

## ENV/14/17/2411

November 24, 2017

## **Additional Director**

Ministry of Environment, Forests & Climate Change Kendriya Paryavaran Bhavan Link Road No.3 E-5, Ravi Shankar Nagar Bhopal-462016

Sub: Compliance report for April 2017 to September 2017

Ref: Environmental Clearance no. J-11011/300/2015-IA II (I) dated

March 28, 2017

Respected Sir

Enclosed please find the compliance report of Environmental Clearance for the period April 2017 to September 2017.

We hope you will find the same in order.

Thanking you,

Yours faithfully,

For Bayer Vapi Private Limited

(Formerly Bilag Industries Private Limited)

Bayer Vapi Private Limited (Formerly Bilag Industries Pvt. Ltd)

Registered Office & Factory Plot No. 306/3, II Phase, GIDC, Vapi – 396 195, Gujarat, India

Tel +91 260 2407123 Fax: +91 260 2432774 www.vapi.bayer.com www.bayer.in

Narendra K Shah

**Director & Site Manager** 

**Encl: As Stated** 

CC:

- 1. Mr S H Vegda, Environmental Engineer, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10 A Gandhinagar (GPCB ID:23225)
- 2. Zonal Officer, Central Pollution Control Board, Parivesh Bhawan, Opp-VMC ward office No.10, Subhanpura, Vadodara-390023.

		YER VAPI PVT. LT		/An-:117 C	ontom!	17\				
Sr.No.	EC No: J-11011/300/2015-IA.II (I) C	ompliance Statu	s report	_	mpliance S	_				
_	IC CONDITIONS				inpliance s	Status				
1	National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.  The emission standard for pesticides industry unit amended on June 13, 2011 and being followed. Emission from incinerator stacks are monitored by MOEF & CC an NABL accredited Laboratory on monthly basis. The monitored values of emission are a under:									
			1	Incinerator	Stack (April-1	17 to Sep	nt-17)			
					Paran	neters				
		Mor	F	PM HCI (mg/Nm3)	SO2 (mg/Nm3)	CI2 mg/Nm3	NOx (mg/Nm3)	Total Dioxins & Furans (ng TEQ/Nm3)		
		Lin	nit !	50 50	200	5	400	0.1		
		Apr-	-17 18	3.51 4.10	5.29	4.10	30.59	-	the tree	
		May	_	3.96	6.53	3.85	32.68			
		Jun-	-	4.25 2.56	5.22	2.49	28.47			
		Jul-	-17		Not in operati					
		Aug	-17		Not in operati	ion during Vi	risit		100	
		Sep	<b>⊢17</b> 36	6.61 4.84	19.60	4.70	40.63	0.011		
3	Two stage water scrubber followed by alkali scrubber shall be provided to process vent to control process emissions viz. HCl, SO2, Cl2, NOx, HBr. Acidic scrubber shall be provided to process vent to control process emissions viz. NH3 & HC. The scrubbed water should be sent to ETP for further treatment.  Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with online detection and alarm system to indicate higher than	Online pH mete 2. Scrubber wa plant. 3.Efficiency of maintaining cor interlock with p 4. Monitoring	r is prov ter is to scrubb acentrat ollution of proc	Limit  Apr-17  May-17  Jun-17  Jul-17  Aug-17  Sep-17  are provided ided in scrub-reated in every er is being ion of scrubb control equiples yent an	150 0.00 6.47 Not in Oper 0.00 Not in Oper 0.00 to contro bing systel aporation monitore eer solutior perent will d stack is	2.00 ration during 2.56 of process m. section and by the contract of the process	27.26 ing Visit 27.50 ess emiss n followe measurin online det ovided in r d out by	d by Effluence of outlet of tection alar new project MOEF &	ent treatme emission a m system a	
	permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards.			nission Fro	n Proces	s Ven		I		
	The system should be interlocked with the pollution control	110000		(April-17	Paramet					
			onth	SO2 (mg/Nm3)	HCI (mg/Nm	n3) (m	HBr ng/Nm3)			
	equipment so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.				of the same of the		5			
	beyond permissible limits, plant should be automatically		∟imit	40	20					
	beyond permissible limits, plant should be automatically	1	L <b>imit</b> Apr-17	10.32	20 21.36		-			
	beyond permissible limits, plant should be automatically	1					-			
	beyond permissible limits, plant should be automatically	I N	Apr-17	10.32	21.36					
	beyond permissible limits, plant should be automatically	1 / / N	Apr-17 May-17 Jun-17 Jul-17	10.32 22.69 19.77	21.36 8.39 9.50 8.83		-			
	beyond permissible limits, plant should be automatically	1 / A	Apr-17 May-17 Jun-17	10.32 22.69 19.77	21.36 8.39 9.50		3.81			

	ВА	YER VAPI PVT. LTD.
	EC No: J-11011/300/2015-IA.II (I) C	Compliance Status report (April,17 - September, 17)
Sr.No.	EC Conditions	Compliance Status
4	from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system	2. Double Mechanical seal/ magnetic seal less pumps are used for solvent 3. Installed 20 mbar nitrogen blanketing system 4. Vent of entire plant storage vessels, reactors, condensers and any other equipment are connected to a common header. 5. Work environment monitoring of opening areas is done regularly.
5	pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of	
6	Company shall take all the measures in order to protect the machineries and equipment for pesticide producing unit from ageing.	1.Regular maintenance of pesticide producing machineries and equipment is carried out. 2.Testing of all vessels/rectors are carried out by competent person at defined frequency. 3. Equipment design will be done accordingly.
7	as VOCs shall be installed at all important places/areas.	
8		1. Site has provided adequate stack height to control gaseous emission from DG.     2. The stipulated conditions will be designed and implemented during construction phase.     3. Adequate PPEs like ear plug/ ear muff is provided to employee at the entry point of DG house.
9	shall be ensured that solvent recovery should not be less than 95%.  2.Reactor and solvent handling pump shall have mechanical seals to prevent leakages.  3.The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery 4.Solvents shall be stored in a separate space specified with all safety measures.	2.Magnetic seal less/ double mechanical seal centrifugal pumps are provided for solvents handling.  3.To achieve desired recovery, efficient condensers has been installed after calculating required HTA.  4.Solvents are stored in storage tank as per PESO & site specific process &plant safety guideline. The solvent tanks equipped with breather valve, sprinkler system, nitrogen blanketing etc.  5. Proper earthing has been provided to all equipment and regular inspections are done to maintain continuity.  6.The hazardous area classification has been carried at site and equipment has been selected based on zone.

## BAYER VAPI PVT. LTD. EC No: J-11011/300/2015-IA.II (I) Compliance Status report (April, 17 - September, 17) **FC Conditions Compliance Status** Sr.No. Total water requirement from GIDC water supply shall not Last six months water consumptions are as under: exceed 2900 m3/day and prior permission should be Water Consumption (April-17 to Sept-17) obtained from the Competent authority. Average Consumption (In KL/Day) Month Limit 2964 Jun-17 1485 Aug-17 1255 1406 Industrial effluent generation shall not exceed 900 m3/day. The wastewater is segregated based on COD, TDS and BOD/COD ratio. The wastewater As proposed, wastewater will be segregated at source and generation philosophy is as under: treated based on its characteristics viz High COD & High TDS Characteristics Treatment Sr.No and Low COD & Low TDS. High COD & High TDS effluents 1 High COD High TDS and Volatile component Stripper followed b١ will be sent to MEE followed by RO while Low COD & Low evaporator and ETP TDS effluents will be treated in ETP followed by RO. The Low COD High TDS Evaporator followed by 2 treated wastewater shall be discharged to Common Effluent Treatment Plant (CETP) for final treatment. 3 High COD Low TDS Incinerator 4 Medium COD Medium TDS Fenton Low COD Low TDS and BOD/COD ratio>0.4 ETP 5 Final effluent discharge is being monitored daily for pH,COD,BOD,TSS,NH3-N.The online analyser provided at the discharge of treated effluent. The analyser are connected with GPCB/CPCB server for transferring online data. The auto shut off valve provided at the discharge of treated effluent which stops the discharge incase of excedence of parameters. Last six month effluent generation quantity and quality are as under: Effluent Data (April-17 to Sept-17) Average COD TSS NH3-N Month Discharged (mg/L) (ma/L) (mg/L) to CETP 250 100 50 Limit Apr-17 607 183 22 24 587 23 May-17 230 153 18 13 759 Jun-17 110 24 9 Jul-17 817 10 Aug-17 758 83 Sep-17 763 92 All results are within the prescribed limit. The treated effluent discharged to Common Effluent Treatment Plant (CETP) through GIDC underground drainage system operated by Vapi Green Enviro Private Limited (Formerly known as Vapi Waste and Effluent Management Company Limited) Process effluent/any wastewater shall not be allowed to mix Site has separate collection system for effluent and storm water. Construction of guard 12 with storm water. Storm water drain shall be passed pond having capacity 3000KL is in progress through guard pond. Hazardous chemicals shall be stored in tanks in tank farms, 1.All hazardous chemicals are stored in tanks. 13 drums, carboys etc. Flame arresters shall be provided on 2. Adequate number of flame arrestor provided. tank farm. Solvent transfer shall be by pumps. 3. Double mechanical seal/seal less pumps used for solvent transfer

	BA	YER VAPI PVT. LTD.				
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14		1.The site has valid authorisation for collection, storage and disposal of by-product falling under the the Hazardous Waste (Management, Handling and Trans- Boundar Movement) Rules, 2016 valid up to September 30,2021.				
15	storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-	<ul> <li>2.Follwing measures are taken by site for fire fighting in case of emergency:</li> <li>- Trained fire fighter available at site 24 X 7.</li> <li>- Fire Hydrant system.</li> <li>- Sprinkler System</li> </ul>				
16		1.ETP sludge, inorganic waste is sent to the authorised TSDF sites operated I Saurasthra Enviro Projects Pvt Ltd. (SEPPL); Vapi Green Enviro Limited (formerly Knov as Vapi waste & Effluent Mgt. Co. Ltd).  2. High calorific value waste is incinerated In in-house incineration facility as well sent to common Hazardous Waste Incineration Facilities (CHWIF) operated Saurasthra Enviro Projects Pvt Ltd. (SEPPL).				
17	guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended in	4. The transportation of hazardous chemicals as per Motor Vehicle Act shall				

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18	possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.	The following measures are taken for protection of fire hazard  1. Awareness of process and plant safety guideline among all employees.  2. Hazardous Area Classification and Risk Assessment (HACRA) for each plant.  3. Double earthing is provided in each tank.  4. Nitrogen blanketing is provided to all tanks of flammable solvents.  5. Spark arresters are provided to vehicles entering in the tank farm.  6. The flame proof electrical equipment are provided in the flammable area.  7. Full Fledged Emergency Control center available at site including centralized smoke detection system and 03 nos fire tenders  8. Fire Hydrant system  9. Trained fire fighters available at site 24 X 7 hrs.  10. Fixed fire protection system.
19	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	The site has full fledged Occupational Health Center with full time Factory Medical Officer (FMO). Occupational health related surveillance is carried out regularly. Periodical medical examinations are carried out for all employees and records are maintained in Form No.32 and pre-employee medical examination records are maintained in Form No.33.
20	and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB	The company has developed green area inside the plant premises. The company has developed green area in 5.2 hectares land. The company has also developed green area adjacent to boundary wall. The green belt development work in progress in newly purchased land having area 5.4 ha. Every year plantation is carried out to increase the greenbelt area.

		YER VAPI PVT. LTD.					
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21							3), para (i)(b) of EIA
22	All the recommendations made in the risk assessment report should be satisfactorily implemented.	Shall be complied					
23		The unit shall ensur for amendment in E					
24	Continuous online (24 x 7) monitoring to be installed for flow measurement and measurement of pollutants within the treatment unit. Data to be uploaded on company's website and provided to respective RO of MOEF&CC, CPCB and SPCB.	Online monitoring station (24 x 7) is installed for monitoring flow, pH,TOC and TSS for treated effluent discharged to CETP.The online connectivity provided for measured parameters with GPCB & CPCB server.					
. GENER	AL CONDITIONS						
1	The project authorities shall strictly adhere to the stipulations made by the state Pollution Control Board(SPCB), State Government and any other statutory authority.	The company follow	vs all stipulation	ons made b	y State Poll	ution Contro	ol Board (SPCB).
2	No further expansion or modifications in the plant shall be carried without prior approval of the Ministry of Environment and Forest. In case of deviations alterations in the project proposal from those submitted to this Ministry of clearance, a fresh reference shall be made to Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.						
3	The locations of ambient air quality monitoring stations shall be decided in consultation with the SPCB and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentration are anticipated.	locations are mark based on prominer	ed in Site Lave nt wind direction. Th	yout. The a ion. I.e. one ie same w	imbient air e is in upwii	quality mo	nitoring stations and remaining fou
4	The national Ambient Air Quality Emission standards issued by Ministry vide G.S.R NO. 826 (E) dated 16th November,2009 shall be followed.	The ambient air quevery month from six months are as u	MOEF&CC an	ing are carr d NABL acc	ried out at redited lab	05 locations oratory. Mo	within the premisonitored values of la
		Ambient Air Quality Monitoring (April-17 to Sept-17) Parameters					
		Month	PM10	PM2.5	Sulphur Dioxide (SO2)	Oxides of Nitrogen	
		Unit	μg/m3	μg/m3	μg/m3	μg/m3	
		LIMIT Apr-17		80 40.47	23.02	80 34.43	
		May-17	79.24	45.10	26.44	35.28	
		Jun-17 Jul-17	Not Mor 78.08	nitored because 44.52	of heavy rain of 26.35	during visit 38.39	
		Aug-17		38.62	22.54	37.62	

	ВА	YER VAPI PVT.	LTD.					
	EC No: J-11011/300/2015-IA.II (I) C	ompliance Sta	tus rep	ort (April,17 - Sept	ember, 17	')		
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5	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			Noise Monitoring ( Ap				
	Environment (Protection) Act,1986 Rules,1989 viz. 75 dBA(		Sr.No	Location	Day Time (dBA)	Night Time (dBA)		
	Day time) and 70 dBA (night time)			Limit	75 dBA	70 dBA		
			1	Near Main Gate	59.77	55.88		
			2	Near admin Building	60.65	56.75		
			3	Near EFSO Plant	67.92	62.57		
			4	Near ALCO Plant	67.77	66.50	1	
	the second of the principal of the second		5	Near Incinerator-2	68.30	62.78		
			6	Near Incinerator-3	69.73	65.03		
			7	Near Scrap Yard	64.68	58.57		
			8	Near HICO-I	68.95	65.80		
			9	Near CYFO Plant	63.52	52.73	1	
			10	Near Gate-II	61.78	57.22		
			11	Near Engineering Part Store	62.16	57.02		
			12	Near ETP	68.36	61.80		
7	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 al employees on handling of chemicals shall be imparted.	of the above MOEF & CC t April 13,2017 Standard op-available in of for employed Periodical maintained maintained in We have coeffect of Tot of Biomedic transmission	factors to remood.  erating each places. edical in Form rounducte bacco or cal was a of blacer Hype	Procedures are preamt of company procedures are preamt of company procedures and prescription of the procedures and prescription of the procedures are pr	arried out epared for emises. Tr carried ou e-employe nal activit onsoon Di giene carr ens & me	handling of a medical ending session to for all endical endicates endicated endicates endicated endicates endicated endicates endicated endica	on is carried out regular	
8	The company shall also comply with all the environments protection measures and safeguards proposed in the project report submitted to the Ministry. All the recommendations made in the EIA/EMP in respect convironmental management, risk mitigation measures and public hearing relating to the the project shall be implemented.	e e of d	nplied.					

		YER VAPI PVT. LTD. ompliance Status report (April,17 - September, 17)
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9	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall undertaken by involving local villages and administration.	Following CSR activities undertake by Bayer Vapi for improving the Socio-Economic
		The state of the s
10	The company shall undertake eco-development measures including community welfare measures in the project area for the overall improvement of the environment.	Shall be complied.
11	A separate Environmental Management cell equipped with full fledged laboratory facilities shall be set up to carry out Environmental Management and Monitoring functions.	Site has separate environment cell equipped with full fledged laboratory facilities to carry environment management & monitoring functions.
12	per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the state	
13	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.	

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Sr.No.	EC Conditions	Compliance Status						
14	Environmental clearance conditions including results of monitored data ( both in hard copies as well as by e-mail)	Last half yearly EC compliance report for the period October-16 to March-17 submitted to Regional office of MOEF & CC, Bhopal, Respective zonal office of CPCB,Vadodara and GPCB.  A copy of Environmental Clearance and six monthly compliance status of EC report is uploaded on company's website.						
15	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	A copy of Environmental statement and compliance report is uploaded on company's website.  The hard copy of EC compliance report submitted to the Bhopal Regional Offices of						
16	project has been accorded environmental clearance by the Ministry and copies of clearance letter are available with	The copies of advertisement submitted Regional office of MOEF&CC, Bhopal vide letter No.ENV/14/17/0704 dated April 07, 2017.						
17	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project							