

ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

For

OCTOBER 2020 TO MARCH 2021

By:

GULBRANDSEN CHEMICALS PVT. LTD

On coastal Highway, AT & PO: Mujpur Tal: Padra Dist.: Vadodara Gujarat 391440

Submitted to



Ministry of Environment, Forest & Climate Change (MoEFCC)



Gujarat Pollution Control Board

HALF YEARLY ENVIRONMENT CLEARANCE COMPLIANCE REPORT

F.NO. J-11011/490/2011-IA-II (I) dated 23.01.2014

FOR PERIOD FROM OCTOBER 2020 TO MARCH 2021

Sr. No	Con	ditions				Com	pliance Status			
2	examprojobta Min (I) Che expa 1, 4! 266a 200, Teh proj area expa invo Rese Eco 10 l the cror and envi lakh activ	Ministry of Environment of the applect. It is noted to sined an environment on 23.11.201 cmicals Private I and their Chemicals Proposed Expansion of 2.73 ha. To ansion will be 7 ansion wil	chat the mental one. J-110 10. M/ Limited cal Unit at Sy. No 14, 296 to ighways of Vadoon will be cotal play 7.88 ha. Instance Instance in toward of 2013	for the existing clearance of the existing clearance of the existing clearance of the existing the existing existing the e	ne above plant had from this 2008-IA.II lbrandsen oposed to 1,980.04 to 205, 265b, 323, 326, a Mujpur, jarat. The out in an after the set land is Biosphere canctuary, and within tal cost of a and Rs.2 upital cost wards the Rs. 23.20 kg related	Till prod for the Prod ANN Environment total We cTC in pl No I km r	date expansion duction against the he proposed project duction data are NEXURE: 1 ronment Clearance plots received on plot area is 104364 areceived CTE no. 90 no. AW-104908 datot area Ecologically Sensitivadius of the project 12.15 lakh spentaber 20 to March 21.	approval enclose amendm dated 27 m². 22482 dat ated 24.12 ve Area is site.	ed herewith ent for addit 1.03.2018. Noted 15.05.201 for incorporation of the second s	of the astion of ow the as and crease thin 10
	pro _]	posed products. Name of Product	Existing	Proposed	Total after	Sr. No	Name of Product	Proposed	Expansion implemented	
			MTDA	MTDA	expansion			MTPA	MTPA	
			MTPA	MTPA	MTPA	1	Organometallic compounds	32700	27000	
	1	Organometallic compounds	21836.04	32700	54536.04	2	Polyethylene wax	20000	20000	
	2	Polyethylene wax	0.0	20000	20000.0	3	R&D Products	25.0	25.0	
	3	R&D Products Organometallic Compounds/Organ ic/inorganic chemicals	0.0	25.0	25.00		Organometallic Compounds/Organic/ inorganic chemicals	40510	40510	
	4	Aluminum Chloride (25%) (AICI3)	3144	48510	51654	4	Aluminum Chloride (25%) (AICI3)	48510	48510	
	5	Ethyl Iodide (C2H5I)	0.0	19470	19470	5	Ethyl Iodide (C2H5I) Total	19470 120705	95535	
		Total	24980.04	120705	145685.04		Total	120700	70000	

Sr. No.	Conditions	Compliance Status
4	The raw materials required are Aluminium, Ethylene, Hydrogen, Hexane, Caustic, CO2, HCL, AlCl3 and ethanol etc.	Complied Raw material consumption data are enclosed herewith as ANNEXURE : 2.
	The power requirement for the proposed expansion is 2100 KVA, which will be met from the Madhya Gujarat Vij Company Limited.	We are utilizing only 800 KVA of power out of the approved 2100 KVA power requirement.
5	It is noted that the adequate stack height will be provided for wider dispersion of emissions.	Complied Adequate stack height has been provided for wider dispersion of stack emissions.
	The raw materials will be stored in the dedicated sheds to avoid fugitive emissions.	Complied Raw materials stored in pucca warehouses/closed containers to control fugitive emissions.
	The Ventury caustic scrubbing system will be provided to collect the un-reacted fumes of anhydrous aluminium chloride.	Complied Since September 2012, we have stopped Anhydrous Aluminium Chloride plant and therefore now only Tin Tetrachloride plant is connected with this scrubber.
	Chlorine scrubbing system will be provided to handle the emergency situation of a leakage in chlorine cylinder.	Complied An emergency chlorine scrubber along with proper suction arrangement has already been provided to handle emergency situations in case of leakage.
6	The water requirement after the proposed expansion is 459.85 m3/day (Existing: 358.03 m3/day; Expansion: 101.82 m3/day) which will be sourced from existing bore well and purchased RO water. The existing industrial and domestic wastewater generation is 54.8 m3/day and 10.17 m3/day respectively.	Total water consumption is 189.0 m3/day (average) against approved quantity of water consumption 459.85 m3/day. Water consumption details are enclosed herewith as ANNEXURE: 3
	The wastewater generation from the proposed expansion is 4.5 m3/day. Out of 4.5 m3/day, the domestic effluent is 2 m3/day. This effluent will be treated in STP and reused for gardening purposes.	Complied Total Industrial waste water generation Average 38.5 m³/day (≤ 52.05 m3/day as per latest consent) & Domestic waste water generation
	The remaining wastewater (boiler – 0.5 m3/day and cooling – 2 m3/day) will be recycled and reused for domestic purposes. There will be no process wastewater generation due the proposed expansion.	Average 11.98 m³/day (≤ 12.17 m3/day as per latest consent) Details of wastewater are enclosed herewith as ANNEXURE :4
7	It is noted that used oil will be sent to the registered recyclers. The other solid waste such as waste/residue containing oil, distillation residue, waste refractory, ETP sludge will be sent to TSDF at Nandesari and	 Complied Used oil is sent to the registered recycler M/s Suraj Barrel which is a CPCB authorized recycler. Company has taken membership of following landfill sites for disposal of landfill waste: NECL, Nandesari BEIL, Ankleshwar DIPL, Kutch

Sr. No	Conditions	Compliance Status
	Ankleshwar, operated by Nandesari Environment Control Limited (NECL) and Bharuch Enviro Infrastructure Limited (BEIL) respectively. M/s. Gulbrandsen Chemicals Private Limited is a member to the said TSDFs.	 Company has taken membership of following incineration & Co Processing site: RSPL, Panoli BEIL, Ankleshwar SEPPL, Kutch Company has also taken membership of NECL
8	All Synthetic Organic Chemical Industries located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.	for disposal of Incineration waste. Noted
9	The proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 6th meeting held during 5-7th March 2013. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public Hearing / Public Consultation meeting was conducted by the Gujarat Pollution Control Board on 16.8.2012.	Noted
10	Based on the information submitted by you, Presentation made by you and your consultant, M/s. EQMS India Private Limited, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September 2006 subject to strict compliance of the following Specific and General conditions:	Noted

Sr. No	Conditions	Compliance Status
A.	SPECIFIC CONDITIONS	
i.	Ambient air quality data should be collected as per NAAQS standards notified by the Ministry on 18th November, 2009.	Complied AAQ data are collected as per NAAQ standards notified by the Ministry on 18 th November 2009.
		AAQ Monitoring data & photographs of Ambient Air Quality monitoring station are enclosed herewith as ANNEXURE: 5
ii.	Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.	Complied Monitoring of Volatile Organic Compounds (VOC) is carried out on a regular basis in Ambient Air monitoring as well as workplace monitoring.
		Monitoring results are enclosed herewith as ANNEXURE: 5
iii.	Stack of adequate height should be installed to oil fired boiler to disperse waste gases into atmosphere.	Complied. Adequate height is provided to all stacks as per CPCB / GPCB Standard.
iv	Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by SPCB.	Complied. We have implemented the LDAR technique to monitor fugitive emission. Based on findings of LDAR we implemented measures to reduce the fugitive emission.
V	Ventury Caustic scrubber should be provided to control process emissions.	Complied. All plant process emissions are connected to Venturi Caustic scrubber and/or packed column scrubber. An emergency chlorine scrubber along with proper suction arrangement has already been provided to handle emergency situations in case of leakage from chlorine cylinder. Photographs of the same are available in ANNEXURE: 10.
		Stack monitoring details are enclosed herewith as ANNEXURE: 6
vi	Total water requirement after the proposed expansion should not exceed 459.85 m3/day (Existing: 358.03 m3/day; Expansion: 101.82 m3/day) and prior permission should be obtained from the concerned Authority.	Complied. Company has obtained NOC from the Central Ground Water Authority for extraction of ground water for 275 m³/day. NOC No: CGWA/NOC/INDREN/1/2019/5576 dated 05 th September 2019 valid up to 11.06.2021. Total water consumption is 189.0 m3/day (average) against permission of 459.85 m3/day.
vii	No process wastewater will be generated. The boiler and cooling tower blowdown water will be recycled and reused for domestic purpose. Water quality of treated	Complied. There is no additional industrial effluent discharge due to expansion.

	effluent shall meet the norms prescribed by CPCB/SPCB.	All process water is treated in ETP and treated effluent has been discharged to EICL, CETP after conforming to inlet norms of CETP. Waste water disposal quantity and analysis data are enclosed herewith as ANNEXURE: 4
viii	The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.	Complied Company has taken Authorization vide CC&A AWH 97971 dated 21/12/2018, valid up to 30/12/2023 for collection, storage and disposal of hazardous waste. Adequate fire fighting systems like fire buckets, fire extinguishers, etc. provided near Hazardous waste storage areas. Photographs of the same are available in ANNEXURE: 10.
ix	Solvent management should be as follows: Reactor should be connected to a chilled brine condenser system.	Complied. Reactors are connected with a chilled water condenser system as per requirement.
	Reactor and solvent handling pump should have mechanical seals to prevent leakages.	Complied Mechanical seal has been provided to the reactor and solvent handling pump to prevent leakage. Most of the solvent handling pumps are magnetic drive pumps.
	The condensers should be provided with sufficient Heat Transfer Area (HTA) and residence time so as to achieve more than 95% recovery.	Complied
	Solvents should be stored in a separate space specified with all safety measures.	Complied Solvents are stored in u/g storage tanks. These tanks are approved by PESO.
	Proper earthing should be provided in all the electrical equipments wherever solvent handling is done.	Complied Proper earthing has been provided at all electrical equipment wherever solvent handling is done. Also solvent carrying piping is connected with earthing.
	Entire plant where solvents are used should be flame proof. The solvent storage tanks should be provided with a breather valve to prevent losses.	Complied Flame proof fittings have been installed as per Hazardous Area Classification in the plant.
		Photographs of the same are available in ANNEXURE: 10 .
х	As proposed, green belt should be developed in at least 33 % of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the	Complied Green belt is developed as per CPCB guidelines.
	DFO.	Photographs of the same are available in ANNEXURE: 10 .

xi	Occupational health surveillance of the	Complied.
	workers should be done on a regular basis	Health check up of all employees is carried out at
	and records maintained as per the Factories	regular intervals.
	Act.	
xii	All the commitments made to the public	Complied.
	during the Public Hearing/Public	
	Consultation meeting held on 16.8.2012 shall	Company took all necessary actions to comply with
	be satisfactorily implemented and a separate	the commitment made in the Public Hearing/Public
	budget for implementing the same shall be	Consultation meeting held on 16.08.2012 and
	allocated and information submitted to the	compliance report submitted to the Ministry's
	Ministry's Regional Office at Bhopal.	Regional Office at Bhopal.
xiii	At least 5 % of the total cost of the project	Complied.
	shall be earmarked towards the Enterprise	The company undertakes various CSR activities for
	Social Commitment based on Public Hearing	nearby villages on a regular basis.
	Issues and item-wise details along with time	
	bound action plan shall be prepared and	
	submitted to the Ministry's Regional Office	Details of CSR activities are enclosed as
	at Bhopal. Implementation of such program	ANNEXURE: 7
	shall be ensured accordingly in a time bound	
	manner.	Photographs of the same are available in
		ANNEXURE: 10.
xiv	The company shall provide housing for	Contract persons were from nearby villages; so
	construction labour within the site with all	arrangement of housing facilities for them was not
	necessary infrastructure and facilities such	required at our site.
	as fuel for cooking, mobile toilets safe	
	drinking water, medical health care, crèche	
	etc. The housing may be in the form of	
	temporary structures to be removed after	
	the completion of the project.	

Sr. No	Conditions	Compliance Status		
В	GENERAL CONDITIONS			
i	The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board and the State Government.	Complied Company follows all stipulations made by the Gujarat Pollution Control Board.		
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Noted & Complied Based on EC F.NO. J-110114902011-IA-II (I) dated 23.01.2014 obtained CTE order no: 55793 dated 08.08.2013 & CC&A Amendment with order no W-62520 dated 09.07.2014. Company has taken various permissions through CTE & CTO amendments from GPCB as per rules and regulations. Details of all permissions are submitted in six monthly compliance reports on a regular basis. Find herewith details as ANNEXURE: 9.		
iii	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO2 and NOX are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhopal and the SPCB/CPCB once in six months.	Complied We have installed Four Ambient Air Quality monitoring stations in downwind and upwind directions. AAQ Monitoring data & photographs of Ambient Air Quality monitoring stations are enclosed herewith as ANNEXURE:5		
iv	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	All process water is Treated in ETP and treated effluent is discharged to EICL, CETP after conforming to inlet norms of CETP for further treatment and ultimate discharge into Mahi estuary. We have installed Multiple Effect Evaporator instead of single stage evaporator for more effective treatment of effluent. Treated domestic effluent is recycled and reused for plantation purposes. Waste water disposal quantity and analysis data are enclosed as ANNEXURE: 4		
V	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under	Complied. Noise level is monitored regularly in and around the plant area. Noise control measures like acoustic hood have already been provided to the DG sets & all flare blowers.		

	EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Photographs of the same are available in ANNEXURE: 10.
		Overall noise level in and around the plant area is within the limit. Noise level results are enclosed as ANNEXURE: 8
vi	Occupational health surveillance of the workers shall be done on a regular basis and	Complied.
	records maintained as per the Factories Act.	Health check up of all employees is carried out at regular intervals.
vii	The company shall develop rain water harvesting structures to harvest the rain water	Complied.
	for utilization in the lean season besides recharging the ground water table.	Company has constructed tank to collect rainwater and utilizes the same in cooling tower
		Company has built up recharge well around existing borewells in non-process areas to improve ground water quality.
		Company has also constructed a check dam in Mujpur village for collection & storage of rainwater.
		Photographs of the same are available in ANNEXURE:10 .
viii	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes,	Complied. Company has complied with the environmental protection measures and safeguards recommended in the EIA/EMP report. Company also undertakes various socio-economic
	educational programmes, drinking water supply and health care etc.	 development activities in the surrounding villages. Supporting Government health center Running health center in Mujpur village Skill development project Women empowerment program
		Details of CSR activities are enclosed as ANNEXURE: 7
ix	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for	Complied
	environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the	Every year Adequate funds are allocated toward capital cost and recurring cost for environmental pollution control measures. The fund allocated for Environment management is not diverted to any other purpose.
	Regional Office of the Ministry at Bhopal. The funds so provided shall not be diverted for any other purpose.	
х	A copy of clearance letter shall be sent by the	Complied
	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.	Environment Clearance letters have been sent to all stakeholders.

	The clearance letter shall also be put on the	Company has also uploaded a clearance letter on
xi	web site of the company by the proponent. The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF at Bhopal. The respective Zonal Office of CPCB and the SPCB. The critical pollutant levels namely; PM10, PM2.5, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters,	the company website. Complied The company has uploaded the status of compliance of the stipulated existing EC condition on its website. Compliance report including results of monitoring data are being sent to Regional office MoEF, Regional office CPCB and State Pollution Board on a regular basis.
	indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Data w.r.t. AAQ monitoring, Stack monitoring & Hazardous waste stock and disposal are displayed near the main gate of the company in the public domain.
xii	The project proponent shall also submit six	Complied
	monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhopal / CPCB / SPCB shall monitor the stipulated	The company submits six monthly compliance reports including results of monitoring data of Environmental Clearance to all the concerned regulatory authorities on a regular basis.
xiii	conditions The environmental statement for each	Complied
Alli	financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent 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 conditions and shall also be sent to the respective Regional Office of the MOEF at Bhopal by e-mail.	The environmental statement for financial year 2020-21 has been submitted to the state pollution control board with letter No GCPL/EHS/GPCB ID 21999/ES-2020-21 dated 28.04.2021.
xiv	The Project Proponent shall inform the public	Complied
	that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at http://envfor@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 should be forwarded to the Regional office at Bhopal.	Advertisement of Environmental Clearance was published in English newspaper "THE TIMES OF INDIA" VADODARA edition dated 04.03.2014 & Guajarati newspaper "DIVYA BHASKAR" edition dated 04.03.2014
XV	Project authorities shall inform the Regional	Not applicable
	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 commencing the land development work.	
11	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
12	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted
13	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.	Company fulfils all the applicable statutory requirements. Company has taken PLI policy vide policy no L0156884 valid up to 22.04.2021 as per the Public Liability (Insurance) Act 1991. PLI policy has already been renewed for the year 2021-2022and awaiting policy document.