

F.No. IA-J-11011/207/2018- IA II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(IA-II Section)

Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 3

Dated: 28th March, 2019

To

M/s Crimsun Organics (P) Ltd
Plot No.C-9, 10 & 11
SIPCOT Industrial Complex, Village Kudikkadu
District **Cuddalore** (Tamil Nadu)

Sub: Manufacturing Specialty Chemicals and Agro-chemicals by M/s Crimsun Organics (P) Ltd at Plot No.C-9, 10 & 11, SIPCOT Industrial Complex, Village Kudikkadu, District Cuddalore (Tamil Nadu) - Environmental Clearance - reg.

Sir,

This has reference to your proposal No. IA/TN/IND2/75539/2018 dated 27th November 2018, submitting the EIA/EMP report on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for manufacturing specialty chemicals of capacity 70 TPM (3 nos of products) and agro-chemicals of capacity 1355 TPM (54 nos of products) by M/s Crimsun Organics (P) Ltd in a total area of 18051.03 sqm located at Plot No.C-9, 10 & 11, SIPCOT Industrial Complex, Village Kudikkadu, District Cuddalore (Tamil Nadu).

3. The details of products are as under: -

S.No.	Product*	Quantity (TPM)
Speciality Chemical		
1	Para chloro benzyl cyanide	20
2	Pyrazole	20
3	Metaphenoxy Benzaldehyde (MPB)	30
Fungicides		
4	Thiophanate Methyl	50
5	Hexaconazole	30
6	Propiconazole	30
7	Difenoconazole	15
8	Tricyclazole	50
9	Carbendazim	50
10	Cyproconazole	30
11	Trifloxystrobin	20



12	Cymoxanil	20
13	Pyraclostrobin	20
14	Metalaxyl	20
15	Tebuconazole	20
16	Boscalid	20
17	Picoxystrobin	20
18	Thifluzamide	20
Herbicides		
19	Pretilachlor	50
20	Glyphosate	50
21	Clodinafop-propargyl	20
22	Bispyribac-Sodium	20
23	Quizalofop	20
24	Propaquizafop	20
25	Mesotrione	20
26	Fluroxypyr	20
27	Imazamox	30
28	Pinoxaden	30
29	Ametryn	30
30	Tembotrione	20
31	Topramezone	20
32	Halosulfuron	20
33	Penoxsulam	20
34	Flucetosulfuron	20
35	Pendimethalin	30
36	Chlorimuron	20
37	Nicosulfuron	20
38	Metsulfuron	20
Insecticides		
39	Acephate	30
40	Diafenthiuron	30
41	Imidacloprid	30
42	Buprofezin	30
43	Thiamethoxam	30
44	Cypermethrin	30
45	Alpha cypermethrin	20
46	Fipronil	20
47	Acetamiprid	30
48	Propargite	30
49	Indoxacarb	20
50	Dinotefuran	20
51	Fonicamid	20
52	Etoxazold	20
53	Metaflumizone	20
54	Spiromesifen	20

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55	Spirotetramat	20
56	Chlorantraniliprole	20
57	Sulfoxaflor	20
Total		1425

*(*No pesticides/chemicals banned by the Ministry of Agriculture & Farmers Welfare and/or other regulatory authorities, shall be produced)*

4. The total land area available for the project is 18051.03 sqm, out of which green belt will be developed in an area of 6063 sqm, covering 33% of total project area. The estimated project cost is Rs. 30.6 crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 3.76 crore and the recurring cost (O&M) will be Rs. 44.1 lakh per annum. Total employment opportunity will be for 175 persons directly & 75 persons indirectly.

5. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Uppanar river is flowing at a distance of 0.45 km (E), Gadilam river at 6.23 km (NNE), Ponnayar river at 9.1 km (NNE), PerumalEri at 9.02 km (SSW) and Bay of Bengal sea is at 1.8 km (E).

6. Total water requirement is estimated to be 344.5 cum/day of which fresh water demand of 151.01 cum/day is to be met from SIPCOT water supply.

Total effluent generated from different industrial operations is estimated to be 105.57 cum/day. High COD/high TDS effluent of 31 cum/day will be treated in MEE and POT distillation, and condensate will be sent to ETP for further treatment followed by RO. Low COD/low TDS stream of 29 cum/day will be treated in ETP followed by RO, and the MEE condensate will be mixed with Low COD/low TDS stream. RO permeate of 72.31 cum/day KLD will be reused/recycled for cooling tower makeup & RO reject of 14.69 cum/day shall be sent to MEE for further treatment. Domestic effluent of 18 cum/day will be treated in STP and treated water will be used for green belt development/gardening. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

Power requirement will be 2000 KVA, proposed to be met from TANGEDCO. Two DG sets of 500 KVA is envisaged in the unit, to be used as the standby during power failure. Stack of height 9 m shall be provided as per CPCB norms to the DG sets.

Unit will have one 3 TPH furnace oil fired and one 10 TPH coal fired boiler. Multi cyclone separator/ bag filter with a stack of height 32 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers.

7. The project/activity is covered under category A of item 5(b) 'Pesticide industry and pesticide specific intermediates' and item 5 (f) 'Synthetic Organic Chemicals' of Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal/approval at central in the Ministry.

8. Standard Terms of Reference (ToR) for the project was granted on 27th July, 2018. Public hearing is exempted as the project is located in the Industrial area, and as provided under the Ministry's OM dated 27th April, 2018.

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9. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its meeting held during 29-31 January, 2019. The project proponent and accredited consultant's M/s Hubert Enviro Care Systems (P) Ltd and M/s Eco Chem Sales & Services, presented the EIA / EMP report as per the ToR. The Committee found the EIA/EMP report complying with the ToR and recommended the project for grant of environmental clearance.

10. Based on the proposal submitted by the project proponent and recommendations of EAC (Industry-2), the Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for **Manufacturing Specialty Chemicals of capacity 70 TPM (3 nos of products) and Agro-chemicals of capacity 1355 TPM (54 nos of products) by M/s Crimsun Organics (P) Ltd** at Plot No.C-9, 10 & 11, SIPCOT Industrial Complex, Village Kudikkadu, District Cuddalore (Tamil Nadu), under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under:-

- (i) Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) National Emission Standards for Pesticide Industry issued by the Ministry vide G.S.R. 446(E) dated 13th June, 2011 and amended from time to time, shall be followed.
- (v) No pesticides banned by the Ministry of Agriculture & Farmers Welfare, or having LD₅₀<100 mg/kg shall be produced. Also, no any raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.
- (vi) Coal with sulphur content less than 0.5% only shall be used. LSHS/LDO/briquette shall be used as fuel in place of furnace oil.
- (vii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii) Solvent management shall be carried out as follows:
 - (a) Reactor shall be connected to chilled brine condenser system.
 - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.

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- (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (d) Solvents shall be stored in a separate space specified with all safety measures.
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (ix) Total fresh water requirement shall not exceed 151.01 cum/day is to be met from SIPCOT water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
 - (x) Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be treated in MEE and POT distillation. Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
 - (xi) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
 - (xii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
 - (xiii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
 - (xiv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.
 - (xv) Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
 - (xvi) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

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- (xvii) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xviii) As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 5% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xix) Safety and visual reality training shall be provided to employees.
- (xx) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xxi) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xxii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxiii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xxiv) Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

10.1 The grant of environmental clearance is further subject to compliance of other generic conditions as under:-

- (i) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and/ or any other statutory authority.
- (ii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (iii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

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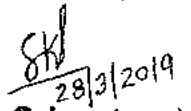
- (iv) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.
- (v) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder.
- (vi) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
- (vii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- (viii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing shall be implemented.
- (ix) The company shall undertake all measures for improving socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villagers, administration and other stake holders. Also eco-developmental measures shall be undertaken for overall improvement of the environment.
- (x) A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (xii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (xiii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

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- (xiv) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional offices of MoEF&CC by e-mail.
- (xv) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <http://moef.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional office of the Ministry.


11. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

12. The above conditions will be enforced, *inter alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


28/3/2019
(S. K. Srivastava)
Scientist E

Copy to: -

1. The Additional DG (C), MoEF&CC Regional Office (SEZ), 1st and 11nd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai - 34
2. The Secretary, Environment and Forests Department, Government of Tamil Nadu, 7th Floor, Namakkal Kavignar Maligai, Secretariat, Fort St George, Chennai - 9
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 32
5. Guard File/Monitoring File/Website/Record File


28/3/2019
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