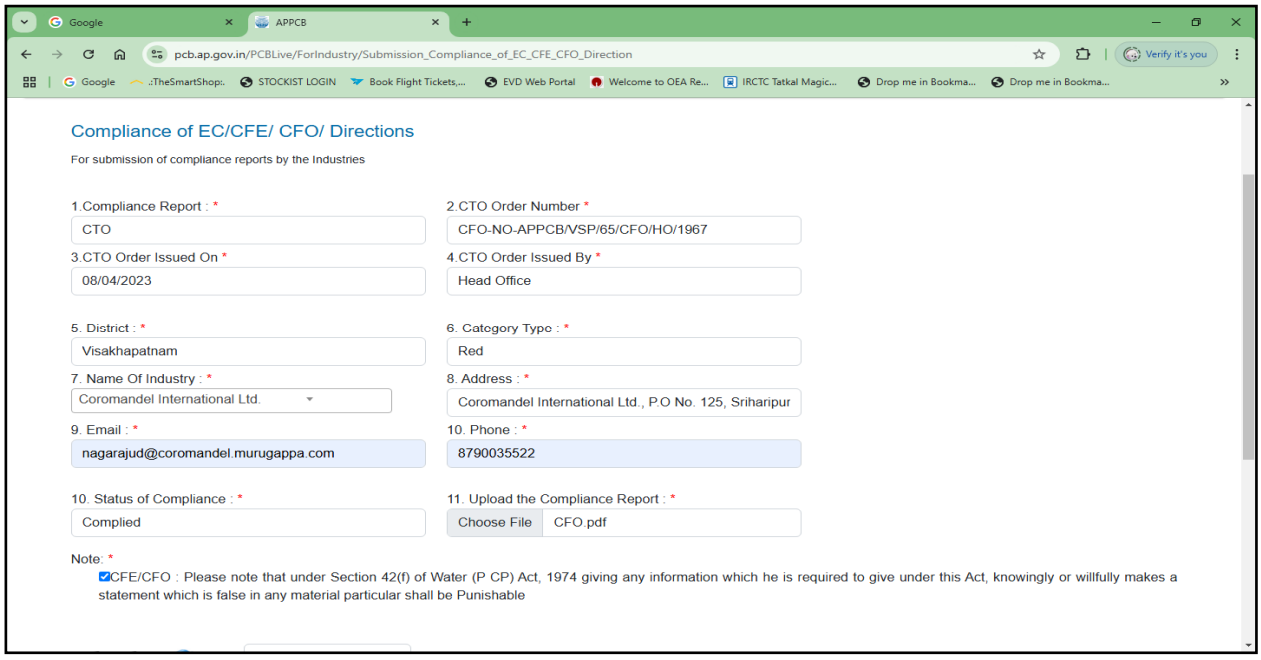
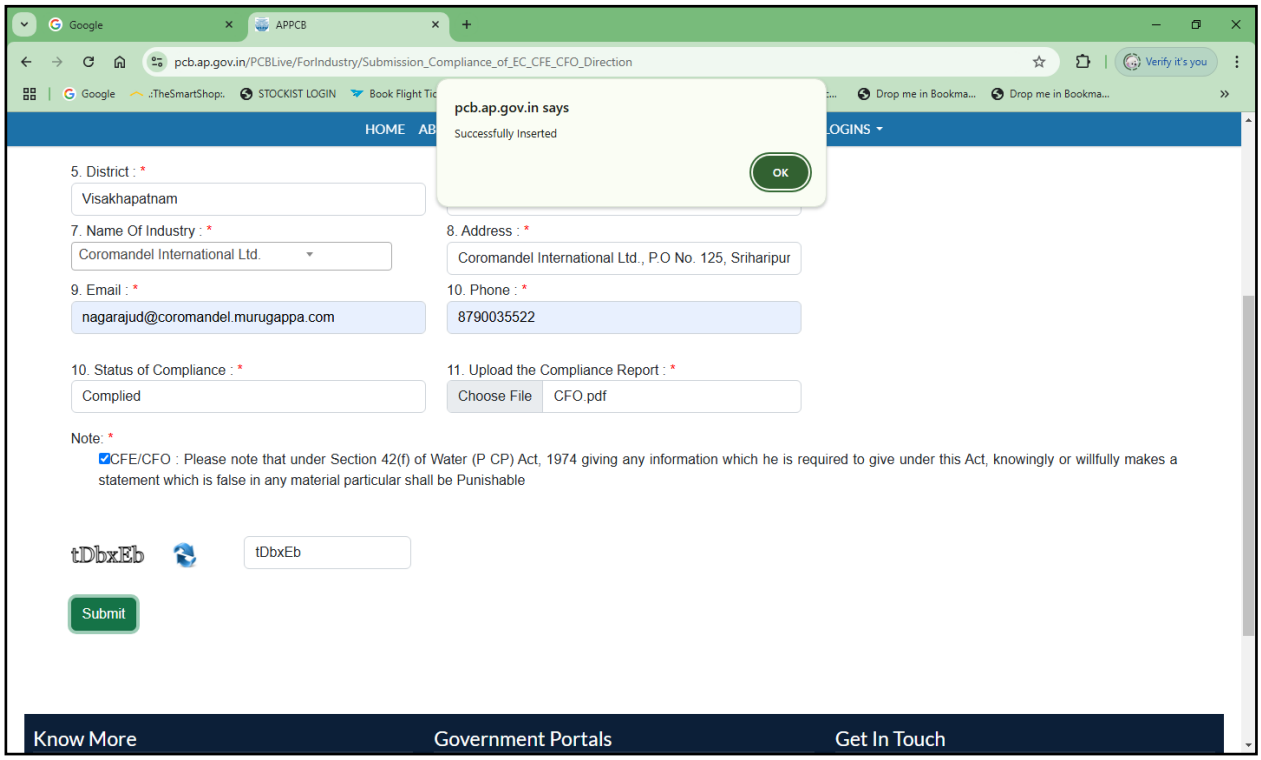
CFO - Main Plant Date: 04-08-2023

CFO-NO-APPCB/VSP/65/CFO/HO/1967 Date: 04-08-2023





Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024 - 150 **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 for Consent for Operation order Issued for manufacturing fertilizers at Sriharipram Unit as on 30.12.2024– Reg

Ref : **1. CFO No - APPCB/VSP/65/CFO/HO/1967 – Date 04/08/2023**
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/65/CFO/HO/1967 - 04/08/2023** of **M/s Coromandel International Limited, Sriharipuram** Visakhapatnam for manufacturing fertilizers duly Certified by **M/s TEAM 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: 1CFO compliance report
2. NABL accreditation Certificate

Registered Office : Coromandel House, 1-2-10
Sardar Patel Road, Secunderabad-500 003
Telangana, India

Tel : 91-40-27842034 / 27847212
Fax : 91-40-27844117
E-mail : mail@coromandel.murugappa.com

murugappa

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 here by 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

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

ENVIRONMENTAL ENGINEER

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

TEAM
Labs and Consultants

Registered Office : B-115, 116, 117 & 509, Annapoorna Block, Aditya Enclave, Ameerpet, Hyderabad - 530038
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Ph. : (O) 0891-2748699, Cell : 9849033397, E-mail : teamlabsvizag@gmail.com

Coromandel International limited, Visakhapatnam

Compliance to Consent for Operation

Consent Order No: APPCB/VSP/65/CFO/HO/1967 - 04/08/2023

From the period of June -2024 to Nov-2024

SCHEDULE-A		
S. No	**Consent condition**	**Compliance**
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 wastewater discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	Complied. The analysis of the wastewater discharged and emissions from chimneys being carried out by MoEFCC& NABL accredited laboratory. Monthly Reports are being submitted by Industry to PCB copy along with analysis reports for the month of Nov-2024 herewith enclosed as **Annexure-01**for r reference and the values found to be within the limits as per the consent.
3	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 for being complied by Industry.
4	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 for being complied by Industry .

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5	The applicant shall submit Environment statement in Form V before 30th September every year as per Rule No.14 of E(P) Rules, 1986 & amendments thereof.	Complied. The environmental statement for the year FY:2023-24 was submitted vide letter no. **EHS/APPCB/2024-97**dated **27-09-2024** Copy of acknowledgment herewith enclosed as **Annexure-02.**
6	The applicant should make applications through Online for renewal of Consent (under Water and Air Acts) and Authorization under HWM Rules 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.	Noted for being complied by Industry
7	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 for being complied by Industry
8	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

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9	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
10	The industry may explore the possibility of tapping the solar energy for their energy requirements.	Noted by Industry
11	The industry should educate the workers and nearby public of possible accidents and remedial measures.	Regular training is being imparted to workers on occupational safety, process safety, environment etcand offsite mock drills are conducted.
SCHEDULE-B		
1	The industry shall provide permanent pipe line arrangement for lifting leachate generated from ETP sludge storage shed to the ETP for treatment	Complied. Submitted vide letter no. **EHS/APPCB/2023-087 date 31-10-2023** Copy of acknowledgment herewith enclosed as **Annexure-3.**
2	The industry shall maintain good housekeeping within the factory premises.	Complied.
3	The industry shall upgrade STP to treat the domestic wastewater of 530 KLD, until then tne industry shall restrict the wastewater generation to 300 KLD, as the industry is having STP of capacity 300 KLD only to treat the wastewater	Noted for being complied by Industry
4	The industry shall furnish emission loads of SO2 & acid mist for all Sulphuric acid	Complied.
5	The industry shall develop balance greenbelt with native species of the total area within 3 months to achieve 33% of greenbelt	Complied.
WATER POLLUTION:		
4	The effluent discharged shall comply with the tolerance limits mentioned below:	Monitored Data by NABL, MOEF accredited Laboratory (Third Party) indicate that the discharges comply with tolerance limits specified

Outlet	Parameter	Limits standards
1 & 2	pH	6.5 – 8.5

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		Ammonical Nitrogen	50 mg/lt
		Free Ammonical Nitrogen	4.0 mg/lt
		Total Kjeldahl nitrogen	75 mg/lt
		Nitrate Nitrogen	20 mg/lt
		Cyanide as CN	0.1 mg/lt
		Vanadium as V	0.2 mg/lt
		Arsenic as As	0.2 mg/lt
		Phosphate as P	5 mg/lt
		Suspended solids	100 mg/lt
		Oil and Grease	10 mg/lt
		Fluoride as F	10 mg/lt
		Hexavalent Chromium as Cr	0.1 mg/lt
		Total Chromium as Cr	2.0 mg/lt
		BOD	30 mg/lt
		COD	250 mg/lt
	Temp:- Not more than 5 degree C higher than intake water		
	3	pH	6.50 – 8.50
		Oil and Grease	10 mg/l
		Biochemical Oxygen Demand	30 mg/l
		Total Suspended Solids	<100 mg/l
		Fecal Coliform (FC) (Most Probable Number per 100 milliliter, MPN/100ml	<1000 MPN/100 ml

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<table>
<tr><td></td><td>Note: i) Chromium salt shall not be used in cooling tower as algaecide.
(ii) The effluentshall be analysed for Vanadium and Arsenic once in a year and analysis report shall be
submitted to the concerned State Pollution Control Board / Pollution Control Committee.</td><td></td></tr>
<tr><td>7.</td><td>The source of water is GVMC & Sea drawl. The following is the permitted waterconsumption:
<table>
<tr><th>S.No</th><th>Purpose</th><th>Quantity (KLD)</th></tr>
<tr><td>1</td><td>Process and washings</td><td rowspan="4">Total – 16600 (Existing 10,350 + SAP3-1800 + PAP2400 KLD) + Expansion= 2050 (SAP - 650+ PAP-1400)</td></tr>
<tr><td>2</td><td>Industrial Cooling (Make up) – Fresh Water (from GVMC or from De-salination plant or combination of both)</td></tr>
<tr><td>3</td><td>Boiler Feed</td></tr>
<tr><td>4</td><td>Domestic & Other</td></tr>
<tr><td></td><td>Sub Total</td><td>16,600</td></tr>
<tr><td>5</td><td>Sea water (Industrial cooling & Desalination Plant of 6 MLD</td><td>84600+16000 = 100600</td></tr>
<tr><td></td><td>Grand Total (KL)</td><td>1,17,200</td></tr>
</table></td><td>Records imply limits Being Complied by Industry</td></tr>
<tr><td>8</td><td>The effluent discharged shall comply with the tolerance limits mentioned as per MoEF notification dated 29.12.2017 prescribed for fertilizer industry.</td><td>complied.</td></tr>
<tr><td>9</td><td>The industry shall maintain the following:
a. Electro Magnetic flow meters with totalisers for water used and effluent generation for different purposes and maintain in CFO Order
b. Proper records for effluent generation, treated, reused and discharged into Meghadrigedda.</td><td>Complied flow meters were provided and records are being maintained</td></tr>
</table>

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	c. Water flow meter at Leachate Collection pit provided for Gypsum storage yard to quantify the effluents recycled and shall maintain registers	
10	The effluents shall be stored in above ground level collection tanks separately.	Complied. All the effluent tanks are above ground level tanks only.
11	Effluents shall not be discharged on land or any water bodies or aquifers or outside under any circumstances. Floor washings shall be admitted into effluent collection system only and shall not be allowed to find their way into storm water drains or open areas.	The effluent is collected in designated collection facility and recycled into the process and ETP was installed for effluent treatment.
12	Container, Container liners shall be detoxified at the specified covered platform with dyke walls and the wash wastewater shall be routed to low TDS collection tank.	Complied.
13	The industry shall comply with the standard for fluoride (1.5 mg/l) in piezo well water samples and shall not exceed the standard	Complied
14	The industry shall submit details of maintaining temperature difference (DT) of 50C before disposal to Sea via Megadrigedda every month	Complied. Monthly submitted PCB copy along with analysis reports for the month of Nov-2024 herewith enclosed as Annexure-01 for your reference
15	The industry shall provide online effluent monitoring system for pH, BOD, COD, TSS, Phosphates, Fluorides, temperature with online connectivity to CPCB / APPCB as per CPCB directions dated 05.02.2014 and 02.03.2015.	As per the CPCB effluent guidelines parameters: pH, Flow & Fluorine are required for measurement for the fertilizer industry. pH & Flow meter installed and connected to PCB websites.
16	The industry shall ensure that no Fluoride contamination in two piezo wells and monitor piezo wells on monthly basis. The industry shall submit trends every 3 months to RO, Visakhapatnam	Complied.
AIR POLLUTION		
17	The emissions shall not contain constituents in	Complied.

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	excess of the prescribed limits mentioned below.	Industry provided wet scrubbers at SAP, PAP & Complex plans and Bag Filters in old ball mill, new ball mill and rock grinding units to control the emissions within the prescribed norms. Online analysers and continuous emission data transfer is connected to APPCB.
18	The industry shall comply with emission limits for DG sets upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment (Protection) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment (Protection) Second Amendment Rules, 2004. In case of DG sets more than 800 KW shall comply 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	Noted for being complied by Industry . DG sets are auxiliary equipment and operating as and when required.
19	The industry shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10 microns) - 100 micro gram/ m3; PM2.5 (Particulate Matter size less than 2.5 microns) - 60 micro gram/ m3; SO2 - 80 micro gram/ m3; NOx - 80 micro gram/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 shall be complied. Following standards prescribed for noise shall be complied. Noise Levels: Day time - (6 AM to 10 PM) - 75 dB (A) Night time - (10 PM to 6 AM) - 70 dB (A).	Complied. Ambient Air Quality in the plant and periphery villages is being carried out through MoEFCC& NABL accredited laboratory. Industry installed 3 nos of continuous ambient air quality monitoring stations in the plant and the real time AAQ data is being transmitted to APPCB server. The noise levels for the Day & Night are being complied. Monthly submitted PCB copy along with analysis reports for the month of Nov-2024 herewith enclosed as **Annexure-01** for your reference and the values found to be well within the limits specified in the consent.
20	The industry shall provide a sampling port with removable dummy of not less than 15 cm diameter in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.	Complied. All stacks are being provided with sampling ports

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21	The industry shall properly maintain 400 MTPD evaporation system for PhosphoricAcid including Fluorine recovery system as stipulated in the EC order dt.14.07.2017. The industry shall recover fluorine from phosphoric acid process to maximum extent possible	Noted for being complied by Industry
22	The industry shall operate bulk handling mechanism like telescopic chute system at all raw material storage ware houses and ensure that there shall not be fugitive emissions from the raw material handling warehouses.	Complied.
23	The industry shall provide online stack analyzers for all the stacks of complex fertilizer plant for monitoring ammonia, PM and fluorine and one analyser for monitoring fluorine in Phosphoric Acid Plant with online connectivity to CPCB/APPCB as per CPCB directions dated 05.02.2014 and 02.03.2015. The industry shall provide and maintain the online analyzer facility for monitoring of Fluoride in the Phosphoric Acid plant immediately. The data shall be connected to the CPCB / APPCB servers.	Complied. Online Continuous Emission Monitoring Systems (OCEMS) were installed for Sulphuric Acid Plants, Phosphoric Acid Plants and Complex plants. The data generated from the OCEMS is being transmitted to APPCB & CPCB websites. Monthly submitted PCB copy along with analysis reports for the month of Nov-2024 herewith enclosed as **Annexure-01** for reference and the values are found to be well within the limits as per the consent. Complied and connected to APPCB.
24	The industry shall maintain 3 online CAAQM Stations within the plant as per the specifications of CPCB for online monitoring of SPM, RSPM, SO2, NOx & Ammonia with networking facility to Head Office, APPCB.	Maintained 3 online CAAQM Stations within the plant as per the specifications of CPCB for online monitoring of SPM, RSPM, SO2, NOx & Ammonia with networking facility connected to Head Office, APPCB.
25	The industry shall maintain automatic caustic lye solution dosage for the scrubbers provided in the Sulphuric acid plant so as to maintain pH below 8 in acidic scrubbers provided in the plant. The industry shall maintain	Noted and complied. Submitted vide letter no. **EHS/APPCB/2023-887 date 31-10-2023** Copy of acknowledgment herewith

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	online pH measuring facility with auto recording system to the alkali scrubbers provided to treat the sulfuric acid plant emissions	enclosed as**Annexure-3.**
GENERAL:		
26	The industry shall not manufacture new products and not exceed the consented capacity without CFE/CFO of the Board	Noted for being complied by Industry
27	The industry shall evaporate (concentrate) Phosphoric acid to reduce Fluorine so as to reduce fluorine input to complex fertilizer plant;	Complied. The company has installed Fluoride Recovery Units (FRU) to reduce fluoride emissions and thereby reducing the fluoride inputs to the complex fertilizer plants.
28	Housekeeping shall be improved through closed transportation systems. Road sweeping machine shall be deployed for control of dust near Gypsum yard.	Noted and complied.
29	The industry shall maintain Hazardous waste storage area with concrete platform and leachate collection pit for storage of ETP sludge	Noted and complied. Submitted vide letter no. **EHS/APPCB/2023-087 date 31-10-2023** Copy of acknowledgment herewith enclosed as**Annexure-3.**
30	Tne industry shall comply with the guidelines issued by the CPCB regarding storage & handling of gypsum.	Noted and complied.
31	The industry shall not start-up the sulfuric acid plants during night-time i.e. between 6.00 PM to 8: 00 AM.	Noted and complied.
32	The industry shall operate bag filters at hopper i.e. rock phosphate unloading point at wharf to arrest the fugitive emissions.	Complied. The Bag filters are operated and maintained regularly to prevent fugitive emissions.
33	The industry shall maintain the internal roads within the factory premises	Noted and complied. Submitted vide letter no. **EHS/APPCB/2023-087 date 31-10-2023** Copy of acknowledgment herewith enclosed as**Annexure-3.**

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34	The industry shall update the Disaster Management Plan regularly.	Complied. Disaster Management Plan is being updated on regular basis.
35	The industry shall submit concentration levels of Ammonia monitored by industry through sensors every month.	Complied.
36	The industry shall store fresh gypsum on HDPE lining at the wagon loading area.	Complied. The wagon loading area was provided with HDPE liner arrangement and gypsum is handled in the HDPE lined area only.
37	The industry shall submit concentration levels of Ammonia monitored by industrythrough sensors every month	Noted and complied. Monthly submitted PCB copy along with analysis reports for the month of Nov-2024 herewith enclosed asAnnexure-01for your reference
38	The industry shall ensure that there are no leaks in any unit operations and unit processes.	Complied. It is being ensured through regular preventive maintenance and periodic inspection.
39	The industry shall take proper measures to ensure the trucks with proper leak proof bodies are used for transportation of gypsum from the industry.	Complied. Gypsum transportation is being carried out through the truck covered with tarpaulins.
40	The industry shall maintain the following records and the same shall be made available to the inspecting officers of the Board:a. Daily production details. b. Quantity of Effluents generated, treated, recycled. c. Log Books for pollution control systems. d. Characteristics of effluents and emissions. e. Hazardous/non-hazardous solid waste generated and disposed. f. Inspection book. g. Manifest copies of effluents / hazardous waste.	Noted and complied.
41	The industry shall comply with the conditions stipulated in the CFE order No.65/APPCB/CFE/RO-VSP/HO/2012, dated 08.02.2020,	Noted for compliance as this is for proposed sulphuric acid plant.

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42	The industry shall update the information in OCEMS - Industry Information Data Entry Software for Compliance Reporting Protocol in PART-II (Sections F & G) Every Quarter on 1st January, 1st April, 1st July and 1st October through this software system.	Noted & complied regularly.
43	The industry shall maintain valid the PLI policy which includes Environmental Relief Fund (ERF) and submit copy to RO, Visakhapatnam on yearly base.	Complied. PLI Policy No. 9600036243300000001 & valid till 31.03.2025. Herewith enclosed PCB submitted acknowledgement copy as **Annexure-4** for y reference.
44	The industry shall install digital display boards at publicly visible places at the maingate indicating the products manufactured Vs permitted quantities, Treated effluent concentrations Vs discharge standards, Stack emission & AAQ concentrations Vsstandards, hazardous waste generation, disposed, stock Vs permitted quantities and validity of CFO; and exhibit the CFO order at a prominent place in the factory premises, as per Hon'ble Supreme Court order.	Noted and complied. Two sign boards indicating the environmental parameters were placed at main gate for public view. One digital display board is also provided for display of environmental monitoring parameters. Photographs are enclosed as **Annexure - 05**
45	The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., https://pcb.ap.gov.in by 1st of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party.	Noted & it is being complied by Industry.
46	Any other directions / circulars / notices issued by CPCB, MoEF& CC and APPCB shall be followed from time to time	Noted for compliance by Industry
47	The conditions are stipulated without prejudice to the rights and contentions of this Board in any Hon'ble Court of Law.	Noted by Industry
SPECIAL CONDITIONS		

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48	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. Herewith enclosed PCB submitted Fire NOC acknowledgement copy as**Annexure-06** for reference.
49	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.	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. Latest report submitted by Industry vide dated 28.03.2024 Herewith enclosed safety audit report PCB submitted acknowledgement copy as **Annexure-07**for your reference.
50	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.	The industry has identified major list of accident hazard chemicals as per the MSIHC Rules, 1989 and the details have been submitted to the authorities. 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. ii. All visitor are given mandatory safety awareness including emergency response plan prior to their entry to the premises. SOP of Antidotes and usage is available. At Occupational Health Centre (OHC) inventory of all required

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		antidotes. maintained
51	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. 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). All field instruments related to gas leak detection systems performance simulation is done once in a month and calibration is done as per schedule once in a year. Herewith enclosed PCB submitted acknowledgement copy as **Annexure-08**for your reference. Fluorescent wind vanes have been provided. Herewith enclosed wind vanes photographs as **Annexure-09** for your reference.
52	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 the details to Regional Office, APPCB on a monthly basis duly certifying the same by the industry.	Complied. Hazardous waste authorization has been obtained for the hazardous waste being generated. Hazardous wastes inventory details for the month of Nov-2024 PCB submitted acknowledgement copy as **Annexure-10** for your reference.
53	The industry shall conduct Risk studies to be undertaken clearly describing impact within the industry premises and outside the industry premises and emergency response system.	Complied and NEERI was engaged to carry out "Hazard Analysis and Risk Assessment" for worst credible hazard scenarios including fire & explosion and completed the study.
54	The industry shall inventory the storage	As per Schedule 8 of MSIHC rule

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	quantities of hazardous chemicals (raw materials), products, as per the hazard nature of reactivity / toxicity / flammability / explosive stored/handling in the premises as defined in the Management of Storage, Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB on monthly basis duly certifying the same.	1989, Safety Report is being prepared every three years. The Safety reports are being submitted to Inspector of Factories and Pollution Control Board respectively. Import of Hazardous chemicals details for the month of Nov-2024 PCB submitted acknowledgement copy as **Annexure-11** for your reference.
SCHEDULE – C **[see rule 6(2)]** **[CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING HAZARDOUS WASTES]**		
1	The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.	Noted by Industry for compliance
2	The authorisation shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.	Noted by Industry for compliance
3	The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.	Noted by Industry for compliance
4	Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.	Noted by Industry for compliance
5	The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation 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 interval of time;	ERP is in place and onsite Emergency Response Plan is certified by M/s. Bureauo Veritas. Mock drills at regular intervals are being conducted as per the statutory norms and witnessed by concern statutory authorities.
6	The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"	Noted by Industry for compliance

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7	It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.	Noted by Industry for compliance
8	An application for the renewal of an authorisation shall be made as laid down under these Rules.	Noted by Industry for compliance
9	Any other conditions for complianceas 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 for compliance
SPECIFIC CONDITIONS		
10	Annual return shall be filed by June 30th for the period ensuring 31st March of the year.	Complied. Hazardous Waste annual return for the year 2023-24 was submitted on 06.05.2024 Submitted Form-IV annual returns PCB ack. Copy enclosed as **Annexure-12** is for your reference.
11	The industry shall enter an agreement with the Cement industries for disposal of incinerable waste or shall dispose to Alternative Fuel Raw material facility (AFRF) OR to TSDF for co-incineration through APEMCL.	Complied. The industry has already entered into purchase order agreement with TSDF sites for disposal of incinerable waste/HW which is routed through APEMCL.
12	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.	Complied. Hazardous waste is being sent to authorized recyclers within the state only.
13	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 by Industry for compliance .
14	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.	Hazardous waste storage facility provided separately. Waste oil is being sent to APPCB authorized vendors only. Lead Acid batteries are procured under buy back agreement with battery supplier itself.
15	The industry shall transport the hazardous waste to cement industries only through vehicle fitted with GPS tracking system.	Noted by Industry for compliance

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16	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 by Industry for compliance .
17	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.	Complied. The company is maintaining Form-3 for the HW and annual return in Form-4 is submitted for the FY: 23-24 vide letter EHS/APPCB/2024-40on 06.05.2024 Submitted Form-IV annual returns PCB ack. Copy enclosed as **Annexure-12**is for your reference.
18	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 by Industry for compliance

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Coromandel International Limited
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Tel : 91-891-2578400
DID : 91-891-2893+Extn No
Website : www.coromandel.biz
CIN : L24120AP1961PLC000892
GSTIN : 37AAACC7852K1ZC

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

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EHS/APPCB/2024 - 137 **05-12-2024**

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Gnanasundaram M
Vice President & Head Mfg.

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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/M^3	Minimum	64	72
	Maximum	82	84
	98%tile	82	84
	Average	74	77
SO_2 µg/M^3	Minimum	15.0	16.9
	Maximum	17.2	19.5
	Average	16.0	17.9
	98%tile	17.2	19.5
NO_x µg/M^3	Minimum	17.5	18.5
	Maximum	19.4	20.2
	98%tile	19.4	20.2
	Average	18.5	19.7
NH_3 mg/M^3	Minimum	0.02	0.04
	Maximum	0.03	0.06
	98%tile	0.03	0.06
	Average	0.024	0.46
O3 µg/M^3	Minimum	15	16
	Maximum	20	20
	98%tile	20	20
	Average	17	18
CO mg/M^3	Minimum	0.2	0.2
	Maximum	0.3	0.3
	98%tile	0.3	0.3
	Average	0.25	0.28
Pb µg/M^3	<0.05	<0.05	<0.05
C6H6 ng/M^3	<0.05	<0.05	<0.05
B(a)P ng/M^3	<0.05	<0.05	<0.05
As ng/M^3	<0.05	<0.05	<0.05
Ni ng/M^3	<0.05	<0.05	<0.05

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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 µg/M^3	Minimum	66	69	64
	Maximum	80	84	78
	98%tile	80	84	78
	Average	74	76	73
SO_2 µg/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 µg/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
O3 µg/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 µg/M^3		<0.05	<0.05	<0.05
C6H6 ng/M^3		<0.05	<0.05	<0.05
B(a)P ng/M^3		<0.05	<0.05	<0.05
As ng/M^3		<0.05	<0.05	<0.05
Ni ng/M^3		<0.05	<0.05	<0.05

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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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TEST REPORT

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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TEST REPORT

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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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	^0C	03	5°C	
18	Fecal Coliform (FC)	1000MPN/100ml	500	<1000	

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

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, GoI, New Delhi
NABL Accredited Laboratory

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	

For TEAM Labs and Consultants

TEAM Labs and Consultants

TEAM
Labs and Consultants

ORIGINAL

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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

For TEAM Labs and Consultants

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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

TEAM
Labs and Consultants

ORIGINAL

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

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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

TEAM Labs and Consultants

Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024 - 140 **05-12-2024**

To

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

SUB: Coromandel International Limited, Sriharipuram, Malkapuram (PO), Visakhapatnam Dist. - Submission of details of maintaining temperature difference (DT) of 5 degree C before disposal to sea via megadri gedda as per CFO order no: **APPCB/VSP/65/CFO/HO/1967 - 04/08/2023**

Ref: water pollution no:14 in CFO order **APPCB/VSP/65/CFO/HO/1967 - 04/08/2023**
Dear Sir,

We have received **APPCB/VSP/65/CFO/HO/1967 - 04/08/2023**. As mentioned in the CFO order water pollution condition no:14 in water pollution category, we are here with submitting the details of maintaining temperature difference (DT) of 5 degree C before disposal to sea via megadri gedda for the month of **November -2024** in enclosed annexure.

This is for your kind information & Records

Thanking you,

Yours faithfully,

for Coromandel International Limited

Gnanasundaram M
Vice President & Head Mfg.

NAG/DNR

A.P. Pollution Control Board * Regional Office, Visakhapatnam *

Coromandel
FUTURE POSITIVE

Coromandel International Limited
Post Box No. 1116, Sriharipuram, Malkapuram Post
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EHS/APPCB/2024 - 140 **05-12-2024**

To

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This is for your kind information & Records

Thanking you,

Yours faithfully,

for Coromandel International Limited

Gnanasundaram M
Vice President & Head Mfg.

NAG/DNR

Registered Office : Coromandel House, 1-2-10
Sardar Patel Road, Secunderabad-500 003
Telangana, India

Tel : 91-40-27842034 / 27847212
Fax : 91-40-27844117
E-mail : mail@coromandel.murugappa.com

murugappa

Coromandel International Limited,Visakhapatnam

Log Sheet for sea water temparature

Month & Year:	November -2024		
Date	Sea Water		
	Inlet Temparature (°C)	Outlet Temparature (°C)	Difference temparature (°C)
01 November 2024	21	24.2	3.2
02 November 2024	27.2	30.2	3
03 November 2024	23.1	26.3	3.2
04 November 2024	21.4	24.5	3.1
05 November 2024	20.15	23.55	3.4
06 November 2024	21.47	24.37	2.9
07 November 2024	21.9	24.5	2.6
08 November 2024	20.54	23.64	3.1
09 November 2024	25.6	27.7	2.1
10 November 2024	21.3	24.7	3.4
11 November 2024	25.8	28.7	2.9
12 November 2024	24.12	27.22	3.1
13 November 2024	23.41	25.81	2.4
14 November 2024	22.8	26.3	3.5
15 November 2024	24.81	28.21	3.4
16 November 2024	21.91	25.51	3.6
17 November 2024	22.14	25.04	2.9
18 November 2024	26.2	29.3	3.1
19 November 2024	23.69	26.69	3
20 November 2024	25.13	27.23	2.1
21 November 2024	26.24	30.04	3.8
22 November 2024	20.14	23.04	2.9
23 November 2024	21.82	24.82	3
24 November 2024	20.81	24.01	3.2
25 November 2024	21.2	24.3	3.1
26 November 2024	21.7	24.6	2.9
27 November 2024	22.4	24.5	2.1
28 November 2024	28.15	31.35	3.2
29 November 2024	22.13	24.13	2
30 November 2024	21.54	23.64	2.1

Prepared by:

Checked by

O/C

Coromandel
FUTURE POSITIVE

Coromandel International Limited
Post Box No. 1116, Sriharipuram, Malkapuram Post
Visakhapatnam - 530 011, Andhra Pradesh, India
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Date:27.09.2024

RN541800066IN IVR:8278541800066
RL MALKAPURAM S.O <530011>
Counter No:1.27/09/2024.14:14
To:THE MEMBER SE.APPCB VIJAYAWADA
PIN:520010. Venkateswarapuram S.O
From:EHS HOD COR.FORM 5 CIL VIZAG
Wt:240gms.REG=17.0
Amt:90.86.Tax:13.86.Amt.Paid:91.00(Cash)
<Track on www.indiapost.gov.in>
<Dial 1800266868> <Wear Masks. Stay Safe>

EHS/APPCB/2024-097

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/65/CFO/HO/1967 - 04/08/2023

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

G. Raju
27/9/24

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

A.P. Pollution Control Board, Zonal Office, Visakhapatnam

A.P. Pollution Control Board, Regional Office, Visakhapatnam
27.9.24

Coromandel International Limited
Post Box No. 1116, Sriharipuram, Maikapuram Post
Visakhapatnam - 530 011, Andhra Pradesh, India
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Website : www.coromandel.biz
CIN : L24120AP1961PLC000892
GSTIN : 37AAACC7852K1ZC

Coromandel
FUTURE POSITIVE

Date:27.09.2024

EHS/APPCB/2024-097

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/65/CFO/HO/1967 - 04/08/2023

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 Post Box No. 1116, Sriharipuram, Malkapuram Post Visakhapatnam-530 011
		Occupier: Mr. Sankarasubramanian (MD & CEO)
II	Production Capacity	Complex Plant / Customised/ Water Soluble Fertiliser / Micro Nutrients / Chelated Nutrients / Micronised Sulphur / Urea Phosphate : 4210 TPD Sulfuric Acid Plant-I & II : 2100 TPD Sulfuric Acid Plant – III : 2000 MTPD Phosphoric Acid Plant : 1600 MTPD Bentonite Sulfur : 200 MTPD Sulpho Zinc/Boron : 50 MTPD Fertilizer Pilot Plant : 19 MTPD Phosphoric Acid Pilot Plant : 0.83 TPD By Products: Gypsum : 8000 MTPD Hydrofluorosilicic Acid : 40 MTPD
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**			
	Process : 6331 DM WATER : 2744 Cooling : 1971 Domestic : 625		SEAWATER : 84600 (Apr-Jul-23) 100600 (Aug-23 -Mar-24)	
			Water consumption per unit of products M^3/MT	
	Name of products		During the previous financial year	During the current financial year
			(1) 2022-23	(2) 2023-24
	Complex Fertilizer		3.37	3.79
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
a) From process			
34.2 of Schedule-I	Acid residues (Tank bottom sludge)	43.5	25
34.2 of Schedule-I	LSHS Sludge	12.87	
Class B (Sl. No. 37) of Schedule-II	Sulfur muck (sulfur sludge)	695	940
18.1 of Schedule-I	Spent catalyst	56.088	48.820
5.1 of Schedule-I	Used lubricating oil/Drained oil	12.125	13.620
33.1 of Schedule-I	Detoxified containers and container liners	0	2438
37.1 of Schedule-I	Scrubbing sludge	695	395
35.3 of Schedule - I	ETP Sludge	755	490
28.4 of Schedule –I	Off specified, expired chemicals & lab chemicals etc.	0	0
--	Glass Wool	0	0
--	Insulation Waste	0	0
b) From pollution control facilities			

Note: All the above the Investment data including Sulphuric acid storage & handling facilities at Wharf Area (Consent Order No: APPCB/VSP/VSP/65/HO/CFO/2020 – 23/12/2020) and Visakha Terminal (Consent Order No: 7055/VSP/APPCB/ZOVSP/CFO/2021- 01/11/2021)

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

a) Maintaining **Form-3 and Form-10** (Hazardous Manifest) according to Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
b) **Form-IV** Hazardous waste annual returns regularly furnishing to APPCB.

S NO	HAZ Cat. No	Hazardous Waste	Disposal Practice
1	34.2 of Schedule-I	Acid residues (Tank bottom sludge)	Reused in the phosphoric acid plant
2	34.2 of Schedule-I	LSHS Sludge	TSDF for incineration or authorized cement manufacturing units for co processing
3	Class B (Sl. No. 37) of Schedule-II	Sulfur muck (sulfur sludge)	Reused into granulation plant after grinding
4	18.1 of Schedule-I	Spent catalyst	Authorized recyclers or TSDF
5	5.1 of Schedule-I	Used lubricating oil/Drained oil	Re-processors or recyclers of waste oil
6	33.1 of Schedule-I	Detoxified containers and container liners	No net generation
7	37.1 of Schedule-I	Scrubbing sludge	Reused in the granulation plant
8	35.3 of Schedule - I	ETP Sludge	Reused in Phosphoric acid plant
9	28.4 of Schedule –I	Off specified, expired chemicals & lab chemicals etc.	TSDF for incineration or authorized cement manufacturing units for co processing
10	33.2 of Schedule-I	Glass wool	TSDF for incineration

11	33.2 of Schedule-I	Insulation puf	TSDF for incineration

Note : All the above the Investment data including Sulphuric acid storage & handling facilities at Wharf Area (Consent Order No: APPCB/VSP/VSP/65/HO/CFO/2020 – 23/12/2020) and Visakha Terminal (Consent Order No: 7055/VSP/APPCB/ZOVSP/CFO/2021- 01/11/2021)

Ref: Annexure – 3

PART – G

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

On account of pollution control measures implemented in last two years following savings could be realized.

Material saved	Savings(Rs. Lakhs/annum)	Quantity(per annum)
Water recycled by rain water harvesting	19.22	29622 m3

PART – H

Additional investment proposal for environmental protection including abatement of pollution:

Sl No	Title of Project	Year	Annual Electrical Saving (kWh)	Electrical Saving kW	Electrical Energy Savings Rs Million	Total Energy Savings MTOE	Total Energy Savings Rs Million	Investment Rs Million	Payback months	Comments
1	Installation of Waste Heat Boiler and Captive Steam Turbo Generator in SAP-III	2023-24	72765000	8570	466	20811	466	4300.0	111	Installation of 87.5 MT/Hr Waste heat Boiler at 69kgf/cm2g & 485 oC & 15.25 MW Condensing Steam Turbo Generator III. High pressure & temperature steam turbine results in lower Specific Steam Consumption of 4.0 MT / MWH. Old Condensing turbine was medium pressure 31kgf/cm2g 315oC with 5.8 MT/MW Specific Steam Consumption. Innovation enabled higher power generation
2	Installation of 11KV Automatic Power Factor controlling system	2023-24	1703451	194	11	487	11	29.5	32	Installation of 11KV Automatic Power Factor controlling system. New generation technology considered as an alternative to conventional technology / method to limit the short circuit levels & control power factor at existing substations. Existing grid power factor maintaining at 0.97 lag, it needs to be 0.995 lag
3	**Replacement of age old rewound motors by IE3 motors**	**2023-24**	168102	21	1.08	48	**1.1**	**4.4**	49	**Replacement of 16 age old rewound motors by IE3 motors**
4	Replacement of 41 nos age old window AC units with 3 star rating units	**2023-24**	48441	11	0.31	14	**0.31**	**2.384**	92	Deployed 3 star rating Units replacing 41 nos age old window AC units

5	Kaizen - Installation of AC controls, close to respective AC Units	2023-24	21406	5	0.14	6	0.14	0	0	Kaizen - Installation of AC controls, closure to respective AC Units, helped avoid contnuous run of other Air Conditioner
	TOTAL		74706400	8802	478.1	21366	478.1	4336.3	109	

Note : All the above the Investment data including Sulphuric acid storage & handling facilities at Wharf Area (Consent Order No: APPCB/VSP/VSP/65/HO/CFO/2020 – 23/12/2020) and Visakha Terminal (Consent Order No: 7055/VSP/APPCB/ZOVSP/CFO/2021- 01/11/2021)

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

Accolades

2023-24

Certifications

ISO50001 Certification

This is to certify that the management system of

Coromandel International Limited

Unit Name: Visakhapatnam, Main Road, Sithampuram, Mallapuram-Post, Visakhapatnam - 530 011, Andhra Pradesh, India

has been found to conform to the Energy Management System standard:
ISO 50001:2018

This certificate is valid for the following scope:
Manufacture of Sulphuric Acid, Strong & Weak Phosphoric Acid, Complex Fertilizer, by-product Gypsum, hydro fluorosilicic acid, Wharf Activities and Ammonia Storage and Handling, maintenance of Utilities.

NABL Accreditation to Quality Laboratory

INTERNATIONAL LIMITED

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

MALLAPURAM (POST), VISAKHAPATNAM, ANDHRA PRADESH, INDIA

in the field of

TESTING

Certificate Number: TC-11942

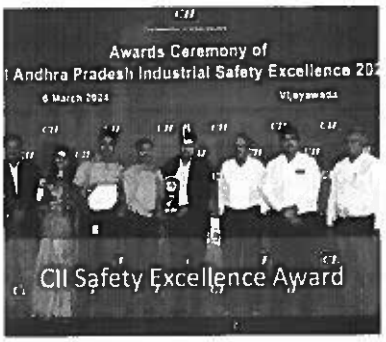
Issue Date: 19/07/2023 Valid Until: 18/07/2025

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 the laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity: COROMANDEL INTERNATIONAL LIMITED

Signed for and on behalf of NABL


British Safety Council Sw[illegible] nour



CII Safety Excellence Award


IQEMS Kalinga Safety Award Platinum Category

IGBC Green Building Gold Award


Visak Port Authority Swach Award

5S Model Plant Award by ABK

2024-25


Visak Port Authority Swatchata Award 2024

Shortlisted CII Energy Award 2024

Your faithfully,
For Coromandel International Limited,

M. Gnanasundaram
VP & Head – Manufacturing

Annexure-1

Raw Material	Product Name/ Complex Grade	Financial Year 2021-22 MT/MT	Financial Year 2022-23 MT/MT	Financial Year 2023-24 MT/MT
Sulfuric acid	28:28:00	0.0378	0.0230	0.0198
Phosphoric acid	28:28:00	0.2869	0.2842	0.2853
Ammonia	28:28:00	0.1320	0.1271	0.1235
Urea	28:28:00	0.4012	0.4104	0.4171
Ammonia	14:35:14	0.1730	0.1730	No Production
Potash	14:35:14	0.2419	0.2452	
Phosphoric acid	14:35:14	0.3607	0.3612	
Ammonia	20:20:00	0.2290	0.2254	0.2260
Phosphoric acid	20:20:00	0.2051	0.2030	0.2038
Sulfuric acid	20:20:00	0.3936	0.3498	0.3995
Ammonium Sulphate	20:20:0	0	0.044	0
Urea	20:20:00	0.0337	0.0418	0.0397
Sulfur	Sulfuric acid	0.3291	0.3266	0.3258
sulfuric acid	Phosphoric acid	2.7884	2.8137	2.8074
Rock phosphate	Phosphoric acid	3.3597	3.402	3.441
Ammonia	10:26:26	0.1236	0.1183	No Production
Potash	10:26:26	0.4472	0.4581	
Phosphoric acid	10:26:26	0.2670	0.2636	
Ammonia	15.15.15.9	No Production	0.1621	
Phosphoric acid	15.15.15.9		0.1529	
Potash	15.15.15.9		0.2651	
Sulfuric acid	15.15.15.9		0.2636	
Phosphoric acid	24.24.00.8S	0.2488	0.2479	0.2474
Sulfuric acid	24.24.00.8S	0.1763	0.1140	0.0995
Ammonia	24.24.00.8S	0.1513	0.1482	0.1460
Urea	24.24.00.8S	0.2812	0.2826	0.2867
Sulfur	24.24.0.8S	0.0792	0.0542	0.0505
Phosphoric acid	UAP 20-20-0	0.2077	No Production	No Production
Sulfuric acid	UAP 20-20-0	0.3537		
Ammonia	UAP 20-20-0	0.1930		
Urea	UAP 20-20-0	0.1039		

Annexure - 2

	Environment Quality Report- Effluent: 2023-24				
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**
	Water				
1	pH	--	7.50	6.5 – 8.5	No Variation from Standards
2	Ammonical Nitrogen	--	13.92	50 mg/l	
3	Free Ammonical Nitrogen	--	0.1	4 mg/l	
4	Total Kjeldahl Nitrogen	--	23.17	75 mg/l	
5	Nitrate Nitrogen	--	0.1	20 mg/l	
6	Cyanide as CN	--	BDL	0.1 mg/l	
7	Vanadium as V	--	BDL	0.2 mg/l	
8	Arsenic as As	--	BDL	0.2 mg/l	
9	Phosphate as P	--	0.75	5 mg/l	
10	Suspended solids	--	19.67	100 mg/l	
11	Oil and Grease	--	BDL	10 mg/l	
12	Fluoride as F	--	0.94	10 mg/l	
13	Hexavalent Chromium as Cr	--	BDL	0.1 mg/l	
14	Total Chromium as Cr	--	BDL	2.0 mg/l	
15	BOD	--	10.83	30 mg/l	
16	COD	--	58.50	250 mg/l	
	Air				
		Emissions, TPA	**Emissions, mg/Nm^3**	**APPCB limit mg/Nm^3**	No Variation from Standards
1	**Complex plant A**				
	Ammonia	126.20	68.79	165	
	Fluoride	0.03	0.71	4	
	SPM	30.47	16.61	45	
2	**Complex plant B**				
	Ammonia	138.78	75.70	165	
	Fluoride	0.04	0.85	4	
	SPM	27.65	15.10	45	

3	**Complex plant C**				
	Ammonia	69.55	37.22	165	
	Fluoride	0.03	0.73	4	
	SPM	13.29	7.11	45	
4	**Phosphoric acid plant-I**				
	Total Fluoride	0.1	2.05	20	
	SPM	7.65	6.22	50	
5	**Phosphoric acid plant -II**				
	Total Fluoride	0.14	2.72	20	
	SPM	0.96	3.87	50	
6	**Sulfuric acid plant-I**				
	Sulfur di oxide	7.02	7.69	1 kg/ MT of product	
	Sulfur trioxide	-	Nil	0.35 kg/ MT of product	
	Acid mist	-	Nil	20	
7	**Sulfuric acid plant- II**				
	Sulfur di oxide	2.04	7.64	0.65 kg/ MT of product	
	Sulfur trioxide	-	Nil	0.35 kg/ MT of product	
	Acid mist	-	Nil	20	
8	**Sulfuric acid plant- III**				
	Sulfur di oxide	3.91	5.57	1 kg/ MT of product	
	Sulfur trioxide	-	Nil	0.35 kg/ MT of product	
	Acid mist	-	Nil	20	
8	Boiler-PM	2.20	8.42	115	

EFFLUENT DISCHARGE STANDARDS	
Parameter	**PCB Standards**
pH	6.5 – 8.5
Ammonical Nitrogen	50 mg/l
Free Ammonical Nitrogen	4 mg/l
Total Kjeldahl Nitrogen	75 mg/l
Nitrate Nitrogen	20 mg/l
Cyanide as CN	0.1 mg/l
Vanadium as V	0.2 mg/l
Arsenic as As	0.2 mg/l
Phosphate as P	5 mg/l
Suspended solids	100 mg/l
Oil and Grease	10 mg/l
Fluoride as F	10 mg/l
Hexavalent Chromium as Cr	0.1 mg/l
Total Chromium as Cr	2.0 mg/l
BOD	30 mg/l
COD	250 mg/l
Temp: - Not more than 5 ^{0}C higher than intake water.	

AIR EMISSION STANDARDS		
S.No	Parameter	APPCB limit mg/Nm3
1	Complex plants	
	Ammonia	165
	Fluoride	4
	SPM	45
2	Phosphoric acid plants	
	Total Fluoride	20
	Particulate matter	50
3	Sulfuric acid plant-I	
	Sulfur di oxide	1 kg/MT of prod
	SO3	0.35 kg/MT of prod
	Acid mist	20
4	Sulfuric acid plant- II	
	Sulfur di oxide	0.65 kg/MT of prod
	SO3	0.35 kg/MT of prod
	Acid mist	20
	Sulfuric acid plant- III	
	SO2 (Sulfur di oxide)	1 Kg/MT of Product
	SO3	SO3
5	Acid mist	Acid mist
6	Rock Grinding	50
7	Boiler Stack	115

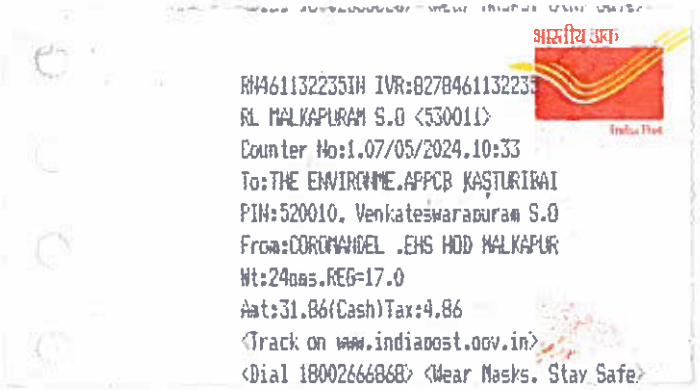
O/C

Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024-040

Date: 06.05.2024



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

Dear Sir,

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

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

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

Kindly acknowledge the receipt of same.

Thanking you,

Yours Truly,

For COROMANDEL INTERNATIONAL LIMITED

Gnanasundaram M
Vice President & Head Manufacturing.

NAG/DNR

Encl. As above

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

Coromandel
FUTURE POSITIVE

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Gnanasundaram M
Vice President & Head Manufacturing.

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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	1165048	MT/Annum
		:	Sulphuric acid	861859	
		:	Phosphoric acid	370617	

Part A. To be filled by hazardous waste generators

1	Total quantity of waste generated category wise		:	**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/drained 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)	:	**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
		(ii) to recycler or co-processors or pre-processor		1) Used lubricating oil/drained oil	14.020	KL
				2) Detoxified Containers and container liners	2348	No's
		(iii) Others		---	---	

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]

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/drained 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 –	:	Not applicable
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) –	:	Not applicable
5	Quantity of waste generated -	:	
6	Quantity of waste disposed -	:	
7	Quantity re-exported (wherever applicable)-	:	
8	Quantity in storage at the end of the year -	:	

Date : **06.05.2024**

Place: Visakhapatnam.

Signature of the Occupier or Operator of the disposal facility

COROMANDEL VIZAG

Sustainability Measures

SUB: Environmental – Energy Conservation

Name of the Project: 1650 MTPD Sulphuric Acid plant III

Problems faced before implementation of initiative:

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

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

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

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

Challenges faced during the project:

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

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

COROMANDEL VIZAG

Sustainability Measures

SUB: Environmental – Energy Conservation

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

Problems faced before implementation of initiative:

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

Brief Description: Installation of Automatic Power Factor controlling panels comprising

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

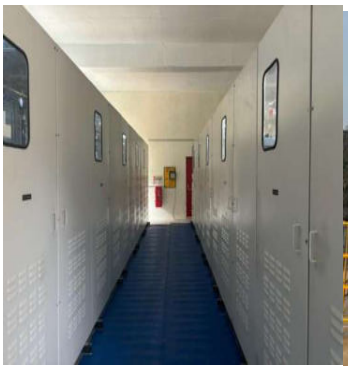
New generation technology considered as an alternative to conventional technology / method to limit the short circuit levels at existing substations

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

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

Challenges faced during the project:
1) Subsequent increase in Power capacity addition continuously.

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



COROMANDEL VIZAG

Sustainability Measures

SUB: Environmental – Energy Conservation

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

Problems faced before implementation of initiative:

- Higher Energy Consumption

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

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

Benefits:
1) Improved Air Conditioning
2) Lower Energy Consumption

Challenges faced during the project: None.

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



COROMANDEL VIZAG

Sustainability Measures – Kaizens – Zero cost Measures

SUB: Environmental – Energy Conservation

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

Problems faced before implementation of initiative:

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

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

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

Benefits:

1) Improved Air Conditioning
2) Lower Energy Consumption

Challenges faced during the project: None.

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

COROMANDEL VIZAG

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

Name of the Project: 6000 M^3/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.


Phase III


Phase IV


Phase IV


Phase V


Phase V


Garden Competition

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 nighttime.

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 Power 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 – 3rd 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	3rd 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

BEFORE THE YEAR 2000			
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

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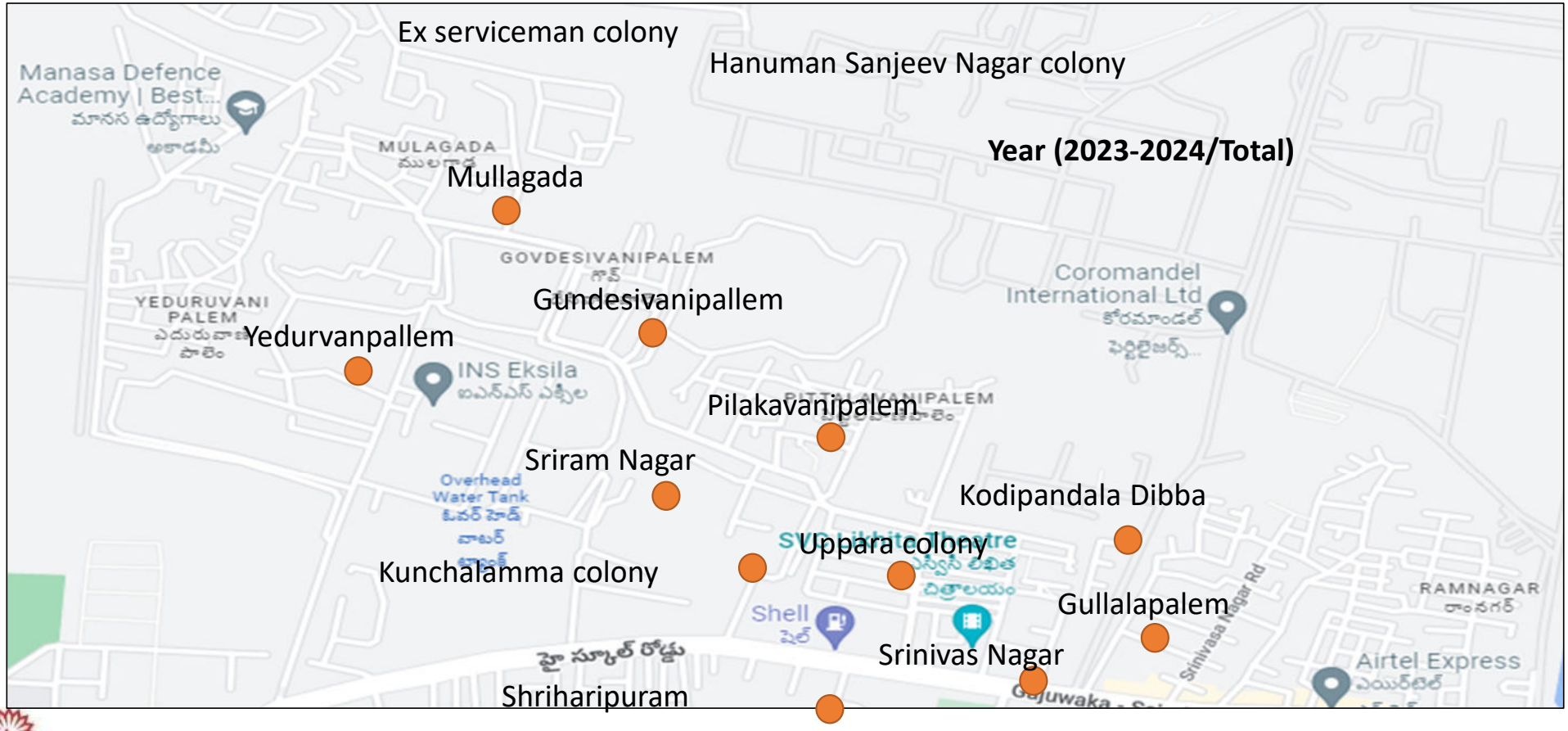
Coromandel

CSR
Annual report 2023-2024

Vizag

Mapping villages-Total bEN -217134



Total number of villages benefitted - 14

Total number of Schools benefitted - 9

Approved Vs Spent– 23-24

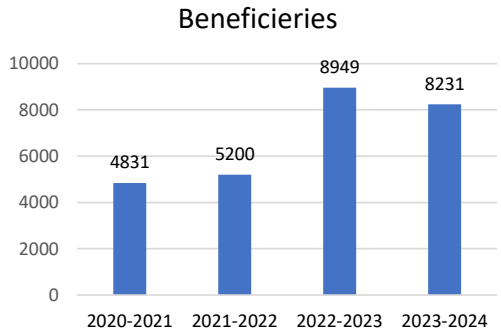
Spent Matrix

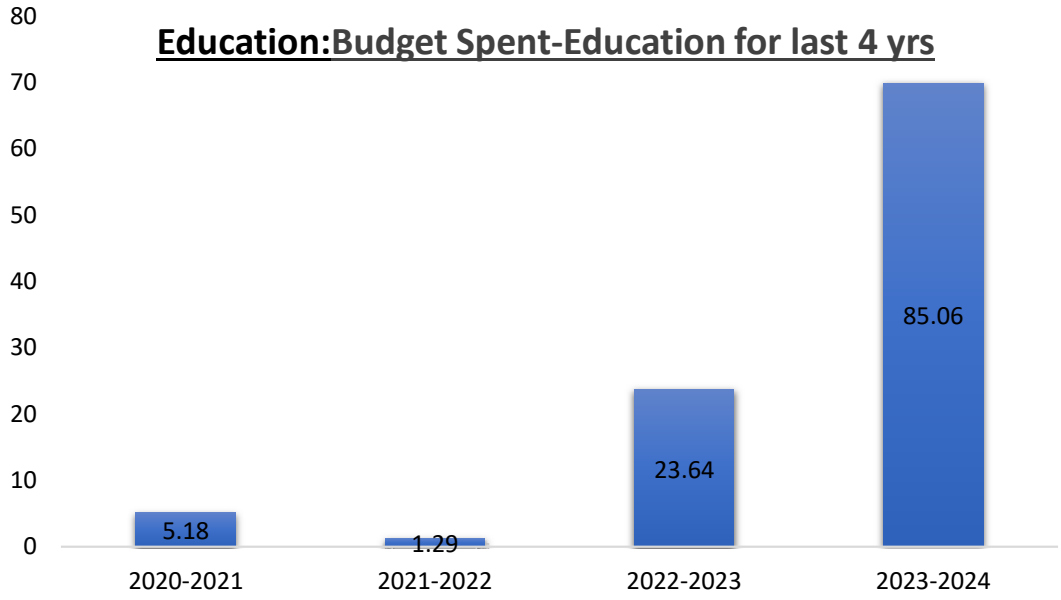
S.No	Domain	Spent (Lacs)
1	Community Development	133.00
2	Health	73.79
3	Education	85.67
	Total	292.46

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

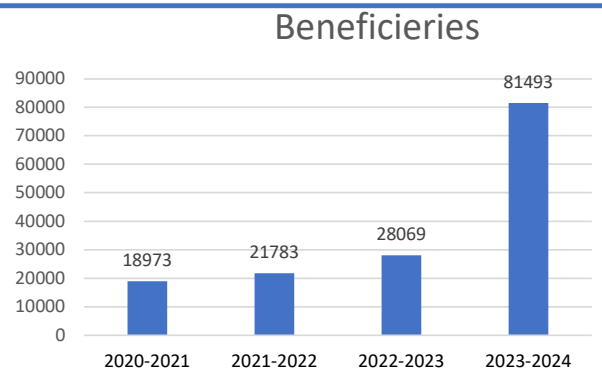


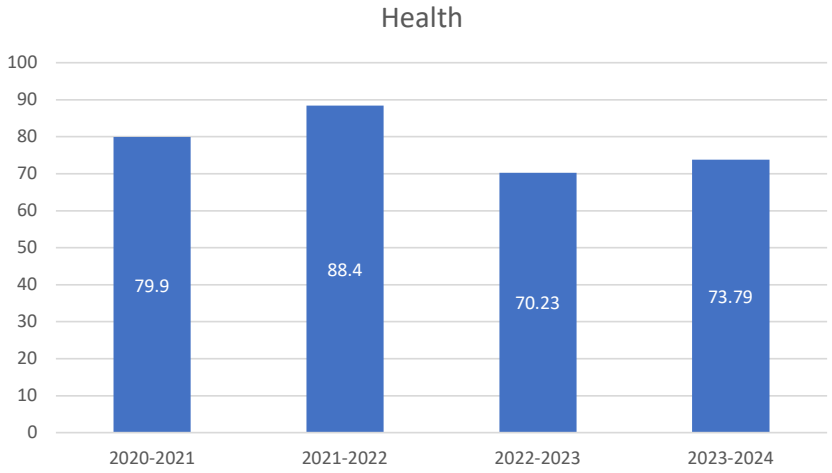


CSR Initiative-Health

Key Highlights of the last 4Years

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

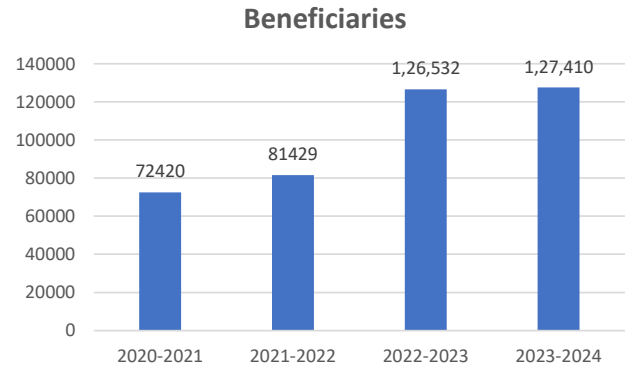


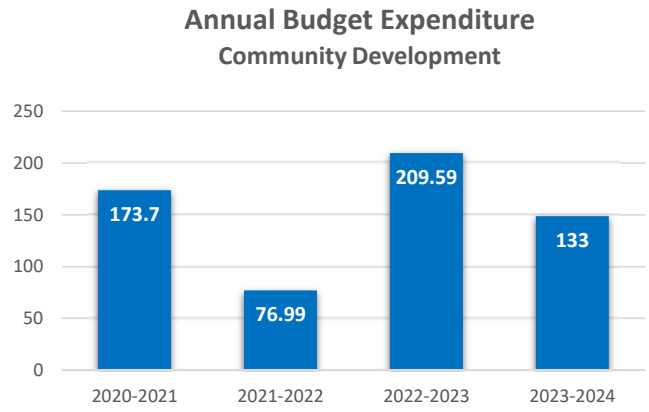


CSR Initiative-Community development

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





Coromandel Prayog Utsav

- Coromandel Proyog 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

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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

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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

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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,THYROIS 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 Anghanwades (Mulagada/Pilakavanipalem/Gullalapalem/Sriharipuram/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.






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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.

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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.

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Diabetic awareness Run

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

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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

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4 Community Open Gyms Established

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

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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

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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

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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

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Women's day celebrations

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

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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

murugappa

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

murugappa

Renovation of Social welfare Girls Hostels

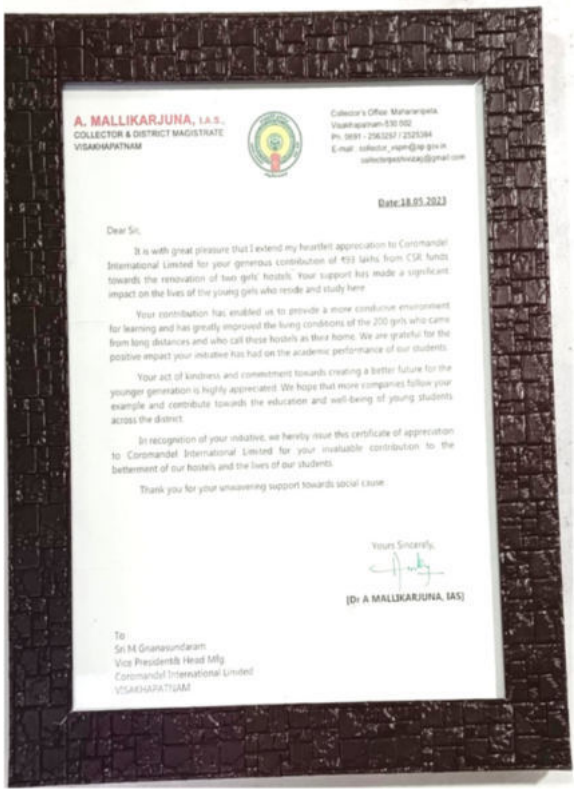
Dayal Nagar Girls Hostel

Nadupuru Girls Hostel

Social welfare Girls Hostels Inaugurated by District Collector


SCIENTISTS INVENTORS
LEADERS
WRITERS

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



A. MALLIKARJUNA, I.A.S.,
COLLECTOR & DISTRICT MAGISTRATE
VISAKHAPATNAM

Collector's Office, Maharanipeta,
Visakhapatnam-530 002
Ph: 0891 - 2563257 / 2525384
E-mail: collector_vspm@ap.gov.in

Date:18.05.2023

Dear Sir,

It is with great pleasure that I extend my heartfelt appreciation to Coromandel International Limited for your generous contribution of ₹93 lakhs from CSR funds towards the renovation of two girls' hostels. Your support has made a significant impact on the lives of the young girls who reside and study here.

Your contribution has enabled us to provide a more conducive environment for learning and has greatly improved the living conditions of the 200 girls who came from long distances and who call these hostels as their home. We are grateful for the positive impact your initiative has had on the academic performance of our students.

Your act of kindness and commitment towards creating a better future for the younger generation is highly appreciated. We hope that more companies follow your example and contribute towards the education and well-being of young students across the district.

In recognition of your initiative, we hereby issue this certificate of appreciation to Coromandel International Limited for your invaluable contribution to the betterment of our hostels and the lives of our students.

Thank you for your unwavering support towards social cause.

Yours Sincerely,

(Dr A MALLIKARJUNA, IAS)

To
Sri M Gnanasundaram
Vice President& Head Mfg
Coromandel International Limited
VISAKHAPATTNAM

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, Dhruba Jyoti Patil.

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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

murugappa

Coromandel

Thank You

Coromandel
FUTURE POSITIVE

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

Ref No: EHS/APPCB/2023-087

Dated: 31.10.2023

To

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

Sub: Submission of CFO - Schedule B Special Condition Compliance Status Report

Ref: i) CFO NO -APPCB/VSP/65/CFO/HO/1967 dated 30.09.2022.

ii) Letter No. EHS/APPCB/2023-005 dated 13.01.2023

iii) CFO agenda item no. 05 dated 07.07.2023

Dear Sir,

This has with reference to the above subject matter, wherein APPCB granted CFO along with 5 timebound action points.

We would like to inform you that except point no.02 all other points have been complied and compliance reported earlier vide letter no. EHS/APPCB/2023-005 dated 13.01.2023 and verified by APPCB. (Please refer to agenda item no. 05 dated 07.07.2023 at Serial no. 20) Agenda copy attached as annexure-01. Now all the points have been complied.

Now we are submitting herewith the compliance status of point no.02 which was pending earlier.

CFO-Schedule B condition no.	CFO-Schedule B condition	Target Date	Compliance Status
1	The industry shall cover all directions of the feeding area of rock phosphate by 31.12.2022 and rectify the fugitive leakages.	31.12.2022	Complied. Compliance verified by APPCB. (Please refer to agenda item no. 05 dated 07.07.2023 at Serial no. 20) Agenda copy attached as annexure-01.

Coromandel
FUTURE POSITIVE

Coromandel International Limited
Post Box No. 1116, Sriharipuram, Malkapuram Post
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Ref No: EHS/APPCB/2023-087 Dated: 31.10.2023

To

The Environmental Engineer

Regional Office, 3rd Floor

A.P. Pollution Control Board,

Visakhapatnam -18

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Coromandel International Limited
Post Box No. 1116, Sriharipuram, Malkapuram Post
Visakhapatnam - 530 011, Andhra Pradesh, India
Tel: 91-891-2578400 to 2578416
DID: 91-891-2578417/18/19
Fax: 91-891-2577665/2516164

CFO-Schedule B condition no.	CFO-Schedule B condition	Target Date	Compliance Status
2	The industry shall provide Hazardous waste storage area with concrete platform and leachate collection pit for storage of ETP sludge by 31.03.2023 and shall remove openly stored sludge near the ETP area.	31.03.2023	Complied. ETP sludge storage shed with concrete platform and leachate collection pit constructed. Work completed. Please refer Annexure -2.
3	The industry shall ensure that no Fluoride contamination in two piezo wells and monitor piezo wells on monthly basis. The industry shall submit trends every 3 months to RO, Visakhapatnam	-	Complied. Compliance verified by APPCB. (Please refer to agenda item no. 05 dated 07.07.2023 at Serial no. 20) Agenda copy attached as annexure-01.
4	The industry shall remove the accumulated sludge in the storm water drains near sulfuric acid, Phosphoric acid and rock Phosphate storage area and provide storm water collection tank by 30.11.2022.	30.11.2022	
5	The industry shall lay the internal roads near phosphoric acid and sulfuric acid plant by 31.03.2023	31.03.2023	
6	The industry shall provide automatic caustic lye solution dosage for the scrubbers provided in the Sulphuric acid plant by 31.12.2022 so as to maintain pH below 8 in acidic scrubbers provided in the plant.	31.12.2022	
7	The industry shall improve the Housekeeping within the factory premises. Housekeeping shall be improved through closed transportation systems. Road sweeping machine shall be deployed for control of dust near Gypsum yard.	--	Complied.

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DID: 91-891-2578417/18/19
Fax: 91-891-2577665/2516164

Thanking you,

Yours faithfully,

For COROMANDEL INTERNATIONAL LIMITED,

Gnanasundaram M
VP & Head Manufacturing

NAG/DNR

Encl. - As above

CC : 1. The MS, APPCB, Head Office, Vijayawada.

AGENDA ITEM NO : 05 Dt.07.07.2023	**M/s. Coromandel International Ltd., Sriharipuram, Malkapuram (PO), Visakhapatnam District E-mail:** nagarajud@coromandel.murugappa.com **-CTO & HWA (Expansion) – Reg.**

M/s. Coromandel International Ltd., Sriharipuram, Malkapuram (PO), Visakhapatnam District applied for CTO & HWA (Expansion) on 27.06.2023 to manufacture fertilizers – 4210 TPD for a period upto 31.08.2027, for a total project cost of Rs. 1402 Cr, with a total area of 313 Acres.

The details of the industry as reported by the ZO, Visakhapatnam is as follows:

1. **Line of Activity:** Complex Fertilizer Plant comes under Red category.

2. **EC Status:**
   a. Environmental Clearance was issued to the unit by Ministry of Environment & Forest for Expansion of Complex Fertilizer Plant from 2,700 MTPD to 3,900 MTPD vide F. No. J-11011/314/2007-IA II (I), Dt. 31/08/2007.
   b. Phosphoric Acid Plant from 500 TPD to 700 TPD vide F. No. J-11011/388/2006-IAII(I), dt.22/01/2008 and
   c. Customized Fertilizer Plant in two streams each of 300 MTPD vide F.No.J-11011/548/2008-IAII(I),Dt.10/06/2009.
   d. For Enhancement of Phosphoric Acid production(from 700 MTPD to 1000 MTPD P2O5) De-bottle necking of Sulphuric Acid Plant I&II for increasing the capacities from 1400 to 1700TPD (Plant– I) and 300 to 400 TPD (Plant–II)and other auxiliary facilities within the existing Fertilizer Complex vide MoEF&CC EC No.J-11011/51/2016-IA.II (I) dated 14.07.2017.
   e. For Enhancement of Phosphoric Acid production from 700MTPD to1000 MTPD P2O5 and other auxiliary facilities within the existing Fertilizer Complex vide EC-F. No. J-11011/51/2016-IA.II(I) dt:07.01.2021.
   f. For change in location of new 1500 MTPD Sulphuric Acid (100%) Plant within the existing Fertilizer Complex and to add desalination plant with capacity of 15 MLD vide EC - F. No J-11011/51/2016-IA.III(I) dated 27.06.2022.

3. **CFE Status:**
   a. CTE Order No. 65 /APPCB/CFE/RO-VSP/HO/2012 08/02/2020.
   b. CTE Order No. 65 /APPCB/CFE/RO-VSP/HO/2012 18/11/2021.
   c. CTE Order No. 65/APPCB/CFE/RO-VSP/HO/2012 27/07/2022.
   d. CTE Order No. 65/APPCB/CFE/RO-VSP/HO/2012 22/11/2022.

4. **CTO&HWA Status:**
   a. CTO Order No. APPCB/VSP/65/CFO/HO/1967 dated 30.09.2022 and amended on 01.02.2023 valid up to 31.08.2027.

5. **Details of Present CTO application:**

Applied for CTO&HWA (Expansion) for a period upto 31.08.2027.

Date of receipt of CTO application at RO	27.06.2023
Date of clarification sought	---
Date of receipt of clarification	---
Date of ZO & RO inspection	01.07.2023
Date of forwarding of CTO verification report through mail to Head Office by the ZO, Visakhapatnam	03.07.2023
Date of commissioning of industry	3rd week of July 2023
Last date of SLA	27.07.2023

6. **Project Cost:** Existing: Rs. 947 Crores + Expansion: 455 Crores = Total: 1402 Crores.

Fee details:

The industry is required to pay CTO fee of Rs.34,80,750/-(Rs.8,19,000/- @ one year) on the investment of Rs.455 Crores for four years three months i.e., from June-2023 to Aug-2027 to synchronize with the existing CTO Order dated 30.09.2022 which is valid up to 31.08.2027. The industry is required to pay CFE fee of Rs.4,50,000/- for the increased project cost i.e., from Rs.940.0715 Crores to Rs.969.9103 Crores i.e., of the existing project and CTO fee of Rs.2,23,000/- for the period from 2022-2027 (i.e., five years). Hence, the industry is required to pay total fee of Rs.41,53,750/- to consider the CTO application for period up to 31.08.2027 so as to synchronize with the existing CTO Order dated 30.09.2022 which is valid up to 31.08.2027.
The industry has paid CTO fee of Rs.41,53,968/-vide online receipt No. 430244549on 27.06.2023to consider the issue of CTO for five years i.e., up to 31.08.2027..

Balance fee (CFE/CFO) if any to be paid for the period upto: ---

General

Total Area of the plant in Acres	:	After de-leasing to Visakhapatnam Port Trust, the total extent of land is 313 Acres. (on lease)
Built up area in Acres	:	113 Acres.
Parking, roads & Open area in Acres	:	---
Surroundings of the Industry	:	North : Vacant land followed by road connecting Port road South : Gajuwaka to Scindia Road East : M/s. HPCLVisakh Refinery West : M/s. Sravan Shipping handling unit & Mulagada Village
Distance from Nearest Habitation:	:	Sriram Nagar at a distance of 100 meters & Mulagada (v) exists at a distance of 300m
Distance from Nearest water body:	:	Bay of Bengal is at a distance of 1.20Km.
Distance from Nearest National Highway / State Highway:	:	Around 3.5Km from the existing site
Extent of Green belt developed in Acres	:	99 acres.
Extent of Green belt required as per EC	:	---
Extent of Green belt required as per CTE	:	Green belt shall be developed all along the boundary & vacant spaces with tall growing trees with good canopy and it shall not be less than 33% of the total area.
Balance green belt to be developed	:	5 acres to be developed.

8 Raw materials (Product wise with quantities per day) : As per CTO expansion application

S.No.	Consumption	For existing capacity	After Expansion Quantity (MTPD)
1.	Molten Sulphur/Solid Sulphur	700	660
2.	Rock Phosphate	3200	6400
3.	Sulfuric Acid	3433	4800
4.	Phosphoric Acid	895	1500
5.	Ammonia	700	---
6.	Urea	767	---
7.	Muriate of Potash	100	---

*Industry in it application mentioned Phospo Gypsum as one of the raw material. Later the industry informed via mail dt 02.7.2023 informed this office that by mistake they mentioned that.

9 Products & By Products manufactured:

S. No	**Name of the Products and By-products as per existing CTO Order dt: 30.09.2022**	**Quantity as per CTO Order dt: 30.09.2022 and its amendment dated 01.02.2023**	**Quantity as per CTE Order dt: 22.11.2022 after expansion**	**Total Quantity as per CTO application**
	Products			
1.	ComplexFertilizers	4210 TPD	4210 TPD	-
2.	*Customized Fertilizer plant (Customized Fertilizers or Organic Fertilizers or Bio Stimulants or Soil conditioners or Mixture of fertilizers)*			
3.	Watersolublefertilizer plant			
	100 % Water soluble complex fertilizers/ 100% water soluble mixture of fertilizers			
	Micronutrientmixtures (powder/liquid/granular)(or)			

S. No	Name of the Products and By-products as per existing CTO Order dt: 30.09.2022	Quantity as per CTO Order dt: 30.09.2022 and its amendment dated 01.02.2023	Quantity as per CTE Order dt: 22.11.2022 after expansion	Total Quantity as per CTO application
	ChelatedMicronutrients(powder/liquid/granular)(or)			
	Urea Phosphate(or)			
	Micronized/NanoSulphur			
4.	H_2SO_4	2100 TPD	4100 TPD	4100 TPD
5.	Bentonite Sulfur / Bentonite Sulphur with micronutrients	90 TPD	200 TPD	200 TPD
6.	Phosphoric Acid	1400 TPD	1600 TPD	1600 TPD
7.	Fertilizertechnology Center (pilotplant)-ComplexFertilizer, as per CTO amendment order dated 01.02.2023 Fertilizer Technology Centre *(Granulation) – Straight or Complex or Fortified or Organic or Bio stimulants or Soil conditioner or Mixture of fertilizers*	19 TPD	19 TPD	-
8.	FertilizertechnologyCenter– Phosphoricacid	0.83 TPD	0.83 TPD	-
9.	Sulpho Zinc & Sulphoboron	10 TPD	50 TPD	50 TPD
10.	Fertilizer Technology Centre (water soluble fertilizer pilot plant)as per CTO amendment order dated 01.02.2023 Liquid *Fertilizer plant – Liquid Suspension or Liquid solution of primary nutrients (N,P,K)/Micronutrients/Secondary nutrients/Organics/Bio Stimulants/Nano fertilizers*	6 TPD	6 TPD	-
11	Gypsum based fertilizer and building products 1. Gypsum Drying Unit 2. Gypsum plaster 3. Gypsum Board Plant	-	1. 1000 MTPD 2. 600 MTPD 3. 15 Mio. Sq. Metre	Not Applied for CTO
12	Desalination Plant	-	15 MLD	6 MLD
	By-Products:			
13.	Gypsum	7000 TPD	8000 TPD	8000 TPD
14.	Hydroflorosilicic Acid	35 TPD	40 TPD	40 TPD
	Bulkstorage facilitiesatsite			
15.	Ammonia	12500 MT (1X5000MT +1x7500MT)	12500 MT (1X5000MT +1x7500MT)	12500 MT (1X5000MT +1x7500MT)
16.	SulphuricAcid	15,000 MT (1X4000 MT + 3X 2000MT) + 1 x5000MT	56500 MT (1X4000 MT + 3X 2500MT) + 4 x5000MT + 2 X 12500 MT	56500 MT (1X4000 MT + 3X 2500MT) + 4 x5000MT + 2 X 12500 MT
17.	Phosphoric acid(P_2O_5)	7 X 610 m^3 + 20,000 MT (4 X 5000 MT)	32890 m3 (2 X 310 m3 + 7 X 610 m3 + 7 X 1000 m3 + 3 X 3000 m3 + Wharf - 2 X 6000 M3 = 12000 m3)	32890 m3 (2 X 310 m3 + 7 X 610 m3 + 7 X 1000 m3 + 3 X 3000 m3 + Wharf - 2 X 6000 M3 = 12000 m3)
18.	Molten sulphur	2 X 7500 MT	18000 MT (2 X 7500 MT these two storage tanks located at wharf area +	18000 MT (2 X 7500 MT these two storage tanks located at wharf area +

S. No	Name of the Products and By-products as per existing CTO Order dt: 30.09.2022	Quantity as per CTO Order dt: 30.09.2022 and its amendment dated 01.02.2023	Quantity as per CTE Order dt: 22.11.2022 after expansion	Total Quantity as per CTO application
			2 X 1500 MT)	2 X 1500 MT)
19.	LSHS	2 X 500 KL & 3 X 160 KL	1193 kl (2 X 500 KL + 1 X 160 KL + 33 KL)	1193 kl (2 X 500 KL + 1 X 160 KL + 33 KL)
20.	Diesel	1 X 10 KL + 1 X 16 KL	96 KL (2 X 10 KL + 1 X 16 KL + 60 KL)	96 KL (2 X 10 KL + 1 X 16 KL + 60 KL)
21.	Petrol	10 KL	--	Dispensed
22.	Kerosene	1 X 50 KL	1 X 50 KL	1 X 50 KL
23.	LPG	870 Kgs	870 Kgs	870 Kgs

The industry shall produce either individual fertilizers or combination of the fertilizers at any point of time without increase in the total permitted capacity of fertilizers 4210TPD.

9A.	Details of Un-consented products, if any:	:	The industry has not manufactured any un-consented products

10	Water consumption	:	Fresh water 16,600 KLD + sea water 1,24,000 KLD = 1,41,200 KLD

1. Source of Water supply as per EC	:	GVMC & Sea drawl
2. Source of Water supply as per CTE	:	Fresh water from GVMC & Sea water for once through cooling
3. Present Source of Water supply	:	GVMC & Sea drawl
4. Proposed Source	:	GVMC, Sea drawl & Desalination Plant

S.NO.	Purpose	Quantity (KLD)		
		as per CTO Order dt: 30.09.2022	Quantity as per CTE Order dt:08.02.2020, 18.11.2021,22.06.2022, 24.08.2022 &22.11.2022	Total Qty. as per CTO application
1	Process & Washes	12750KLD* (Existing : 10350 KLD +PAP : 2400KLD)	**Total - 16600 (Existing 10,350 + SAP3-1800 + PAP-2400 KLD)** (Proposed- SAP - 650+ PAP-1400 =2050)	**Total - 16600 (Existing 10,350 + SAP3-1800 + PAP-2400 KLD)** (Proposed- SAP - 650+ PAP-1400 =2050)
2	Industrial Cooling (Make up) – Fresh Water (from GVMC or from De-salination plant or combination of both)			
3	Boiler feed			
4	Domestic & Other			
	Subtotal		***16600***	***16600***
5	Sea water (Industrial cooling & Desalination Plant of 6 MLD capacity)	**84600**	**84600+40000 = 124600**	**84600+16000 = 100600**
	Grand Total (kl)		**1,41,200**	**1,17,200**

11 Waste Water Generation:

S. No.	Purpose	Quantity(KLD)		
		as per CFO Order dt:30.09.2022	Quantity as per CFE Order dt:08.02.2020 , 18.11.2021, 22.06.2022, 24.08.2022 & 22.11.2022	Total as per CFO application
1.	Process & Washings	1800	1800	1800
2.	Cooling & Water Blow Down	81,600	1,06,600	91,600
3.	Domestic	530	530	530
	Total quantity in KL	**83,930**	**1,08,930**	**93,930**

12 Out let:

Outlet as per CTO Order dated 30.09.2022:

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal
1	Process and Washings	1800	• Process effluents shall be recycled / reused within factory premises to achieve Zero discharge except during rainy season • In case of low load plant operations and during rainy season, the quantity of effluent generated from Phosphoric acid post enhancement is 1800KLD which shall be treated in the existing ETP plant and discharged along with once through cooling blow down through Meghadrigedda surplus course that joins Bay of Bengal
2	Cooling tower blow down	81600	Into Meghadrigedda surplus course that joins Bay of Bengal
3	Domestic	530	The industry treat the waste water in the STP, after treatment in the STP the treated waste water shall be recycled / reused within the factory premises.
	Total	83930	

13. a) ETP Details & Mode of Disposal: :

i. Outlet No. 1 Stream Details	Process & washing effluents & Boiler/cooling tower blow downs, DM plant rejects
Treatment unit's details.	The industry has Effluent Treatment Plant of capacity 1800 KLD with the following units. Equalization tank 900 M^3→ Reaction tank 1 →Clariflocculator - 1 → Buffer tank 70 M3/hr→ Reaction tank 2 →Clariflocculator - 2 → Reaction tanks 3 cum Neutralization tank → Holding tank → Reaction tank – 4 & filter press. No additional ETP is constructed as the total effluents reduced to 1800 KLD.
Point of disposal	The industry is recycling part of the process effluents i.e., entire phosphoric acid effluents into the process for cake washings in phosphoric acid plant and preparation of lime solution for ETP Plant. The remaining water is being discharged along with once through cooling effluents into the

	Meghadrigedda overflow canal, which joins Sea.
Desalination Plant	10 MLD Rejects into existing drain joins at Meghadrigedda surplus course which finally joins Bay of Bengal
ii. Outlet No. 2 Stream Details Treatment units details Point of disposal	 Cooling water blow down No treatment as it is once through cooling of sea water Into Meghadrigedda overflow canal which joins Sea.
iii. Outlet No. 3 Stream Details Treatment units details Point of disposal	 Domestic effluents (STP Capacity 300 KLD) Oil & Grease Trap – 10 m^3; Equalization tank – 96 m^3; Areation tank -36 m^3; secondary clarifier – 38 m^3; sludge beds- 4 * 4 m^3; Clarified water tank – 10 m^3; drain pit – 20m3; Treated water – 10 m^3 Recycled / reused within the factory premises.

b) Standards			Board Monitoring Data
Outlet	Parameter	Limiting Standards	Samples from inlet & Outlet of ETP collected and submitted to Zonal Lab Visakhapatnam for analysis. Previous results are attached.
1	pH	6.5-8.5	
	AmmonicalNitrogen	50mg/l	
	FreeAmmonicalNitrogen as N	4mg/l	
	TotalKjeldahlNitrogen(TKN) as N	75mg/l	
	NitrateNitrogen	20mg/l	
	CyanideasCN	0.1mg/l	
	VanadiumasV	0.2mg/l	
	ArsenicasAs	0.2mg/l	
	PhosphateasP	5mg/l	
	Suspendedsolids	100mg/l	
	OilandGrease	10mg/l	
	FluorideasF	10mg/l	
	HexavalentChromiumasCr	0.1mg/l	
	TotalChromiumasCr	2.0mg/l	
	BOD	30mg/l	
	COD	250mg/l	
	Temp:-Notmorethan 5°Chigherthanintakewater.		

14 Water Cess : ---

15 Air pollution:

As per CFE date: 22.11.2022:

Sl. No	Details ofStack	Attachedto	Capacity	Stack height (Meters)	Peak flow Nm3/hr	Details of Air Pollution Control Equipment	As per the online stack monitoring values
1.	Stack-1	Sulphuric AcidPlant(Old)	1700TPD	69	1,15,357 Nm3/hr	Alkali scrubber	As per the online stack monitoring data, the emissions are complying with the standards for Stack-1, 2, 3, 4,5, 6, 7 & 8.
2.	Stack-2	Sulphuric Acid Plant(New)	400TPD	50	33,333 Nm3/hr	Alkali scrubber	
3.	Stack-3	Phosphoric Acid Plant	700TPD	33	1,82,000 Nm3/hr	Evaporator followed by series of Barometric condensers	
4.	Stack-4	Rock Grinding unit	40TPH	45	15,000 Nm3/hr	Bag filters	

5.	Stack-5	Rock Grinding unit	20TPH	45	15,000 Nm3/hr	Bag filters
6.	Stack-6	Complex fertilizer plant Complex A	3900TPD	37.8	2,60,700 Nm3/hr	4stagescrubbing system (for ammonia recovery and multi cyclone 6Nos.)
7.	Stack-7	Complex fertilizer plant Complex B-Train		37.8	2,60,700 Nm3/hr	4stagescrubbing system (for ammonia recovery and multi cyclone 6Nos.)
8.	Stack-8	Complex fertilizer plant Complex C-Train		37.3	2,67,850 Nm3/hr	4stagescrubbing system (for ammonia recovery and multi cyclone 6Nos.)
9.	Stack-9	Customized Fertilizer plant Drier(2Nos.)& process coolers(2Nos.) of customized fertilizer	300TPD	30	---	Cyclones followed by wet scrubber
10.	Stack-10	Oil Fired Boiler	1.5TPH	30.48	---	------
11.	Stack-11	D.G.Set**	6MW	operating in an emergency condition	---	Acoustic enclosures
12.	Stack-12	D.G.Set**	4MW			
13.	Stack-13	Phosphoric Acid Plant	900 TPD	33	35,000 Nm3/hr	Evaporator Followed by series of barometric condensers fumes scrubber
14.	Stack 14	Rock Phosphate grinding Units	75 TPH	45	30,000 Nm3/hr	Bag Filters
15.	Stack 15	Coal Fired Boiler & Back pressure Turbine	40 TPH & 5 MW	56	67,200 Nm3/hr	ESP
16.	Stack 16	D.G.Set	910 KVA	10	---	Acoustic enclosures
17.	Stack 17	SulphuricAcid Plant-3	2000 TPD	63	1,61,000 Nm3/hr	Alkali scrubber
18.	Stack 18	Furnace (CFG)	1.5 TPH	30	50,000 Nm3/hr	Dryer scrubbing system with cyclone and blower; Bag filter for cooler with suction blower
19.	Stack 19	Gypsum board plant drying unit	15 Mio. Sq. meter	30	135734.4 Nm3/hr	Bag filter
20.	Stack 20	Gypsum Dryer unit	1000 TPD	30	113112 Nm3/hr	Bag filter

21.	Stack 21	Gypsum plaster-Furnace (Calciner)	600 TPD	30	90489 Nm3/hr	Bag filter
22	Stack 22	Gypsum plaster-Furnace (Calciner)	600 TPD	30	90489 Nm3/hr	Bag filter

As per CTO application:

Sl. No	Details ofStack	Attachedto	Capacity	Stack height (Meters)	Peak flow Nm3/hr	Details of Air Pollution Control Equipment	As per the online stack monitoring values
1.	Stack-1	Sulphuric A .cid Plant (SAP 1)	1700TPD	69	1,15,357 Nm3/hr	Alkaliscrubber	As per the online stack monitoring data, the emissions are complying with the standards for Stack-1, 2, 3, 4,5, 6, 7 & 8.
2.	Stack-2	SulphuricAcid Plant(SAP 2)	400TPD	50	33,333 Nm3/hr	Alkaliscrubber	
3.	Stack-3	PhosphoricAcidPlant	700TPD	33	1,82,000 Nm3/hr	Evaporatorfollowedbyseriesof barometricco ndensers	
4.	Stack-4	RockGrindingunit	40TPH	45	15,000 Nm3/hr	Bagfilters	
5.	Stack-5	RockGrindingunit	20TPH	45	15,000 Nm3/hr	Bagfilters	
6.	Stack-6	ComplexfertilizerplantComplexA	3900TPD	37.8	2,60,700 Nm3/hr	4stagescrubbingsystem (forammoniarecoveryandmulticyclone 6Nos.)	
7.	Stack-7	ComplexfertilizerplantComplexB-Train		37.8	2,60,700 Nm3/hr	4stagescrubbingsystem (forammoniarecoveryandmulticyclone 6Nos.)	
8.	Stack-8	ComplexfertilizerplantComplexC-Train		37.3	2,67,850 Nm3/hr	4stagescrubbingsystem (forammoniarecoveryandmulticyclone 6Nos.)	
9.	Stack-9	Customized fertilizerplant	300TPD	30	---	Cyclonesfollowedbywetscrubber	
		Drier(2Nos.)& processcoolers(2Nos.)ofcustomizedfertilizer					
10.	Stack-10	OilFiredBoiler	1.5TPH	30.48	---	------	

11.	Stack-11	D.G.Set**	4MW	Operatinginanemergencyconditi on		Acoustic enclosures	
12.	Stack-12	D.G.Set**	4MW		---		
13.	Stack-13	Phosphoric Acid Plant	900 TPD	33	35,000 Nm3/hr	Evaporator Followed by series of barometric condensers fumes	
14.	Stack 14	Rock Phosphate grinding Units	75 TPH	45	30,000 Nm3/hr	Bag Filters	
15.	Stack 15	Coal Fired Boiler & Back pressure Turbine	40 TPH & 5 MW	56	67,200 Nm3/hr	ESP	
16.	Stack 16	D.G. Set	910 KVA	10	--	Acoustic enclosures	
17.	Stack 17	SulphuricAcid Plant-3&WHRB	2000 TPD&15.25 MW	63	1,61,000 Nm3/hr	Alkali scrubber	

16. Fugitive emissions: Sources / outlets and control systems adopted: : 1. Rock phosphate & solid sulphur stored in closed shed.
2. Gypsum is delivered through the chute and stacked on a HDPE lined open area.

b) Details of Process Emissions:	Control measures proposed
Mentioned at Sl.No.15	

c) Details of Fugitive Emissions:	Control Equipment
Fugitive dust emissions	Closed storage shed for all raw materials Closed Conveyor Belt along with Bag Filter Road Sweeping Machine – 1 number Regular Water Sprinkling through water tanker.

17. Online AAQM and stack monitoring stations:

	As per EC	**As per + CTE**	**As per CTO**	**Present Status**	**Remarks**
Online stack monitoring system provided to the stacks 1,2 and 17 of sulphuric acid plant, stack no 3 and 13 of phosphoric acid plant, stack no. 4, 5 and 14of rock grinding unit, stack no. 6,7 and 8 of complex plant, stack no. 15 of coal fire boiler.	Not stipulated	stipulated	11	Working	All connected to APPCB/CPCB server. Stack of SAP3 yet to be connected to PCB server.
Online CAAQMs	3	3	3	Working	Three CAAQM stations installed and data uploading to APPCB Website

RO remarks on online Stack and CAAQ data: meeting the Norms: in the month of June 3 exceedences were reported

18 Hazardous chemicals used and their storage facilities :

Sl. No.	NameoftheChemical/Fuel	StoragecapacityinKLorTonsproposed
1.	Ammonia (1x5000 MT + 1x7500 MT)	12500 MT
2.	Sulphuric acid (1x4000 MT + 3x2000 MT) + 1x5000 MT	15000 MT
3.	Phosphoric acid (P_2O_5)	7 X 610 m3 + 20000 MT (4X5000 MT)
4.	Molten Sulphur (2x7500 MT)	15000 MT at wharf area and 2x1500 MT at onsite
5.	LSHS	2 X 500 KL + 3 X 160 KL
6.	Diesel	1 X 10 KL + 1 X 16 KL
8.	Kerosene	1 X 50 KL
9.	LPG	870 KG

19 Hazardous waste /Solid Waste details

S.No.	Description of waste	Stream	Quantity(TPA)			Disposal method
			Existing as per CFO order dated.30.09.2022	as per CFE order dt: 22.11.22	Total As per CFO application	
Hazardous Waste with Disposal Option:						
1.	Acid Residues (Tank Bottom sludge) (TPA)	34.2 Schedule -I	45	**60**	60	Recycle back into phosphoric acid reactor (as utilizable waste)
2.	Sulphur muck (Sulphur sludge) (TPA)	Class B (S.No. 37) of Schedule -II	750	**1500**	1500	Recyle back into the process as a filter material in the granulation plant (as utilizable waste)
3.	Spent catalyst (TPA)	18.1 of Schedule -I	65	**115**	115	Shall be routed through APEMC, so as to send to authorized Re-processors / Recyclers (as recyclable waste) (or) TSDF, Parawada for secured land filling (as landfillable waste)/**disposed to TSDF, Parawada for AFRF (as utilizable waste)/Authorized Pre Processing facility**
4.	Used lubricating oil/ drained oil (KLPA)	5.1 of Schedule -I	50	**60**	60	Shall be routed through APEMC, so as to send to authorized Reprocessors / Recyclers (as recyclable waste).
5.	Detoxified Containers (Nos/Annum)	33.1 Schedule -I	Containers – 15000 Nos/Annum	Containers – 15000 Nos/Annum	Containers – 15000 Nos/Annum	Shall be routed through APEMC, so as to dispose to outside agencies, after detoxification

6.	LSHS sludge (TPA)	34.2 Schedule -I	15	15	15	Shall be routed through APEMC so as to send to cement industries for co-processing (as utilizable waste) / disposed to TSDF, Parawada for AFRF (as utilizable waste)/ Authorized Pre Processing facility
7.	Scrubbing sludge (TPA)	37.1 Schedule -I	450	450	450	Reuse back in the process (as utilizable waste)
8.	ETP sludge (TPA)	35.3 of Schedule –I	1200	1200	1200	Recycle back into process (as utilizable waste)
9.	Off specified , expired chemicals & lab chemicals etc. (TPA)	28.4 of Schedule –I	50	50	50	Shall be routed through M/s. APEMCL so as to dispose to TSDF Parawada for incineration /Landfill/ Authorised Cement Industries for CoProcessing
Non-Hazardous wastes:						
10.	**Glass wool (TPA)**		**8**	**-**	**8**	**Shall be routed through Authorized agencies/ Pre-Processers**
11.	**Insulation puf (TPA)**		**8**	**-**	**8**	
Other Wastes:						
12.	E- Waste (TPM)	__	25	25	25	Authorized e-waste recyclers / dismantler
13.	Fly Ash (TPD)	__	25	25	25	To cement industries / Brick manufacturing units/ **Reuse back into PAP process.**

20	**Compliance report of Consent Order No: APPCB/VSP/VSP/65/CTO/HO/2021 Dt:30.09.2022**

SCHEDULE-B		
1	The industry shall cover all directions of the feeding area of rock phosphate by 31.12.2022 and rectify the fugitive leakages.	Complied
2	The industry shall provide Hazardous waste storage area with concrete platform and leachate collection pit for storage of ETP sludge by 31.03.2023 and shall remove openly stored sludge near the ETP area.	The industry has to provide permanent pipe line arrangement for lifting leachate to the ETP for treatment.
3	The industry shall ensure that no Fluoride contamination in two piezo wells and monitor piezo wells on monthly basis. The industry shall submit trends every 3 months to RO, Visakhapatnam	Complied. As per the analysis report, fluoride parameter is within the Board stipulated standard.

<table>
<tr><td>4</td><td>The industry shall remove the accumulated sludge in the storm water drains near sulfuric acid, Phosphoric acid and rock Phosphate storage area and provide storm water collection tank by 30.11.2022.</td><td>Complied.</td></tr>
<tr><td>5</td><td>The industry shall lay the internal roads near phosphoric acid and sulfuric acid plant by 31.03.2023</td><td>Complied.</td></tr>
<tr><td>6</td><td>The industry shall provide automatic caustic lye solution dosage for the scrubbers provided in the Sulphuric acid plant by 31.12.2022 so as to maintain pH below 8 in acidic scrubbers provided in the plant</td><td>Complied.
Installed automatic caustic lye solution dosage for the alkali scrubbers in the Sulphuric acid plant 1 & 2.</td></tr>
<tr><td>7</td><td>The industry shall improve the Housekeeping within the factory premises. Housekeeping shall be improved through closed transportation systems. Road sweeping machine shall be deployed for control of dust near Gypsum yard.</td><td>Complied.</td></tr>
<tr><td colspan="3">WATER POLLUTION:</td></tr>
<tr><td>4</td><td>The effluent discharged shall comply with the tolerance limits mentioned below:
<table>
<tr><th>Outlet</th><th>Parameter</th><th>Limits standards</th></tr>
<tr><td>1 & 2</td><td>pH</td><td>6.5 – 8.5</td></tr>
<tr><td></td><td>Ammonical Nitrogen</td><td>50 mg/lt</td></tr>
<tr><td></td><td>Free Ammonical Nitrogen</td><td>4.0 mg/lt</td></tr>
<tr><td></td><td>Total Kjeldahl nitrogen</td><td>75 mg/lt</td></tr>
<tr><td></td><td>Nitrate Nitrogen</td><td>20 mg/lt</td></tr>
<tr><td></td><td>Cyanide as CN</td><td>0.1 mg/lt</td></tr>
<tr><td></td><td>Vanadium as V</td><td>0.2 mg/lt</td></tr>
<tr><td></td><td>Arsenic as As</td><td>0.2 mg/lt</td></tr>
<tr><td></td><td>Phosphate as P</td><td>5 mg/lt</td></tr>
<tr><td></td><td>Suspended solids</td><td>100 mg/lt</td></tr>
<tr><td></td><td>Oil and Grease</td><td>10 mg/lt</td></tr>
<tr><td></td><td>Fluoride as F</td><td>10 mg/lt</td></tr>
<tr><td></td><td>Hexavalent Chromium as Cr</td><td>0.1 mg/lt</td></tr>
<tr><td></td><td>Total Chromium as Cr</td><td>2.0 mg/lt</td></tr>
<tr><td></td><td>BOD</td><td>30 mg/lt</td></tr>
<tr><td></td><td>COD</td><td>250 mg/lt</td></tr>
</table>
Temp:- Not more than 5 degree C higher than intake water</td><td>Samples from inlet & Outlet of ETP collected and submitted to Zonal Lab Visakhapatnam for analysis.</td></tr>
<tr><td></td><td>Note: i) Chromium salt shall not be used in cooling tower as algaecide.
(ii) The effluent shall be analyzed for Vanadium and Arsenic once in a year and analysis report shall be submitted to the concerned State Pollution Control Board / Pollution Control Committee.</td><td>Complied.</td></tr>
<tr><td>3.</td><td>The source of water is GVMC & Sea drawl. The following is the permitted water consumption:
<table>
<tr><th>S.No</th><th>Purpose</th><th>Quantity (KLD)</th></tr>
<tr><td>1</td><td>Process and washings</td><td rowspan="5">12750 KLD (Existing: 10350 KLD + PAP: 2400 KLD)</td></tr>
<tr><td>2</td><td>Industrial cooling (Makeup)- Fresh water</td></tr>
<tr><td>3</td><td>Boiler Feed</td></tr>
<tr><td>4</td><td>Domestic & Other</td></tr>
<tr><td>5</td><td>Customized fertilizer plant</td></tr>
</table></td><td>Complied.</td></tr>
</table>

	6 Industrial cooling- Sea water: 84600	
4	The effluent discharged shall comply with the tolerance limits mentioned as per MoEF notification dated 29.12.2017 prescribed for fertilizer industry.	Complied
5	The industry shall maintain Electro Magnetic flow meters with totalisers for water used and effluent generation for different purposes and maintain in CFO Order	Complied
6	The effluents shall be stored in above ground level collection tanks separately.	Complied. All the effluent tanks are above ground level tanks only.
7	Effluents shall not be discharged on land or any water bodies or aquifers or outside under any circumstances. Floor washings shall be admitted into effluent collection system only and shall not be allowed to find their way into storm water drains or open areas.	As per the consent Industry discharging once through colling water into Megadrigedda surplus course that joins into creak of Bay of Bengal.
8	The industry shall maintain proper records for effluent generation, treated, reused and discharged into meghadri gedda.	Submitted.
9	Container, Container liners shall be detoxified at the specified covered platform with dyke walls and the wash wastewater shall be routed to low TDS collection tank.	Complied.
10	The industry shall comply with the Board's prescribed standard for fluoride and shall not exceed the standard	Complied.
11	The industry shall operate ETP continuously to meet outlet standards and submit RO Visakhapatnam every month log sheets of ETP operation.	Complied.
12	The industry shall construct separate storm water drains and provide rain water harvesting structure. No effluents shall be discharged into the storm water drains.	Provided separate storm water drains. Industry has to provide the rainwater harvesting structure
13	The industry shall provide online effluent monitoring system for pH, BOD, COD, TSS, Phosphates, Fluorides, temperature with online connectivity to CPCB / APPCB as per CPCB directions dated 05.02.2014 and 02.03.2015.	Complied
AIR POLLUTION		
14	The emissions shall not contain constituents in excess of the prescribed limits mentioned below.	Complied. Online analysers and continuous emission data transfer is connected to APPCB server.
15	The industry shall comply with emission limits for DG sets upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment (Protection) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment (Protection) Second Amendment Rules, 2004. In case of DG sets more than 800 KW shall comply 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	Complied
16	The industry shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10 microns) - 100 micro gram/ m3; PM2.5 (Particulate Matter size less than 2.5 microns) - 60 micro gram/ m3; SO2 - 80 micro gram/ m3; NOx - 80 micro gram/m3, outside the factory premises at the periphery of the	Complied. Ambient Air Quality in the plant and periphery villages is being carried out through MoEFCC & NABL accredited laboratory. Industry installed 3 nos of continuous ambient air quality monitoring stations in the plant and

	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 shall be complied. Following standards prescribed for noise shall be complied. Noise Levels: Day time - (6 AM to 10 PM) - 75 dB (A) Night time - (10 PM to 6 AM) - 70 dB (A).	the real time AAQ data is being transmitted to APPCB server.
17	The industry shall provide a sampling port with removable dummy of not less than 15 cm diameter in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.	Complied.
18	The industry shall operate bulk handling mechanism like telescopic chute system at all raw material storage ware houses and ensure that there shall not be fugitive emissions from the raw material handling warehouses.	Complied.
19	The industry shall provide and maintain the online analyzer facility for monitoring of Fluoride in the Phosphoric Acid plant immediately. The data shall be connected to the CPCB / APPCB servers.	Provided online analyser facility for monitoring fluoride (HF) which is connected to PCB server. However the standard in the consent order is for fluorine.
20	The industry shall provide online stack analyzers for all the stacks of complex fertilizer plant for monitoring ammonia, PM and fluorine and one analyser for monitoring fluorine in Phosphoric Acid Plant with online connectivity to CPCB/APPCB as per CPCB directions dated 05.02.2014 and 02.03.2015.	Complied. Online Continuous Emission Monitoring Systems (*OCEMS*) have been installed and Sulphuric Acid Plants, Phosphoric Acid Plants and Complex plants. The data generated from the OCEMS is being transmitted to APPCB & CPCB websites.
21	The industry shall maintain 3 online CAAQM Stations within the plant as per the specifications of CPCB for online monitoring of SPM, RSPM, SO2, NOx & Ammonia with networking facility to Head Office, APPCB.	Complied
22	The industry shall submit the emission loads of SO2, SO2 & acid mist for all sulfuric acid plants, after expansion	Industry not yet commissioned the expansion plant
GENERAL:		
23	The industry shall not manufacture new products and not exceed the consented capacity without CFE/CFO of the Board	Complied
24	There shall not be any change in waste water, solid waste and air pollution (emission loads F, NH3, SPM) in the post change of product mix and to achieve this, the following measures are implemented in NPK plant in order to reduce the pollution loads.	The industry conducted Air Quality Modelling and Impact Prediction study which is to be reviewed as the Visakhapatnam city falls under non-attainment city.
a	Improved pipe reactors technology with change in the design of internals for increase absorption of ammonia during reaction with Phosphoric acid, to reduce ammonia emissions from the reaction system	Complied. The company has provided improved pipe reactors technology for increase absorption of ammonia during reaction. Usage concentrated Phosphoric acid having low Fluorine content along with weak Phosphoric acid, to reduce Fluorine input to Complex fertilizer plant and hence to reduce Fluorine emissions. Usage of granulation aide to improve granule strength to reduce dust generation
b	Usage of increased proportion of evaporated (concentrated) Phosphoric acid having low Fluorine content along with weak Phosphoric acid, to reduce Fluorine input to Complex fertilizer plant and hence to reduce Fluorine emissions.	

c	Usage of granulation aide to improve granule strength to reduce dust generation from the plant	from the plant.
25	The industry shall provide water flow meter at Leachate Collection pit provided for Gypsum storage yard to quantify the effluents recycled and shall maintain registers.	Complied.
26	The industry shall submit details of maintaining temperature difference (DT) of 5 degree C before disposal to Sea via Megadrigedda every month.	Complied.
27	The industry shall evaporate (concentrate) Phosphoric acid to reduce Fluorine so as to reduce fluorine input to complex fertilizer plant;	Complied. The company has installed Fluorine Recovery Units (FRU) to reduce fluorine emissions and thereby reducing the fluorine inputs to the complex fertilizer plants.
28	The industry shall provide online pH measuring facility with auto recording system to the alkali scrubbers provided to treat the sulfuric acid plant emissions.	Complied. Online pH measuring facility with auto recording system installed to alkali scrubbers for treat the sulfuric acid plant emissions.
29	The industry shall comply with the guidelines issued by the CPCB regarding storage & handling of gypsum.	Complied.
30	The industry shall not start-up the sulfuric acid plants during night-time i.e. between 6.00 PM to 8: 00 AM.	Complied.
31	The industry shall recover fluorine from phosphoric acid process to maximum extent possible.	Complied.
32	The industry shall operate bag filters at hopper i.e. rock phosphate unloading point at wharf to arrest the fugitive emissions.	Complied.
33	The industry shall update the Disaster Management Plan regularly.	Complied.
34	The industry shall monitor work place online ammonia levels with online sensors in complex fertiliser plant and maintain records.	Complied. Installed 27 Sensor to detect leakages.
35	The industry shall store fresh gypsum on HDPE lining at the wagon loading area.	Complied. The wagon loading area has been provided with HDPE liner arrangement and gypsum is handled in the HDPE lined area.
36	The industry shall submit concentration levels of Ammonia monitored by industry through sensors every month.	Complied.
37	The industry shall ensure that there are no leaks in any unit operations and unit processes.	Complied.
38	The industry shall take proper measures to ensure the trucks with proper leak proof bodies are used for transportation of gypsum from the industry.	Complied.
39	The industry shall maintain the following records and the same shall be made available to the inspecting officers of the Board: a. Daily production details. b. Quantity of Effluents generated, treated, recycled. c. Log Books for pollution control systems. d. Characteristics of effluents and emissions. e. Hazardous/non hazardous solid waste generated and disposed.	Complied.

	f. Inspection book. g. Manifest copies of effluents / hazardous waste.	
40	The industry shall develop green belt in all the vacant places. In future, excess green belt over and above 33 % of total area can be utilized for industrial activity as per requirement of industry.	The industry has developed greenbelt to an extent of 99 acre and industry proposed to develop additional 5 acre green belt in this monsoon to meet 33% requirement.
41	The industry shall comply with the conditions stipulated in the CFE order No.65/APPCB/CFE/RO-VSP/HO/2012, dated 08.02.2020	During inspection it was observed that SAP3 plant construction is nearing completion and proposed to commission by 3rd week of July 2023. The condition wise compliance will be submitted after commissioning of the plant.
42	The industry shall update the information in OCEMS - Industry Information Data Entry Software for Compliance Reporting Protocol in PART-II (Sections F & G) Every Quarter on 1st January, 1st April, 1st July and 1st October through this software system.	Complied
43	The industry shall maintain valid the PLI policy which includes Environmental Relief Fund (ERF) and submit copy to RO, Visakhapatnam on yearly base.	Complied, PLI policy is valid till 31.03.2024.
44	The industry shall install digital display boards at publicly visible places at the main gate indicating the products manufactured Vs permitted quantities, Treated effluent concentrations Vs discharge standards, Stack emission & AAQ concentrations Vs standards, hazardous waste generation, disposed, stock Vs permitted quantities and validity of CFO; and exhibit the CFO order at a prominent place in the factory premises, as per Hon'ble Supreme Court order.	Complied.
45	The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., https://pcb.ap.gov.in by 1st of January and 1st July of every year.The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party.	Complied.
46	Any other directions / circulars / notices issued by CPCB, MoEF&CC and APPCB shall be followed from time to time	Complied.
47	The conditions are stipulated without prejudice to the rights and contentions of this Board in any Hon'ble Court of Law.	-
SPECIAL CONDITIONS		
48	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. Fire NOC is valid up to 18.04.2027 covering for entire plant
49	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	Complied. Conducted safety audit and submitted report in May 2022.

	Dept., and submit the compliance along with copy of the safety report, safety audit report and safety certificate at concerned Regional Office, APPCB.	
50	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.	Complied.
51	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. The industry shall install fluorescent Wind Vane at the highest point in the industry premises.	Complied.
52	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 the details to Regional Office, APPCB on a monthly basis duly certifying the same by the industry.	Complied.
53	The industry shall conduct Risk studies to be undertaken clearly describing impact within the industry premises and outside the industry premises and emergency response system.	Complied. Industry engaged NEERI to carry out "*Hazard Analysis and Risk Assessment*" for worst credible hazard scenarios including fire & explosion and submitted report on May 2021.
54	The industry shall inventorize the storage quantities of hazardous chemicals (raw materials), products, as per the hazard nature of reactivity / toxicity / flammability / explosive stored/handling in the premises as defined in the Management of Storage, Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB on monthly basis duly certifying the same.	Complied.

Compliance of the conditions stipulated in CTE Expansion order No: 65/APPCB/CFE/RO-VSP/HO/2012 dated 22/11/2022: H2SO4, Bentonite Sulphur, Phos Acid, Sulpho Zink & Boron, Liquid Fertilizer Plant

S.No.	Consent Condition	Compliance
1	The proponent shall obtain Consent to Operate (CTO) from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the trail runs.	Industry applied for CTO expansion.
2	**Separate energy meter shall be provided for effluent treatment plant (ETP) and Air pollution control equipment's to record energy consumed.** **The applicant shall properly maintain separate energy meters for Effluent Treatment Plant (ETP) and Air pollution Control equipment's to record energy consumed. An**	Complied.

<table>
<tr><td></td><td>alternative electric power source sufficient to operate all pollution control systems shall be provided.</td><td></td></tr>
<tr><td>3</td><td>The industry shall properly maintain separate storm water drains. No effluents shall be discharged in to the storm water drains.</td><td>Storm water drain under construction in SAP3 plant.</td></tr>
<tr><td>4</td><td>Water
The source of water is GVMC & Sea. The maximum permitted water consumption is as following after expansion of Sulphuric acid plant:
<table>
<tr><th rowspan="2">S. No.</th><th rowspan="2">Purpose</th><th colspan="5">Quantity (KLD)</th></tr>
<tr><th>As per EC Order dt.07.01.2021</th><th>As per CFE Order dt.27.07.2022</th><th>As per CFE Order dt.08.02.2022 and 24.08.2022</th><th>As per CFO Order dt.30.09.2022</th><th>Total after expansion</th></tr>
<tr><td>1</td><td>Process & Washes</td><td rowspan="4">Total – 14550</td><td></td><td rowspan="4">Total – 14550 (Existing 10,350 + SAP3-1800 + PAP-2400 KLD)</td><td rowspan="4">12750KLD* (Existing : 10350 KLD +PAP : 2400KLD)</td><td rowspan="4">Total – 16600 (Existing 10,350 + SAP3-1800 + PAP-2400 KLD) (Proposed- SAP - 650+ PAP-1400 =2050)</td></tr>
<tr><td>2</td><td>Industrial Cooling (Make up) – Fresh Water (from GVMC or from De-salination plant or combination of both)</td><td>—</td></tr>
<tr><td>3</td><td>Boiler feed</td><td></td></tr>
<tr><td>4</td><td>Domestic & Other</td><td></td></tr>
<tr><td></td><td>Subtotal</td><td>14550</td><td>—</td><td>14550</td><td></td><td>16600</td></tr>
<tr><td>5</td><td>Industrial cooling Sea water</td><td>84600</td><td>40,000</td><td>84600</td><td>84600</td><td>84600+40000 = 124600</td></tr>
<tr><td></td><td>Grand Total</td><td>99,150</td><td>40,000</td><td>99150</td><td></td><td>1,41,200</td></tr>
</table></td><td>Expansion plant not yet commissioned</td></tr>
<tr><td>5</td><td>The maximum waste water generation shall not exceed the following after expansion of Sulphuric acid plant:
<table>
<tr><th rowspan="2">S. No.</th><th rowspan="2">Source</th><th colspan="5">Quantity (KLD)</th></tr>
<tr><th>As per the CFE orders dt.08.02.2020 & 24.02.2022</th><th>As per CFE Order dt.27.07.2022</th><th>As per CFO Order dt.30.09.2022</th><th>As per CFE Expansion</th><th>Total after Expansion</th></tr>
<tr><td>1.</td><td>Process & Washings</td><td>1800</td><td>-</td><td>1800</td><td>--</td><td>1800</td></tr>
<tr><td>2.</td><td>Cooling & Water Blow Down</td><td>81,600</td><td>25,000 (SWRO Rejects)</td><td>81600</td><td>25000</td><td>1,06,600</td></tr>
<tr><td>3.</td><td>Domestic</td><td>530</td><td>-</td><td>530</td><td>---</td><td>530</td></tr>
<tr><td></td><td>Total</td><td>83,930</td><td>25,000 (SWRO Rejects)</td><td>---</td><td>---</td><td>1,08,930</td></tr>
</table></td><td>Expansion plant not yet commissioned.</td></tr>
<tr><td>6</td><td>All the units of the ETP & STP systems shall be impervious to prevent ground water pollution. The ETP & STP systems shall be maintained properly to achieve the standards.</td><td>Complied.</td></tr>
<tr><td>7</td><td>Process effluents shall be recycled / reused within factory premises to achieve zero discharge except during the rainy season, as stipulated in Specific conditions – point (ix) of EC order dt. 14.07.2017.</td><td>Complied.</td></tr>
<tr><td>8</td><td>During rainy season, the treated waste water shall meet the water discharge standards, as stipulated in condition no.2 of Schedule-B of CFO order dt. 19.03.2018.</td><td>Sample reports are attached.</td></tr>
<tr><td>9</td><td>The industry shall provide magnetic flow meters with totalisers at the inlet and outlet of ETP.</td><td>Complied.</td></tr>
<tr><td>10</td><td>Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas. All pipe valves, sewers, drains shall be leak proof.</td><td>Complied.</td></tr>
<tr><td>11</td><td>The Air pollution Control equipment shall be maintained properly and shall comply with the following for controlling air pollution after expansion :</td><td>Expansion plant not yet commissioned.</td></tr>
</table>

<table>
<tr><td>12.</td><td>The industry shall properly maintain 400 MTPD evaporation system for Phosphoric Acid including Fluorine recovery system as stipulated in the EC order dt.14.07.2017.</td><td>Complied.</td></tr>
<tr><td>13.</td><td>A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.</td><td>Complied.</td></tr>
<tr><td>14.</td><td>The industry shall properly maintain online pH measuring facility with auto recording system to the scrubbers provided to treat the process emissions.</td><td rowspan="2">Expansion plant not yet commissioned.</td></tr>
<tr><td>15.</td><td>The industry shall implement adequate measures to control all fugitive emissions from the plant.</td></tr>
<tr><td>16.</td><td>The proponent shall ensure compliance of the National Ambient Air quality standards notified by MoEF, GoI vide notification No. GSR. 826 (E), dated.16.11.2009 during construction and regular operational phase of the project at the periphery.

The generator shall be installed in a closed area with a silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB(A) during day time and 70 dB(A) during night time.</td><td>As per online data 3 times exceedances occurred in the month of June 2023.</td></tr>
<tr><td>17.</td><td>The industry shall comply with the following for disposal of Solid Waste after expansion:

<table>
<tr><th>S. No.</th><th>Description of waste</th><th>Stream</th><th colspan="3">Quantity(TPA)</th><th>Disposal method</th></tr>
<tr><th></th><th></th><th></th><th>Existing as per CFO order dt.30.09.2022</th><th>Applied for Expansion</th><th>Total after expansion</th><th></th></tr>
<tr><td colspan="8">Hazardous Waste with Disposal Option:</td></tr>
<tr><td>1.</td><td>Acid Residues (Tank Bottom sludge) (TPA)</td><td>34.2 Schedule-I</td><td>45</td><td>15</td><td>60</td><td>Recycle back into phosphoric acid reactor (as utilizable waste)</td></tr>
<tr><td>2.</td><td>Sulphur muck (Sulphur</td><td>Class B (S.No. 37)</td><td>750</td><td>750</td><td>1500</td><td>Recyle back into the process as a</td></tr>
</table>
</td><td>Expansion plant not yet commissioned.</td></tr>
</table>

	sludge) (TPA)	of Schedule-II				filter materia the granul plant (as utiliz waste)
3.	Spent catalyst (TPA)	18.1 of Schedule-I	65	50	115	Shall be ro through APE so as to sen authorised Reprocessors Recyclers recyclable wa (or) TS Parawada secured filling landfillable wa
4.	Used lubricating oil/ drained oil (KLPA)	5.1 of Schedule-I	50	10	60	Shall be ro through APE so as to sen authorized Reprocessors Recyclers recyclable wa
5.	Detoxified Containers (Nos/Annum)	33.1 Schedule-I	Containers – 15000 Nos./annum	--	Containers – 15000 Nos./annu m	Shall be ro through APE so as to dis to ou agencies, detoxification
6.	LSHS sludge (TPA)	34.2 Schedule-I	15	--	15	Shall be ro through API so as to sen cement indus for co-proces (as utiliz waste) / disp to TS Parawada AFRF utilizable wast
7.	Scrubbing sludge (TPA)	37.1 Schedule-I	450	---	450	Reuse back in process utilizable wast
8.	ETP sludge (TPA)	35.3 of Schedule –I	1200	--	1200	Recycle back process utilizable wast
9.	Off specified , expired chemicals & lab chemicals etc. (TPA)	28.4 of Schedule –I	50	--	50	Shall be ro through APEMCL so dispose to T Parawada incineration
						Authorised Cement Industri for CoProcessin
10.	E- Waste (TPM)	—	25	--	25	Authorized e-waste recyclers dismantler
11.	Fly Ash (TPD)	—	25	--	25	To cement indutries / Brick manufacturing units

18	The following rules and regulations notified by the MoEF&CC, GoI shall beimplemented. a) Hazardous waste and other wastes (Management and Transboundary Movement) Rules, 2016. b) Plastic Waste Management Rules, 2016. c) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989. d) Fly Ash Notification, 2016. e) Batteries (Management & Handling) Rules, 2010. f) E-Waste (Management) Rules, 2016. g) Construction and Demolition waste Management Rules, 2016. i) Solid Waste Management Rules, 2016. j) The Public Liability Insurance Act, 1991 and its amendments thereof.	Expansion plant not yet commissioned.
	Other conditions:	
19.	The MoEF& CC, GoI, New Delhi vide lr. dt.21.04.2022 addressed to their sister concern M/s.Coromandel International, Beach Road, Kakinada, Andhra Pradesh clarified that establishment of new Phosphoric Acid Plant (PAP) in the existing plant at Kakinada, East Godavari district may not be considered to be	Complied.

	covered under extent provision of the EIA Notification 2006 with subsequent amendments, and thus not requiring prior EC.	
20.	The Board addressed to the MoEF& CC, GoI, New Delhi on the applicability of Environmental Clearance for expansion of Bentonite Sulfur / Bentonite Sulfur with micronutrients, Sulfo Zinc and Sulfo Boron and installation of coal fired furnace for customized fertilizer plant. The industry shall abide by the decision of the MoEF& CC, GoI, New Delhi regarding applicability of EC to the project.	Expansion plant not yet commissioned.
21.	The industry shall submit compliance to the conditions stipulated in the EC and CFE orders to the concerned Regional Officer of APPCB every six months and shall upload the same at APPCB website viz., https://pcb.ap.gov.in/UI/Submission_Compliance_of_EC_CFE_CFO_Directon.aspx	Submitted.
22.	The industry submitted a copy of letter stating that the MoEF&CC, GoI, New Delhi vide lr.dt.30.05.2018 addressed to M/s. Southern Petro Chemical Industries Corporation (SPIC) clarified that the intermediate product (Phosphoric Acid) is not covered under the purview of the EIA notification 2006, and as such there is no requirement of Environmental Clearance to the said project as stand alone. Similarly, in this case also EC is not required as Sulphuric acid is one of the raw materials / intermediates for manufacture of Chemical fertilizer.	Complied.
23.	The industry shall submit a report on recycling of treated effluent into the process to achieve zero discharge except during rainy season.	Not submitted.
24.	The industry shall display online data outside the main factory gate on quantity and nature of hazardous chemicals being used in the plant, water & air emissions and solid waste generated within the factory premises, as per Hon'ble Supreme Court order.	Complied.
25.	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.
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. Fire NOC is valid up to 18.04.2027 covering for entire plant.
27.	The industry shall submit risk assessment report covering worst scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system.	Complied. Submitted in the month of May 2021
28.	The industry shall obtain PESO clearance & policy under PLI Act beforeapplying for CTO of the Board.	PESO is valid up to 31.12.2024 and PLI is valid up to 31.03.2024.
29.	The industry shall comply with the technical suggestions at Chapter No. 7.3 & 7.4 for Hazardous Chemical handling industries by High Power Committee (HPC) of Govt. of Andhra Pradesh. The HPC report is available at www.ap.gov.in.	Complied.
30.	The industry shall utilize DG power for captive consumption only & power shall not be supplied to grid and shall follow the amendments issued by MoEF& CC/CPCB from time to time on DG sets in respect of conditions & standards.	Complied.
31.	Green belt shall be developed all along the boundary & vacant spaces with tall growing trees with good canopy and it shall not be less than 33% of the total area.	The industry has developed greenbelt to an extent of 99 acre and industry proposed to develop additional 5 acre

		green belt in this monsoon to meet 33% requirement.
32.	The industry shall submit compliance to the conditions stipulated in the CFE orders to the concerned Regional Officer of APPCB every six months and shall upload the same at APPCB website viz., https://pcb.ap.gov.in/UI/Submission_Compliance_of_EC_CFE_CFO_Direction.aspx.	Complied.
33.	The industry shall submit the information regarding usage of Ozone Depleting Substance once in six months to the Regional Office and Zonal Office of the Board.	Complied
34.	Concealing the factual data or submission of false information / fabricated data and failure to comply with any of the conditions mentioned in this order attracts action under the provisions of relevant pollution control Acts.	-
35.	Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec. 27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to revoke the order, to review any or all the conditions imposed herein and to make such modifications as deemed fit and stipulate any additional conditions.	-
36.	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 such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of Water (Prevention and Control of Pollution)Act,1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.	-

Compliance of the condition stipulated in CTE Expansion Order No. 65/APPCB/CTE/RO-VSP/HO/2012 dt:27.07.2022: Desalination Plant

S.No	Condition	Compliance
1.	The proponent shall obtain Consent for Operation (CFO) from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the trail runs.	The industry applied for CTO for Desalination plant of 6 MLD capacity.
2.	The applicant shall provide separate energy meters for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed. An alternative electric power source sufficient to operate all pollution control systems shall be provided.	Provided
3.	The industry shall construct separate storm water drains. No effluents shall be discharged in to the storm water drains.	Complied
4.	Water: The source of water is Bay of Bengal and the maximum permitted water consumption is as following: i. The industry is having 6 Km open canal from Whraf berth upto the plant area to use the sea water for once through cooling purpose in various sections of the existing plant. Hence, the industry has proposed to pump the sea water from the existing canal. ii. The Seawater Reverse Osmosis Plant (SWRO) plant requires about 40,000 m3/day	Desalination plant not yet commissioned

<table>
<tr><td></td><td>of seawater to produce permeate of 15,000 m3/day meet the water requirement.

iii. Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned above.</td><td></td></tr>
<tr><td>5.</td><td>The maximum waste water generation shall not exceed the following:
RO rejects - 25,000 m3/day The industry shall discharge the RO rejects into existing drain (which is industrial drain confluences of M/s.HPCL, M/s. Coromandel and M/s. Andhra Petro Chemicals) joins at Meghadrigedda surplus course which finally joins Bay of Bengal.</td><td>Desalination plant not yet commissioned</td></tr>
<tr><td>6.</td><td>Other Conditions:
The industry shall comply with all the conditions stipulated in the CRZ Clearance dt.24.03.2022 & EC amendment dt.27.06.2022 issued by MoEF& CC, GoI, New Delhi and also Board NOC dt.29.06.2021 and 02.11.2021.</td><td>Complied</td></tr>
<tr><td>7.</td><td>“The industry shall comply with the industry specific standards with respect to emissions tank farm vents stipulated by the MoEF& CC, GoI, New Delhi vide Notification GSR541(E), dt.06.08.2021.”

<table>
<tr><th>. lo.</th><th>Detailsofprocess emissions</th><th>EmissionControlsystem</th><th>Emission Standard</th></tr>
<tr><td>.</td><td>HCl</td><td rowspan="9">Multi stage water</td><td>35mg/Nm^3</td></tr>
<tr><td>.</td><td>NH_3</td><td>30mg/Nm^3</td></tr>
<tr><td>.</td><td>Chlorine</td><td>15mg/Nm^3</td></tr>
<tr><td>.</td><td>Benzene</td><td>5mg/Nm^3</td></tr>
<tr><td>.</td><td>Toluene</td><td>100mg/Nm^3</td></tr>
<tr><td>.</td><td>Acetonitrile</td><td>1000 mg/Nm^3</td></tr>
<tr><td>.</td><td>Dichloromethane</td><td>200mg/Nm^3</td></tr>
<tr><td>.</td><td>Xylene</td><td>100mg/Nm^3</td></tr>
<tr><td>.</td><td>Acetone</td><td>2000 mg/Nm^3</td></tr>
</table></td><td>Desalination plant not yet commissioned</td></tr>
<tr><td>8.</td><td>The industry shall display online data outside the main factory gate on quantity andnature of hazardous chemicals being used in the plant, water & air emissions andsolid waste generated within the factory premises, as per Hon’ble Supreme Courtorder.</td><td>Complied</td></tr>
<tr><td>9.</td><td>Theindustryshallprepareasafetyreportandcarryoutanindependentsafetyauditreportoftherespectiveindustrialactivitiesincludingchemicalstorages / isolated storages by an expert not associated with such industrialactivity as required under Rule 10 of MSIHC Rules, 1989 and get it approvedby the Factories Dept., and submit the compliance along with copy of thesafety report, safety audit report and safety certificate at concerned RegionalOffice,APPCB.</td><td>Complied</td></tr>
<tr><td>10.</td><td>The industry shall submit a copy of the NOC issued by the Andhra PradeshState Disaster Response and Fire Service Dept., (APSDRFSD) at concernedRegional Office, APPCB.</td><td>Complied</td></tr>
<tr><td>11.</td><td>The industry shall submit risk assessment report covering worst scenarioclearly describing impact within the industry premises and outside</td><td>Complied</td></tr>
</table>

	theindustry premises and emergency response system.	
12.	The industry shall obtain PESO clearance & policy under PLI Act before applying for CFO of the Board.	Complied
13.	The industry shall inventorize the storage quantities of hazardous chemicals (rawmaterials), products, as per the hazard nature of reactivity / toxicity / flammability /explosive stored/handling in the premises as defined in the Management of Storage,Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB onmonthly basis duly certifying the same.	Complied
14.	The industry shall identify major accident hazard chemicals & list out the hazardouschemicals endangered to human health & environment and the details shall befurnished to the Factories Department and to the Regional Office, APPCB time totime duly certifying the same by the industry. Further the industry shall extendtraining to the working personnels while handling hazardous chemicals forprevention of accidents and necessary antidotes to ensure the safety, as per theMSIHC Rules, 1989.	Complied
15.	The industry shall carryout calibration of safety equipments and leak detectionsystems at regular intervals and shall certify the same with the FactoriesDepartment. That certified copy shall be submitted to the APPCB, Regional Office. The industry shall install fluorescent Wind Vane at the highest point in the industrypremises.	Desalination plant not yet commissioned. During inspection civil works completed and erection of machinery under process.
16.	The industry shall comply with the Technical suggestions at Chapter No. 7.3& 7.4 for Hazardous Chemical handling industries by High Power Committee(HPC) of Govt. of Andhra Pradesh. The HPC report is available atwww.ap.gov.in.	Complied
17.	The industry shall utilize DG power for captive consumption only & power shall notbe supplied to grid and shall follow the amendments issued by MoEF& CC/CPCBfrom time to time on DG sets in respect of conditions & standards.	Complied
18.	The industry shall submit compliance to the conditions stipulated in the CFEorderstotheconcernedRegionalOfficerofAPPCBeverysixmonthsandshalluploadthesameatAPPCBwebsiteviz., https://pcb.ap.gov.in/UI/Submission_Compliance_of_EC_CFE_CFO_Direction.aspx .	Complied
19.	TheindustryshallsubmittheinformationregardingusageofOzoneDepletingSubstanceonceinsixmonthstotheRegionalOfficeandZonalOfficeoftheBoard.	Complied
20.	Concealing the factual data or submission of false information / fabricated data andfailure to comply with any of the conditions mentioned in this order attracts actionunder theprovisions of relevantpollutioncontrolActs.	-
21.	Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec. 27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to revoke the order, to review any or all the condition simposed herein and to make such modifications as deemed fit and	-

	stipulate any additional conditions.	
22.	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 such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of Water (Prevention and Control of Pollution)Act,1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.	-

22 Hazardous Waste Authorization details:

i)	Particulars of Authorization obtained under HW (M&H) Rules, 2003 (No. & Validity date)	:	1) CTO & HWMA Order No: APPCB/VSP/65/CFO/HO/ 1967 dated 30.09.2022. 2) Consent amendment order No: APPCB/VSP/65/CTO/HO/ 1967dated 01.02.2023. 3) Now, the industry applied for the CTO (*expansion Fresh*) of the Board.
ii)	Authorization issued for (*Transportation, reception, storage, treatment and disposal*)	:	
iii)	Process in which the industry is covered (*Please give S. No. of process as per HW Rules*)	:	Mentioned at S.No.19.
iv)	Description of Hazardous waste with quantities and Stream No. as per HWM Rules, 2016	:	
v)	Particulars of on-site Secured Storage (Capacity with dimensions) and mention period for which secured storage is sufficient.	:	Provided closed storage shed with leachate collection system
vi)	Quantity of Haz Waste stored on-site presently.	:	Sulphur muck (Sulphur sludge)- 70 (MT), Used lubricating oil/ drained oil (KL)- 2 Spent catalyst -15 tons
vii)	Quantity of Hazardous waste disposed for last six months	:	Spent catalyst -19.57 Tones, Used lubricating oil/ drained oil -5.08 KL, LSHS sludge- 8.08 Tones
viii)	Whether industry has submitted annual returns, date of latest submission.	:	Submitted.
ix)	Whether industry has installed incinerator or sending to common HW Incinerator	:	--
x)	Particular of own incinerator (if applicable)	:	---
xi)	Whether log books are maintained for incinerator. (if applicable)	:	---
xii)	Whether industry has taken adequate steps to prevent contaminated runoff from storage areas of Hazardous Waste.	:	Complied
xiii)	Steps taken by industry towards waste minimization and cleaner production.	:	---
xiv)	Future plan for waste minimization.	:	---
xv)	Facilities available with, industry for waste characterization.	:	---
xvi)	Overall House Keeping within the factory premises.	:	To be improved.
xviii)	Details of disposal of lead acid batteries along with nos. and agencies to whom they are disposed	:	---

23.	**Task Force Directions Order No.710/APPCB/HH-II/TF/VSP/2020-2000, dt:17.03.2020:**

S.No	Directions	Compliance
1.	The storage & handling of gypsum should be carried out as per the guidelines of the CPCB.	The industry has obtained NOC/CTE from APPCB for closure of reclaimed waste stack comprising of gypsum and soil vide Order No.65 /APPCB/CTE/RO-VSP/HO/2012 Dt: 19.01.2022 and industry has completely closed the reclaimed waste stack and developed green belt.
2.	The existing old non usable gypsum stock present in the open yards shall be stored immediately at the earliest meeting the guidelines issued by CPCB.	The industry has obtained NOC/CTE from APPCB for closure of reclaimed waste stack comprising of gypsum and soil vide Order No.65 /APPCB/CTE/RO-VSP/HO/2012 Dt: 19.01.2022 and industry has completely closed the reclaimed waste stack and developed green belt.
3.	The industry shall monitor the surface and ground water resources around the phosphogypsum stack as per the monitoring protocol suggested in guidelines.	Monitoring the surface and ground water sources piezo wells and submitting the reports to this office.
4.	The fugitive emissions shall be controlled at the rock phosphate feeding area and phosphoric acid reactors.	Telescopic chutes provided in the rock phosphate handling section and transferring through pipe conveyors to avoid fugitive emissions in the process.
5.	The industry shall install online stack monitoring systems, CAAQM stations and online effluent monitoring systems as per the CPCB protocol (parameters and guidelines) and directions dt 05.02.2014 and 02.03.2015.	Complied.
6.	The CAAQM stations and online stack monitoring stations should be calibrated as per the CPCB protocol.	Complied.
7.	The industry should explore the possibility of disposing vanadium pentoxide to authorized recyclers.	The industry informed that they dispose the spent catalyst ie., vanadium pentoxide to TSDF, Parawada as there are no authorized recyclers. At present, no storage of vanadium pentoxide at the site.
8.	The industry should explore the possibility of installing additional tank which can be used as a spare tank for storage of ammonia in case of loss of integrity of any tank.	Existing ammonia storage is tank in tank design and storing at atmospheric pressure. Total 14 No. of Mayuri water curtain spray nozzles, stand by Fire pump trailer arrangement are available along with respiratory protective equipment. The industry has installed ammonia sensor at one side of the pump located near ammonia storage tank. The control room provided by the industry should have direct vision of Ammonia storage area to meet the safety and emergency requirements.
9.	The industry shall close the outlet of the	Complied.

<table>
<tr><td></td><td>existing delay pond permanently.</td><td></td></tr>
<tr><td>10.</td><td>The validity of the existing BG shall be extended for further period of one year within 15 days towards the compliance of TF Directions.</td><td>Complied.
<table>
<tr><td>BG No.</td><td>Amount in Rs.</td><td>Valid upto</td></tr>
<tr><td>16340100014968</td><td>25.0 lakhs</td><td>17.06.2024</td></tr>
<tr><td>16340100014475</td><td>10.0 lakhs</td><td>17.06.2024</td></tr>
<tr><td>16340100010957</td><td>40.0 lakhs</td><td>17.06.2024</td></tr>
<tr><td>16340100010958</td><td>50.0 lakhs</td><td>17.06.2024</td></tr>
<tr><td>1634010003993</td><td>10.0 lakhs</td><td>17.06.2024</td></tr>
</table></td></tr>
</table>

26. Inspecting Officer's Remarks:	
Status of functioning of flow meters of water and effluent	Working condition.
Status of energy meters in ETP and Air Pollution Control Equipment (APC)	Provided.
Remarks on ETP performance and Analysis results	--
Remarks on APC equipment performance and Analysis results	The industry is having 3rd party monitoring reports.
Details of specific and serious non-compliance	---
Details of Court cases & Status	NIL
Details of complaints	NIL
Amendments required in the existing CTO/CTE order	
Irrelevant Conditions that need deletion in view of present compliance / non-compliance	---
Additional conditions to be imposed	---
Specific comments on quantities of Hazardous Wastes as per application, existing CTO Order and actual generation	The concreted platform with leachate collection pit for storage of ETP sludge is under progress.
Details of non-hazardous solid waste generation and disposal details separately	---
Compliance of the industry with reference to Notifications under E(P) Act & Rules a) Fly Ash Notification b) PLI Act Policy c) Environmental Statement in Form – V d) Other if any	-- The industry is having valid PLI policy upto 31.03.2024
Mitigation Measures (Where significant adverse effects are identified, description of the remedial measures to be taken to avoid, reduce those effects).	---

1. M/s. Coromandel International Limited, Visakhapatnam is operating complex fertilizer plant along with facilities like manufacturing of sulphuric acid, phosphoric acid etc., at Sriharipuram, Malkapuram (PO), Visakhapatnam District in an extent of 313 Acres and is having valid CTO upto 31st August 2027.
2. Industry obtained CTE vide order dated 08.02.2020, 27.07.2022 and 22.11.2022 for inclusion of sulfuric acid plant from 2100TPD to 4100 TPD, enhancement of phosphoric acid from 1400TPD to 1600 TPD of P_2O_5, sulphozinc and sulpho Boran from 10TPD to 50TPD, Bentonite sulpher/ Bentonite sulpher with micro nutrients from 90TPD to 200TPD and desalination plant 15MLD capacity.

3. The industry obtained CRZ clearance vide reference 3rd cited.

4. Now the industry applied for the CTO expansion through OCMMS for sulfuric acid plant from 2100TPD to 4100 TPD, enhancement of phosphoric acid from 1400TPD to 1600 TPD of P_2O_5, sulpho zinc and sulpho Boran from 10TPD to 50TPD, Bentonite sulpher/ Bentonite sulpher with micro nutrients from 90TPD to 200TPD and desalination plant 6 MLD capacity.

5. The industry paid CTO fee of Rs.41,53,977.44/- for period of 5 years. i.e., upto 31st August 2027on

the investment made for the expansion.

6. The industry was inspected on 01.07.2023 and the following were observed:
    1) All units are in operation.
    2) The online monitoring data of the stack, air was verified during inspection and observed that the values for the parameters are found to be within the Board standards.
    3) The industry shall lay internal roads with storm water drains near to sulphuric acid expansion plant.
    4) The industry has provided online effluent monitoring system for measurement of pH, temperature, Flow and Fluorides.
    5) The industry has provided Peizo wells four nos. to monitor the fluoride levels in the ground water and as per the third party analysis reports collected on 21.05.2022the fluoride values varying from 0.4 to 0.8 mg/L.
    6) The industry has provided fire water hydrant system around the ammonia storage tanks (two nos.) in all four directions to cover the tanks in case of ammonia leak.
    7) The industry has provided automatic water sprinkling system at storage tank outlet to fertilizer plant pumping area and provided manual water sprinkling system in Ammonia Storage tank dyke area in case of ammonia leak in the storage tank area. The industry shall explore the possibility of providing automatic water sprinkling system at Ammonia Storage dyke area.
    8) Industry provided water storage tank of 7380 m^3 capacity for fire hydrant.
    9) At present the industry has provided 25 acres lined pond for storage and handling of fresh Gypsum generated.
    10) Concreted platform with leachate collection pit for storage of ETP sludge is under progress.
    11) The industry shall carryout performance evaluation of evaporators provided in Phosphoric acid plant and shall submit the report to Board office.
    12) The industry is having valid PLI policy up to 31.03.2024
    13) The industry obtained certificate from PESO valid upto 31.12.2024.
    14) The industry has obtained NOC for occupancy from A.P. State Disaster Response and Fire Services Department order which is valid for five years.

Remarks:

1. M/s Coromandel International Ltd., not obtained environmental clearance for the enhanced capacities of sulphuric acid plant from 3600 TPD to 4100 TPD, and phosphoric acid plant from 1400 TPD to 1600 TPD. However, they have obtained CTE of the Board based on the office memorandum of MoEF & CC dt.8th June 2022.
2. Industry storing 100% imported Ammonia in 1x5000 MT + 1x7500 MT storage tanks. This covers under MSIHC rules. As per the condition no. 27 of the CTE order dt.22.11.2022 the industry shall submit risk assessment report covering worst case scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system. Industry engaged NEERI to carry out "*Hazard Analysis and Risk Assessment*" for worst credible hazard scenarios including fire & explosion and submitted report on May 2021. In view of the expansion, a condition may be laid in the consent to review and prepare revised onsite & offsite risk assessment report and corresponding emergency response system.
3. The molten sulpher of capacity 2x7500 MT and 2x12,500 MT are stored in storage tanks in wharf area. These tanks are included main plant consent order. The main plant and wharf area are separated by the public road therefore separate CTOs have to be issued.
4. The industry provided online analyser system for monitoring fluoride (HF) whereas standard prescribed is fluorine concentration.

5. The industry has requested vide letter dt.03.07.2023 to include DG sets 1x500 KVA and 1x750 KVA for emergency power supply in the CTO (*expansion*) though not obtained CTE of the Board. (The industry request letter enclosed).

In view of the above the issue of the CTO may be examined.

27. Checklist:

1. The Board vide order dated 30.09.2022 issued CTO and CTO amendment order dt. 01.02.2023 to M/s. Coromandel International Ltd., Sriharipuram, Malkapuram (PO), Visakhapatnam District for operating complex fertilizer plant along with facilities like manufacturing of sulphuric acid, phosphoric acid etc., to valid up to 31.08.2027.
2. The industry has obtained CTE vide order dated 08.02.2020, 27.07.2022 and 22.11.2022 for inclusion of sulfuric acid plant from 2100TPD to 4100 TPD, enhancement of phosphoric acid from 1400TPD to 1600 TPD of P2O5, sulphozinc and sulpho Boran from 10TPD to 50TPD, Bentonite sulpher/ Bentonite sulpher with micro nutrients from 90TPD to 200TPD and desalination plant 15MLD capacity.
3. The industry applied for CTO & HWA (Expansion) on 27.06.2023 for sulfuric acid plant from 2100TPD to 4100 TPD, enhancement of phosphoric acid from 1400TPD to 1600 TPD of P_2O_5, sulpho zinc and sulpho Boran from 10TPD to 50TPD, Bentonite sulpher/ Bentonite sulpher with micro nutrients from 90TPD to 200TPD and desalination plant 6 MLD capacity only for a period upto 31.08.2027, for a total project cost of Rs. 1402 Cr, with a total area of 313 Acres.
4. **Other Details:**

1.	CTO Applied for	CTO (Expansion)
2.	Line of Activity	Complex fertilizer plant
3.	Location of the industry	Sriharipuram, Malkapuram (PO), Visakhapatnam
4.	Project cost	Rs. 1402 Cr
5.	EC status	1) Environmental Clearance for Expansion of Complex Fertilizer Plant from 2,700 MTPD to 3,900 MTPD Dt. 31/08/2007. 2) Phosphoric Acid Plant from 500TPD to 700TPD dt.22/01/2008 3) Customized Fertilizer Plant in two streams each of 300MTPD Dt.10/06/2009. 4) For Enhancement of Phosphoric Acid production(from700MTPDto1000MTPDP2O5)De-bottle necking of Sulphuric Acid Plant I&II for increasing the capacities from1400 to1700TPD (Plant– I) and300 to400TPD (Plant–II)and other auxiliary facilities within the existing Fertilizer Complex dt 14.07.2017. 5) For Enhancement of Phosphoric Acid production from 700MTPD to1000MTPDP 2O5 and other auxiliary facilities with in the existing Fertilizer Complex dt:07.01.2021. **6)** For change in location of new 1500 MTPD Sulphuric Acid (100%) Plant within the existing Fertilizer Complex and to add desalination plant with capacity of 15 MLD dated 27.06.2022.
6.	Consent status of Existing industries.	1) CTO order dt. 30.09.2022 & amend order dt. 01.02.2023 valid up to 31.03.2027 2) **CTE vide order dated 08.02.2020, 27.07.2022 and 22.11.2022**
7.	Status of functioning of flow meters of water and effluent	Working condition.
8.	ETP details	The industry is having Effluent Treatment Plant of capacity 1800 KLD. The industry is recycling part of the process effluents i.e., entire phosphoric acid effluents into the process for cake washings in phosphoric acid plant and preparation of lime solution for ETP Plant. The remaining water is being discharged along with once through cooling effluents into the Meghadrigedda overflow canal, which joins Sea. <u>Desalination Plant</u> 10 MLD Rejects into existing drain joins at Meghadrigedda surplus course which finally joins Bay of Bengal

		Cooling water blow down Into Meghadrigedda overflow canal which joins Sea. **Domestic effluents (STP Capacity 300 KLD)** Recycled / reused within the factory premises

9. Source of Air Pollution and APCEs details

Sl. No	Attached to	Capacity	Details of Air Pollution Control Equipment
1.	Sulphuric AcidPlant(Old)	1700TPD	Alkali scrubber
2.	Sulphuric Acid Plant(New)	400TPD	Alkali scrubber
3.	Phosphoric Acid Plant	700TPD	Evaporator followed by series of barometric condensers
4.	Rock Grinding unit	40TPH	Bag filters
5.	Rock Grinding unit	20TPH	Bag filters
6.	Complex fertilizer plant Complex A	3900TPD	4 stage scrubbing system (for ammonia recovery and multi cyclone 6Nos.)
7.	Complex fertilizer plant Complex B-Train		4 stage scrubbing system (for ammonia recovery and multi cyclone 6Nos.)
8.	Complex fertilizer plant Complex C-Train		4 stage scrubbing system (for ammonia recovery and multi cyclone 6Nos.)
9.	Customized fertilizer plant Drier(2Nos.) & process coolers(2Nos.) of customized fertilizer	300TPD	Cyclones followed by wet scrubber
13.	Phosphoric Acid Plant	900 TPD	Evaporator Followed by series of barometric condensers fumes scrubber
14.	Rock Phosphate grinding Units	75 TPH	Bag Filters
15.	Coal Fired Boiler & Back pressure Turbine	40 TPH & 5 MW	ESP
17.	SulphuricAcidPlant-3	2000 TPD	Alkali scrubber

10. Hazardous waste details generation and disposal

Spent catalyst -19.57 Tones, Used lubricating oil/ drained oil -5.08 KL, LSHS sludge- 8.08 Tones

11. Green belt development

Total site	33% of total site	Green belt provided	Any specific remarks
313 acres	103.3 acres	99 acres	5 acres to be developed

12. Whether any Court cases filed and its status / complaints: ---

13. Payment of Consent fee: Fee paid by the industry is sufficient for five years i.e., up to 31.08.2027.

14. Non-compliance of the industry w.r.t. conditions stipulated in CTO Order 30.09.2022

S.No	Condition	Compliance
22	The industry shall submit the emission loads of SO2, SO2 & acid mist for all sulfuric acid plants, after expansion	Industry not yet commissioned the expansion plant
40	The industry shall develop green belt in all the vacant places. In future, excess green belt over and above 33 % of total area can be utilized for industrial activity as per requirement of industry.	The industry has developed greenbelt to an extent of 99 acre and industry proposed to develop additional 5 acre green belt in this monsoon to meet 33% requirement.

15. Non-compliance of the industry w.r.t. conditions stipulated in CTE dated 22/11/2022

S.No	Condition	Compliance
23.	The industry shall submit a report on recycling of	Not submitted.

		treated effluent into the process to achieve zero discharge except during rainy season.	
16.	**Non-compliance of the industry w.r.t. conditions stipulated in** Task force direction Dt. 17.03.2020		
	Nil		
17.	Status of Statutory Permissions obtained with its validity:	Fire NOC: valid upto 18.04.2027 PESO: valid upto 31.12.2024 PLI Policy with ERF: valid upto 31.03.2024	
18.	Non-Compliance observed by the Regional Officer if any other above	a) The concreted platform with leachate collection pit for storage of ETP sludge is under progress b) Housekeeping to be improved.	
19.	Remarks / Recommendations of ZO &RO:	**<u>Remarks</u>** i. M/s Coromandel International Ltd., not obtained environmental clearance for the enhanced capacities of sulphuric acid plant from 3600 TPD to 4100 TPD, and phosphoric acid plant from 1400 TPD to 1600 TPD. However, they have obtained CTE of the Board based on the office memorandum of MoEF & CC dt.8th June 2022 ii. The molten sulpher of capacity 2x7500 MT and 2x12,500 MT are stored in storage tanks in wharf area. These tanks are included main plant consent order. The main plant and wharf area are separated by the public road therefore separate CTOs have to be issued iii. The industry has requested vide letter dt.03.07.2023 to include DG sets 1x500 KVA and 1x750 KVA for emergency power supply in the CTO (*expansion*) though not obtained CTE of the Board. (The industry request letter enclosed). **<u>Recommendations:</u>** a) The industry shall lay internal roads with storm water drains near to sulphuric acid expansion plant. b) The industry shall explore the possibility of providing automatic water sprinkling system at Ammonia Storage dyke area. c) The industry shall carryout performance evaluation of evaporators provided in Phosphoric acid plant and shall submit the report to Board office d) Industry storing 100% imported Ammonia in 1x5000 MT + 1x7500 MT storage tanks. This covers under MSIHC rules. As per the condition no. 27 of the CTE order dt.22.11.2022 the industry shall submit risk assessment report covering worst case scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system. Industry engaged NEERI to carry out "*Hazard Analysis and Risk Assessment*" for worst credible hazard scenarios including fire & explosion and submitted report on May 2021. In view of the expansion, a condition may be laid in the consent to review and prepare revised onsite & offsite risk assessment report and corresponding emergency response system. The issue of CTO may be examined.	
Head office remarks:			

20. Status of Real time monitoring systems

Samples were collected at ETP inlet & outlet and Final Outlet at 5th Gate, as per the Analysis report the values are within the standards.

CEMS (Effluent)

The industry has connected ETP outlet flow, Final outlet pH and cooling tower blow down fluoride to APPCB website.

As per the data from 1st June to 3rd July 2023 is as follows:

	ETP outlet flow	Final outlet pH	cooling tower blow down fluoride
Standard	300	0-8.5	0-100
Value	**0**	7.73	**NA**
Date		3/7/23	

CEMS (Emission)

The industry has connected following to the APPCB website, as per the data from 1st June to 3rd July 2023 is as follows:

SAP1 & SAP 2 for SOx parameter,

Time	SAP_1-SOx	SAP_2-SOx_
Standards	0 - 601.6	0 - 311.5
Value	25.74	25.18
Date	2023-06-11	2023-06-19

Complex Train A,B,C for PM, NH3 & HF

Train A

Time	Stack_2_Complex_A_Train-PM	Stack_2_Complex_A_Train-NH3	Stack_2_Complex_A_Train-HF
Standards	0 - 45	0 - 165	0 - 4
Value	17.69	90.79	1.28
Date	2023-06-20	2023-06-30	2023-06-30

Train B

Time	Stack_3_Complex_B_Train-PM	Stack_3_Complex_B_Train-NH3	Stack_3_Complex_B_Train-HF
Standards	0 - 45	0 - 165	0 - 4
Value	24.41	100.32	2.16
Date	2023-06-24	2023-06-21	2023-06-23

Train C

Time	Stack_1_Complex_C_Train-PM	Stack_1_Complex_C_Train-NH3	Stack_1_Complex_C_Train-HF
Standards	0 - 45	0 - 165	0 - 4
Value	7.6	88.04	1.38
Date	2023-06-22	2023-06-19	2023-06-11

PAP (PM, HF), OBM (PM), NBM (PM), PAP2 (PM & HF) and boiler (PM)

Time	PAP_STACK-PM	PAP_STACK-HF	OBM_STACK-PM	NBM_STACK-PM_	PAP_2_STACK-HF	PAP_2_STACK-PM_	PAP_2_RG-PM_	Boiler-PM
Standards	0 - 50	0 - 20	0 - 50	0 - 50	0 - 20	0 - 50	0 - 50	0 -
Value	6.26	0.86	3.76	3.96	5.48	7.42	18.17	24.26
Date	2023-06-27	2023-06-14	2023-06-28	2023-06-27	2023-06-14	2023-06-02	2023-06-29	2023-07-03

CAAQMs

The industry has provided 3 CAAQM station at Maintenance garage, Bagging Plant and Shared Service Center to APPCB website. As per the data from 1st June to 3rd July 2023 is as follows:

Maintenance garage

Time	PM10	PM2.5	SO2	NOx	NH3
Standards	0 - 100	0 - 60	0 - 80	0 - 80	0 - 400
Value	159.56	50.43	43.5	12.08	28.79
Date	23-06-07	23-07-02	23-07-03	23-06-29	23-06-11

Bagging Plant

Time	PM10	PM2.5	SO2	NOx	NH3
Standards	0 - 100	0 - 60	0 - 80	0 - 80	0 - 400
Value	158.46	67.96	44.53	18.13	1.53
Date	23-06-07	23-07-02	23-06-17	23-06-08	23-06-27

Shared Service Center

Time	PM10	PM2.5	SO2	NOx	NH3
Standards	0 - 100	0 - 60	0 - 80	0 - 80	0 - 400
Value	129.8	49.62	38.94	13.79	1.67
Date	23-06-07	23-06-02	23-06-11	23-06-08	23-06-28

As seen from the data, the industry is exceeding the PM10 concentration in 3 CAAQM stations and PM2.5 is exceeding at Bagging plant.

Specific remarks of Head Office

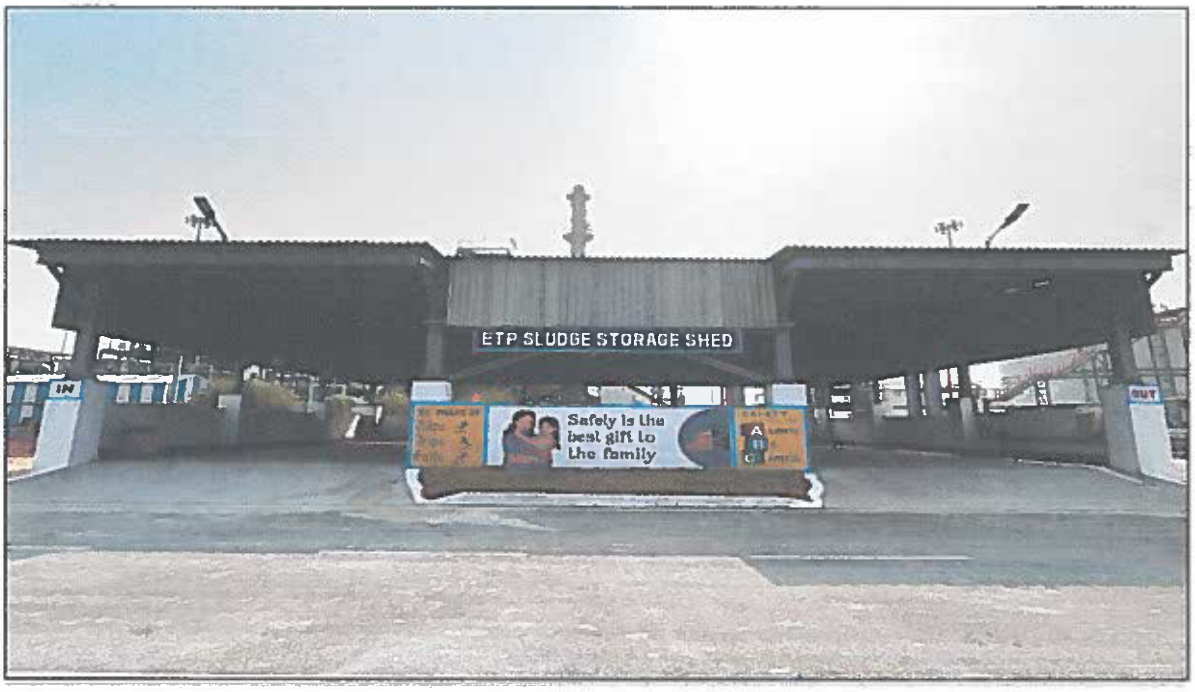
i. Not completed desalination plant. During inspection civil works completed and erection of machinery under process and applied for CTO.
ii. The concreted platform with leachate collection pit for storage of ETP sludge is under progress. Not provided permanent pipe line arrangement for lifting leachate to the ETP for treatment.
iii. As per the CTO, total domestic wastewater permitted is 550 KLD, but the industry is having 300 KLD STP only.
iv. Not obtained clarification from MoEF&CC for applicability of Bentonite Sulfur / Bentonite Sulfur with micronutrients, Sulfo Zinc and Sulfo Boron for customized fertilizer plant.
v. SAP3 plant under construction and construction will be completed by 3rd week of July 2023.
vi. The industry not furnished emission loads of SO2 & acid mist for all Sulphuric acid plants as the expansion plant is under construction.
vii. Status of Fluorine Recovery Unit (FRO) to reduce fluorine emissions for expansion plant.
viii. The industry shall clarify whether they require CTO to manufacture complex fertilizer plant along with facilities like manufacturing of Sulphuric acid, phosphoric acid etc., to the tune of 4210 TPD or not.
ix. Issue of CTO for expansion may be considered only after complete installation of phosphoric acid plant, desalination plant and Sulphuric acid plant.

The issue is placed before the CTO Committee for review and recommendations.

***

Annexure - 2

ETP Sludge storage shed photographs.



Concrete floor with Acid proof tiles

Leachate collection pit

CFO-Schedule B condition no.	CFO-Schedule B condition	Target Date	Compliance Status
1	The industry shall cover all directions of the feeding area of rock phosphate by 31.12.2022 and rectify the fugitive leakages.	31.12.2022	Complied. Compliance verified by APPCB. (Please refer to agenda item no. 05 dated 07.07.2023 at Serial no. 20) **Agenda copy attached as annexure-01.**
2	The industry shall provide Hazardous waste storage area with concrete platform and leachate collection pit for storage of ETP sludge by 31.03.2023 and shall remove openly stored sludge near the ETP area.	31.03.2023	Complied. ETP sludge storage shed with concrete platform and leachate collection pit constructed. **Work completed. Please refer Annexure -2.**
3	The industry shall ensure that no Fluoride contamination in two piezo wells and monitor piezo wells on monthly basis. The industry shall submit trends every 3 months to RO, Visakhapatnam	-	Complied. Compliance verified by APPCB. (Please refer to agenda item no. 05 dated 07.07.2023 at Serial no. 20) **Agenda copy attached as annexure-01.**
4	The industry shall remove the accumulated sludge in the storm water drains near sulfuric acid, Phosphoric acid and rock Phosphate storage area and provide storm water collection tank by 30.11.2022.	30.11.2022	

CFO-Schedule B condition no.	CFO-Schedule B condition	Target Date	Compliance Status
5	The industry shall lay the internal roads near phosphoric acid and sulfuric acid plant by 31.03.2023	31.03.2023	
6	The industry shall provide automatic caustic lye solution dosage for the scrubbers provided in the Sulphuric acid plant by 31.12.2022 so as to maintain pH below 8 in acidic scrubbers provided in the plant.	31.12.2022	
7	The industry shall improve the Housekeeping within the factory premises. Housekeeping shall be improved through closed transportation systems. Road sweeping machine shall be deployed for control of dust near Gypsum yard.	--	Complied.

For your kind information and record please.

Regards,
Nagarjuna P
Manager-Environment
9100443439

SAVE ENVIRONMENT SAVE LIFE

EHS2-Vizag-Coromandel

From: Nagarjuna-P-Mgr-EHS-Vizag-Coromandel
Sent: 03 November 2023 11:46
To: EHS2-Vizag-Coromandel
Subject: FW: CIL-Vizag-Submission of CFO- Schedule B special condition compliance status report
Attachments: Submission of CFO - Schedule B Special Condition compliance Status Report 31-10-2023.pdf

Acknowledgement mail copy for print.

Regards,
Nagarjuna P
Manager-Environment
9100443439

SAVE ENVIRONMENT SAVE LIFE

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FUTURE POSITIVE
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Visakhapatnam-530 011
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F: +91 891-2578400
W: www.coromandel.biz
A MURUGAPPA GROUP COMPANY

From: Nagarjuna-P-Mgr-EHS-Vizag-Coromandel
Sent: Friday, November 3, 2023 11:39 AM
To: rovspappcb@gmail.com; rovsp-ee1@appcb.gov.in
Cc: Subhradip Mondal-Mgr-Environment-Vizag-Coromandel <MondalS@coromandel.murugappa.com>; Nagaraju D-AGM-EHS-Vizag-Coromandel <nagarajud@coromandel.murugappa.com>; Vinod Kumar Mishra-Sr.GM-EHS-Vizag-Coromandel <MishraVK@coromandel.murugappa.com>; SrinivasarajuM-AVP-EHS-VIZAG-Coromandel <SrinivasarajuM@Coromandel.murugappa.com>
Subject: CIL-Vizag-Submission of CFO- Schedule B special condition compliance status report

Dear Sir,

This has with reference to the above subject matter, wherein APPCB granted CFO along with 5 timebound action points.

We would like to inform you that except point no.02 all other points have been complied and compliance reported earlier vide letter no. EHS/APPCB/2023-005 dated 13.01.2023 and verified by APPCB. (Please refer to agenda item no. 05 dated 07.07.2023 at Serial no. 20) **Agenda copy attached as annexure-01**. Now all the points have been complied.

Now we are submitting herewith the compliance status of point no.02 which was pending earlier.

Coromandel International Limited
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Visakhapatnam-530 011
Andhrapradesh, India.
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A MURUGAPPA GROUP COMPANY

Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024-030 **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.

NAG/DNR

Encloser: PLA copy

THE NEW INDIA ASSURANCE CO. LTD.
(Government of India Undertaking)

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/Specified 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:

								Deductibles	
Retroactive Date	**Paid Up Capital**	**No Of Locations Involved**	**AOA**	**AOA:AOY**	**AOY**	**Annual Turnover - Previous Year**	**Annual Turnover - Proposed Year**	**No of workmen**	**No of Other Employee**
01/04/2012	<= 15 Crore	19	50000000	1:3	150000000	1500000000000	2500000000000	14000	3000

Retroactive Dates

									Deductibles	
Retroactive Date Details	**Date**	**Paid Up Capital**	**No Of Locations Involved**	**AOA**	**AOA:AOY**	**AOY**	**Annual Turnover - Previous Year**	**Annual Turnover - Proposed Year**	**No of workmen**	**No of Other Employee**
RETROACTIVE DATE 1	01/04/2012	<=15Crore	19	50000000	1.3	150000000	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 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

हिन्दीहमारीराष्ट्रभाषाहै,सारेदेशकीआशाहै।

दिन्यूइंडियाएश्योरन्सकंपनीलिमिटेड
बृहत्कॉर्पोरेटएवमब्रोकर्सकार्यालय –९६०००
7thमंज़िल,सूर्याटावर्स,एसडीरोड,सिकनदराबाद –
५००००३, तेलंगाना
दूरभाष – ०४०-२७८१०३००,२७८१०३०२
फ़ैक्स – ०४०- ६६२६४४४३

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

960000 LARGE CORPORATE & BROKERS OFFICE

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.

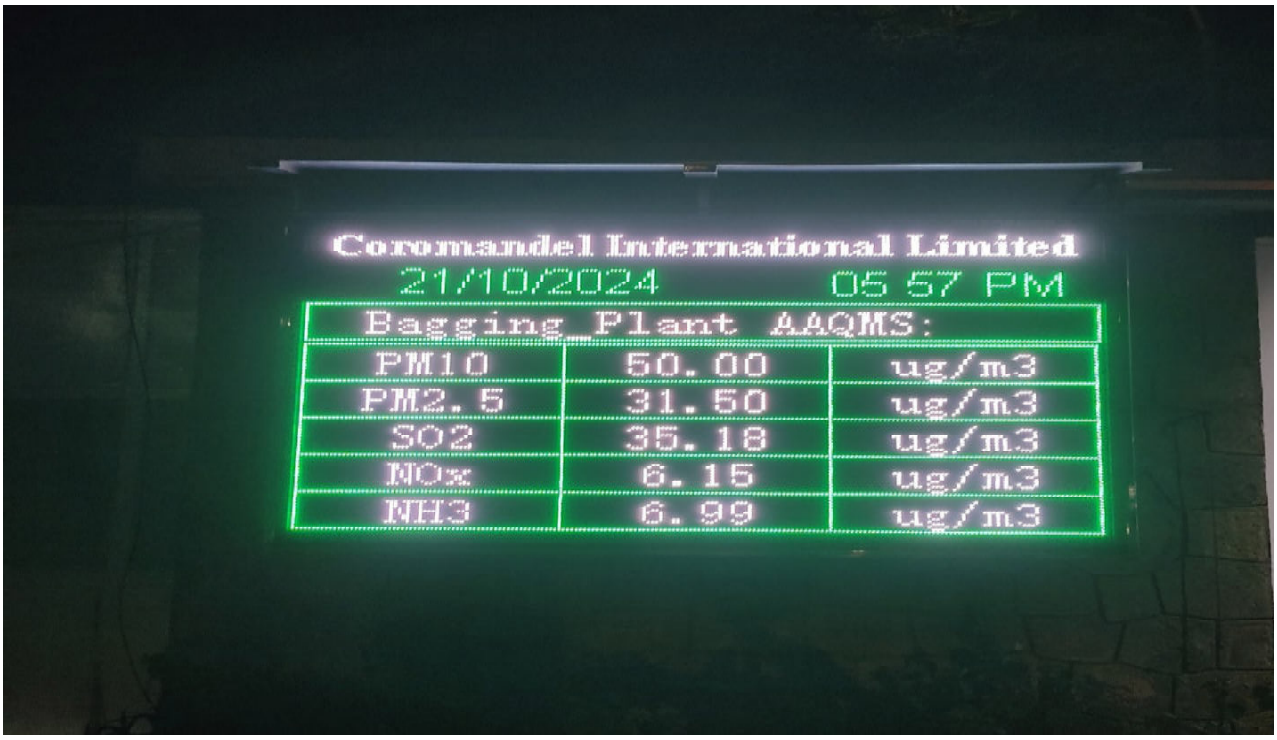
Thanks & Regards,
Nageswara Rao G

Coromandel International Limited
Sriharipuram, Malkapuram PO
Visakhapatnam-530 011
Andhrapradesh, India.
F: +91 891-2578400
W: www.coromandel.biz
A MURUGAPPA GROUP COMPANY

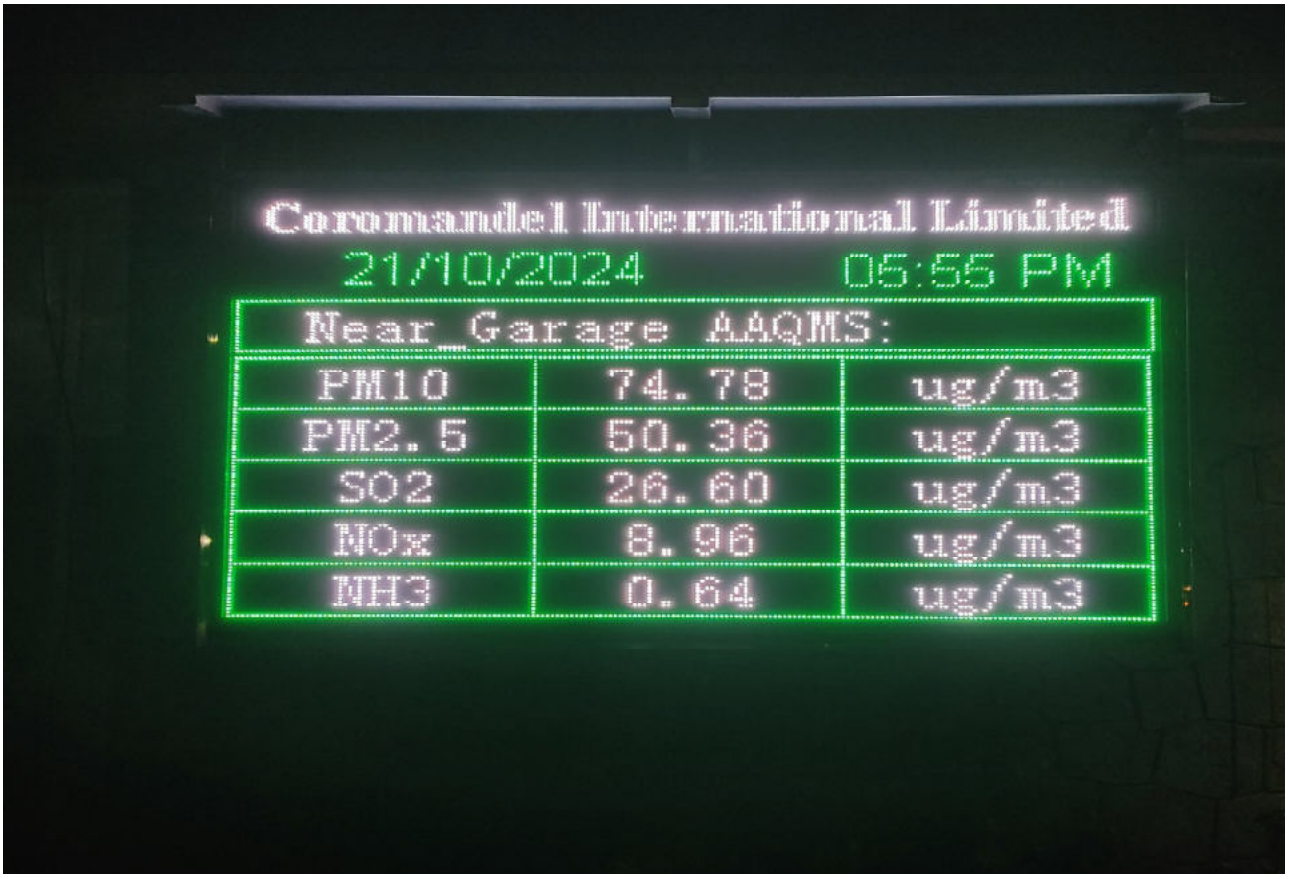
Annexure -5

DISPLAY BOARD & APPCB DATA

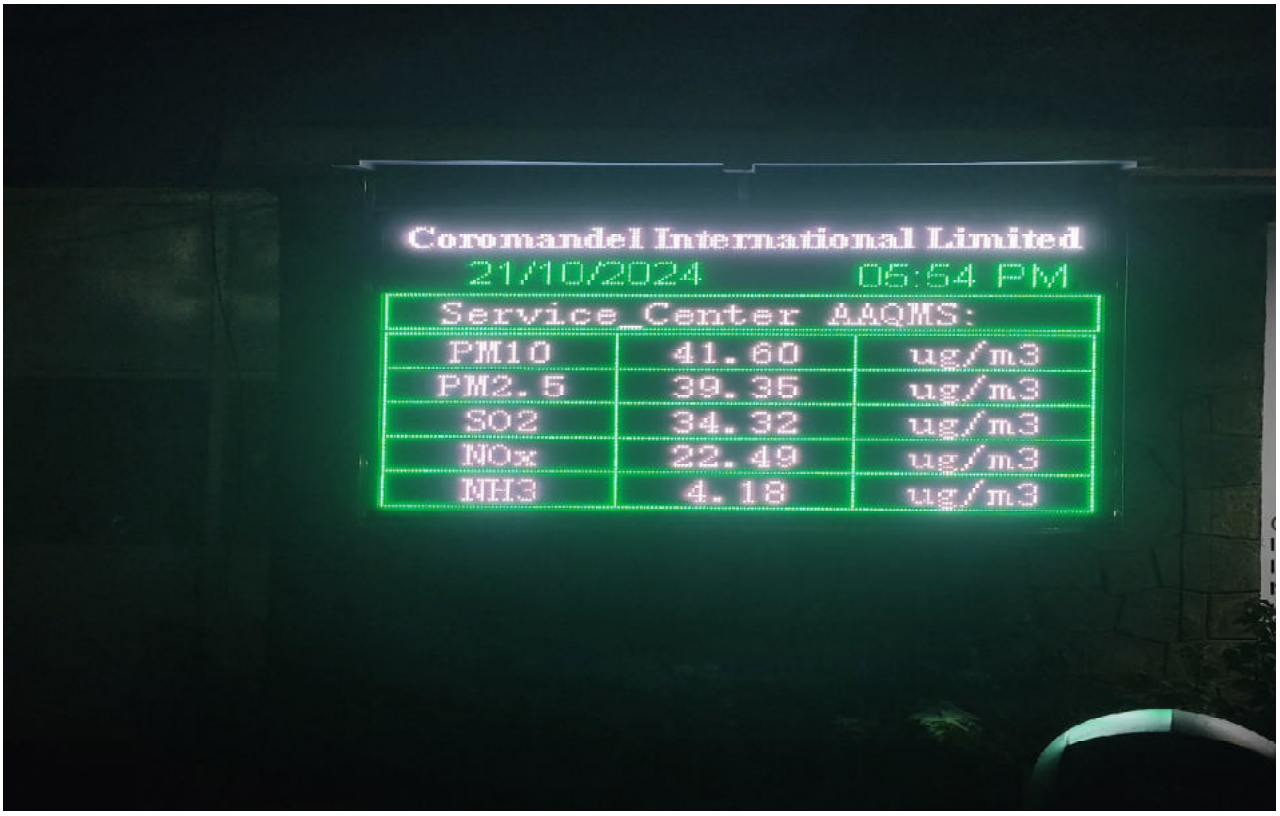
bagging-plant AAQM



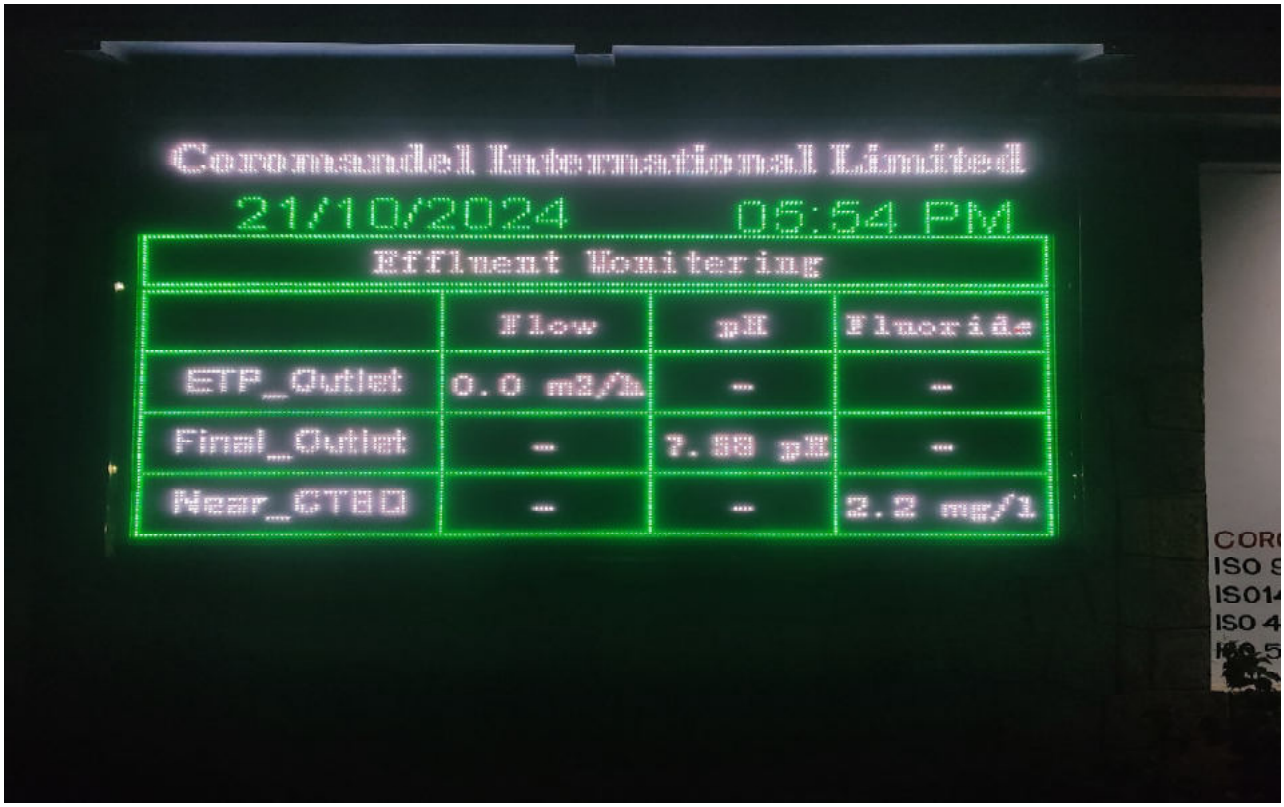
Garage AAQM



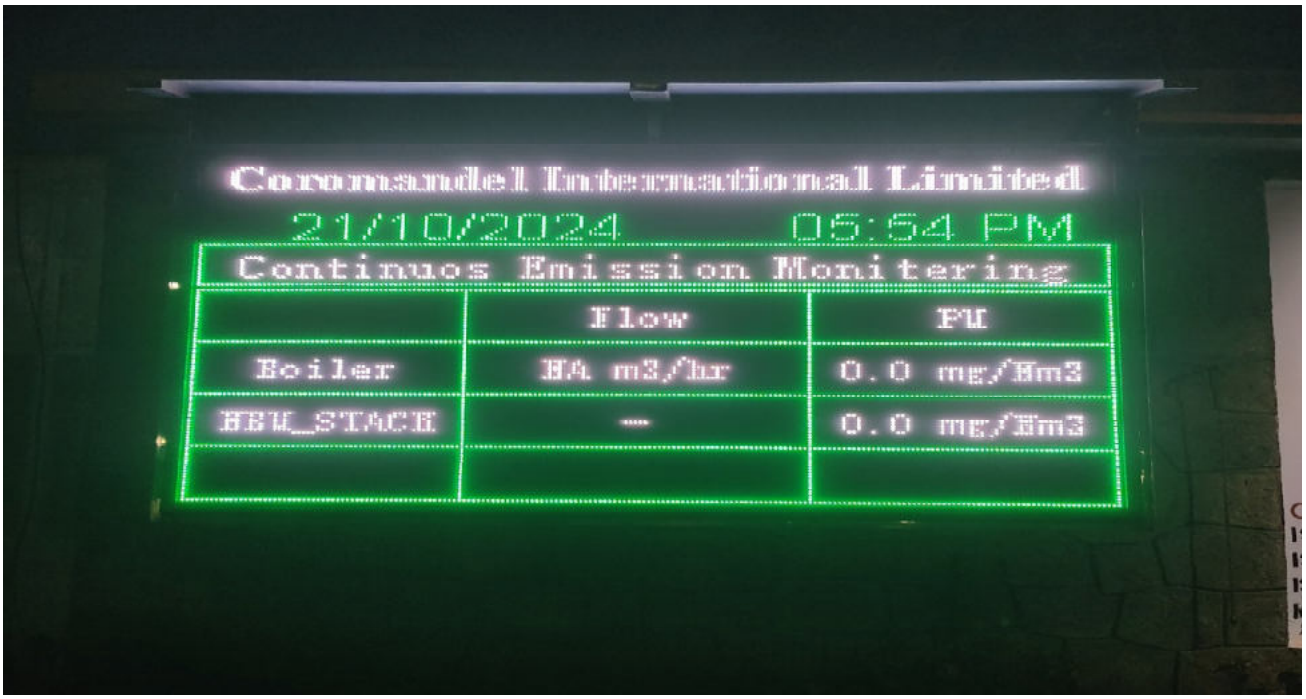
Service Centre AAQM



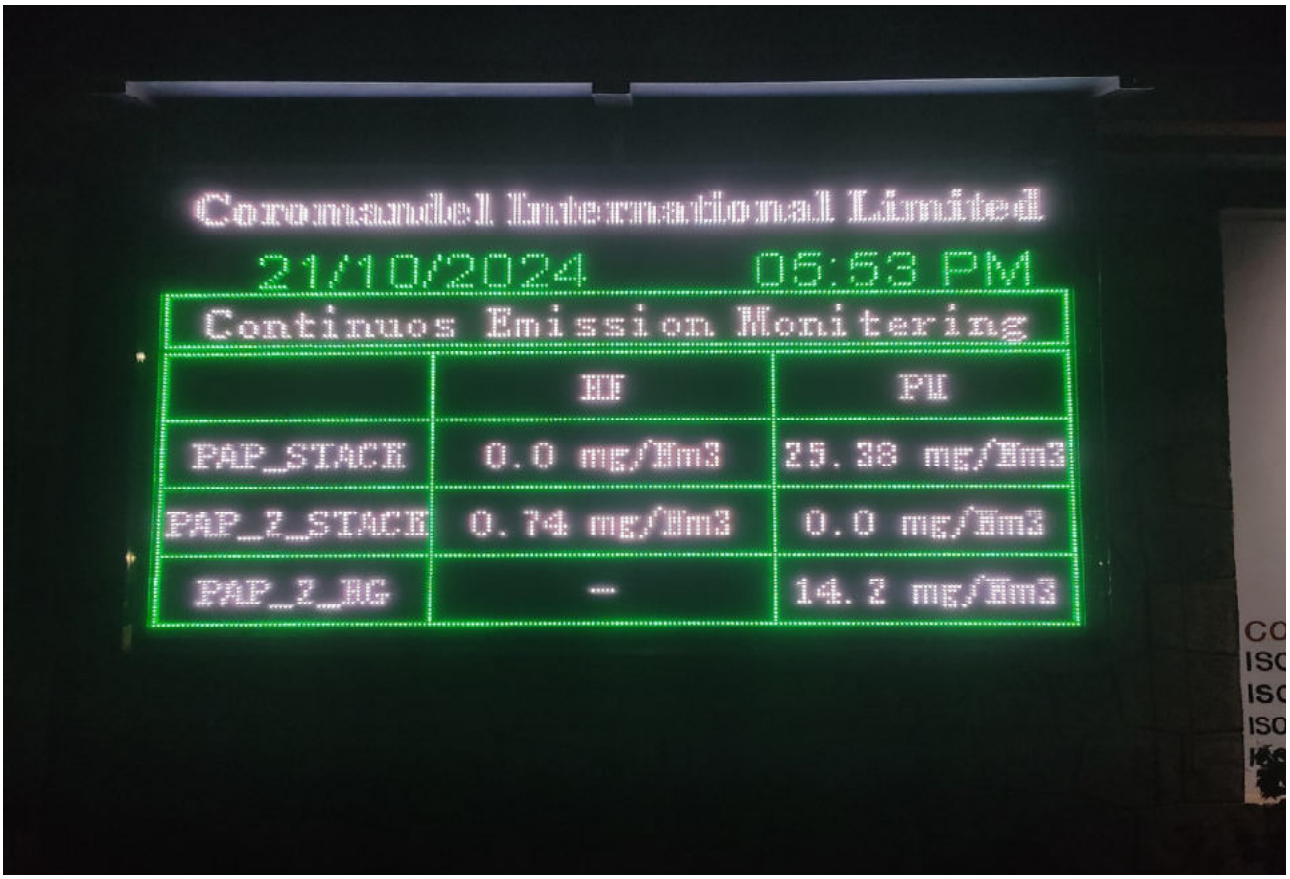
Outlet



Stack Emission



Stack Emission



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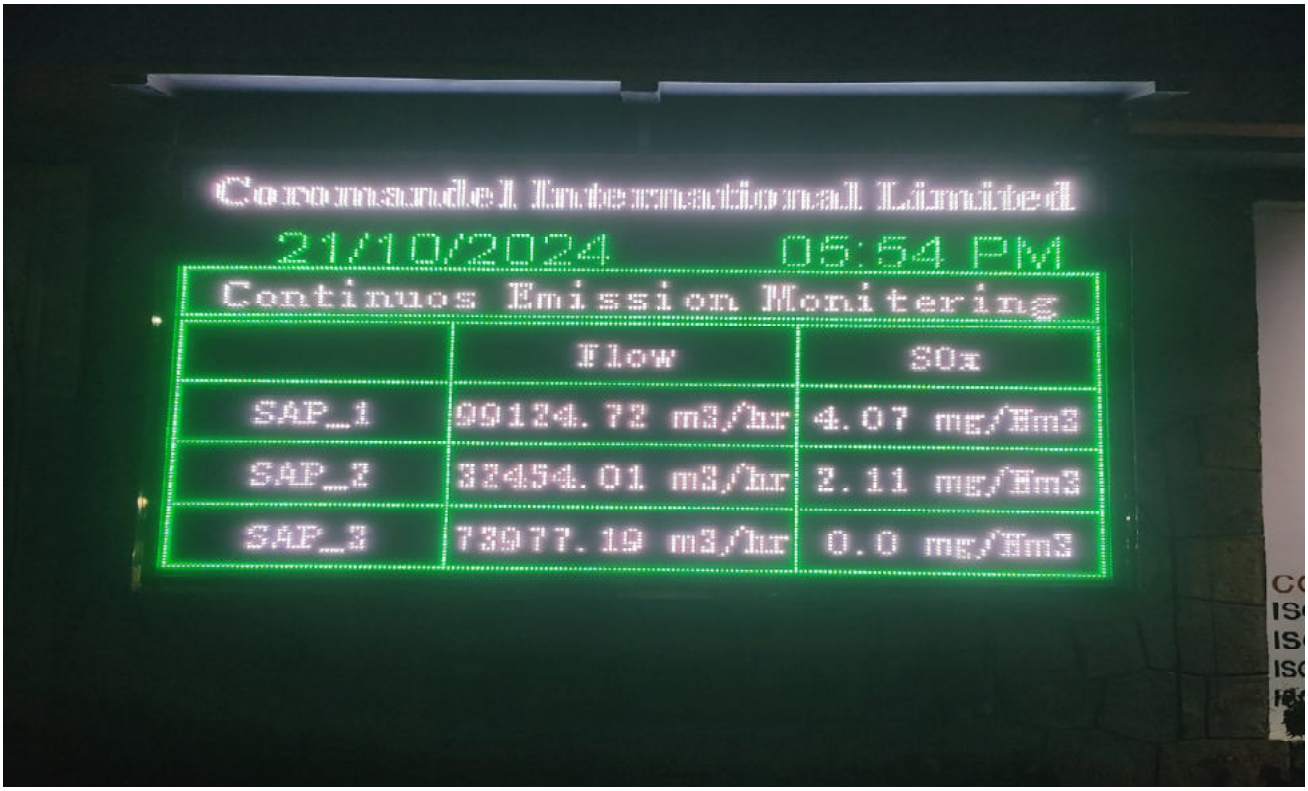

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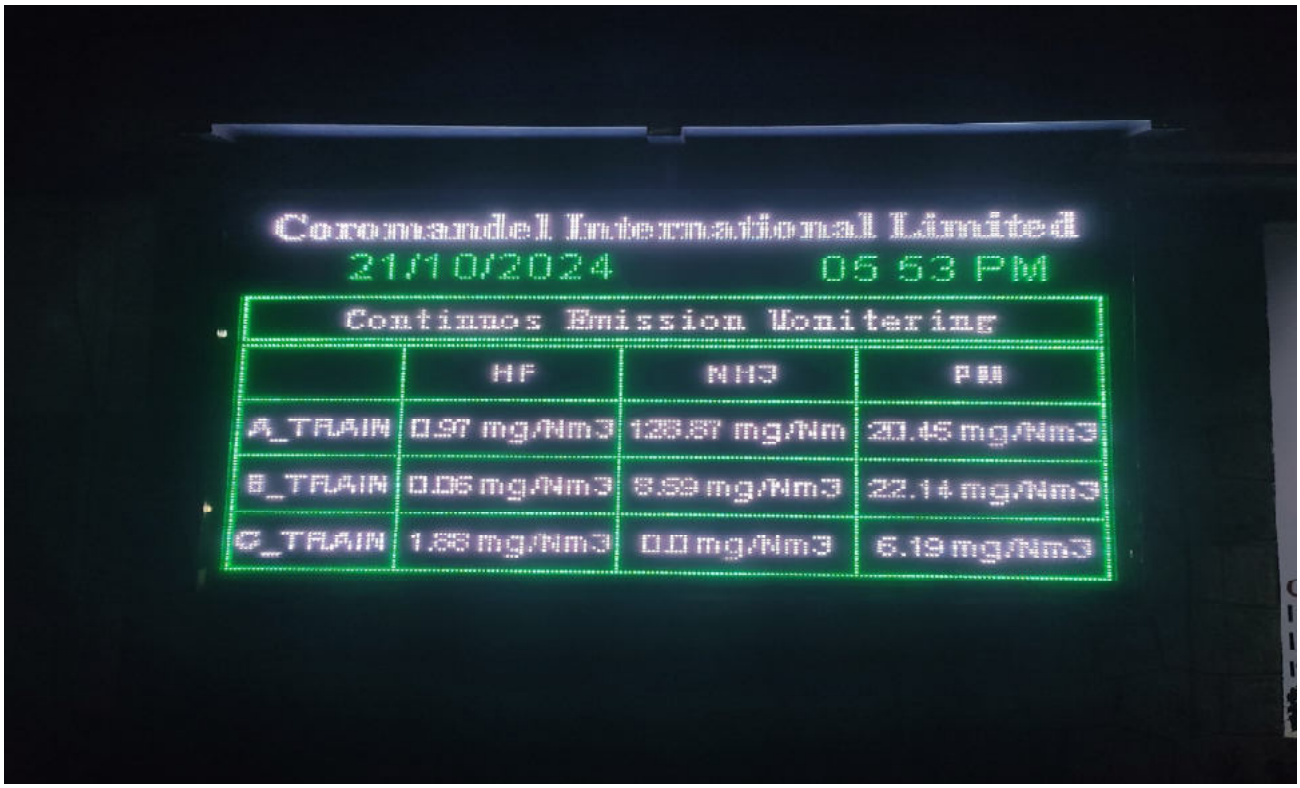

Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024-33 **Dated:22/04/2024**

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

Dear Sir,

Sub: Submission of Coromandel International Limited, SAP-03 & Desalination Plant Fire NOC's – Reg.

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

With reference to above as per the above-mentioned CFO order special condition number: 48 , we are herewith submitting below listed Fire NOC's given by the Andhra Pradesh State Disaster Response and Fire service department.

S. No	Name of the plant	Letter no.	Validity Date
1	Coromandel International Limited (SAP-03 & Desalination Plant,Visakhapatnam	File.No.20042/VSP/MSB/2023, Dated: 15/11/2023	14.11.2025

This is for your kind information & Records
Thanking you,

Yours faithfully,
For **COROMANDEL INTERNATIONAL LIMITED**

Gnanasundaram M
Vive President & Head of Manufacturing

NAG/DNR

Encl: Fire NOC copy

Government of Andhra Pradesh

A.P. State Disaster Response and Fire Services Department

No Objection Certificate for Occupancy

To
The District Industrial Center,
Visakhapatnam

File No: 20042/VSP/MSB/2023
Date: 15/11/2023

Sir/Madam,

Sub: Andhra Pradesh State Disaster Response and Fire Services Department - No Objection Certificate for Occupancy to the existing / newly constructed Multi Storeyed Building **(Coromandel International Limited, Visakhapatnam) NAGARAJU D, Coromandel International Limited Sriharipuram** - Regarding.

Ref: 1. Online Application Dt. 04-11-2023 , NAGARAJU D, Coromandel International Limited Sriharipuram
2. Online Inspection Report submitted by Officers of this Department on 18-10-2023.

-- x --

It is to inform that NAGARAJU D applied for No Objection Certificate on 04-11-2023 for Occupancy to the existing / newly constructed Multi Storeyed Building for Coromandel International Limited, Visakhapatnam at Coromandel International Limited Sriharipuram. The officers of the department have scrutinized the information, documents and plans submitted by the applicant along with the undertaking provided by the applicant, and have submitted the following report.

Fire Station

2. The builder has constructed a Multi Storeyed Building with Ground Floor with a height of 4.5 Mtrs for Industrial Occupancy (Category - G1) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
1	Internal Staircases	0 No. - 0.00 Meters
2	External Staircases	0 No. - 0.00 Meters
Total		0 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	113.5	Industrial	11	11	0.11	0.00
	Total	113.5		11			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	1 Nos.	1 Nos.
2	Hose Reel Systems	1 Nos.	0 Nos.
3	Terrace Tank	20000 Ltrs	20000 Ltrs
4	Booster Pump		
5	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	1 /1	1 /0				-- /--	-- /--	-- /--					
	Total	1 /1	1 /0	-- /--	-- /--	-- /--	0 /0	0 /0	0 /0	-- /--	20000 Ltrs /20000 Ltrs	450 LPM /450 LPM	-- /--	-- /--

- **Provide ABC 5 kg/6 kg fire extinguishers**

Sulphuric Acid Tank

2. The builder has constructed a Multi Storeyed Building with Ground Floor with a height of 13.25 Mtrs for Industrial Occupancy (Category - G3) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
2	Internal Staircases	0 No. - 0.00 Meters
3	External Staircases	0 No. - 0.00 Meters
Total		0 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	3354.4	Industrial	335	335	3.35	0.00
	Total	3354.4		335			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	34 Nos.	34 Nos.
2	Hose Reel Systems	7 Nos.	0 Nos.
3	Wet Riser	7 Nos (For Each Floor)	7 Nos (For Each Floor)
4	Yard Hydrants	YH_30 _YH	YH_30 _YH
5	Automatic Sprinkler System	373 Nos.	0 Nos.
6	Automatic Detection & Alarm System	60 Nos.	0 Nos.
7	Underground Tank	150000 Ltrs	150000 Ltrs
8	Terrace Tank	20000 Ltrs	20000 Ltrs
9	Fire Pump	Note-11	Note-11
10	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	34 /34	7 /0				373 /0	4 /0	60 /0					
	Total	34 /34	7 /0	7 Nos (For Each Floor) /7 Nos (For Each Floor)	-- /--	YH_30 _YH /YH_30 _YH	373 /0	4 /0	60 /0	150000 Ltrs /150000 Ltrs	20000 Ltrs /20000 Ltrs	Note-11 /Note-11	-- /--	-- /--

- **WetRiser / DownComer - 100mm with single outlet landing valves.**
- **In addition to above ABC 5 kg/6 kg fire extinguisher,provide 50 litre water CO2 /25 kg ABC fire extinguisher for every 100 m2 of floor area.**
- **Provide 1 Yard Hyderant for every 30 mts of Travel Distance along the Perimeter.**
- **Note 11: Provide required number of sets of pumps each consisting of 2 Electric and 1 Diesel Pump (standby) of capacity 2280 Litres/min and two Electric Pump of Capacity 180 Litres/min.**

Technical Building

2. The builder has constructed a Multi Storeyed Building with Ground Floor + One Upper Floor with a height of 9 Mtrs for Industrial Occupancy (Category - G2) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
3	Internal Staircases	1 No. - 1.50 Meters
4	External Staircases	1 No. - 1.50 Meters
Total		3 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	415	Industrial	41	41	0.41	3.00
2	First Floor	415	Industrial	41	41	0.41	3.00
	Total	830		82			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	10 Nos.	10 Nos.
2	Hose Reel Systems	2 Nos.	2 Nos.
3	Automatic Sprinkler System	71 Nos.	71 Nos.
4	Terrace Tank	20000 Ltrs	20000 Ltrs
5	Booster Pump	900	900
6	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	5 /5	1 /1				36 /36	-- /--	-- /--					
2	First Floor	5 /5	1 /1				35 /35	-- /--	-- /--					
	Total	10 /10	2 /2	-- /--	-- /--	-- /--	71 /71	0 /0	0 /0	-- /--	20000 Ltrs /20000 Ltrs	-- /--	900 /900	-- /--

- **Provide ABC 5 kg/6 kg fire extinguishers**

Center of Excellence Building (COE)

2. The builder has constructed a Multi Storeyed Building with Ground Floor + One Upper Floor with a height of 9 Mtrs for Industrial Occupancy (Category - G2) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
4	Internal Staircases	1 No. - 1.50 Meters
5	External Staircases	1 No. - 1.50 Meters
Total		3 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	462	Industrial	46	46	0.46	3.00
2	First Floor	462	Industrial	46	46	0.46	3.00
	Total	924		92			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	10 Nos.	10 Nos.
2	Hose Reel Systems	2 Nos.	2 Nos.
3	Automatic Sprinkler System	78 Nos.	78 Nos.
4	Terrace Tank	20000 Ltrs	20000 Ltrs
5	Booster Pump	900	900
6	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	5 /5	1 /1				39 /39	-- /--	-- /--					
2	First Floor	5 /5	1 /1				39 /39	-- /--	-- /--					
	Total	10 /10	2 /2	-- /--	-- /--	-- /--	78 /78	0 /0	0 /0	-- /--	20000 Ltrs /20000 Ltrs	-- /--	900 /900	-- /--

- **Provide ABC 5 kg/6 kg fire extinguishers**

Desalination Plant,

2. The builder has constructed a Multi Storeyed Building with Ground Floor with a height of 9 Mtrs for Industrial Occupancy (Category - G2) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
5	Internal Staircases	0 No. - 0.00 Meters
6	External Staircases	0 No. - 0.00 Meters
Total		0 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground floor	5400	Industrial	540	540	5.40	0.00
	Total	5400		540			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	54 Nos.	54 Nos.
2	Hose Reel Systems	11 Nos.	0 Nos.
3	Wet Riser	11 Nos (For Each Floor)	11 Nos (For Each Floor)
4	Yard Hydrants	YH_45 _YH	YH_45 _YH
5	Automatic Sprinkler System	450 Nos.	0 Nos.
6	Automatic Detection & Alarm System	96 Nos.	0 Nos.
7	Underground Tank	150000 Ltrs	150000 Ltrs
8	Terrace Tank	20000 Ltrs	20000 Ltrs
9	Fire Pump	Note-11	Note-11
10	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground floor	54 /54	11 /0				450 /0	6 /0	96 /0					

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
	Total	54 /54	11 /0	11 Nos (For Each Floor) /11 Nos (For Each Floor)	-- /--	YH_45_YH /YH_45_YH	450 /0	6 /0	96 /0	150000 Ltrs /150000 Ltrs	20000 Ltrs /20000 Ltrs	Note-11 /Note-11	-- /--	-- /--

- **WetRiser / DownComer - 100mm with single outlet landing valves.**
- **Provide ABC 5 kg/6 kg fire extinguishers**
- **Provide 1 Yard Hyderant for every 45 mts of Travel Distance along the Perimeter.**
- **Note 11: Provide required number of sets of pumps each consisting of 2 Electric and 1 Diesel Pump (standby) of capacity 2280 Litres/min and two Electric Pump of Capacity 180 Litres/min.**

HSD Area & Air Compressor Shed

2. The builder has constructed a Multi Storeyed Building with Ground Floor with a height of 5.4 Mtrs for Industrial Occupancy (Category - G3) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
6	Internal Staircases	0 No. - 0.00 Meters
7	External Staircases	0 No. - 0.00 Meters
Total		0 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	554.34	Industrial	55	55	0.55	0.00
	Total	554.34		55			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	8 Nos.	8 Nos.

Sl	Fire Safety System	Proposed as per PNOC	Provided
2	Hose Reel Systems	2 Nos.	0 Nos.
3	Wet Riser	2 Nos (For Each Floor)	2 Nos (For Each Floor)
4	Yard Hydrants	YH_30 _YH	YH_30 _YH
5	Automatic Sprinkler System	62 Nos.	0 Nos.
6	Automatic Detection & Alarm System	10 Nos.	0 Nos.
7	Underground Tank	150000 Ltrs	150000 Ltrs
8	Terrace Tank	20000 Ltrs	20000 Ltrs
9	Fire Pump	Note-11	Note-11
10	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	8 /8	2 /0				62 /0	1 /0	10 /0					
	Total	8 /8	2 /0	2 Nos (For Each Floor) /2 Nos (For Each Floor)	-- /--	YH_30 _YH /YH_30 _YH	62 /0	1 /0	10 /0	150000 Ltrs /150000 Ltrs	20000 Ltrs /20000 Ltrs	Note-11 /Note-11	-- /--	-- /--

- **WetRiser / DownComer - 100mm with single outlet landing valves.**
- **In addition to above ABC 5 kg/6 kg fire extinguisher,provide 50 litre water CO2 /25 kg ABC fire extinguisher for every 100 m2 of floor area.**
- **Provide 1 Yard Hyderant for every 30 mts of Travel Distance along the Perimeter.**
- **Note 11: Provide required number of sets of pumps each consisting of 2 Electric and 1 Diesel Pump (standby) of capacity 2280 Litres/min and two Electric Pump of Capacity 180 Litres/min.**

TG 3 & TG 3 Cooling Tower

2. The builder has constructed a Multi Storeyed Building with Ground Floor + One Upper Floor with a height of 8.75 Mtrs for Industrial Occupancy (Category - G2) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
7	Internal Staircases	1 No. - 1.50 Meters
8	External Staircases	1 No. - 1.50 Meters
Total		3 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground floor	1632	Industrial	163	163	1.63	3.00
2	First Floor	805.7	Industrial	80	80	0.80	3.00
	Total	2437.7		243			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	26 Nos.	26 Nos.
2	Hose Reel Systems	6 Nos.	6 Nos.
3	Wet Riser	4 Nos (For Each Floor)	4 Nos (For Each Floor)
4	Yard Hydrants	YH_45 _YH	YH_45 _YH
5	Automatic Sprinkler System	204 Nos.	204 Nos.
6	Manually Operated Electric Fire Alarm System	3 Nos.	3 Nos.
7	Automatic Detection & Alarm System	45 Nos.	45 Nos.
8	Underground Tank	150000 Ltrs	150000 Ltrs
9	Terrace Tank	20000 Ltrs	20000 Ltrs
10	Fire Pump	Note-11	Note-11
11	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground floor	17 /17	4 /4				136 /136	2 /2	30 /30					
2	First Floor	9 /9	2 /2				68 /68	1 /1	15 /15					

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
	Total	26 /26	6 /6	4 Nos (For Each Floor) /4 Nos (For Each Floor)	-- /--	YH_45_YH /YH_45_YH	204 /204	3 /3	45 /45	150000 Ltrs /150000 Ltrs	20000 Ltrs /20000 Ltrs	Note-11 /Note-11	-- /--	-- /--

- **WetRiser / DownComer - 100mm with single outlet landing valves.**
- **Provide ABC 5 kg/6 kg fire extinguishers**
- **Provide 1 Yard Hyderant for every 45 mts of Travel Distance along the Perimeter.**
- **Note 11: Provide required number of sets of pumps each consisting of 2 Electric and 1 Diesel Pump (standby) of capacity 2280 Litres/min and two Electric Pump of Capacity 180 Litres/min.**

Cooling Tower

2. The builder has constructed a Multi Storeyed Building with Ground Floor with a height of 10.9 Mtrs for Industrial Occupancy (Category - G1) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
8	Internal Staircases	0 No. - 0.00 Meters
9	External Staircases	0 No. - 0.00 Meters
Total		0 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	1595.8	Industrial	159	159	1.59	0.00
	Total	1595.8		159			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	8 Nos.	8 Nos.
2	Hose Reel Systems	4 Nos.	0 Nos.

Sl	Fire Safety System	Proposed as per PNOC	Provided
3	Down Comer	4 Nos (For Each Floor)	4 Nos (For Each Floor)
4	Terrace Tank	25000 Ltrs	25000 Ltrs
5	Booster Pump	450 LPM	450 LPM
6	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	8 /8	4 /0				-- /--	-- /--	-- /--					
	Total	8 /8	4 /0	-- /--	4 Nos (For Each Floor) /4 Nos (For Each Floor)	-- /--	0 /0	0 /0	0 /0	-- /--	25000 Ltrs /25000 Ltrs	-- /--	450 LPM /450 LPM	-- /--

- **Provide ABC 5 kg/6 kg fire extinguishers**
- **WetRiser / DownComer - 100mm with single outlet landing valves.**

Acid Section

2. The builder has constructed a Multi Storeyed Building with Ground Floor + 3 Upper Floors with a height of 7 Mtrs for Industrial Occupancy (Category - G3) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
9	Internal Staircases	1 No. - 1.50 Meters
10	External Staircases	1 No. - 1.50 Meters
Total		3 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	1885.93	Industrial	188	188	1.88	3.00
2	First Floor	463.54	Industrial	46	46	0.46	3.00
3	Second Floor	463.54	Industrial	46	46	0.46	3.00
4	Third Floor	163.11	Industrial	16	16	0.16	3.00
	Total	2976.12		296			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	31 Nos.	31 Nos.
2	Hose Reel Systems	7 Nos.	0 Nos.
3	Wet Riser	4 Nos (For Each Floor)	4 Nos (For Each Floor)
4	Yard Hydrants	YH_30 _YH	YH_30 _YH
5	Automatic Sprinkler System	333 Nos.	0 Nos.
6	Manually Operated Electric Fire Alarm System	5 Nos.	0 Nos.
7	Automatic Detection & Alarm System	55 Nos.	0 Nos.
8	Underground Tank	150000 Ltrs	150000 Ltrs
9	Terrace Tank	20000 Ltrs	20000 Ltrs
10	Fire Pump	Note-11	Note-11
11	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	19 /19	4 /0				210 /0	2 /0	34 /0					
2	First Floor	5 /5	1 /0				52 /0	1 /0	9 /0					
3	Second Floor	5 /5	1 /0				52 /0	1 /0	9 /0					
4	Third Floor	2 /2	1 /0				19 /0	1 /0	3 /0					

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
	Total	31 /31	7 /0	4 Nos (For Each Floor) /4 Nos (For Each Floor)	-- /--	YH_30 _YH /YH_30 _YH	333 /0	5 /0	55 /0	150000 Ltrs /150000 Ltrs	20000 Ltrs /20000 Ltrs	Note-11 /Note-11	-- /--	-- /--

- **WetRiser / DownComer - 100mm with single outlet landing valves.**
- **In addition to above ABC 5 kg/6 kg fire extinguisher,provide 50 litre water CO2 /25 kg ABC fire extinguisher for every 100 m2 of floor area.**
- **Provide 1 Yard Hyderant for every 30 mts of Travel Distance along the Perimeter.**
- **Note 11: Provide required number of sets of pumps each consisting of 2 Electric and 1 Diesel Pump (standby) of capacity 2280 Litres/min and two Electric Pump of Capacity 180 Litres/min.**

Molten Sulphur Tanks

2. The builder has constructed a Multi Storeyed Building with Ground Floor with a height of 11.4 Mtrs for Industrial Occupancy (Category - G3) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
10	Internal Staircases	0 No. - 0.00 Meters
11	External Staircases	0 No. - 0.00 Meters
Total		0 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	1144.8	Industrial	114	114	1.14	0.00
	Total	1144.8		114			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	12 Nos.	12 Nos.

Sl	Fire Safety System	Proposed as per PNOC	Provided
2	Hose Reel Systems	3 Nos.	0 Nos.
3	Wet Riser	3 Nos (For Each Floor)	3 Nos (For Each Floor)
4	Yard Hydrants	YH_30 _YH	YH_30 _YH
5	Automatic Sprinkler System	128 Nos.	128 Nos.
6	Automatic Detection & Alarm System	21 Nos.	21 Nos.
7	Underground Tank	150000 Ltrs	150000 Ltrs
8	Terrace Tank	20000 Ltrs	20000 Ltrs
9	Fire Pump	Note-11	Note-11
10	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	12 /12	3 /0				128 /128	3 /3	21 /21					
	Total	12 /12	3 /0	3 Nos (For Each Floor) /3 Nos (For Each Floor)	-- /--	YH_30 _YH /YH_30 _YH	128 /128	3 /3	21 /21	150000 Ltrs /150000 Ltrs	20000 Ltrs /20000 Ltrs	Note-11 /Note-11	-- /--	-- /--

- **WetRiser / DownComer - 100mm with single outlet landing valves.**
- **In addition to above ABC 5 kg/6 kg fire extinguisher,provide 50 litre water CO2 /25 kg ABC fire extinguisher for every 100 m2 of floor area.**
- **Provide 1 Yard Hyderant for every 30 mts of Travel Distance along the Perimeter.**
- **Note 11: Provide required number of sets of pumps each consisting of 2 Electric and 1 Diesel Pump (standby) of capacity 2280 Litres/min and two Electric Pump of Capacity 180 Litres/min.**

Control Room

2. The builder has constructed a Multi Storeyed Building with Ground Floor + One Upper Floor with a height of 12 Mtrs for Industrial Occupancy (Category - G2) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
11	Internal Staircases	1 No. - 1.50 Meters
12	External Staircases	1 No. - 1.50 Meters
	Total	3 Meters

5. The builder has proposed to provide Occupant Load : .

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	676.8	Industrial	67	67	0.67	3.00
2	First Floor	676.8	Industrial	67	67	0.67	3.00
	Total	1353.6		134			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	14 Nos.	14 Nos.
2	Hose Reel Systems	4 Nos.	4 Nos.
3	Down Comer	2 Nos (For Each Floor)	2 Nos (For Each Floor)
4	Automatic Sprinkler System	114 Nos.	114 Nos.
5	Manually Operated Electric Fire Alarm System	2 Nos.	2 Nos.
6	Automatic Detection & Alarm System	26 Nos.	26 Nos.
7	Terrace Tank	50000 Ltrs	50000 Ltrs
8	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	7 /7	2 /2				57 /57	1 /1	13 /13					
2	First Floor	7 /7	2 /2				57 /57	1 /1	13 /13					
	Total	14 /14	4 /4	-- /--	2 Nos (For Each Floor) /2 Nos (For Each Floor)	-- /--	114 /114	2 /2	26 /26	-- /--	50000 Ltrs /50000 Ltrs	-- /--	Note-11 /Note-11	-- /--

- **Provide ABC 5 kg/6 kg fire extinguishers**
- **WetRiser / DownComer - 100mm with single outlet landing valves.**

Gas Section

2. The builder has constructed a Multi Storeyed Building with Ground Floor + 2 Upper Floors with a height of 11 Mtrs for Industrial Occupancy (Category - G3) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
12	Internal Staircases	0 No. - 0.00 Meters
13	External Staircases	1 No. - 1.50 Meters
Total		1.5 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	1629.7	Industrial	162	162	1.62	1.50
2	First Floor	124.5	Industrial	12	12	0.12	1.50
3	Second Floor	124.5	Industrial	12	12	0.12	1.50
	Total	1878.7		186			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	25 Nos.	25 Nos.
2	Hose Reel Systems	6 Nos.	0 Nos.
3	Wet Riser	4 Nos (For Each Floor)	4 Nos (For Each Floor)
4	Yard Hydrants	YH_30 _YH	YH_30 _YH
5	Automatic Sprinkler System	209 Nos.	0 Nos.
6	Manually Operated Electric Fire Alarm System	3 Nos.	0 Nos.
7	Automatic Detection & Alarm System	35 Nos.	0 Nos.
8	Underground Tank	150000 Ltrs	150000 Ltrs
9	Terrace Tank	20000 Ltrs	20000 Ltrs
10	Fire Pump	Note-11	Note-11
11	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC

of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	17 /17	4 /0				181 /0	1 /0	29 /0					
2	First Floor	4 /4	1 /0				14 /0	1 /0	3 /0					
3	Second Floor	4 /4	1 /0				14 /0	1 /0	3 /0					
	Total	25 /25	6 /0	4 Nos (For Each Floor) /4 Nos (For Each Floor)	-- /--	YH_30 _YH /YH_30 _YH	209 /0	3 /0	35 /0	150000 Ltrs /150000 Ltrs	20000 Ltrs /20000 Ltrs	Note-11 /Note-11	-- /--	-- /--

- **WetRiser / DownComer - 100mm with single outlet landing valves.**
- **In addition to above ABC 5 kg/6 kg fire extinguisher,provide 50 litre water CO2 /25 kg ABC fire extinguisher for every 100 m2 of floor area.**
- **Provide 1 Yard Hyderant for every 30 mts of Travel Distance along the Perimeter.**
- **Note 11: Provide required number of sets of pumps each consisting of 2 Electric and 1 Diesel Pump (standby) of capacity 2280 Litres/min and two Electric Pump of Capacity 180 Litres/min.**

Sulphur Godown

2. The builder has constructed a Multi Storeyed Building with Ground Floor with a height of 12 Mtrs for Industrial Occupancy (Category - G3) in a total plot area of 1214100.00 sq. meters.

3. The builder has provided open spaces all around the building

Side	Open Space Required as per 119 APBR 2016	Open Space Provided by the Builder
North	3 Meters	6.00 Meters
East	5 Meters	6.00 Meters
South	5 Meters	6.00 Meters
West	5 Meters	6.00 Meters

4. The builder has constructed following means of escape:

Sl	Details of Staircases	Provided Nos / Meters
13	Internal Staircases	0 No. - 0.00 Meters
14	External Staircases	0 No. - 0.00 Meters
Total		0 Meters

5. The builder has proposed to provide Occupant Load :

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
1	Ground Floor	1431.3	Industrial	143	143	1.43	0.00

Sl	Floor	Built up area (Sq Mtrs)	Occupancy Type	No of Occupants as declared by the builder	No of Occupants as per NBC	Aggregate width of Staircases Required (Meters)	Aggregate width of Staircases Provided(Meters)
	Total	1431.3		143			

6. The minimum Fire Fighting Installations required and provided as per Table 7 of Part 4 of National Building Code of India 2016 are:

Sl	Fire Safety System	Proposed as per PNOC	Provided
1	Fire Extinguishers	15 Nos.	15 Nos.
2	Hose Reel Systems	3 Nos.	0 Nos.
3	Wet Riser	3 Nos (For Each Floor)	3 Nos (For Each Floor)
4	Yard Hydrants	YH_30 _YH	YH_30 _YH
5	Automatic Sprinkler System	160 Nos.	160 Nos.
6	Automatic Detection & Alarm System	26 Nos.	0 Nos.
7	Underground Tank	150000 Ltrs	150000 Ltrs
8	Terrace Tank	20000 Ltrs	20000 Ltrs
9	Fire Pump	Note-11	Note-11
10	Additional Fire Safety measures		

7. The builder has provided the following floorwise Fire Fighting installations as per Table 7 of Part - 4 of NBC of India 2016.

Sl.	Floor	Fire Ext.	Hose Reel	Wet Riser	Down Comer	Yard Hydrants	Sprinklers	MCP	Auto. Det.	Underground Tank	Terrace Tank	Fire Pump	Booster Pump	Addl
1	Ground Floor	15 /15	3 /0				160 /160	3 /3	26 /0					
	Total	15 /15	3 /0	3 Nos (For Each Floor) /3 Nos (For Each Floor)	-- /--	YH_30 _YH /YH_30 _YH	160 /160	3 /3	26 /0	150000 Ltrs /150000 Ltrs	20000 Ltrs /20000 Ltrs	Note-11 /Note-11	-- /--	-- /--

- **WetRiser / DownComer - 100mm with single outlet landing valves.**
- **In addition to above ABC 5 kg/6 kg fire extinguisher,provide 50 litre water CO2 /25 kg ABC fire extinguisher for every 100 m2 of floor area.**
- **Provide 1 Yard Hyderant for every 30 mts of Travel Distance along the Perimeter.**
- **Note 11: Provide required number of sets of pumps each consisting of 2 Electric and 1 Diesel Pump (standby) of capacity 2280 Litres/min and two Electric Pump of Capacity 180 Litres/min.**

8. The Officers of the department have recommended to issue The No Objection Certificate for Occupancy of MSB Industrial Building (G1) belonging to **NAGARAJU D Coromandel International Limited Sriharipuram**, subject to the following conditions.

The No Objection Certificate for Occupancy is issued subject to the following conditions:

1. This NOC is issued only in the Fire Safety Point of View and this doesnot give the Applicant a right to claim ownership of the property.
2. All fire safety systems provided shall be maintained in trim working condition at all times.
3. All Security/ Maintenance personnel shall be trained on the usage of fire equipment provided.
4. Fire Drills shall be conducted once in every 3 months.
5. As per report of MSB Inspection committee; the NOC Committee has scrutinized the Inspection Committee Report along with Proposals and recommended for issuance of No Objection Certificate for Occupancy subject to the following Conditions.

Sl	As Builder	As Occupant	As Security Personnel
1	All the fire protection arrangements shall be maintained in good condition as seen during inspection.	All the escape/exit routes shall not be kept locked/blocked or encroached	All the occupants must know the correct method of operation of the fire fighting system installed.
2	Any loss of life or property due to non-functioning of fire safety measures and other installations shall be the responsibilty of the management.	All occupants shall be trained to operate the fire safety equipments during emergency.	Mock drills should be conducted once in 3 months for initial two years. Thereafter, once in every 6 months.
3	Addition / alteration, if any in the building may be verified by building authority.	Mock drills should be conducted once in 3 months for initial two years. Thereafter, once in every 6 months.	All security personnel shall be trained to operate the fire safety equipments during emergency.
4	This No objection Certificate for occupancy is valid for one year from the date of issue of this letter	Raise the alarm if the fire cannot be controlled; Evacuate the area completely at once from nearest safe exit.	Attack the fire using available fire equipment only if you feel capable of controlling. If not, take all steps to isolate the area by closing doors and windows.

6. **This No Objection Certificate for Occupancy is valid for a period of Two(02) years only from the date of issue of this letter. It is the responsibility of the builder to apply for Renewal of No Objection Certificate for Occupancy, duly remitting the User Charges as per G.O.Ms.No.71, Home (Prison-A) Department, dated 01-04-2010 and G.O.Ms.No.140, Home (Prison & Fire) Department, dated.04-09-2015, before expiry of this No Objection Certificate.**

9. The following deficiencies are identified by the officers of the department and need to be attended to by the management.

In view of the above, as per the recommendations of the NOC Committee, the No Objection Certificate for Occupancy is hereby issued to the Newly constructed Multi Storeyed Building subject to the above conditions.

Your Sincerely,

Director General
State Disaster Response & Fire Services
Andhra Pradesh, Vijayawada

Copy to NAGARAJU D, The management of Coromandel International Limited, Visakhapatnam,
HQEsXMryLJZfe8msZ8HAnRgxXMDA3aU7EsGu97DaPmT7
Copy to Chief Office for Record Purpose
Copy to Regional Fire Officer concerned

Copy to District Fire Officer concerned

Copy to Assistant District Fire Officer concerned

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

O/C

Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024-126 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

A.P. Pollution Control Board Visakhapatnam
14/11/24

NAG/DNR 13/11/2024
Enclosure: Annexure:01 Safety audit Compliance report.

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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
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EHS/APPCB/2024-126 13th November 2024

To,

Environmental Engineer
A.P. Pollution Control Board
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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.

Registered Office : Coromandel House, 1-2-10
Sardar Patel Road, Secunderabad - 500 003
Telangana, India

Tel : 91-40-27842034 / 27847212
Fax : 91-40-27844117
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Coromandel International Limited
Post Box No. 1116, Sriharipuram, Malkapuram Post
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GSTIN : 37AAACC7852K1ZC

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,

27/07/2024

Yours faithfully,
For Coromandel International Limited,

M Gnanasundaram,
VP & Head Mfg.

M/DNR

27/7/24

27 JUL 2024

27/7/24

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

27/7/24

Registered Office : Coromandel House, 1-2-10
Sardar Patel Road, Secunderabad-500 003
Telangana, India

Tel : 91 40-27842034 / 27847212
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Coromandel International Limited, Visakhapatnam

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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.

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Coromandel International Limited, Visakhapatnam

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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 si 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

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: H2S 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

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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

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(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

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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-610 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 ScheduleXV, 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**

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Coromandel International Limited, Visakhapatnam

Compliance report – Statutory Safety Audit

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(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**

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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 traceablity 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**

Coromandel
FUTURE POSITIVE

Coromandel International Limited, Visakhapatnam

murugapp

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 mechnical 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
FUTURE POSITIVE

Coromandel International Limited, Visakhapatnam

murugappa

Compliance report – Statutory Safety Audit

(Conducted by M/s Lumen Engineering Associates)

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 ,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

Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024-25

28th March 2024

To,

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

Sub: Submission of calibration certificates for leak detection system (Fixed & Portable detectors) available in Coromandel International Limited, Visakhapatnam –Reg.

Ref: Special condition number 51 in CFO order no: APPCB/VSP/VSP/65/CFO/HO/1967 Dt:04.08.2023 and Special condition number 29 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 list of detectors & calibration certificates for leak detectors system (Fixed & Portable detectors) which are available in Coromandel International Limited, Visakhapatnam to the Factories Department Dated 28.12.2023 and acknowledge received.

The same acknowledgement copy, we are submitting to your good selves as part of Special condition number 51 in CFO order no: APPCB/VSP/VSP/65/CFO/HO/1967 Dt:04.08.2023 and Special condition number 29 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**

Mr. Nagaraju D
AGM- Head of EHS Department.

NAG

Enclosure: Annexure:01 List of Detectors with calibration Reports.

Coromandel
FUTURE POSITIVE

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

EHS/DCIF/2023-24/DEC - 02

27-12-2023

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

Dear Sir,

Sub: Submission of Calibration Certificates for leak detection system of Fixed gas detectors available in coromandel International Limited, Visakhapatnam - Reg.
Ref : Special condition number 59 in CFO order No : APPCB/VSP/65/CFO/HO/2021 dt:27.04.21

Dear Sir,

This is to your kind information that, here with we are submitting the list of Fixed detectors & Calibration certificates for leak detection system of Fixed gas detectors which are available in coromandel International Limited, Visakhapatnam.

Hence, we are requested to acknowledge the receipt of the report.

Thanking you,
I. Rajesh.
RY/PNR

Yours faithfully,
For Coromandel International Limited,

M Gnanasundaram,
Vice President & Head Manufacturing.

Cc: The Joint Chief Inspector of Factories,
The Inspector of Factories, Visakhapatnam.

Received 28 DEC 2023

Received 28/12/2023

Recd 28.12.23

Registered Office : 'CoroMandel-House', 1-2-10
Sardar Patel Road, Secunderabad - 500 003
Telangana, India

Tel: 91-40-27842034/27847212
Fax : 91-40-27844017
E-mail : mail@coromandel.murugappa.com

murugappa

Coromandel
FUTURE POSITIVE

Coromandel International Limited
Post Box No. 1116, Sriharipuram, Malkapuram Post
Visakhapatnam - 530 011. Andhra Pradesh, India
Tel : 91-891-2578400 to 2578416
DID : 91-891-2578417/18/19
Fax : 91-891-2577665/2516164
Website : www.coromandel.biz
CIN : L24120API96IPLC000892

EHS/DCIF/2023-24/DEC -

27-12-2023

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

Dear Sir,

Sub: Submission of Calibration Certificates for leak detection system of Fixed gas detectors available in coromandel International Limited, Visakhapatnam - Reg.
Ref : Special condition number 59 in CFO order No : APPCB/VSP/65/CFO/HO/2021 dt:27.04.21

- - -

Dear Sir,

This is to your kind information that, here with we are submitting the list of Fixed detectors & Calibration certificates for leak detection system of Fixed gas detectors which are available in coromandel International Limited, Visakhapatnam.

Hence, we are requested to acknowledge the receipt of the report.

Thanking you,
L Rajesh.
RY/PNR

Yours faithfully,
For Coromandel International Limited,

M Gnanasundaram,
Vice President & Head Manufacturing.

Cc: The Joint Chief Inspector of Factories.
The Inspector of Factories, Visakhapatnam.

S.NO	PLANT	LOCATION	SENSOR SR.NO	CAL DATE	CAL DUE DATE
1	AAST	AAST CONTROL ROOM	ARNN-0391	19-07-2023	18-01-2024
2	AAST	COMPRESSOR AREA	ARPJ-0365	19-07-2023	18-01-2024
3	AAST	COMPRESSOR-3 AREA	APRE-0089	19-07-2023	18-01-2024
4	AAST	MANAGER UTILITY AREA	ARRA-0331	19-07-2023	18-01-2024
5	AAST	CONDENSER AREA	ARPK-0131	19-07-2023	18-01-2024
6	COMPLEX	A-TRAIN	ARNN-0341	19-07-2023	18-01-2024
7	COMPLEX	A-TRAIN GRANULATOR DISCHARGE	ARPJ-0101	19-07-2023	18-01-2024
8	G-SULPUR	CONTROL ROOM	ARPJ-0374	19-07-2023	18-01-2024
9	WSF	MCC ROOM	ARPK-0106	19-07-2023	18-01-2024
10	LFP	CONTROL ROOM	ARPJ-0367	19-07-2023	18-01-2024
11	FPP	PN WEST	ARPJ-0340	19-07-2023	18-01-2024
12	FPP	PN EAST	ARPJ-0361	19-07-2023	18-01-2024
13	FPP CONTROL ROOM	GRANULATOR NORTH	ARPJ-0342	19-07-2023	18-01-2024
14	FPP CONTROL ROOM	GRANULATOR SOUTH	ARPJ-0375	19-07-2023	18-01-2024
15	WHARF	BERTH	ARPJ-0346	19-07-2023	18-01-2024
16	WHARF	BERTH	ARPJ-0343	19-07-2023	18-01-2024
17	WHARF	BERTH	ARPK-0078	19-07-2023	18-01-2024
18	WHARF	BERTH	ARPK-0059	19-07-2023	18-01-2024

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/001
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARNN-0391
Location : AAST CONTROL ROOM

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	4.5 PPM / 78.4 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/002
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPJ-0365
Location : COMPRESSOR AREA

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	6.5 PPM / 74.4 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/003
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPE-0089
Location : COMPRESSOR-3 AREA

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	-2.5 PPM / 68.4 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/004
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARRA-0331
Location : MANAGER UTILITY AREA

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	2.2 PPM / 69.2 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/005
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPK-0131
Location : CONDUNSER AREA

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	0.5 PPM / 75.1 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/006
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARNN-0341
Location : A-TRAIN

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	1.1 PPM / 76.7 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/007
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPJ-0101
Location : A-TRAIN GRANULATOR DISCHARGE

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	6.5 PPM / 66.8 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/008
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPJ-0374
Location : G-SULFUR CONTROL ROOM

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	2.1 PPM / 76.1 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/009
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPK-0106
Location : WATER SOLUTION FERTILISER PLANT(MCC ROOM)

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	5.1 PPM / 79.4 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :**DSIPL/SOUTH/19-07/010**
CUSTOMER : **M/s. Coromandel International Limited**
SITE : VIZAG
CALIBRATION DATE : **19/JUL/2023**
MODEL : **POLYTRON 7000**
SERIAL NO. : **ARPJ-0367**
Location : **NEAR LFP CONTROL ROOM**

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	0.5 PPM / 84.4 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/011
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPJ-0340
Location : NEAR PRE-NEUTRALISER(DC-3803)

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	3.3 PPM / 79.1 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/012
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPJ-0361
Location : NEAR PRE-NEUTRALISER(DC-3803)

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	0.2 PPM / 86.3 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/013
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPJ-0342
Location : FPP CONTROL ROOM

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	0.7 PPM / 87.1 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/014
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPJ-0375
Location : FPP CONTROL ROOM

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	1.3 PPM / 78.8 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/015
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPJ-0346
Location : WARF AREA(EAST-4)

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	0.3 PPM / 81.9 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/016
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPJ-0343
Location : WARF AREA(EAST-3)

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	0.8 PPM / 84.1 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

CALIBRATION CERTIFICATE

CERTIFICATE NO. :DSIPL/SOUTH/19-07/017
CUSTOMER : M/s. Coromandel International Limited
SITE : VIZAG
CALIBRATION DATE : 19/JUL/2023
MODEL : POLYTRON 7000
SERIAL NO. : ARPK-0078
Location : WARF AREA(EAST-2)

Sensor Type	Before Calibration Zero/Span	After Calibration Zero/Span
EC NH3	1.6 PPM / 82.3 PPM	0.0 PPM / 80.0 PPM

Calibration Gas Details :

Calibration Gas	Concentration	Canister No:	Valid Upto
NH3	80 PPM	522740	17-MAY-2024
N2	ZERO	427586	N/A

Alarm Settings:

Sensor Type	Alarm 1	Alarm 2
EC NH3	12.5 PPM	25 PPM

Calibration Done By	STALIN PALANI
Next Calibration Due On	18-JAN-2024

Remark :

- Sensor checked and found working ok.

Signature
Mr.STALIN PALANI
Sr. Service Engineer

For Draeger Safety India Private Limited

Coromandel
FUTURE POSITIVE

murugappa

Coromandel International Limited, Visakhapatnam

List of Windsocks

S. No.	Location	Number
1.	Admin	01
2.	Powder Handling	01
3.	PAP-I	01
4	PAP-II	01
5	SAP-II	01
6	AAST -Tank B	01
7	Rock Godown	01
8	Boiler	01
9	WHARF -Molten Sulphur Tank	01
10	WHARF -Conveyor	01
11	C-Train	01
12	Material Godown	02

Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024-136 **05-12-2024**

To

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

Dear Sir,

Sub: Submission of Hazardous Waste Inventory for the month **(i.e., November -2024)** – Reg.

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

****

With reference to above as per the special condition point No 52 specified in CFO Order No: APPCB/VSP/65/CFO/HO/1967 - 04/08/2023. We are here with providing the details of **hazardous wastes inventory for the month of November - 2024** enclosed in **Annexure-01**.

This is for your kind information & Records

Thanking you,

Yours faithfully,

For COROMANDEL INTERNATIONAL LIMITED

Gnanasundaram M
Vice President & Head Mfg.

NAG/ DNR

A.P. Pollution Control Board Visakhapatnam Regional Office 9/12/24

Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024-136 **05-12-2024**

To

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

Dear Sir,

Sub: Submission of Hazardous Waste Inventory for the month **(i.e., November -2024)** – Reg.

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

****

With reference to above as per the special condition point No 52 specified in CFO Order No: APPCB/VSP/65/CFO/HO/1967 - 04/08/2023. We are here with providing the details of **hazardous wastes inventory for the month of November - 2024** enclosed in **Annexure-01**.

This is for your kind information & Records

Thanking you,

Yours faithfully,

For COROMANDEL INTERNATIONAL LIMITED

Gnanasundaram M
Vice President & Head Mfg.

NAG/ DNR

Annexure-1

Monthly Hazardous Waste Inventory Details

Name & Address of the Industry: M/s. Coromandel International Limited , Malkapuram, Visakhapatnam.

Month: November-2024

S.No	Name of the Waste	CFO limit	Storage in the premises at the starting of the Month (in Tons)	Actual Generation Tons	Disposal Details	Recycled Details	Disposal Option	Storage in the premises at the end of the Month (Tons)
					Quantity Tons	Quantity Tons		
1	Acid Residues (Tank Bottom sludge) (TPA)	60	0	5	NA	5	Recycle back into phosphoric acid reactor (as utilizable waste)	0
2	Sulphur muck (Sulphur sludge) (TPA)	1500	20	75	NA	60	Recyle back into the process as a filter material in the granulation plant (as utilizable waste)	35
3	Spent catalyst (TPA)	115	0	0	0	NA	Shall be routed through APEMC, so as to send to authorised Reprocessors / Recyclers (as recyclable waste) (or) TSDF, Parawada for secured land filling (as landfillable waste).	0
4	Used lubricating oil/ Drained oil (KLPA)	60	0.2	0.1	0	NA	Shall be routed through APEMC, so as to send to authorized Reprocessors / Recyclers (as recyclable waste).	0.3
5	LSHS sludge (TPA)	15	0	1.00	0	NA	Shall be routed through APEMC so as to send to cement industries for co-processing (as utilizable waste) / disposed to TSDF, Parawada for AFRF (as utilizable waste)	1
6	Scrubbing sludge (TPA)	450	0	7	NA	7	Reuse back in the process (as utilizable waste)	0
7	ETP sludge (TPA)	1200	10	30	NA	20	Recycle back into process (as utilizable waste)	20
8	Off specified , expired chemicals & lab chemicals etc. (TPA)	50	0	0	0	0	Shall be routed through M/s. APEMCL so as to dispose to TSDF Parawada for incineration /Landfill Authorised Cement Industries for CoProcessing	0
9	Glass Wool	8	0	0	0	NA	Shall be routed through M/s. APEMCL so as to dispose to TSDF Parawada for Landfill.	0
10	Insulation Puff	8	0	0	0	NA	Shall be routed through M/s. APEMCL so as to dispose to TSDF Parawada for incineration.	0
11	Detoxified Containers and containe	1500 Nubbers for Month	12	120	0	NA	Shall be routed through APEMC toTSDF for detoxification and disposal / outside agencies / return to dealers,	132

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

EHS/APPCB/2024-138 **05-12-2024**

To

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

Dear Sir,

Sub: Submission of Hazardous Chemicals Inventory for the month **(i.e., November' 2024)** – Reg.

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

With reference to above as per point No 54 specified in CFO, we are here with providing the details of hazardous chemicals inventory till **30 - November 2024.** The details are as follows:

S.No	Hazardous Chemical Name	Consent Storage Capacity (MT)	Qty as on 30-Nov-2024 (MT)
1	Ammonia	12500	3941
2	Sulphuric Acid	56500	33998
3	Phosphoric acid	32890m3	10655
4	Molten Sulphur	15000	5727

This is for your kind information & Records.

Thanking you,

Yours faithfully,

For **COROMANDEL INTERNATIONAL LIMITED**

Gnanasundaram M
Vice President & Head Manufacturing.

NAG/DNR

A.P. Pollution Control Board * Regional Office, Visakhapatnam *
9/12/24

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

EHS/APPCB/2024-138 **05-12-2024**

To

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

Dear Sir,

Sub: Submission of Hazardous Chemicals Inventory for the month **(i.e., November' 2024)** – Reg.

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

With reference to above as per point No 54 specified in CFO, we are here with providing the details of hazardous chemicals inventory till **30 - November 2024.** The details are as follows:

S.No	Hazardous Chemical Name	Consent Storage Capacity (MT)	Qty as on 30-Nov-2024 (MT)
1	Ammonia	12500	3941
2	Sulphuric Acid	56500	33998
3	Phosphoric acid	32890m3	10655
4	Molten Sulphur	15000	5727

This is for your kind information & Records.

Thanking you,

Yours faithfully,

For **COROMANDEL INTERNATIONAL LIMITED**

Gnanasundaram M
Vice President & Head Manufacturing.

NAG/DNR

O/C

Coromandel
FUTURE POSITIVE

Coromandel International Limited
Post Box No. 1116, Sriharipuram, Malkapuram Post
Visakhapatnam - 530 011, Andhra Pradesh, India
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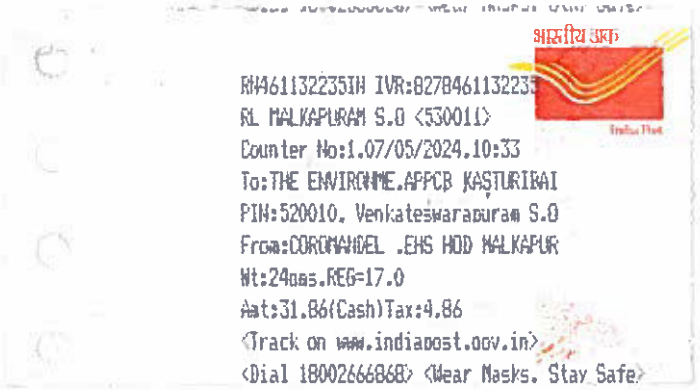
Website : www.coromandel.biz
CIN : L24120AP1961PLC000892
GSTIN : 37AAACC7852K1ZC

EHS/APPCB/2024-040

Date: 06.05.2024



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

Dear Sir,

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

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

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

Kindly acknowledge the receipt of same.

Thanking you,

Yours Truly,

For COROMANDEL INTERNATIONAL LIMITED

Gnanasundaram M
Vice President & Head Manufacturing.

NAG/DNR

Encl. As above

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

Coromandel
FUTURE POSITIVE

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

EHS/APPCB/2024-040 **Date: 06.05.2024**

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

Dear Sir,

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

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

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

Kindly acknowledge the receipt of same.

Thanking you,

Yours Truly,

For COROMANDEL INTERNATIONAL LIMITED

Gnanasundaram M
Vice President & Head Manufacturing.

NAG/DNR

Encl. As above

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

FORM-4

[See rules 6(5), 13(8), 16(6) and 20(2)]

FORM FOR FILING ANNUAL RETURNS

[To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period April to March]

1	Name and address of facility:	:	**Coromandel International Limited,**		
			Sriharipuram, Malkapuram (PO), Visakhapatnam-530011, Andhra Pradesh, India.		
			Phone: 0891-2578400		
2	Authorisation No. and Date of issue:	:	Authorization no. APPCB/VSP/65/CFO/HO/1967		
			Issued date: 30.09.2022 Valid Upto 31.08.2027		
3	Name of the authorised person and full address with telephone, fax number and e-mail:	:	**M. Gnanasundaram**		
			VP-Head Manufacturing		
			Sriharipuram, Malkapuram (PO), Visakhapatnam-530011, Andhra Pradesh, India.		
			Phone: 0891-2578400		
4	Production during the year (product wise), wherever applicable	:	Complex plant	1165048	MT/Annum
		:	Sulphuric acid	861859	
		:	Phosphoric acid	370617	

Part A. To be filled by hazardous waste generators

1	Total quantity of waste generated category wise		:	**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/drained 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)	:	**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
		(ii) to recycler or co-processors or pre-processor		1) Used lubricating oil/drained oil	14.020	KL
				2) Detoxified Containers and container liners	2348	No's
		(iii) Others		---	---	

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]

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/drained 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 –	:	Not applicable
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) –	:	Not 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

EHS2-Vizag-Coromandel

From: Nagarjuna-P-Mgr-EHS-Vizag-Coromandel
Sent: 07 May 2024 15:53
To: rovspappcb@gmail.com
Cc: EHS2-Vizag-Coromandel; Nageswara Rao G-AsstMgr-EHS-Vizag-Coromandel; Subhradip Mondal-Mgr-Environment-Vizag-Coromandel; Nagaraju D-AGM-EHS-Vizag-Coromandel; Vinod Kumar Mishra-Sr.GM-EHS-Vizag-Coromandel
Subject: Reg. Submission of Hazardous waste annual report of form-iv for the period of April 2023- Mar 2024
Attachments: Hazardous Waste Annual Returns (Form -4) 2023- to 2024.pdf

Dear Sir,

Herewith submitting **Hazardous waste annual report of Form-4 for the period of April 2023- Mar 2024** by Coromandel International Limited, Visakhapatnam.

Same original copy along with backup documents send to head office, Vijayawada through register post.
Same copy again submitted to your regional office , Visakhapatnam on **07.05.2024** as per your instruction.

Regards,
Nagarjuna P
Manager-Environment
9100443439

SAVE ENVIRONMENT SAVE LIFE

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