 | 1. As per Building Regulations Act 1989, buildings below 15 years of age, need to obtain Stability | Complied |

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|---|--|
| | Certificate once in every 5 years and if the buildings are above 15 years of age need to obtain Stability Certificate once in every 3 years, So Consider conducting Structural Stability tests for buildings accordingly by a Factories department approved competent person. | As per PSMS - sop once in 3 years we are taking stability certification from 3rd party approved agency from IF. |
| 89 | Recommending conducting Illumination, Noise and Ventilation survey reports at necessary locations | Complied. Being carried out |
| 91 | According to Factories rules-56 , all air receivers/pressure vessels must be Hydro tested once in every two years in presence of Competent person. | Complied. |
| 92 | All chemical storage tanks must be certified by a competent person | Complied. Inspection is carrying out for every 2 years by certified competent person. |
| 93 | Recommending integrity check for all pipe lines at regular intervals . | Complied. Visual inspection for every 6 months, and thickness monitoring, NDT for every 4 years as per PSMS. |
| 94 | It was observed that one of the hydraulic mobile crane not meeting the required safety standards. | Noted will be evaluated. Procurement of all Spares parts under progress. TCD: 30.10.2024 |
| 95 | Smoke detectors with alarm system could be placed inside all Electrical panel rooms. | Complied |
| 96 | Conducting Thermography tests for Electrical cables could lend a hand in identifying heat generating at joints and terminations | Complied |
| 97 | consider conducting Arc Flash analysis and marking threat zones on ground in front of electrical panels. | Noted and will be followed. Arc flash study will be conducted 2024 TCD:30.11.2024 |
| 98 | Lightening arrestors to be marked on a plant layout individually according to the installed locations with covering diameter to get a clear understanding that total plant locations are covered and protected from lightening. | Complied |
| 99 | All license holders names with contact numbers to be displayed in MCC rooms. | Complied |

Coromandel International Limited, Visakhapatnam
Compliance report – Statutory Safety Audit
(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|--|---|
| 100 | Recommending pasting of Inspiring Road Safety Signage's with Speed limit boards at entrance of the factory | Complied |
| 101 | Road crossing systems like Zebra crossing system, pedestrian walk ways to be implemented at all intersections | Complied |
| 102 | Speed control bumps/speed breakers needs to be places at critical turnings & People crossings. | Complied |
| 103 | Convex mirrors at blind corners needs to be placed. | Complied |
| 104 | According to Factories rules entire plant evacuation mock drills are being conducted once in every six months. But still some lapses are observed, it is to be strengthen. | Complied Awareness training provided to employees and contract workmen on ERP. |
| 105 | Emergency Siren codes to be displayed at Siren location and other important locations of the plant and also this siren codes to be displayed at security. | Complied Displayed |
| 106 | Recommending improving Personal Protective Equipment usage in the plant. | Complied |
| 107 | Safety goggles adherence is not strictly followed., many areas in the operational zones, Contract workmen are not adhering to wear goggles. | Complied and being followed |
| 108 | EHS dept., does not have a consolidated report of SAFETY BELTS used in the plant., there is no traceability of contractor brought out SAFETY BELTS w.r.t TPI inspection & certification. | Complied |
| 109 | Cotton hand gloves provided for the workmen are not meeting the IS : 6994 (Part 1) - 1973 standards. (SPECIFICATION FOR INDUSTRIAL SAFETY GLOVES PART I : LEATHER AND COTTON GLOVES). | Noted and will be followed. New model canadila hand gloves procurement under progress. TCD:20.08.2024 |
| 110 | Existing Fire Hydrant system is inadequate, there should a thorough study on fire hydrant system and implementation. | Complied Hydraulic Analysis and Study design completed by M/S Chola. |
| 111 | Consider conducting Fire load calculations according to IS-15301:2003, and NFPA-557, to know the fire load in the plant and for updating the hydrant system. | Complied Water Demand Calculation Report Available. |
| 112 | Approach towards all Hydrant and Monitor points should be made clear with a platform to operate at hydrant and monitor points. | Complied |

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|--|--|
| 113 | F-rods could be hanged at all hydrant point for operating the hydrant wheel at ease during emergencies. | Complied. |
| 114 | The Current trailer pump is found to be multiple mechanical breakdowns due to diesel engine - residual life. The suction side of the pump is subjected to frequent failure. Recommendation to evalaute the procurement of new Fire Trailer Pump, considering as one of the Safety Critical equipment for the Factory. | Complied Presently Pump Overhauling done by Garage and Assembly team, Now its in Working condition. |
| 115 | In view of the expanded plant operational zones adding SAP#3 & DESALINATION plant areas and the increased work load w.r.t no. of fire inspections carried out by the existing team of 17 fire team personnel are insufficient. Recommended to increase the manpower turn per tender / 04 persons shift i.e., with 02 fire tenders , 08 Fire crew & 01 leading fire man = 09 persons/shift , Fire team. | Noted and will be followed. Proposed for the Manpower at higher authorities. TCD:30.04.2025 |
| 116 | Recommending high Visibility Jackets for all Security personals for clear identification during nights. | Complied |
| 117 | And also hand operating signal lights (LED baton) could be procured for Security personnel for night operations. | Complied |
| 118 | Recommending conducting frequent mock drills and ensuring headcount availability with the security, making them flawless during real emergencies. | Complied |
| 119 | License obtained from Dy Chief Inspector of factories with approved HP 83117.70 HP, but the actual HP during the latest Factory plan approval - LAE05-11021(35)/15/2024-A SEC-DOF, dated: 01/02/2024 is stated as 83447.3 HP. There is a variation of 330 HP. Amend the Factory license, with the increase in HP. | Noted and will be followed. Work in progress TCD: 10.08.2024 |
| 120 | Ventilation study of the LFP bottling plant to be carried (NANO DAP) bottling plant. Production line vapours generation is observed. (mild Ammonia vapors) - DAP section - water dissolving stage free ammonia will prevail. through study & checks on the Stability of the soil to be done and suitable measures to be adopted. | Noted and will be followed. Noted will be taken in the calendar year TCD: April 2025 |

Coromandel International Limited, Visakhapatnam

Compliance report – Statutory Safety Audit

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| S. No | Observations and Suggested Recommendations | Action Plan |
|-------|--|--|
| 121 | Certain areas of the Factory, poor illumination is observed in GARAGE AREA, DG/TG - PESO storage facility. Illumination survey report to be furnished stating that ILLUMINATION LEVELS of all those interior parts of a factory where persons are regularly employed shall not be less than 65 LUX. | Complied |
| 122 | The factory is consisting of 28 sheds used for various raw material, finish product storage, warehouse, workshop etc., the roofing of the sheds are Asbestos / metal roof sheeting Not adequate arrangement for fixed roof lifeline system over the roof for secure workmen movement. Fixed roof lifeline system , must be implemented towards securing of workmen working over the fragile roofs. | Noted and will be followed. Phase wise implementation started fixed roof line system is under progress TCD:30.04.2025 |
| 123 | The LOCO engine (CIL - Asset) is having issue with brakes. The locomotive brakes are not working properly. | Complied We had adjusted the Brake levers length and replaced all Brake shoes with new. Now Brakes are working normal. |
| 124 | The LOCO engine (CIL - Asset) is observed with running speed more than the permitted 7 km/hr as per the standards. | Complied |
| 125 | Gate#6 - railway level crossing at : Swinging gate and blinking light with Alram provision gate#7 (HPCL) - railway level crossing at : Swinging gate and blinking light with Alram provision. | Noted and will be followed. We have already installed it at Gate 5 with all requirements. It is currently under observation. Furthermore, we are planning installations at Gates 6 and 7. TCD: 30.03.2025 |
| 126 | It is an important that all the legal requirements are required to be maintained centralised and localised. These requirements are to be monitored by the any one of the department head. | Noted and will be followed. Law orbit software compliance is rolled out where in all the legal requirements required are maintained centralised and localised. Monitoring done through online TCD:30.12.2024 |