



# HINDUSTHAN CHEMICALS COMPANY

(An enterprise of THE HINDUSTHAN GROUP)

G.I.D.C. Industrial Estate, Olpad - 394540, DIST SURAT, GUJARAT (INDIA)

TELEPHONE : 02621-221681 to 221683, 324222, Telefax: 02621-221235, Email : hccolp@hcc-cyanides.com

F: HCC:TECH:69: RPS/ 39

26<sup>th</sup> June, 2020

The Additional Director,  
Ministry of Environment & Forest,  
Regional Office (Western Region),  
Kendriya Paryavaran Bhavan,  
E-5, Ravishankar Nagar,  
**Bhopal- 462 016**

**Sub: Submission of Six Monthly Environmental Clearance Compliance Report for M/s. Hindusthan Chemicals Company (Formerly known as Cyanides & Chemicals Company).**

**Ref : Environmental Clearance No. J-11011/466/2011-IA II (I) dated 22/01/2016**


Dear Sir,

With reference to above Environmental Clearance order, we are submitting herewith point wise compliance report of said Environmental Clearance for the period of **December 2019 to May 2020**.

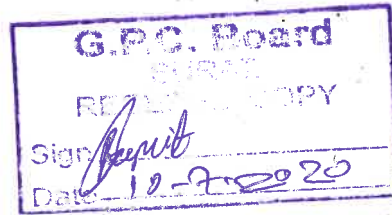
We hope you will find the same in order.

Thanking You,

Yours faithfully,  
**For Hindusthan Chemicals Company**

  
(R. P. Sharma)  
Factory Manager

Encl: As above



C.C to : 1) The chairman,  
Gujarat Pollution Control Board,  
Paryavaran Bhavan, Sector – 10A,  
Gandhinagar – 382 010

o/c  
2) The Zonal Officer  
Central Pollution Control Board  
Parivesh Bhavan, Opp. VMC Ward Office no. 10,  
Subhanpura Road, Vadodara – 390 023

3) The Regional Officer  
Gujarat Pollution Control Board  
388, Belgium Square, Typical First Floor, Silver Plaza Complex,  
Near Linear Bus Stand, Ring Road, Surat - 395003

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EG566899441IN IVR:69715668994  
SP SURAT HO <395003>  
Counter No:14,10/07/2020,16:09  
To:THE CHAIRMAN,A  
PIN:390023, Subhanpura SO  
From:HINDUSTHAN,A  
Wt:425gms  
Amt:59.00(Cash)Tax:9.00

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SP SURAT HO <395003>  
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To:GUJARAT POLLUTION,A  
PIN:382010, Gandhinagar Gujarat HO  
From:HINDUSTHAN,A  
Wt:430gms  
Amt:70.80(Cash)Tax:10.80

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SP SURAT HO <395003>  
Counter No:14,10/07/2020,16:09  
To:MINISTRY OF,A  
PIN:462014, R.S.Nagar S.O  
From:HINDUSTHAN,A  
Wt:430gms  
Amt:70.80(Cash)Tax:10.80  
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**HINDUSTHAN CHEMICALS COMPANY**  
**GIDC OLPAD, TALUKA: OLPAD,**  
**DIST: SURAT, GUJARAT**

**Six Monthly Environmental  
Compliance Report  
(From Dec 2019 to May 2020)**

**Prepared by:**

**M/s. EARTHCARE ENVIRO SOLUTIONS PVT. LTD.**

**Moradia House, Plot No.: 31-32,**

**Shiv Ashish Industrial Estate Co.Op.Society-II,**

**Opp. SMC Community Hall, B/h. Raj Carrying Cargo Pvt. Ltd.**

**Near Chosath Jogni Mata Mandir,**

**South Zone Road, Udhna, Surat-394210**

**E-mail: [office@earthcare.org.in](mailto:office@earthcare.org.in) / [info@earthcare.org.in](mailto:info@earthcare.org.in)**

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## **MEMBERS ASSOCIATED WITH REPORT**

### **Project Proponent**

Mr. A. K. Singh (Executive Director Technical)

### **Team leader**

Mr. Suresh Moradia (Director – Earthcare Enviro Solutions Pvt. Ltd.)

### **Team Member (EESPL):**

Environmental Monitoring & Data Collection : Team Leader – Mr. Parimal Radadia  
Team Member –1. Mr. Kenu Tailor  
2. Mr. Vikram lolaniya

Sample Analysis : Lab. Incharge – Mrs. Ankita Vaghani  
Chemist – 1. Mr. Satish Bhoi

Report Preparation By: Mr. Rahul Vankar  
Report Checked By: Mr. Hardik Moradiya  
Report Approved By: Mr. Suresh Moradia

## INTRODUCTION

Hindusthan Engineering & Industries Ltd. (HEIL) (previously Hindusthan Development Corporation) was set up in 1944 with track materials plant at Tiljala. In the year 1964, Sri R. P. Mody acquired the company which had only one plant at Tiljala producing fabricated points, switches and turnouts, steel sleepers and other railway track components. The company witnessed aggressive and all round growth in 1970's when the expansion in the Indian Railways took place for industrialization in the country. HEIL became the major supplier of railway track materials and enjoyed a major market share with Indian Railways. In tune with the demand of economic growth, HEIL continued its thrust on further diversification and in the process either acquired existing projects in the Core Sector or set up Greenfield Projects in a wide spectrum of industrial activities. HEIL acquired a Wagon Building Plant at Santragachi while a Green field Project for manufacture of Cyanide and Calcined Petroleum Coke was established in Olpad in the state of Gujarat & Haldia in the state of West Bengal, respectively.

The company was also in the forefront for bringing state of the art technology from global leaders for the benefit of the Indian Economy. It has brought to India CMS Crossings tie-up with Bethlehem Steel Corporation, USA, Steel Wire tie-up with Kokon Company, Japan, Electro Porcelain tie-up with Reinsinch Werke, Germany, Calcium Coke Calcination from Alcom International, Canada. During this period, HEIL was instrumental in providing a vision for globalization in the areas of its operation. HEIL made rapid inroads in the International Market with its products. HEIL products viz. Steel Castings Cyanides, Track materials found ready acceptance all over the world. HEIL developed a parallel export market for many of its products.

With the spread of globalization and emergence of fierce competition, HEIL realized the need to restructure and is in the process of reorienting its priorities to become a cost effective, customer friendly industrial conglomerate with focus on Research & Development. The Govt. of India has recognized its Research and Development Cell in the Steel foundry as an accredited Research and Development Center for carrying out all the research in the areas of Steel Castings. In the domestic market, HEIL primarily caters to Indian Railways, Ministry of Defence and other Public Sector undertakings. HEIL is the market leader in the area it operates. HEIL is the sole supplier of special containers to CONCOR for the last ten years and no other Indian Company can claim this unique distinction.

### **Quality Policy:**

*"It is the quality policy of HEIL's Points & Crossing, Steel Sleeper and wagon division to provide products that satisfy the customer quality requirements. It strives to achieve and maintain excellence through development and absorption of appropriate technologies." - Mr. A. K. Singh (Executive Director Technical)*

**Achievements:**

HEIL has received prestigious export order worth \$18 Crores from a USA based company for supply of Steel Castings. The company has also been receiving Export Excellence Awards given by the Ministry of Commerce, Government of India for the last 8 years in a row. We have received the Export Excellence Award for the year 2001-02 from Shri Arun Jaitley, Honorable Minister of Commerce in New Delhi on 26<sup>th</sup> September 2003. In India very few companies can claim the distinction of receiving Export Excellence Awards for 8 years in a row.

**Hindusthan Chemicals Company (HCC) - Project Proponent Unit**

Hindusthan Chemical Company, formerly known as Cyanides & Chemicals Company, is a unit of HEIL. The unit was set up in the year 1982 in GIDC Industrial Estate at Olpad Taluka of Surat District in Gujarat State. The unit is engaged in manufacture of Hydrogen Cyanide (HCN) and Cyanide based products. The unique feature of the HCN manufacturing technology is that the whole system of manufacturing process is working under vacuum hence in any case hazardous gas is not released-out into the atmosphere from the production system. The unit manufactured Sodium Cyanide and Potassium Cyanide for the first time in our country. Thus the unit is pioneer in manufacture of HCN and its derivatives in India. The unit is primarily engaged in the manufacturing of Hydrogen cyanide, Sodium Cyanide, Potassium Cyanide, Sodium/Potassium Ferro Cyanide, Diphenyl Guanidine, Heat Treatment Salt, Sodium Dicyanamide, Cyanohydrins, Nitriles, Cyanide based products, Mandelonitrile and Natural Gas based Captive Power Plant. The present sales turnover of HCC is approximately Rs. 178.37 Crore. We are currently exporting different types of cyanide derivatives to countries like Zimbabwe, Thailand, Indonesia, Morocco etc. Exports account for around Rs. 185.0 lac (2018-19) of the total turnover of the Unit.

**DATA SHEET**

1.	Project Type: River-valley/Mining/Industry/Thermal/Nuclear /Other (Specify)	Industry Project category – 5 (b) "A"
2.	Name of the Project	M/s. Hindusthan Chemicals Company
3.	Clearance letter (s)/OM No. and date	EC order No. J-11011/466/2011-IA II (I) dated 22/01/2016
4.	Location: a) District(s) b) State(s) c) Location Latitude/Longitude	Plot No. 26-37, 54-57, 122, 143, Village: Asnabad, Tehsil: Olpad, Dist: Surat, State: Gujarat  Latitude: 21°19'8.40" N Longitude: 72°45'3.73" E
5.	Address for correspondence a) Address of the Concerned Project chief Engineer (with pin code & telephone/telex/fax numbers)  b) Address of the Executive Project Engineer /Manager (with pin code & telephone/telex/fax numbers)	Mr. A. K. Singh (Executive Director Technical) Hindusthan Chemicals Company, GIDC Industrial Estate, Olpad – 394 540 District Surat, Gujarat. Phone: 02621 221681-83, 324222 Fax: 02621-221235 E-mail : aks@hcc-cyanides.com  As Above
6.	Salient features a) Of the project  b) Of the Environmental management plans	Salient feature of the project and EMP is enclosed at <b>Annexure-1</b> .  <ul style="list-style-type: none"> <li>• The whole plant is working under vacuum and all vents are connected to the incinerator.</li> <li>• We have full-fledged Effluent Treatment Plants (2 Nos.) for the treatment of cyanide contaminated effluent and high TDS effluent with adequate capacity.</li> <li>• We have implemented Zero Liquid Discharge scheme from 1st April, 2016 with waste minimization for the existing ETP plants.</li> <li>• We have a valid membership of TSDf site</li> </ul>





		<p>– NECL, Nandesari and BEIL, Ankleshwar/Dahej for incineration, treatment and disposal of hazardous waste &amp; landfill waste.</p> <ul style="list-style-type: none"> <li>• We have developed greenbelt area which is approx. 43% of the total plot area.</li> <li>• We have facility for in-house monitoring and analysis of effluent and air pollutant parameters.</li> <li>• Environmental Audit and Environment Monitoring through third party are being conducted regularly.</li> </ul>
7.	<p>Breakup of the project area</p> <p>a) Submergence area: forest &amp; non-Forest</p> <p>b) Others</p>	<p>Total Land: 2,04,995 m<sup>2</sup> Green Belt Area: 92,247 m<sup>2</sup></p> <p>Not Applicable (NA)</p> <p>NA</p>
8.	<p>Breakup of the project affected population with enumeration of those losing houses/dwelling units (only agricultural land, both dwelling units &amp; agricultural land)</p> <p>SC/ST/Adivasi</p> <p>a) Others</p> <p>(Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out give details &amp; year of survey)</p>	Not Applicable.
9.	<p>Financial details:</p> <p>Project cost as originally planned and subsequent revised estimates and the year of price reference</p> <p>a) Allocation made for environmental management plans with item wise and year wise break-up</p> <p>b) Benefit cost ratio/Internal rate of return and the year of assessment</p> <p>c) Whether it includes the cost of environmental management as shown in the above</p> <p>d) Actual expenditure incurred on the project so far</p> <p>e) Actual expenditure incurred on the environmental management plans</p>	<p><b>Project Cost : Rs. 202.50 Crores</b></p> <p>Allocation made for environmental management plans with item-wise &amp; year wise break up is attached as per <b>Annexure – 2.</b></p>



	so far	
10.	Forest land requirement a) The status of approval for diversion of forest land for non-forestry use b) The status of clearing felling c) The status of compensatory afforestation, if any d) Comments on the viability & sustainability of compensatory afforestation program in the light of actual field experience so far	Not Applicable.
11.	The status of clear felling in non-forest areas (Such as submergence area or reservoir, approach roads.), if any with quantitative information required.	Not Applicable.
12.	Status of Construction (Actual &/or planned) a) Date of commencement (Actual &/or planned) b) Date of completion (Actual &/or planned)	Not Applicable.
13.	Reason for the delay If the project is yet to Start.	Not Applicable.
14.	Dates of site visits a. The dates on which the project was monitored by the Regional office on previous occasion, if any b. Date of site visit for this monitoring report	07/01/2020 Analysis reports of GPCB are attached as <b>Annexure - 3</b> . Dates of sampling are mentioned in respective analysis report.
15.	Details of correspondence with project authorities for obtaining action plans / information on status of compliance to safeguards other than the routine letters for logistic support for site visits (The first manufacturing report may contain the details of all the letters issued so far, but the letter reports may cover only the letters issued subsequently)	<b>Last Six Monthly Reports (Dec-2019 to May- 2020) was submitted.</b> Form-V-Environmental Audit Statement for the financial year 2019- 2020 was submitted to MoEF. Copy of the same is attached as <b>Annexure - 4</b> .



**ENVIRONMENTAL CLEARANCE (EC) BY MOEF&CC, NEW DELHI**  
**F. No. J-11011/466/2011-IA II (I) dated 22/01/2016**

**F. No. J-11011/466/2011-IA II (I)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(I.A. Division)**

**Indira Paryavaran Bhawan**  
**Aliganj, Jorbagh Road,**  
**New Delhi -110003**

**E-mail : ik.bokolia@nic.in**  
**Telefax: 011-24695313**  
**Dated 22<sup>nd</sup> January, 2016**

To, **Shri A.K. Singh, President (Plant)**  
**M/s Hindustan Chemicals Company**  
**(Formerly known as Cyanides & Chemicals Company)**  
**GIDC Industrial Estate, P.O. Olpad - 394540**  
**Surat, Gujarat**

**E-mail: [hccolp@sify.com](mailto:hccolp@sify.com) ; Fax No.02621-221235:**

**Subject : Manufacturing of Sodium Cyanide & other Cyanide based products at plot no. 26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat, Gujarat by M/s Hindusthan Chemicals Company (Formerly known as M/s Cyanide & Chemicals Company)- Reg Environment Clearance.**

**Ref.: Your letter no. nil dated 29<sup>th</sup> January, 2013.**

Sir, Kindly refer your letter dated 29th January, 2013 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report alongwith Public Hearing Report and subsequent submission of additional information vide letters dated 24th December, 2013 and 17<sup>th</sup> December, 2014 regarding above mentioned project. PP vide letter no. HCC/Tech/17/RPS/264 dated 10<sup>th</sup> December, 2015 has submitted 'Zero' effluent discharged scheme for effluent treatment.

2.0 The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that proposal is for manufacturing of Sodium Cyanide & other Cyanide based products at plot no. 26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat, Gujarat by M/s Hindusthan Chemicals Company (Formerly known as M/s Cyanide & Chemicals Company). Total plot area is 2,04,995 m<sup>2</sup> of which 15,963 sq.m will be used for expansion. Total cost of the proposed expansion project is Rs. 202.50 Crore. Out of which, Rs. 2.50 Crore and Rs. 1.25 Crore per annum are earmarked towards capital cost and recurring cost per annum for pollution control measures. River Tapi is flowing at a distance of 9.5 km. No national park/wildlife sanctuary/reserve forest is located within 10 km distance. Details of existing and proposed products will be as follows:

S.N	Name of Products	Production Capacity (MT/Annum)		
		Existing	Proposed	Total
1	Hydrogen Cyanide	5100	--	5100
2	Sodium Cyanide	6372	15000	21372
3	Potassium Cyanide	2000	-	
4	Sodium Ferro cyanide	1000	-	
5	Potassium Ferro cyanide	-	-	
6	Diphenyl Guanidine	1260	-	
7	Sodium Dicyanide	300	-	

8	Mandelonitrile	2500	-	
9	Heat Treatment Salt	720	-	
10	<b>CYNOHYDRINES GROUP</b>			
i)	Meta phenoxy Benzaldehyde Cyanophydrin (MPBAD Cyanohydrin)	5000		
ii)	Formaldehyde Cyanohydrin (Glycolonitrile)			
iii)	Acetone Cyanohydrin			
iv)	Methyl Ethyl Ketone Cyanohydrin			
v)	Acetaldehyde Cyanohydrin (Lactonitrile)			
vi)	Para Anisaldehyde Cyanohydrin			
vii)	Cyclohexanone Cyanohydrin			
viii)	Methyl Propyl Ketone Cyanohydrin			
ix)	Methyl Mercapto Butyronitrile (Methyl Mercapto Propanaldehyde Cyanohydrin)		500	
x)	Cyclo Pentanone Cyanohydrin		500	
xi)	2-Chloro Benzaldehyde Cyanohydrin (2-Chloro Mandelonitrile)			100
xii)	Ortho Toly Benzaldehyde Cyanohydrin (Ortho Toly Mandelonitrile)			
	<b>Total of Cyanohydrines Group</b>	5000	2000	7000
11	<b>NITRILES GROUP</b>			
i)	Isophoron Nitrile	3000		
ii)	Imino Diacetoneitrile			
iii)	Succinonitrile			
iv)	3-Hydroxy Propionitrile			
v)	Methyl Amino Acetonitrile Hydrochloride		300	
vi)	Methylene Amino Aceto Nitrile (MAAN)	3000	300	3300
	<b>Total of Nitriles Group</b>	3500	6300	9800
12	<b>CYANIDE BASE PRODUCTS</b>			
i)	Sodium Cyano Acetate	3500		
ii)	Cyanamide (Crystals & Aqueous Solution)			
iii)	Para Anisaldehyde Cyanohydrin			
iv)	Diortho Toly Guanidine (DOTG)		300	
v)	Zinc Cyanide		6000	
vi)	Isophoron Diamine	3500	6300	9800
	<b>Total of Cyanide based Products</b>	2 MW	--	--
13	N G based CPP	2649	--	--
14	Ammonia Sulphate (By-Product)			

3.0 Adequate stack height will be provided to gas fired boiler (4 Nos. x 3.5 TPH). All the gas from the process containing HCN will be incinerated in the incinerator. Scrubber and Stack of adequate height will be provided to incinerator. Bagfilter, water scrubber and stack of adequate height will be provided to heat treatment salt plant, ammonia absorption column to ammonium sulphate recovery plant and Cyclone separator to control particulate emissions. Total water requirement will be increased from 651.2 m<sup>3</sup>/day to 1105.2 m<sup>3</sup>/day after expansion. Out of which, fresh water requirement from Kakrapar Canal will be 605 m<sup>3</sup>/day and remaining water requirement will be met from recycled water 500 m<sup>3</sup>/day. Industrial effluent generation will be increased from 265.9 m<sup>3</sup>/day to 512 m<sup>3</sup>/day after expansion. Effluent will be segregated into high TDS/COD and Low COD/TDS effluent streams. High TDS/COD effluent stream will be evaporated in Multiple Effect Evaporator (MEE). Condensate will be treated in the condensate treatment unit. Low TDS/COD effluent stream will be treated in the effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment ( Reverse Osmosis). Permeate will be reused/recycled for cooling tower make up. The proposed effluent treatment scheme for the existing unit as well as

proposed expansion is based on 'Zero effluent discharge'. Incinerator will be designed as per CPCB guidelines. ETP sludge, tar residues/distillate residues, spent resin, MEE salt will be sent to TSDF. Activated carbon, ferric hydroxide and iron sludge will be sent for incineration. Waste / used oil will be sold to authorized recyclers/re-processors.

4.0 Public hearing / consultation was exempted as per stage Section 7 (i), III Stage (3), Para (i)(b) of EIA Notification 2006

5.0 All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its meetings held during 16<sup>th</sup> - 17<sup>th</sup> February, 2012, 16<sup>th</sup> - 17<sup>th</sup> May, 2013 and 19<sup>th</sup>-20<sup>th</sup> December, 2013 respectively. Project Proponent and the EIA Consultant namely M/s Eco-Chem Sales & Services, have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be satisfactory and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent, the Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14<sup>th</sup> September 2006, subject to the compliance of the following Specific and General Conditions:

**A. SPECIFIC CONDITIONS:**

- i) National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3<sup>rd</sup> February, 2006 and amended time to time shall be followed by the unit.
- ii) Adequate stack height shall be provided to gas fired boilers
- iii) All the gas from the process containing HCN shall be incinerated in the incinerator. Scrubber and Stack of adequate height shall be provided to incinerator. Bagfilter, water scrubber and stack of adequate height shall be provided to heat treatment salt plant, ammonia absorption column to ammonium sulphate recovery plant and Cyclone separator to control particulate emissions. Efficiency of pollution control device shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iv) In plant control measures for checking fugitive emissions 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 shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained. The emissions shall conform to the limits stipulated by the GPCB.
- v) For further control of fugitive emissions, following steps shall be followed :
  - i. Closed handling system shall be provided for chemicals.

3

M/s Hindusthan Chemicals Company

- ii. Reflux condenser shall be provided over reactor.
- iii. System of leak detection and repair of pump/pipeline based on preventive maintenance.
- iv. The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.
- v. Cathodic protection shall be provided to the underground solvent storage tanks.
- vi) A proper Leak Detection And Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.
- vii) Continuous monitoring system for HCN, chlorine, HCl and NH<sub>3</sub> as well as VOCs, shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits. All necessary steps should be taken for monitoring of HCN, chlorine, HCl and NH<sub>3</sub> as well as VOCs in the proposed plant.
- viii) Alarm for chlorine leakage if any in the liquid chlorine storage area shall be provided alongwith automatic start of the scrubbing system.
- ix) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- x) Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> September, 2009. The levels of PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and GPCB.
- xi) Solvent management shall be carried out as follows :
  - i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.
  - 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 should be provided with breather valve to prevent losses.
- xii) Total water requirement from Kakrapar Canal shall not exceed 600.3 m<sup>3</sup>/day after expansion in effect of ZLD scheme submitted by PP and prior permission should be obtained from the Competent Authority.

- xiii) Industrial effluent generation should not exceed 512 m<sup>3</sup>/day. Effluent will be segregated into high TDS/COD and Low COD/TDS effluent streams. High TDS/COD effluent stream will be evaporated in Multiple Effect Evaporator (MEE). Condensate will be treated in the condensate treatment unit. Low TDS/COD effluent stream will be treated in the effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment (Reverse Osmosis). Permeate will be reused/recycled for cooling tower make up. The proposed effluent treatment scheme for the existing unit as well as proposed expansion is based on 'Zero effluent discharge'. Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.
- xiv) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.
- xv) Automatic /online monitoring system (24x7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.
- xvi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xvii) Incinerator should be designed as per CPCB guidelines. SO<sub>2</sub>, NO<sub>x</sub>, HCN, HCl and CO emissions shall be monitored in the stack regularly.
- xviii) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
- xix) The company shall 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 GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.
- xx) As proposed, ETP sludge, incineration ash and evaporation residue shall be sent to TSDF site. High calorific value waste such as spent organic shall be sent to cement factory/incinerated.
- xxi) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xxii) The company shall undertake following waste minimization measures :-
- a. Metering and control of quantities of active ingredients to minimize waste.
  - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - c. Use of automated filling to minimize spillage.
  - d. Use of Close Feed system into batch reactors.
  - e. Venting equipment through vapour recovery system.
  - f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- xxiii) 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.



- xxiv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xxv) As proposed, green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xxvi) The company shall make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.
- xxvii) Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.
- xxviii) At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office of MoEF&CC. Implementation of such program should be ensured accordingly in a time bound manner.

**B. GENERAL CONDITIONS:**

- i. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and 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 and Forests. 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 Gujarat Pollution Control Board (GPCB) 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 concentrations are anticipated.
- iv. 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).
- v. The Company shall harvest rainwater from the roof-tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.
- vi. During transfer of materials, spillages shall be avoided and gullies drains be constructed to avoid mixing of accidental spillages with domestic wastewater and storm water drains.
- vii. Usage of Personnel Protection Equipments by all employees/ workers shall be ensured.

- viii. 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 all employees on handling of chemicals shall be imparted.
- ix. The company shall also comply with all the environmental protection measures and safeguards proposed in the project report submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.
- x. The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.
- xi. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- xii. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xiii. The company shall earmark sufficient funds for recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests 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.
- xiv. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/ representations, if any, were received while processing the proposal.
- xv. 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, the respective Zonal Office of CPCB and the Gujarat Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xvi. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the Gujarat 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 Bhopal Regional Offices of MoEF by e-mail.
- xvii. 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://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 shall be forwarded to the concerned Regional Office of the Ministry.

- xviii. 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.
- 8.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 9.0 The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.
- 10.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986 Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

  
(Lalit Bokolia)  
Additional Director

Copy to :-

1. The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 400 032
2. The Chief Conservator of Forests (Central), Kendriya Paryavaran Bhavan, Link Road No.3, Bhopal-462016.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> and 4<sup>th</sup> floor, Opp. Cine Planet, Sion Circle, Mumbai-400 022.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, New Delhi.
6. Guard File/Monitoring File/Record File.

  
(Lalit Bokolia)  
Additional Director

**Six Monthly Compliance of conditions stipulated by SEIAA, Gujarat, for M/s. Hindusthan Chemicals Company**

**With reference to: EC order No. J-11011/466/2011-IA II (I) dated 22/01/2016**

**COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE**

Name of unit: M/s. Hindusthan Chemicals Company, Plot No. 26-37, 54-57, 122, 143, Village: Asnabad, Tehsil: Olpad, Dist: Surat, State: Gujarat

SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN																												
1.	Order No. J-11011/466/2011-IA II (I) dated 22/01/2016		--																												
2.	<p>The Ministry of Environment, forests and Climate change has examined the application. It is noted that the proposal is for manufacturing of Sodium Cyanide &amp; other cyanide based products at plot no. 26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat, Gujarat by M/s Hindusthan Chemical Company (Formerly known as M/s Cyanides &amp; Chemicals Company) Total plot area is 2,04,995 m<sup>2</sup> of which 15,963 sq.m will be used for expansion. Total cost of the proposed expansion project is Rs. 202.50 Crore. Out of which, Rs. 2.50 Crore and 1.25 Crore per annum are earmarked towards capital cost and recurring cost per annum for pollution control measures. River Tapi is flowing at a distance of 9.5 km. No national park/wildlife sanctuary/reserve forest is located within 10 km distance. Details of existing and proposed products will be as follows:</p> <table border="1"> <thead> <tr> <th rowspan="2">Sr. no.</th> <th rowspan="2">Name of Product</th> <th colspan="3">Production Capacity (MT/Annum)</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Hydrogen cyanide</td> <td>5100</td> <td>--</td> <td>5100</td> </tr> <tr> <td>2</td> <td>Sodium cyanide</td> <td>6372</td> <td>1500</td> <td>7872</td> </tr> <tr> <td>3</td> <td>Potassium cyanide</td> <td>2000</td> <td>--</td> <td></td> </tr> <tr> <td>4</td> <td>Sodium Ferro</td> <td>1000</td> <td>--</td> <td></td> </tr> </tbody> </table>	Sr. no.	Name of Product	Production Capacity (MT/Annum)			Existing	Proposed	Total	1	Hydrogen cyanide	5100	--	5100	2	Sodium cyanide	6372	1500	7872	3	Potassium cyanide	2000	--		4	Sodium Ferro	1000	--		Complied	Our production Capacity is within the consent Limit. We submit monthly report to GPCB.
Sr. no.	Name of Product			Production Capacity (MT/Annum)																											
		Existing	Proposed	Total																											
1	Hydrogen cyanide	5100	--	5100																											
2	Sodium cyanide	6372	1500	7872																											
3	Potassium cyanide	2000	--																												
4	Sodium Ferro	1000	--																												



SR. NO.	DESCRIPTION OF CONDITION				COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
		cyanide				
5		Potassium Ferro cyanide				
6		Diphenyl Guanidine	1260	--		
7		Sodium Dicyanamide	300	--		
8		Mandelonitrile	2500	--		
9		Heat Treatment salt	720	--		
10	<b>CYNOHYDRINES GROUP</b>					
(i)		Meta phenoxy Benzaldehyde cyanohydrin (MPBAD cyanohydrin)	5000	--		
(ii)		Formaldehyde Cyanohydrin (Glyconitrile)		--		
(iii)		Acetone cyanohydrin		--		
(iv)		Methyl ethyl ketone cyanohydrin		--		
(v)		Acetaldehyde cyanohydrin (Lactonitrile)		--		
(vi)		Para Anisaldehyde cyanohydrin		--		
(vii)		Cyclohexanone cyanohydrin		--		
(vii)		Methyl propyl ketone cyanohydrin		--		
(ix)		Methyl Mercapto Butyronitrile (Methyl Mercapto propanaldehyde)		--		



SR. NO.	DESCRIPTION OF CONDITION					COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN	
		Cyanohydrin)						
	(x)	Cyclo pentanone cyanohydrin		500				
	(xi)	2-Chloro Benzaldehyde cyanohydrin (2-chloro Mandelonitrile)		500				
	(xii)	Ortho Toly Benzaldehyde Cyanohydrin (Ortho Toly Mandelonitrile)		1000				
		Total of Cyanohydrines Group	5000	2000	7000			
	11	<b>NITRILES GROUP</b>						
	i)	Isophoron nitrile	3000	--				
	ii)	Imino Diacetoneitrile		--				
	iii)	Succinonitrile		--				
	iv)	3-Hydroxy propionitrile		--				
	v)	Methyl Amino Acetonitrile Hydrochloride		--				
	vi)	Methylene Amino Aceto Nitrile (MAAN)		300				
		<b>Totals of Nitriles Group</b>	<b>3000</b>	<b>300</b>	<b>3300</b>			
	12	<b>CYANIDE BASE PRODUCTS</b>						
	i)	Sodium cyano Acetate	3500	--				
	ii)	Cyanamide (Crystals &		--				



SR. NO.	DESCRIPTION OF CONDITION					COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
		Aqueous Solution)					
	iii)	Para Anisaldehyde Cyanohydrin		--			
	iv)	Diortho Toly Guanidine (DOTG)		--			
	v)	Zinc Cyanide		300			
	vi)	Isophoron Diamine		6000			
		Total of Cyanide based Products	3500	6300	9800		
	13	N G based CPP	2 MW	--	--		
	14	Ammonia Sulphate (By-Product)	2649	--	--		
	Note: * Product no. 1 to 4 will stop after proposed expansion.						
3.	<p>Adequate stack height will be provided to gas fired boiler (A Nos. x 3.5 TPH). All the gas from the process containing HCN will be incinerated in the incinerator. Scrubber and stack of adequate height will be provided to incinerator. Bagfilter, water scrubber and stack of adequate height will be provided to heat treatment salt plant, ammonia absorption column to ammonium sulphate recovery plant and Cyclone separator to control particulate emissions. Total water requirement will be increased from 651.2 m<sup>3</sup>/day to 1105.2 m<sup>3</sup>/day after expansion. Out of which, fresh water requirement from Kakrapar Canal will be 605 m<sup>3</sup>/day and remaining water requirement will be met from recycled water 500 m<sup>3</sup>/day. Industrial effluent generation will be increased from 265.9 m<sup>3</sup>/day to 512 m<sup>3</sup>/day after expansion. Effluent will be segregated into high TDS/COD and Low COD/TDS effluent streams. High TDS/COD effluent stream will be evaporated in Multiple Effect Evaporator (MEE). Condensate will be treated in the condensate treatment unit. Low TDS/COD effluent stream will be treated in the</p>					Complied	--



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	<p>effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment (Reverse osmosis). Permeate will be reused/recycle for cooling tower make up. The proposed effluent treatment scheme for the existing unit as well as proposed expansion is based on 'Zero effluent discharge'. Incinerator will be designed as per CPCB guidelines. ETP sludge, tar residues/distillate residues, spent resin, MEE salt will be sent to TSDF. Activated carbon, ferric hydroxide and iron sludge will be sent for incineration. Waste / used oil will be sold to authorized recyclers/re-processors.</p>		
A	<b>SPECIFIC CONDITIONS:</b>		
i.	<p>National Emission Standard 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.</p>	Complied	<p>Industry meets with the National Emission Standard for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R 46(E) dated 3<sup>rd</sup> February, 2006 it will comply with amendments when required.</p>
ii.	<p>Adequate stack height shall be provided to gas fired boiler.</p>	Complied	<p>Adequate stack height i.e. 30 m has been provided for gas fired boiler.</p>
iii.	<p>All the gas from the process containing HCN shall be incinerated in the incinerator. Scrubber and Stack of adequate height shall be provided to incinerator. Bag filter, Water scrubber and stack of adequate height shall be provided to heat treatment salt plant, ammonia absorption column to ammonium sulphate recovery plant and cyclone separator to control particulate emissions. Efficiency of pollution control device shall be monitored regularly and maintained properly. Scrubber vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipment so that in case of any increase in pollutants beyond</p>	Complied	<p>Proper air pollution control equipment has been provided at adequate stack height to check the flue gas emission as well as process gas emission from Tail Gas Incinerator Boilers. HCC has installed and commissioned online stack monitoring gas analyzer and TOC meter. Waste gas from all plants is driven under vacuum to existing Incinerator. HCN content in flue gas and efficiency of pollution control</p>





SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	permissible limits, plant should be automatically stopped.		devices are being monitored on monthly basis by external NABL approved laboratory and also by internal Environmental Quality Lab, twice in a month basis. Bag Filter & Water Scrubber have been provided at Incinerator while Cyclone Separator has also been provided at auxiliary boiler. Interlocking system has been provided with the pollution control equipment to plant automatically Stopped in case of any increase in pollution level. Stack Monitoring Reports are attached as per <b>Annexure 12</b> .
iv.	In plant control measures for checking fugitive emissions from the entire vulnerable source 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 shall be providing at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, products, raw materials storage area etc. shall be regularly monitored and records maintained. The emissions shall confirm to the limits stipulated by the GPCB.	Complied	Fugitive emissions in the work zone environment, raw-material storage area are being regularly monitored by on-line detectors like HCN Detectors in HCN, NaCN, and DPG & Mandelonitrile / Cyanohydrin plant. Portable gas detectors are also available at all plants. Company has also engaged a third party for monitoring of finished godown for HCN, HCl, VOC, Moisture and ventilation. Water sprinkling system is provided at loading and unloading areas to control dust emissions. Work place Monitoring Reports are attached as per <b>Annexure 10</b> .
v.	For further control of fugitive emissions, following steps shall be followed: a) Closed handling system shall be Provided for chemicals.	Complied	Point wise all control measure has been taken to prevent fugitive emission.



SR. NO.	DESCRIPTION OF CONDITION.	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	b) Reflux condenser shall be provided over reactor. c) System of leak detection and repair of pump/pipeline based on preventive Maintenance. d) The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser Operated on chilled water. e) Cathodic protection shall be provided to the underground solvent storage tanks.		
vi.	A proper leak detection and repair (LDAR) program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emission for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.	Complied	Intermediate storage/dozing tank of HCN in HCN Plant, NaCN Plant, and DPG & Mandelonitrile/Cyanohydrin plant have been kept under vacuum and vent is connected to the existing incinerator. Hence, there is no chance of any leakage.  Magnetic Seals have been provided to reactors of Mandelonitrile/Cyanohydrin Plant. Reactors of other plants are closed and connected under vacuum to the incinerator. No pump is used for HCN transfer; it is done by gravity through double walled chilled brine cooled SS 316 pipe line.  Condensers with chilled brine cooling at -5°C are provided wherever required (e.g. Reactors of Mandelonitrile/Cyanohydrin) to prevent emission or vent to incinerator.
vii.	Continuous monitoring system for HCN, chlorine, HCL and NH3 as well as VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits. All necessary	Complied	We are carryout work place Monitoring by third party Report of the same attached as per Annexure 10.



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	steps should be taken for monitoring of HCN, chlorine, HCL and NH3 as well as VOCs in the Proposed plant.		
viii.	Alarm of chlorine leakage if any in the liquid chlorine storage area shall be provided along with automatic start of the scrubbing system.	Complied	Online detector has been provided for any leakage occurred in the liquid chlorine storage area.
ix.	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	Complied	Adequate preventive measures have been taken to minimize gaseous emission from DG sets by providing air pollution control equipment and stacks at adequate height (as per CPCB norms).
x.	Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated 16 September, 2009. The levels of PM2.5, PM10, SO2, NOx, CO and VOC shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and GPCB.	complied	Ambient air Monitoring Reports are attached as per <b>Annexure 10</b> . Results of Ambient Air quality monitoring parameters are displayed near the main gate and summary of the report will be updated on company website & sent to the Regional office of MOEF, the respective Zonal office of CPCB and GPCB.
xi.	Solvent management shall be carried out as follows: a) Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses, it shall be ensured that solvent recovery should not be less than 95%. b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery d) Solvents shall be stored in a separate space specified with all safety measures.	Complied	Chilled brine circulation system has been provided to condensate solvent vapors and reduce solvent losses. Mechanical seals are provided wherever required in reactors and pumps. Condensers are provided with sufficient HTA & residence time to achieve more than 95% recovery. Separate space has been already provided as per requirement of Petroleum Act for storage of solvent.



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	<p>e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.</p> <p>f) Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.</p>		<p>Unit has been provided with proper earthing for all electrical equipment.</p> <p>Where ever flammable chemicals are being used, flame proof motors &amp; fitting are provided.</p>
xii.	Total water requirement from Kakrapar Canal shall not exceed 600.3 m <sup>3</sup> /day after expansion in effect of ZLD scheme submitted by PP and prior permission should be obtained from the Competent Authority.	Complied	<p>Total water requirement has been increased from 651.2 m<sup>3</sup>/day to 1105.2 m<sup>3</sup>/day after expansion. Out of which, fresh water requirement from Kakrapar canal are only 600.3 m<sup>3</sup>/day and remaining water requirement are being met through recycled water i.e. 505 m<sup>3</sup>/day.</p> <p>Total average wastewater generation is nil as company has implemented ZLD scheme from 1st April, 2016.</p>
xiii.	Industrial effluent generation should not exceed 512 m <sup>3</sup> /day. Effluent will be segregated into high TDS/COD and Low COD/TDS effluent streams. High TDS/COD effluent stream will be evaporated in Multiple Effect Evaporator (MEE). Condensate will be treated in the condensate treatment unit. Low TDS/COD effluent stream will be treated in the effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment (Reverse Osmosis). Permeate will be reused/recycled for cooling tower make up. The proposed effluent treatment scheme for the existing unit as well as proposed expansion is based on "Zero effluent discharge". Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.	Complied	<p>Effluent generated from different plants of HCC are segregated &amp; divided for the treatment in two schemes.</p> <p><b>Scheme - 1: Cyanide containing effluent with Ammonical Nitrogen, low TDS &amp; very low COD-BOD:</b> Effluent from following plants is combined for the treatment—HCN, NaCN, Ammonium Sulphate &amp; SFCN – partly (only condensate water, which is major).</p> <p><b>Scheme - 2: Effluent containing high TDS &amp; high COD – BOD:</b></p> <p>a. SFCN Plant - Mother liquor after removing SFCN.</p> <p>b. DPG Plant - Alkaline</p>



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			effluent. c. SDCN Plant d. DOTG Both schemes are successfully implemented & treated effluent meets all norms of GPCB.  Industry have implemented Zero Liquid Discharge scheme from 1st April, 2016 with waste minimization for the existing ETP plants. Which is attached as <b>Annexure – 5</b> . Analysis reports of GPCB are also attached as <b>Annexure –3</b> .
xiv.	"Zero" effluent discharge shall be adopted and no effluent shall be discharged outside the premises.	Complied	Industry has implemented Zero Liquid Discharge scheme from 1st April, 2016 with waste minimization for the existing ETP plants. which is attached as <b>Annexure – 5</b> . The total treated water is being recycled to Cooling Tower/in process. No effluent is being discharged outside the premises.
xv.	Automatic / online monitoring system (24x7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.	Complied	Automatic / online monitoring system (24x7 monitoring devices) for flow measurement and relevant pollutants in the treatment system has been already installed.
xvi.	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Complied	Almost care is taken to avoid spillage of chemicals. All the plant area has been already covered with Dyke Wall and floor pit has also been provided to recycle/transfer spillage back to plant or to ETP.
xvii.	Incinerator should be designed as per CPCB guidelines. SO <sub>2</sub> , NO <sub>x</sub> , HCN, HCl and CO emissions shall be monitored in the stack regularly.	Complied	Strictly follow the CPCB guidelines for any environmental concern. Gaseous pollutants like SO <sub>2</sub> ,



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			NOx, HCN, HCl and CO emissions in flue gas emission and process emission are being monitored on monthly basis by external NABL approved laboratory and also by internal Environmental Quality Lab, twice in a month basis.
xviii.	Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.	Complied	Hazardous chemicals are being stored with proper care in tank farm, drums etc. transfer of liquid material is transferred by pipes through pumps.
xix.	The company shall 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 GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for firefighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.	Complied	The industry has obtained authorization for the storage and disposal from GPCB and has valid membership of Nandesari Environment Control Ltd. (NECL), Baroda & Bharuch Enviro Infrastructure Ltd. (BEIL), Ankleswar/ Dahej. Membership copies of the same are enclosed as <b>Annexure - 6.</b>
xx.	As proposed, ETP sludge, incineration ash and evaporation residue shall be sent to TSDF site. High calorific value waste such as spent organic shall be sent to cement factory/incinerated.	Complied	The industry has obtained authorization for the storage and disposal of incineration ash, treatment and disposal of hazardous waste from GPCB and has valid membership of Nandesari Environment Control Ltd. (NECL), Baroda and Bharuch Enviro Infrastructure Ltd. (BEIL), Ankleswar & Dahej. Membership copies of the same are enclosed as <b>Annexure -6.</b>
xxi.	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 11989 as	Complied	• Company has carried out various technical studies like HAZOP, Risk Assessment,



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the. Motor Vehicle Act (MVA), 1989.		<p>Safety Audit etc. to understand work operation and their hazards to minimize the potential risk.</p> <ul style="list-style-type: none"> <li>• Company has a comprehensive emergency action plan, contingency report and is also member of the District Crisis Group.</li> <li>• Company regularly conducts Mock Drills for various scenarios such as ON-SITE Mock Drill and observations are evaluated and implemented.1</li> <li>• Company has got adequate firefighting &amp; hydrant system network to cope with the emergency.</li> <li>• Company has freeze assembly points at strategic locations &amp; emergency escape routes. Due to low movement of vehicle, HCC used to operate one gate out of two for entry and exit purpose of employees &amp; vehicle and the second gate is being kept as an emergency exit.</li> <li>• Company has got 3 bed OHC within the premises which is managed by qualified Doctor and trained nurse round the clock. Also sufficient stock of Cyanide antidote kits is available in OHC.</li> <li>• Company organizes training on various topics regarding occupational hazard to create awareness among the workforce.</li> </ul>



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			<ul style="list-style-type: none"> <li>Company has organized various awareness programmes for local Students, Teachers &amp; Doctors.</li> </ul>
xxii.	The company shall undertake following waste minimization measures :-	Complied	
a)	Metering and control of quantities of active ingredients to minimize waste		Industry has already implemented sophisticated close charging system with instrumentation for metering & control of active ingredients.
b)	Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.		Industry is already using the Ammonium Sulphate – byproduct generated from HCN Plant. This is sold as fertilizer. Sodium Cyanide waste & mother liquor of NaCN are used for Sodium Ferro-cyanide manufacturing process. Acidic waste water (dilute HCl) generated from DPG Plant during the manufacture of Ferrous Chloride is being used as a raw-material.
c)	Use of automated filling to minimize spillage.		To minimize the spillage, all finished products, e.g. Sodium Cyanide, Diphenyl Guanidine & Sodium Dicyanamide etc. are filled in drums/bags automatically. Spillage is almost eliminated.
d)	Use of Close Feed system into batch reactors.		Raw-materials and process chemicals feeding system into batch reactors are in a closed system with sophisticated instrumentation.
e)	Venting equipment through vapour recovery system		Venting equipments, e.g. condensers, scrubbers & incinerators have been provided to the reactor to destruct hazardous vapour &





SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			hence there will be no toxic/hazardous release to atmosphere.
f)	Use of high pressure hoses for equipment clearing to reduce wastewater generation.		Company is already using water at high pressure for cleaning the equipment.
xxiii.	The unit shall make the arrangement for protection of possible fire hazards during Manufacturing process in material handling. Firefighting system shall be as per the norms	Complied	Company has made arrangement for the protection of possible fire hazard right from the beginning. Fire water pipe line network with fire water pond & pumps have been provided to meet any emergency. Different types of required fire extinguishers have been provided in all plants & other strategic locations. Firefighting training is also given to employees.
xxiv.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied	Occupational Health Surveillance of all workers & employees is being done regularly by industry at least Twice in a year by qualified medical officer & also by an external agency, Dr. Agarwal Diagnostic Centre, Kalyan, Mumbai. Records of the same are maintained as per the Factories Act.
xxv.	As proposed, green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	Complied	Total plot area is 2,04,995 m <sup>2</sup> out of which Greenbelt has already been developed in 92,247 sq. m., which is 45% of total land. Selected plant species is as per the CPCB guidelines in consultation with the DFO.
xxvi.	The company shall make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.	Complied	• Company has made arrangement for the protection of possible fire hazard right from the beginning. Fire water pipe



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			<p>line network with fire water pond &amp; pumps have been provided to meet any emergency. Different types of required fire extinguishers have been provided in all plants &amp; other strategic locations. Firefighting training is also given to employees.</p> <ul style="list-style-type: none"> <li>• Safety training is given to all employees on joining, followed by written test and refresher safety training is also given to all employees once in a period of two years, which includes use of PPEs.</li> <li>• Pre-employment and routine medical examination for all employees handling chemicals is conducted regularly.</li> </ul>
xxvii	Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	Complied	Industry has already made provision for the housing of construction laborers in the company's housing colony, which is nearby the plant & has all required facilities.
xxviii i.	At least 2.5% of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office of MoEF & CC. Implementation of such program should be ensured accordingly in a time bound manner.	Complied	The company has allocated a budget of 2.5% of project cost for ESC.
<b>GENERAL CONDITIONS</b>			
i)	The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control	Complied	<b>Complied</b> HCC has received renewed



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	Board (GPCB), State Government and any other statutory authority.		CC&A vide order no. AWH-94173 dated 04/07/2018 valid up to 14/07/2023 which is attached as <b>Annexure - 8</b> .
ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. 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.	Complied	Company assures that no further expansion or modification in the plant shall be carried out without prior approval of MoEF&CC. A fresh reference shall be made for any deviation & change in the plant.
iii)	The locations of ambient air quality monitoring stations shall be decided in consultation with the Gujarat Pollution Control Board (GPCB) 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 concentrations are anticipated.	Complied	Industry has already decided the following four ambient air locations as under in consultation with GPCE. 1. HCN plant 2. ADM Office 3. R&D lab 4. Security Office
iv)	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).	Complied	During the study period, the ambient noise level was within the limit as per the standard prescribed under Environment (Protection) Act, 1986, Rules, 1989 for day time and night time. For Noise level report kindly find attached <b>Annexure- 11</b> .
v)	The Company shall harvest rainwater from the rooftops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	Complied	Due to winter season, during last six months, No rain water was harvested.
vi)	During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic wastewater and storm water drains.	Complied	Almost care is taken to avoid spillage of chemicals. All the plant area has been already covered with Dyke Wall and floor pit has also been provided to recycle/transfer spillage back to plant or to



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			ETP.
vii)	Usage of Personnel Protection Equipments by all employees/ workers shall be ensured.	Complied	All necessary PPEs such as Hand Gloves, Dust mask, Gas mask, Face mask, Safety shoes, Helmet etc. & other safety equipment's /materials are being provided as per the requirements of safe workplace condition.
viii)	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 all employees on handling of chemicals shall be imparted.	Complied	Safety training is given to all employees on joining, followed by written test and refresher safety training is also given to all employees once in a period of two years, which includes use of PPEs. Pre-employment and routine medical examination for all employees handling chemicals is conducted regularly.
ix)	The company shall also comply with all the environmental protection measures and safeguards proposed in the project report submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	Complied	Industry has provided scrubber, dust collector, bag filter and cyclone separator wherever required.
x)	The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.	Complied	HCC Management believes in socio-economic upliftment and undertakes various CSR activities based on requirement of surrounding areas.  Company is actively working on improving socioeconomic Conditions of the surrounding area by way of organizing medical camps, blood donation camps, donation to schools & villages.  Awareness training on hazards



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			of chemicals used/produced in plant & their preventive measures are being given to people of surrounding villages.
xi)	The company shall undertake eco developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Complied	<p>Company is actively working on eco-developmental measures in the project area. New tree plantation is done every year on Safety Day, World Environment Day &amp; before monsoon.</p> <p>Company has organized various safety and environment awareness programs and also planted 750 nos. of trees within premises in the month of June 2019 to Nov 2019.</p>
xii)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Complied	<p>Company has already set up Environmental Management Cell (EMC) equipped with full-fledged Laboratory facility. Company has also appointed qualified Environmental Officer, who looks after day to day monitoring and management activity of the EMC.</p>
xiii)	The company shall earmark sufficient funds for recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests 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.	Agreed	<p>HCC Management believes in sustainable management of natural resources and environment of project site as well as surrounding areas. Adequate funds are available for the same.</p>
xiv)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/Representations, if any, were received while	Complied	<p>Copy of the clearance letter has been sent to concerned authorities.</p>



SR. NO.	DESCRIPTION OF CONDITION	COMPLIANCE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	processing the proposal.		
xv)	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, the respective Zonal Office of CPCB and the Gujarat Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Complied	HCC is regularly submitting summary of six monthly reports on status of compliance of EC conditions by email to Regional Office of MoEF & CC and the same comprehensive physical report by post to the Regional office of MoEF&CC, the respective zonal office of CPCB and the State Pollution Control Board.
xvi)	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the Gujarat 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 Bhopal Regional Offices of MoEF by e-mail.	Complied	Environmental statement for each financial year in Form – V is being submitted to GPCB. HCC has sent copy of Form – V through courier for the financial year 2018 – 2019 to MoEF, Bhopal.
xvii)	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 <a href="http://envfor.nic.in">http://envfor.nic.in</a> . 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 to the ministry.	Complied	Information on Environmental Clearance for new projects has already been advertised in two local newspapers Gujarat Samachar on 20th March 2020 and The Times of India on 20th March 2020.
xvii)	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.	Complied	In case of EC already granted, the new products are proposed to be manufactured in the existing facility and the project cost is financed from internal accruals. Further, major part of the proposed cost, i.e. 2 MW CPP has still not been established.



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			However, when the proposed EC shall be granted for new expansion, we shall inform the Regional Office as well as Ministry regarding the details of financial closure and financial approval of the project.



## SUMMARY

Hindusthan Chemical Company, formerly known as Cyanides & Chemicals Company, is a unit of HEIL. The unit was set up in the year 1982 in GIDC Industrial Estate at Olpad Taluka of Surat District in Gujarat State. The unit is engaged in manufacture of Hydrogen Cyanide (HCN) and Cyanide based products. The unique feature of the HCN manufacturing technology is that the whole system of manufacturing process is working under vacuum hence in any case hazardous gas is not released-out into the atmosphere from the production system. The unit is manufacturing of Hydrogen Cyanide, Sodium Cyanide, Potassium Cyanide, Sodium/Potassium Ferro Cyanide, Diphenyl Guanidine, Heat Treatment Salt, Sodium Dicyanamide, Cyanohydrins, Nitriles, Cyanide based products, Mandelonitrile and Natural Gas based Captive power Plant.

Under environment legislation, it is mandatory to submit six monthly compliance reports on the conditions mentioned in the Environment Clearance (EC) vide letter no.: No. J – 11011/ 466/2011 – IA II (I) dated 22/01/2016 issued by Ministry of Environment & Forests (MoEF), Govt. of India, New Delhi. Hindusthan Chemicals Company at Olpad Dist: Surat has obtained valid EC, NOC & CC&A from concerned authorities.

The industry has awarded contract for the Environmental monitoring and preparation of six monthly EC compliance report to Earthcare Enviro Solutions Pvt. Ltd. The consultancy firm has its own well equipped laboratory to measure the pollution parameters related to Environmental Monitoring (Air, Water, Wastewater, Soil) with National Accreditation Board for Testing and Calibration Laboratories (NABL) accreditation. All monitoring equipments are available to measure Stack emissions, Ambient Air quality and noise level of various plants.

Six monthly compliance report along with monitoring data are regularly submitted to the concerned department and during monitoring period of this report RO visit was also done. All the conditions stipulated in EC clearance was complied by the project proponent.



## **OBSERVATIONS & RECOMMENDATIONS**

- HCC has obtained valid EC, NOC & CC&A from concerned authorities.
- HCC used to operate one gate out of two for entry & exit purpose of employees & vehicle and the second gate is being kept as an emergency exit.
- All the analysis report of ambient air, stack, effluent & noise are well within the GPCB norms.
- Industry has implemented ZLD scheme and no effluent discharge outside the industry premises.
- Industry has carried out regularly pre-employment & routine medical examination for all employees.
- HCC has greenbelt area of 22 acres (approx.45%) within premises.
- HCC has installed and commissioned online stack monitoring gas analyzer and TOC meter.
- HCC has implemented rain water harvesting.
- HCC has been regularly carried out CSR activities.
- HCC has obtained membership certificate of BEIL, Ankleshwar/Dahej & NECL, Baroda for disposal of hazardous waste.
- It is recommended to upload regularly six monthly compliance report of EC conditions, EC letter, Form – V, Latest CC&A and NOC on company's website.

**Annexure-1**

**Salient Features of Project**

<b>S. No.</b>	<b>Description</b>	<b>Details</b>
1.	Airport	Surat Airport is 22 km in S direction
2.	Railway station	Surat Railway station is 19 km in SE direction
3.	Port	Magdalla port is 26 km in S direction
4.	National Highway	NH-8 is 21 km in E direction
5.	State Highway	SH-6 is 350 m in E direction
6.	Town/City	Surat city is 15 km in SE direction
7.	Village	Olpad village is 1.5 km From nearest main locality
8.	River	Tapi river is 9.5 km in SE direction
9.	Sea	Arabian Sea is 18.5 km in SW direction

**Annexure-2**

**Salient Features of Project**

S. No.	Head of Expenses	Expenditure (Rs. In Lakhs)	
		Year 2018-19	Year 2019-20
1.	Effluent Treatment Facility	88.14	190.16
2.	Hazardous Waste Management Facility	197	21.30
3.	Green Belt Development	0.95	16.02
4.	Electricity charge to run ETP for GEB	117.57	76.93
5.	Environment Monitoring & Audit	18.86	2.31
	Total	422.53	306.72

## GPCB ANALYSIS REPORT



ANALYSIS REPORT FOR  
WATER / WASTE WATER SAMPLE

Sample ID: 273776 - Analysis Completion: 21/01/2020

Organic Chemicals manufacturing / LAB Inward : 38008

Gujarat Pollution Control Board, Surat  
338, Belgium Square  
Typical 1st Floor, Opp. Linear Bus Stand  
Ring Road, SURAT  
Tele: (0261) 2442696

## TEST REPORT

Test Report No. : 38008

Date: 22/01/2020

1. Name of the Customer : Hindusthan Chemicals Company Old Name: Cyanides & Chemicals Company) - 20643  
2. Address : ,GIDC IND.ESTATE,P.O. - OLPAD  
OLPAD-394540, Taluka : Olpad, District : Surat, GIDC : Not In Gidc  
3. Nature of Sample : REP-Representative/Grab, (Insp Type : REV-On/For Revocation)  
4. Sample Collected By : M B AHIR,SO(M)  
5. Quantity of Sample Received : 5 Lit  
6. Code No. of the Sample : 273776  
7. Date & Time of Collection & Inwarding : 07/01/2020 , (1040 to 1040) & 08/01/2020  
8. Date of Start & Completion of Analysis : 08/01/2020 & 21/01/2020  
9. Sampling Point : From final outlet of STP ~  
10. Flow Details (Remarks) : yes  
11. Mode of Disposal : on land for plantation and gardening within the premises  
12. Ultimate Receiving Body : Zero Liquid Discharge  
13. Temperature on Collection : 26 & pH Range on pH Strip : 7 to 8 on pH strip  
14. Carboys Nos for : SUR-421134 & Color & Appearance : light gray  
15. Water Consumption & W.W.G (KLPD) : Ind :643.200 , Dom :8.000 & Ind :257.900 , Dom :8.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part - 9) - 1984(Reaffirmed 2006)	Ambient oC - 60 oC	26
2	pH	pH Units	4500 H+ B APHA Standard Methods 22nd edn.2012	1 - 14 pH value As or	8.05
3	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 - 10000 mg/L	18
4	Fecal Coliform	MPN/100 ml	2.9221 E APHA 22nd Edition IS 1622-1981	<1.8 to >1600 MPN/10	6
5	B.O.D (3 Days 27oC)	mg/l	3 - Day BOD test. (IS 3025 (Part 4) 1993 Reaffirmed	05-50000 mg/l	10

Laboratory Remarks : Approved By:274-lab\_274 Dt.: 22/01/2020

  
Dr. A H Sharma, Lab Head

Field Observation : sample is collected as per is: 3025 and 1622

## Note :

- \* - These parameters are NOT covered under the scope of NABL.
- The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
- Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
- This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
- The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
- Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
- Permissible Limits: as per Schedule VI of EPA Rules, 1986 as amended by Second and Third amendment 1993 for Effluents
- Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
- Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

N I C

23/01/2020

Annexure-4



# HINDUSTHAN CHEMICALS COMPANY

CIN : U93000WB1998PLC086303

(An enterprise of THE HINDUSTHAN GROUP)

G.I.D.C. Industrial Estate, Olpad - 394540, DIST SURAT, GUJARAT (INDIA) Email : hccolp@hcc-cyanides.com  
TELEPHONE : 02621-221681 to 221683, M: 9978444894, 9978444895 Telefax: 02621-221235

F. HCC:TECH:17:RPS:9

06<sup>th</sup> April, 2020.

Through Courier

The Unit Head (Surat)  
Gujarat Pollution Control Board  
Paryavaran Bhavan  
Sector - 10A  
Gandhinagar - 382 010

Sub : Environmental Audit Statement for the Financial Year ended on 31<sup>st</sup> March, 2020.

Dear Sir,

As per Notification dated 13<sup>th</sup> March, 1992 of Govt. of India, Ministry of Environment & Forests, New Delhi, we are enclosing herewith our Environmental Audit Statement for the financial year ended on 31<sup>st</sup> March, 2020 for your perusal.

We hope, you will find the same in order.

Thanking you,

Yours faithfully,  
for Hindusthan Chemicals Company

R. P. Sharma  
Asst. Vice President (Plant)

encl : a/a

- c. c. : 1. The Regional Officer  
Gujarat Pollution Control Board  
338, Belgium Square, Typical 1st floor  
Silver Plaza Complex  
Near Linear Bus Stand  
Ring Road, Surat - 395 003
2. The Director (Environment)  
Ministry of Environment & Forests  
Regional Office (Western Region)  
Link Road No. 3, E-5, Arera Colony  
Bhopal - 462 016 (M.P.)

- By Regd. A/D

**FORM – V**

(See Rule 14)

**ENVIRONMENTAL AUDIT REPORT FOR THE FINANCIAL YEAR ENDED ON 31<sup>ST</sup> MARCH, 2018.**

**PART - A**

1. Name and address of the Owner/  
Occupier of the industry operation  
or process : Hindusthan Chemicals Company  
Prop: Hindusthan Engineering & Industries Ltd  
GIDC Industrial Estate  
P.O. Olpad – 394 540, Dist. Surat. (Gujarat)
2. Production capacity unit : Please refer Annexure - 1.
3. Date of the last environmental : 23.06.2019

**PART – B**

**WATER AND RAW MATERIAL**

**CONSUMPTION**

1. Water Consumption M<sup>3</sup>/day
  - (A) Domestic : 8.347 M<sup>3</sup>/day
  - (B) Industrial:
    - i) Cooling & Boiler } : 283.785 M<sup>3</sup>/day
    - ii) Process, Washing & Agriculture } : 24.322 M<sup>3</sup>/day

Total : 316.454 M<sup>3</sup>/day

**Name of the Products Fresh Water Consumption per unit of Products**

**During the previous Financial Year During the current Financial Year**

**(2018-2019)**

**(2019-2020)**

Please refer Annexure - 1

35.400 M3/MT of HCN

40.250 M3/MT of HCN

Contd...2

: 2 :

**PART – C**

**POLLUTION GENERATED(Parameters as specified in the Consent Issued)**

(i)	Pollutants	Quantity of pollution generated.	Percentage of variation from prescribed standards with reasons.
a)	Water }	Please refer Annexure - 2	
	}		
b)	Air }		

**PART – D**

**HAZARDOUS WASTE**

**(As specified under Hazardous Waste Management and Handling Rules, 1989)**

Hazardous Wastes	Total Quantity (Kgs.)	
	During the Previous Financial Year ( 2018-2019)	During the Current Financial Year (2019 –2020)
a) From Process }	313144.00	25040.00
}		
From Pollution }		
control facilities }		

Note: Major Hazardous Waste generator product plants are kept non operational in current financial year 2019-20.

Above whole quantity was dried in impervious solid waste collection pan and then sent to M/s Bharuch Enviro Infrastructure Ltd, Ankleshwar for incineration, treatment and disposal.

**PART – E**

**SOLID WASTES**

	T o t a l Q u a n t y	
	During the Previous Fin. Year 2018-2019)	During the Current Fin. Year (2019-2020)
a) From Process	Whole quantity of solid waste was dried and then sent to	Whole quantity of solid waste was dried and then sent to
b) From Pollution	M/s Bharuch Enviro Infrastructure Ltd.	M/s Bharuch Enviro Infrastructure Ltd.
c) Quantity Recycled or re-utilized	for incineration, treatment and disposal.	for incineration, treatment and disposal.

contd....3

**PART – F**

Please specify the characteristics (in terms of concentration and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

**Hazardous Waste:**

i)	Activated Carbon	- Semi solid	
		Activated Carbon	-
		Water	-
		Oxidized Polymer of DPG (Loss on ignition at 500° C.)	-
ii)	Ferri Ferrocyanide	- Ferri Ferrocyanide	-
		Water	-
iii)	Ferric Hydroxide	- Ferric Hydroxide	-
		Water	-
		Sodium Ferrocyanide	-

**Solid Waste:**

i)	Contaminated Salt	Sodium Chloride	-
ii)	ETP sludge	Cyanide content	-
iii)	Residue from ZLD	Cyanide content	>2ppm

**PART – G**

Impact of the Pollution Control Measures on conservation of natural resources and consequently on the cost of production.

**Impact on conservation of natural resources****Impact of cost of production****1. Water Pollution**

We are operating our Zero Liquid Discharge Plant efficiently and no treated water is discharged by our unit. The total treated water is being recycled to Cooling Tower/In process.

An amount of Rs. 64.5 Lacs is spent annually in Effluent Treatment Plant & Zero Liquid Discharge Plant.

**2. Hazardous Waste:**

Hazardous waste get completely dried in impervious pan by solar evaporation.

Constituents present in hazardous waste was sent to M/s Bharuch Enviro Infrastructure Ltd, Ankleshwar for incineration, treatment and disposal. An amount of Rs. 48,656 was spent annually

cont....4



**3. Air Pollution:**

The toxic gases are completely burnt in Incinerator resulting into generation of inert gases, i.e. CO<sub>2</sub>/N<sub>2</sub> and simultaneously generation of steam which is effectively used in plants. Therefore, there is no impact of conservation of natural resources.

Approx. 23,112 MT/year steam was generated in Incinerator, otherwise to generate 23,112 MT steam we would have burnt 1926 K.L. of furnace oil.

**PART – H**

**Additional investment proposal for environmental protection including abatement of pollution.**


1. We are fully equipped to handle hazardous waste, liquid effluents, air pollutants and detoxicate the same conforming to the norms specified by Pollution Control Board.
2. We are having On-line Stack Monitoring Gas Analyser and records are being maintained.
3. We are having On-line TOC Meter. Records are being maintained.
4. We have installed and commissioned Zero Liquid Discharge plant on 14 03 2016 and stopped discharge of waste water to Masma Khadi from 01 04 2016. All the treated water is being recycled in Cooling Tower and in Process.
5. We are going to install on-line Ambient Air Monitoring Station shortly.

**PART – I**

**Miscellaneous**

**Any other particulars in respect of environment protection and abatement of pollution.**

About 2500 additional trees were planted within our battery limit during monsoon season.



**(R. P. Sharma)  
Asst. Vice President (Plant)**

**Annexure -1**

**PRODUCTION DETAILS**

Sl No	Name of product	Consent Capacity MT/Annum	Actual production MT/Annum
1	Hydrocyanic Acid	5100	1693.300
2	Sodium Cyanide	6372	2559.288
3	Potassium Cyanide	2000	Nil
4	Sodium/Potassium Ferrocyanide	1000	Nil / Nil
5	Diphenyl Guanidine	1260	NIL
6	Sodium Dicyanamide	300	Nil
7	Mandelonitrile	2500	1213.082
8	Heat Treatment Salt	720	Nil
9	Cyanohydrines	5000	159.559
10	Nitriles	3000	Nil
11	Cyanide Based Products	3500	Nil
12	Ammonium Sulphate (By-product)	2649	935.450

**POLLUTION GENERATED**

Sr. No	Pollutants	Quantity of Pollution	Parameters	As specified in the consent issued	Percentage of variation from prescribed standard with reason
a)	<u>Water</u>	-  (We have installed Zero Liquid Discharge Plant)	pH  BOD mg/l  COD mg/l  Ammonical Nitrogen mg/l  Cyanide content mg/l.	N.A.  N.A.  N.A.  N.A.	Nil
b)	<u>Air</u>				
	Boiler	2000 M <sup>3</sup> /hr	Suspended particulate matter (SPM) in mg/NM <sup>3</sup>	150 max.	Nil
	Incinerator	7000 M <sup>3</sup> /hr	Sox (PPM)	100 max.	
			Nox (PPM)	50 max.	
			Cyanide as HCN (NMg/M <sup>3</sup> )	30 max.	
			HCl (NMg/M <sup>3</sup> )	20 max.	

**Note :** We are operating our Zero Liquid Discharge Plant efficiently and no treated water is discharged by our unit. The total treated water is being recycled to Cooling Tower/In process.

**Zero Liquid Discharge Scheme With Waste Minimization**

**TREATMENT OF EFFLUENT STREAMS AT EXISTING AND PROPOSED ZLD SCENARIO**

**Existing treatment scheme:**

The total process effluent generated from the plant is segregated into two streams as under.

**1. Low TDS and low COD process effluent**

Over head Condensate generated from NaCN, SFCN & Ammonium Sulfate, contains High Ammonical Nitrogen & Cyanide collected in V511. This effluent passed through Cation based Ammonical Nitrogen Removal Unit, resulting in reduction of Ammonical Nitrogen less than 50 ppm, and gets mixed with Lean water from HCN plant, containing high cyanides.

Removal of high cyanide is being done through air stripping, (equipped with caustic scrubber where CN gets convert to NaCN slurry, this slurry is transferred to NaCN plant to recover NaCN. The bottom effluent from air stripper containing CN - < 5 ppm, is finally passes through Anion based cyanide removal Unit. In which CN contain gets minimized less than 0.2 ppm.

Above treated effluent of 114 KLD, along with blow downs of boiler & cooling tower of 128 KLD sent to equalization tank of existing , conventional treatment plant of 300 KLD consisting of primary and secondary units. The treated effluent is then sent to final treated effluent collection unit (guard pond no 1). The treated effluent confirming the GPCB norms sent to Guard Pond No. 2 for final discharge to masma khadi.

**2. High TDS and high COD process effluent**

Combined effluent of alkaline nature from DPG, SDCN & SFCN is treated with Chlorine to detoxify free Cyanide and convert volatile organic impurities into stable high boiling chloro derivatives.

Mixed effluent of 50 KLD after chlorination is passed through Nutch filter for filtration. The filtrate is fed to multi-stage evaporator of 80 KLD. The overhead condensate is obtained which is having very low TDS & COD. This condensate is being recycled to our existing plants. The contaminated salt approximately 2.5 MT/day recovered after evaporation through centrifuge is isolated & filled in HDPE Bag and sent to approved TSDF site for incineration for final disposal.

**Proposed Treatment scheme to achieve ZERO LIQUID DISCHARGE with waste minimization:**

To achieve Zero Liquid Discharge, the existing segregated process effluent streams will be treated in following manner.

**1. Low TDS and low COD process effluent**

Over head Condensate generated from NaCN, SFCN & Ammonium Sulfate, contains High Ammonical Nitrogen & Cyanide collected in V511. This effluent passed through Cation based Ammonical Nitrogen Removal Unit, resulting in reduction of Ammonical Nitrogen less than 50 ppm, and gets mixed with Lean water from HCN plant, containing high cyanides.

Removal of high cyanide is being done through air stripping, (equipped with caustic scrubber where CN gets convert to NaCN slurry, this slurry is transferred to NaCN plant to recover NaCN. The bottom effluent from air stripper containing CN - < 5 ppm, is finally passes through Anion based cyanide removal Unit. In which CN contain gets minimized less than 0.2 ppm.

Above treated effluent of 114 KLD, along with blow downs of boiler & cooling tower of 128 KLD sent to equalization tank of existing conventional treatment plant of 300 KLD consisting of primary and secondary units. The treated effluent is then sent to final treated effluent collection unit (guard pond no 1). The treated effluent confirming the GPCB norms sent to Guard Pond No.2.

The treated effluent from existing ETP, which is being presently discharged in Khadi, will be further treated in tertiary treatment plant which will include Pressure Sand Filter (PSF), Activated Carbon Tower (ACT) and Reverse Osmosis (RO) plant. The permeate from RO plant shall be recycled for reuse in the cooling tower. The reject form RO plant will sent to proposed MEE for further treatment. The over head condensate from MEE will be recycled for reuse in the cooling tower. Approximately 0.75 MT/day evaporated salt recovered after evaporation through centrifuge is isolated & filled in HDPE Bag and sent to approved TSDF site for land filling for final disposal.

## **2. High TDS and high COD process effluent**

The existing mixed effluent of 50 KLD shall be segregated in two streams and shall be treated as under.

### **A. Spent acid stream containing HCL of 12 KLD.**

Another stream of spent Acid from DPG plant containing HCl less than 5 %, will be neutralized & evaporated in an evaporator for removal of TDS as salt & overhead condensate will be recycled in cooling tower. Approximately 0.84 MT/day industrial salt recovered after evaporation through centrifuge is isolated & filled in HDPE Bag and sent to approved TSDF site for land filling for final disposal. We shall explore the possibility of selling as industrial salt to actual users.

### **B. High TDS & high COD stream with cyanide contamination of 38 KLD.**

Mixed effluent of 38 KLD after chlorination is passed through Nutch filter for filtration. The filtrate is fed to multi-stage evaporator of 96 KLD. The overhead condensate is obtained which is having very low TDS & COD. This condensate shall be recycled to existing plants or shall be incinerated in proposed liquid waste incinerator of 100 KLD capacity. The contaminated salt approximately 1.5 MT/day recovered after evaporation through centrifuge shall be isolated & filled in HDPE Bag sent to approved TSDF site for incineration for final disposal. The ash from the incinerator of approximately 0.025 MT/day shall be isolated & filled in HDPE Bag sent to approved TSDF site for land filling for final disposal.

HCC Having two number of Membership of Approved TSDF Site.

1. M/s. NECL, Vadodara 2.M/s. BEIL , Ankleshwar

Membership Certificate of BEIL, Ankleshwar & NECL, Baroda

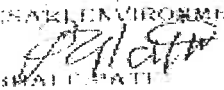


**NANDESARI ENVIRONMENT CONTROL LTD.**

SURVEY NO. 519/P, G.I.D.C. ESTATE, NANDESARI-381 340, DIST. VAQODARA  
PHONE : (0265) 2340 818 FAX : (0265) 2341017 E-mail : necl\_tsc@yahoocorp.in

TO WHOMSOEVER IT MAY CONCERN

THIS IS TO CERTIFY THAT M/S. HINDUSTHAN CHEMICALS COMPANY, GIDC INDUSTRIAL ESTATE, P.O.-OLPAD-39A 540, DIST: SURAT IS OUR VALID MEMBER (MEMBERSHIP NO.206) OF COMMON HAZARDOUS WASTE INCINERATION FACILITY DEVELOPED BY NECL AT SITE NO. 100 NANDESARI, DIST. VAQODARA

FOR & ON BEHALF OF  
NANDESARI ENVIRONMENT CONTROL LTD.  
  
ANIL CHAVHAN  
MANAGER

16.08.2010  
NANDESARI

Common Solid Waste Disposal and Incineration Facility





**BEIL INFRASTRUCTURE LIMITED**  
(formerly known as Bharuch Enviro Infrastructure Limited)

20<sup>th</sup> November, 2019

To,  
**HINDUSTHAN CHEMICALS COMPANY**  
GIDC INDUSTRIAL ESTATE,  
POST.OLPAD-394540,  
TA: OLPAD, DIST: SURAT,  
SURAT.

**Sub : Membership Certificate for Common Incineration Facility.**

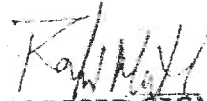
Dear Sir,

You are a member of our Common Incinerator Facility and your membership No. is **CI/OBD/085**. We hereby certify that you have increased your booked quantity **10 MT / Year** to **866 MT / Year**.

As per norms we can only accept your hazardous incineration waste when you provide proper authorization of GPCB CCA with desired quantity also kindly ensure, **The cyanide limit is under GPCB limit.**

Thanking you,

Yours faithfully,  
**For, BEIL INFRASTRUCTURE LIMITED**  
(Formerly Known as Bharuch Enviro Infrastructure Ltd)

  
**AUTHORISED SIGNATORY**



**BEIL INFRASTRUCTURE LIMITED**  
(formerly known as Bharuch Enviro Infrastructure Limited)

Ref. BEIL/ANK/2019

20<sup>TH</sup> November, 2019

To,  
**HINDUSTHAN CHEMICALS COMPANY**  
GIDC INDUSTRIAL ESTATE,  
POST.OLPAD-394540,  
TA: OLPAD, DIST: SURAT,  
SURAT.

**Sub: Membership Certificate for Common Solid Waste Disposal Facility.**

Dear Sir,

We hereby certify that you have become member for **10 years up to 19/11/2029** for the common Solid/Hazardous waste disposal facility of BEIL INFRASTRUCTURE LIMITED (Formerly Known as Bharuch Enviro Infrastructure Limited), at GIDC, Dahej. You have booked solid waste quantity of **511 MT/Years**. Your Membership No. is **Oth/750**.

Waste will be accepted after submitting valid authorization of GPCB.

Thanking you,

Yours faithfully,

**For BEIL Infrastructure Limited.**

(Formerly Known as Bharuch Enviro Infrastructure Limited.)

**AUTHORISED SIGNATORY**



Annexure-7

**Category wise Solid Waste Generation & Disposal form December. 2019 to May, 2020**

Sr No	Category	Opening stock	Dec. 2019		Jan. 2020		Feb. 2020		March. 2020		April. 2020		May. 2020		Closing Stock	
			Generation Kg	Disposal Kg	Generation Kg	Disposal Kg	Generation Kg	Disposal Kg	Generation Kg	Disposal Kg	Generation Kg	Disposal Kg	Generation Kg	Disposal Kg	Generation Kg	Disposal Kg
1	Residue of ZLD	4927	22000	24770	3040	0	0	0	0	0	9000	0	0	980	0	15177
2	Activated Carbon	2564	0	0	0	0	0	0	0	0	0	0	0	0	0	2564
3	Ferric Hydroxide	1502	0	0	0	0	0	0	0	0	0	0	0	0	0	1502
4	Residue of ETP(MEE)	0	0	0	0	0	0	0	0	0	2000	0	0	0	0	2000
5	Iron Sludge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	ETP Sludge	699	0	0	0	0	0	0	0	0	0	0	0	0	0	699
7	Contaminated Polythene Liner	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25
8	Drums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Resin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>TOTAL</b>	<b>9717</b>	<b>22000</b>	<b>24770</b>	<b>3040</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11000</b>	<b>0</b>	<b>0</b>	<b>980</b>	<b>0</b>	<b>21967</b>

## CCA


**GUJARAT POLLUTION CONTROL BOARD**
**PARYAVARAN BHAVAN**

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986. This Board is empowered to Grant CC&A.

And whereas Board has received consolidated consent application letter no. **136233** dated **22-04-2018** for the **Consolidated Consent and Authorization (CC & A)** of this Board under the provisions/rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

**CONSENTS AND AUTHORISATION:**

(Under the provisions/rules of the aforesaid environmental acts)

To,

**M/s. Hindusthan Chemicals Company**
**GIDC IND. Estate,**
**Post:- Olpad-394540.**
**Tal:- Olpad, Dist:- Surat.**

1. Consent Order No. **AWH-94173** Date of issue: **04-07-2018**.
2. The consents shall be **valid upto 14-07-2023** for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant for manufacturing of the following items/ products

Sr. No.	Product	Quantity
1	Hydrogen Cyanide	5100 MT/Annum
2	Sodium Cyanide	6372 MT/Annum
3	Potassium Cyanide	2000 MT/Annum
4	Sodium ferro Cyanide	1000 MT/Annum
5	Potassium ferro Cyanide	1000 MT/Annum
6	Diphenyl Guanidine	1260 MT/Annum
7	Sodium dicyanide	300 MT/Annum
8	Mandelonitrile	2500 MT/Annum
9	Heat treatment salt	720 MT/Annum
10	Cyano hydrines	5000 MT/Annum
11	Nitriles	3000 MT/Annum
12	Cyanide based products	3500 MT/Annum

**Subject to specific conditions:**

1. Unit shall maintain zero discharge of wastewater. The evaporator shall be adequate to maintain zero liquid discharge.
2. Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).
3. As per Provisions of Rule 18 of Solid Waste Management Rules-2016 you are directed to make an arrangement in Utilities to replace at least five percent (5%) of your solid fuel requirement by 'refused derived fuel'.

**Clean Gujarat Green Gujarat**  
 ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

4. Industry shall obtain NOC from CGWA as per order of Hon. National Green Tribunal for the withdrawal of ground water.
5. Industry shall provide dedicated storage facility for fly ash.
6. Industry shall comply with fly ash notification 1999 as amended from time to time.
7. Industry shall achieve Zero liquid discharge through recycling/reuse evaporation.
8. Unit shall strictly follow conditions mentioned EC issued by MOEF on date: 05/10/2010 & CTE order issued by GPCB vide letter no: GPCB/CTE/SKT-50(6)/88114.
9. Cyanide stream & High TDS stream shall be segregated at source & Cyanide stream shall be given cyanide removal treatment & High TDS Stream shall be evaporated in Multi Effect Evaporator.
10. Unit shall follow & implement applicable recommendation of cleaner production in Chemical industry, which is enclosed herewith this order.

3. **CONDITIONS UNDER THE WATER ACT:**

- 3.1. Source of water: - borewell & Local Body.
- 3.2. The quantity of the fresh water consumption for industrial purpose shall not exceed 643 KL/Day.
- 3.3. The quantity of the fresh water consumption for domestic purpose shall not exceed 8 KL/Day.
- 3.4. The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed 258 KL/Day.
- 3.5. Unit shall segregate two Streams & source.
  - Stream I: Low COD Stream from utilities shall be treated in conventional ETP followed by RO & Multiple Effect Evaporator (MEE) to maintain the Zero liquid discharge at all time. RO reject shall not be used for any purpose.
  - Stream II: High COD Stream from DPG & SFCN Plant, after treatment for removal of cyanide & Ammonia shall be mixed with Stream I & sent to MEE for maintaining Zero Liquid Discharge & RO Permeate (211.3 KLD) shall re-used for cooling water makeup. There shall be no discharge of industrial effluent.
- 3.6. Industry shall provide fixed pipeline with flow meter for collection of segregated stream, reuse of RO Permeate and inlet to MEE and maintain its records.
- 3.7. The quantity of domestic waste water shall not exceed 15 KL/Day.
- 3.8. Sewage after conforming to the following standards shall be used for gardening & plantation within premises only:

PARAMETERS	GPCB NORMS
PH	6.5 TO 9.0
BOD	30 mg/l
TSS	Less than 100 mg/l
Fecal Coliform (MPN-100 ml. MNP-100 ml)	Less than 1000

- 3.9. Industry shall also provide fixed pipeline network for even distribution of treated Sewage on land for plantation within premises.
- 3.10. The applicant shall provide storage tank of adequate capacity to store treated sewage during rainy season for at latest 7 days.

4. **CONDITIONS UNDER THE AIR ACT:**

- 4.1. The following shall be used as a fuel in Steam Boiler, incinerator, Salt incinerator, CPP and D.U. Set respectively:

Sr. No.	Utilities	Fuel	Quantity
1	Steam Boiler- 2nos (3.5 MT, each)	Natural gas or FO or LDO	14,000 M <sup>3</sup> /day or 10 lit/hr or 10 lit/hr

2	D.G.Set-1 nos 2250 KVA	Diesel	200 lit/hr
---	---------------------------	--------	------------

4.2. The applicant shall install & operate comprehensive adequate air pollution control system in order to achieve prescribed norms.

4.3. The flue gas emission through stack attached to Steam Boiler, Solid waste incinerator, Salt incinerator, CPP and D.G.Set shall conform to the following standards:

Stack No.	Stack attached to	Stack height in Meter	Air Pollution Control System	Parameters	Permissible Limit
1	Steam Boiler-2nos (3.5 MT, each)	30 (Common Stack)	Cyclone Separator	Particulate Matter SO <sub>2</sub> NO <sub>x</sub>	150 mg/NM <sup>3</sup> 100 ppm 50 ppm
2	D.G.Set-1 nos 2250 KVA Stand by	11	---	Particulate Matter SO <sub>2</sub> NO <sub>x</sub>	150 mg/NM <sup>3</sup> 100 ppm 50 ppm

4.4. The process emission through various stacks/vent of reactor, process, vessel shall conform to the following standards:

Stack No.	Process vessel to which the stack/vent is attached	Stack height in Meter	Air Pollution Control System	Parameters	Permissible Limit
1	Tail gas incinerator	40	---	HCN HCl	30 mg/NM <sup>3</sup> 20 mg/NM <sup>3</sup>
2	Scrubber H.T Plant	19	Water scrubber & Bag Filter	PM HCN	150 mg/NM <sup>3</sup> 30 mg/NM <sup>3</sup>
3	Ammonium Sulphate recovery	20	Ammonia absorption column	NH <sub>3</sub>	175 mg/NM <sup>3</sup>

4.5. Industry shall take adequate measure to control dusting due to storage, transportation & handling of Coal lignite & fly ash.

4.6. Industry shall comply with Coal handling guideline of the Board.

4.7. Industry shall comply with fly ash notification 1999 as amended from time to time.

4.8. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10meters from (the source) other than the stack/vent) shall not exceed the following levels.

PARAMETERS	PERMISSIBLE LIMIT
PM 10	100 Microgram/M3
PM 2.5	60 Microgram/M3
SO <sub>2</sub>	80 Microgram/M3
NO <sub>x</sub>	80 Microgram/M3

4.9. The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection toward for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

4.10. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

*[Handwritten signature]*

**5. D.G. SETS CONDITIONS**

The D.G. Set shall have acoustic enclosure and shall comply with the standards specified at Sr. no. 95 of Schedule-I of the rule-3 of E. P. Rules -1986 and Noise pollution level as per the Air Act-1981.

**D.G. Sets standards:-**

The flue gas emission through stack attached to D.G. Sets shall conform to the following standards

- a) The minimum height of stack to be provided with each of the generator set shall be  $H = h + 0.2(KVA)^{1/2}$ , where H= Total stack height in meter, h= height of the building in meters where or by the side of which the generator set is installed.
- b) Noise from DG set shall be controlled by providing an acoustic enclosure or by treating the room acoustically, at the users end.
- c) The acoustic enclosure or acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on the higher side ( if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/ acoustic treatment. Under such circumstances the performance may be checked for noise reduction up to actual ambient noise level, preferably, in the night time). The measurement for insertion loss may be done at different points at 0.5 m from the acoustic enclosure/room, and the averaged.
- d) The D.G. Set shall be provided with proper exhaust muffler with insertion loss of minimum 25 dB (A).
- e) All efforts shall be made to bring down the noise level due to the D.G Set, outside the premises, within the ambient noise requirements by proper siting and control measures.
- f) Installation of a D.G. Sets must be strictly in compliance with the recommendations of the D.G. Set manufacturer.
- g) A proper routine and preventive maintenance procedure for the D.G. Set should be set and followed in consultation with the DG Set manufacture which would help prevent noise levels of the DG Set from deteriorating with use.

**5. AUTHORIZATION as per HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY) RULES, 2016 Form-2 [See rule 6(2)]**

Form for grant of authorization for occupier or operator handling Hazardous waste.

5.1 Authorization order No:- AWH-94173 date of Issue: 04-07-2018.

5.2 M/s. Hindusthan Chemicals Company, is hereby granted an authorization to operate facility of below for following hazardous wastes on the premises situated at GIDC IND. Estate, Post:- Olpad-394540, Tal:- Olpad, Dist:- Surat.

Sr. No	Waste	Quantity MT/Year	Schedule-I/ Category	Facility
1	EIP Sludge	1 MT/Year	35.3	Collection, Storage, Transportation and disposal incineration at CHWT facility of NECL, Nandesari.
2	Used or Spent Oil	1200 Lit/year	5.1	Collection, storage, transportation and disposal by selling to Registered re-refiners.
3	Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	400 Nos./year	33.1	Collection, storage transportation and disposal to authorized decontaminator
4	Activated Carbon	170 Kg/Day	A-10 Sch-II	Collection, Storage, Transportation and disposal incineration at CHWT facility of NECL, Nandesari.

5	Ferric Hydroxide	40 Kg/Day	A-10 Sch-II	
6	Iron Sludge	8 MT/year	A-10 Sch-II	Collection, Storage, Transportation and disposal incineration at CHWT facility of NECL, Nandesari.
7	Spent Catalyst	What so ever Generated	A-10 Sch-II	Collection, Storage, Transportation and disposal incineration at CHWT facility of NECL, Nandesari.
8	Residues from ETP (MEF) (In place of DPG)	330 MT/year	17.1	Collection, Storage, Transportation and disposal incineration at CHWT facility of NECL, Nandesari.
9	SFCN (Contaminated Salt)	700 Kg/Day	A-10 Sch-II	Collection, Storage, Transportation and disposal by land fill at CHWT facility of NECL, Nandesari.
10	SFCN (Contaminated Salt)	500 Kg/day	A-10 Sch-II	TSDF Landfill waste
11	Residues from ZLD	1400 Kg/Day	A-10 Sch-II	
12	Ammonium Sulphate	2649 MT/A		Collection, storage Transportation and disposal by selling to industry to authorized.

5.3 The authorization shall be valid up to 14-07-2023.

5.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

5.5 The authorization is granted to operate a facility for collection, storage within factory premises transportation and ultimate disposal of Hazardous wastes as per condition no.6.2 to the industry having valid CCA of this Board.

**6. TERMS AND CONDITIONS OF AUTHORISATION**

1. The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
3. The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a breach of this authorization.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty"
7. It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.

10. The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12. An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardous Waste and Other Waste Rules, 2016.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.
15. Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30<sup>th</sup> day of June of every year for the preceding period April to March.
16. In case of any accident, details of the same shall be submitted on Form-II to Gujarat Pollution Control Board.
17. As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.
18. Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
19. In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State or Union Territory Administration where the facility exists.
20. Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.
21. Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.637 of 1995 dated 14<sup>th</sup> October, 2003.
22. Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

#### **7. SPECIFIC CONDITIONS:-**

- 7.1. The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.
- 7.2. Handing over of the hazardous and other wastes to the authorized actual user shall be only after making the entry in the passbook of the actual user.
- 7.3. In case of renewal of authorization, a self-certified compliance report in respect of effluent emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.
- 7.4. The occupier of the facility shall comply Standard operating procedure/guidelines published by MOEF&CC or CPCB or GPCB from time to time.
- 7.5. Unit shall comply provisions of E-Waste Management Rules-2016.
- 7.6. The disposal of Hazardous Waste shall be carried out as per the waste Management hierarchy.
- 7.7. The occupiers of facilities shall not store the hazardous and other wastes for a period not exceeding ninety days. Prior permission of the Board shall be obtained for extension of the storage period.
- 7.8. The occupier shall maintain the records of generation, sale, storage, transport, recycling, re-processing and disposal of hazardous waste and make available during the inspection.

7.9. The transportation of the hazardous waste shall be carried out in GPS mounted dedicated vehicles.

**8. GENERAL CONDITIONS: -**

- 8.1. Any change in personnel, equipment or working conditions as mentioned in the consent form/order should immediately be intimated to this Board.
- 8.2. Applicant shall also comply with the general conditions given in annexure I.
- 8.3. Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body.
- 8.4. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.
- 8.5. The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.
- 8.6. The Environmental audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.

For and on behalf of  
Gujarat Pollution Control Board

(Smt. U.K. Upadhyay)

Environmental Engineer

Date:-

NO: GPCB/CCA-SRT-50(13)/11\_20643/

Issued to:

M/s. Hindusthan Chemicals Company

GHC IND. Estate,

Post:- Olpad-394540.

Tal:- Olpad, Dist:- Surat.

Outward No. 4693/12/2019/2018



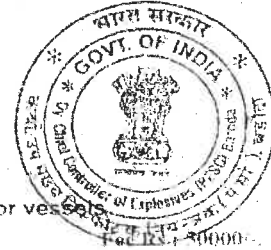
**License for Ammonia Storage**

Form LS-1A

(See Rules 50, 51, 54 and 55)

Licence to Store Compressed gas in pressure vessel or vessels

Licence Number : S/HO/GJ/03/56 (S1147)



Licence is hereby granted to M/s. Hindusthan Chemicals Company, Prop. M/s Hindusthan Engg. & Ind Ltd., Plot No(s) 26 to 28, 25C, 30, 32 to 36, 37p, 53p, 55 to 57, 122, GIDC Industrial Estate, Asanabad P O Olpad SURAT-304540 District SURAT State Gujarat valid only for the storage of compressed gas in 1 Number/s. of pressure vessel/s as indicated below in the licensed premises described below and shown in the plan No S/HO/GJ/03/56 dtd 20 October, 1984 subject to the provisions of the Indian Explosives Act, 1884 (4 of 1884) and the rules made thereunder and to the further conditions of this licence

Vessel No.	Name of Gas	Gas State	Volume in Cubic M	Max Pressure (kg/cm <sup>2</sup> )	Quantity Granted in kgs (Liquified gases)
V-1001	AMMONIA	Liquified	220	4.35	115786
	Total Water Capacity		220		

The licence shall remain in force upto 31<sup>st</sup> day of March, 1985.

Sd/-

The 20 October, 1984

Chief Controller of Explosives

**DESCRIPTION AND LOCATION OF THE LICENSED PREMISES**

The licensed premises, the layout boundaries and other particulars of which are shown in the attached approved plan No S/HO/GJ/03/56 dated 20 October, 1984 and consists of 1 vessel for storage of :

- Flammable/Corrosive/Toxic Gases AMMONIA,
- Non-toxic Gases

and situated at Plot No 26, 37, 53p, 55-57, 122 & 143 Name of Street SURAT - Ankleshwar State Highway Village/Town Asanabad GIDC Ind Estate Police Station Olpad District SURAT State Gujarat

**SPACE FOR ENDORSEMENT OF RENEWALS**

	Date of renewal	Date of expiry	Signature and stamp of the licensing authority
This licence shall be renewable without any concession in fee for three years in the absence of contravention of the provision of the Indian Explosives Act, 1884, or the Static and Mobile pressure Vessels (Unfired) Rules, 2010 framed thereunder or of the conditions of the licence	28/3/2017	30/09/2020	 Dy. Chief Controller of Explosives, Vadodra Sub Circle Office, Vadodra.
	11/04/2016	31/03/2017	
	17/04/2015	31/03/2016	
	31/03/2014	31/03/2015	
	22/03/2013	31/03/2014	
	24/04/2012	31/03/2013	
	01/02/2011	31/03/2012	
	19/02/2010	31/03/2011	
	09/03/2009	31/03/2010	
	12/02/2008	31/03/2009	
	20/03/2007	31/03/2008	
	17/03/2006	31/03/2007	

This licence is liable to be cancelled if the licensed premises are not found conforming to the description and conditions attached hereto and for contravention of any of the rules and conditions under which this licence is granted and the holder of this licence is also punishable under the Act.

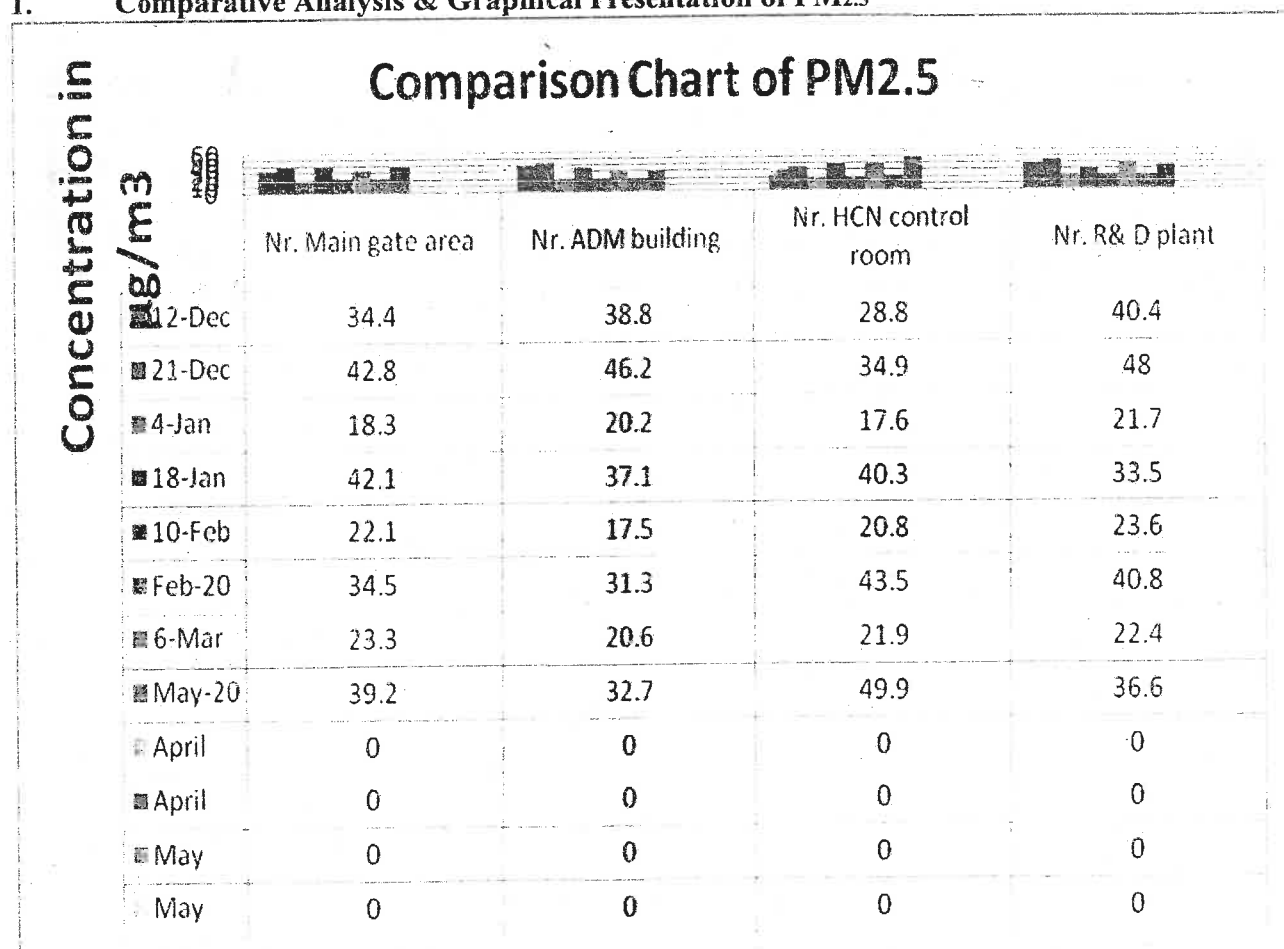
**Annexure-10**

**Ambient Air Sampling & Analysis Method, Analysis Report of Ambient Air and Work Place & Month Wise Comparison of Ambient Air Quality**

Sr. No.	Particulars	Method
1	Sampling procedures	Sampling was carried out as per instrument manual & IS 5182 guideline.
2	Analysis methodology	
i	PM10	IS 5182 (Part 23): 2006 Ref. 2017
ii	PM2.5	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
iii	SOx	IS 5182 (Part 2): 2001 Ref. 2017
iv	NOx	IS 5182 (Part 6): 2016 Ref. 2017

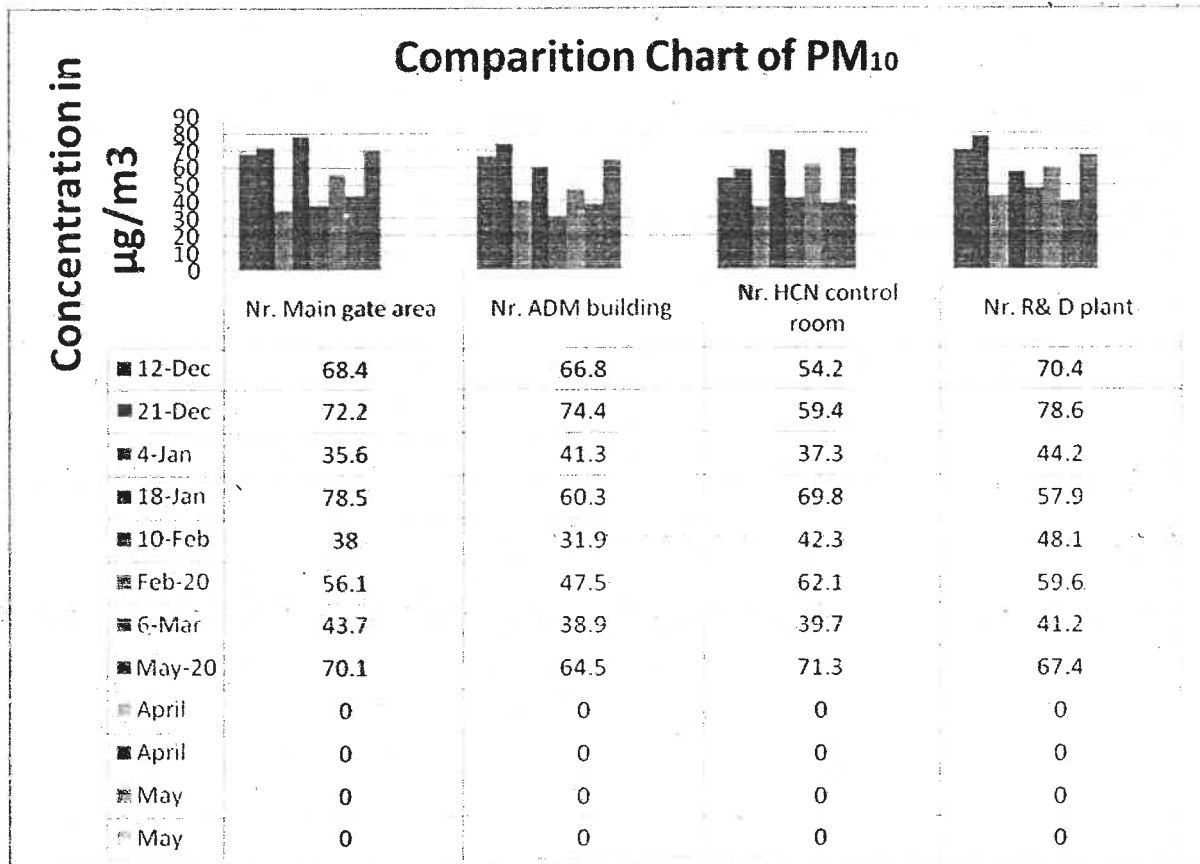
**Monthly Variation in Ambient Air Quality for the period of December 2019 to May 2020**

**1. Comparative Analysis & Graphical Presentation of PM<sub>2.5</sub>**



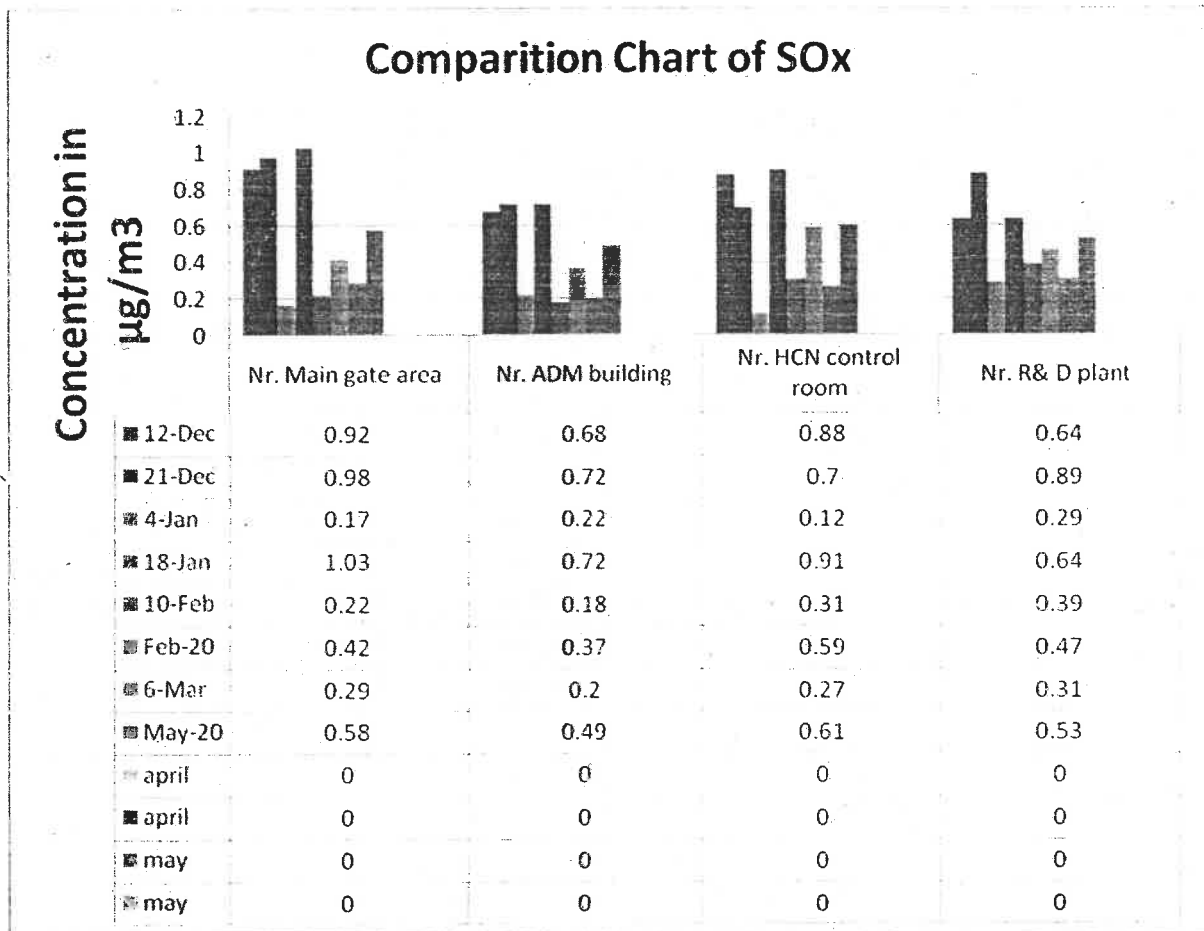
Note: All the values are expressed in  $\mu\text{g}/\text{m}^3$ .

2. Comparative Analysis & Graphical Presentation of PM<sub>10</sub>



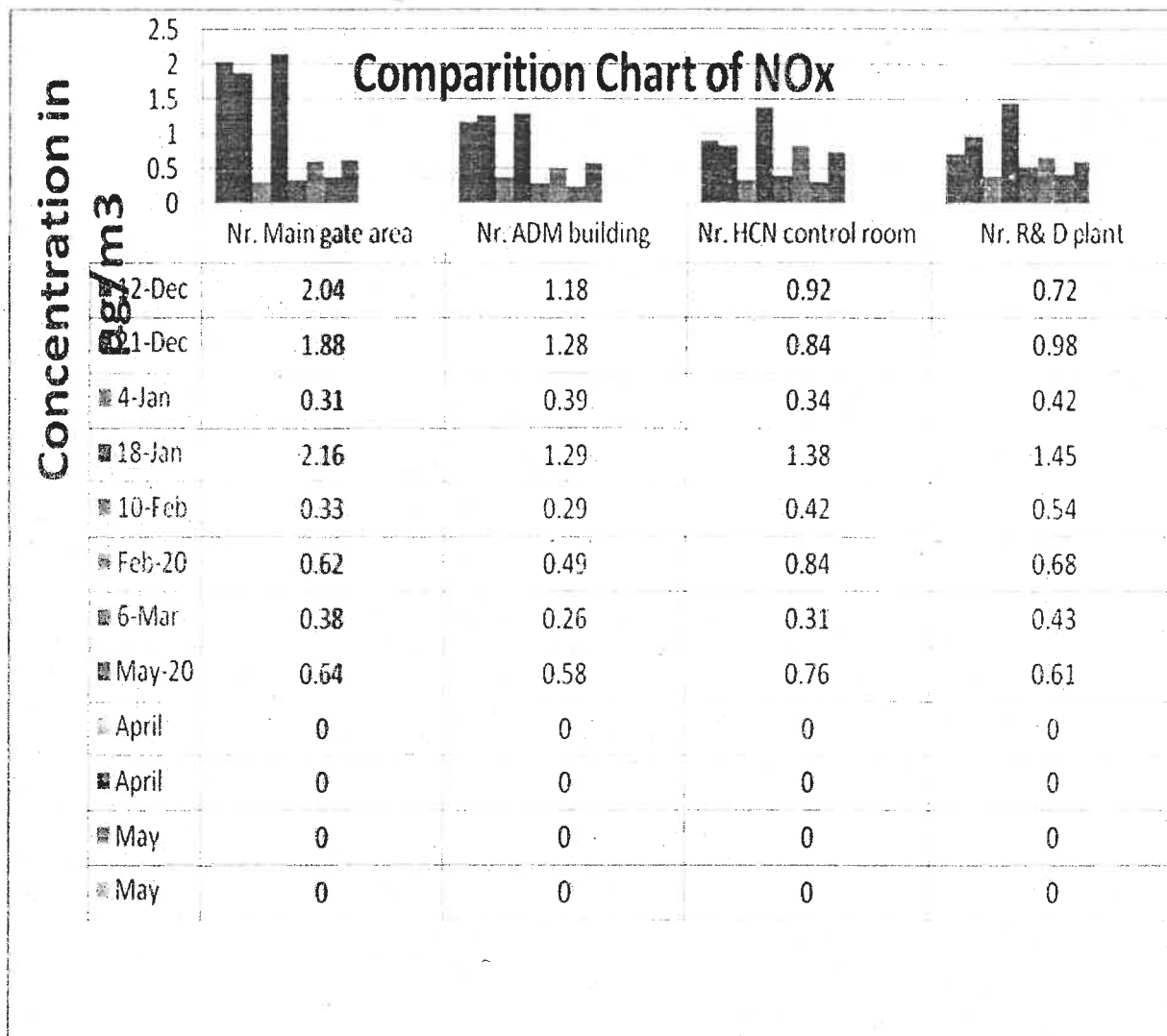
Note: All the values are expressed in µg/m<sup>3</sup>.

3. Comparative Analysis & Graphical Presentation of SO<sub>x</sub>



Note: All the values are expressed in µg/m<sup>3</sup>.

4. Comparative Analysis & Graphical Presentation of NOx



Note: All the values are expressed in  $\mu\text{g}/\text{m}^3$ .

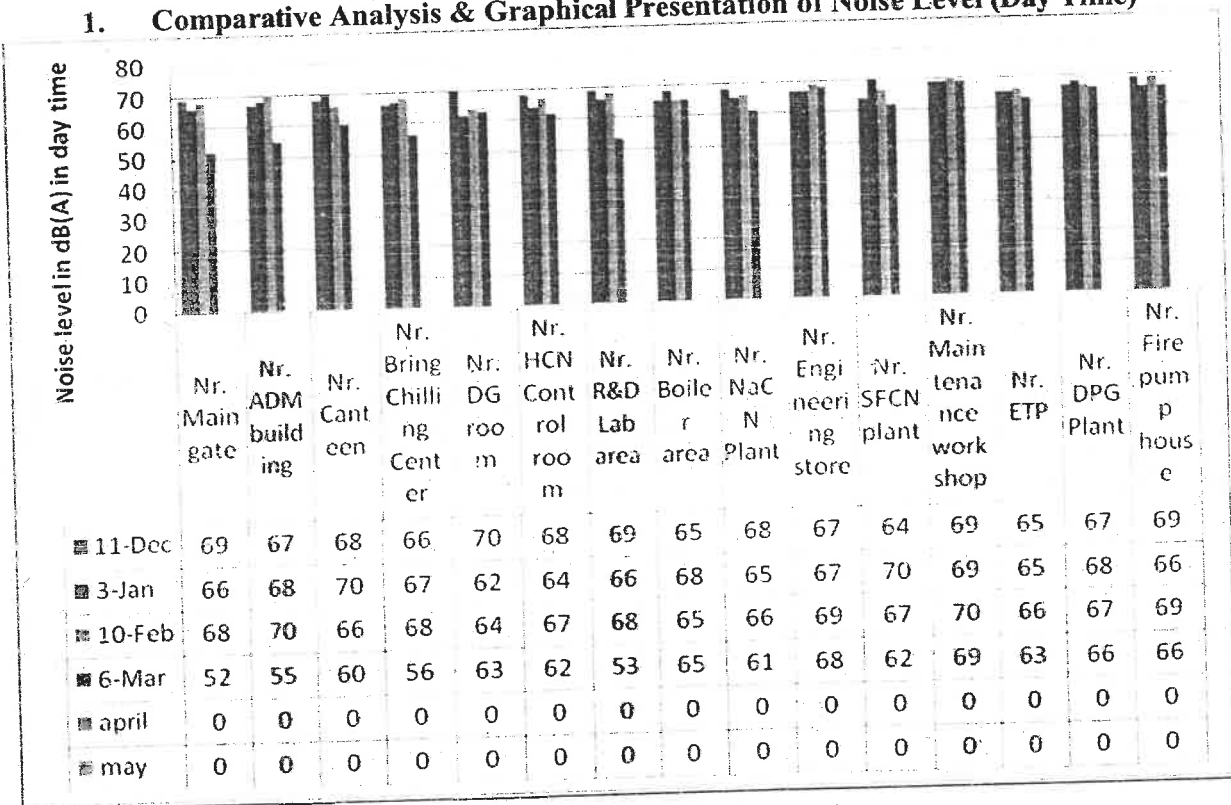
**Noise Level Monitoring Methodology, Noise Level Report & Month Wise Comparison**

**Noise level monitoring:**

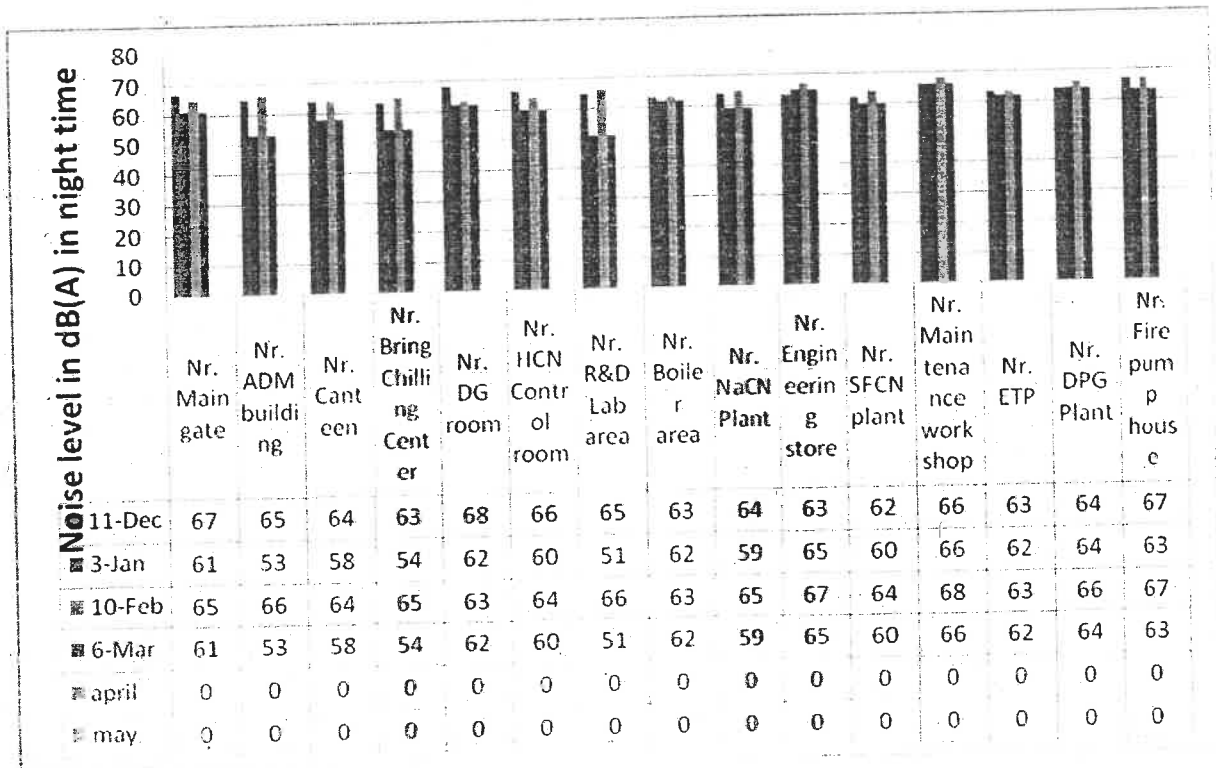
Noise level monitoring was carried out in the vicinity of the source, and nearby area within the factory premises where there is continuous presence of humans. Noise level monitoring was carried out during day time and night time at 15 locations in the premises and total 30 nos. of noise levels were recorded. Sound level meter was used for the noise monitoring.

**Monthly Variation in Noise Level for the period of December 2019 to May 2020**

**1. Comparative Analysis & Graphical Presentation of Noise Level (Day Time)**



## 2. Comparative Analysis & Graphical Presentation of Noise Level (Night Time)



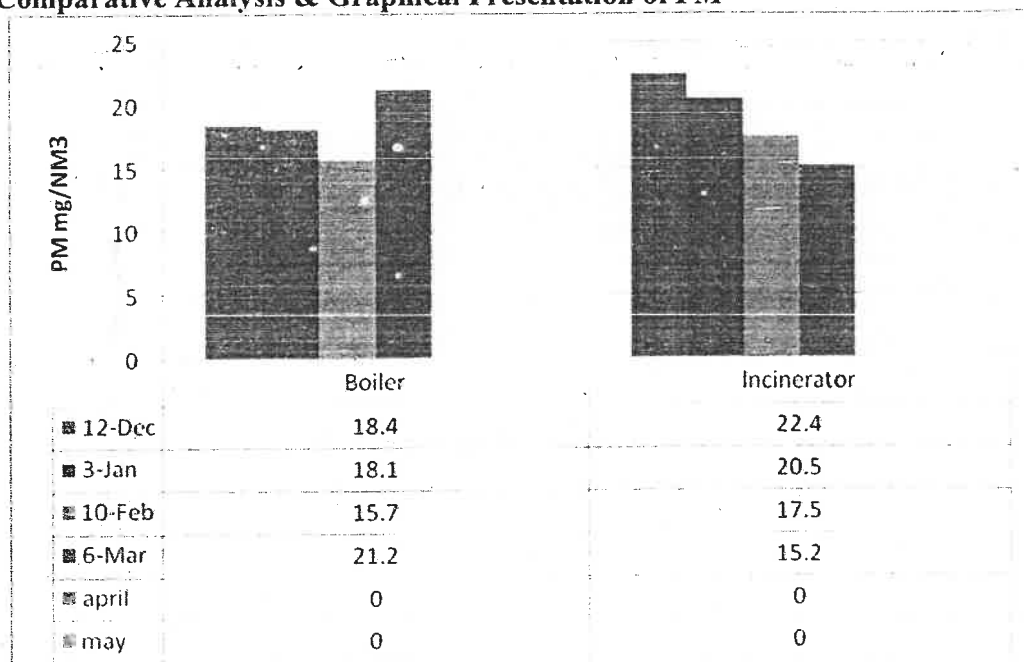
**Annexure 12**

**Stack Monitoring & Analysis Methodology, Analysis Report & Month Wise Comparison**

Sr. no.	Particulars	Method
1.	Sampling Procedure	Sampling & analysis was carried out as per the instruction manual and IS: 11255. PM sample was collected as per IS: 11255 Part I and SO <sub>2</sub> sample as per IS 11255 Part II, NO <sub>x</sub> sampling was carried out as per method given by EPA (PDA Method)
2.	Analysis Methodology	
i)	PM	IS: 11255(Part 1): 1985 Reff. 2014
ii)	SO <sub>2</sub>	IS: 11255(Part 2): 1985 Reff. 2014
iii)	NO <sub>x</sub>	IS: 11255(Part 7): 2005 Reff. 2017

**Monthly Variation in Stack Emission for the period of December 2019 to May2020**

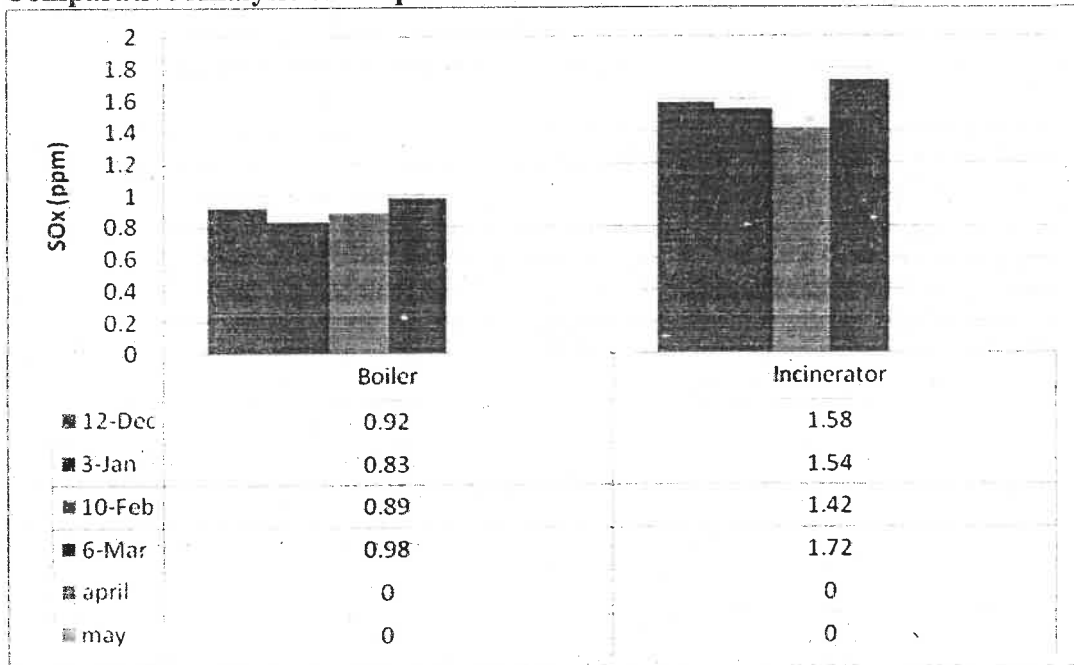
**1. Comparative Analysis & Graphical Presentation of PM**



Note: All the values are expressed in mg/Nm<sup>3</sup>.

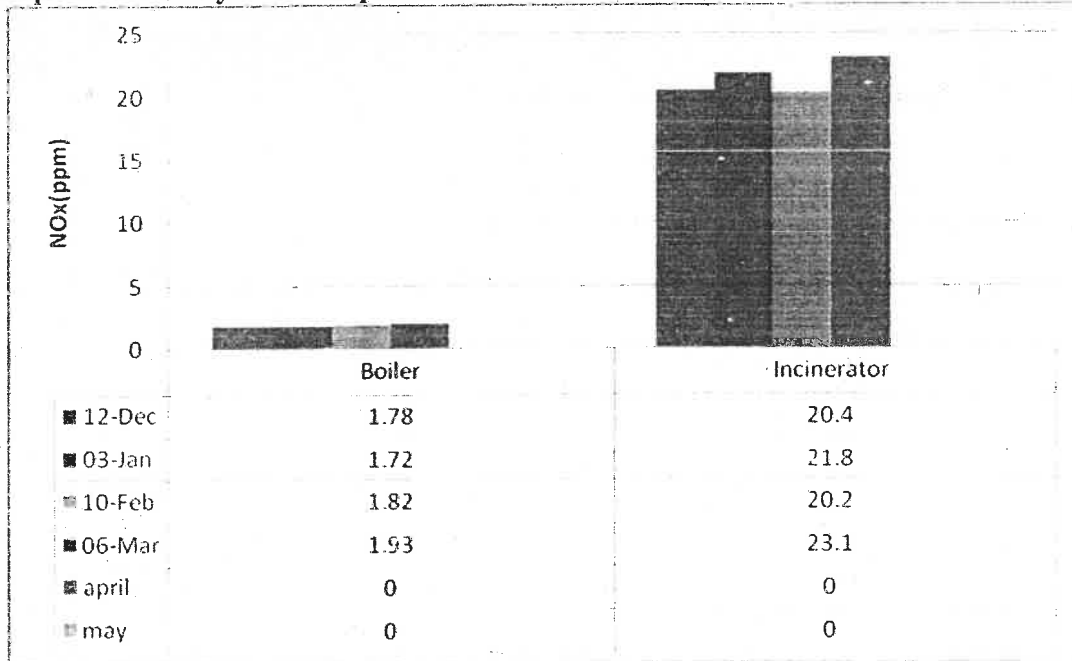


**2. Comparative Analysis & Graphical Presentation of SOx**



Note: All the values are expressed in ppm.

**3. Comparative Analysis & Graphical Presentation of NOx**



Note: All the values are expressed in ppm.

**Annexure 13**

**Water Sampling & Analysis Method, Analysis Report & Month Wise Comparison**

S. No.	Particulars	Test method
1.	pH	IS: 3025 (Part 11)-1983 Ref. 2017
2.	Temperature	IS: 3025 (Part 9) 1984 Re. 2017
3.	Turbidity	IS:3025 (Part 10) 1984 Ref. 2017
4.	Total Dissolved Solids	IS 3025 (Part 16)-1984 Ref. 2017
5.	DO	IS: 3025 (Part 38)-1989 Ref.2014
6.	BOD	IS: 3025 (Part 44)-1993 Ref.2014
7.	Nitrate	APHA23rd ed.2017,4500 NO3.B
8.	Total Phosphate	IS: 3025 (Part 31) 1988 Ref. 2003
9.	Chloride	IS 3025 (Part 32)-1988 Ref. 2014
10.	Sulphate	APHA 23 <sup>rd</sup> ed. 2017, 4500-SO42-C
11.	Total Hardness	IS:3025 (Part 21): 2014
12.	Calcium	IS: 3025 (Part 40):1991 Ref. 2014
13.	Magnesium	APHA 23rd ed.2017,3500-Mg B.
14.	Cyanides	IS:3025 (Part 27):1986 Ref.1998
15.	Chromium	IS: 3025 (Part 52):2003 Ref. 2014
16.	Copper	IS: 3025 (Part 42):1992 Ref. 2014
17.	Iron	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18.	Zinc	IS:3025 (Part 49) :1994 Ref.2014
19.	Lead	IS 3025(Part 47):1994 Ref. 2014

**Monthly Comparison of Water sample of Ganesh Automobiles Borewell**

S.no.	Parameters	Unit	Dec-19	Jan-20	Feb-20	Mar-20	April-20	May-20
01	pH	pH Unit	6.54	6.35	6.71	7.45	-	-
02	Temperature	°C	29.2	30.7	32	30	-	-
03	Turbidity	NTU	1.5	1.6	1.5	0.4	-	-
04	Total Dissolved Solids	mg/L	1584	1636	1512	1836	-	-
05	DO	mg/L	6.4	6.3	7.2	6.8	-	-
06	BOD	mg/L	<4	<4	<4	<4	-	-
07	Nitrate	mg/L	0.28	0.18	0.21	0.19	-	-
08	Total Phosphate	mg/L	1.4	1.8	1.3	1.5	-	-
09	Chloride	mg/L	675	512.6	438	315	-	-
10	Sulphate	mg/L	59.4	48.3	54.1	98.6	-	-
11	Total Hardness	mg/L	452.8	401	437	1100	-	-
12	Calcium	mg/L	122	134.6	152.3	176.3	-	-
13	Magnesium	mg/L	68.2	31.5	13.8	58.2	-	-
14	Cyanides	mg/L	NIL	NIL	NIL	NIL	-	-
15	Chromium	mg/L	<0.03	<0.03	<0.03	<0.03	-	-
16	Copper	mg/L	<0.02	<0.02	<0.02	<0.02	-	-
17	Iron	mg/L	0.018	0.012	0.019	0.015	-	-
18	Zinc	mg/L	<0.01	<0.01	<0.01	<0.01	-	-
19	Lead	mg/L	<0.1	<0.1	<0.1	<0.1	-	-
20	Total Alkalinity	mg/L	158.4	142	139	180.3	-	-

21	Silica	mg/L	7.68	8.62	7.75	7.95	-	-
22	Total Coli form	/100 ml	Absent	Absent	Absent	Absent	-	-

**Monthly Comparison of Water sample of Nemlaxmi Books Borewell**

S. no.	Parameters	Unit	Dec-19	Jan-20	Feb-20	Mar-20	April-20	May-20
01	pH	pH Unit	7.33	7.12	7.52	7.81	-	-
02	Temperature	°C	29.8	29.1	31	29	-	-
03	Turbidity	NTU	1.1	1.4	1.7	0.7	-	-
04	Total Dissolved Solids	mg/L	1392	1538	1432	1504	-	-
05	DO	mg/L	6.9	6.8	6.5	6.3	-	-
06	BOD	mg/L	<4	<4	<4	<4	-	-
07	Nitrate	mg/L	0.42	0.58	0.62	0.55	-	-
08	Total Phosphate	mg/L	1.9	2.3	1.8	2.1	-	-
09	Chloride	mg/L	568	638	708	942	-	-
10	Sulphate	mg/L	44.6	85	43.3	57.1	-	-
11	Total Hardness	mg/L	432.4	328.1	403	320	-	-
12	Calcium	mg/L	98.4	98.5	114.2	120.2	-	-
13	Magnesium	mg/L	44.8	72.1	28.6	45.3	-	-
14	Cyanides	mg/L	NIL	NIL	NIL	NIL	-	-
15	Chromium	mg/L	<0.03	<0.03	<0.03	<0.03	-	-
16	Copper	mg/L	<0.02	<0.02	<0.02	<0.02	-	-
17	Iron	mg/L	0.021	0.017	0.013	0.012	-	-
18	Zinc	mg/L	<0.01	<0.01	<0.01	<0.01	-	-
19	Lead	mg/L	<0.1	<0.1	<0.1	<0.1	-	-
20	Total Alkalinity	mg/L	142.8	108.6	124.1	146.2	-	-
21	Silica	mg/L	14.9	21.8	19.3	21.2	-	-
22	Total Coli form	/100 ml	Absent	Absent	Absent	Absent	-	-

**Monthly Comparison of Water sample of Surat Drums Factory Borewell**

S. no.	Parameters	Unit	Dec-19	Jan-20	Feb-20	Mar-20	April-20	May-20
01	pH	pH Unit	7.42	7.04	7.58	8.06	-	-
02	Temperature	°C	30.4	28.3	30	30	-	-
03	Turbidity	NTU	1.2	1.3	1.8	0.8	-	-
04	Total Dissolved Solids	mg/L	1462	1328	1614	1432	-	-
05	DO	mg/L	6.2	6.5	7.1	7.4	-	-
06	BOD	mg/L	<4	<4	<4	<4	-	-
07	Nitrate	mg/L	0.24	0.33	0.39	0.43	-	-
08	Total Phosphate	mg/L	1.6	1.4	1.6	2.2	-	-
09	Chloride	mg/L	624	602	718	684	-	-
10	Sulphate	mg/L	54.6	73	89	65.5	-	-
11	Total Hardness	mg/L	448.4	358	389.5	328	-	-
12	Calcium	mg/L	108	83.2	108.2	146.2	-	-
13	Magnesium	mg/L	54.4	58	29.0	66.3	-	-
14	Cyanides	mg/L	NIL	NIL	NIL	NIL	-	-
15	Chromium	mg/L	<0.03	<0.03	<0.03	<0.03	-	-
16	Copper	mg/L	<0.02	<0.02	<0.02	<0.02	-	-
17	Iron	mg/L	0.015	0.018	0.019	0.022	-	-
18	Zinc	mg/L	<0.01	<0.01	<0.01	<0.01	-	-
19	Lead	mg/L	<0.1	<0.1	<0.1	<0.1	-	-
20	Total Alkalinity	mg/L	125.4	131.3	129.9	185.2	-	-
21	Silica	mg/L	8.4	10.7	13.8	12.3	-	-
22	Total Coli form	/100 ml	Absent	Absent	Absent	Absent	-	-

**Monthly Comparison of Water sample of Masma Village Borewell**

S.no.	Parameters	Unit	Dec-19	Jan-20	Feb-20	Mar-20	April-20	May-20
01	pH	pH Unit	7.29	6.85	6.89	8.07	-	-
02	Temperature	°C	30.2	31.4	29	29	-	-
03	Turbidity	NTU	1.4	1.7	1.4	0.2	-	-
04	Total Dissolved Solids	mg/L	1120	834	938	978	-	-
05	DO	mg/L	6.6	7.1	6.8	7.1	-	-
06	BOD	mg/L	<4	<4	<4	<4	-	-
07	Nitrate	mg/L	0.18	0.24	0.15	0.19	-	-
08	Total Phosphate	mg/L	1.8	1.6	2.1	1.9	-	-
09	Chloride	mg/L	324.2	118.3	128.4	269	-	-
10	Sulphate	mg/L	48.8	41.6	63.7	73	-	-
11	Total Hardness	mg/L	320.2	216.3	318	240	-	-
12	Calcium	mg/L	92.2	79.9	92.1	136.8	-	-
13	Magnesium	mg/L	38.6	33	21.3	57	-	-
14	Cyanides	mg/L	NIL	NIL	NIL	NIL	-	-
15	Chromium	mg/L	<0.03	<0.03	<0.03	<0.03	-	-
16	Copper	mg/L	<0.02	<0.02	<0.02	<0.02	-	-
17	Iron	mg/L	0.021	0.030	0.021	0.019	-	-
18	Zinc	mg/L	<0.01	<0.01	<0.01	<0.01	-	-
19	Lead	mg/L	<0.1	<0.1	<0.1	<0.1	-	-
20	Total Alkalinity	mg/L	132.6	125.7	138	190.1	-	-
21	Silica	mg/L	10.4	5.38	4.35	4.88	-	-
22	Total Coli form	/100 ml	Absent	Absent	Absent	Absent	-	-

## Annexure 14

### Effluent Sampling & Analysis Method, Analysis Report & Month Wise Comparison

S. No.	Particulars	Test method
1.	pH	IS: 3025 (Part 11)-1983 Reff. 2017
2.	Temperature	IS: 3025 (Part 9) 1984 Re. 2017
3.	Color	IS: 3025 (Part 39): 1991 Reff. 2014
4.	Total Dissolved Solids	IS 3025 (Part 16)-1984 Reff. 2017
5.	Suspended Solids	IS 3025 (Part 17)-1984 Reff. 2017
6.	COD	APHA 23 <sup>rd</sup> ed. 2017, 5220 B
7.	BOD	IS: 3025 (Part 44)-1993 Reff.2014
8.	Oil & Grease	IS 3025 (Part 39)-1991 Reff. 2014
9.	Chloride	IS 3025 (Part 32)-1988 Reff. 2014
10.	Sulphate	APHA 23 <sup>rd</sup> ed.2017, 4500-SO42-C
11.	Ammonical Nitrogen	IS: 3025 (Part 34) :1988 Reff. 2014
12.	Phenolic Compound	IS: 3025 (Part 43) 1992 Reff. 2014
13.	Cyanides	IS:3025 (Part 27):1986 Reff.1998
14.	Hexavalent Chromium	APHA 23 <sup>rd</sup> ed. 2017, 3500 Cr+6/B
15.	Total Chromium	IS: 3025 (Part 52) : 2003 Reff. 2014
16.	Sulphides	IS:3025 (Part 29) :1986 Reff.1992
17.	Fluoride	APHA23 <sup>rd</sup> ed. 2017, 4500F .D
18.	Bio Assay Test	IS 6582 (Part 2) : 2001

### Monthly Comparison of Effluent sample (Equalization Tank)

S. no.	Parameters	Unit	Dec-19	Jan-20	Feb-20	Mar-20	April-20	May-20
01	pH	pH Unit	7.22	7.20	6.90	7.44	-	-
02	Temperature	°C	29.5	29.3	32	30	-	-
03	Color	Hazen	28	26	31	27	-	-
04	Total Dissolved Solids	mg/L	392	338	210	464	-	-
05	Suspended Solids	mg/L	38	24	1.2	4	-	-
06	COD	mg/L	74.2	67.1	118.8	41.2	-	-
07	BOD	mg/L	22.4	19.5	29.5	12.3	-	-
08	Oil & Grease	mg/L	3.8	3.1	3.5	2.9	-	-
09	Chloride	mg/L	92.2	82	93	218	-	-
10	Sulphate	mg/L	76.6	76	81	138	-	-
11	Ammonical Nitrogen	mg/L	12.2	9.5	8.7	7.9	-	-
12	Phenolic Compound	mg/L	BDL	BDL	BDL	BDL	-	-
13	Cyanides	mg/L	0.06	0.03	0.07	0.04	-	-
14	Hexavalent Chromium	mg/L	BDL	BDL	BDL	BDL	-	-
15	Total Chromium	mg/L	BDL	BDL	BDL	BDL	-	-
16	Sulphides	mg/L	BDL	BDL	BDL	BDL	-	-
17	Fluoride	mg/L	0.72	0.70	0.62	0.72	-	-

**Monthly Comparison of Effluent sample (Final Outlet to ZLD)**

Sr.no.	Parameters	Unit	Dec-19	Jan-20	Feb-20	Mar-20	April-20	May-20
01	pH	pH Unit	6.54	6.68	7.51	8.41	-	-
02	Temperature	<sup>o</sup> C	30	31.2	34	30	-	-
03	Color	Pt. Co	22	32	29	30	-	-
04	Total Dissolved Solids	mg/L	284	264	142	288	-	-
05	Suspended Solids	mg/L	24	20	1.0	2	-	-
06	COD	mg/L	52.4	52.6	79.2	20.6	-	-
07	BOD	mg/L	15.2	15.8	24.2	5.2	-	-
08	Oil & Grease	mg/L	3.2	2.6	3.1	2.7	-	-
09	Chloride	mg/L	48.4	65	72	9.9	-	-
10	Sulphate	mg/L	68.8	49	58	97	-	-
11	Ammonical Nitrogen	mg/L	9.4	7.3	5.9	6.7	-	-
12	Phenolic Compound	mg/L	BDL	BDL	BDL	BDL	-	-
13	Cyanides	mg/L	BDL	BDL	BDL	BDL	-	-
14	Hexavalent Chromium	mg/L	BDL	BDL	BDL	BDL	-	-
15	Total Chromium	mg/L	BDL	BDL	BDL	BDL	-	-
16	Sulphides	mg/L	BDL	BDL	BDL	BDL	-	-
17	Fluoride	mg/L	0.64	0.51	0.46	0.43	-	-
18	Bio Assay Test	%	94	83	92	88	-	-

## Inhalable dust report



ISO : 14001 : 2015  
ISO : 9001 : 2015  
OHSAS : 18001 : 2007

# EARTH CARE

## ENVIRO SOLUTIONS PVT. LTD.

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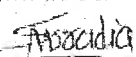
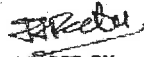


### POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

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E-mail : office@earthcare.org.in / lab@earthcare.org.in / info@earthcare.org.in

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## TEST REPORT/CERTIFICATE

<b>NAME &amp; ADDRESS OF CUSTOMER:</b> M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		<b>CERTIFICATE NO:</b>	613/17	
		<b>ISSUE DATE:</b>	24/12/2019	
<b>SAMPLE DESCRIPTION:</b>	Near NaCN Packing Area	<b>LAB ID:</b>	54/12	
<b>SAMPLE COLLECTED BY:</b>	Earth Care Enviro Solutions PVT. LTD.	<b>SAMPLE QUANTITY:</b>	Filter Paper	
<b>SAMPLING DATE:</b>	11/12/2019	<b>SAMPLING TIME:</b>	10:10 am To 06:20 pm	
<b>PROTOCOL(PURPOSE):</b>	Monthly Monitoring	<b>SAMPLE ID NO:</b>	EESPL19121116	
<b>SAMPLING METHOD:</b>	EESPL/SOP/AIR/01	<b>PACKING/SEAL:</b>	Sealed	
<b>SAMPLE RECEIVED DATE:</b>	12/12/2019	<b>SAMPLE RECEIVED TIME:</b>	10:30 am	
<b>TEST START DATE:</b>	12/12/2019	<b>TEST COMPLETION DATE:</b>	24/12/2019	
<b>AMBIENT TEMPRATURE:</b>		MINIMUM: 25 °C	MAXIMUM: 30 °C	
<b>RELATIVE HUMIDITY:</b>		MINIMUM: 65 %	MAXIMUM: 85 %	
<b>WIND DIRECTION:</b>		SSW	WIND SPEED: 15.0 Km/h	
<b>RESULT TABLE:</b>				
<b>SR. NO:</b>	<b>PARAMETER</b>	<b>UNIT</b>	<b>RESULT</b>	<b>TEST METHOD</b>
01	Inhalable Dust	mg/m <sup>3</sup>	0.354	IS 5182 (Part 23): 2006
For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.				
 <b>AUTHORISED SIGNATORY:</b> (SURESH MORADIA)		 <b>PREPARED BY:</b> ( TECHNICAL MANAGER)		

END OF TEST REPORT/CERTIFICATE



ISO 14001 2015  
ISO 5001 2015  
OHSAS 18001 2007

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South Zone Road, Nr. Chosath Jogani Mata Mandir Udhna Magdalla Road, Surat - 394 210. www.earthcare.org.in  
E-mail: office@earthcare.org.in | lab@earthcare.org.in | info@earthcare.org.in

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## TEST REPORT/CERTIFICATE

<b>NAME &amp; ADDRESS OF CUSTOMER:</b> M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal. Olpad, Dist.: Surat-394540		<b>CERTIFICATE NO:</b> 36/17		
<b>SAMPLE DESCRIPTION:</b> Near NaCN Packing Area		<b>ISSUE DATE:</b> 22/01/2020		
<b>SAMPLE COLLECTED BY:</b> Earth Care Enviro Solutions PVT. LTD.	<b>LAB ID:</b> 28/1	<b>SAMPLE QUANTITY:</b> Filter Paper		
<b>SAMPLING DATE:</b> 03/01/2020	<b>SAMPLING TIME:</b> 10:15 am To 06:15 pm	<b>SAMPLE ID NO:</b> EESPL19121116		
<b>PROTOCOL(PURPOSE):</b> Monthly Monitoring	<b>PACKING/SEAL:</b> Sealed	<b>SAMPLE RECEIVED TIME:</b> 11:15 am		
<b>SAMPLING METHOD:</b> EESPL/SOP/AIR/01	<b>SAMPLE RECEIVED DATE:</b> 04/01/2020	<b>TEST COMPLETION DATE:</b> 22/01/2020		
<b>SAMPLE RECEIVED DATE:</b> 04/01/2020				
<b>TEST START DATE:</b> 04/01/2020				
<b>AMBIENT TEMPERATURE:</b> MINIMUM: 19 °C RELATIVE HUMIDITY: MINIMUM: 40 % WIND DIRECTION: SE	<b>MAXIMUM: 28 °C</b> <b>MAXIMUM: 68 %</b> <b>WIND SPEED: 15.0 Km/h</b>			
<b>RESULT TABLE:</b>				
<b>SR. NO:</b> 01	<b>PARAMETER</b> Inhalable Dust	<b>UNIT</b> mg/m <sup>3</sup>	<b>RESULT</b> 0.342	<b>TEST METHOD</b> IS 5182 (Part 23): 2006
For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.  <b>AUTHORISED SIGNATORY:</b> (SURESH MORADIA)		 <b>PREPARED BY:</b> ( TECHNICAL MANAGER)		

END OF TEST REPORT/CERTIFICATE





# EARTH CARE

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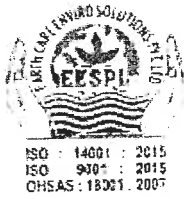
31-32, Moradia House, Shiv Ashish Industrial Society-II, Opp. S.M.G. Community Hall, B/H. Raj Carrying Cargo Pvt. Ltd.,  
South Zone Road, Nr. Chosath Jogan Mata Mandir, Udhna Magdalla Road, Surat - 394 210. www.earthcare.org.in  
E-mail : office@earthcare.org.in / lab@earthcare.org.in / info@earthcare.org.in

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#### TEST REPORT/CERTIFICATE

<b>NAME &amp; ADDRESS OF CUSTOMER:</b> M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		<b>CERTIFICATE NO:</b> 96/17		
<b>SAMPLE DESCRIPTION:</b> Near NaCN Packing Area		<b>ISSUE DATE:</b> 25/02/2020		
<b>SAMPLE COLLECTED BY:</b> Earth Care Enviro Solutions PVT. LTD.	<b>LAB ID:</b> 44/2	<b>SAMPLE QUANTITY:</b> Filter Paper		
<b>SAMPLING DATE:</b> 08/02/2020	<b>SAMPLING TIME:</b> 10:20 am To 06:20 pm	<b>SAMPLE ID NO:</b> EESPL20020814		
<b>PROTOCOL(PURPOSE):</b> Monthly Monitoring	<b>PACKING/SEAL:</b> Sealed	<b>SAMPLE RECEIVED TIME:</b> 10:00 am		
<b>SAMPLING METHOD:</b> EESPL/SOP/AIR/01	<b>TEST COMPLETION DATE:</b> 25/02/2020			
<b>SAMPLE RECEIVED DATE:</b> 10/02/2020				
<b>TEST START DATE:</b> 10/02/2020				
<b>AMBIENT TEMPRATURE:</b>	MINIMUM: 17 °C	MAXIMUM: 31 °C		
<b>RELATIVE HUMIDITY:</b>	MINIMUM: 25 %	MAXIMUM: 44 %		
<b>WIND DIRECTION:</b>	NE	WIND SPEED: 19.0 Km/h		
<b>RESULT TABLE:</b>				
<b>SR. NO:</b>	<b>PARAMETER</b>	<b>UNIT</b>	<b>RESULT</b>	<b>TEST METHOD</b>
01	Inhalable Dust	mg/m <sup>3</sup>	0.272	IS 5182 (Part 23): 2006
For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.				
<b>AUTHORISED SIGNATORY:</b> (SURESH MORADIA)			<b>PREPARED BY:</b> (TECHNICAL MANAGER)	

END OF TEST REPORT/CERTIFICATE



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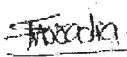



POLLUTION CONTROL CONSULTANTS AUDITOR & ENGINEERS

31-32, Moradia House, Shiv Ashish Industrial Society-II, Opp. S.M.C. Community Hall, B.H. Ra, Carrying Cargo Pvt. Ltd. South Zone Road, Nr. Chosath Jogani Mata Mandir, Udhna Magdaba Road, Surat - 394 210 www.earthcare.org.in  
E-mail : office@earthcare.org.in / lab@earthcare.org.in / info@earthcare.org.in

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## TEST REPORT/CERTIFICATE

<b>NAME &amp; ADDRESS OF CUSTOMER:</b> M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		<b>CERTIFICATE NO:</b> 145/17		
		<b>ISSUE DATE:</b> 22/05/2020		
<b>SAMPLE DESCRIPTION:</b>	Near NaCN Packing Area	<b>LAB ID:</b> 32/3		
<b>SAMPLE COLLECTED BY:</b>	Earth Care Enviro Solutions PVT. LTD.	<b>SAMPLE QUANTITY:</b> Filter Paper		
<b>SAMPLING DATE:</b>	05/03/2020	<b>SAMPLING TIME:</b> 10:10 am To 06:10 pm		
<b>PROTOCOL(PURPOSE):</b>	Monthly Monitoring	<b>SAMPLE ID NO:</b> EESPL20030515		
<b>SAMPLING METHOD:</b>	EESPL/SOP/AIR/01	<b>PACKING/SEAL:</b> Sealed		
<b>SAMPLE RECEIVED DATE:</b>	06/03/2020	<b>SAMPLE RECEIVED TIME:</b> 10:20 am		
<b>TEST START DATE:</b>	06/03/2020	<b>TEST COMPLETION DATE:</b> 14/03/2020		
<b>AMBIENT TEMPERATURE:</b>	MINIMUM: 17 °C	MAXIMUM: 31 °C		
<b>RELATIVE HUMIDITY:</b>	MINIMUM: 25 %	MAXIMUM: 44 %		
<b>WIND DIRECTION:</b>	NE	WIND SPEED: 18.0 Km/h		
<b>RESULT TABLE:</b>				
<b>SR. NO:</b>	<b>PARAMETER</b>	<b>UNIT</b>	<b>RESULT</b>	<b>TEST METHOD</b>
01	Inhalable Dust	mg/m <sup>3</sup>	0.328	IS 5182 (Part 23)- 2006
For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.				
 <b>AUTHORISED SIGNATORY:</b> <b>(SURESH MORADIA)</b>			 <b>PREPARED BY:</b> <b>( TECHNICAL MANAGER)</b>	

END OF TEST REPORT/CERTIFICATE

**Information for Environment Clearance of 13<sup>th</sup> March 2020**

**THE TIMES OF INDIA  
FRIDAY, MARCH 20, 2020**

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**PUBLIC NOTICE  
ENVIRONMENTAL CLEARANCE**

It is hereby informed that the Ministry of Environment, Forests and Climate Change, IA Division, Government of India, New Delhi, has accorded Environmental Clearance for Manufacturing of Sodium Cyanide and Other Cyanide based Products manufacturing unit at Plot No. 26-37,54-57,122,143, Vill: Asnabad, Tehsil: Olpad, District Surat (Gujarat) of **M/s. Hindusthan Chemicals Company** vide letter No. J-11011/466/2011-IA-II(I) dated 13/03/2020, under the provision of EIA Notification dated 14<sup>th</sup> September 2006.

Copies of Clearance letter are available with the SPCB and may also be seen at website of MoEFCC, [www.envfor.nic.in](http://www.envfor.nic.in)

**AUTHORIZED SIGNATORY  
HINDUSTHAN CHEMICALS COMPANY LTD.**

Date : 14.03.2020

**GUJARAT SAMACHAR  
FRIDAY, MARCH 20, 2020**

પાલિકા/૨૫૯૮/૧૯-૨૦

ગુજરાત સરકાર, ગાંધીનગર

**જાહેર સુચના  
પર્યાવરણની મંજૂરી**

આ સાથે જણાવવામાં આવે છે કે પર્યાવરણ વન અને ક્ષારીયોટ વેન્જ મંત્રાલય આઈ.એ. વિભાગ, ભારત સરકાર, નવી દિલ્હી દ્વારા સિન્ડુસ્થાન કેમીકલ્સ કંપની, પ્લોટ નં. ૨૬-૩૭,૫૪-૫૭,૧૨૨,૧૪૩, ગ્રામ : આસનાબાદ, તા : ઓલપાડ, જિલ્લો સુરત (ગુજરાત) ખાતે સાયનાઈડ અને સાયનાઈડ બેઝ પ્રોડક્શન માટેનો પર્યાવરણીય મંજૂરી તારીખ ૧૩/૦૩/૨૦૨૦ ના પત્ર ક્રમાંક - J-11011/466/2011-IA-II(I) દ્વારા ઈ.આઈ.એ. નોટીફિકેશન તારીખ ૧૪ સપ્ટેમ્બર ૨૦૦૬ જોનવાઈ હેઠળ આપેલ છે.

ઉપરોક્ત પત્ર નો નકલ સ્ટેટ પોલ્યુશન કન્ટ્રોલ બોર્ડ ઉપરાંત MoEFCC ની વેબસાઈટ <http://envfor.nic.in> ઉપર ઉપલબ્ધ છે.

**AUTHORIZED SIGNATORY  
HINDUSTHAN CHEMICALS COMPANY LTD.**

Date : 14.03.2020

અયિલ ઈન્ટ નેચરલ ગેસ વાણિજ્ય લિમિટેડ

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