

Date: 30-Sep-19

To,  
The Environmental Officer,  
Karnataka State Pollution Control Board,  
Regional Office: Anekal region  
Nisarga Bhavan, Basaveshwaranagar  
Bangalore – 560 010

Dear Sir,

**Subject:** Submission of Environmental Statement in form -V from Apotex research pvt ltd plot No.2, 4th phase, Bommsandra industrial area; Jigani link road, Bangalore-560 099

Find the enclosures herewith the Environmental Statement in form -V for the year 2018-19.

Kindly acknowledge the receipt of the same

Thanking you



**APOTEX RESEARCH PRIVATE LIMITED**

Plot 1 & 2, Bommasandra Indl. Area, 4th Phase, Jigani Link Road, Bangalore 560 099.

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**ENVIRONMENTAL AUDIT  
STATEMENT 2018-19**

**FORM - V**

**SUBMITTED TO**



**KARNATAKA STATE POLLUTION  
CONTROL BOARD**

**Submitted by**

**APOTEX RESEARCH PRIVATE LIMITED.**

**Plot-2, BANGALORE - 99**

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# **I. INTRODUCTION**

**A. PREAMBLE:** With the expansion in Industrialization in our developing country, our environment is at stake and thus brings in the requirement of legislations. Various legislations like. The water (Prevention and Control of Pollution) Act, 1986, The Air (Prevention and Control) Act, 1981, Environment protection act, 1986 have been introduced early in our country to combat pollution.

Indian Environment legislation was constituted in the year 1974 with the Central pollution control board and consequently the state boards were also formed. Since then the Board has been active in passing / amending the Environmental Acts / Rules under the regulatory frame from time to time. The Policy Statement for Abatement of pollution (1992) announced by the Government of India seeks integration of Environment consideration into decision making at all levels. Environmental Audit has been reorganized as one of the instruments for achieving this objective.

The Environment protection Act was released in 1986. This act imposes a duty on every person to take steps to prevent or mitigate the environmental pollution. A notification under the Environmental (protection) Act, 1986 has been issued on March 13, 1992 and subsequently-amended on April 22, 1993 requiring all the industries to submit an Environmental statement for the financial year ending on the 31st March in a specified format to the concerned state pollution control board on or before September 30 every year beginning 1993. The submission of environmental statement ins applicable to all those who require consent for discharge under the Water (prevention & Control of pollution) Act, 1974 and the Air (prevention & Control of pollution) Act, 1981 and those requiring authorization under Hazardous wastes ( Management & Handling ) Rules, 1989.

**B. OBJECTIVES:** The procedure of an annual environmental statement was introduced in local bodies, statutory authorities and public limited companies to

evaluate the effect of their policies, operations and activities on the environment, particularly compliance with standards and the generation and the recycling of waste.

An annual statement would help in identifying and focusing attention on areas of concern, practices that need to be changed and plans to deal with adverse effects. This will be extended to an environmental audit. The audits would also facilitate the following

- Identifies potential cost savings which can be accrued through reduction in raw material consumption by adoption of reduction / recovery / recycle policy.
- Promotion by companies of environment policies and effective management systems to implement them.
- Promotion of the management tool of environmental auditing.
- Provision of reliable information to the Pollution Control Board and auditors on the environmental performance of firm.

## **II.ORGANIZATION PROFILE**

## **A. ORGANIZATION PROCESS / ACTIVITY DESCRIPTION**

Apotex has set up state-of-the art R & D and manufacturing facilities in India for both active pharmaceutical Ingredients (API's) and Solid Dose formulations. These facilities are located at Bommasandra Industrial area located in outskirts of the city of Bangalore.

The R & D activities will initially focus on developing Solid Dose formulations which will increase our capacity to deliver a greater no of new products submissions to our three key markets Canada, US and Europe, upon regulatory approval these products will be either manufactured in India or Canada. The R & D team will also provide technical support to Toronto for method development, validation and stability studies.

In addition a Bio-equivalence centre in support of ever increasing no of bio studies that are required to meet the regulatory requirements of our new products has also been established. In Bio-availability & Bio-equivalence study we do studies on volunteers to provide R & D services.

### **III. FORM V DETAILS**

# PART - A

Name and address of the owner / Occupier of the Industry :

**APOTEX RESEARCH PVT LTD,  
PLOT No -2, Bommasandra Industrial Area,  
4<sup>th</sup> Phase, Jigani Link Road,  
Bangalore – 560 099**

Industry category Primary - ( STC CODE) : **RED**

Secondary - ( STC code) : **LARGE**

Production Category – Units : **Bio – availability & Bio – equivalence study**

Year of Establishment : 2006

**PART - B**

**WATER & RAW MATERIAL**

**CONSUMPTION**

**i. Water & Raw material consumption:**

Water & Raw Material Consumption		
Sl.No.	Water Consumption in KL/Day	During 2018-19 in KL/Day
1.	Process	9
2.	Cooling	9.53
3.	Domestic	26

SL. NO	NAME OF PRODUCTS	Process water consumption per unit of Products	
		During the previous Financial year	During the current Financial year
1.	R & D Services ( Bio – availability & Bio – equivalence study )	Used only for cleaning purpose	

**ii. Raw Material Consumption:**

Name of Raw Materials *	Name of Products	Consumption of Raw material per unit of output	
		During the year 2017-18	During the year 2018-19
Formulation Products	Research & laboratory	0.114 MT/annum	0.105MT/Annum

### Chemicals Consumption

Chemical Name	Quantity/Month (Kgs)	Quantity/Year (Kgs)
Acetonitrile	128	1536
Methanol	228	2736
Dichloromethane	5	60
Diethyl ether	5	60
tributyl methyl ether	48	576
Acetone	80	960
Sodium Hypo chloride	15	180
n-hexane	8	96
Acetic acid	0.5	6
Formic acid	0.5	6
Phosphoric acid	0.5	6
Ammonia	0.5	6
Ethyl acetate	4	48
Iso-propyl alcohol	5	60
Ammonium acetate	0.5	6
Ammonium phosphate	0.5	6
Sodium hydroxide	0.5	6

## Water Consumption 2018-19

Details of Water Consumption		
Month	During the year 2017-18	During the year 2018-19
April	958	1038
May	1075	897
June	1060	868
July	1030	1091
Aug	1005	1068
Sept	919	989
Oct	814	1042
Nov	923	1020
Dec	920	1319
Jan	1000	1109
Feb	725	976
Mar	790	778

**PART - C**

**POLLUTION DISCHARGED**

**TO**

**ENVIRONMENT**

## POLLUTION DISCHARGED TO ENVIRONMENT / PER UNIT OF PRODUCT

Pollution Discharged to Environment / unit of product (Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reason.
<b>(a) Water</b>			
(i) TSS	0.0001	0.0084	NIL
(ii) TDS	0.022	1.000	
(iii) COD	0.0010	0.0487	
(iv) BOD	0.0003	0.0156	
<b>(b) Air</b>			
(i) Acid mist	0.03870	0.0141	NIL
ii) SO <sub>x</sub>	0.00871	0.00317	
(iii) NO <sub>x</sub>	0.02388	0.0087	
(iv) SPM	0.01045	0.00381	

**PART - D**

**HAZARDOUS WASTES**

## **Hazardous Waste:**

**(As specified under Hazardous waste (Management & Handling Rules, 2016))**

<b>Hazardous Wastes</b>	<b>Total Quantity</b>	
	<b>2017-18</b>	<b>2018-19</b>
<b>Used / Spent oil (oil generated from DG)</b>	0.075MT	NIL
<b>Wastes / Residues containing oil (oil soaked cotton waste)</b>	0.024 MT	NIL
<b>Discarded containers/Barrels used for hazardous waste/chemicals</b>	20 Nos'	NIL
<b>Discarded liners used for hazardous waste/chemicals</b>	19 Kgs	NIL
<b>ETP sludge</b>	0.255 MT	0.5MT
<b>Off specification drugs &amp; Medicine.</b>	0.114 MT	NIL

## **Bio Medical Waste:**

<b><u>Bio-Medical Waste</u></b>	<b>Total Quantity (Kg)</b>	
	<b>FY-2017</b>	<b>FFY-2018</b>
<b>Yellow</b>	6085.4	1028.70
<b>Blue</b>	971.4	21.60
<b>White (cans)</b>	795.1	714.80
<b>Black</b>	2.8	3.00
<b>Red</b>	NA	5617.30

# PART - E

## SOLID WASTES

SOLID WASTES	Total Quantity ( kg )	
	2017-18	2018-19
Cartoons	360Kgs	4675Kgs
Metal scrap	350Kgs	85Kgs
Glass bottles	NA	4137Kgs
Poly bags	NA	666kgs
Plastic scrap	NA	1484Kgs
Paper waste	NA	1568kgs
Wood waste	NA	525Kgs
Aluminum waste	NA	522Kgs

**PART - F**

**CHARACTERISTICS OF  
HAZARDOUS WASTES &  
SOLID WASTES**

## Hazardous Waste Disposal Details: 2018-19

Sl. No.	Waste category No	Type of Waste	Quantity	Condition of waste	Method of		
					Storage	Treatment	Disposal
1.	5.1	Used / Spent oil ( oil generated from DG )	NIL	Liquid	In closed shed	NIL	To Authorized Vendors.
2.	5.2	Wastes / Residues containing oil ( oil soaked cotton waste )	NIL	Solid	In closed shed	NIL	To Authorized Vendors.
3.	33.3	Discarded containers/liners used for hazardous waste/chemicals.	NIL	Solid	In closed shed	NIL	To Authorized Vendors.
5.	34.3	ETP sludge	0.5MT	Solid	In closed shed	NIL	To Authorized Vendors.
6	28.3	Off specification Drugs & Medicine.	NIL	Solid	In closed shed	NIL	To Authorized Vendors.

**PART - G**

**ENVIRONMENTAL  
INITIATIVES TAKEN  
&  
COST DETAILS**

## PART – G

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

#### **Conservation of Natural Resources:**

The company has been practicing several natural conservation programmes like

1. Water Conservation programme
2. **Energy Conservation program:** During this financial year 0.185316 Million Units of electrical energy usage reduced as compared to FY 2017-18 under various energy conservation programs at site.
3. Greenery development by planting trees.
4. Rain water harvesting.
5. Separation of Hazardous waste from other waste.
6. Separation of BMW at the source itself.

## PART - H

### *Proposed Environmental Initiatives*

Additional measures / Investment proposal for Environmental protection including abatement of pollution.

1. **Energy Conservation:** *There is an energy saving of 185316 units as compared to previous year by introducing timer to equipment, LED light fittings, optimizers.*

2. **Greenbelt development by planting trees.**

*World environment day was celebrated on 5th June 2019, planted 100 saplings as a part of greenery development.*

***World Environmental Day  
Celebration  
05-June-2019***

