HINDUSTHAN CHEMICALS COMPANY

(An enterprise of THE HINDUSTHAN GROUP) CIN : U93000WB1998PLC086303

G.I.D.C. Industrial Estate, Olpad - 394540, DIST SURAT, GUJARAT (INDIA) Email : hccolp@hcc-cyanides.com
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F:HCC:TECH:17:RPS/14

23rd April, 2021

GPCB ID: 20643

To,
The Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector - 10/A,
GANDHINAGAR - 382 010.

SUB. : SUBMISSION OF AN ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING ON 31ST MARCH 2021

Respected Sir,

With reference to the above subject matter, we would like to submit herewith An Environmental Statement for the financial year ending 31st March, 2021.

We hope you would find the same in proper order & oblige us.

Thanking you,

Yours faithfully.
For **Hindusthan Chemicals Company**

RPSharma

R P Sharma
Asst. Vice President(Plant)
Encl.: Form-V & Annexure-I to III.

Cc : 1. 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 (MP)

- By Regd A/D.

FORM – V

(See Rule 14)*

From :
M/s. HINDUSTHAN CHEMICALS COMPANY
GIDC INDUSTRIAL ESTATE, P.O – OLPAD,
TAL.: OLPAD, DIST.: SURAT- 394540.

To,
Gujarat Pollution Control Board
"Paryavaran Bhavan",
Sector – 10 A,
GANDHINAGAR – 382 010

Environmental Statement for the financial year ending the 31st March, 2021

PART – A

(i) Name and address of the owner/ Occupier of the industry operation or process : **MR. R P SHARMA**
(ASST. VICE PRESIDENT-PLANT)
M/s. HINDUSTHAN CHEMICALS COMPANY
GIDC INDUSTRIAL ESTATE, P.O – OLPAD,
TAL.: OLPAD, DIST.: SURAT- 394540.

(ii) Industry category -
Primary – (STC Code)
Secondary – (SIC Code) : **Large Scale (Red Category)**

(iii) Production capacity Units :

PRODUCTS	CAPACITY
Hydrogen Cyanide	5100 MT/Annum
Sodium Cyanide	6372 MT/Annum
Potassium Cyanide	2000 MT/Annum
Sodium Ferrocyanide	1000 MT/Annum
Potassium Ferrocyanide	1000 MT/Annum
Diphenyl Guanidine	1260 MT/Annum
Sodium Dicyanamide	300 MT/Annum
Mandelonitrile	2500 MT/Annum
Heat Treatment Salt	720 MT/Annum
Cyanohydrines	5000 MT/Annum
Nitrites	3000 MT/Annum
Cyanide based products	3500 MT/Annum
BY PRODUCT	CAPACITY
Ammonium Sulphate	2649 MT/Annum

(iv) Year of establishment : **December-1982**

(v) Date of the last Environmental Statement submitted : **06/04/2020**

HINDUSTHAN CHEMICALS COMPANY OLPAD SURAT

* Submission of Environmental Statement is in accordance with the provisions of Rule-14 of the Environment (Protection). Amendment Rules, 1993 of the Environment (Protection) Act, 1986 (29 of 1986) published vide Notification dated 22-4-1993 G.S.R. 386 (E) in the Gazette of India-Extraordinary- Part-II Section-3 Subsection (i), No. 155 dated 28-4-1993 by the Ministry of Environment and Forests, Government of India; read with the Notification dated 13-3-1993 G. S. R. 329 (E), of the Gazette of India –Extraordinary Part – II Section –3 Subsection (i) No. 120 dated 13-3-1993.

"Every person carrying on an industry, operation or process requiring Consent under Section-25 of the Water (Prevention & Control of Pollution) Act, 1974 (6 of 1974) or under Section-21 of the Air (Prevention & Control of Pollution) Act, 1981 (14 of 1981) or both or authorization under the Hazardous Wastes (Management and Handling) Rules, 1989 published under the Environment (Protection) Act, 1986 (29 of 1986) Shall submit an Environmental Statement for the financial year ending the 31st March in From V to the concerned State Pollution Control Board on or Before the Thirtieth day of September every year, beginning 1993."

PART –B

Water and Raw Material Consumption (As per Total Working Days 353)

(1) Water Consumption M^3/day

Process & Washing	22.288 m^3/day
Boiler/Cooling	351.711 m^3/day
Domestic	8.358 m^3/day

Name of Product	Process water consumption per unit of product output	
	During the previous financial year (1)	During the current financial year (2)
1. Hydrogen Cyanide 2. Sodium Cyanide 3. Potassium Cyanide 4. Sodium Ferrocyanide 5. Potassium Ferrocyanide 6. Diphenyl Guanidine 7. Sodium Dicyanamide 8. Mandelonitrile 9. Heat Treatment Salt 10. Cyanohydrines 11. Nitrites 12. Cyanide based products 13. By product Ammonium Sulphate	**9.76 m^3/MT**	**9.10 m^3/MT**

HINDUSTHAN CHEMICALS & COMPANY OLPAD SURAT

(ii) Raw material consumption

* Name of raw material	Name of Product	Consumption of raw material per Unit of output	
		During the previous financial year	During the current financial year

Please refer Annexure – I

* Industry may use codes if disclosing details of raw material would violate contractual Obligations, otherwise all industries have to name the raw materials used.

PART – C

Pollution discharge to environment/unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants in discharged (mass/volume)	Percentage of variation from prescribed Standards with reason
(a) Water		**Please refer Annexure – II**	
(b) Air		**Please refer Annexure – III**	

PART – D
HAZARDOUS WASTES

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

Hazardous Waste	Total Quantity (kg.)	
	During the previous financial year	During the current financial year
(a) From Process	**Activated Carbon : 2.564 MT Ferric Hydroxide : 1.502 MT Contaminated Polythene Liner : 0.025 MT**	**NIL**
(b) From pollution control facilities	**ZLD Residue : 5.197 MT ETP Sludge : 0.699 MT Residue from ETP(MEE) : 2 MT**	**ZLD Residue : 164.53 MT ETP Sludge : 0.015 MT**

HINDUSTHAN CHEMICALS COMPANY OLPAD SURAT

PART – E
SOLID WASTE

Hazardous Waste	Total Quantity (kg.)	
	During the previous financial year	During the current financial year
(a) From Process	Whole quantity of Solid Waste was dried and Then sent to M/s. Bharuch Enviro Infrastructure Ltd. For Landfilling, Incineration, Treatment and Disposal.	Whole quantity of Solid Waste was dried and Then sent to M/s. Bharuch Enviro Infrastructure Ltd. for Landfilling, Incineration, Treatment and Disposal.
(b) From pollution control facilities		
(c) (1) Quantity recycled or re-utilised within the unit		
(2) Sold		
(3) Disposed		

PART – F

Please specify the characterizations (in terms of composition and quantity) of hazardous as well as solid and indicate disposal practice adopted for both these categories of wastes.

Hazardous Waste:

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

Solid Waste:

i) Contaminated Salt	Sodium Chloride	NIL
ii) ETP sludge	Cyanide content	N.D

HINDUSTHAN CHEMICALS COMPANY OLPAD SURAT

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and 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.154.34 Lacs is spent annually in Effluent Treatment Plant & Zero Liquid Discharge Plant.
2. Hazardous Wate:	
Hazardous waste get completely dried in waste impervious pan by solar evaporation.	Constituents present in hazardous was sent to M/s Bharuch Enviro Infrastructure Ltd, Ankleshwar & Dahej for incineration & Landfill, treatment and disposal. An amount of 33.15 Lac was spent annually.
3.Air Pollution:	
The toxic gases are completely burnt in Incinerator resulting into generation of inert gases, i.e. CO_2/N_2 and simultaneously generation of steam which is effectively used in plants. Therefore, there is no Impact of conservation of Natural resources.	Approx. 33091 MT/year steam was generated in Incinerator, otherwise to generate 33091 MT steam we would have burnt 2758 K.L. of furnace oil.

PART – H

Additional measure/investment proposal for environmental protection including abatement of pollution prevention of pollution.

1. We are fully equipped to handle hazardous waste, liquid effluents, air pollutants and detoxicate the same confirming to the norms specified by Pollution Control Board.
2. We are having Online Stack monitoring Gas Analyser and Records are being maintained.
3. We are having Online TOC Meter. Records are being maintained.
4. All the Treated water is being recycled in Cooling Tower and in Process.
5. We are having online Ambient Air Monitoring Station and Records are being maintained.

PART – I

Any other particulars for improving the quality of the environment.

About 4000 additional trees were planted within our battery limit during monsoon season.

(Signature of a person carrying
out an industry, operation or process)

Date : 21/04/2021

Name : **Mr. R P Sharma**
Designation: **Assistant Vice President(Plant)**
Address : **M/s. Hindusthan Chemicals Company**
GIDC Industrial Estate, P.O – Olpad,
Tal.: Olpad, Dist.: Surat- 394540.

ANNEXURE- I

PRODUCTION DETAIL

SR NO.	NAME OF PRODUCT	PRODUCTION (MT/YEAR)
1	Hydrocyanic Acid	3907.55
2	Sodium Cyanide	6371.99
3	Potassium Cyanide	152.7
4	Sodium Ferrocyanide	10
5	Potassium Ferrocyanide	Nil
6	Diphenyl Guandine	Nil
7	Sodium Dicyanamide	Nil
8	Mandelonitrile	1019.265
9	Heat treatment Salt	Nil
10	Cyanohydrine	405.78
11	Nitrile	Nil
12	Cyanide Based Product	Nil
13	By product Ammonium Sulphate	2641.05

RAW MATERIAL CONSUMPTION

Sr. No.	NAME OF RAW MATERIAL	CONSUMPTION (MT/YEAR)
A)	Hydrocyanic Acid	
	a) Liquid Ammonia	4260.90
	b) Natural gas	5974397 M3/ Year
	c) Sulphuric Acid	2047.07
B)	Sodium Cyanide	
	a) Hydrocyanic Acid	3567.138
	b) Caustic Soda lye	5155.769
C)	Potassium Cyanide	
	a) Hydrocyanic Acid	65.416
	b) Caustic Potash Lye	138.752
D)	Sodium Ferrocyanide	
	a) Sodium Cyanide	6.70
	b Hydrochloric Acid	4.90
	c) Iron Filing	2.17
	d) Caustic Soda	0.12
E)	Potassium Ferrocyanide	
	a) Potassium Cyanide	0
	b) Hydrochloric Acid	0
	c) Iron filing	0
F)	Diphenyl Guanidine	
	a) Hydrocyanic Acid	0
	b) Liquid Aniline	0
	c) Liquid Chlorine	0
	d) Caustic Soda	0
G)	Sodium Dicyanamide	
	a) Hydrocyanic Acid	0
	b) Liquid Chlorine	0
	c) Caustic Soda Lye	0
	d) 50% Cyanamide	0
H)	Mandelonitrile	
	a) Hydrocyanic Acid	200.918
	b) Benzaldehyde	787.700
I)	MPBAD	
	a) Hydrocyanic Acid	26.270
	b) MPBAD Comm. Grade	164.700
J)	CHCN	
	a) Hydrocyanic Acid	25.026
	b)Cyclo Hexanone Comm.	93.585
k)	Cyanohydrine	
	Hydrocyanic Acid	29.525

ANNEXURE - II

CHARACTERISTICS OF WASTE WATER SAMPLE

PARAMETERS	pH	S.S. (mg/L)	T.D.S. (mg/L)	B.O.D. (mg/L)	C.O.D. (mg/L)	OIL & GREASE (mg/L)	CHLORIDES (mg/L)	SULPHATE (mg/L)
*Oct-20	6.72	BDL	-	BDL	4.1	BDL	-	-
*Mar-21	7.95	BDL	-	BDL	4.1	BDL	-	-
**May-20	7.15	12	-	4.2	-	-	-	-

** Sample collected by GPCB.
* Sample collected by Auditor.

PARAMETER	UNIT	G.P.C.B. NORMS	AVERAGE RESULTS	% OF VARIATION FROM PRESCRIBED STANDARDS
pH	pH UNIT	6.5 to 8.5	7.27	--
S.S.	mg/L	100	12.0	-88.00
T.D.S.	mg/L	2100	--	--
B.O.D.	mg/L	30	4.2	-86.00
C.O.D.	mg/L	100	4.1	-95.90
OIL & GREASE	mg/L	10	--	--
CHLORIDES	mg/L	600	--	--
SULPHATES	mg/L	1000	--	--

ANNEXURE –III

CHARACTERISTICS OF FLUE GAS STACK

Stack Description: Stack Attached to Steam Boiler & Thermo pack.

MONTH	SPM (mg/Nm^3)	SO_2 ppm	NO_X ppm
*Oct-20	43	11.4	10.2
*Mar-21	16	N.D	6.9

* Sample collected by Auditor.

PARAMETER	UNIT	G.P.C.B. NORMS	AVERAGE RESULTS	POLLUTANTS DISCHARGED (kg/day)	% OF VARIATION FROM PRESCRIBED STANDARDS
SPM	mg/Nm^3	150	29.5	15.80	-80.33
SO_2	Ppm	100	11.4	6.11	-88.60
NO_X	Ppm	50	8.6	4.58	-82.90