

F. No.J-11011/70/2017-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(IA-II Division)

Indira Paryavaran Bhawan
Jor Bagh Road, N Delhi - 3
Dated: 24th May, 2019

To,

M/s Prasol Chemicals Private Limited,
Plot No.FS-30, Additional MIDC Mahad,
Tehsil Mahad,
District **Raigad** (Maharashtra)

Sub: Setting up pesticide specific intermediates and synthetic organic chemicals unit by M/s Prasol Chemicals Private Limited at Plot No.FS-30, Additional MIDC Mahad, Tehsil Mahad, District Raigad (Maharashtra) - Environmental Clearance - reg.

Ref: Online proposal No. IA/MH/IND2/87128/2017 dated 2nd January, 2019.

Sir,

This has reference to your online proposal No.IA/MH/IND2/87128/2017 dated 2nd January, 2019 for environmental clearance to the above project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for setting up pesticide specific intermediates (capacity 13000 TPA) and synthetic organic chemicals (capacity 16000 TPA) manufacturing unit by M/s Prasol Chemicals Private Limited in an area of 45,000 sqm at Plot No. FS-30, Additional MIDC Mahad, Tehsil Mahad, District Raigad (Maharashtra).

3. The details of proposed products and by-products are as under:-

S. No.	Product	Capacity (MT/Year)
Products under activity 5(b) (Pesticide specific intermediate)		
1	Diethyl Thiophosphoric Acid (DETA)	12,000 (Combined capacity will be manufactured on Campaign basis)
2	Diethyl Thiophosphoryl Chloride (DETC)	
3	Dimethyl Thiophosphoryl Chloride (DMTC)	
4	Dimethyl Phosphoramidothioate (DMPAT)	1000
Activity 5 (b) Sub Total (1 to 4)		13,000
Products under 5 (f)(Synthetic Organic Chemicals)		
Dithiophosphates		6,000 (Combined capacity will be manufactured on Campaign basis)
5	Zinc DialkylDithiophosphate (ZDDP)	
6	DithiophosphateAlkyl Sodium	
7	Sodium Dithiophosphate	



	Organic Acetates	5,000 (Combined capacity will be manufactured on Campaign basis)
8	2-Methyl Adrohol Acetate	
9	TrimethylCyclohexyl Acetate	
10	Styrallyl Acetate	
11	Phenethyl Acetate	
	Hydrogenated Products	5,000 (Combined capacity will be manufactured on Campaign basis)
12	O-Methyl Cyclohexanol	
13	O-Methyl Cyclohexanone	
14	Styrallyl Alcohol	
15	3,3,5 TrimethylCyclohexanol	
16	3,3,5 Trimethyl Cyclohexanone	
	Sub Total Activity 5 (f) (5 to 16)	16,000
	Grand Total (1 to 16)	29,000

S. No.	By Product	Capacity (MT/Year)
1	Sodium Hydrogen Sulphide (NaHS)	8,500
2	Hydrochloric Acid (HCl)	19,500
3	Wettable Sulphur	3,000
4	Ammonium Hydroxide (NH ₄ OH)	150
5	Sodium Sulphite Na ₂ SO ₃	650
6	Dilute Acetic acid	3000
	Grand Total By-products	34,800

4. Total land area required for the project is estimated to be 45,000sqm. Green belt will be developed in 14,900 sqm, covering 33% of the total project area. The estimated project cost is Rs.50 crores. Total capital cost earmarked for environmental pollution measures is Rs.300 Lakhs & the recurring cost (O&M) will be about Rs.175 Lakhs per annum. Total employment will be 60 persons as permanent & 40 persons as contract for proposed project.

5. There are no National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc within 10 km. Reserve forest is at 1 km in North- East. River Kal flows at 0.14 km in North to South.

6. Total water requirement is estimated to be 506 cum/day which includes fresh water requirement of 355 cum/day, proposed to be met from MIDC water supply.

Effluent of 171 cum/day will be treated through the effluent treatment plant, followed by reverse osmosis and multi effect evaporators, and the treated water will be reused for different process requirements. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

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Total power requirement of 2400 kVA is proposed to be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Two DG sets of 400 kVA each for power back up shall be provided with stack as per CPCB norms.

Two coal or furnace oil fired boiler of 10 TPH capacity each will be installed in the proposed unit. Mechanical dust collector/bag filter with a stack height of 46 m will be installed to control the particulate emissions within the statutory limit of 150 mg/Nm³.

7. The project/activities are covered under category A of item 5(b) 'Pesticides industry and pesticide specific intermediates' and 5(f) 'Synthetic organic chemicals industry' of the schedule to the EIA Notification, 2006, and requires appraisal/approval at central level in the Ministry.

8. The Terms of Reference for the project was granted by the Ministry on 10th July 2017. The project site being in notified industrial area, public consultation/ hearing is exempted as per the provisions contained in para 7(i) III.Stage (3)(i)(b) of the EIA Notification, 2006.

9. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 5th meeting held on 27th March, 2019. The project proponent and their consultant presented the EIA/EMP report. The Committee found the EIA/EMP report to be satisfactory, 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), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for **setting up Pesticide Specific Intermediates (capacity 13000 TPA) and synthetic organic chemicals (capacity 16000 TPA) manufacturing unit by M/s Prasol Chemicals Private Limited** at Plot No. FS-30, Additional MIDC Mahad, Tehsil Mahad, District Raigad (Maharashtra), under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as below:-

(a) 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.

(b) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. During emergency period waste water shall be sent to CETP.

(c) 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.

(d) National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed.

(e) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.

(f) No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD50<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.



- (g) Coal less than 0.5% sulphur content shall be used in the boiler.
- (h) 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.
- (i) Solvent management shall be carried out as follows:
- (i) Reactor shall be connected to chilled brine condenser system.
 - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (iv) Solvents shall be stored in a separate space specified with all safety measures.
 - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (j) Total fresh water requirement shall not exceed 355 cum/day to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (k) Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
- (l) 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.
- (m) Raw material storage shall not exceed more than one week.
- (n) 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.
- (o) 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.
- (p) 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.
- (q) The company shall undertake waste minimization measures as below:-
- (i) Metering and control of quantities of active ingredients to minimize waste.
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (iii) Use of automated filling to minimize spillage.
 - (iv) Use of Close Feed system into batch reactors.
 - (v) Venting equipment through vapour recovery system.
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.



(r) 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.

(s) As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2% 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.

(t) Safety and visual reality training shall be provided to employees.

(u) 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.

(v) 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.

(w) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(x) 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.

(y) 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.

(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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(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.

(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. CSR 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 Parishad/ 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.


(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.

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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, the Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991, read with subsequent amendments therein.


24/5/2019

(S. K. Srivastava)
Scientist E

Copy to: -

1. The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, **Mumbai** (Maharashtra) – 32
2. The Additional Principal Chief Conservator of Forests, Regional Office (WCZ), Ministry of Environment, Forest and Climate Change, **Nagpur** (Maharashtra)
3. The Member Secretary, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, **Delhi** - 32
4. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, **Mumbai** - 22
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, **New Delhi** - 3
6. Guard File/Monitoring File/Record File


24/5/2019

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