

F. No.J-11011/284/2018-IA II (I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division

Indira Paryavaran Bhawan
Jor Bagh Road, N Delhi - 3
Dated: 3rd July, 2019

To,

M/s Organic Industries private Ltd,
Plot No.S-163, GIDC Industrial Estate,
Dahej I, Taluka Vagra,
District **Bharuch** (Gujarat)

Sub: Setting up synthetic organic chemicals, dye intermediates and pesticides technical manufacturing unit by M/s Organic Industries Private Limited at Plot No.S-163, GIDC Industrial Estate, Dahej I, Taluka Vagra, District Bharuch (Gujarat) - Environmental Clearance

Ref: Online proposal No.IA/GJ/IND2/91786/2014 dated 27th February, 2019.

Sir,

This has reference to your online proposal No. IA/GJ/IND2/91786/2014 dated 27th February, 2019, for environmental clearance to the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for grant of environmental clearance to the project for setting up synthetic organic chemicals (4300 TPM), dye intermediates (300 TPM) and pesticides technical (1500 TPM) manufacturing unit by M/s Organic Industries Private Limited in an area of 171579 sqm located at Plot No.S-163, GIDC Industrial Estate, Dahej I, Taluka Vagra, District Bharuch (Gujarat).

3. The details of the products/byproducts are as under:-

S. No.	Product	Existing (TPM)	Proposed (TPM)	Total (TPM)	CAS No.	LD50 (mg/Kg)	Category
EC Not Required (Existing)							
1	Potassium Permanganate	700	-	700	7722-64-7	1090	
2	Boric Acid Technical (All Grades)	2,000	-	2,000	10043-35-3	2660	
3	Borax Decahydrate (All Grades)	700	-	700	1303-96-4	6000	
4	Di-Sodium Octaborate Tetrahydrate	100	-	100	12280-03-4	2000	
EC Required (Proposed)							
5	Ethylene Oxide / Propylene Oxide Condensate	00			75-21-8/ 75-56-9		5 (f) – Specialty Chemicals
5.1	Castor oilethoxylate/propoxylates				61791-12-6	5000	
5.2	Nonylphenolethoxylate/propoxylates				25154-52-3	2990	
5.3	Tridecylalcoholethoxylate/				24938-91-	2000	

std

	propoxylates				8		
5.4	Laurylalcoholethoxylate/ propoxylates				9002-92-0	2000	
5.5	Cetostearylalcoholethoxyl ate /propoxylates				68439-49- 6	5000	
5.6	Hydrogenated castor oilethoxylate/propoxylates				61788-85- 0	7000	
5.7	Poly ethylene glycol & esters (H-PEG, M-PEG, V-PEG, P-PEG)		1000	1000	25322-68- 3	30200	
5.8	Poly propylene glycol & esters				25322-69- 4	20000	
5.9	Styrenatedphenolethoxyla tes/propoxylates				61788-44- 1	1720	
5.10	Stearicacidethoxylates/pr opoxylates				9009-90-9	4600	
5.11	Oliecacidethoxylates/prop oxylates				9004-96-0	2000	
5.12	P octylphenolethoxylates/pr opoxylates				127087- 87-0	1231	
5.13	Hydrophobes ethoxylates/propoxylates				68131-40- 8	1410	
6	Anionic Surfactants						
6.1	SLES -(Sodium lauryl ether sulfate)	0	300	300	9004-82-4	1288	5 (f) – Specialty Chemical s
6.2	ALES -(Ammonium lauryl ether sulfate)				32612-48- 9	12800	
6.3	ALS -(Ammonium lauryl sulfate)				2235-54-3	100	
6.4	TLS- (Tri ethanol amine lauryl sulfate)				139-96-8	1288	
6.5	CABS (Calcium alkyl benzene sulfonate)			26264-06- 2	1280		
6.6	SABS (Sodium alkyl benzene sulfonate)			68411-30- 3	207		
6.7	SCS (Sodium cumene sulfonate)			32073-22- 6	39163		
6.8	Alkyl aryl ether sulfates			55348-40- 8	500		
7	Catoinic Surfactants						
7.1	Cationic softners	00	300	300	91995-81- 2	2395	5 (f) – Specialty Chemical s
7.2	Esterquates				67-63-0	2000	
7.3	Amphoteric softners				68334-21- 4	4090	
7.4	COB -(COCOBetain)				86438-79- 1	2000	
7.5	CAPB (Coco amido propyl betain)				61789-40- 0	2335	
7.6	LAPB (Lauryl amido propyl betain)				4292-10-8	1117	
7.7	BKC 50, 80				63449-41-	240	

	(Benzalkonium chloride)				2		
7.8	CTAC (Cetyl tri methyl ammonium chloride)				112-02-7	4300	
7.9	Polyquat 7				26590-05-6	2000	
8	Non-Ionic Surfactants						
8.1	Fatty Alcohol Ethoxylates/Propoxylates	00	300	300	37335-03-8	2000	5 (f) – Specialty Chemicals
8.2	Fatty Acids Ethoxylates/Propoxylates				9004-96-0/31943-11-0	5045	
8.3	Fatty Amines Ethoxylate/Propoxylates				61791-26-2	2000	
8.4	Phenol Ethoxylates/Propoxylates				127087-87-0	1410	
8.5	Glycerin Ethoxylates/Propoxylates				31694-55-0	12600	
8.6	R- Ethoxylates/Propoxylates etc.				--	--	
9	Anti-oxidants products	00	400	400			5 (f) – Specialty Chemicals
9.1	TNPP (Tris nonyl phenyl phosphite)				26523-78-4	1000	
9.2	TPP (Tris phenyl phosphite)				917-23-7	6000	
9.3	DPP (Diphenyl phosphate)				838-85-7	2000	
9.4	PDDP (Phenyl di-isodecylphosphite)				25550-98-5	20,500	
9.5	TDP (Tris decyl phosphite)				2929-86-4	1600	
9.6	TLP (Tri lauryl phosphite)				3076-63-9	2740	
9.7	DPTDP (Di phenyl tri decyl phosphate)				60628-17-3	1530	
9.8	TDPP (Trisdipropylene glycol phosphite)				36788-39-3	16100	
9.9	DPDP (Diphenylisodecyl phosphate)				26544-23-0	5000	
10	Alkonal Amines & derivatives						
10.1	Mono ethanolamine(MEA)	00			141-43-5	2000	5 (f) – Specialty Chemicals
10.2	Di ethanolamine(DEA)				111-42-2	710	
10.3	Tri ethanolamine(TEA)				102-71-6	2200	
10.4	N-methyl mono ethanolamine(MMEA)				109-83-1	234	
10.5	Methyl di ethanolamine(MDEA)				105-59-9	4700	
10.6	Di methyl ethanolamine(DMEA)				108-01-0	2000	
10.7	Di ethyl ethanolamine(DMEA)				100-37-8	2200	
10.8	Ethyl mono ethanolamine(EMEA)				110-73-6	1720	

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10.9	Ethyl Diethanolamine(EDEA)	2000	2000	139-87-7	460	
10.10	Propyl Monoethanolamine(PMEA)			16369-21-4	2140	
10.11	Propyl Diethanolamine(PDEA)			6735-35-9	380	
10.12	Butyl Monoethanolamine(BMEA)			111-75-1	7100	
10.13	Butyl Diethanolamine(BDEA)			102-79-4	4250	
10.14	Polyethanolamine(Poly)			68213-98-9	1720	
10.15	Tertiary butyl monoethanolamine(TBMEA)			4620-70-6	9274	
10.16	Tertiary butyl diethanolamine (TBDEA)			2160-93-2	4250	
10.17	Hydroxyethyl morpholine(HEM)			622-40-2	2500	
10.18	Phenoxy ethanol			122-99-6	22180	
10.19	N-(2-hydroxy ethyl)piperidine			3040-44-6	2236	
10.20	Diethanolisopropanolamine(DIEPA)			6712-98-7	710	
10.21	Monoisopropanolamine(MIPA)			78-96-6	1851	
10.22	Di isopropanolamine(DIPA)			110-97-4	8000	
10.23	Tri isopropanolamine(TIPA)			122-20-3	2520	
10.24	Dimethylamine 2-propanol(DMA 2-P)			108-16-7	1170	
10.25	Aminoethylethanolamine(AEEA)			111-41-1	10000	
11	Dye Intermediates					
11.1	Benzidine 2 – 2 Di Sulphonic Acid (BDSA)	00	300	117-61-3	2000	5 (f) – Dye Intermediates
11.2	N-Methyl J Acid (NMJ)			22346-43-6	1200	
11.3	Sulpho Tobias Acid (STA)			117-62-4	19400	
11.4	EBAMSA			101-11-1	2000	
11.5	Sulpho VS			42986-22-1	1200	
11.6	Sulpho OAVS – Ortho Aniline Vinayl Sulphone			121-88-0	5000	
11.7	4-Sulpho Antranilic Acid			98-43-1	5000	
11.8	DMAVS – Dimethyl Aniline Vinyl Sulphone			26672-24-2	800	
11.9	Para Chloro Vinyl Sulphone			2494-89-5	2000	
11.10	OAVS – Ortho Aniline Vinyl Sulphone			10079-20-6	5000	
11.11	DASA			16803-97-7	68	

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11.12	DAASDA					285	
11.13	Acetanilide				103-84-4	1210	
11.14	K-Acid				118-03-6	200	
12	Pesticide Technical						
12.1	Fungicide						5 (b) – Pesticide Technical
	Hexaconazole (T)				79983-71-4	2000	
	Tebuconazole (T)				107534-96-3	5000	
	Propioconazole (T)				60207-90-1	4000	
	1,2,4-Triazole				288-88-0	2300	
12.2	Insecticide						
	Bifenthrin (T)				82657-04-3	1280	
	Profenofos (T)				41198-08-7	2560	
12.3	Herbicide						
	Pendimethalin (T)				40487-42-1	5000	
	Bispyribac Sodium				125401-92-5	2250	
	TOTAL	3500	6100	9600			

4. Existing land area is 171579 sqm and no additional land will be required for the proposed expansion. Existing green belt area of 50000 sqm is proposed to be increased by 10000 sqm and thus after expansion, total green belt area will be 60000 sqm, covering 34.5% of the total project area. The cost involved in the proposed expansion project is Rs.20 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.3 crore and recurring cost (O&M) will be around Rs.2.5 crore per annum. Total employment will be 200 people as direct and 50 person indirect after expansion.

5. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc within 10 km from the project site.

6. Total water requirement is estimated to be 1195 cum/day including fresh water requirement of 765 cum/day proposed to be met from GIDC Water Supply.

Low COD effluent of 50 cum/day will be sent to Effluent Treatment Plant. High COD stream and high TDS effluent of 463 cum/day will be treated in primary ETP and then taken to the Multi Effect Evaporator. Final treated effluent shall be reused in the plant to meet the different process requirements. Domestic waste water will be treated or disposed of through septic tank/ soak pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Total Power requirement will be increased from 1300 to 4500 kVA proposed to be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has one DG Set of 125 KVA, Additionally 2 DG Set (1010 KVA) will be required as standby during power failure. Stack (Height 11 m) will be provided as per CPCB norms to the proposed DG Set.

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Existing unit has one coal based steam boiler and two coal based Thermic fluid heater. Additionally, four more coal based boiler of 7 TPH capacity and two Thermic fluid heater of 10,00,000 Kcal/ hr will be installed. Multi Cyclone Separator with Bag Filter with stack of 31 m height will be installed to control the Particulates Matter (PM).

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

8. The standard ToR for the project was granted on 28th October, 2018. Public hearing is exempted as the project site is located within the notified industrial area.

9. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 7th meeting held on 6-8 May, 2019, wherein the project proponent and their accredited consultant presented the EIA/EMP report. 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 the EAC, the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for **setting up synthetic organic chemicals (4300 TPM), dye intermediates (300 TPM) and pesticides technical (1500 TPM) by M/s Organic Industries Private Limited** located at Plot No.S-163, GIDC Industrial Estate, Dahej I, Taluka Vagra, District Bharuch (Gujarat), under the provisions of the EIA Notification, 2006, read with subsequent amendments therein, subject to compliance of the terms and conditions as environmental safeguards, as under:-

(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.

(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 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.

(e) National Emission Standards for Pesticides 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.

(f) Coal with sulphur content less than 0.5% or natural gas/lignite/bio-fuel/briquettes/bagasse/agro waste, shall be used as fuel in the boiler. LSHS/LDO/NG shall be used as fuel in place of furnace oil.



(g) No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having $LD_{50} < 100$ 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.

(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. Fugitive emissions shall be controlled at 99.5% with effective chillers.

(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 765 cum/day proposed to be met from GIDC 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. 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) 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.

(n) 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.

(o) 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.

(p) 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 & dust should be avoided.

(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 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.

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, 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 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 the Environment (Protection) Act, 1986 and the Rules made there under.

(vi) 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.

(vii) 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 shall be implemented.

(viii) 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.

(ix) A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

(x) 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.

(xi) 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.

(xii) The project proponent shall submit six monthly reports on the status of compliance of the Environmental Clearance conditions 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 website of the company.

(xiii) 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.

(xiv) The project proponent shall inform the public about receipt of the environmental clearance, 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, 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.

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3/7/2019

(S. K. Srivastava)
Scientist E

Copy to:-

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, **Gandhi Nagar** - 382 010 (Gujarat)
2. The Chief Conservator of Forests (Western Zone), Ministry of Environment & Forests, Regional Office, E-5, Arera Colony, Link Road -3, **Bhopal** - 462 016 (M P)
3. The Chairman, Central Pollution Control Board Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, **Delhi** -32
4. The Member Secretary, Gujarat State Pollution Control Board, Paryavaran Bhawan, Sector 10 A, **Gandhi Nagar**-382 043 (Gujarat)
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhawan, Jor bagh road, **New Delhi**
6. Guard File/Monitoring File/Record File

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3/7/2019

(S. K. Srivastava)
Scientist E