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

CONSENT ORDER FOR ESTABLISHMENT

Order No.189 /APPCB/CFE/RO-NLR/HO/2011 **17/06/2020**

Sub: APPCB – CFE - **M/s. Bhagiradha Chemicals & Industries Ltd., Sy Nos.191, 213 to 217 & 220, Cheruvukommupalem (V), Ongole (M), Prakasam District -** Consent for Establishment (CFE) of the Board for **CHANGE OF PRODUCT MIX** 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. 21.10.2008 issued by MoEF&CC, GoI, New Delhi.
2. Industry's CFE application received through Single Desk Portal on 12.05.2020.
3. R.O's inspection report dt. 01.06.2020.
4. CFE Committee meeting held on 09.06.2020.
5. Industry's lr.dt.11.06.2020.

1. In the reference 2nd cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for **CHANGE OF PRODUCT MIX** to produce the following products with installed capacities as mentioned below, with an additional investment of Rs.100 lakhs.

Products and By-products: As per CFE order 29.09.2018:

Group-A

S. No.	Name of the Products	Quantity	No. of stages	Stating raw material	Quantity (Kg/day)
	Combination - I				
1	Chlorpyriphos Technical	6.7 TPD	12	Trichloroacetyl Chloride	6600
2	Methyl Chlorpyriphos Technical	5.0 TPD	12	Trichloroacetyl chloride	5304
3	Azoxystorbin	2.5 TPD	24	Orthochlorotoluene	1527
4	4-amino-2,5-dimethyoxypyrimidine (4-ADMP)	0.5 TPD	10	Methylisourea Hydrochloride	695
5	Acequonocyl	0.5 TPD	10	B-Napthol	390
	Total -1 (Any one product)				

	Combination -II				
1	Triclopyr Technical	2.5 TPD	7	Sodium salt of HTCP on 100% basis	1553.3
2	Fluroxypyr Technical	0.5 TPD	10	Pentachloro Pyridine	415
3	Diafenthouron	0.5 TPD	10	2,6 Diisopropylaniline	322
4	2-amino-5.7-dimethoxy [1,2,4] triazolo [1,5-a] pyrimidin (ADTP)	0.5 TPD	6	Ethylchloroformate	342
5	Dinotefuron	0.5 TPD	3	3.AMT	337
	Total -II (Any one product)				

	Combination -III				
1	Imidacloprid Technical	2.0 TPD	5	2-Chloro-5-chloromethyl pyridine	1656.0
2	Thiamethoxam	0.2 TPD	6	5-methyl-4-nitroimino tetrahydro-1,3,5-oxadiazine with 2-chloro – 5 – chloromethyl thiazole	168.0
3	Lambda Cyhalothrin	1.0 TPD	8	Cuhalothric acid	659.0
	Total -III (Any one product)				

	Combination -IV				
1	Clodinafop-proprgyl	1.0 TPD	11	Chloral	1475.0
2	Cloquintocet-Mexyl	0.5 TPD	8	2-Heptanol	323.0
3	Fipronil	1.0 TPD	12	2,6-dichloro – 4 – trifluoro methyl aniline	1092.0
4	2,6-Dichloroniline	0.5 TPD	10	Anline	371.0
5	Sulfosulfuron	0.4 TPD	22	2-Aminopyridine	171.20
6	Trimethyl Orthoformate	2.0 TPD	4	Chloroform	2500.0
7	Ethiprole	0.5 TPD	11	Pyrazole	434.0
8	M316	0.4 TPD	26	Hydrazine hydrate	110.0
9	Bispyribac	0.5 TPD	4	2,6 dihydroxybenzoic acid	213.0
	Total -IV (Any one product)				

Group – B

S. No.	**Emulsifiable Formulations**	**Quantity after change of product mix**
1	Chlorpyriphos formulation	5.0 KLD
2	Chlorpyriphos Methyl Formulation	5.0 KLD
3	Triclopyr Formulation	5.0 KLD
4	Fluroxypyr Formulation	5.0 KLD
5	Imidacloprid Formulation	5.0 KLD
6	Clodinafop Propargyl Formulation	5.0 KLD
7	Fipronil Formulation	5.0 KLD
	Wettable Powder	
8	Clodinafop – 15% WP	5.0 TPD
9	Imidacloprid – 70% WG	5.0 TPD

10	Fipronil – 80% WG	5.0 TPD
11	Thiamethoxam – 25% WG	5.0 TPD
	Suspension Concentrates	
12	Fipronil – 5% SC	5.0 TPD
13	Buprofrzin – 25% SC	5.0 TPD

The industry is permitted to produce one product from each combination (4 products) from Group – A and one pesticide formulation from Group - B at any point of time.

After Change of Product Mix:

Group-A

S. No.	Name of the Product	After Change in Product Mix Capacity (Kg/day)	No. of stages	Starting raw material	Quantity (Kg/day)
COMBINATION - I					
1	Chlorpyriphos	**6000**	4	Trichloroacetyl chloride	5169
2	Chlorpyriphos Methyl	**5500**	4	Trichloroacetyl chloride	5169
3	Azoxystrobin	**2250**	10	Orthochloro toluene	1375
COMBINATION - II					
1	2,6-Dichloroaniline	**1000**	3	Aniline	884
2	Lambda Cyhalothrin	1000	2	Cyhalothric acid	659
3	2-amino-5.7-dimethoxy [1.2.4]triazolo [1,5-a] pyrimidin (ADTP)	500	2	Methyl Chloroformate	342
4	Dinotefuron	**1000**	1	3-AMT	627
5	Pyrazole	**1000**	3	Ethylcyanoacetate	500
6	Pymetrozine (NEW)	**500**	3	3-Cyanopyridine	283
COMBINATION - III					
1	TFMA	**1200**	4	3,4-dichloro benzotrifluoride	1545
2	Azoxystrobin	**1500**	10	Orthochloro toluene	916
3	4-amino-2,5-dimethoxypyrimidine (4-ADMP)	**900**	3	Methylisourea hydrochloride	1251
4	Acequinocyl	**1000**	10	Beta-Napthol	779

5	Triclopyr Technical	**4000**	3	Sodium salt of HTCP 100%	2485
6	Diafenthiuron	1500	4	2,6-Diisopropyl aniline	965
7	Imidacloprid	2000	1	2-chloro-5-chloromethyl pyridine	1539
8	Thiamethoxam	**4000**	2	5-methyl-4-nitroiminotetrahydro-1,3,5-oxadiazine	2858
9	Thiamethoxam	**1750**	5	Allyl chloride	**973**
10	Clodinafop-Propargyl	1000	5	Chloral	1475
11	Cloquintocet-mexyl	**900**	2	2-Heptanol	582
COMBINATION – IV					
1	Fipronil	1000	6	Carbon disulfide	331
2	Sulfosulfuron	**500**	6	2-amino pyridine	215
3	Ethiprole	**800**	3	Pyrazole	700
4	Pinoxaden	400		Hydrazine hydrate	77
5	Bispyribac	**1000**	2	2,6-dihydroxybenzoic acid	427

Group-B

S.No.	Name of the Product	Capacity
	Emulsifiable Formulations	
1	Chlorpyriphos	5.0 KLD
2	Chlorpyriphos-Methyl	5.0 KLD
3	Triclopyr	5.0 KLD
4	Fluroxypyr	5.0 KLD
5	Imidacloprid	5.0 KLD
6	ClodinafopPropargyl	5.0 KLD
7	Fipronil	5.0 KLD
	Wettable Powder	
1	Clodinafop – 15%	5.0 TPD

	Wettable Granules	
1	Imidacloprid – 70%	5.0 TPD
2	Fipronil -80%	5.0 TPD
3	Thiamethoxam – 25%	5.0 TPD
	Suspension Concentrates	
1	Fipronil – 5%	5.0 TPD
2	Buprofezin – 25%	5.0 TPD

The industry shall manufacture one product from each combination of Group – A Products and one product from Group - B at any point of time. The total production capacity of Pesticide shall not exceed 3250 TPA as stipulated in the EC order dt. 21.10.2018.

By Products:

S. No	Name of the By Product	Quantity (Kg/day)	Source of the By-product
1	30% HCl	5599	Azoxystrobin & TFMA
2	36% HCl	2357	Fipronil
3	Phosphorousoxy Chloride	2884	Azoxystrobin
4	Methyl Acetate+ Methyl Formate	2889	Azoxystrobin
5	Acetic Acid	1928	Azoxystrobin
6	Spent H_2SO4	13149	Fipronil, 2,6-DCA & 4-ADMP

2. As per the application, the above activity is to be located in the existing premises located at **Sy Nos.191, 213 to 217 & 220, Cheruvukommupalem (V), Ongole (M), Prakasam District** in an area of 35.76 acres.

3. The above site was inspected by the Environmental Engineer, Regional Office, Ongole, A.P Pollution Control Board on 28.05.2020 and observed that the site is surrounded by

North : Yerravagu (Irrigation channel)
South : Eucalyptus plantation
East : Eucalyptus plantation
West : Yerajerla to Vengamukkalapalem Road

4. The Board, after careful scrutiny of the application, verification report of Regional Officer and recommendations of the CFE Committee, hereby issues **CONSENT FOR ESTABLISHMENT FOR CHANGE OF PRODUCT MIX** to the project 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 issued is subject to the conditions mentioned in the 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 a period of 7 years from the date of issue.**

Encl: Annexure

BATCHU SIVA PRASAD, JCEE(BSP), O/o JOINT CHIEF ENVIRONMENTAL ENGINEER1-APPCB
JOINT CHIEF ENVIRONMENTAL ENGINEER

To

M/s. Bhagiradha Chemicals & Industries Ltd
Door No.3, Sagar Society , Road No 2,
Banjara Hills, Hyderabad – 500034.
Phani.b@bhagiradha.com

Copy to: 1. The JCEE, Z.O: Vijayawada for information and necessary action.
2. The EE, R.O: Ongole 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 trail 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. No effluents shall be discharged in to the storm water drains.

Water:

4. The source of water is **Borewells & tankers** and the maximum permitted water consumption is as following:

S. No.	Purpose	Existing as per CFE order dt. 29.09.2018 (KLD)	After change of product mix (KLD)
1.	Process & Washings	59.04	69.32
2.	Boiler Feed	132.54	122.20
3.	Industrial Cooling (Makeup)	104.45	104.45
4.	Domestic	21.0	21.0
	Total	**317.03 KLD**	**316.97 KLD**

Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned above.

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

S. No.	Source	Existing as per CFE order dt 29.09.2018 (KLD)	After change of product mix (KLD)
1	LTDS process effluents	57.12	107.7 (Process Effluents)
2	HTDS process effluents	50.58	
3	Low TDS from non-process	16.45	59.95 (Non-Process Effluents)
4	Cooling tower blow down	43.5	
5	Domestic	21.0	21.0
	Total	**188.65 KLD**	**188.65 KLD**

Treatment & disposal:

Process Effluents-107.7 KLD	• Stripped off for organics recovery and recovered organics to cement plants for co-processing/to TSDF for incineration. • Stripped effluent to MEE. • MEE Condensate to Biological treatment plant

	followed by RO. • MEE concentrate to ATFD and Solids to TSDF landfill. • ATFD condensate to Biological treatment plant followed by RO. • The RO permeate to cooling tower makeup and RO rejects to MEE.
Non-process Effluents (Boiler blow down & Cooling tower blow down)- 59.95 KLD	• Non process effluents to Biological treatment plant followed by RO. • The RO permeate to cooling tower makeup and RO rejects to MEE.
Domestic-21.00KLD	• Sewage treatment plant (50 KLD) followed by RO (100 KLD). • The RO permeate to cooling tower makeup and RO rejects to MEE.

ZLD System consists of Stripper – 2 X 100 KLD, MEE-I (3 KL/hr), MEE-II (5 KL/ Hr), AFTD – 4 X 1 KL/Hr, Biological Treatment Plant – 150 KLD, RO system attached to ETP – 200 KLD.

6. The ZLD system consisting of stripper, MEE, ATFD system with condenser and Biological ETP, RO plant shall be operated. All the units of the ZLD system shall be impervious to prevent ground water pollution. The units of ZLD system shall be constructed above the ground level.

   Effluents shall not be discharged on land or into any water bodies or aquifers under any circumstances.

7. The industry shall properly maintain and operate the digital flow meters with totalisers at the inlet and outlet of Stripper, MEE, ETP and RO.

8. The industry shall properly operate and maintain online real time monitoring system along with web camera facilities and shall ensure that it is connected to APPCB / CPCB websites as per CPCB directions.

9. 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:

10. 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.

S. No	**Details of Stack**	**Stack 1**	**Stack 2**	**Stack 3**
i.	**Attached to:**	FBC Boiler	FBC Boiler	D.G Sets
ii.	**Capacity**	12.0 TPH &(another 12.0 TPH Furnace oil Boiler as standby)	8.0 TPH (another 5.0 TPH coal fired boiler as standby)	3 x 500 KVA, 1 x 250 KVA, 1 x 750 KVA (new)
iii.	**Name of the Fuel**	Coal	Coal	Diesel

iv.	**Stack height above ground (m.)**	30 m	30 m	4 x 4.5m & 1 x 2.5m (above roof)
v.	**Air Pollution Control Equipment**	Bag Filters	Bag Filters	Silencer

1. As per the Directions stipulated in the Stop Production Order dt 12.09.2019 the industry **dismantled** Rotary kiln and provided ATFDs (4 Nos.) for treatment of process effluents.
2. As per CFE order dt.29.09.2018, the industry permitted to operate 12 TPH & 8 TPH coal fired boilers. The industry also obtained CFE for 16 TPH coal fired boiler and to use above 12 TPH & 8 TPH boilers as standby.
3. But, the industry installed 12 TPH Furnace oil fired boiler & 5 TPH coal fired boiler in place of 16 TPH boiler and the same are kept as standby and using the existing 12 TPH & 8 TPH coal fired boilers.
4. The industry proposed to install new D.G set of capacity 750 KVA in addition to the existing D.G sets.

11. 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.

12. The industry shall properly operate and maintain the monitoring system to all the stacks / vents in the plant. Regular monitoring shall be carried out and report shall be submitted to the Regional officer.

13. The industry shall properly operate and maintain multi-stage scrubbers to the process vents to control the process emissions. The industry shall ensure that online pH measuring facility with auto recording system is connected to the scrubbers.

14. The industry shall properly operate and maintain VOC monitoring system with auto recording facility.

15. The industry shall implement adequate measures to control all fugitive emissions from the plant.

16. 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.

17. The proponent shall not use or generate odour causing substances or Mercaptans and cause odour nuisance in the surroundings.

18. The industry shall send the used / spent solvents to the recyclers (or) process them at their own solvent recovery facility within the premises.

19. The evaporation losses in solvents shall be controlled by taking the following measures:
    i. Chilled brine circulation shall be carried out to effectively reduce the solvent losses into the atmosphere.
    ii. Transfer of solvents shall be done by using pumps instead of manual handling.
    iii. Closed centrifuges shall be used to reduce solvent losses.
    iv. All the solvent storage tanks shall be connected with vent condensers to prevent solvent vapours.
    v. The reactor vents shall be connected with primary & secondary condensers to prevent escaping of solvent vapour emissions into atmosphere.

Solid / Hazardous Waste:

20. The industry shall comply with the following for disposal of Solid waste:

S.No.	Description of Waste	Quantity	Disposal
1.	Inorganic waste from Multiple Effect Evaporation/ Forced Evaporation salts.	14.364 TPD	To TSDF for secured land fill / authorized cement plants for co-processing
2.	Process residue	1.516 TPD	To TSDF for incineration/ authorized cement plants for co-processing
3.	ETP Sludge	25 Kg/day	
4.	Spent Oil	1.4 Ltrs/day	To authorised reprocessors/ recyclers
5.	Used Lead acid batteries	4Nos./annum	Shall be sent back to supplier on buy back basis.
6.	Date expired ,discarded and off specification raw material/product	1 TPM	To the cement industries for co-processing or TSDF for incineration
7.	Used filters contaminated with oil (from D.G. Sets)	12 Nos./annum	To authorized re-processor/recyclers.
8.	Used Membranes from Water Treatment Plants	2 TPM	To TSDF/ cement industries for co-processing
9.	General waste (Insulation puff, insulation wool, used PPE, Nitrile rubber, paper waste, packing material waste, PPFRP)	5 TPM	Cement industries for co-processing/TSDF.
10.	Boiler ash	13.5 TPD	To Brick Manufacturers

21. The proponent shall place the chemical drums and / or any drums in a shed provided with concrete platform only. The Platform shall be provided with sufficient dyke wall and effluent collection system. The industry shall provide containers detoxification facility. Container & Container liners shall be detoxified at the specified covered platform with dyke walls and the wash wastewater shall be routed to low TDS collection tank.

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

a) Regulation of Persistent Organic Pollutants Rules, 2018.
b) Hazardous waste and other wastes (Management and Transboundary Movement) Rules, 2016.
c) Plastic Waste Management Rules, 2016.
d) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989
e) Fly Ash Notification, 2016.
f) Batteries (Management & Handling) Rules, 2010.
g) E-Waste (Management) Rules, 2016.
h) Construction and Demolition waste Management Rules, 2016.
i) Solid Waste Management Rules, 2016.
j) The Public Liability Insurance Act, 1991 and its amendments thereof.

Other Conditions:

23. **The industry shall obtain necessary amendment to EC order w.r.t waste water generation at the earliest.**

24. The District Collector accorded the permission to start operations. The unit started trial runs on 03.06.2020. The industry operates for 245 days in a year.

25. Existing green belt shall not be disturbed due to the proposed expansion. Thick green belt shall be maintained 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.

26. The industry shall submit the information regarding usage of Ozone Depleting Substance once in six months to the Regional Office and Zonal Office of the Board.

27. **The industry shall submit compliance to the conditions stipulated in the EC and CFE orders to the concerned Regional Officer of APPCB every six months and shall upload the same at APPCB website viz.,** https://pcb.ap.gov.in/UI/Submission_Compliance_of_EC_CFE_CFO_Direction.aspx

28. 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 attracts action under the provisions of relevant pollution control Acts.

29. 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.

30. 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.

BATCHU SIVA PRASAD, JCEE(BSP), O/o JOINT CHIEF ENVIRONMENTAL ENGINEER1-APPCB
JOINT CHIEF ENVIRONMENTAL ENGINEER

To

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Signature Not Verified

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