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CONSENT ORDER FOR ESTABLISHMENT

Order No. 50 /APPCB/CFE/RO-NLR/HO/2010

Dt:23.07.2016.

Sub: APPCB – CFE - M/s. Krebs Bio-Chemicals & Industries Ltd., Sy. Nos. 519, 529, 726, 727, Regadichelika (V), Kodavalur (M), SPSR Nellore 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) Industry's CFE application received through Single Desk System on 01.07.2016.
2) R.O's inspection report dt. 08.07.2016.
3) CFE Committee meeting held on 15.07.2016.
4) Industry's lr. dt. 15.07.2016 in the CFE meeting.

1. In the reference 1st 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 project cost of Rs. 0.40 Crore.

S.No	Name of the Products and By-products	as per CFO order (kg/ day)	Total after change of product mix
Group - A			
1	EC Dehalogenese enzyme	130.00	130.0
2	Enzyme -B	280.00	256.0
3	Tacrolimus	1.0	1.0
4	Sirolimus	1.0	1.0
5	Oligosacharide-A	100	100
6	Levitracetam	85.0	85.0
8	4-Androstenedione (4-AD)	Nil	200.00
9	Androsta-1, 4-diene-3, 17-dione (ADD)	Nil	200.00
10	9-Hydroxy 4-androstenedione (9 OH AD)	Nil	201.00
	Total		
Group - B			
1	Cilostazol Adsorbate	87.0	87.0
2	Ofloxacin	131.50	131.50
3	Minocycline Hydrochloride	66.0	66.0
4	Citicoline Sodium	33.00	33.00
5	Montelukast Sodium	33.00	33.00
6	Etoricoxib	33.00	33.00
7	ATS-8	200.00	200.00
8	Telmisartan	Nil	200.00
9	Amlodipine Besylate	Nil	200.00
10	Cetirizine Hydrochloride	Nil	200.00
11	Phenylephrine	Nil	200.00
12	CPD (1, 2-Cyclopentanedicarboxylic acid)	Nil	200.00
13	AID (N-aminocyclopentane-1,2-dicarboximide)	Nil	200.00

Existing:

The industry is permitted to manufacture the products under Group-A and Group-B in the following options :

Option-1: Three products are manufactured at any time i.e two products from Group-A to a maximum capacity of 100 % and one product from Group-B at 75 % production capacity.

Or

Option-II: Three products are manufactured at any time i.e two products from Group-B to a maximum capacity of 100 % and one product from Group-A at 75 % production capacity.

Proposed:

The industry added 3 No. of New Fermentation drugs to the existing approved products under Group – A addrd 6 No. of New synthetic products to the existing approved products under Group – B as mentioned above without increase in production quantity & pollution load.

2. As per the application, the above activity is to be located in the existing premises at Sy. Nos. 519, 529, 726, 727, Regadichelika (V), Kodavalur (M), SPSR Nellore District in an area of 83.79 Acres.
3. The above site was inspected by the Asst. Environmental Engineer, Regional Office, Nellore A.P Pollution Control Board on 02.07.2016 and observed that the site is surrounded by

North	:	Agriculture lands and Regadichelika (V)
South	:	House layouts fol. by Chandrasekharapuram (V)
East	:	Agriculture lands
West	:	National Highway (NH-5)
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 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 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 period of 7 years from the date of issue.**

Encl: Annexure

MEMBER SECRETARY

To

M/s. Krebs Bio-Chemicals & Industries Ltd.,
Sy. Nos. 519, 529, 726, 727,
Regadichelika (V), Kodavalur (M),
SPSR Nellore District - 524 316
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Copy to: 1. The JCEE, Z.O., Vijayawada for information and necessary action.
2. The EE, R.O., Nellore 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 Ground water and the maximum permitted water consumption is as following:

S.No	Purpose	Quantity in KLD			
		Option-I	Option-II	Option-I	Option-II
		Existing		After change of product mix	
1.	Process & washings	145.014	114.685	145.0	87.896
2.	Boiler & Cooling tower make up /blow downs	60.00	60.00	60.00	60.00
3.	Domestic	15.00	15.00	15.00	15.00
	Total	220.014	189.685	220.0	162.896

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

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

S.No	Purpose	Quantity in KLD			
		Option-I	Option-II	Option-I	Option-II
		Existing		After change of product mix	
1.	Process & washings	166.64	127.471	152.263	93.95*
2.	Boiler & Cooling tower make up /blow downs	15.00	15.00	15.00	15.00
3.	Domestic	10.00	10.00	10.00	10.00
	Total	191.64	152.471	177.263	118.95

*Effluents from Synthetic process: 25.462 KLD and effluent from fermentation process – 68.488 KLD. Thus, total quantity of effluent is 93.95 KLD.

Treatment & disposal:

Option – I products:

Source	Treatment	Mode of disposal
Process & washes (from the Fermentation process) - 152.263 KLD (Max.)	Bar screen, oil & Grease removal tank, V-Nutch tank, Equalization tank, primary clarifier, UASB Reactor, Lamella Clarifier, Aeration Tank 1, Secondary settling tank, Aeration tank -2, secondary settling tank - 2, sludge drying beds - 4 Nos, Bio-composting, Incinerator, Evaporation system	After bio-composting process, the compost is to be utilized for Agriculture.
Option – II products:		
Process & wash from Synthetic processes - 25.462 KLD (Max.)	Collection Tank cum neutralization tank, holding tank, Stripper, MEES and drier.	<ul style="list-style-type: none">MEE condensate shall be treated along with fermentation effluent (bio-degradable) through bio-composting process.Salts to TSDF for secured landfill.
Boiler & cooling tower blow downs and DM Plant back wash - 15.0 KLD	Collection & Neutralization Tank	Boiler blow down is being used for wetting the Boiler ash/ green belt.
Domestic - 10.0 KLD		Septic tank followed by soak pit.

3. The ZLD system for synthetic process effluent consisting of stripper, MEE and ATFD shall be installed and commissioned. 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.

4. The industry shall provide magnetic flow meters with totalisers at the inlet and outlet of stripper, MEE system and ETP.
5. 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.
6. The stripper, MEE and ATFD shall be commissioned by August, 2016 as committed vide Ir. dt. 15.07.2016.

Air:

7. 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.

i) Emissions from fuel burning : Existing						
S.N	Details of Stack	Stack 1	Stack 2		Stack 3	Stack 4
a)	Attached to:	Coal fired Boiler	Coal fired Boiler	Oil fired boiler	Incinerator	D.G. Sets
b)	Capacity	1.0 TPH	2.0 TPH	3.0 TPH	35 Kgs/hr.	600 KVA, 320 KVA & 2 x 200 KVA
c)	Name of the Fuel:	Coal	Coal	-		Diesel
d)	Stack height above ground (m.)	25 m.	30 m.			4.8 m, 6.2m & 3.0 m each
e)	Air Pollution Control Equipment:	Mechanical dust collector	Cyclone separator and bag filter		Caustic ventury	Silencer and Acoustic

			scrubber	enclosures.
f)	Conc. of particulate matter	115 mg/Nm ³		

8. 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.
9. The industry shall provide multi-stage scrubbers to the process vents to control the process emissions. The industry shall provide online pH measuring facility with auto recording system to the scrubbers provided to treat the process emissions.
10. **The industry shall provide VOC monitoring system with auto recording facility by August, 2016 as committed vide Ir. dt. 15.07.2016.**
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.
13. The proponent shall not use or generate odour causing substances or Mercaptans and cause odour nuisance in the surroundings.
14. The industry shall send the used / spent solvents to the recyclers (or) process them at their own solvent recovery facility within the premises.
15. 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 Waste:

16. The proponent shall comply with the following:

S.No	Description of Waste	Existing	After CPM	Mode of disposal
1.	Incineration Ash	30 kgs/Annum	30 kgs/Annum	TSDF
2.	Spent Carbon	7.25 MTA	7.25 MTA	TSDF for incineration/ Authorized cement plants for co-processing
3.	Distillation bottom residue	34 KL/Annum	34 KL/Annum	
4.	Process liquid organic waste (Mother liquor)	91.29 KL/Annum	91.29 KL/Annum	
5.	Inorganic salts from MEE	18 TPA	18 TPA	Authorised reprocessors
6.	Spent Oil / used oil	600 LPA	600 LPA	Authorized reprocessors/ recyclers
7.	Containers and Container liners	600 Nos/annum	600 Nos/annum	After detoxification disposed to outside agencies.
8.	Used Lead acid batteries	10 Nos/annum	10 Nos/annum	Buy back

9.	ETP Sludge (organic waste)	300 TPA	300 TPA	Biocomposting process
10.	Boiler ash	2.0 TPD	2.0 TPD	Sold to brick manufacturers

17. 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.

Other Conditions:

18. It was reported vide Ir. dt. 15.07.2016 that the unit was established in the year 1992 and started production in the month of November, 1993 i.e., prior to EIA Notification, 1994, as such the unit does not attract EC.
- ~~19.~~ **The stripper, MEE, ATFD and VOC meter shall be commissioned before applying for CFO.**
20. 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.
21. Concealing the factual data or submission of false information/ fabricated data and failure to comply with any of the conditions mentioned in this order and attract action under the provisions of relevant pollution control Acts.
22. Notwithstanding anything contained in this conditional 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 or revoke the order in the interest of environment protection.
23. Any person aggrieved with this order 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 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

M/s. Krebs Bio-Chemicals & Industries Ltd.,
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