



Date: 27-Sep-23

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 audit statement in form -5 from Apotex research Pvt ltd Plot No. 2, 4th phase, Bommasandra industrial area, Jigani link road, Bangalore-560 099

Find the enclosures herewith the Environmental audit statement for the year 2022-23 in Form -5.

Kindly acknowledge the receipt of the same

Thanking you

For Apotex Research pvt Ltd



Gajanan Bhat
Senior Manager - Environment Health & Safety

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 2022-23

FORM - V

SUBMITTED TO



**KARNATAKA STATE POLLUTION
CONTROL BOARD**

Submitted by

APOTEX RESEARCH PRIVATE LIMITED.

Plot-2, IVth Phase, Bommasandra Industrial area, Jigani link Road,
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 is 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,
4th 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 Consumption

Sl. No.	Water Consumption in KL/Day	During 2022-23 in KL/Day
1.	Laboratory usage	2.0
2.	Cooling	0.5
3.	Domestic	11.4

II. Production

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	

Raw Material Consumption:

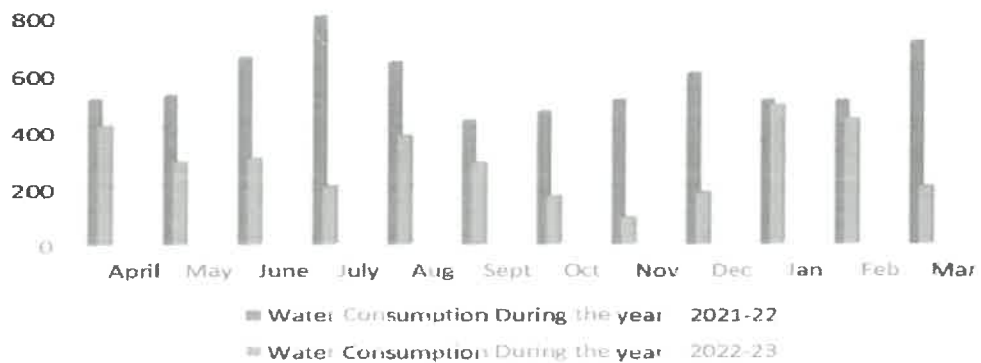
Raw materials/products produced/used for industrial activities	Consumption of Raw material per unit of output	
	During Year 2021-22	During Year 2022-23
No. of clinical studies conducted	60	47

Chemicals used for laboratory activities		
Chemical Name	Quantity/Year 2021-22 (Kgs)	Quantity/Year 2022-23 (Kgs)
Acetonitrile	450	300
Methanol	330	350
Dichloromethane	10	8
Diethyl ether	12	12
tributyl methyl ether	206	198
Acetone	42	40
Sodium Hypo chloride	12	6
n-hexane	12	8
Acetic acid	1.2	1.0
Formic acid	1.2	1.0
Phosphoric acid	0.8	0.8
Ammonia	1.3	1.2
Ethyl acetate	10	10
Iso-propyl alcohol	14	12
Ammonium acetate	1.3	1.3
Ammonium phosphate	1.4	1.4
Sodium hydroxide	3.0	2.0

Water Consumption 2022-23

Month	During the year 2021-22	During the year 2022-23
April	508	416
May	521	288
June	656	300
July	798	203
Aug	639	380
Sept	434	285
Oct	465	169
Nov	505	95
Dec	599	182
Jan	504	487
Feb	503	437
Mar	710	202

Water Consumption details



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	Concentration of Pollutants discharged (mass/volume)	Quantity of Pollutants discharged (mass/day)	Percentage of variation from prescribed standards with reason.
(a) Water			
(i) TDS	38.29	38.29	NIL
(ii) TSS	1.76	1.76	
(iii) COD	0.85	0.85	
(iv) BOD	3.73	3.73	
(b) Air			
(i) Acid mist	0.02	9.19	NIL
ii) SOx	0.01	2.18	
(iii) NOx	0.01	10.19	
(iv) SPM	0.09	45.20	

PART - D

HAZARDOUS WASTES

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

Hazardous Wastes Generated details	Total Quantity	
	2021-22	2022-23
Used / Spent oil (oil generated from DG)	0.2MT	0.4 MT
Wastes / Residues containing oil (oil soaked cotton waste)	0.01MT	0.0035MT
Discarded containers/Barrels used for hazardous waste/chemicals	4 No's	0.5MT
Discarded liners used for hazardous waste/chemicals	0.007T	NIL
ETP sludge	1.2MT	1.83MT
Off specification drugs & Medicine.	0.1MT	1.917MT

Bio Medical Waste:

Bio-Medical Waste	Total Quantity (Kg)	
	Year 2021	Year 2022
Yellow	2705	1777
Blue	2.46	3.5
White (cans)	245	148
Red	1955	2075

PART - E
SOLID WASTES

SOLID WASTES	Total Quantity (Kg)	
	Year 2021-22	Year 2022-23
Cartoons	0.856MT	0.658MT
Metal scrap	0.543MT	0.918MT
Glass bottles	1.321MT	1.77MT
Poly bags	1.103MT	0.193MT
Plastic scrap	0.473MT	0.911MT
Paper waste	2.182MT	2.783MT
Wood waste	1.274MT	NIL

PART - F

**CHARACTERISTICS OF
HAZARDOUS WASTES & SOLID
WASTES**

Hazardous Waste Management Details: 2022-23

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)	0.2 MT	Liquid	In closed shed	NIL	To Authorized Vendors.
2.	5.2	Wastes / Residues containing oil (Oil soaked cotton waste)	0.0035MT	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	1.83MT	Solid	In closed shed	NIL	To Authorized Vendors.
6	28.3	Off specification Drugs & Medicine.	1.917MT	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 being practicing several natural conservation programmes like

1. **Energy Conservation program:** At site consumed more than 90% of energy by renewable resources in the fiscal year.
2. **World Environment Day 5th June 2023 Highlights**
 - a. **Plantation** – 50 saplings planted by senior leadership team near LVMP solvent yard on World Environment Day (5th June) 2023.
 - b. **Felicitation to gardeners** – Apotex gardeners felicitated for their relentless contribution to environment and keeping the gardens lush and green 3. Pick the plastic campaign - More than 100 employees' came together to **"Beat the plastic pollution"** around Apotex premises, around 50 kg plastic waste was collected and arranged for safe disposal.
 - c. **Eco friendly exhibition** – A good show of interest was displayed by employees by visiting and encouraging by purchasing eco-friendly products for self and family.
 - d. **Wellness out of Waste** – 4 employees were gifted with Amazon gift coupons for creating wonderful items out of the plastic waste generated.



PART - H

Proposed Environmental Initiatives

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

- 1. Green belt development.**
- 2. Conservation of natural resources**
- 3. Introducing ESG**
- 4. Sustainable development**

Are the key areas organization is manly focusing in coming years.