

ENV/14/17/3005

May 30, 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 October 2016 to March 2017

Ref: Environmental Clearance no. J-11011/526/2008-IA II (I) dated

September 22, 2008

Respected Sir

Enclosed please find the compliance report of Environmental Clearance for the period October 2016 to March 2017.

We have received Environment Clearance no. J-11011/300/2015-IA II (I) dated March 28, 2017 foe the expansion of pesticides & Pesticides intermediates in existing plot.

Since, we have already implemented the project under previous EC no. J-11011/526/2008-IA II (I) and all condition of this EC already complied; we shall submit compliance to new EC GIDC, Vapi - 396 195, conditions only from November 2017 onward.

We hope you will find the same in order.

Thanking you,

Yours faithfully,

For Bayer Vapi Private Limited

(Formerly Bilag Industries Private Limited)

Narendra K Shah

Director & Site Manager

Encl: As Stated

CC:

- 1. Mrs D P Shah, Environmental Engineer, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10 A Gandhinagar
- 2. Zonal Officer. CPCB

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

Registered Office & Factory Plot No. 306/3, II Phase, Gujarat, India

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.No.	EC No. J-11011/526/2008-IA	in (i) Compliance					
	EC Conditions		Cor	npliance Stat	us		
PECI	FIC CONDITIONS						
1	The existing effluent treatment plant shall be expanded to meet the additional load. The process effluent after primary, secondary and tertiary treatment shall conform to be industry specific discharge standard notified under the	2010. The effluent treatment. The average last six month (Oct	treatment pla rage analysis	nt consist of results of sar	primary, secon ples collecte	ondary and ter	
	Environment (Protection) Act,1986. The treated		Eff	Effluent Data			
	effluent shall be conveyed to GIDC drainage system leading to CETP of M/S Vapi Waste and Effluent Management CO Ltd.	Month	COE (mg/l		ss g/L)	NH3-N (mg/L)	
		Limit	100		300	50	
		Oct-16	142		29	8	
		Nov-16	131		25	8	
		Dec-16 Jan-17	100		27	14	
		Feb-17	134		23	19	
		Mar-17	140		44	15	
	conform to the standard prescribed by the concerned authorities from time to time. At no time, the emission levels shall go beyond the		2017) are as Monitoring neters	lonitoring			
	stipulated standard. In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restarted unit the			1 arai			
	the respective unit shall not be restarted unit the	Month	PM10	PM2.5	Sulphur Dioxide (SO2)	Oxides of Nitrogen	
	the respective unit shall not be restarted unit the control measures are rectified to achieve the	Month	PM10 μg/m3	PM2.5 μg/m3	Dioxide		
	the respective unit shall not be restarted unit the	Month Unit LIMIT	μg/m3 100	μg/m3 80	Dioxide (SO2) µg/m3 80	Nitrogen μg/m3 80	
	the respective unit shall not be restarted unit the control measures are rectified to achieve the	Unit LIMIT Oct-16	μg/m3 100 76.81	μg/m3 80 39.88	Dioxide (SO2) µg/m3 80 18.28	μg/m3 80 33.31	
	the respective unit shall not be restarted unit the control measures are rectified to achieve the	Unit LIMIT Oct-16 Nov-16	μg/m3 100 76.81 84.10	μg/m3 80 39.88 43.70	Dioxide (SO2) μg/m3 80 18.28 20.93	μg/m3 80 33.31 36.03	
	the respective unit shall not be restarted unit the control measures are rectified to achieve the	Unit LIMIT Oct-16	μg/m3 100 76.81	μg/m3 80 39.88	Dioxide (SO2) µg/m3 80 18.28	μg/m3 80 33.31	
	the respective unit shall not be restarted unit the control measures are rectified to achieve the	Unit LIMIT Oct-16 Nov-16 Dec-16	μg/m3 100 76.81 84.10 81.38	µg/m3 80 39.88 43.70 41.38	Dioxide (SO2) μg/m3 80 18.28 20.93 20.28	μg/m3 80 33.31 36.03 35.73	
	the respective unit shall not be restarted unit the control measures are rectified to achieve the	Unit LIMIT Oct-16 Nov-16 Dec-16 Jan-17	μg/m3 100 76.81 84.10 81.38 77.47	μg/m3 80 39.88 43.70 41.38 41.16	Dioxide (SO2) μg/m3 80 18.28 20.93 20.28 18.76	Nitrogen μg/m3 80 33.31 36.03 35.73 34.27	
	the respective unit shall not be restarted unit the control measures are rectified to achieve the	Unit LIMIT Oct-16 Nov-16 Dec-16 Jan-17 Feb-17 Mar-17	μg/m3 100 76.81 84.10 81.38 77.47 77.79 74.32 es are below the complied.	μg/m3 80 39.88 43.70 41.38 41.16 41.56 40.06	Dioxide (SO2) μg/m3 80 18.28 20.93 20.28 18.76 22.83 22.95	μg/m3 80 33.31 36.03 35.73 34.27 35.34 33.96	

	EC No. J-11011/526/2008-IA	BAYER VA			t (Oct,16 -	Mar,17)		
Sr.No.	EC Conditions				mpliance S			
4	HCI, NH3 and CI2, scrubbers shall be installed. en The incinerator unit-I shall be replaced by you capacity incinerator (7.00 MKcal/hr.). To quench in the emissions from the incinerator, scrubber in	Two stage scrubbers are provided with scrubbing media to control process emissions. The Incinerator unit 1 is replaced with 6.5 MKcal/hr Incinerator in the year 2013 with waste waste heat recovery boiler. The total incineration capacity including unit II at site is 8.68 Mkca/hr .Two stage scrubbers are also provided in incinerator with online pH meter and online analyzers provided in incinerator stack to control emissions. Last Six months results (Oct,16 - Mar,17) are as under:						
			Parameters					
		Month	PM (mg/Nm3	HCI (mg/Nm3)	SO2 (mg/Nm3)	CI2 mg/Nm3	NOx (mg/Nm3)	Total Dioxins & Furans (ng TEQ/Nm3)
		Limit	50	50	200	5	400	0.1
		Oct-16	25.72	4.49	14.48	4.37	29.32	0.03
		Nov-16	21.20	5.85	16.37	5.69	26.50	-
		Dec-16			Plant not in op	eration during	visit	
		Jan-17	25.07	4.35	13.45	4.23	31.08	-
		Feb-17 24.5		2.13	18.68	2.07	38.01	-
		Mar-17	21.41	3.50	6.66	3.40	34.66	0.02
			ı	Emission	From P	rocess	Vent	
					Pa	ramete	rs	
		Mon		SO2 ig/Nm3)	HCI (mg/Nn		CI2 J/Nm3)	HBr (mg/Nm3)
		Lim	it	40	20		5	5
		Oct-	16	20.17	8.83		3.17	1.89
		Nov-	16	20.17	9.51		4.16	2.04
		Dec-	16	20.17	7.29		4.16	2.04
		Jan-	17	20.29 8.39				- 1
	7-2 4 2	Feb-	17	20.97	20.97 9.19		-	-
		Mar-	17	17.54	10.14			1.72
5	environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by	The cond The follow 1. Close of 2. Mecha y 3. 20 mba	lition is co ving meas charging sy nical seal/s ar nitrogen	ures are tak ystem seal less pur blanketing s	en to contro mps for solv system	ol fugitive e		and any othe
	GPCB.	equipmer Also work for fugitive	nt are conr	ected to a conitoring is con.	ommon hea	ader.		posed by GPCE

		BAYER VAPI PVT LTD. II (I) Compliance Status report (Oct,16 - Mar,17)
Sr.No.	EC Conditions	Compliance Status
6	per the Hazardous waste (management and Handling) rules, 2003. Authorization from the	The unit is a member of Common Treatment, Storage and Disposal Facilities operated by Vapi Green Enviro Limited and Saurashtra Enviro Projects Private Limited. The required statutory documents as per Hazardous Waste Management and Handling Rules are maintained by unit. The condition is complied.
7	pressure to avoid any leakages. Breathers, N2 blanketing and condensers will be provided for all the storage tanks. Closed handling systems for chemicals and solvents will be provided. Magnetic seals will be provided for pumps/agitators for reactors for reduction of	 All hazardous chemicals/ raw materials are being handled in closed system. Magnetic seal less/ double mechanical seal centrifugal pumps are provided for solvents to control fugitive emission. Secondary condensers are used in case of volatile solvents where chilled water or chilled brine is used as coolant. Solvent traps are provided in plants. The condition is complied.
8	system. All the pumps and other equipment's where there is a likelihood of HC leakages shall be provided with leak detection and	Bromine detectors are installed in storage area of bromine. All solvent handling pumps provided with mechanical seals. Regular maintenance of valves, pumps and other equipment is carried out. The condition is complied.
9	During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic waste and storm drains.	All hazardous chemicals are transferred in closed system. We have separate storm water drain and effluent line. The unit has well defined leak and spill control procedure incase of spillage/ leakage. The condition is complied.
10	The company shall make adequate arrangement for control of Odour nuisance from the plant premises.	Following precautions are taken to control Odour at site. 1. Majority of operations are in close system and under 20 mbar nitrogen blanketing system. 2. Vents of entire plant storage vessels, reactors, condensers and other equipment are connected to common header maintaining 20 mbar nitrogen pressure. 3. Vent gas collection, transportation and treatment system is provided. The condition is complied.

BAYER VAPI PVT LTD. EC No. J-11011/526/2008-IA II (I) Compliance Status report (Oct,16 - Mar,17)			
Sr.No.	EC Conditions	Compliance Status	
11	in the budget of the project for implementation of the above suggested environmental safeguards.	Cost incurred between the year 2010-2015 was 168 Crores for upgrading Environmental Management System including cost mentioned in EMP.The budget for operation of Environmental Management System for the year 2016 is 63.84 crores. Adequate provision are always available in budget for Environmental Management system which is not diverted for any other purpose. The condition is complied.	
12	Occupational health surveillance of the works shall be done on a regular basis and record maintained as per the Factories Act.	The site has full flegged 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.	
		The condition is complied.	
13	The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.	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 Flegged 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.	
		The condition is complied.	

	EC No. J-11011/526/2008-IA	11 (1)	Com	pliance Status re	eport (Oct,	16 - Mar,17)		
.No.	EC Conditions				Complian	nce Status		
14	Training shall be imparted to all employees on safety and health aspects of chemical handling. As informed to ministry, OHSAS 18001 shall be continued. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular to		Health SAS 18 loyee icals e	aspect. i.e. fork 8001 etc. Period and records are examination record	lift safety, ical medical maintain ds are main	electrical s al examinati ed in Form ntained in Fo	afety, permi ions are ca n No.32 ar orm No.33.	it systems, BB arried out for nd pre-employ The summary
	basis. Training to all employees on handling of chemical shall be imparted.	Tr	raining	Programs No.o	f Sessions	Company	Contract	Total
			Int	ernal	283	2291	4288	6579
			Ex	ternal	6	180	15	195
		The	condi	tion is complied				
		The	cond	ition is complied				
16	The company shall strictly follow all the	The	pointv	vise compliance o	f CREP are	e as under:		
16	recommendations mentioned in the charter on Corporate Responsibility for environmental protection.(CREP)		Sr. No 1	CREP Point Segregation waste streams:	treated ba	Bayer Co rewater has sed on chara ewater pretre	cteristics of	
	protection.(CREP)				of Evapora high TDS s streams h separate lo	ators for trea streams, Fent laving low bid low boiling lique water.	ton oxidation odegradability	h COD and plant to treat
	protection.(CREP)		2	Detoxification and treatment of high COD waste streams:	of Evapora high TDS s streams h separate lo the wastev The untrea being treat followed by	streams, Fent laving low bid low boiling liquester. lated cyanide ted with the he y Evaporator.	ton oxidation odegradability id organic coes containing telp of hydrog	n COD and plant to treat r, stripper to mponents in streams is gen peroxide
	protection.(CREP)		3	and treatment of high COD wast streams: Improvement in solvent recovery	of Evapora high TDS a streams his separate is the waste. The untreast of being treast of common to the common to t	streams, Fentiaving low bid by boiling liquitater. It is a stated cyanide ted with the hy Evaporator. In easures talkition of process in utility service reduction of Agrin settling time on of solvent wenting sy	ton oxidation odegradability id organic content of the containing stell of hydrogone content of the content of	n COD and plant to treat r, stripper to mponents in streams is gen peroxide ove solvent spiral Heat ps
17		The	3 e conc	and treatment of high COD waste streams:	of Evapora high TDS streams high TDS streams his separate let the waster. The untress of being treated followed by the waster of being treated followed by the waster of t	streams, Fentiaving low bid ow boiling liquicated. Seal seal/seal invited by Evaporator. In easures table tition of process in utility service reduction of Aquin settling time on of solvent waventing systems.	ton oxidation odegradability id organic containing telp of hydrogener to improparameters and the stem with the vacuum pumeting system in less pumps	n COD and plant to treat r, stripper to mponents in streams is gen peroxide ove solvent spiral Heat ps place. are used for

		BAYER VAPI PVT LTD.
Sr.No.	EC No. J-11011/526/2008-IA	II (I) Compliance Status report (Oct,16 - Mar,17)
01.140.	EC Conditions	Compliance Status
18	harvesting measures to recharge the ground water as well as reduced consumption of water.	The unit realizes the importance of rainwater harvesting however rain water harvesting is not taken up in plant area. This is because if some hazardous dust (in spite of all possible precautions) gets mixed with rainwater and enter the ground water the ground water will get contaminated. The site does not withdraw ground water. The water table in vapi region is quite high due to average rainfall 2500 mm/year. In view of the above factors, the site has not carried out rain water harvesting. If still deemed necessary, the site will make provision at alternate place. The condition is complied.
	AL CONDITIONS	
19	the stipulations of the SPCB/state government or any statutory body.	The company is/shall following all the requirements/guideline issued by SPCB such as 1. Submission of monthly patrak on GPCB web site. 2. Monthly monitoring of various parameters of air, water and hazardous waste. 3. Upgraded Environmental Management System to achieve COD < 250 mg/L. 4. Installed online monitoring analyzers for specified parameters. The condition is complied.
20	plant shall be carried out without prior approval	
21	The project authorities shall comply with rules and regulations under manufacture, Storage and import of hazardous Chemicals Rules,1989 as amended. Authorization from SPCB shall be obtained for collection, treatment, storage and disposal of Hazardous waste.	 Preparation of On Site Emergency Action Plan: On Site Emergency Action Plan in place to handle any emergency. Safety Audit: The safety audit carried out by competent person every year. Mock Drill: The mock drill is carried out regularly. The unit is obtained authorization from SPCB valid up to September 30, 2021. The condition is complied.
22	set up in the downwind direction as well as where maximum ground level concentration are anticipated in consultation with the State Pollution control Board.	05 nos ambient air quality monitoring locations are set up within plant premises based on previous Environmental Impact Assessment Report. The ambient air quality monitoring are carried out at 05 locations within the premises every month from MOEF&CC and NABL accredited laboratory. The condition is complied.
23	appropriate height as per the Central Pollution	The adequate stack height are provided for all scrubbers, incinerators and boilers as per CPCB guideline. The stack height of boilers and incinerators are 30 m and 40 M respectively. The scrubber water is sent to wastewater pre-Treatment plant for further treatment. The condition is complied.

	EC No. J-11011/526/2008-IA	BAYER VA			- Mar,17)		
Sr.No.	EC Conditions			Compliance	Status		
24	Minimization Measures: - Metering of quantities of active ingredients to minimize waste. -Reuse of by-products from the process as raw materials or raw material substitutes in other processes. -Maximizing recoveries. -Use of automated material transfer system to minimize spillage -Use of "Closed Feed" system into batch reactors.	2.The by products generated mainly dilute HCl and Sodium Bisulphite used a raw materials in other products. 901.747 MT HCl used in last six month (from Oct 2016- March 2017) for CMAC manufacturing and 60.00 MT Sodiur Bisulphite used in manufacturing of Betacyfluthrin. 3.The average solvents recovery are more than 95 %. 4. All solid finished goods are packed in bags through automated packin system and liquid finished goods are packed in drums 5. Majority of raw materials are charged through close feeding system.					ndicator used as th (from Sodium packing
25	The project authorities must strictly comply with the rules and regulations with regards to handling and disposal of hazardous waste in accordance with the Hazardous Waste (Management and Handling) Rules, 2003. Authorization from the SPCB shall be obtained for collections/treatment/storage/disposal of hazardous waste.	th The unit is member of Common Treatment, Storage and Disposal facilities operated by Vapi Green Enviro Limited and Saurashtra Enviro Projects Private in Limited. The unit is maintained required statutory documents as per Hazardous Waste Management and Handling Rules. The condition is complied.				Private zardous	
26	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB) by providing noise control measures including acoustic hoods, silencers, enclosures	approved permissib	by State	e Pollution Control Be	oard (SPCB). as under:	. All results are	ird party e within
	etc. on all sources of the noise generation. The		Sr.No	Location	Day Time	Night Time	
	ambient noise level shall conform to the standard prescribed under Environment		Sr.No	Limit	(dBA) 75 dBA	(dBA) 70 dBA	
	(Protection) Act 1986 Rules,1989 viz. 75 dB	1	1	Near Main Gate	58.30	53.58	
	(day time) and 70 dB (night time).		2	Near Admin Building	57.85	57.10	
			3	Near EFSO Plant	61.23	57.53	
			4	Near ETP	61.35	56.67	
	1.032		5	Incinerator - 2	63.10	56,63	1
			6	ALCO Plant	61.17	56.82	
			7	Incinerator - 3	64.43	59.72	
			8	Near scrap Yard	64.33	58.72	
			9	HICO - 1	67.28	60.57	
			10	CYFO	60.70	56.13	
			11	Near Gate No. 2	64.87	58.70	
			12	Near Engg. Store	59.18	56.88	
				complied.		1	J
27	A separate environmental management ce equipped with full fledged laboratory facilities shall be up to carry out the environmental management and monitoring functions.	full fledg site to m The cor	ed Enviro ionitor day idition is	nmental laboratory alor to day activities. complied.	ng with central	laboratory is av	ailable a
28	L Wolfe has been and treatment events				ntation is company avilable reen bel		

		BAYER VAPI PVT LTD. A II (I) Compliance Status report (Oct,16 - Mar,17)
Sr.No.	EC Conditions	Compliance Status
29	The implementation of the project vis-à-vis environmental action plans shall be monitored by Ministry's Regional office/SPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies.	The condition is complied.
30		
31	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 concerned authorities and the date of start of the project.	