

# MAHARASHTRA POLLUTION CONTROL BOARD

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Scheme Road No. 8, Opp. Cine Planet Cinema, Near  
Sion Circle, Sion (E),  
Mumbai - 400 022

Red/L.S.I

Date: 18/07/2012

Consent No: BO/PAMS/E/EIC NO.RD-2229-12/CC-2922

Consent to Establish under Section 25 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 Hindustan Insecticides Ltd.  
Village - Rasayani, Tal- Panvel  
Dist- Raigad, Maharashtra

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 thereon 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 Establish is granted for a period up to: Commissioning of the unit or 5 years whichever is earlier.
2. The Consent is valid for the manufacture of - (After change in product mix)

Sr. No.	Product Name	Maximum Quantity (After product mix)	UOM
1	Monocrotophos Technical	41.66	MT/M
2	Butachlor Technical or Pretilachlor (Technical)	25.00	MT/M
3	DDT (Technical)	345.00	MT/M
4	Malathion or Acephate (Technical)	150.00	MT/M
5	Carboxin Technical	NIL	MT/M
6	Phosphamidon Technical	NIL	MT/M
7	DDVP (Technical)	8.00	MT/M
8	Bacillus Thuringiensis Varkurstaki	2.0	g/D
9	Acephate (Technical)	NIL	MT/M
10	Buprofezin (Technical)	133.00	MT/M
11	Imidachloprid or Acetamiprid or Chlorpyrifos or Triazophos (All Technical)	150.00	MT/M

### 3. CONDITIONS UNDER WATER ACT:

(i) The daily quantity of trade effluent from the factory shall not exceed 1900 m<sup>3</sup> ( # there is reduction in effluent load from 2000 CMD to 1900 CMD due to change in product mix. )

(ii) The daily quantity of sewage effluent from the factory shall not exceed 100 m<sup>3</sup>

#### (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.		
<b>(A) SPECIFIC PESTICIDES</b>			
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 Oxghloride	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>(B) HEAVY METALS</b>			
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 the standards of the drinking water standards of IS: 10500
<b>(C) Organics</b>			

32	Phenol and Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	Not to exceed	1.0 mg/l
<b>(D) Inorganics</b>			
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 <sub>3</sub> )	Not to exceed	50.0 mg/l
37	Phosphate ( as P)	Not to exceed	5.0 mg/l

- (iv) **Trade Effluent Disposal:** The industry should dispose effluent quantity of 8.11 CMD for Solar Evaporation Pond. The Solar Evaporation System should meet the following conditions as laid down by Ministry of Environment and Forests, Govt. of India. The treated effluent should be evaporated in an tank of sufficient capacity so as even in rainy season the effluent should not find its way outside. The treated trade effluent should be recycled to the maximum extent & remaining should be pumped into saline zone of Patalganga Creek upto a point as approval of National Institute of Oceanography (NIO).

**Conditions of Solar Evaporations System:**

- 1) Solar evaporation pans should be constructed in such a way that the bottom in atleast one meter above ground level.
- 2) Solar Evaporation Pans should be leak proof and on impervious construction and as per IS : 7290.
- 3) The Solar Evaporation Ponds should be designed on the basis of evaporation rate matching to the output of waste water.
- 4) During the rainy season, storm water should not be allowed to mix with process waste and enter the pans. The waste water should have its own outflow from the evaporation pans. Alternative arrangements should be made to hold the waste water in proper impervious tanks and if necessary, force evaporated.
- 5) In no circumstances, the liquid effluent should be discharged without conforming to the minimal national standards or stored in a holding arrangement, which is likely to cause pollution.
- 6) The sludge from the solar evaporation pans should be incinerated or disposed off as per guidelines for management and handling of hazardous waste, published by the Ministry of Environment & Forests, Govt. of India, after obtaining authorization from the State Pollution Control Board under the Hazardous Waste (Management & Handling) Rules, 1989.
- 7) For the preparation of embankment in soil for all four sides 1:2 slope is to be maintained. Minimum free board of 1.5 meters should be provided.
- 8) Flat bricks lining over HDPE sheet for bottom and slopes in cement mortar 1:5 with two layers of 250 micron thick HDPE sheet.
- 9) Construction of toe wall to avoid under scouring of the embankment during heavy rains.
- 10) Two coats of coal tar epoxy paint (120 micron total).
- 11) Provision of fencing around the lagoon to prevent entry of trash, debris and stray animals.
- 12) If any leachate generated, the BOD / COD should be brought within acceptable limits before disposing the same.

13) Forced evaporation system should be provided in place of solar evaporation.

(v) **Sewage Effluent Treatment:** The applicant shall provide comprehensive treatment system as is warranted with reference to pollution quality parameters 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 Waste	Quantity	UOM	Treatment	Disposal
-NA-					

(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	14100	CMD
(ii)	Water gets Polluted & Pollutants are Biodegradable ...	5805.00	CMD
(iii)	Water gets Polluted, Pollutants are not Biodegradable & Toxic ...	0.00	CMD
(iv)	Industrial Cooling, spraying in mine pits or boiler feed ...	0.00	CMD
(v)	Agricultural / Gardening ...	300.00	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 :**

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. A continuous monitor of chlorine with an alarm, adjusted to 1 ppm shall be installed.
- ii. The following machines / equipments shall be provided with hooding system connected to dust collector of sufficient capacity to limit the emissions to the following standards.
  1. DDT Plant- (i) Grinder, (ii) Mixer (iii) mixer hood, (iv) Products hooper, (v) Hopping balance,

2. Malathion Plant- (i) Feeding booth, (ii) Blender (iii) Elevator
  3. Any other source of particulate matter
- iii. The following equipments shall be provide with scrubbing system of sufficient capacity to limit the emissions to the following standards.
- i) formulation reactor, ii) Chlorination, iii) reactor iv) Phosphorodan carboxin plant v) Hydrolysis section.

**b. Standards for Emissions of Air Pollutants:**

i) SPM/TPM	Not to exceed	150.0 mg/Nm <sup>3</sup>
ii) SO <sub>2</sub>	Not to exceed	856.0 Kg/day
iii) HCL	Not to exceed	35.0 mg/Nm <sup>3</sup>
iv) H <sub>2</sub> S	Not to exceed	10.0 ppm
v) Chlorine	Not to exceed	3.0 ppm

**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 1 meter from acoustic enclosure/room and their average.
- c. The industry shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise 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 OR Natural Gas	12.69 3600	KL/Day m <sup>3</sup> /day

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

Sr. No.	Chimney Attached To	Height in Mtrs.
1	Boiler	42.00
2	Supper Heater	15.00
3	HCL Gas absorption Vent I	11.50
4	Dust Collector Vent I	25.50
5	Dust Collector Vent II	25.50
6	Dust Collector Vent III	19.50
7	H2S scrubber	21.90
8	D.G. Set 320 KVA	3.60

- (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 not cause any nuisance in surrounding area.
  - 2) 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	29.2 Chemical sludge from waste water treatment	300.00	MT/A	CHWTSDF
2	33.3 Discarded containers / barrels / liners used for HW chemicals	300.00	MT /A	Sale to authorised party after decontamination
3	20.3 By Product spent Sulphuric acid from product DDT Technical	583.33	MT / M	Sale to authorised party
4	20.3 Residues from the products Pretilachlor (T), Buprofezin (T), Imidacloprid (T), Acetamiprid (T), Chlorpyriphos(T) and Triazophos (T)	12.5	MT/M	
5	20.3 By Product Dichlorobenzene from product DDT Technical.	NIL	MT / M	
6	20.3 By product Hydrochloric Acid from product DDT Technical	NIL	MT / M	
7	29.1 Process wastes/residues containing pesticides	300.00	MT/A	CHWTSDF
8	15.2 Discarded asbestos rope and 33.3 Waste Hessian (Jute) Bags	1050.00		incineration

(ii) Treatment: - NIL

9. Whenever due to any accident or gas leakage or other unforeseen action 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, taking all necessary safety measures. The industry shall also monitor the emissions 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 the 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 30<sup>th</sup> day of September every year, the Environmental Statement Report for the financial year ending 31<sup>st</sup> March in the prescribed Form-V as pre 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 manhole. The 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 be deemed fit necessary.
12. This consent is granted as per decision taken in Consent committee meeting on the following conditions
  - a. Industry shall submit Bank Guarantee of Rs 5.0 Lakhs within 15 days, in favour of "Regional Officer, MPCB, Raigad", towards not to undertake production of Endosulfan..
  - b. There is reduction in pollution load after product mix.
13. The applicant shall obtain consent to operate before starting actual commercial Production.
14. This consent is issued as per the decision taken in the meeting of the Consent Committee of the Board held on 18/01/2013 with the approval of Hon'ble Chairman of the Board.
15. The Capital investment of the industry is ₹ 58.81 Crore  
(Existing CI Rs 41.81 Cr + Proposed CI Rs 17.00 Cr)

(Rajeev Kumar Mehta)  
Member Secretary

To,  
M/s Hindustan Insecticides Ltd.  
Village - Rasayani, Tal- Panvel  
Dist- Raigad, Maharashtra

Copy to :  
RO, Raigad /SRO Raigad

- a) They are directed to obtain Bank Guarantee of Rs 5.0 Lakhs towards not to undertake production of Endosulfan, within 15 days and ensure the compliance of consent conditions.
  - b) They are directed to issue the directions to industries to which consents are granted in past for production of Endosulfan, as per Hon'ble Supreme Court Order.
- CAO/Cess Branch/Master file.

Received Consent fee of -

Sr. No.	Amount (Rs.)	DD. No.	Date	Drawn On
1	50000/-	517980	29 Nov 2011	SBI Bank
2	100/-	517980	02 Dec 2011	SBI Bank