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CONSENT ORDER FOR ESTABLISHMENT

Order No.79/TSPCB/CFE/RO-RGM/HO/2016 2350

Dt.13.01.2016

Sub: PCB – CFE - M/s. Ramagundam Fertilizers and Chemicals Ltd., (Joint venture company of EIL, NFL & FCIL), Po: Fertilizer City, Ramagundam (M), Karimnagar District – Consent for Establishment of the Board under Sec.25 of Water (Prevention & Control of Pollution) Act, 1974 and Under Sec.21 of Air (Prevention & Control of Pollution) Act, 1981 - Issued - Reg.

Ref: 1) Environmental Clearance dt. 16.10.2015 issued by MoEF & CC, GOI.
2) Industry's application received through online on 07.01.2016 from the Nodal Agency of the State Level TS-iPASS Committee, Commissioner of Industries, Hyderabad.
3) R.O's inspection report dt. 11.01.2016.
4) CFE Committee meeting held on 12.01.2016
5) Industry letter dt. 13.01.2016.

1. In the reference 2nd cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for the proposed fertilizer manufacturing project (revival project) with production capacities as mentioned below, with a total project cost of Rs. 4473 crores as informed vide reference 5th cited:

Sl. No.	Name of the Product	Proposed capacity
1	Ammonia	2200 MTPD
2	Prilled Urea (Neem Coated)	3850 MTPD (Bagging capacity-4235 MTPD)
3	Captive Power Plant	27.5 MW (Gas Turbine Generator (GTG) + Heat Recovery Steam Generator (HRSG))

2. As per the application, the above activity is to be located at Po: Fertilizer City, Ramagundam (M), Karimnagar District.
3. In the reference 3rd cited, the Regional Officer, Ramagundam submitted that the above site was inspected by the Environmental Engineer and Asst. Environmental Engineer, Regional Office, Ramagundam, T.S. Pollution Control Board on 07.01.2016 and observed that the site is surrounded by:

North : FCI land followed by Railway track & Global Coal Washeries (sick unit), Vittalnagar village.
South : Open lands followed by Veerlapalli village.
East : Railway track, followed by CHP of OCP-III
West : FCI township, followed by Laxmipur village.

4. The Board, after careful scrutiny of the application and clarifications submitted by the industry vide letter dt. 13.01.2016, verification report of Regional Officer, EC dt. 16.10.2015 issued by MoEF&CC, GOI and by examining in the CFE Committee meeting held on 12.01.2016 hereby issues CONSENT FOR ESTABLISHMENT to your unit 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 Schedule 'A' and Schedule 'B'.
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.

Encl: Schedule 'A'
Schedule 'B'

Sd/-
MEMBER SECRETARY

o/c

To
The Chief Executive Officer,
M/s. Ramagundam Fertilizers and Chemicals Ltd.,
(Joint venture company of EIL, NFL & FCIL),
SCOPE Complex, Core-III, 7, Institutional Area,
Lodhi Road, New Delhi - 110003.

Copy to: 1. The JCEE, Z.O., Hyderabad for information and necessary action.
2. The E.E., R.O, Ramagundam for information and necessary action.

// T.C.F.B.O//


Senior Environmental Engineer
(Unit - I)

SCHEDULE - A

1. Progress on implementation of the project shall be reported to the Regional Office, Telangana State Pollution Control Board, Ramagundam once in six months.
2. Separate energy meters shall be provided for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed.
3. The proponent shall obtain Consents for Operation (CFO) from APPCB, as required Under Sec.25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under sec. 21/22 of the Air (Prevention and Control of Pollution) Act, 1981, before commencement of the activity.
4. 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 review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions by the Board.
5. The consent of the Board shall be exhibited in the factory premises at a conspicuous place for the information of the inspecting officers of different departments.
6. Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.
7. 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. The industry shall maintain a good housekeeping. All pipe valves, sewers, drains shall be leak proof. Dyke walls shall constructed around storage of chemicals.
8. Rain Water Harvesting (RWH) structure (s) shall be established on the plant site. The proponent shall ensure that effluent shall not enter the Rain Water harvesting structure.
9. The rules and regulations notified by Ministry of Law and Justice, GOI, regarding the Public liability insurance Act, 1991 shall be followed.
10. This order is valid for period of 5 years from the date of issue.

SCHEDULE - B

Water:

1. The source of water is Godavari River from Sripada Yellampalli Barrage.

S.No.	Purpose	:	Proposed (KLD)
a)	Process and Washing including fire water	:	6480
b)	Cooling	:	23540
d)	Domestic	:	480
	Total	:	30,500

Efforts shall be made to bring down water consumption upto 6 m³/MT urea production or as per CPCB guidelines as stipulated in EC dt. 16.10.2015.

2. The Effluent Treatment Plant (ETP) shall be constructed and commissioned and Air Pollution control equipment shall be installed along with the commissioning of the activity. All the units of the ETP shall be impervious to prevent ground water pollution.
3. The effluents shall be treated to inland surface water discharge standards, stipulated under Environment (Protection) Rules, 1986 and amendments thereof and additional standards / conditions stipulated by TSPCB from time to time.
4. The maximum Waste Water Generation (KLD) shall not exceed the following:

S.No	Purpose	:	Proposed
a)	Process & Washing	:	1320 KLD
c)	Cooling Tower Bleed off	:	4680 KLD
d)	Domestic	:	240 KLD
Total		:	6240 KLD

5. Effluent treatment & Disposal:

Effluent Source	Quantity of Effluent	Treatment Facility Proposed	Mode of Disposal
Process & Washing (Ammonia & Urea Plant including Flare seal effluent)	1320 KLD	ETP of 250 m ³ /hr capacity to treat the effluents with separate chain of 10 m ³ /hr for sanitary and 10 m ³ /hr for contaminated rainwater.	Treated effluents will be stored in Guard pond / Holding pond. The treated effluent will be used for green belt development. Excess treated water will be discharged into River Godavari.
Cooling Tower bleed off	4680 KLD		
Domestic	240 KLD		

6. The industry shall provide flow meters with totalisers at inlet of ETP, outlet of guard ponds and at treated effluent reuse points to quantify effluent generation and reuse.
7. Industry shall comply with the following for treatment and disposal of effluents:
 - Urea plant process condensate shall be treated in deep hydrolyser followed by stripping.
 - Ammonia plant process condensate shall be stripped with steam followed by activated carbon and demineralization.
 - Treated condensate shall be recycled / reused in process.
 - Utilities wastewater shall be treated in ETP and treated effluent shall be recycled / reused.
 - Treated effluents shall also be monitored for the parameters namely ammonical nitrogen, Nitrate, Fluoride, pH, etc.
 - No process effluents shall be discharged in and around the industry premises.
 - The treated effluent (not more than 250 m³/h) shall be discharged into river Godavari after conforming to the prescribed standards.
 - Treated effluents shall be passed through properly lined guard pond / holding pond before discharging into river Godavari.
 - Automatic / online monitoring system for flow and relevant pollutants (i.e. pH, ammonical nitrogen, nitrate nitrogen, etc.) shall be provided with high level alarm system. The data shall be connected to the website

of TSPCB.

- The industry shall install STP for treatment of domestic effluents and utilize the treated effluents for greenbelt development with the plant premises.
8. Industry shall provide online effluent monitoring system for the parameters pH, BOD, COD, TSS, Ammonia as per CPCB directions and the same shall be connected to the website of the Board.
 9. Industry shall construct garland drain all around the project site to prevent runoff of any chemicals containing waste into nearby water bodies.
 10. Industry shall carry out regular monitoring of ground water by installing peizometric wells around the guard pond and sludge disposal sites and furnish report to Regional Office of TSPCB.
 11. Industry shall explore possibilities to reduce water consumption and wastewater generation by taking effective water conservation measures.
 12. Container & Container liners shall be detoxified at the specified covered platform with dyke walls and the wash wastewater shall be routed to effluent collection tank.
 13. Effluent shall not be discharged into storm water drains.
 14. Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below.
 - a) Industrial cooling, boiler feed.
 - b) Domestic purposes.
 - c) Processing, whereby water gets polluted and pollutants are easily bio-degradable.
 - d) Processing, whereby water gets polluted and the pollutants are not easily bio-degradable.
 15. Air Emissions:

The industry shall comply with the following for controlling air pollution.

S.No	Source of Pollution	Proposed control measures	Stack height
1	Ammonia plant reformer	Low NOx burners to reduce Nitrogen oxides (NOx)	60 m
2	Heat recovery Steam generator (HRSG)		60 m
3	NG/RLNG fired gas turbine		60 m
4	Urea Prilling Tower	Vacuum vent scrubber and Low NOx burners to reduce Nitrogen oxides (NOx)	130 m
5	Waste gases flares (front end, back end & ammonia)	The following is proposed to reduce emissions from flares: <ul style="list-style-type: none"> • Reducing relief gas to flare by management / good house keeping practices. • Using high integrity relief valves • Applying advanced process control 	50 m
6	Urea process dust	Cyclone separator followed by bag filter (to be recycled into process)	--

16. Industry shall provide in-plant control systems for checking fugitive emissions from all the vulnerable sources. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals / materials, bag filters and water sprinkling system. Fugitive emissions in the work zone environment, product and raw materials storage area etc., shall be regularly monitored and controlled.
17. 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.
18. The generators 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.
19. In Urea Plant, particulate emissions shall not exceed 50 mg/Nm³ as proposed in the EIA. Monitoring of Prilling Tower shall be carried out as per CPCB guidelines.
20. Industry shall install online monitoring system for the stacks for the parameters Particulate Matter, Fluoride, Ammonia as per CPCB directions and the same shall be connected to the website of the Board.
21. Industry shall provide and operate Purge Gas Recovery Unit to recover ammonia as proposed. In case of tripping of purge gas recovery system, the gases after ammonia absorption shall be burnt in the boiler.
22. The gaseous emissions (SO₂, NO_x, NH₃, HC and Urea dust) and particulate matter from various process units shall conform to the norms stipulated from time to time. At no time, the emission levels shall be beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored continuously as per CPCB guideline.
23. Industry shall comply with NAAQ standards notified by MoEF vide G.S.R. No. 826 (E) Dt. 16.11.2009 and Notification dt. 18.11.2009.
24. During steam testing prior to commissioning the process, the industry shall give awareness to the public regarding time & duration of testing etc., and also shall take necessary noise control measures i.e. providing silencers, mufflers etc. at the source of noise generation.
25. Industry shall provide adequate systems to control noise while venting high pressure steam during re-commissioning activities and also during the steam venting at the time of unexpected plant tripping.
26. The industry shall take all necessary measures to control process emissions from the plant.
27. Industry shall take precautions during the emitting of Hydro carbons / Ammonia Vapors to the flare stack during the start up and plant tripping.

28. All the feed conveyors, transfer points, elevators, stackers, weigh feeders, mixed conveyors, product conveyors, mixers, etc shall be completely covered with leak proof arrangements, so as to prevent fugitive emissions during handling and transfer of raw materials and products.
29. Waste gases from cryogenic purification process shall used to regenerate the syngas drier and then burnt as fuel in the primary reformer as proposed in the EIA.
30. The feed gas (Natural gas) shall be de-sulfurized to reduce sulfur content to less than 0.1 ppm before reforming as proposed in the EIA.
31. The industry shall install online Ammonia Analyzer for the prill tower to monitor the concentration of Ammonia.
32. Industry shall take all necessary measures to control fugitive emissions from the plant. The industry shall adopt / operate following measures for control of fugitive emissions:
 - Provision of relief valves and safety valves to release vapors to the atmosphere through stack extended up to the top of the Prill tower in urea plant and through flare stack in ammonia plant.
 - De-Dusting system to control fugitive emissions at Urea Bagging plant including conveyor system.
 - Ammonia sensors to be operated in the ammonia plant, urea plant & ammonia storage area,
 - Hydrocarbon sensors to be operated in the ammonia plant, to detect and give indication in the control rooms in case of local area leak.
 - Dust extraction system to reduce the dust in product handling area.
33. Emissions generated in case of accidental discharges / process offsets shall be released through Flare Stack as proposed in the EIA.
34. Remote operated valve placed on NH3 line to avoid leakage / equipment check shall be performed to ensure that remote operated valve (ROV) is all time functional.
35. Industry shall install adequate no. of Continuous Ambient Air Quality Monitoring (CAAQM) stations in consultation with Regional Officer, TSPCB and the same shall be connected to website of the Board.

Solid Waste:

36. The industry shall comply with the following:

S.No.	Solid Waste	Method of Disposal
1)	Spent catalyst (1300 TPA)	To the manufacturers for regeneration / recovery.
2)	Waste Oil (5 m ³ /month)	Authorized Recyclers/ re-processors.
3)	ETP sludge (20 m ³ /month)	TSDf

37. Drums containing chemicals and hazardous wastes shall be stored on the platform with impervious lining and provided with sufficient dyke wall and collection system.
38. Industry shall provide dedicated storage facility for spent catalysts before disposing to recovery units.

39. The following rules and regulations notified by the MOE&F, GOI shall be implemented.

- a) Hazardous waste (Management and Handling), Rules, 1989
- b) Manufacture, storage and import of hazardous chemicals Rules, 1989.
- c) Rules for manufacture, use, import, export and storage of Hazardous micro-organisms/genetically engineered organisms or cells, 1989.

Other Conditions:

40. Industry shall pay balance CFE fee as per the actual project cost of Rs. 4473 crores which is more than Rs. 3160 crores as reported in CFE application and based on which CFE fee was paid.
41. Industry shall not use arsenic for CO₂ absorption in ammonia plant and chromate based chemicals for cooling systems.
42. Industry shall utilize only Natural Gas (NG) / RLNG as raw material and shall not change raw material or process without prior consent of the Board.
43. Industry shall develop greenbelt in an area of 46 Ha within the plant premises with atleast 10 m wide greenbelt on all sides along the periphery of the industry as stipulated in EC dt. 16.10.2015.
44. The total Ammonia storage shall not exceed 10,000 Ton at a time as stipulated in the EC dt. 16.10.2015.
45. The industry shall ensure that there shall not be any change in the process technology and scope of working without prior approval from the Board.
46. The industry shall comply with all the directions issued by the Board from time to time.
47. Concealing the factual data or submission of false information/ fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attract action under the provisions of relevant pollution control Acts.
48. The Board reserves its right to modify some or all conditions and stipulate new/ additional conditions in the interest of protection of environment.

Sd/-
MEMBER SECRETARY

o/c

To
The Chief Executive Officer,
M/s. Ramagundam Fertilizers and Chemicals Ltd.,
(Joint venture company of EIL, NFL & FCIL),
SCOPE Complex, Core-III, 7, Institutional Area,
Lodhi Road, New Delhi - 110003.

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Senior Environmental Engineer
(Unit - I)