



By Hand Delivery
A / WG /0440/ 2018
September 01, 2018

The Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan
Sector 10 A
Gandhinagar 382 010

Subject: Tata Chemicals Limited, Mithapur
Submission of the Environmental Statement for Year 2017-18

Respected Sir

In accordance with Rule 14 of Environment Protection Rules 1992, please find enclosed, the Environmental Statement as per Form V for the year 2017-18 (ending on 31 March 2018).

Kindly acknowledge receipt of the same.

Thanking you,

Yours sincerely
Tata Chemicals Limited

Sanjeev Jain
Senior Manager - EMS

CC: 1 Regional Officer GPCB Jamnagar
2 Additional Director (S), MoEFCC Western Regional Office Bhopal
3 Regional Director, Central Pollution Control Board, Vadodara

TATA CHEMICALS LIMITED

Mithapur 361 345 District Devbhoomi Dwarka Gujarat
Tel + 91 (02892) 665991 / 2 / 3 / 4 Fax + 91 (02892) 223361 www.tatachemicals.com
Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001
CIN : L24239MH1939PLC002893

FORM - V

(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31st MARCH, 2018

PART : A

- (i) **Name and Address of the Owner / Occupier of the industry, operation or process.** **Mr. R. Mukundan**
Managing Director
Tata Chemicals Limited
Bombay House, 24, Homi Modi Street, 'Fort, Mumbai 400 001
- Name of Mithapur chemical complex Unit Head:** **Mr. B B Kathpalia**
Vice President- Manufacturing
Address: Tata Chemicals Limited
Mithapur, Dist.- Devbhumi Dwarka, (Gujarat)- 361345
Contact No. **02892-665991/ 665992**
- (ii) **Industry Category :** Soda Ash, Captive Power Plant, Chloro-caustic, Vacuum Salt and Cement
Primary- (STC Code)
Secondary- (SIC Code)

(iii) Production Capacity

S. No.	Product	GPCB consented capacity
		Capacity/Year
1	Soda Ash	1,091,000 MT
2	Sodium Bi Carbonate (All grades)	150,000 MT
3	Vacuum Salt & Pure Salt	1,100,000 MT
4	Caustic Soda	36,000 MT
5	Liquid Chlorine	18,000 MT
6	33% Hydrochloric acid	64,800 MT
7	Bromine	2,400 MT
8	Hydrobromic acid	37 MT
9	Gypsum	134,892 MT
10	Clinker	825,000 MT
	Cement (OPC/PPC)	787,000 MT
11	Desalination water	2,160,498 M3/per year
12	Steam	757 T/Hour
13	Power	85 MW

- (iv) **Year of Establishment :** 1939
- (v) **Date of last Environmental Statement submitted :** Vide Letter No. A/WG/493/2017
Dated September 14, 2017

PART : B Water and Raw Material Consumption

(i) Water Consumption In M³ / Day

Category	2016-17		2017-18	
	Fresh Water	Sea Water	Fresh Water	Sea Water
Process	Nil	17,498	Nil	17,608
Cooling	Nil	1,92,724	Nil	1,84,038
Domestic	674	300	Nil	300

Name of Products	Process water consumption per unit of product output.			
	During the previous financial year 2016-17		During the current financial year 2017-18	
	Sea Water	Fresh Water	Sea Water	Fresh Water
Soda Ash Plant (KL/MT)	55.00	Nil	52.75	Nil
Cement Plant (KL/MT)	0.54	Nil	0.53	Nil
Captive Power Plant in (KL/MWh)	3.88	Nil	3.71	Nil
RO Plant (KL/KL of Product Water)	3.19	Nil	3.06	Nil
Others (KL/MT)	7.16	Nil	6.62	Nil

(ii) **RAW MATERIALS CONSUMED**

Name of Raw Materials	Name of Products	Unit per Ton of Product	Consumption of raw material per unit of output	
			During the previous financial year 2016-17	During the current financial year 2017-18
Salt As Such	Soda Ash	Tons	2.045	2.045
Limestone		Tons	1.356	1.342
Coke + Coal		Tons	0.110	0.110
Ammonia		Kg	2.861	2.644
Sod. Sulphide		Kg	2.141	2.211
Soda Ash		Tons	0.053	0.052
Soda Ash	Sodium Bicarbonate	Tons	0.710	0.710
Brine (KL)	Vac. Salt	KL	5.251	4.849
Potassium Iodate (Kg)		Kg	0.064	0.066
Sulfuric Acid	Liquid Chlorine	Tons	0.044	0.034
Chlorine	Hydrochloric Acid	Tons	0.327	0.315
Hydrogen		Tons	0.010	0.009
Salt	Caustic Soda	Tons	1.665	1.669
HCl	Bromine	Tons	3.499	3.466
Liq. Chlorine		Tons	0.864	0.689
Caustic Soda		Tons	0.821	0.670
Limestone (Fines)	Clinker	Tons	1.188	1.143
Clay		Tons	0.041	0.051
Marl		Tons	0.054	0.068
Iron Sludge/ Tailing waste		Tons	0.038	0.034
ESF Cake		Tons	0.109	0.144
Gypsum for Cement		Tons	0.056	0.051
Fly Ash for Cement		Tons	0.025	0.026

PART C**Pollution Discharged to environment/ unit of output**
(Parameters as specified in the consent issued)**(a) WATER****Industrial treated waste water.**

Pollutants	Quality of pollutants discharged (mass/day) TPD	Concentration of pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons
pH	-	8.5	Well Within Limits
Temperature in Deg C	-	31	Well Within Limits
Ammonical Nitrogen in mg/l	0.56	2.96	Well Within Limits
Total Suspended Solids in mg/l	28.50	150	Well Within Limits
Color in Units	-	9	Well Within Limits
Oil & Grease in mg/l	0.05	0.3	Well Within Limits
Bio Assay Test	-	Pass	Well Within Limits

Domestic treated waste water.

Pollutants	Quality of pollutants discharged (mass/day)	Concentrations of pollutants discharges (mass/volume)*	Percentage of variation from prescribed standards with reasons
BOD for 3 days at 27°C, mg/l	Recycled	4.2	Well Within Limits
Suspended Solids, mg/l	Recycled	6.2	Well Within Limits
pH	Recycled	7.2	Well Within Limits
Residual Chlorine, ppm	Recycled	0.8	Well Within Limits

* Domestic effluent is treated in the Town Sewage Treatment plant and recycled to town toilets as flush water and for gardening.

(b) AIR

Pollutants	Quality of pollutants discharged		Concentrations of pollutants in discharges		Percentage of variation from prescribed standards with reasons
	Unit	mass/day	Unit	Mass/Volume	
Particulate Matter	TPD	2.71	mg/Nm3	35.4	Well Within Limits
Oxides of Sulphur	TPD	5.14	PPM	32.9	Well Within Limits

ENVIRONMENT STATEMENT 2017-18
TATA CHEMICALS LIMITED, MITHAPUR (GUJARAT)

Oxides of Nitrogen	TPD	0.75	PPM	7.7	Well Within Limits
Chlorine	process vent		mg/nM3	0.4	Well Within Limits
Hydrochloric Acid	process vent		mg/nM3	1.3	Well Within Limits
Bromine	process vent		mg/nM3	0.7	Well Within Limits

PART : D

HAZARDOUS WASTE

Sr. No	Hazardous Waste	Unit	Total Quantity		Characterisation as per HW Rules
			2016-17	2017-18	
(a) From Process, (b) From pollution Control facilities					Schedule-I
1	Used/ Spent oil	KL	41.47	27.14	Cat 5.1
2	Waste/ Residue containing Oil	MT	1	1.8	Cat 5.2
3	Spent Ion Exchange Resin	MT	6.22	-	Cat 35.2
4	Barrels of Hazardous Waste	Nos	214	151	Cat 33.1
OTHER WASTE					
1	Used Lead Acid Batteries	Nos	75	31	
2	E-waste	MT	4.89	12.57	

PART: E

SOLID WASTES

Sr.No.	Solid Waste	Total Quantity in MT		
		2016-17	2017-18	
(a) From Process				
1	Under sized Lime Stone	5,81,033	5,47,429	
2	Milk of Lime Rejects	32,991	36,653	
3	Fly ash and boiler reject	1,22,439	1,30,408	
4	Effluent solids	1,89,225	1,82,275	
5	Static Salt Dissolver Wastes	38,175	41,455	
(b)	From pollution Control facilities			
1	Solid waste generated from desulphurisation process of flue gas of power plant is included in fly ash reported as above			
C-1	Quantity recycled or re-utilized within the unit			
1	Under sized Lime Stone	5,81,033	5,47,429	
2	Milk of Lime Rejects	62,447	14,640	
3	Fly ash and boiler reject	1,65,432	92,785	
4	Effluent solids	55,515	99,364	
C-2	Quantity Sold	Nil	Nil	
C-3	Disposed			
1	Fly ash and boiler reject	16730	21823	To Brick Manufacturers
2	Effluent solids	2663	3385	To Brick/ Blocks Manufacturers

PART : F

Please specify the Characterisations (in terms of composition and quantum) of Hazardous Waste as well as Solid wastes and indicate disposal practice adopted for both these categories of wastes

As mentioned in Part - D

PART : G

Impact of Pollution abatement Measures taken on Conservation of Natural Resources and on the cost of production:

1. Tata Chemicals is certified for ISO 14001-2015 .
2. Lime stone fines,Lime stone dust, Fly ash , Soda ash effluent solids are used as Raw materials for making Cement which significantly reduced the dependence on fresh natural resources i.e lime stone from mines
3. Use of Clean fuels (low ash and low sulfur coal) to meet the Sulphur Dioxide norms in the boilers where presently there is no use of any Desulphurization (dry lime stone dust) facility
4. Use of Petcoke (synthetic fuels) to reduce the dependence on Natural resource of fresh coal and Lignite
5. Operation of the RO plant. RO water supplemented ground water and TCL has stopped withdrawal of ground water since 2007.

6. TCL is submitting its GHG emissions as per Carbon disclosure project
7. TCL is publishing sustainability Report as per GRI guidelines.
8. TCL is publishing Business Responsibility Report as per SEBI guidelines.

PART : H

Additional measures / Investment Proposal for Environment Protection including Abatement of Pollution/ prevention of pollution

1. Enhancement of efficiencies of pollution control devices like ESPs and Bag Filters
2. Utilisation of Effluent Solid in cement manufacturing
3. Increase Green cover by growing plantations and increase Carbon Dioxide sequestration
4. Sustained zero dependence on Ground waters
5. Promote awareness among employees for more reuse, recycle, reduce and replace where ever possible
6. Upgradation of air pollution control devices as per revised emission norms.

PART : I

Any other particulars for improving the quality of the environment

1 Environmental Management System

- Company is certified for ISO 14001-2015 (Environmental Management System) and ISO 18001 (Health and Safety Management System) : 2007 . EMS department has a full-fledged Environmental Laboratory and skilled man power.
- Continual improvements have been done with ISO 14001 Environment Management System.

2 Environmental Expenditures: Reported as per GRI - G4, EN-31 Indicator

GRI 4	Environmental Expenditures	(in Rupees)
EN 31	Waste disposal and treatment cost	2,70,89,552
EN 31	Treatment cost for air emissions - Stack monitoring, filters, agents etc.	16,13,86,054
EN 31	Operation and Maintenance, material and services, and related personnel costs for running ETP and STP	22,35,59,841
EN 31	Other environmental costs	9,91,08,304
		51,11,43,751

3 Environment audit

- Environment audit for Financial Year 2017-18 completed by Schedule-I Auditor approved by GPCB.

4 Environment Events

- Organised Environment awareness events like World Environment day ; World Ozone Day and World Earth day and involving participation of employees, members of community and representatives from local Government agencies and GPCB
- Various training programmes for employees were organised during the financial year.

5 CSR Activities:

activities conducted
Details are available on TCSR website www.tcsrd.org.

6 Online Monitoring System

- TCL has installed Online emission monitoring as per CPCB guidelines

7 Recognitions

- Received Sustainability Award in India Chem Gujarat 2017 organised by FICCI

7 Sustainability Initiatives

- Company's sustainability initiatives are available on web portal <http://sustainability.tatachemicals.com>

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Tata Chemicals Limited

Works- Mithapur, Dwaraka Taluka, Devbhoomi Dwaraka District -361345,
Gujarat, India

has been registered by Intertek as conforming to the requirements of:

ISO 14001:2015

The management system is applicable to:

Manufacture of Soda Ash, Sodium Bicarbonate, Salt, Chlor Caustic, Marine
Chemicals, Cement (Various Grades), Chlorine Toner, Cylinder Testing and Filling
Facilities, Project Engineering Activities Including Design, Manufacture and Erection
of Chemical Plant and Machinery.

Certificate Number:

09121212017-01

Initial Certification Date:

30 October 2014

Date of Certification Decision:

09 November 2017

Issuing Date:

10 November 2017

Valid Until:

29 October 2020



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Calin Moldovean

President Business Assurance

Intertek Certification Limited, 10A Victory Park,
Victory Road, Derby DE24 8ZF, United Kingdom



Intertek Certification Limited is a UKAS accredited body under schedule of accreditation no. 014.

In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organisation maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a smartphone. The certificate remains the property of Intertek, to whom it must be returned upon request.

CT-ISO 14001:2015-UKAS-EN-LT-P-01.jul.17



CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Tata Chemicals Limited

Work: Mithapur, Dwaraka Taluka, Devbhoomi Dwaraka District -361345,
Gujarat, India

Marketing Office: Leela Business Park, Andheri Kurla Road, Andheri (East),
Mumbai-460059, Maharashtra, India

has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:

Work: Manufacture of Soda Ash, Sodium Bicarbonate, Salt, Chlor Caustic, Marine
Chemicals, Cement (Various Grades), Chlorine Toner, Cylinder Testing and Filling
Facilities, Project Engineering Activities Including Design, Manufacture and Erection
of Chemical Plant and Machinery.

Marketing office: Sales & Marketing of Chemical Products.

Certificate Number:

IVA-0404.12-03

Initial Certification Date:

24 September 2005

Date of Certification Decision:

09 November 2017

Issuing Date:

10 November 2017

Valid Until:

19 October 2020



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A handwritten signature in black ink, appearing to read 'Calin Moldovean'.

Calin Moldovean

President Business Assurance

Intertek Certification Limited, 10A Victory Park,
Victory Road, Derby DE24 8ZF, United Kingdom



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CT-ISO 9001:2015-UKAS-EN-LT-P-01.jul.17



CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Tata Chemicals Limited

Works - Mithapur, Dwaraka Taluka, Devbhoomi Dwaraka District -361345,
Gujarat, India

has been registered by Intertek as conforming to the requirements of:

OHSAS 18001:2007

The management system is applicable to:

Manufacture of Soda Ash, Sodium Bicarbonate, Salt, Chlor Caustic, Marine
Chemicals, Cement (Various Grades), Chlorine Toner, Cylinder Testing and Filling
Facilities, Project Engineering Activities Including Design, Manufacture and Erection
of Chemical Plant and Machinery.

Certificate Number:

0068885-00

Initial Certification Date:

20 October 2011

Date of Certification Decision:

09 November 2017

Issuing Date:

10 November 2017

Valid Until:

19 October 2020



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Calin Moldovean

President Business Assurance

Intertek Certification Limited, 10A Victory Park,
Victory Road, Derby DE24 8ZF, United Kingdom



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