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CONSENT ORDER FOR ESTABLISHMENT

Order.No.APPCB/VSP/VSP/26/CFE/HO/2007

Dt.13.12.2007

Sub: PCB – CFE - M/s. The Andhra Petrochemicals Ltd., Visakhapatnam
– Consent for Establishment of the Board 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) Industry's application received from SWCC on 8.2.2007
2) Environmental Clearance dt. 17.7.2007 issued by MOE&F, GOI.
3) Additional information submitted by the industry on 3.10.2007 & 22.10.2007
4) R.O's inspection report dt. 5.10.2007
5) CFE Clearance Committee meeting held on 23.11.2007.

1. In the reference 1st cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for optimization and modernization to produce the following products with installed capacities as mentioned below, with an additional project cost of Rs. 250 crores in the existing area of 30.35 ha.

Sl. No.	Products	Consented capacity as per CFO dt.05.03.07	Proposed capacity	Total capacity
	Products			
1)	2 Ethyl Hexanol	110 TPD	56 MTPD	166 MTPD
2)	Normal Butanol	148 TPD	Reduced to 78 MTPD.	78 MTPD
3)	Iso Butanol		Reduced to 8.4 MTPD.	8.4 MTPD
	By- products			
1	Oxo – residue	8 TPD	4.5 TPD	12.5 TPD

2. As per the application, the above activity is to be located within the existing premises located at Opp. Naval Dock Yard, Visakhapatnam.
3. The above site was inspected by the Asst. Environmental Engineer-I, Regional office, Visakhapatnam, A.P Pollution Control Board on 25.9.2007.
4. The Board, after careful scrutiny of the application and verification report of Regional Officer, hereby issues CONSENT FOR ESTABLISHMENT to your activity 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'.

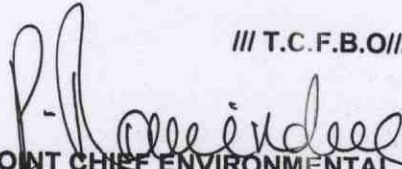
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.

Encl: Schedule 'A'
Schedule 'B'

Sd/-
MEMBER SECRETARY

To
M/s. The Andhra Petrochemicals Ltd.,
Opp. Naval Dock Yard
Post Box No:1401, Visakhapatnam

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


JOINT CHIEF ENVIRONMENTAL ENGINEER(CFE)
15/12/07

SCHEDULE - A

1. Progress on implementation of the project shall be reported to the Regional Office, Visakhapatnam, A.P. Pollution Control Board 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 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 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 Ground Water, Municipal supply and the maximum permitted water consumption after expansion is 5,430 KLD
2. The Effluent Treatment Plant (ETP) shall be upgraded 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 the marine water standards, stipulated under Environment (Protection) Rules, 1986, notified and published by Ministry of Environment and Forests, Government of India as specified in schedule VI vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof, and additional standards / conditions stipulated by APPCB.

4. The maximum Waste Water Generation (KLD) shall not exceed the following:

S. No.	Purpose	Total
a)	Process (Condensate + Stripper effluent)	45 KLD
b)	Boiler blow down	100 KLD
c)	Auxiliary Cooling	110 KLD
d)	Softener / DM Plant / RO Plant	60 KLD
e)	Domestic	90 KLD
	Total	405 KLD
f)	Sea water cooling	3,119 KLD
	Total	3,524 KLD

5. The industry shall evaluate and improve the performance of ETP to meet the Board standards at outlet of clarifier and eliminate odour.

Source of Effluent	Treatment	Mode of final disposal
Process	Equalization tank → Primary Neutralization tank → Secondary Neutralization tank → Anaerobic pond → Aeration tank → Clarifier.	Process effluents after treatment discharged into Meghadrigedda overflow channel, which finally joins sea.
Non process	DM plant regeneration Boiler blow down	discharged into Meghadrigedda overflow channel, which finally joins sea.
Domestic	-----	Domestic effluents are discharged into the septic tank followed by soak pit system.

6. Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below.
- Industrial cooling, boiler feed.
 - Domestic purposes.
 - Processing, whereby water gets polluted and pollutants are easily bio-degradable.
 - Processing, whereby water gets polluted and the pollutants are not easily bio-degradable.

Air:

7. The proponent shall comply with the following for controlling air pollution.

Sl. No	Details of Stack	Stack 1	Stack 2	Stack 3
a)	Attached to:	Boiler	D.G.Set	Others
b)	Capacity	MP Boiler – 12 TPH. New MP Boiler – 15 TPH.	The industry shall operate UPS system as per REIA report 3 x 2270 KVA & 1 x 750 KVA - D.G. sets Standby	Naptha reformer – 2 Nos., (Old + New) and Fired heaters – 6 Nos., (Old + New).
d)	Fuel quantity:	LSHS for MP Boiler – 18 TPD. New MP Boiler Oxo-Residue – 10.2 TPD. Purge gas – 11.04 TPD. LSHS – 2.4 TPD	---	<u>Naptha reformer</u> Naptha – 23.2 TPD and Purge gas – 26.24 TPD. <u>Fired heaters</u> Naptha – 4.8 TPD and Purge gas – 5.76 TPD.
e)	Stack height:	MPB – 36 mts., each.	---	Naptha and Fired heaters – individual 30 mts., proposed to provide.

Details of Process Emissions:	Control Equipment
New Naptha reformer and Fired heater.	The proponent shall provide stacks to the new units as per the REIA

8. The industry shall comply with the following pollution loads as per REIA:
SPM – 68 Kg/day, SO₂ – 342 Kg/day & Nox – 656 Kg/day
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 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 Waste:

11. The proponent shall comply with the following:

Sl. No	Solid Waste	Quantity (MTPA)			Method of Disposal
		Existing	Proposed	Total	
1)	Process				
	Oxo Residue	1,800 – 2,500	700 – 1,500	2,500 – 4,000	Used as fuel within the plant in MP & LP Boilers.
	Spent Catalyst	34	16	50	Authorized Re-processors.
	Spent Rhodium Catalyst	1,500 – 2,000 KG (12 – 18 months).	It is informed that, the waste will generate once in 10 years due to improving technology.	1,500 – 2,000 KG (Once in 10 years).	
	Used oils	10 KLPA	Nil	10 KLPA	Recyclers
	Containers of Hazardous Wastes/ Hazardous Chemicals	300 Nos.	200 Nos.	500 Nos.,	Recyclers
	Non Ferrous Used Waste/Lead Acid Batteries	20 Nos.	80 Nos.	100 Nos.	Recyclers
2)	ETP Sludge	6	—	6	TSDf, Parawada.

12. 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.

Other Conditions:

13. Green belt of width 5m shall be developed along the boundary of the industry. Greenbelt shall be developed in an area of 11.78 ha. Green belt development shall be started along with the construction activity.
14. The proponent shall obtain clearance from Central Ground Water Authority to draw ground water.

15. Industry shall install VOC monitoring system.
16. Industry shall ensure to collect all hydrocarbon vents to the flare system after expansion.
17. Industry shall install toxic gas detection system.

Sd/-
MEMBER SECRETARY

To
M/s. The Andhra Petrochemicals Ltd.,
Opp. Naval Dock Yard
Post Box No:1401, Visakhapatnam

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

P. Ravindar
5 JOINT CHIEF ENVIRONMENTAL ENGINEER (CFE)
15/12/07