



ANDHRA PRADESH POLLUTION CONTROL BOARD
D.No.33-26-14D/2, Near Sunrise Hospital, Pushpa Hotel Centre,
Chalamalavari Street, Kasturibaipet, Vijayawada - 520 010
Phone. No.0866-2463200, Website : www.appcb.ap.nic.in

RED CATEGORY
CONSENT & AUTHORIZATION ORDER

Consent Order No : APPCB/VSP/VSP/65/CFO/HO/2019-

04/09/2019

CONSENT is hereby granted for Operation under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation under Rule 6 of the Hazardous & Other Wastes (Management and Transboundary, Movement) Rules, 2016 and the rules and orders made there under (hereinafter referred to as 'the Acts', 'the Rules') to:

M/s. Coromandel International Limited,
(Change of product mix & Expansion)
Sriharipuram,
Malkapuram (PO)
Visakhapatnam - 530 011
Email :

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of emissions per hour from the chimneys as detailed below:

i) Out lets for discharge of effluents:

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal
1.	Process and Washings	1800	<ul style="list-style-type: none"> Both treated sewage water and 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 1800 KLD 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	79600	Into Meghadrigedda surplus course that joins Bay of Bengal
3.	Domestic	530	Recycled / reused within the factory premises

ii) Emissions from chimneys:

Chimney	Description of Chimney	Quantity of Emissions in m ³ /hr. at peak flow
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No.		
1.	Attached to 1700 TPD Sulphuric Acid Plant	1,15,357 Nm ³ /hr
2.	Attached to 400 TPD* Sulphuric Acid Plant	33,333 Nm ³ /hr
3.	Attached to 700 TPD Phosphoric Acid Plant	1,82,000 Nm ³ /hr
4.	Attached to 40 TPH Rock Grinding unit	15,000 m ³ /hr
5.	Attached to 20 TPH Rock Grinding unit	15,000 m ³ /hr
6.	Attached to Complex A-Train	2,60,700 Nm ³ /hr
7.	Attached to Complex B-Train	2,60,700 Nm ³ /hr
8.	Attached to Complex C-Train	2,67,850 Nm ³ /hr
9.	Common stack attached to Drier (2 Nos.) & process coolers (2 Nos) of 300 TPD customized fertilizer	---
10.	Attached to 48 TPH Oil Fired boiler through 5 MW T.G. Set	41,700 Nm ³ /hr
11.	Attached to 2x1.5 TPH Oil Fired Boilers	12,000 Nm ³ /hr
12.	Attached to 31 TPH Oil Fired boiler	
13.	Attached to 6 MW D.G. Set	--
14.	Attached to 4MW D.G. Set	--
	Expansion	
15.	Attached to 700 TPD Phosphoric Acid Plant	35,000 Nm ³ /Hr
16.	Attached to 75 TPH Rock Phosphate grinding Units	30,000 Nm ³ /Hr
17.	Attached to 40 TPH Coal Fired Boiler & Back pressure Turbine 5 MW	67,200 Nm ³ /Hr

* This includes 300 TPD in SAP-1 and 100 TPD in SAP-2 post debottlenecking without any requirement of increase in existing stack height.

iii) **HAZARDOUS WASTE AUTHORISATION (FORM - II) [See Rule 6 (2)]:**

M/s. Coromandel International Limited, Sriharipuram, Malkapuram, Visakhapatnam District, is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

HAZARDOUS WASTES WITH RECYCLING OPTION:

S.No	Name of the Hazardous waste	Stream	Quantity	Disposal Option

1.	Acid residues (Tank bottom sludge)	34.2 of Schedule-I	45 TPA	Recycle back into phosphoric acid reactor.
2.	LHS Sludge	34.2 of Schedule-I	10 TPA	To TSDF for incineration / Cement Plant for co-processing.
3.	Sulphur muck (Sulphur sludge)	Class B (Sl.No.37) of Schedule-II	750 TPA	Recycle back into the process as a filler material in the granulation plant.
4.	Spent catalyst	18.1 of Schedule-I	65 TPA	Authorised Reprocessors / Recyclers (or) TSDF, Parawada for secured land filling.
5.	Used lubricating oil/drained oil	5.1 of Schedule - I	50 KLPA	Authorised Reprocessors / Recyclers
6.	Detoxified Containers and container liners	33.1 of Schedule-I	700 Nos/Anum	After detoxification, it shall be disposed off to outside agencies
7.	Scrubbing sludge	37.1 of Schedule-I	450 TPA	Reuse back in the process

This consent order is valid to manufacture the following products along with quantities indicated only:

S.No.	Products	Quantity
1	Complex Fertilisers	4210 TPD*
2	Customized Fertiliser plant	
3	Water soluble fertilizer plant	
	Water Soluble Fertilizer (or)	
	Micronutrient mixtures (powder/ liquid/ granular) (or)	
	Chelated Micronutrients (powder/ liquid/ granular) (or)	
	Urea Phosphate (or)	
	Micronized / Nano Sulphur	
4	H ₂ SO ₄	2100 TPD
5.	Bentonite Sulfur	90 TPD
6.	Phosphoric Acid	1400 TPD
7.	Fertiliser technology centre (pilot plant) - Complex Fertilizer	24 TPD
8	Fertilizer technology centre - Phosphoric acid	0.83 TPD
9.	Sulpho Zinc & Sulpho Boron	10 TPD
	By-Products:	
10.	Gypsum	7000 TPD
11.	Hydroflorosilicic Acid	35 TPD
Bulk storage facilities at site		
12.	Ammonia (1x5000 MT + 1x7500 MT)	12500 MT
13.	Sulphuric acid (1x4000 MT + 3x2000 MT) 1x5000 MT	15000 MT
14.	Phosphoric acid (P ₂ O ₅)	7 X 610 MT + 20,000 MT (4 X 5000 MT)
15.	Molten sulphur	2 X 5000 MT

16.	LSHS	2 X 500 KL & 3 X 160 T
17.	Diesel	1X 10 KL + 1 X 16 T
18.	Petrol	10 KL
19.	Kerosene	1 X 50 KL
20.	LPG	40 X 14.5 Kg

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

This order is subject to the provisions of 'the Acts' and the Rules' and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

This combined order of consent & Hazardous Waste Authorisation shall be valid for a period ending with the 31st day of August, 2020.

BANDLA SIVA SANKARA PRASAD, CHAIRMAN, O/o CHAIRMAN-APPCB

To

**M/s. Coromandel International Limited,
Sriharipuram, Malkapuram (PO)
Visakhapatnam - 530 011**

Copy to:

1. The JCEE, Zonal Office, **Visakhapatnam** for information and necessary action.
2. The Environmental Engineer, Regional Office, **Visakhapatnam** for information.

SCHEDULE - A

1. Any up-set condition in any industrial plant / activity of the industry, which result in, increased effluent / emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.
2. The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.
3. All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.
4. The industry should put up two sign boards (6x4 ft. each) at publicly visible places at the main gate indicating the products, effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.
5. Notwithstanding anything contained in this consent order, the Board hereby reserves the right and powers to review / revoke any and/or all the conditions

imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.

6. 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.
7. 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. 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.
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.

SCHEDULE - B

1. The industry shall handover the following original Consents to the RO: Visakhapatnam after receipt of this order and shall note that the same stands cancelled on issue of this order:
 - a. Consent Order No. APPCB/VSP/VSP/65/CFO/HO/2015-, dated 21.04.2015 and its Auto Renewal order dated 19.08.2016 having validity upto 31.10.2021.
 - b. Consent Order No. APPCB/VSP/VSP/65/HO/CFO/2018-, dated 19.03.2018 having validity upto 31.01.2020.
 - c. Consent Order No. APPCB/VSP/VSP/65/CFO/HO/2019-, dated 18.02.2019 having validity upto 31.01.2020.

WATER POLLUTION:

2. The effluent discharged shall not contain constituents in excess of the tolerance limits mentioned below:

Outlet	Parameter	Limiting Standards
1 & 2	pH	6.5 - 8.0
	Ammonical Nitrogen	50 mg/l
	Free Ammonical Nitrogen	4 mg/l
	Total Kjeldahl Nitrogen	75 mg/l
	Nitrate Nitrogen	10 mg/l
	Cyanide as CN	0.2 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	100 mg/l
COD	250 mg/l
Temp :- Not more than 5 °C higher than intake water.	

3. The source of water is GVMC & Sea drawl. The following is the permitted water consumption:

S.No	Purpose	Quantity (KLD)
1.	Process & Washes	10,350
2.	Industrial Cooling (Makeup) - Fresh water	
3.	Boiler feed	
4.	Domestic & Other	
5	Customized fertilizer plant	
6.	Industrial Cooling - Sea water	84,600

* Water consumption shall be restricted to 10,350 KLD as mentioned in the EC order dated 14.07.2017

4. Digital flow meters with totalizers with necessary pipelines shall be provided so as to assess the water used for different purposes and maintain them properly and also maintain the records of the readings.

AIR POLLUTION:

5. The emissions shall not contain constituents in excess of the prescribed limits mentioned below.

Chimney No.	Parameter	Emission Standards
1	Acid mist SO ₂ SO ₃	20 mg/Nm ³ 1 Kg/MT of product 0.35 Kg/MT of product
2	Acid mist So ₂ So ₃	20 mg/Nm ³ 0.65 Kg/MT of product 0.35 Kg/MT of product
3 - 5	Total Fluoride SPM	20 mg/Nm ³ 50 mg/Nm ³
6 - 8	Urea Particulate Matter Fluorine Ammonia	50 mg/Nm ³ 45 mg/Nm ³ 4 mg/Nm ³ 165 mg/Nm ³
9	Particulate Matter	50.00 mg/Nm ³
10 - 12	Particulate Matter	115.00 mg/Nm ³
13 - 14	Particulate Matter	115.00 mg/Nm ³

15 - 16	Total Fluoride SPM	20 mg/Nm ³ 50 mg/Nm ³
17	SPM	115.00 mg/Nm ³

6. 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.
7. The industry shall comply with ambient air quality standards of PM₁₀ (Particulate Matter size less than 10 microns) - 100 micro gram/ m³; PM_{2.5} (Particulate Matter size less than 2.5 microns) - 60 micro gram/ m³; SO₂ - 80 micro gram/ m³; NO_x - 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).
8. 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.
9. Housekeeping shall be improved through closed transportation systems. Road sweeping machine shall be deployed for control of dust near Gypsum yard.
10. 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 within 15 days.

GENERAL:

11. 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:
1. 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.
 2. 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.
 3. Usage of granulation aide to improve granule strength to reduce dust generation from the plant.
12. The industry shall not increase the capacity beyond the permitted capacity mentioned in this order. There shall not be increase in the permitted quantities of the products. The industry proposed to increase Sulphuric Acid production and Phosphoric acid production to reduce their imports.
13. Lining shall be provided to delay pond.
14. The industry shall completely remove the gypsum from the unlined gypsum pond by 31st January, 2020. As committed the industry shall construct HDPE lined pond in an additional 10 acres by October, 2019. There after the old and fresh Gypsum shall be stored on HDPE lining only.

- 15.The industry shall properly maintain 400 MTPD evaporation system for Phosphoric Acid including Fluorine recovery system as stipulated in the EC order.
- 16.The industry shall submit details of maintaining temperature difference (ΔT) of 50C before disposal to Sea via Megadri gedda every month.
- 17.There shall not be any additional pollution load due to change of product mix.
- 18.The industry shall evaporate (concentrate) Phosphoric acid to reduce Fluorine so as to reduce fluorine input to complex fertilizer plant;
- 19.The industry shall provide online pH measuring facility with auto recording system to the alkali scrubbers provided to treat the sulfuric acid plant emissions.
- 20.The industry shall cover existing 3 lakhs tons of old gypsum with clay liner;
- 21.The industry shall maintain and monitor piezo wells and submit trends every 3 months to RO, Visakhapatnam.
- 22.The target of Green Visakha plantation of 2.25 lakhs saplings shall be completed immediately and a monthly progress report to Regional Office-Visakhapatnam.
- 23.The industry shall provide online stack analyzers for all the stacks of complex fertilizer plant for monitoring ammonia, Urea, 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. Existing two online stack analyzers attached to Sulphuric Acid Plants shall be maintained.
- 24.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.
- 25.The industry shall maintain 2 online CAAQM Stations within the plant as per the specifications of CPCB for online monitoring of SPM, RSPM, SO₂, NO_x & Ammonia with networking facility to Head Office, APPCB.
- 26.The industry shall not start-up the Sulfuric acid plants during night time i.e. between 6.00 PM to 8: 00 AM.
- 27.The industry shall operate new ETP continuously to meet outlet standards and submit RO-Visakhapatnam every month log sheets of ETP operation.
- 28.The industry shall recover fluorine from phosphoric acid process to maximum extent possible.
- 29.The industry shall dispose High Chrome forged grinding media solid waste to authorized agencies and submit half yearly reports to RO, Visakhapatnam.
- 30.The industry shall operate bag filters at hopper i.e. rock phosphate unloading point at wharf to arrest the fugitive emissions.
- 31.The industry shall update the Disaster Management Plan regularly.
- 32.The industry shall monitor work place online ammonia levels with online sensors in complex fertiliser plant and maintain records.
- 33.The industry shall store fresh gypsum on HDPE lining at the wagon loading area.
- 34.The industry shall submit concentration levels of Ammonia monitored by industry through sensors every month.
- 35.The industry shall ensure that there are no leaks in any unit operations and unit processes.
- 36.The industry shall take proper measures to ensure the trucks with proper

- leak proof bodies are used for transportation of gypsum from the industry.
- 37.The industry shall maintain and monitor piezo wells and submit trends every 6 months.
 - 38.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.
 - 39.The industry shall comply with the conditions stipulated in the CFE (CPM) order dated 26.04.2019.
 - 40.Any other directions / circulars / notices issued by CPCB, MoEF&CC and APPCB shall be followed from time to time.

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.
2. The authorisation shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
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.
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.
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;
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”.
7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
8. An application for the renewal of an authorisation shall be made as laid down under these Rules.
9. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.

Specific Conditions:

10. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.
11. The industry shall transport the hazardous waste to cement industries through GPS vehicle.
12. The industry shall not store hazardous waste for more than 90 days as per the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
13. 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.
14. 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.
15. 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.

The industry shall submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this Order on half yearly basis to Board Office, Vijayawada and concerned Regional Office.

BANDLA SIVA SANKARA PRASAD, CHAIRMAN, O/o CHAIRMAN-APPCB

To
M/s. Coromandel International Limited,
Post Box No. 1116,
Sriharipuram, Malkapuram,
Visakhapatnam -530 011