

MAHARASHTRA POLLUTION CONTROL BOARD

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Kalpataru Point, 3rd & 4th floor, Sion- Matunga
Scheme Road No. 8, Opp. Cine Planet Cinema, Near
Sion Circle, Sion (E),
Mumbai - 400 022

Red/L.S.I

Date: 30/11/2011

Consent No: BO/PAMS/R/EIC NO.NM-2075-10/CC - CAC - 36

Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules 2008

[To be referred as Water Act, Air Act and HW (M&H) Rules respectively].

CONSENT is hereby granted to

M/s Hikal Ltd
Plot No. T-21, MIDC, Talaja
Dist- Raigad,

located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of HW (M&H) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to Operate is granted for a period up to: 31/12/2012.
2. The Consent is valid for the manufacture of -

Sr. No.	Product Name	Maximum Quantity	UOM
1	Thiabendazole	700	MT/A
2	C.I.T.D	300	MT/A
3	Karphos (RTY) Purification	100	MT/A
4	HTP-213 (Fenomidone)	300	MT/A
5	HTP-650 (B.A.S-650) (Ametoctradine)	490	MT/A
6	HTP-528 (Ethyclozate)	10	MT/A
7	In House Pilot Plant for Agro/Pharma Products and intermediates.(Facility shall be used only for development of consented products and new products on laboratory scale) Yrly statement of product produced in Pilot Plant should be submitted in April per Yr	--	MT/A
BY-PRODUCT			
1	Recovered Ammonia	1250	MT/A
2	Sodium / Potassium Methyl Sulphate Solution (100%)	458	MT/A
3	Sodium/Potassium Thiomethoxide solution 100%	382	MT/A
4	Spent HCL (App. 30 %)	1462	MT/A
5	Spent H ₂ SO ₄ (98%)	904	MT/A

6	Spent Caustic	520	MT/A
	INTERMEDIATES		
1	Monochloro acetone	500	MT/A
2	4- Mixed Thiozone	16	MT/A

3. CONDITIONS UNDER WATER ACT:

- (i) The daily quantity of trade effluent from the factory shall not exceed 788.95M³.
(ii) The daily quantity of sewage effluent from the factory shall not exceed 30.0M³.

(iii) Trade Effluent :

Treatment: The applicant shall provide comprehensive treatment system consisting of primary / secondary and/or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards:

1	pH	Between	5.5 to 9.0
2	Temperature	Shall not exceed 5 deg C above the receiving water temperature	
3	BOD 3 days 27 deg C	Not to exceed	30 mg/l
4	COD	Not to exceed	250 mg/l.
5	Oil & Grease	Not to exceed	10 mg/l
6	Total Suspended Solids	Not to exceed	100 mg/l.
7	Bioassay test on fish should show 90% survival in 96 hrs.		
	(A) SPECIFIC PESTICIDES		
8	Benzenl Hexachloride	Not to exceed	10 mg/l.
9	Carbonyl	Not to exceed	10 mg/l.
10	DDT	Not to exceed	10 mg/l.
11	Endosulfan	Not to exceed	10 mg/l.
12	Diamethoate	Not to exceed	450 mg/l.
13	Fenitrothion	Not to exceed	10 mg/l.
14	Malathion	Not to exceed	10 mg/l.
15	Phorate	Not to exceed	10 mg/l.
16	Methyl Parathion	Not to exceed	10 mg/l.
17	Phenathoate	Not to exceed	10 mg/l.
18	Pyrethrums	Not to exceed	10 mg/l.
19	Copper Oxyghlorde	Not to exceed	9600 mg/l.
20	Copper Sulphate	Not to exceed	50 mg/l.
21	Ziram	Not to exceed	1000 mg/l.
22	Sulphur	Not to exceed	30 mg/l.
23	Paraquat	Not to exceed	2300 mg/l.
24	Proponil	Not to exceed	7300 mg/l.
25	Nitrogen	Not to exceed	780 mg/l.
	(B) HEAVY METALS		
26	Copper	Not to exceed	1.0 mg/l.
27	Manganese	Not to exceed	1.0 mg/l.
28	Zinc	Not to exceed	1.0 mg/l.
29	Mercury	Not to exceed	0.01 mg/l.
30	Tin	Not to exceed	0.10 mg/l.
31	Any other metal like Nickel etc	Not to exceed	Shall not exceed 5 times the drinking water standards of BIS

(C) Organics		
32	Phenol and Phenolic compounds as C ₆ H ₅ OH	Not to exceed 1.0 mg/l.
(D) Inorganics		
34	Arsenics (As As)	Not to exceed 0.2 mg/l.
35	Cyanide (as CN)	Not to exceed 0.2 mg/l.
36	Nitrate (as NO ₃)	Not to exceed 50.0 mg/l.
37	Phosphate (as P)	Not to exceed 5.0 mg/l.

(iv) **Trade Effluent Disposal:** The treated effluent shall be recycled to the maximum extent and remaining treated effluent shall be sent to CETP. There shall not be any discharge outside the factory premises.

(v) **Sewage Effluent Treatment:** The applicant shall provide comprehensive treatment system as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards.

(1) Suspended Solids	Not to exceed	100 mg/l.
(2) BOD 3 days 27o C.	Not to exceed	100 mg/l.

(vi) **Sewage Effluent Disposal:** The treated domestic effluent shall be soaked in a soak pit, which shall be got cleaned periodically. Overflow, if any, shall be used on land for gardening / plantation only.

(vii) **Non-Hazardous Solid Wastes:**

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
1	Plastic Waste	50.00	Kg/Day	Sale
2	Plastic Bottles	5.00	Kg/Day	Sale
3	Glass Bottles	20.00	No/Day	Sale
4	Metal Scrap	0.00	As & When generated	Sale
5	Wood	0.00		Sale

(viii) **Other Conditions:** Industry should monitor effluent quality regularly.

4. The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and amendment Rules, 2003 there under

The daily water consumption for the following categories is as under:

(i) Domestic purpose	...	35.00 CMD
(ii) Water gets Polluted & Pollutants are Biodegradable	...	793.47 CMD
(iii) Water gets Polluted, Pollutants are not Biodegradable & Toxic	...	0.00 CMD
(iv) Industrial Cooling, spraying in mine pits or boiler feed	...	324.00CMD
(v) Agriculture / Gardening	...	30.00 CMD

The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

5. CONDITIONS UNDER AIR ACT :

- (i) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with reference to generation of emission and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards:

a. Control Equipment:

- I. Scrubber of sufficient capacity should be provided to air emission sections and dust collectors should be provided to the all dust generating locations and operated properly.
- II. There shall not be any secondary (fugitive) emissions.

b. Standards for Emissions of Air Pollutants:

(i) SPM/TPM	Not to exceed	150.0mg/Nm ³
(ii) SO ₂	Not to exceed	2320.0 Kg/day
(iii)SO ₂ (From Process)	Not to exceed	50.0 ppm
(iv) Chlorine	Not to exceed	5.0 ppm
(v) HCL	Not to exceed	20.0 mg/Nm ³
(vi)NH ₃	Not to exceed	30.0 ppm
(vii) H ₂ S	Not to exceed	5.0 mg/Nm ³
(viii) P ₂ O ₅	Not to exceed	10.0 mg/Nm ³
(ix) CH ₃ Cl	Not to exceed	20.0 mg/Nm ³
(x) HBr	Not to exceed	5.0 mg/Nm ³
(xi) Particulate matter with Pesticide compounds	Not to exceed	20.0 mg/Nm ³

C. Standards for emission of VOC Pollutants

Sr. No.	Petrochemical Process / Compounds	Maximum emission limit (mg/Nm ³) , dry basis
01	MA, PA, Phenol	20
02	Ethyl benzene (EB), Styrene, Toluene, Xylene, Aromatics, EG, PG	100
03	Non-methane HC (Paraffin), Acetone, olefins	150

- (A) The industry shall phase out the Ozone Depleting Substances (ODS) as per ODS Rules 2000 and shall be informed to MPCB within a period of 3 months.

GUIDELINES FOR FUGITIVE EMISSION CONTROL

1. Fugitive emissions over reactors, formulation areas, centrifuges, chemicals loading, transfer areas etc. are yet to be collected through hoods and ducts by induced drafts and controlled by scrubber / dust collector.
2. Usually scrubbers installed for channelized emissions are used for fugitive emissions to control also & sometimes dedicated scrubbers are provided. This practice may be permitted as long as tail gas concentrations are within the prescribed limits.
3. In addition, organic gaseous emissions (odour & toxic) be routed to activated carbon beds (absorption) or to thermal oxidizer and for dust emissions cyclones / bag filters are to be provided.
4. Emphasis be given to solvent management / solvent loss prevention.

5. Enclosures to chemical storage area, collection of emissions from loading of raw materials. In particular, solvents through hoods and ducts by induced draft, and control by scrubber / dust collector or to be ensured.
6. Vapour balancing, nitrogen blanketing ISO tanks etc. to be provided, besides special care needs to be taken for control in respect of odorous chemicals.

6. Conditions for D.G. Set

- a. Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
- b. Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
- c. The industry shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise to less than 55 dB(A) during day time and 45 dB(A) during the night time. Day time is reckoned between 6 a.m. to 10 p.m and night time is reckoned between 10 p.m to 6 a.m.
- d. Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
- e. Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
- f. A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
- g. D.G. Set shall be operated only in case of power failure.
- h. The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.

7. Standards for Stack Emissions:

- (i) The applicant shall observe the following fuel pattern:-

Sr. No.	Type Of Fuel	Quantity	UOM
1	Furnace Oil	943.00	MT /Month
2	HSD	10.00	MT /Month
3	Natural Gas	5.00	MT /Month

- (ii) The applicant shall erect the chimney(s) of the following specifications:-

Sr. No.	Chimney Attached To	Height in Mtrs.
1	Emergency D.G.Set	6.00
2	Ventilation Blower Plant -I (BLW 201)	27.00
3	Acid Scrubber (C-5020)	25.00

4	Vent Sorb Blower Plant -II(BL-501)	25.00
5	Ventilation Blower Plant-III (BL-501)	13.00
6	Ventilation Blower MCA (BLW 101)	13.00
7	Emergency Chlorine Blower (BLW 870/1)	17.00
8	Steam Boilers (B-920 A/B)	40.00
9	Ammonia Scrubber (C 1203)	20.00
10	Bag Filter Blower (BLW 601)	22.00
11	Bag Filter Blower (BLW 602)	22.00
12	Bag Filter Blower (BLW 603)	22.00
13	Process Exhaust Vent* (* Attached to flare system for emission control used for burning Methyl Chloride gas generated in the process and carbon dioxide. 40 kg/Hr)	30.00
14	Scrubber for HTP-213	30.00
15	General common Scrubber, HTP 213	30.00

- (iii) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- (iv) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
- (vi) Other Conditions:
- 1) The industry should comply as per new pesticides standards published by MoEF.
 - 2) The industry should not cause any nuisance in surrounding area.
 - 3) The industry should monitor stack emissions and ambient air quality Regularly.

8. CONDITIONS UNDER HAZARDOUS WASTE (MANAGEMENT, HANDLING & TRANSBOUNDARY MOVEMENT) RULES, 2008:

- (i) The Industry shall handle hazardous wastes as specified below.

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
1	5.1 Used /spent oil	9.00	MT/A	Sale to authorized reprocessor
2	9.1 Used batteries	Variable	---	Sale to dealers
3	20.2 Spent Benzene	62.00	MT/A	Sale to authorized reprocessor
4	20.2 Spent Toluene	1383.00	MT/A	Sale to authorized reprocessor
5	20.2 Spent Acetone	468.00	MT/A	Sale to authorized reprocessor
6	29.1 Low Boiler Waste	25.00	MT/A	Incineration at CHWTSDF
7	29.1 Organic Tar form Column-3	9.00	MT/A	Incineration at CHWTSDF

8	29.1 Amidine Waste	0.15	MT/A	Incineration at CHWTSDf
9	29.1 ODCB Waste	6.00	MT/A	Incineration at CHWTSDf
10	29.1 Activated Carbon	41.00	MT/A	Incineration at CHWTSDf
11	29.2 Chemical Sludge contamination	30.00	MT/A	Incineration at CHWTSDf
12	29.1 Chemical Residue /residue pesticide	243.50	MT/A	Incineration at CHWTSDf
13	29.1 HTP-213 Waste residue	25.00	MT/A	Incineration at CHWTSDf
14	29.1 CDIM Residue	120.00	MT/A	Incineration at CHWTSDf
15	29.1 CITD Residue	900.00	MT/A	Incineration at CHWTSDf
16	29.1 Organic Waste	780.00	MT/A	Incineration at CHWTSDf
17	29.2 Biological sludge	27.00	MT/A	Landfill
18	33.3 Product liners	App. 500	Nos/A	Sale to approved party after decontamination
19	35.1 Filter and filter cloth	50	MT /A	Incineration at CHWTSDf
20	-- Boiler Soot	10.00	MT/A	Incineration at CHWTSDf

(ii) Treatment: - NIL

9. Whenever due to any accident or gas leakage or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Collector, Directorate of Industry, Safety and Health, Police Station, Fire Brigade, Directorate of Health Services, Department of Explosives, Board and Local Body and the production process should be stopped by taking all necessary safety measures. The industry shall also monitor the emission and ensure that the emissions do not cause any harm or nuisance in the surrounding. The industry should not restart the process without permission of the Board and other statutory organization as require under the law.

10. Industry shall comply with following additional conditions:

- i. The applicant shall maintain good housekeeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants.
- ii. The applicant shall bring minimum 33% of the available open land under green coverage/ tree plantation.
- iii. Solid waste – The non hazardous solid waste arising in the factory premises, sweepings, etc., be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal to dumping ground.
- iv. The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by he applicant to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.
- v. The applicant shall not change or alter quantity, quality, the rate of discharge, temperature or the mode of the effluent / emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
- vi. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

- vii. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.
 - viii. The firm shall submit to this office, the 30th day of September every year, the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
 - ix. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
 - x. The applicant shall install a separate electric meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
 - xi. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes / sewers down-stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection System.
 - xii. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
11. This consent shall not be construed as any exemption from obtaining necessary No Objection Certificate from other Government agencies as may deemed fit necessary.
 12. If CETP does not operate efficiently and problem of pollution occurs, industry should voluntarily stop the production or total effluent should reuse.
 13. This consent is issued as per the decision taken in the meeting of the Consent Appraisal Committee of the Board held on 22/11/2011.
 14. The Capital investment of the industry is Rs 191.69 Crores


 29.11
 (Milind Mhaiskar)
 Member Secretary

To,
 M/s Hikal Ltd
 Plot No. T-21, MIDC, Talaja
 Dist- Raigad,

Copy to:
 RO, Navi Mumbai /SRO, Talaja
 -- They are directed to ensure the compliance of consent conditions.
 CAO/Cess Branch/Master file

Received Consent fee of -

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	958450/-	662045	26 Nov 2010	Dena Bank
2	50000/-	440314	6 Aug 2011	Dena Bank
3	983450/-	444379	18 Oct 2011	Dena Bank