



ANDHRA PRADESH POLLUTION CONTROL BOARD
D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,
Chalamavari Street, Kasturibaipet, Vijayawada – 520010.

Website :www.appcb.ap.nic.in

CONSENT ORDER FOR ESTABLISHMENT

Order No.65 /APPCB/CFE/RO-VSP/HO/2012

Dt.17.07.2018

Sub: APPCB – CFE - **M/s. Coromandel International Ltd., (Formerly M/s. Coromandel Fertilizers Ltd), Sriharipuram, Malkapuram (PO), Visakhapatnam** – Consent for Establishment of the Board for **expansion of Phosphoric Acid Plant** under Sec.25 of Water (P & C of P) Act, 1974 and Under Sec.21 of Air (P&C of P) Act, 1981 - Issued - Reg.

- Ref: 1) EC order dt. 14.07.2017 issued by MoEF&CC, Gol, New Delhi.
 2) CFE order (Extn.) dt.12.09.2017.
 3) Industry's application received through OCMMS on 27.06.2018
 4) RO's inspection report dt. 02.07.2018.
 5) CFE Committee meeting held on 05.07.2018.
 6) Industry's Ir.dt. 06.07.2018.

1. In the reference 3rd cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for **expansion of Phosphoric Acid Plant** by de-bottle necking the process to produce the following products with installed capacities as mentioned below, with an additional investment of Rs.37.50 Crores.

S. No.	Name of the Products and By-products	Consented capacity as per CFE (Exp) dt. 12.09.2017	Proposed capacity for expansion of Phosphoric Acid Plant	Total capacity after expansion of Phosphoric Acid Plant
1.	Complex Fertilizers	3900 TPD	----	3900 TPD
2.	Customized Fertilizer plant	300 TPD	----	300 TPD
3.	H ₂ SO ₄ (Unit – I & II)	2100 TPD	----	2100 TPD
4.	Bentonite Sulfur	100 TPD	----	100 TPD
5.	Phosphoric Acid	1000 TPD	400 TPD	1400 TPD
6.	Water Soluble Fertilizer	10 TPD	----	10 TPD
	Fertilizer technology centre (pilot plant)			
7.	Complex fertilizer	24 TPD	----	24 TPD
8.	Phosphoric acid	0.83 TPD	----	0.83 TPD
	By Products			
9.	Gypsum	5000 TPD	2000 TPD	7000 TPD
10.	Hydroflorosilicic Acid	25 TPD	10.0 TPD	35.0 TPD
11.	Sulpho Zinc & Sulpho boron	10 TPD	----	10 TPD
	Bulk storage facilities at site			
12.	Ammonia (1X5000 MT + 1X 7500 MT)	12500 MT	----	12500 MT
13.	Sulphuric Acid (1 X 4000 MT + 3 X 2000 MT) 1 x 5000 MT	15000 MT	----	15000 MT
14.	Phosphoric acid (P ₂ O ₅)	7 X 610 M ³ + 20000 MT	----	7 X 610 M ³ + 20000 MT
15.	Molten sulphur	2 X 5000 MT	----	2 X 5000 MT
16.	LSHS	2 X 500 KL & 3 X 160 KL	----	2 X 500 KL & 3 X 160 KL
17.	Diesel	1 X 10 KL + 1 X 16T	----	1 X 10 KL + 1 X 16T
18.	Petrol	10 KL	----	10 KL
19.	Kerosene	1 X 50 KL	----	1 X 50 KL
20.	LPG	40 X 14.5 Kg	----	40 X 14.5 Kg

2. As per the application, the proposed activity is to be located within the existing Plant premises located at Sriharipuram, Malkapuram, Visakhapatnam.
3. The above site was inspected by the Environmental Engineer, Asst. Environmental Engineer-III, Regional office, Visakhapatnam, A.P Pollution Control Board on 29.06.2018 and observed that the site is surrounded by

North : Vacant land followed by road connecting NH-5 & VPT.

South : Vacant land followed by road connecting Port road .

East : M/s. HPCL Visakh Refinery

West : M/s. Shraavan Shipping handling unit & Mulagada Village.

4. The Board, after careful scrutiny of the application, verification report of Regional Officer and recommendations of CFE committee, hereby issues **CONSENT FOR ESTABLISHMENT for EXPANSION of Phosphoric Acid Plant** under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. **This order is issued to manufacture the products as mentioned at para (1) only.**
5. This Consent Order now issued is subject to the conditions mentioned in Annexure.
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.
7. This order is valid for period of 7 years from the date of issue.

Encl: Annexure

MEMBER SECRETARY

To

**M/s. Coromandel International Ltd.,
(Formerly M/s. Coromandel Fertilizers Ltd,
Sriharipuram, Malkapuram (PO),
Visakhapatnam.
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Copy to: 1. The JCEE, Z.O., Visakhapatnam for information and necessary action.
2. The E.E., R.O, Visakhapatnam for information and necessary action.

Annexure

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 trial runs.
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.
3. The industry shall construct separate storm water drains and provide rain water harvesting structures. No effluents shall be discharged in to the storm water drains.

Water:

1. The source of water is GVMC & Sea. The maximum permitted water consumption is as following:

Sl. no	Purpose	Consented quantity as per CFE (Exp) dated 12.09.2017 (KLD)	Total Quantity after expansion of Phosphoric Acid Plant(KLD)
1.	Process & Washes	10,350	10,350*
2.	Industrial Cooling (Makeup) – fresh water		
4.	Boiler Feed		
5.	Domestic & other		
6.	Customized fertilizer plant		
7.	Industrial Cooling – Sea water.	84,600	84,600
Grand total		94,950	94,950

* Water consumption is restricted to 10,350 KLD as mentioned in the EC order dt. 14.07.2017.

2. The maximum waste water generation shall not exceed the following:

Sl. No	Effluents	Consented quantity as per CFE (Exp) dated 12.09.2017 (KLD)	Total Quantity after expansion of Phosphoric Acid Plant(KLD)
1.	Process & washings	1800	1800
2.	Cooling water blow down	81,600	81,600
3.	Domestic	530	530
Total		83,930	83,930

ETP Details & Mode of Disposal:

Source of effluent	Treatment	Mode of final disposal
Process & washing effluents & Boiler/cooling tower blow downs, DM plant rejects	ETP consists of Equalization → Reaction tank 1 → Clariflocculator - 1 → Buffer tank → Reaction tank 2 → Clariflocculator - 2 → Reaction tanks 3 cum Neutralization tank → Holding tank → Reaction tank - 4 & filter press.	<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 the 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 sea.

Dilution coolers - Once through cooling	---	Into Meghadrigedda surplus course which joins Sea
Domestic effluents	STP	Recycled / reused within the factory premises.

- All the units of the ETP & ZLD systems shall be impervious to prevent ground water pollution. The ETP & ZLD systems shall be maintained properly to achieve the standards.
- The effluents shall be treated to the marine coastal water discharge standards, as stipulated under Schedule VI of Environment (Protection) Rules, 1986, notified by Ministry of Environment and Forests, Government of India vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof.
- The industry shall provide magnetic flow meters with totalisers at the inlet and outlet of ETP.
- 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.

Air:

- The Air pollution Control equipment shall be installed along with the commissioning of the activity and shall comply with the following for controlling air pollution after expansion:

Consented as per CFE order dt. 12.09.2017:

Sl. No	Details of Stack	Existing									Proposed		
		Stack – 1 & 2	Stack – 3	Stack – 4, 5 &	Stack 6 to 8	Stack – 9	Stack – 10	Stack – 12	Stack – 13	Stack – 14 & 15	Stack 16	Stack – Stack 17	Stack – 18
1.	Attached to	Sulphuric Acid Plant existing (1 & 2 Plants)	Phosphoric Acid Plant (Existing)	Rock Phosphate grinding units (Existing 2 Nos.)	Complex fertilizer plant Complex A, B & C-Trains	Customized fertilizer plant Drier (2 Nos.) & process coolers (2 Nos.) of customized fertilizer	Oil Fired boiler through 5 MW T.G. Set	Oil Fired Boiler	Oil Fired Boiler	D.G. Set*	Phosphoric Acid Plant	Rock Phosphate grinding units	Coal fired Boiler and Back pressure turbine
2.	Capacity	1700 TPD & 400 TPD*	700 TPD	40 TPD, 20 TPD	3900 TPD	300 TPD	48 TPH	2 x 1.5 TPH	31 TPH	6 MW & 4 MW	300 TPD	75 TPD	40 TPH and 5 MW
3.	Stack height: Above the ground (m)	69 & 50	33	45	37.8, 37.8 & 37.3	30	30.48	30.48	30.48	operating in an emergency condition	33	45	56
4.	Details of Air Pollution Control Equipment:	Alkali scrubber	Evaporator followed by series of barometric condensers Fumes Scrubber	Bag filters	4 stage scrubbing system (for ammonia recovery and multi cyclone 6 Nos.) X 3 Nos.	Cyclones followed by wet scrubber	Cooler gases	-----	-----	Acoustic enclosures	Evaporator followed by series of barometric condensers Fumes Scrubber	Bag filters	ESP

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

Proposed for expansion of Phosphoric Acid Plant:

Sl. No	Details of Stack	Stack 16	Stack – 19
1.	Attached to	Phosphoric Acid Plant	Rock Phosphate grinding unit
2.	Capacity	400 TPD	30 TPD
3.	Stack height: Above the ground (m)	33 (same stack 16 is adequate to meet the requirement, no additional stack required)	30
4.	Details of Air Pollution Control Equipment:	Evaporator followed by series of barometric condensers Fumes Scrubber	Bag filters

8. The industry shall install 400 MTPD evaporation system for Phosphoric Acid including Fluorine recovery system as stipulated in the EC order.
9. 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.
10. The industry shall provide online pH measuring facility with auto recording system to the scrubbers provided to treat the process emissions.
11. The industry shall implement adequate measures to control all fugitive emissions from the plant.
12. 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.

Solid / Hazardous Waste details:

13. The industry shall comply with the following for disposal of Solid Waste after expansion of Phosphoric Acid Plant.

Sl. No	Name of the Hazardous waste	Existing Quantity	Expansion	Total after expansion (as per CFE order dt. 12.09.2017)	Disposal Option
1.	Acid residues (Tank bottom sludge)	30 TPA	15 TPA	45 TPA	Recycle back into phosphoric acid reactor.
2.	LSHS Sludge	10 TPA	----	10 TPA	TSDf, Dundigal, for incineration
3.	Sulphur muck (Sulphur sludge)	600 TPA	150 TPA	750 TPA	Recycle back into the process as a filler material in the granulation plant.
4.	Spent catalyst	50 TPA	15 TPA	65 TPA	Authorized reprocessors / recyclers (or) TSDf, Parawada for secured land filling.
5.	Used lubricating oil/draind oil	40 KLPA	10 KLPA	50 KLPA	Authorized reprocessors / recyclers.
6.	Detoxified Containers and container liners	600 Nos	100 Nos.	700 Nos.	After detoxification, it shall be disposed off to outside agencies.

7.	Scrubbing sludge	360 TPA	90 TPA	450 TPA	Reuse back in the process
8.	E Waste	---	1.0 TPA	1.0 TPA	Authorised e-waste recyclers
9.	Fly ash	---	25 TPD	25 TPD	To cement industries / brick manufacturing units

14. The following rules and regulations notified by the MoEF&CC, GoI shall be implemented.

- a) Hazardous waste and other wastes (Management and Transboundary Movement) Rules, 2016.
- b) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
- c) Fly Ash Notification, 2016.
- d) Batteries (Management & Handling) Rules, 2010.
- e) E-Waste (Management) Rules, 2016.
- f) Construction and Demolition waste Management Rules, 2016.

Other Conditions:

15. **The production capacity of the fertilizers shall not be increased.**

16. **The water consumption shall be restricted to 10,350 KLD as stipulated in the EC order.**

17. **The additional sulfuric Acid required to the proposed Phosphoric acid production shall be imported.**

18. **The industry shall comply with the following as committed vide Ir.dt.06.07.2018:**

- a) Online analyzer facility for monitoring of fluoride in the Phosphoric acid plant stack shall be installed by July, 2018.
- b) Cleaning schedules shall be implemented to improve house keeping.
- c) The performance of Air Pollution equipment shall be improved to meet the standards.
- d) The additional quantity of Gypsum shall be disposed to cement industries.

19. The industry shall comply with the following as stipulated in the CFE (Expn.) order dt.12.09.2017:

- Lined storage area for Gypsum shall be provided.
- Garland drains shall be provided so that there shall not be any flooding of rain water to outside.
- 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.
- Lining shall be provided to delay pond.
- **The existing oil fired boilers of capacity 1 X 48 TPH and 1 X 31 TPH shall be kept in standby post expansion.**

20. The industry submitted a copy of letter stating that the MoEF&CC, Gol, New Delhi vide Ir.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.
21. The industry shall submit a report on recycling of treated effluent into the process to achieve zero discharge except during rainy season.
22. 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.
23. Concealing the factual data or submission of 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.
24. 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 by the Board.
25. 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.

MEMBER SECRETARY

To

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