



**File No: J-11011/158/2016-IA-II(I)**  
**Government of India**  
**Ministry of Environment, Forest and Climate**  
**Change**  
**IA Division**  
**\*\*\***



Date 25/04/2024



To,

CH SRINIVAS RAO  
COROMANDEL INTERNATIONAL LIMITED  
Door No. 3-15/1, Vakalpudi Beach Road, Kakinada Rural, East Godavari District, Andhra Pradesh- 533003  
srinivasaraoch@coromandel.murugappa.com

**Subject:** Proposed Amalgamation of Environmental Clearances and Amendment/Expansion of Fertilizer Plants in Coromandel Kakinada Plant at Vakalapudi (V), Beach Road, Kakinada Rural, Kakinada District, Andhra Pradesh- 533003 by M/s Coromandel International Limited - Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -regarding.

**Sir/Madam,**

This is in reference to your application submitted to MoEF&CC vide proposal number IA/AP/IND3/450053/2023 dated 04/01/2024 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A1904AP5129961N
(ii) File No.	J-11011/158/2016-IA-II(I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	5(a) Chemical fertilizers ,1(d) Thermal Power Plants
(vi) Sector	Industrial Projects - 3
(vii) Name of Project	Amalgamation of Environmental Clearances and Amendment/Expansion of Fertilizer Plants in Coromandel Kakinada Plant at Vakalapudi (V), Beach Road, Kakinada Rural, East Godavari District, Andhra Pradesh- 533003 by M/s Coromandel International Limited
(viii) Name of Company/Organization	COROMANDEL INTERNATIONAL LIMITED
(ix) Location of Project (District, State)	EAST GODAVARI, ANDHRA PRADESH
(x) Issuing Authority	MoEF&CC

**(xi) Applicability of General Conditions as per  
EIA Notification, 2006**

No

3. The Ministry of Environment, Forest and Climate Change has examined the proposal seeking environmental clearance for expansion of Fertilizer Plants in Coromandel Kakinada Plant at Vakalapudi (V), Beach Road, Kakinada Rural, Kakinada District, Andhra Pradesh- 533003 by M/s Coromandel International Limited.

4. The project/activity is covered under Category 'A' of item 1(d), 5(a), Chemical Fertilizer industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 as amended from time to time.

5. The ToR was issued by the Ministry, vide letter no. IA-J-11011/158/2016-IA- II(I) dated 7<sup>th</sup> May 2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an Expansion case. The proposal was placed the 73<sup>rd</sup> EAC meeting held on 17<sup>th</sup> January, 2024 where the proposal was deferred for want of additional information. The proposal is now placed in the 75<sup>th</sup> EAC meeting held on 26<sup>th</sup> February, 2024 wherein the PP along with accredited Consultant, M/s EQMS Global Pvt. Ltd, (NABET Accreditation No.: NABET/EIA/2225/RA 0303 Valid Upto-23.11.2025] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

6. The proposed expansion project aims to introduce "Nano Urea/Nano DAP Fertilizer" which are new generation fertilizers that are believed to enhance the nutrient use efficiency and reduce the use of bulk fertilizers. Along with introduction of "Nano Fertilizer", the industry has also planned for "Expansion in existing fertilizer production i.e., NP/NPK/DAP Fertilizer". Total of 12 MW (including existing 4.8 MW as per CFE received existing being less than 5 MW exempted from EC) coal based captive power plant" shall also be developed under proposed expansion. Along with the same, industry shall also manufacture additional 9.5 Lakh Tons per annum of NP/NPK/DAP Fertilizers. The total production capacity of NP/NPK/DAP Fertilizers after expansion will be 30 Lakhs Tons per annum.

7. The PP reported that the existing land area is 562.32 Acres, and no additional land will be acquired for proposed expansion no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. No.	Product	CAS No.	Unit	As per CCA/CFE	Proposed/ Additional	After Expansion	Remarks
<b>PRODUCTS</b>							
1	Nano-Urea/Nano-DAP	-	KL per annum	0	30,000	30,000	New Facility within the existing storage area (Available shed area will be utilized for proposed nano-fertilizer plant).
2	NP/ Fertilizer/Di-ammonium Phosphate (DAP)**	68917-51-1 7783-28-0	Lakhs Tonnes per annum	20.5	9.5	30	Increase (Increase of production volume breakup for 9.5 LMTPA: 2 LMTPA in ABC trains together 7.5 LMTPA in new train-H)
3	Captive Plant***	Power-	MW	4.8 (CFE received from APPCB)	7.2	12	Increase. CPP up to 5 MW exempted from EC, CFE received for 4.8 MW from APPCB vide Order No. 65/APPCB/CFE/RO-VSP/HO/2010 dated

							09.11.2022. <b>4.8 MW boiler will be replaced by 12 MW boiler post grant of EC.</b>
4	Phosphoric Acid (100% P <sub>2</sub> O <sub>5</sub> ) *	7664-38-2	MTPD	750 (CFE received from APPCB)		750	NON-EC Product. Exemption letter from MOEF&CC vide File No. IA-J-11011/1303/2007-IA-II(I) dated 21.04.2022. Phosphoric Acid being an inorganic product, environment clearance is not required. CFE received from APPCB vide Order No. 65/APPCB/CFE/RO-VSP/HO/2010 dated 09.11.2022.

#### BY-PRODUCTS

1	Dry-Gypsum	13397-24-5	TPD	4050 (CFE received from APPCB)	0	4050	CFE received from APPCB vide Order No. 65/APPCB/CFE/RO-VSP/HO/2010 dated 09.11.2022.
2	Hydrofluorosilicic Acid	16961-83-4	TPD	10 (CFE received from APPCB)	0	10	

**\*Phosphoric Acid being an inorganic product, Environment Clearance is not required. Recently, Consent for Establish (CFE) has been granted by APPCB for the same.**

**\*\* (All three trains i.e., A, B & C and new train H)**

**\*\*\* Captive Power Plant of total capacity 12 MW will be developed. (1x45 TPH Boiler will be replaced with 1x65 TPH Boiler proposed for 12 MW Captive Power Plant).**

8. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.

9. The unit was granted Environmental Clearance for "Expansion Project of NPK Grade Fertilizers" vide File No. J-110011/381/2006-IA.II(I) dated 11.05.2007. Later on 11.06.2008, the unit was granted Environmental Clearance from MoEF&CC vide File No. J 110011/1303/2007-IA.II(I) for "Enhancement of Complex fertilizer capacity for 3200 TPD to 4500 TPD" in the existing facility at Kakinada. Extension to EC Letter dated 11.05.2007 was granted on 07.06.2013 followed by grant of EC for "Installation of LPG facilities in the existing fertilizer plant" under Modernization category dated 10.09.2016.

10. There will be amalgamation of the following Environmental Clearances:

- Environmental Clearance granted from MoEF&CC vide File No. J110011/381/2006-IA.II(I) dated 11.05.2007 for "Expansion Project of NPK Grade Fertilizers".
- Environmental Clearance from MoEF&CC vide File No. J-110011/1303/2007-IA.II(I) dated 11.06.2008 for "Enhancement of Complex fertilizer capacity for 3200 TPD to 4500 TPD".
- Environment Clearance from MoEF&CC vide for File No. J-11011/158/2016-IA.II(I) dated 10.09.2016 for "Installation of LPG facilities in the existing fertilizer plant" under Modernization Category.
- The plant is operational as per Consent & Authorization Order (CC&A) from APPCB vide Consent Order No. APPCB/VSP/RJY/285/HO/CTO/2021- dated 07.03.2023 (valid till 30.09.2026) for production capacity of 20.5 Lakh Tonnes per annum of NP/NPK/DAP.

11. The PP reported that Certified Compliance Report from IRO, MoEF&CC vide File No. SO/VIJ/EPA/EC-A/101/03-70/2023 dated 26.10.2023 under which minor non-compliances were detected. ATR has been submitted vide letter dated 26.10. 2023. Closure report has been issued by IRO vide dated 28.12.2023.

12. The PP reported that there is Coringa Wildlife Sanctuary (@8.36 km, S) national parks, wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, wildlife corridors etc within 10 km distance from the project site. **(As per Coringa Wildlife Sanctuary notification S.O. 3922 (E) dated 21st September 2021 issued by MoEF&CC, project site is well far away from demarked Eco-Sensitive Zone (ESZ) (i.e., more than 50 meters away in the Northern side of Coringa Wildlife).** It is reported that the nearest distance from ESZ Boundary of the Coringa Wildlife Sanctuary is approximately 3.53 km from the project site. Eleru River/water body is flowing at 8.82 km W in direction. Five Number of Schedule-I species are observed namely Felis chaus (Jungle Cat), Prionailurus viverrinus (fishing cat), Canis aureus (Golden Jackals), Lutrogale perspicillata (smooth-coated otters) and Lepidochelys olivacea (Olive ridley Turtle) within 10 km of study area. For which conservation plan has been prepared and submitted.

13. Ambient air quality monitoring was carried out at Ten (10) locations during Oct-2022-Dec, 2022. The baseline data indicates that ranges of concentrations as: PM10 (42-136  $\mu\text{g}/\text{m}^3$ ), PM2.5 (18-65  $\mu\text{g}/\text{m}^3$ ), SO2 (5.2- 10.80  $\mu\text{g}/\text{m}^3$ ) and NOx (7.6-32.20  $\mu\text{g}/\text{m}^3$ ). AAQ modelling study for point source indicates the maximum incremental GLCs after the proposed project would be 4.67  $\mu\text{g}/\text{m}^3$ , 0.978  $\mu\text{g}/\text{m}^3$  and 0.936  $\mu\text{g}/\text{m}^3$  with respect to PM10, SO2 and NOx. The resultant concentration are exceeding the National Ambient Air Quality Standards (NAAQS) for PM10 and PM2.5 due to already exceeding baseline in the area.

14. The PP reported that the total water requirements after proposed expansion is 14153  $\text{m}^3/\text{day}$  of which freshwater requirement of 13504  $\text{m}^3/\text{day}$  will be met from existing water supply (Public Health Engineering Department, Government of Andhra Pradesh). Effluent generation will be 653.5KLD (Industrial Effluent- 565 KLD; Domestic Sewage 88.5KLD), industrial effluent shall be directly reuse in process. Domestic sewage will be treated through STP and treated water will be used in gardening. The plant will be based on Zero Liquid discharge system.

15. Power requirement after expansion will be 26.5MW including existing 17 MW and will be met from Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL) and/or Andhra Pradesh Gas Power Corporation Limited (APGPCL)/Captive Power plant. Existing unit has 3 nos. of DG sets of 1010 capacity, additionally 1x750 KVA and 2x1010 KVA DG sets are proposed as standby during power failure. Stack height (30m) will be provided as per CPCB norms to the proposed DG sets.

16. The existing unit has 1x12 TPH and 1x7TPH gas-based boiler and 1x45 TPH coal Fired boiler. Additionally, 1x65 TPH coal fired boiler will be installed. An electrostatic precipitator along with bag filter with stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 115  $\text{mg}/\text{Nm}^3$  for the proposed boilers.

#### 17. Details of Fuel:

Particular	Unit	As per CFE/CCA	Proposed	Total after Expansion
<b>FUEL REQUIRMENTS</b>				
LNG (Liquified Natural Gas)	$\text{Sm}^3/\text{day}$	30754	22000	52754
High Speed Diesel	KL	20	0	20
Coal (Fuel)	TPD	0	312	312

#### 18. Details of Process emissions generation and its management:



S. No	Stack	Stack Height (m)	APCS	Type of Pollutant	Diameter (m)	Velocity (m/s)	Temperature (°C)
As per CCA/CFE							
Utilities							
1.	Common Stack attached to Natural Gas fired boiler (1x12 TPH & 1x 7 TPH-standby boiler)	30	--	PM-115 mg/ Nm <sup>3</sup> Max.	0.8	6.3	150
2.	DG Sets (2 x 1010 kVA)	13	Muffler cum Silencers	PM-115 mg/ Nm <sup>3</sup> Max.	0.8	5.8	120
3.	DG Sets (1x1010 kVA)	30	Acoustic Enclosure and Silencer	PM-115 mg/ Nm <sup>3</sup> Max.	Recent CFE approval received. Yet to initiate the project		
4.	1x45 TPH FBC Boiler*	60	Electrostatic Precipitator	PM-115 mg/ Nm <sup>3</sup> Max.	Recent CFE approval received. Yet to initiate the project		
Process Emission							
5.	Attached to DAP- Train A	50	Venturi/Cyclone Scrubber + Fumes Scrubber (Dry/Wet Scrubber) + Tail Gas Scrubber with Mis Eliminator	PM-115 mg/ Nm <sup>3</sup> Max.	2.15	18	75
				Ammonium as NH3-300 mg/ Nm <sup>3</sup> Max.			
				Total Fluoride - 10 mg/m <sup>3</sup>			
6.	Attached to DAP-Train B	50		PM-115 mg/ Nm <sup>3</sup> Max.	2.15	18	75
				Ammonium as NH3-300 mg/ Nm <sup>3</sup> Max.			
				Total Fluoride - 10 mg/m <sup>3</sup>			
7.	Attached to DAP-Train C	65		PM-115 mg/ Nm <sup>3</sup> Max.	3	12	75
				Ammonium as NH3-300 mg/ Nm <sup>3</sup> Max.			
				Total Fluoride - 10 mg/m <sup>3</sup>			
8.	Attached to Bagging Plant -1	34	Wet Scrubber	PM-115 mg/ Nm <sup>3</sup> Max.	1	14	45
				Total Fluoride - 10 mg/Nm <sup>3</sup>			
9.	Attached to Bagging Plant -2 & Screen House-2	45	Wet Scrubber	PM-115 mg/ Nm <sup>3</sup> Max.	1.2	16	50
				Total Fluoride - 10 mg/Nm <sup>3</sup>			
10.	Attached to Bagging Plant -3	33	Wet Scrubber	PM-115 mg/ Nm <sup>3</sup> Max.	1	16	50
				Total Fluoride - 10 mg/Nm <sup>3</sup>			
11.	Attached to Screen house - 3	33	Wet Scrubber	PM-115 mg/ Nm <sup>3</sup> Max.	1.5	14	50
				Total Fluoride - 10 mg/Nm <sup>3</sup>			
12.	Attached to Screen house-1	33	Wet Scrubber	PM-115 mg/ Nm <sup>3</sup> Max.	1	14	45
				Total Fluoride - 10 mg/Nm <sup>3</sup>			
13.	Scrubber attached to Reactor (Rock Phosphate & Sulfuric Acid & Filtration Unit)	35	Muti-stage Wet Scrubber	PM-115 mg/ Nm <sup>3</sup> Max.	Recent CFE approval received. Yet to initiate the project		
				Total Fluoride - 10 mg/Nm <sup>3</sup>			
14.	Stack attached to Rock Phosphate Grinding (Ball Mill)- 120TPH	35	Bag Filter	PM-115 mg/ Nm <sup>3</sup> Max.	Recent CFE approval received. Yet to initiate the project		
				Total Fluoride - 10 mg/Nm <sup>3</sup>			
New Stacks (Post Expansion)							
1.	Nano (3 Stacks)	30	Wet Scrubber	NH <sub>3</sub> -300 mg/ Nm <sup>3</sup> Max.	0.4	0.3	40

2.	Train-H	65	Venturi/Cyclone Scrubber + Fumes Scrubber (Dry/Wet Scrubber) + Tail Gas Scrubber with Mis Eliminator	PM-115 mg/ Nm <sup>3</sup> Max.	3.2	14	65
				NH <sub>3</sub> -300 mg/ Nm <sup>3</sup> Max.			
				Total Fluoride – 10 mg/Nm <sup>3</sup>			
3.	Bagging Plant -4	45	Wet Scrubber	PM-115 mg/ Nm <sup>3</sup> Max.	1	14	50
				Total Fluoride -10 mg/Nm <sup>3</sup>			
4.	Screen House Plant -4	43	Wet Scrubber	PM-115 mg/ Nm <sup>3</sup> Max.	1.5	14	50
				Total Fluoride - 10 mg/Nm <sup>3</sup>			
5.	DG Set (2x1010 kVA)	30	--	PM-115 mg/Nm <sup>3</sup> Max.	0.8	5.8	120
6.	1x 65 TPH Boiler	60	Electrostatic Precipitator with Bag filter	PM- 30 mg/ Nm <sup>3</sup>	1.5	16	130
				SO <sub>2</sub> – 100 mg/ Nm <sup>3</sup>			
				NO <sub>x</sub> – 100 mg/ Nm <sup>3</sup>			

#### 19. Details of Solid waste/ Hazardous waste generation and its management:

Sr. No	Type of waste	Category	Generation			Disposal Method
			As per CCA/CFE	Proposed	After Expansion	
Hazardous Waste						
1	Used/Spent Oil	5.1	4000 LPA	4000 LPA	8000 LPA	Collection, storage and selling to disposed to authorized reprocessor M/s Sri Laxminarayan Industries, Pidingoyyi, Rajahmundry Rural, East Godavari Dist.
2	ETP Sludge from Phosphoric acid plant	35.3	10 TPD	0	10 TPD	Recycle in Process
3	ETP Sludge*	34.3	4 TPD	0	4 TPD	Shall be received through M/s. Andhra Pradesh Environment Management Corporation from M/s. Parry Sugars Refinery India Pvt Ltd., Kakinada for utilization as filler material in granulation plant along with Dolomite (as utilizable waste)
4	Calcium Phosphate Sludge*	36.1	17 TPD	0	17 TPD	
Non-Hazardous/Industrial						
2	Filter Sludge (Nano Plant)	-	0	30 kg/day	30 Kg/Day	Mixed with water and reused for horticulture purpose or will be used as filler in bulk phosphatic fertilizer manufacturing facility.
3	Ash from coal	-	80 TPD	85 TPD	165 TPD	Sent to cement industries

	Based boiler					
4	Empty barrels (used for non-hazardous material)	-	300 No/Annum	30 No. /Annum	330 No/Annum	Sent to Authorized Recycler
5	Plastic Waste	-	0	0.8 MTPA	0.8 MTPA	
6	Scrap metals	-	500 MT/Annum	50 MT/Annum	550 MT/Annum	
7	Canteen Waste	-	500 Kg/Annum	150 Kg/Annum	650 Kg/Annum	Composting and used as manure

**ETP Sludge & Calcium Phosphate Sludge is not being generated from Coromandel International Limited Kakinada Complex but from M/s Parry Sugars Refinery India Pvt. Ltd which is located at Coromandel Kakinada. As mentioned in CFO, ETP Sludge & Calcium Phosphate Sludge are being received by Coromandel Kakinada via M/s Andhra Pradesh Environment Management Corporation for utilization as filler material in existing granulation plants along with Dolomite.**

20. The Budget earmarked towards the Environmental Management Plan (EMP) is 7,053.00 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about 48.1 lakh/annum. Industry proposes to allocate Rs.449 Lakhs towards Corporate Environment Responsibility.

21. Industry has already developed green belt in an area **295 Acres (52.46 %)** of total project area.

Existing Green Belt Area	295 Acres i.e., 119.382 Hectares (Existing Plantation Count: 216226)  Coromandel current expansion includes: a) Installation of fourth line of granulation unit, Nano DAP etc., b) Installation of 750 MTPD P2O5 capacity Phosphoric acid plant c) Installation of 2000 MTPD Sulfuric acid plant In order to proceed with the implementation of above said proposals, they need to fell the following number of trees: a) 752 number of trees in 12 acres of green belt for fourth line granulation unit and Nano DAP etc. b) 705 number of trees in 10 acres of green belt for 750 MTPD Phosphoric acid plant. c) 645 number of trees in 8 acres of green belt for Sulfuric Acid Plant. Total number of trees to be felled for the said proposals are 2102 trees in an area of 30 acres of green belt. Coromandel informed that they have obtained tree felling permission for 210 number of trees, covering 30 acres of green belt from AP forest Dept.					
No of trees to be planted	5045 (including 4204 no. of trees committed for replantation against felling of 2102 no. of trees + 841 no. of trees considering 20% mortality rate)					
Total No. of Trees (After Expansion)	2,21,271					
Items	Cost per plant (Rs.)	Cost for 1st Year Plantation (in Rs.)	Total cost for 2nd Year Plantation in Rs. (considering 20% mortality rate)	Plantation Cost (3rd year)	Plantation Cost (4th year)	Plantation Cost (5th year)
No. of Trees planned for plantation		4204	841			
Purchase cost of the per sapling	100	291800	58360	0	0	0
Tree planting cost/ tree	50	145900	29180	0	0	0

Watering cost (per year)/tree	75	218850	43770	262620	360000	360000
Manure/pesticides (per year)	45	131310	26262	157572	108000	108000
Misc. cost (lump sum)		100000	100000	100000	100000	100000
Total expenses		887860	257572	520192	568000	568000
Total Budget for 5 years		2801624				

22. The PP reported that the Public Hearing for the proposed project has been conducted by State pollution control board on 23.08.2023 at 11:00 AM under the chairmanship of Collector & District Magistrate, Kakinada District. The Main issues raised during the public hearing are related to CER activities and development of greenbelt.

23. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials for the functioning of EMC.

24. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

25. The estimated cost for the proposed project is **Rs.710 crores and total project cost after expansion including existing cost is 2097.71 Crores**. Total Employment will be **599** persons as direct (permanent) & **2240** as indirect (contractual) after expansion.

26. The proposal was earlier considered in the 73<sup>rd</sup> EAC meeting held on 17<sup>th</sup> January, 2024, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted vide ADS dated 7.2.2024.

## 27. Deliberations by the EAC

During deliberations, EAC discussed the following issues:

S. No.	Particulars	capital	Activities	Recurring cost (Lakhs)
		(Lakhs)		
1	Air pollution control schemes	5,200.00	H Train: 4 stage scrubbing system, Dust extraction system	8.6
			Phosphoric acid plant: Rock grinding section - Bag filters	
			Reaction & filtration section – Wet Scrubbers for fluorine recovery	
			Coal handling system - Electrostatic precipitator, bag filters	
2	Water pollution control schemes	200.00	Sump pits with brick lined for collection of flooring cleaning/spills and will be recycled back to process	6.5
3	Solid Waste Management	1,200.00	HDPE lined pad will be developed for gypsum (solid waste), Fire water sprinklers	-
4	Environment monitoring and management	400.00	Online stack monitoring equipment.	3
5	Occupational health	25.00	Occupational health surveillance programme includes Health check-up of employees which includes Physician and ophthalmologist consultancy, routine blood and urine examination, specialized test like, ECG, TMT, USG abdomen Spirometry, Audiometry etc. Along with health check-up various awareness programs are organized through training health talks & health camps.	25
6	Greenbelt development	28.00	-	5
	<b>Total</b>	<b>7,053.00</b>		<b>48.1</b>



The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

28. Based on the proposal submitted by the project proponent and recommendations made by EAC in its 73<sup>rd</sup> EAC meeting held on 17<sup>th</sup> January, 2024 and 75<sup>th</sup> EAC meeting held on 26<sup>th</sup> February, 2024, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project ***“Proposed Amalgamation of Environmental Clearances and Amendment/Expansion of Fertilizer Plants in Coromandel Kakinada Plant at Vakalapudi (V), Beach Road, Kakinada Rural, Kakinada District, Andhra Pradesh- 533003 by M/s Coromandel International Limited”*** under the provisions of the EIA Notification, 2006, and subsequent amendments therein, subject to specific terms and conditions as mentioned in Annexure -1 and Standard EC Conditions.

29. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

30. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

31. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

32. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

33. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

34. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data /

information/monitoring reports.

35. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

This issues with the approval of the Competent Authority

### **Copy To**

1. Inspector General of Forests, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Vijayawada Green House, Gopalareddy Road, Vijayawada – 520010, Andhra Pradesh.
2. The Special Chief Secretary, Environment, Forests, Science & Technology Department, Andhra Pradesh Secretariat, Velagapudi, Amaravati-522503.
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032.
4. The Member Secretary, Andhra Pradesh Pollution Control Board, Paryavaran Bhavan, APIIC Colony Road, Gurunank Colony, Autonagar, Vijayawada- 520007.
5. The Member, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi – 110011.
6. The District Collector, East Godavari District Collectorate, 5&8, National Highway 16, Dowlaiswaram Industrial Estate, Industrial Estate, Dhavaleswaram, Rajamahendravaram, Andhra Pradesh 533125.
7. Guard File/Monitoring File/Website/Record File/Parivesh portal.

**Annexure 1**

### **Specific EC Conditions for (Chemical Fertilizers)**

#### **1. Specific Conditions**

<b>S. No</b>	<b>EC Conditions</b>
<b>1.1</b>	(i) Wet Scrubber alongwith stack height of 30m shall be provided to Nano (3 stacks) to control ammonia emission. Venturi/Cyclon e Scrubber + Fumes Scrubber (Dry/Wet Scrubber) + Tail Gas Scrubber with Mis Eliminator alongwith stack height of 65 m shall be provided to Train H to control particulate emissions; ammonia and total fluoride. Wet scrubber alongwith stack of 45 m shall be provided bagging plant. Wet scrubber alongwith stack of 43 m shall be provided Screen House Plant -4. ESP alongwith 60 m stack height shall be provided to 65 TPH coal based boiler. Stack height of 30 m shall be provided to DG set (2x 1010KVA).
<b>1.2</b>	(ii) Total fresh water requirement from Public Health Engineering Department, Government of Andhra Pradesh shall not exceed 13504 m3/day.
<b>1.3</b>	(iii) NOC from the Concerned Local authority shall be obtained before start of the construction of plant for drawing of the water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
<b>1.4</b>	(iv) Total effluent generation shall not exceed 653.5KLD (Industrial Effluent- 565 KLD; Domestic Sewage 88.5KLD). Industrial effluent shall be treated and recycled/reuse in process. Domestic sewage shall be treated in the STP and treated water will be used in gardening. No effluent shall be discharged outside the plant and Zero Liquid discharge system shall be maintained.

S. No	EC Conditions
1.5	(v) The PP shall maintain greenbelt of at least 10 m width over an area of 265 Acres ( as committed by PP) within the project site, preferably within a year of the grant of EC. As proposed compensatory plantation of 5045 tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted against loss of green cover of 30 acres of current expansion within the existing facility in an area of 4 acres. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
1.6	(vi) A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
1.7	(vii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is 7,053.00 lakhs (Capital cost) and 48.1 lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
1.8	(xiii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.
1.9	(ix) The project proponent shall comply with the environment norms for Fertilizer Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules, 1986.
1.10	(x) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
1.11	(xi) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Spent oil shall be sent to authorized recyclers. ETP sludge from phosphoric plant shall be recycled in process. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development. Fly ash shall be collected in silo and sent to cement industries.
1.12	(xii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite



S. No	EC Conditions
	emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.
1.13	(xiii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.
1.14	(xiv) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
1.15	(xv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
1.16	(xvi) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
1.17	(xvii) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
1.18	(xviii) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
1.19	(xix) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
1.20	(xx) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
1.21	(xxi) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.



S. No	EC Conditions
1.22	(xxii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
1.23	(xxiii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

**Standard EC Conditions for (Chemical fertilizers)**

**1.**

S. No	EC Conditions
1.1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
1.2	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
1.3	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
1.4	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
1.5	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
1.6	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

S. No	EC Conditions
1.7	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
1.8	The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
1.9	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
1.10	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <a href="https://parivesh.nic.in/">https://parivesh.nic.in/</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
1.11	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
1.12	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

## Annexure 2

### Details of the Project

S. No.	Particulars	Details
a.	Details of the Project	Amalgamation of Environmental Clearances and Amendment/Expansion of Fertilizer Plants in Coromandel Kakinada Plant at Vakalapudi (V), Beach Road, Kakinada Rural, East Godavari District, Andhra Pradesh- 533003 by M/s Coromandel International Limited
b.	Latitude and Longitude of the project site	16.98110089465992,82.2615093660447 17.00124567623664,82.27838968216162

S. No.	Particulars	Details	
c.	Land Requirement (in Ha) of the project or activity	Nature of Land involved	Area in Ha
		Non-Forest Land (A)	227.5628
		Forest Land (B)	0
		Total Land (A+B)	227.5628
d.	Date of Public Consultation	Public consultation for the project was held on 2023-08-23	
e.	Rehabilitation and Resettlement (R&R) involvement	NO	
f.	Project Cost (in lacs)	2097.71 Crores	
g.	EMP Cost (in lacs)	Capital 7053 Lakhs; Recurring cost 48.1 Lakhs	
h.	Employment Details	Total Employment will be 599 persons as direct (permanent) & 2240 as indirect (contractual) after expansion.	