o/c

LR No: TPL/VSKP/18/September/04

28th September, 2018

To
The Environment Engineer
AP Pollution Control Board
Plot No-14, Flat No-103 & 104
Journalist Colony, Marripalem Vuda Colony,
Visakhapatnam-530009

Subject: Submission of Environmental Statement for the FY 2017-18.

Respected Sir,

With reference to the above said subject we are herewith submitting the Environmental Statement for the financial year 2017-18 ending with 31st March 2018.

Kindly acknowledge the same.

Thanking You
For Torrent Pharmaceuticals Limited

Patel 28/09/18
(Akash Patel)
GM-Manufacturing

Environmental Engineer ★ Board
Regional Office
Visakhapatnam.
28/9/18
★ A.P. Pollution Control

FORM V

(See Rule 14)

Environmental Statement for the financial year ending the 31st March 2018

PART-A

(i) Name and address of owner/Occupier of industry operation or process. : Torrent Pharmaceuticals Limited
Plot No: 77, JN Pharmacity, Thanam (V)
Parawada (M), Visakhapatnam-531021

(ii) Industry Category Primary : Medium Scale Industry
(STC code) Secondary ____ (SIC code)

Production Capacity : 630.32 _ Units Kg/day.

(iii) Year of establishment :2007(Torrent Acquires on Sep'16)

PART-B

Water and Raw material consumption

(1) Water Consumption m3/day:

Process : 4868

Cooling : 3028 (Cooling +Scrubber)

Domestic : 3416

Sr No	Name of Product	Process water consumption per unit of product output (m3/day)	
		During the previous financial year	During the current financial year
1	API & Intermediates	0.30	1.60

Sr No	Name of Raw material consumption	Name of Product	Consumption of raw material per unit of output	
			During the previous financial year FY 16-17	During the current financial year FY 17-18
1	1-[(R) - 4 – Chlorophenyl) phenyl methyl] – piperazine	Levocetrizine dihydrochloride	1.11	1.11
2	Thiophene-2-Ethyl amine	Clopidogrel bisulphate-II	0	0
3	2-Chloromethyl-3,5-Dimethyl-4-Methoxy Pyridine Hydrochloride	Esomeprazole magnesium Dihydrate	3.447	3.447

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4	Pthalic Anhydride	Amlodipine Besilate	0	0
5	Benzhydrol	Armodafinil Intermediate	0	0
6	Tetracycline hydrochloride	Limecycline(Tetracyclin sample)	0	0
7	3-(1-(dimethyl amine) ethyl) Phenol HCL	Rivastigmine hydrogen Tartarate	1.95	1.95
8	Methyl-4-n-Butryl Amino 3—Methyl-5-NitroBenzoate	Telmisartan	0	0
9	Phthalic Anhydride	Pthalimido amlodipine crude	0.47	0.47
10	Chloro Flouro Butyro Phenone	Haloperidol	0	0
11	Thiophene-2-Ethanol	Clopedogrel CSA	0	0
12	3-Methoxy thiophenol(Thiol)	Raloxifine hydrochloride-stage II	3	3
13	4-Hydroxy -3-Methoxy Acetophenone	Iloperidone	0	0
14	Phthalic Anhydride	Amlodipine besilate	0	0
15	3- Methoxy thiophenol (Thiol)	Ralofixine hydrochloride-stage II	0	0
16	6-Chloro Oxyindole	6-Chloro-(2-Chloroethyle)Oxyindole	0	0
17	4-(4-Aminophenyl) Morpholin-3-one	Rivaroxaban Intermediate	0	0
18	1-[(R) - 4 – Chlorophenyl) phenyl methyl] – piperazine	Levocitrigine impurities	0	0
19	Methyl-4-n-Butryl Amino 3-Methyl-5-Nitrobenzoate	Telmisartan impurities	0	0
20	MSNH	TRC 41266	1.43	1.43
21	3-Nitro thalic acid *	Candesartan cilenxetil	0	0
22	2-Chloromethyl-3,5-Dimethyl-4-Methoxy Pyridine Hydrochloride	Esomeprazole magnesium dihydrate	3.447	3.447
23	2-Chloromethyl-3,5-Dimethyl-4-Methoxy Pyridine Hydrochloride	Esomeprazole magnesium stage-III	3.447	3.447
24	2,3 Dichloro Benzoyl Chloride	Lamotrigine	1.19	1.19
25	Nicotinic Acid	Nicorandil	2.35	2.35
26	4-[2-Ethoxy benzamido]-1-Methyl-3-N-Propyl prazole-5-2-Caboximade	Sildenafil Citrate	0.784	0.784

PART-C

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

Sr No	Quantity of pollutants discharged (mass/day)	Concentration of Pollutants in discharge (mass/volume)	Percentage of variation from prescribed standards with reasons
a) Water	Attached Annexure-I		
b) Air	Attached Annexure-I		

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PART-D

Hazardous wastes

Sr No	Hazardous waste	Source of generation	Total quantity (Kg)	
			During the previous financial year (2016-17)	During the current financial year (2017-18)
1	Process and Organic Residue	From process	3.37 TPA	0
2	Inorganic Solid Waste & Salts (Inorganic Process Salts	From process	8.114 TPA	2.286 TPA
3	Spent Carbon+Hyflow (Spent Carbon)	From process	1.238 TPA	3.294 TPA
4	ETP Sludge	From pollution control facilities	3.684 TPA	3.047 TPA
5	Sodium Hydride Empty bags	From process	0.167 TPA	0.463 TPA
6	Rejected product	From process	0.093 TPA	1.0532 TPA
7	Used PPE	From process	0.395 TPA	1.699 TPA
8	Rejected raw materials	From process	0.21 TPA	1.8429 TPA
9	HEPA Filters	From process	0	1.13 TPA
10	Insulation wool	From process	0	0.054 TPA
11	Thermocol	From process	0	0.0667 TPA
12	HDPE/LDPE Bags	From process	0	0
13	Expired Laboratory Chemicals	From process	0	0
14	Filtration Bags	From process	0	121 Nos
15	Contaminated sand	From pollution control facilities	0.28 TPA	0.214 TPA
16	General waste	From process	-	13.577 TPA
17	Foam	From process	-	0.23564 TPA
18	Cooling tower packing material	From process	-	0.421 TPA
19	Used Oil	From process	-	380 Ltr
20	Empty barrels/Container/Liners Contaminated with hazardous Chemicals waste	From process	0	3256Nos
21	Contaminated glass ware	From process	-	1748 Nos

PART-E

Solid Waste

Sr No	Solid waste	Total quantity (Kg)	
		During the previous financial year	During the current financial year
(a)	(a) From process	Nil	Nil
(b)	(b) From pollution control facility	Nil	Nil
(c)	(i) Quantity recycled or reutilized within the unit	Nil	Nil
	(ii) Sold	Nil	Nil
	(iii) Disposed	Nil	Nil

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PART-F

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

Type of Hazardous waste	Disposal Mode	Disposal Facility
Process residue and Organic residue from Distillation bottom	Sent to TSDF, Parawada, for incineration/ Authorised Cement plants for co-processing.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Spent Carbon	Sent to TSDF, Parawada, for incineration/ Authorised Cement plants for co-processing.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Inorganic process salts	Sent to TSDF, Parawada, for secured land filling.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
ETP Sludge	Sent to TSDF, Parawada, for secured land filling.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Spent solvents	Shall be sent to APPCB authorized agency	Swetha Solvents, Achyutapuram & Visakha Solvents JNPC Parawada
Used Oils	Authorized reprocessors/recyclers	Sri Venkateswara Lubricants, Auto Nagar, Visakhapatnam
Container and container liners of hazardous waste	After complete detoxification shall be disposed to outside agencies for recycling.	Deccan Recyclers (Ramky Parawada), Visakhapatnam.
Used lead acid batteries	Shall be sent back to suppliers on buy back basis.	To the Manufacturer on buy back basis.
Mixed solvent	Shall be sent to APPCB authorized agency	Swetha Solvents, Achyutapuram & Visakha Solvents JNPC Parawada
Spent acids	Shall be sent to APPCB authorized agency	Swetha Solvents, Achyutapuram & Visakha Solvents JNPC Parawada
Contaminated Sand (used for spill collection & control)	Sent to TSDF, Parawada, for secured land filling.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Rejected raw material	Sent to TSDF, Parawada, for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Rejected Products	Sent to TSDF, Parawada, for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
HEPA Filters	Sent to TSDF, Parawada, for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Insulation wool	Sent to TSDF, Parawada, for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Thermocol	Sent to TSDF, Parawada, for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Contaminated glassware	After complete detoxification shall be disposed to outside agencies.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
PPEs	Sent to TSDF, Parawada, for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam

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Type of Hazardous waste	Disposal Mode	Disposal Facility
Sodium Hydride bags	Sent to TSDF, Parawada, for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
HDPE Bags	Sent to TSDF, Parawada, for incineration/for recycling to authorized recyclers.	Deccan Recyclers (Ramky Parawada), Visakhapatnam.
Expired Laboratory chemicals	Sent to TSDF, Parawada, for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Filtration bags	Sent to TSDF, Parawada, for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Coal Ash	Disposed to local Ash Bricks manufacturers.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Cooling Tower Sludge	Sent to TSDF/CWMP, Parawada, Visakhapatnam District for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Cooling Tower Packing material	Sent to TSDF/CWMP, Parawada, Visakhapatnam District for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Foam	Sent to TSDF/CWMP, Parawada, Visakhapatnam District for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
Oil Contaminated Waste (DG Set oil filters)	Sent to TSDF/CWMP, Parawada, Visakhapatnam District for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam
General Waste	Sent to TSDF/CWMP, Parawada, Visakhapatnam District for incineration.	Coastal Waste Management Project-Ramky, Parawada, Visakhapatnam

The different types of solid recyclable waste as an outcome of construction activity, like steel/MS Scrap, Empty Cement Bags, Cable pieces, wooden waste etc sold to scrap vendor.

PART-G

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

- Plantation of 2000 Nos of Saplings done in JNPC Near Ramky Fire Station under Green Visakha Plantation programme.
- Further 2000 Nos of Saplings to be planted in 18-19 under Vanam Manam an Andhra Pradesh Govt initiative.
- Online VOC monitor has installed to monitor volatile organic compounds.
- Online pH monitors with data loggers installed to scrubbers for better monitoring.
- Used fly ash bricks in building construction.
- Installed LED lighting at Street light.
- Use of biomass briquettes instead of coal will have positive impact on Environment with respect to emission and resource conservation and waste utilization.

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Annexure-I
Torrent Pharmaceuticals Limited, Visakhapatnam

Waste water disposal details for the period of April 2017 to March 2018

S.No	Month	LTDS		HTDS	
		Discharge quantity per month (KL)	CFO Limit (KLD)	Discharge quantity per month (KL)	CFO Limit (KLD)
1	April/17	625	78.45	475	26.15
2	May/17	575	78.45	425	26.15
3	June/17	451	78.45	453	26.15
4	July/17	516	78.45	411	26.15
5	August/17	255	78.45	470	26.15
6	September/17	710	78.45	396	26.15
7	October/17	583	78.45	162	26.15
8	November/17	627	78.45	215	26.15
9	December/17	821	78.45	579	26.15
10	January/18	714	78.45	639	26.15
11	February/18	395	78.45	569	26.15
12	March/18	595	78.45	396	26.15

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PART-H

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

- Commissioned centralized fire detection system in the plant.
- Re-constructed the Solvent Recovery Plant for the recovery of spent solvents.
- Facility upgradation has been done.
- Outside earthen drainage has been made cemented.

PART –I

Any other particulars for improving the quality of the environment.

- Monitoring of environmental parameters viz-ambient air, stack, Noise and efficiency of control equipment is being done at regular basis through MoEF and CC recognized laboratory.
- World Environment Day and National Safety Day has been celebrating with enthusiasm in which various activities has been carried out for employees.

ANNEXURE-I

AMBIENT AIR QUALITY

Location	Parameter	Limit	Min	Max	Avg
Near Security	PM 2.5	60 $\mu g/m^3$	19	35	27.25
	PM 10	100 $\mu g/m^3$	63	87	74.17
	SO2	80 $\mu g/m^3$	5	12	8.25
	NOX	80 $\mu g/m^3$	14	27	21.08
Near E-Block	PM 2.5	60 $\mu g/m^3$	17	33	26.08
	PM 10	100 $\mu g/m^3$	60	80	72.75
	SO2	80 $\mu g/m^3$	6	14	9.67
	NOX	80 $\mu g/m^3$	15	28	22.50
Near Boiler	PM 2.5	60 $\mu g/m^3$	15	37	27.08
	PM 10	100 $\mu g/m^3$	54	86	73.42
	SO2	80 $\mu g/m^3$	7	15	10.67
	NOX	80 $\mu g/m^3$	16	25	20.08

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AMBIENT NOISE LEVELS

Near Security Gate (Day time)	Noise Level	75dBA	56.2	631	106.84
Near D.G Room (Day time)		75dBA	67.4	73.2	70.49
Near Utility (Day time)		75dBA	64.8	71.5	67.68
Near Security Gate (Night time)		70dBA	50.8	57.4	54.21
Near D.G Room (Night time)		70dBA	61.5	67.1	64.76
Near Utility (Night time)		70dBA	57.5	66.4	61.38

PROCESS EMISSION

Location	Parameter	Limit	Min	Max	Avg
SCB/A01	Acid Mist	35 PPM	0	0	-
SCB/C01		35 PPM	0	0	-
SCB/D01		35 PPM	10	13	11.50
SCB/D02		35 PPM	0	0	-
SCB/WH01		35 PPM	12	12	12.00
SCB/WH02		35 PPM	6	9	7.50

FLUE GAS EMISSION

Location	Parameter	Limit	Min	Max	Avg
Boiler	PM	100 mg/Nm^3	67	89	76.83
	SO2	-	121	147	132.75
	NOX	-	41	58	47.83
	PM Inlet	-	362	381	371.5
	Efficiency of Bag Filter	%	59.67	67.98	63.825

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Location	Parameter	Limit	Min	Max	Avg
DG Set 1	PM	100 mg/Nm^3	56	65	60.50
	SO2	-	112	118	115.00
	NOX	-	158	164	161.00
DG Set 2	PM	100 mg/Nm^3	59	63	61.00
	SO2	-	108	110	109.00
	NOX	-	165	176	170.50

Date: 28-09-2018

Patel 28/09/18

(Signature of a person carrying out an Industry, Operation & Process)

28/09/18

Name: Akash Patel

Designation: GM - Manufacturing

Address: M/s. Torrent Pharmaceuticals Limited., Plot No 77, JN Pharmacity, Thanam (V), Parawada (M), Visakhapatnam District.