

o/c



Date: 02/05/2017

To,  
The Regional Officer,  
Gujarat Pollution Control Board,  
Plot No. H/3 - A, Phase I  
GIDC, Modhera Road,  
Mehsana, Gujarat.

**Subject : Submission of Environment statement for the year 2016-17**

Dear Sir,

With reference to the above subject, enclosed please "Environmental Statement" duly filled in FORM - V defined under the rule with all relevant data for the year 2016-17 ending on 31<sup>st</sup> March 2017.

Kindly acknowledge for the same.

Thanking you,

For, **TORRENT PHARMACEUTICALS LTD.**

*I.R. Parikh*

**I.R. PARIKH  
GM-HSE**

GPCB RO. MEHSANA  
Received *[Signature]*  
Date 10/5/17

**TORRENT PHARMACEUTICALS LIMITED**

CIN : L24230GJ1972PLC002126

Ahmedabad-Mehsana Highway, Indrad, Tal. Kadi, Dist. Mehsana, India. Phone: +91 2764 233671-75,  
Reg. Office : Torrent House, Off Ashram Road, Ahmedabad - 380 009, India. Phone: +91 79 26585090 [www.torrentpharma.com](http://www.torrentpharma.com)

FORM - V  
(See Rule 14)

From :  
M/s. Torrent Pharmaceuticals LTD.  
Village : Indrad  
Ahmedabad - Mehsana Highway  
Tal : Kadi, Dist : Mehsana ( N.G )

To,  
Gujarat Pollution control Board  
Sector 10-A  
Gandhinagar - 382043

**ENVIRONMENTAL STATEMENT for the financial year ending the 31<sup>ST</sup> March 2017**

**PART - A**

- |   |     |   |
|---|-----|---|
| <b>I. Name and address of the owner / occupier of the industry operation or process</b> | : - | M/s Torrent Pharmaceuticals Ltd.<br>Village : Indrad,<br>Ahmedabad Mehsana Highway<br>Tal.: Kadi<br>Dist : Mehsana<br>Gujarat |
| <b>II. Industry Category</b>  | : - | Large Scale Industry  |
| <b>Primary (STC Code)<br/>Secondary (STC Code)</b>                                      |     |   |
| <b>III. Production capacity<br/>Units</b>   | : - | PI. Refer Annexure I  |
| <b>IV. Year of establishment</b>  | : - | August 1987   |
| <b>V. Date of the last<br/>Environmental<br/>Statement submitted</b>                    | : - | 27/05/2016  |

**PART – B****Water and Raw Material Consumption****(1) Water Consumption m<sup>3</sup> /day**

Process (For preparation of solutions of the treatment chemicals used for Wastewater treatment, Floor washing and Laboratory purpose)	Pl. Refer Annexure – II Water Consumption details
Cooling	
Domestic	
Gardening	
<b>TOTAL</b>	

**(2) Raw Material Consumption**

Name of the raw material	Name of products	Consumption of raw material per unit of output	
		During the previous financial year (2015 - 16) (Total Kg.)	During the current financial year (2016 –17) (Total Kg.)
Refer Annexure III A ( Formulation Plant ) & Annexure III B ( API Plant )			

**PART - C**

**Pollutants discharged to environment / unit of output  
(Parameters as specified in the consent issued)**

	<b>Pollutants</b>	<b>Quantity of pollutants discharged (mass / day)</b>	<b>Concentration of pollutants in discharges (mass / volume)</b>	<b>Percentage of variation from prescribed standards with reasons</b>
<b>(a)</b>	<b>Water</b>	<b>Pl. Refer Table C1 &amp; C2</b>		
<b>(b)</b>	<b>Air</b>			

**Table C1**

Sr. No.	Parameter	Limit prescribed as per the consent	Conc (mg/l)Q-1	Conc (mg/l)Q-2	Conc (mg/l)Q-3	Conc (mg/l)Q-4
1.	pH	6.5 - 8.5	7.11	6.95	6.95	7.28
2.	Temperature	40°C	27.8	28	28	28
3.	Colour	100	13	10	10	5
4.	TDS (mg/l)	2100	1896	1080	1056	1072
5.	TSS (mg/L)	100	12	15	17	19
6.	COD	100	24	52	40	45
7.	BOD ( 3 days at 27°C)	30	6	11	12	14
8.	Oil & Grease	10	BDL	<1.5	<1.5	<1.5
9.	Phenolic Compound	1.2	ND	<0.02	<0.02	<0.02
10.	Ammonical Nitrogen	50	BDL	<0.1	12.01	<0.1
11.	Chlorides (mg/l)	600	535	207	241	274
12.	Sulphates (mg/l)	1000	74	300	369	346
13.	Sulphide	2	<0.5	<0.3	<0.3	<0.3
14.	Flouride	2	<0.2	1.33	<0.1	0.89
15.	Hexavalent Chromium	N.A.	BDL	<0.005	<0.005	<0.005
16.	Total Chromium	2	BDL	<0.005	<0.005	<0.005
17.	Cyanide	0.2	<0.1	<0.001	<0.001	<0.001
18.	Arsenic	0.2	BDL	<0.01	<0.01	<0.01
19.	Copper	3	<0.1	<0.03	<0.03	<0.03
20.	Lead	0.1	BDL	0.093	<0.02	<0.02
21.	Mercury	0.01	<0.01	<0.002	<0.002	<0.002
22.	Nickel	3	<0.1	0.077	<0.02	<0.02
23.	Zinc	5	0.18	0.018	<0.03	<0.03
24.	Cadmium	2	BDL	0.028	<0.02	<0.02
25.	SAR	26	9.2	2.54	9.23	5.88
26.	Selenium	0.05	BDL	<0.01	<0.01	<0.01
27.	Boron	2	<0.5	0.42	0.1	0.12
28.	Total residual Chlorine	1	<0.1	<0.4	<0.4	<0.4
29.	Total Solids	N.A.	1908	1095	1152	1091
30.	Insecticides/Pesticides	N.A.	Absent	Absent	Absent	Absent
31.	Bio-Assay Test	90 % Survival of Fish after 96 Hrs	Pass	Pass	Pass	Pass

**Table C2****A. Ambient Air Monitoring**

Location	Nr. Formulation ETP Area	Nr. Primary Clarifier (API)	Nr. Canteen Area	Permissible Limit $\mu\text{g}/\text{Nm}^3$
SPM <sub>10</sub>	65.0	41.0	71.0	100
SPM <sub>2.5</sub>	28.0	31.0	12.0	60
SO <sub>x</sub>	10.04	11.24	13.92	80
NO <sub>x</sub>	17.60	21.15	22.14	80
HCl	<1	<1	<1	NA
Cl <sub>2</sub>	N.D.	N.D.	N.D.	NA

**B. Process Gas Emission**

Location	SCBR - 2 Module - A	SCBR - 3 Module - B	SCBR - 4 Level - I	Permissible Limit $\text{mg}/\text{Nm}^3$
SPM	16	16	13	150
SO <sub>x</sub>	14.18	19.64	17.47	40
NO <sub>x</sub>	7.26	8.5	9.02	25
HCl	7.21	9.54	10.92	20
Cl <sub>2</sub>	N.D	N.D	N.D	9

Location	SCBR - 5 Module - C	SCBR - 12 Module - F	SCBR - 13 Module - F	Permissible Limit $\text{mg}/\text{Nm}^3$
SPM	13	12	23	150
SO <sub>x</sub>	16.39	11.82	12.64	40
NO <sub>x</sub>	9.28	5.07	9.7	25
HCl	8.99	5.54	6.02	20
Cl <sub>2</sub>	N.D	N.D	N.D	9

**C. Fuel Gas Emission**

Stack Attached	Boiler	DG Set - 1	Permissible Limit	Unit
Parameter				
SPM	29	61	150	$\text{mg}/\text{Nm}^3$
SO <sub>x</sub>	45.02	14.7	100	ppm
NO <sub>x</sub>	8.71	10.16	50	ppm

**PART – D****HAZARDOUS WASTES****(As specified under Hazardous Wastes [management and handling] Rules 1989)**

	Hazardous Wastes	Total quantity (Kg.)	
		During the previous financial year (2015 – 2016)	During the current financial year (2016 –2017)
(a)	From Process	519845	667025
(b)	From pollution control facilities (Effluent treatment)	1253660	1443205

**PART – E****SOLID WASTES**

		Total quantity (Kg.)	
		During the previous financial year (2015– 2016)	During the current financial year (2016 – 2017)
(a)	From Process	<b>Pl. Refer Annexure IV</b>	
(b)	From pollution control facilities (Effluent treatment)		
(c)	(1) Quantity recycled or re-utilized within the unit		
	(2) Sold		
	(3) Disposed		

**PART - F**

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

**Refer Annexure V - A/B**

**PART - G**

**Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.**

1. GPCB has granted the authorization for hazardous waste for co-process with M/s. Ambuja cement based on approval co-processing initiated
2. Recycling of following waste stream are carried out as a part of green initiatives.
  - a. Copper waste.
  - b. Recovered solvent
  - c. Spent Catalyst
  - d. Used Oil
3. We have provided air pollution control system like two stage scrubber to achieve specified norms. Industry has installed new scrubber in API raw material store at material dispensing area to control fugitive emission while material dispensing.
4. We have installed heat recovery system in boiler feed water to using renewable energy sources
5. Recovery of steam condensate from MEE and ATFD plant for direct reuse of hot water as boiler feed.
6. Installed LED lighting arrangement within the working area as well as street light.
7. We have started to use of Narmada water instead of bore well water, which will conserve ground water conservation.
8. Use of PNG as primary fuel in boiler under intimation to GPCB. Use of PNG being cleaner fuel will have positive impact on environment.



9. Use fly Ash based bricks and use of fly ash in RCC for construction.
10. New canteen facility developed comprised of clean gas fuel, steam jacketed equipments.
11. We have installed 26 nos. of rain waster harvesting structures and covered large catchment area to increase the level of underground water & prevent flooding during heavy rain.
12. We have developed centralized Haz waste storage area having impervious flooring for storage of solid waste having capacity of more than 1000 MT at a time.
13. Increase recovery of RO plant up to 93% by installation of RO-III unit. Resulted in less operation of MEE due to decrease in RO reject generation saving potential of steam and power.
14. We have started to use eco friendly refrigerant R410A for air conditioners.
15. Action initiated for water conservation as follows :
  - Started to use formulation ETP treated water in flushing of toilet in change room
  - Installed water less urinals in change room
  - Minimize use of bore water in process requirements resulted in less rejection from RO plant.
  - Reuse of steam condensate in boiler
  - Recycling of process RO reject further in ETP RO
  - Irrigation and Green belt area developed by investment of Rs. 5.0 Cr. Approx. 75000 no of trees and shrubs are planted.

## **PART – H**

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

1. Online TOC meter, pH meter, TSS, NH<sub>3</sub>- N has been installed with Camera system at final discharge and connectivity with GPCB and CPCB site. The results are within the limit prescribed by GPCB.
2. Installation of the sludge Dryer is proposed by investment of R.s 0.6 Cr. By which there will be reduction in Sludge volume and ultimately reduction in pollution load in landfill.
3. Conducted the Biogas pilot scale (6 month) trial for converting biodegradable biomass and canteen waste in Energy and Organic Compost.
4. Developed rain water harvesting system for entire premises by investment of Rs.3.0 Cr.
5. Commissioned new fire protection and detection system by investment of Rs. 13 Cr.
6. We have obtain authorization from CPCB & GPCB for co-process instead of send for incineration for off. Spec. medicine & Dist. Residue at Ambuja cement, which obliquely protect the environment by reducing emission of flue gases.
7. We have obtain authorization of Bio medical waste and membership of Care BMW Incinerators for safe disposal respect to protection of environment.
8. We have installed SMF type batteries for relevant equipments.
9. We have installed multi column distillation plant for recovery/reuse of waste solvent from process.
10. We have Occupational Health Centre and as per BMW rules, 2016 authorization has been granted by GPCB/CPCB. Unit is member of Care BMW Incineration for treatment & disposal of Biomedical Waste.
11. ETP in house Laboratory up gradated by installation of Bomb Calorific Meter for carrying out in house Calorific Value.

**PART - I**

**Any other particulars for improving the quality of the environment.**

1. We are certified for environment management system i.e. ISO 14001:2015, OHSAS: 18001:2007 and ISO: 9001:2015 from ISOQAR (Refer Annexure VI), British Safety Council five star awards & sword of Honor.
2. Upgraded existing ETP & New ETP for betterment of effluent treatment.
3. ISO 50001: 2011 for energy management system
4. We have successfully completed third party external safety audit conducted by National Safety Council with no major observation
5. No major accidents were reported during this year.
6. Industry has installed Organic Waste Converter machine for canteen waste treatment.

*I. R. Parikh*  
for  
*V. K. G. 03/05/17*

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

**Date:**

**Name:** Shri I.R. PARIKH  
**Designation** : G.M.-HSE  
**Address** : Torrent Pharmaceuticals Ltd.  
Village: Indrad,  
Ahmedabad Mehsana Highway  
Tal.: Kadi  
Dist : Mehsana  
Gujarat