



NATCO PHARMA LIMITED

Regd Off: 'NATCO HOUSE', Road No. 2, Banjara Hills, Hyderabad-500 034. Telangana, INDIA
Tel : +91 40 23547532, Fax : +91 40 23548243 CIN : L24230TG1981PLC003201, www.natcopharma.co.in.
GSTIN : 33AAACN6927A1ZW

Date: 12.04.2022
Chennai-Manali

To

The Joint Chief Environmental Engineer (M),
First Floor, 950/1, Poonamallee High Road,
Arumbakkam,
Chennai-600 106

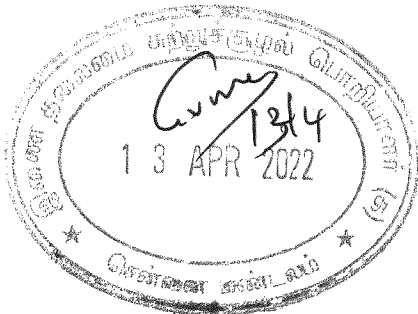
Respected Sir,

SUB: Submission of Environmental Statement in Form-V – Reg.

Here with we have attached our **Environmental Statement in Form-V for the financial year 2021 -2022** to your good office for your kind perusal.

Attachments:

1. Environmental Statement in Form-V.
2. Annexure-I & II (Raw Material Details).
3. Annexure-III (Treated Effluent's ROA)
4. Annexure-IV (Stack Monitoring Survey ROA by TNPCB)
5. Annexure-V (Hazardous Wastes Analysis report by TNWML)



With regards,

G.Vasan
(AVP-Operations)



The RvA is a signatory to the IAF MLA

Manufacturing Site :
Chemical Division - Chennai.
(ISO 14001:2015 & ISO 45001:2018 Certified)
S.No. 74/7B, Vaikkadu TPP Salai, Manali, Chennai, Tamilnadu - 600 103.
Tel. : +91-7299009981/82/83/84



Environment Statement – Form-V

For the Year 2021-22



**M/s. NATCO PHARMA LTD
CHEMICAL DIVISION CHENNAI**

**No. 74/7B, Vaikkadu TPP Salai,
Manali, Chennai- 600 103
Tamil Nadu**

FORM V- Index

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FORM V

(See Rule – 14)

**ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL YEAR ENDING
31ST MARCH 2022****PART A**

1	Name and address of the owner / occupier of the Industry operation or process	Mr.P.S.R.K Prasad NATCO PHARMA LIMITED, 74/7B, VAIKKADU TPP SALAI, MANALI, CHENNAI – 600103.
2	Industry Category Primary – (STC Code) Secondary – (SIC Code)	17 Red Category (Scale of Industry: Large)
3	Production Capacity	5266.5 Kgs per annum List of Products with capacities given below
4	Year of Establishment	08.08.2007
5	Date of last Environment statement submitted	23.04.2021

List of Products with Capacities (Initial CTO as per Water act -order no. 22230 & as per Air act-order no. 18266)			
S.No	Name of the Product	Consented Quantity (Kgs/Annum)	Product Manufactured During the current financial year (2021-2022)
1	Allylestrenol	4	-
2	Drospirenone	50	-
3	Daunomycin Hydrochloride	12	-
4	Altretamine	5	-
5	Epirubicin Hydrochloride	2	-
6	Idarubicin Hydrochloride	0.5	-
7	Nandrolone Decanoate	2	-
8	Chlorambucil	1	0.89
9	Doxorubicin Hydrochloride	2	-
10	Fulvestrant	1	0.92
11	Testosterone Deconoate	1	-
12	Geftinib	500	25.30
13	Imatinib Methane Sulfonate	1000	24.94
14	GB-5 intermediate	3670	-
15	Temozolomide	15	4.69
16	Melphalan	1	0.79
Total Production Quantity (Kgs/Annum)		5266.5	57.53

PART B

WATER AND RAW MATERIAL CONSUMPTION

I. Water Consumption:

Process : 1.64 KLD
 Utilities & Kettle Washings : 27.0 KLD
 Scrubber Make up : 2.00 KLD
 Domestic : 20.00 KLD
 Cooling & Boiler Feed : 15.00 KLD
 Gardening (for green belt) : 35.00 KLD

Total Consented Quantity : 100.64 KLD

Name of Products	Process Water Consumption for Manufactured Product output in (KL)	
	During the previous financial year (2020-2021)	During the current financial year (2021-2022)
Chlorambucil	0.05	0.06
Fulvestrant	0.38	0.36
Melphalan	0.02	0.02
Geftinib	0.95	2.78
Imatinib Methane Sulfonate	6.39	6.69
Temozolomide	0.23	0.56

II. Raw Material Consumption:

Name of Raw material	Name of Products	Consumption of Raw material per unit of Output	
		During the Previous financial year (2020-2021)	During the current financial year (2021-2022)
(Report Enclosed in Annexure-I)	(Report Enclosed in Annexure-I)	(Report Enclosed in Annexure-I)	(Report Enclosed in Annexure-II)

PART C

POLLUTION DISCHARGED TO ENVIRONMENT / UNIT OF OUTPUT

(Parameter as specified in the consent issued)

(a) Water : (Analysis carried out by TNPCB LAB, AMBATTUR) April 2021 – March 2022

Report Enclosed in Annexure-III

Description	Quantity of Pollutants Discharged, (mass/day) (Kgs/ day)	Average Concentrations of Pollutants in ZLD (mass / volume) (mg/Lit)	Percentage of Variation from Prescribed standards with reasons
pH	-	7.74	All the values are within the prescribed standard limits
Total Suspended Solids	0.08	4	
Total Dissolved Solids	1.28	64	
Chlorides	0.66	33	
Sulphates	0.1	5	
Oil and Grease	0		
BO D for 3 Days at 27°C	0.04	2	
C O D	0.16	8	
Phosphate	0.003	0.15	
Cyanide	0.0001	0.005	
Phenolic Compounds	0.0001	0.005	
Sulphide	0.02	1	
Hexavalent chromium	0.0002	0.01	
Lead	0.0003	0.015	
Mercury	-	NA	

Note: Average Quantity of Treated Water Discharge for Reuse for Cooling Tower make-up: 20 KLD

b). Air: (Stack Monitoring carried out by TNPCB LAB, Chennai) Dated:13.07.2021

Report Enclosed in Annexure-IV

S. No	Description of Chimney/Stack	Concentration of Pollutants discharged (mass / volume) (mg/Nm ³)			Quantity of Pollutants discharged (mass /day) (Kgs/day)		
		PM	SO ₂	NO _x	PM	SO ₂	NO _x
1.	Boiler 3 tons	24	39	590	4.00	6.50	26.34
2.	DG 1010KVA	29	BDL	671	1.18	BDL	24.08

PART D

Hazardous Wastes

(As specified under Hazardous Wastes / Management & Handling Rules, 1989)

S.No	Hazardous Wastes	Total Quantity (MT)	
		During the current financial year (2020-2021) Generation	During the current financial year (2021-2022) Generation
1.	From Process (28.1) Process Residue & Waste		
(i)	Organic Solid Waste/ Process Residues	2.042	2.40
(ii)	In-Organic Solid Waste/Process Residues	1.918	3.62
(iii)	(28.6) Spent Solvents	4.802	4.85
3.	From pollution control facilities		
i)	(35.3) Evaporation Salts	2.165	7.47
(ii)	(35.3) Chemical sludge from waste water treatment	7.57	10.09

PART E

Non-Hazardous Solid Wastes

S.No	Non- Hazardous Wastes	Total Quantity (MT)	
		During the Previous financial year (2020-2021)	During the current financial year (2021-2022)
1.	From Process		
(i)	Wooden Packing Materials, carton boxes, metal scraps, used glass wares& Plastics	5.0	5.5
2.	From pollution control facilities		
(i)	Wooden pallets & Waste papers	3.0	4.5

All Non-hazardous wastes are disposed through scrap dealers.

PART F

Report Enclosed in Annexure-V

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

Hazardous waste:

The generated quantity of Hazardous waste from plant is being collected in close drums and then stored at Hazardous waste storage room. As per Hazardous Waste (Management, Handling & Transboundary Movement) Rule, 2016. These hazardous wastes are Disposal to authorized recycler. The comprehensive analysis report of hazardous waste are given below.

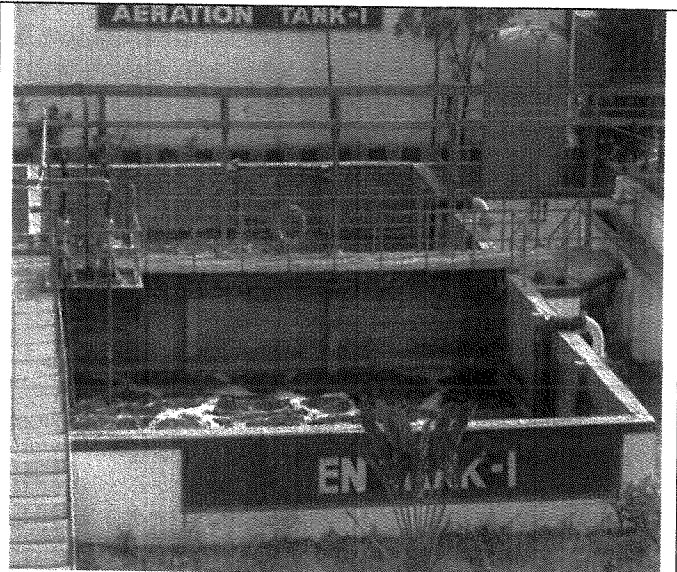
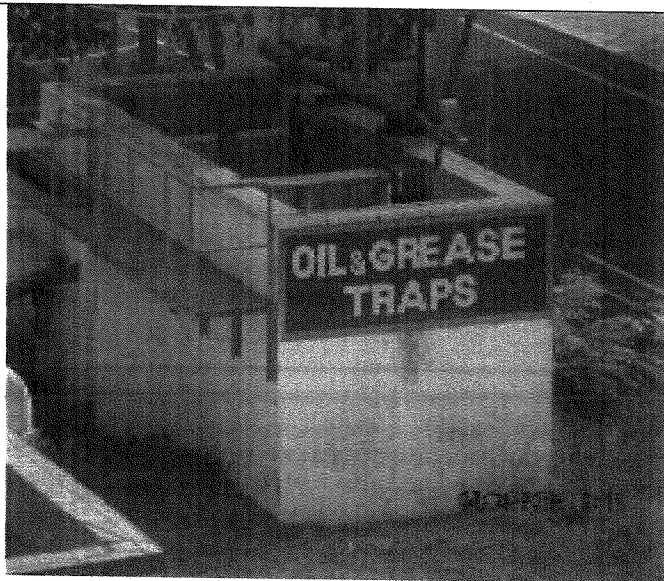
S.NO	Parameters	Hazardous waste			
		Process Residue & waste (Organic solid Waste)	Process Residue & waste (Inorganic solid Waste)	Chemical Sludge from waste water treatment (ETP Sludge)	Evaporation Salts
1.	pH	6.92	7.25	7.50	7.05
2.	Calorific value	7832 Cal/gm	<200 Cal/gm	3014 Cal/gm	<200 Cal/gm
3.	Bulk Density	0.25 gm/cc	0.80 gm/cc	1.15 gm/cc	1.25 gm/cc
4.	Flash Point °C	>60	>60	>60	>60
5.	LOD @ 105 °C	25.3 %	15.3 %	42.3 %	24.3 %
6.	Loss on Ignition @ 550 °C (Dry basis)	99.6 %	5.18 %	34.3 %	7.65 %
7.	Water soluble Organics	< 0.1 %	< 0.15 %	0.80 %	3.18 %
8.	Lead	<5 mg/Kg	<5 mg/kg	52.3 mg/kg	<5 mg/kg
9.	Copper	<5 mg/Kg	<5 mg/kg	20.6 mg/kg	<5 mg/kg
10.	Mode of Disposal	Incineration (TNWML)	Direct Landfill (TNWML)	Incineration (TNWML)	Landfill after treatment (TNWML)

PART G

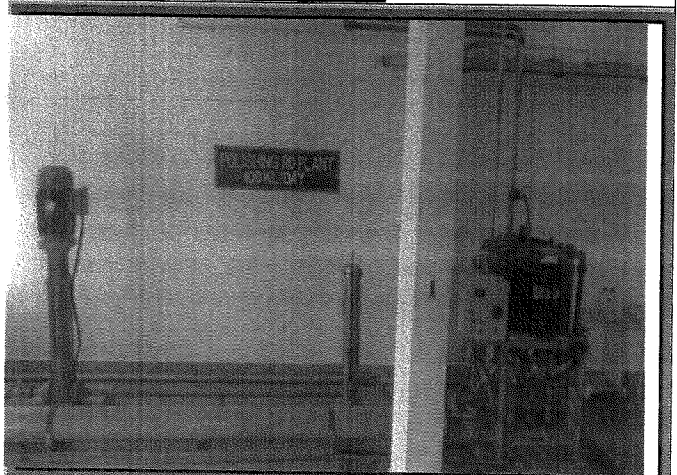
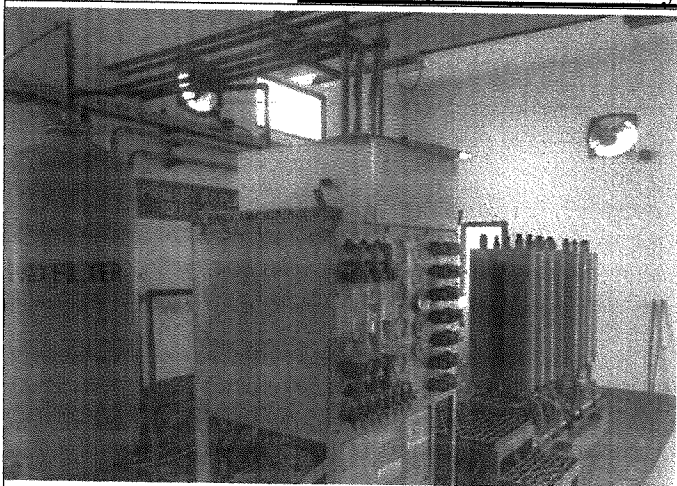
Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of productions:

Total water consumption by the unit is below the consented limit (100.64 KLD). The effluent generation has not exceed 57 KLD And “**Zero Liquid Discharge**” methods are adopted to treat the effluent generated in the plant. Low TDS & High effluents are being segregated at source. Low TDS effluent are sent to ETP for primary treatment. After the primary treatment, the treated water is being sent to Reverse Osmosis plant for recovery of fresh water (Permeate) and recovered permeate water are totally recycled for the plant utilities. RO rejects are being sent to evaporation system to treat along with High TDS effluents.

Low TDS Treatment Plant



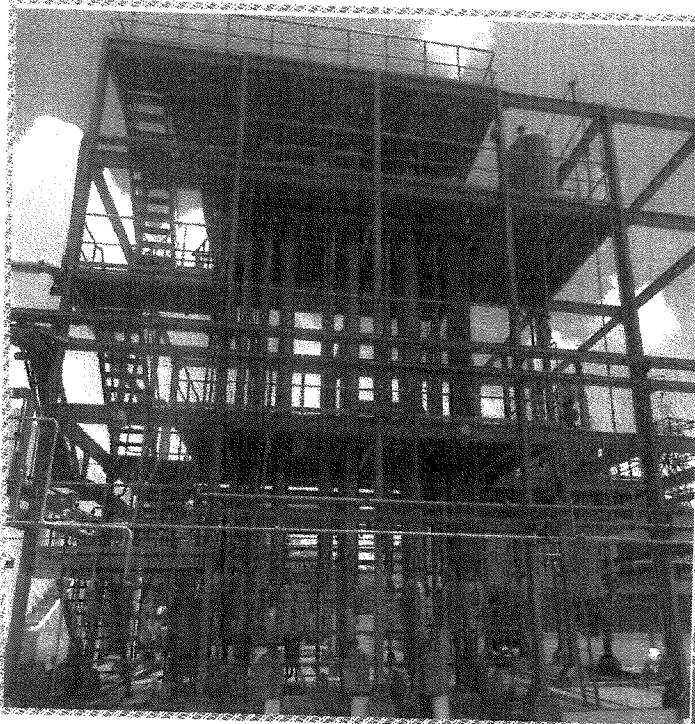
Primary & Secondary Reverse Osmosis plant



Four stage Multi Effect Evaporator & Agitated Thin Film Drier

High TDS effluents and R.O. reject water are sent to Multi Effect -Evaporation Plant followed by Agitated Thin Film Drier (ATFD). The salts generated from AFTD are sent to TNWML. ATFD Steam condensate has collected and recycled to process utilities. The domestic waste water has treated and the recovered sludge sent to TNMWL as per TNPCB direction.

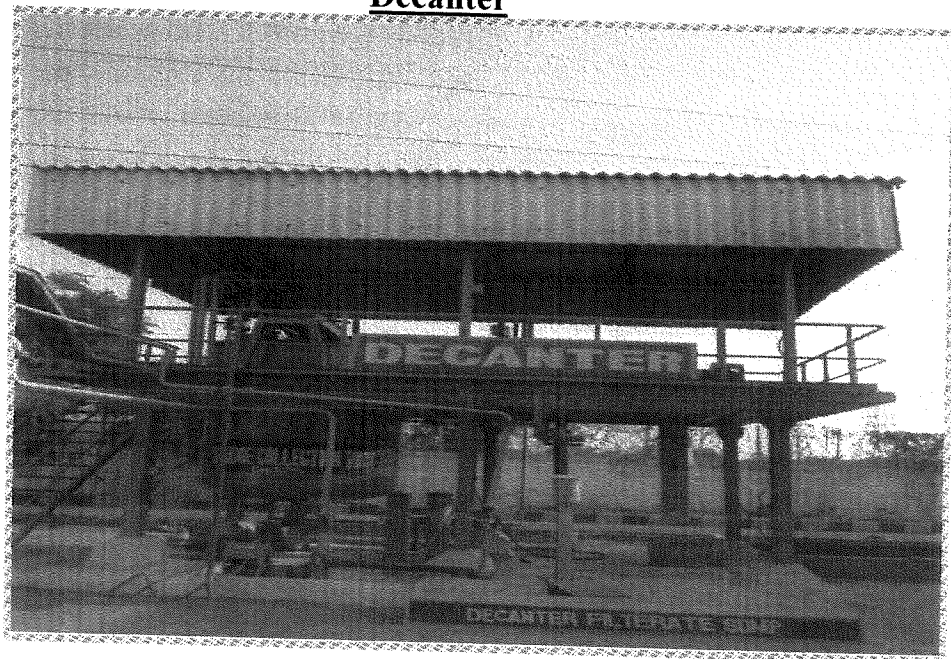
MEE



ATFD



Decanter

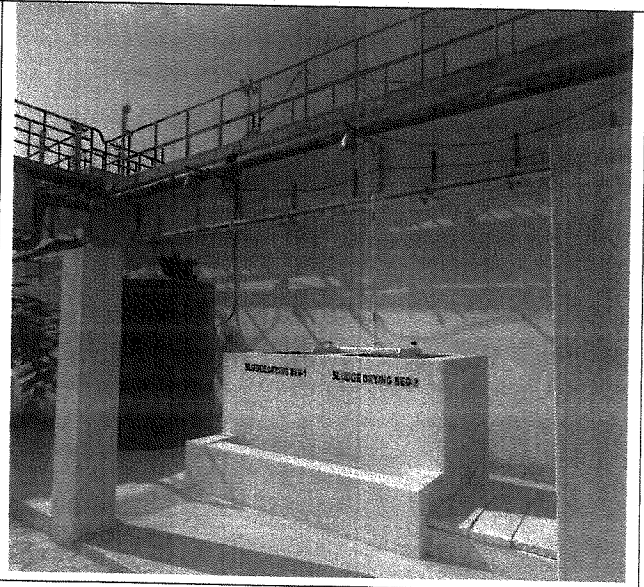
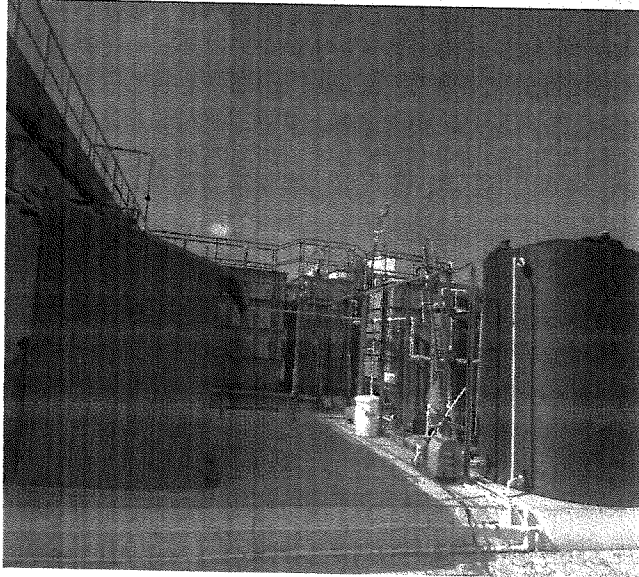
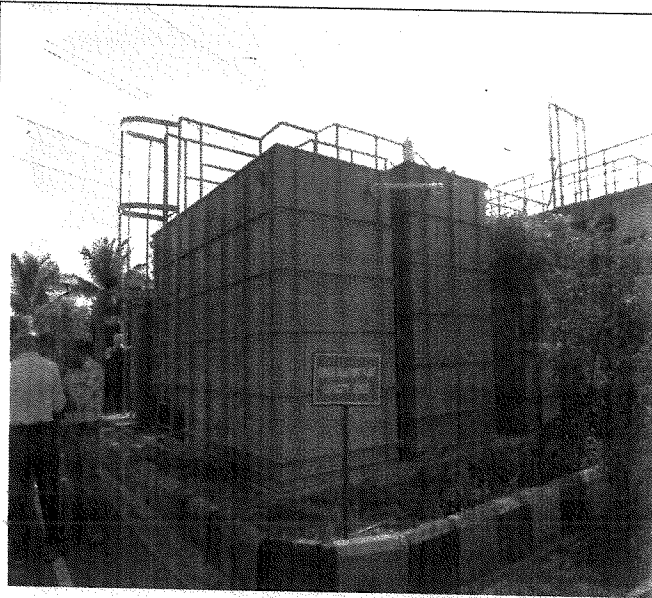


NEW SEWAGE TREATMENT PLANT

Sewage Treatment Plant (STP) of 30 KLD capacity installed & commissioned separately by M/s. MOWS (Murugappa Group) in our unit and STP Inlet (Domestic Sewage) & STP Outlet (Treated water) flowmeters connectivity provided to TNPCB-CAC/WQW.

Sewage collection soak pits are not available in our facility, all of our sewage collection pit constructed with RCC structure.

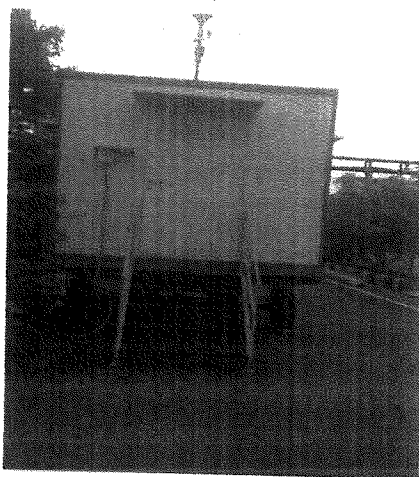
STP installation photos attached below



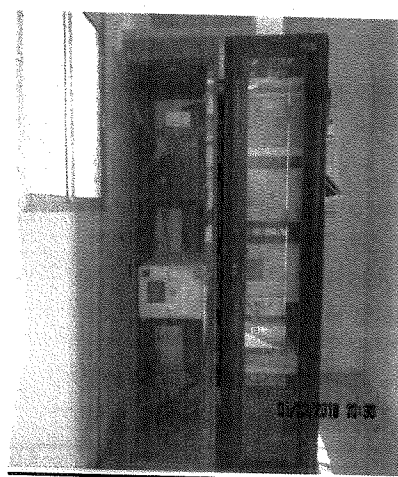
On-line Ambient Air Quality Monitoring station

The gaseous emissions SO₂, NO_x, CO and particulate matter (RSPM) are being monitored continuously with the AAQMS station provided in the site and the data's are being connected to TNPCB and CPCB in online. Apart from this the Boiler & DG Stack Emissions are being measured through NABL approved laboratory at regular intervals on monthly basis & also yearly stack monitoring survey (Boiler & DG) are getting done by TNPCB District Environmental lab and all the results are being complied with prescribed standards and submitted of report to TNPCB.

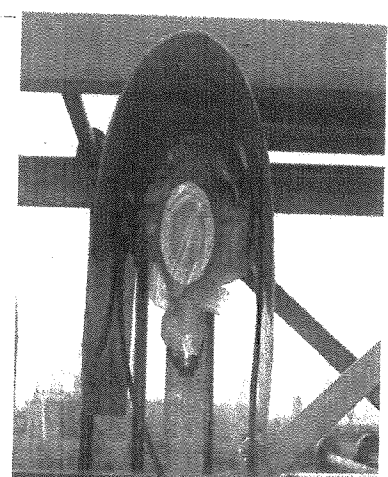
Ambient Air Quality (Natco Mobile van Station – SNAP Shot) For (NO_x, So₂, RSPM & CO) & For (VOC-MEEP, ETP & Production area)



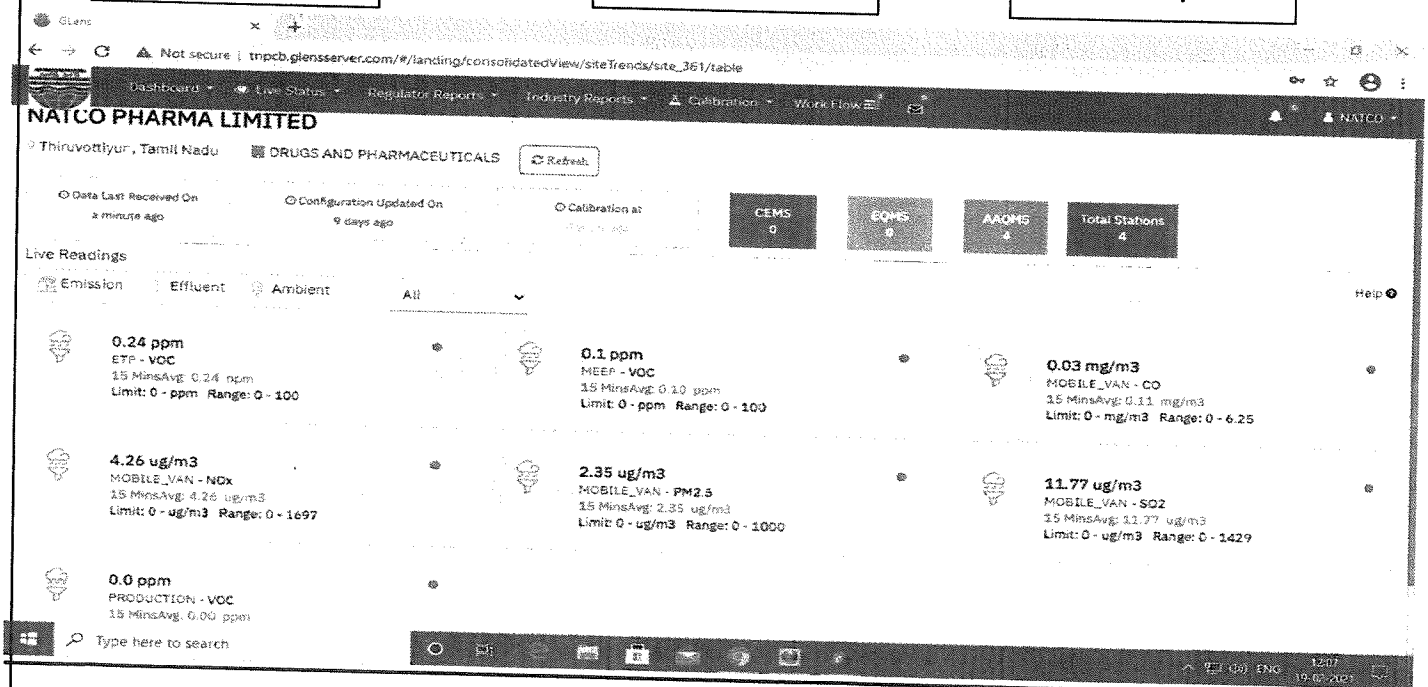
Mobile Van-AAQMS



AAQ Analyzers



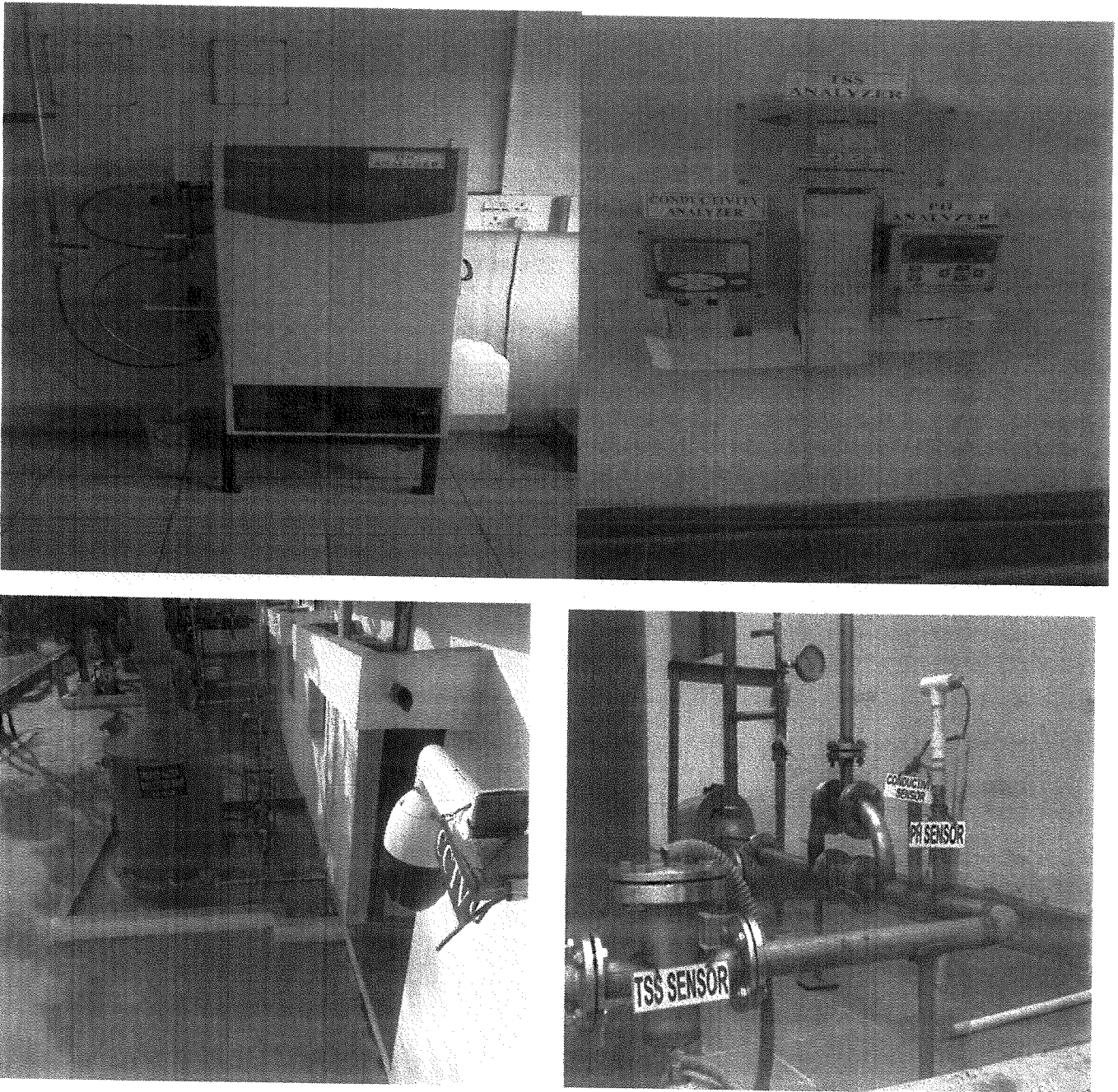
VOC Analyzers



Online Water Quality Watch System

To ensure the Zero Liquid Discharge System (ZLDS) EMFM provided in ETP inlet & treated water discharge, Parameters such as pH, TSS, TDS, BOD, COD, EMFM (Flow meter) and CCTV are connected to online and the real time monitoring data connectivity has been established to TNPCB - Water Quality Watch and Central Pollution Control Board (CPCB), also the results are found being complied with TNPCB/CPCB prescribed standards at any point of time

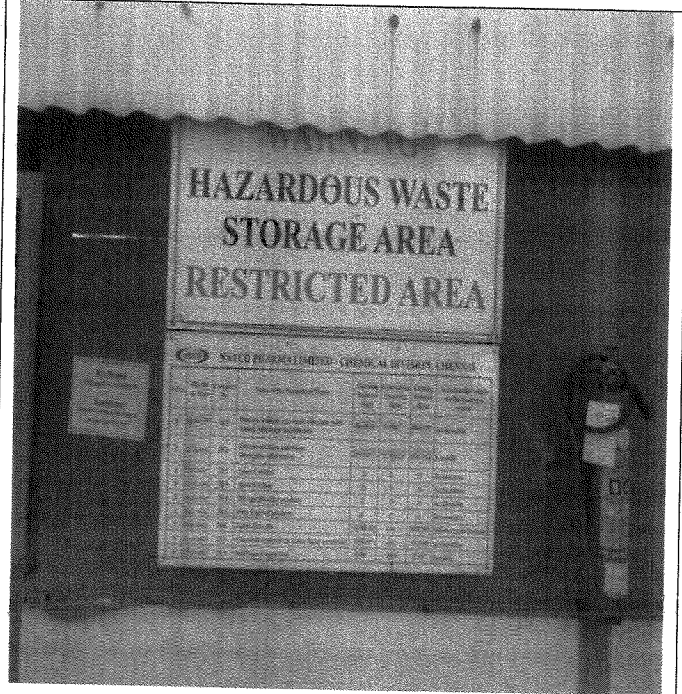
Photos of analyzers & WOW parameters



Hazardous Waste storage shed

Hazardous and toxic waste generated during the process are stored properly in the shed in closed drums. As per TNPCB directions, the unit has sent all the generated waste to TNWML for incineration & land filling as per agreement with TNWML. Hazardous waste authorization has obtained by the unit and all the solid/hazardous waste are disposed to TNWML periodically as per Hazardous Waste (Management & Handling) rules.

Hazardous Waste Storage Area

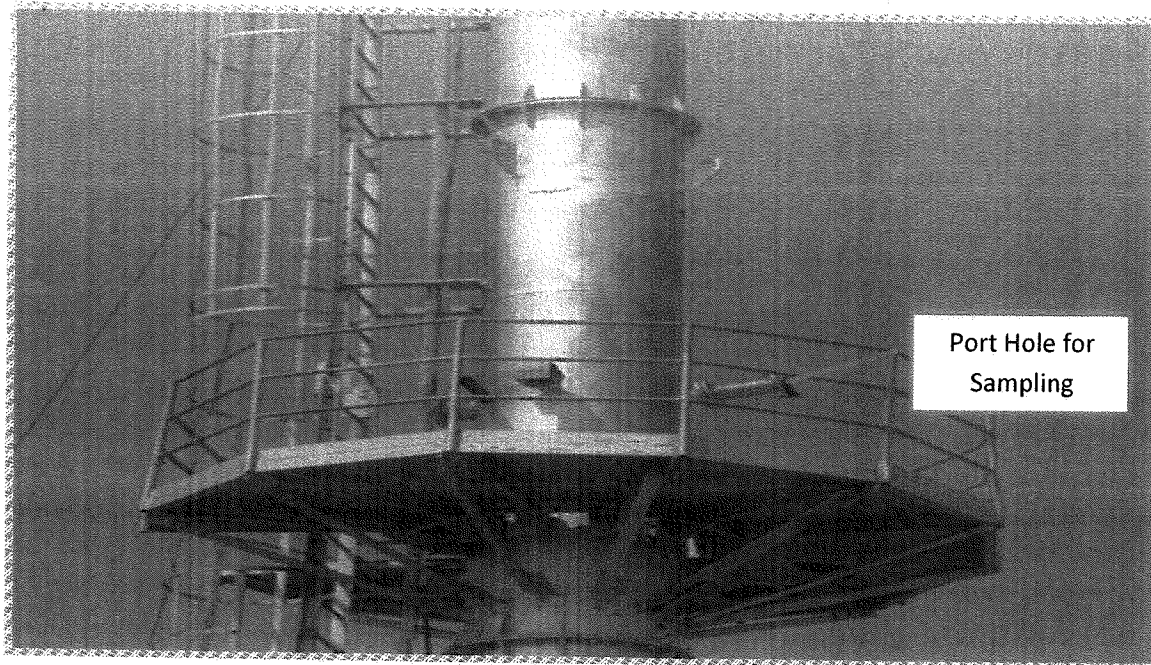


Hazardous Waste Display Board at Front Gate Entry

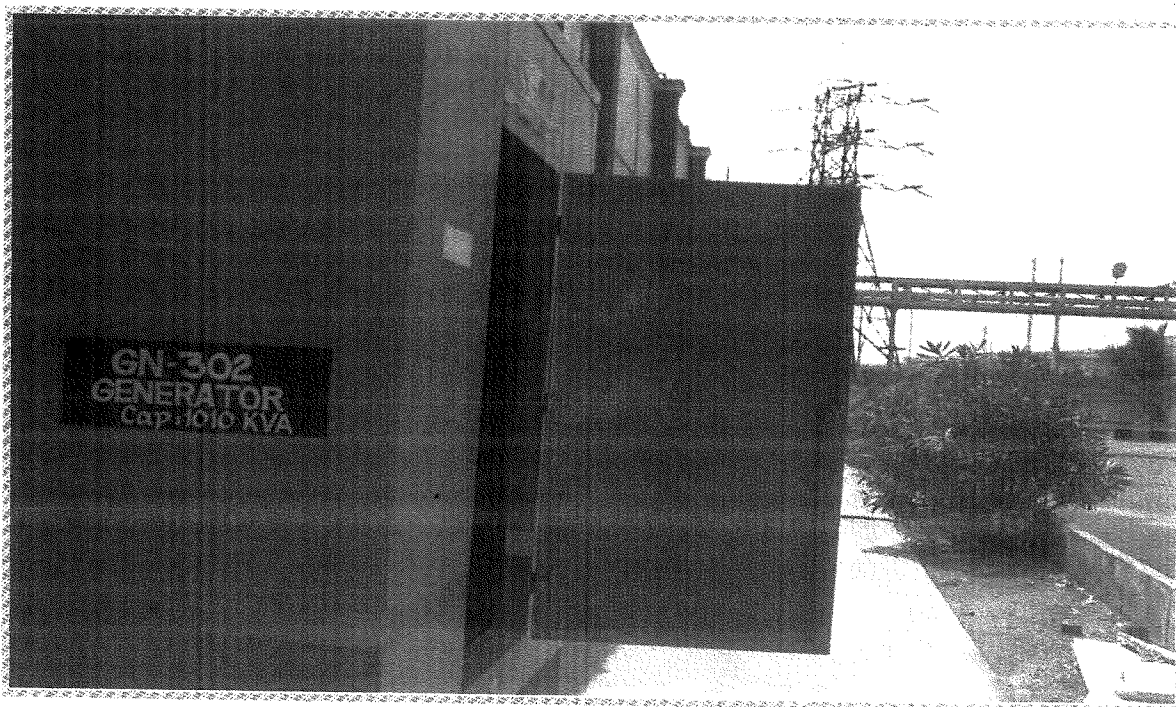


HW Display
Board at
Entrance
Gate

Air pollution control measure
Boiler Stack monitoring system

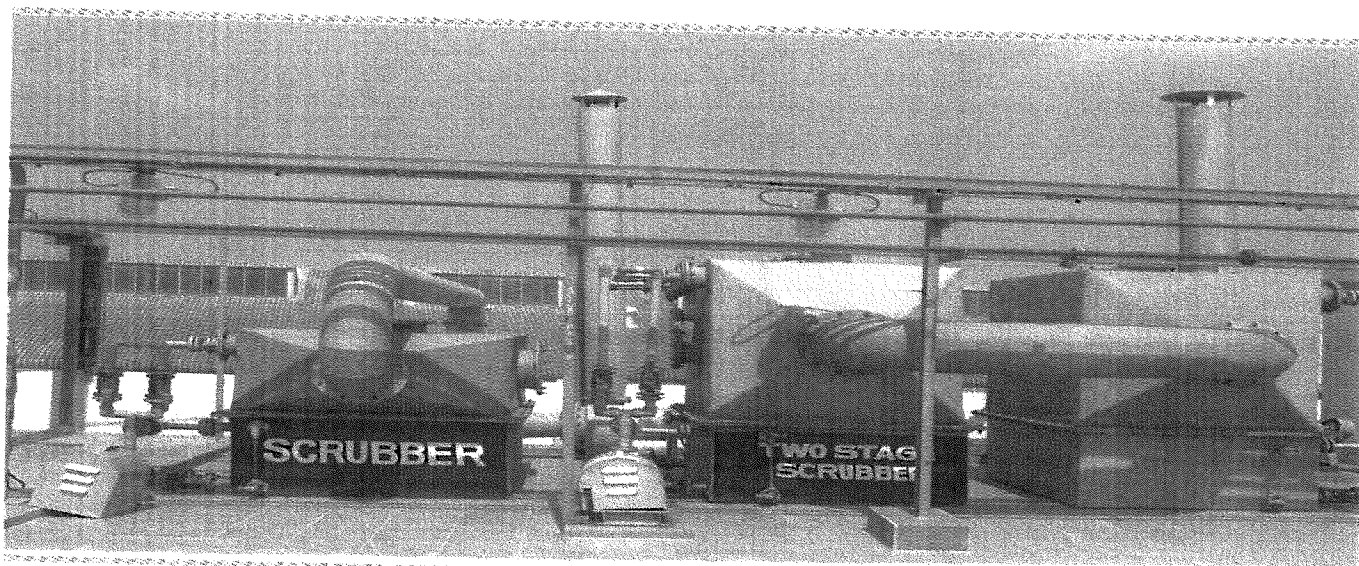


DG Acoustic Panel



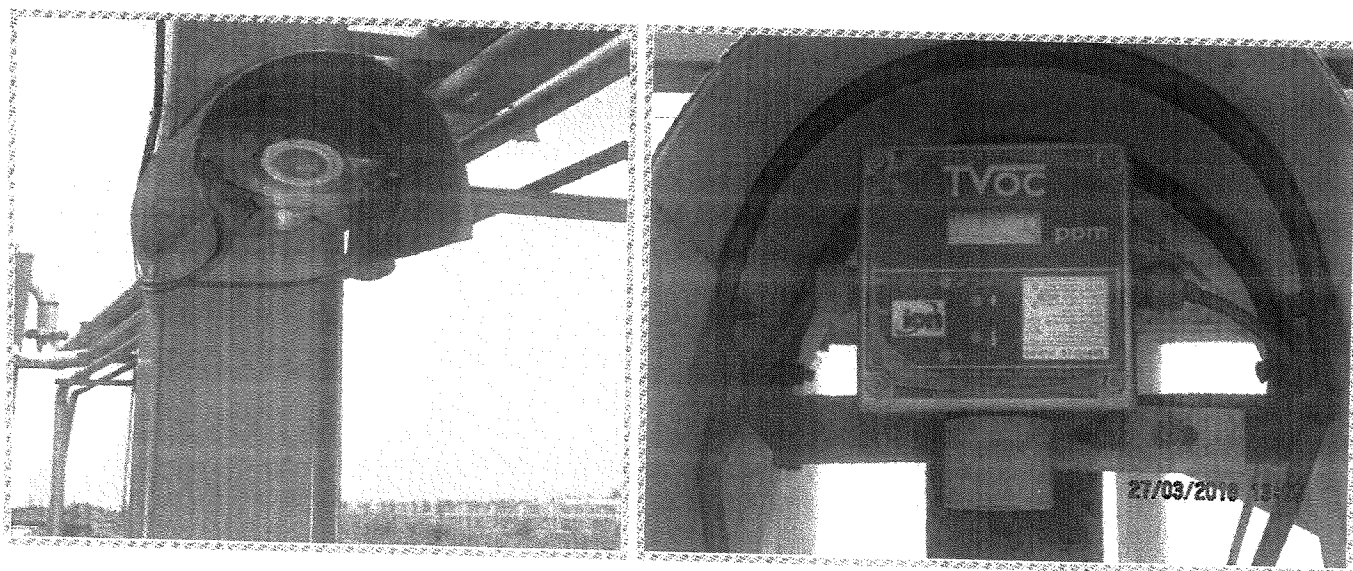
Process emission control measure

The scrubbers (Two-stage & Single stage scrubber) installed are operated efficiently to control the process emissions with proper neutralizing (alkali) media. Scrubbing solution for pH is being measured continually and monitored regularly to have better control. Scrubber are provided to incinerator to control the air emission. Incinerator has not operation, since from the inception. The scrubber effluent is being sent to ETP for further treatment.



On-line continuous VOC Monitoring system

Necessary arrangements such as VOC analyser, LEL (Lower Explosive Limit) analyser are installed for monitoring of vent exhaust from solvent recovery system and in the work environment. The prescribed standards given by the board has being complied and results uplinked online data connected to care air Centre (TNPCB). Also Portable VOC analyzer are used to check the exposure in work environment in daily basis and readings are below the limit. Fugitive emissions in the work zone environment, product, and raw materials storage area are being monitored regularly by installing VOC analyzer in the area and the prescribed standards given by the board has being complied & the results uplinked online data connected to care air Centre (TNPCB).



Greenbelt Development in site

The total extent of land available within the unit premises is 105704 Sq.meters, in that company has developed 49325 Sq.mtrs (**46.66 %**) of green belt. In that, Greenbelt has developed & maintained in 10285 Sq.mt in Open Space Reservation (OSR) Land. The Land area breakup details given in the below table & Photos attached for Green belt is OSR land & unit premises.

S No.	Description	Land Area	
		(SQ.Meters)	(%)
1	Ground Coverage Area	26979.69	25.52
2	Solid Waste storage area	170	0.16
3	Green Belt Area	39040	46.66
4	Green belt in OSR Land	10285	
5	Road Area	19870	18.8
6	Vacant Area for Future Expansion	9359.32	8.85
Total Land Area		105704	100

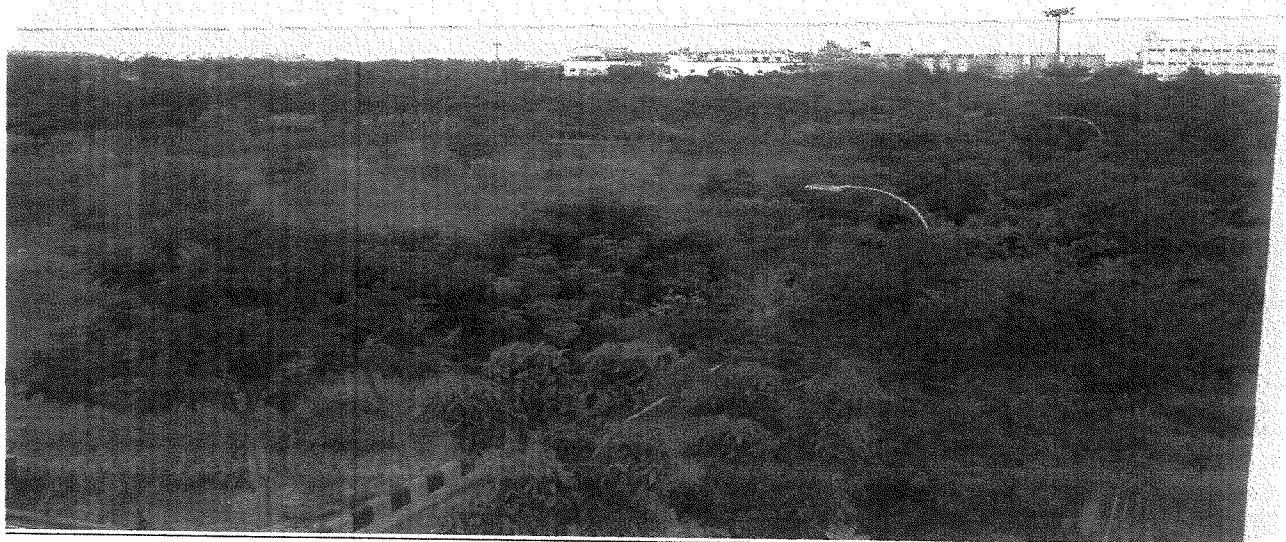
Existing Green Belt Photos



GPS Point	
Latitude	Longitude
13°11'12.71"N	80°15'59.47"E

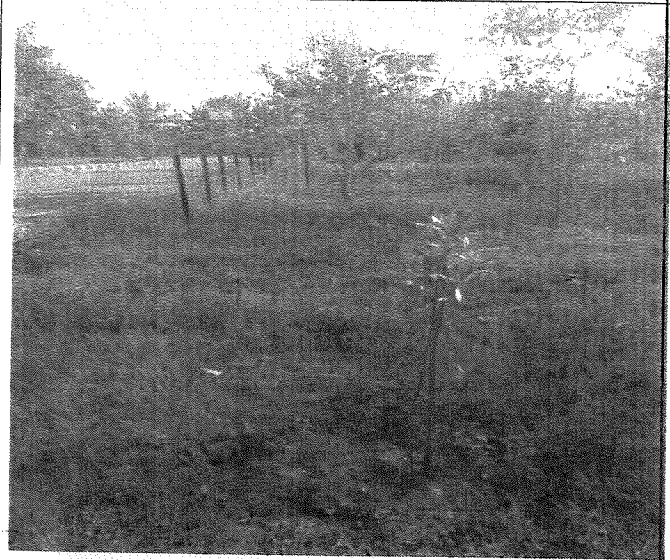


GPS Point	
Latitude	Longitude
13°11'21.60"N	80°16'1.91"E



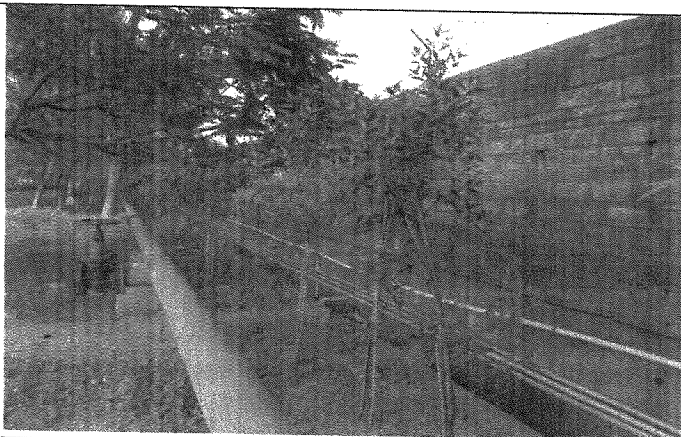
GPS Point	
Latitude	Longitude
13°11'32.15"N	80°15'57.79"E

Greenbelt Under Development with drip irrigation System



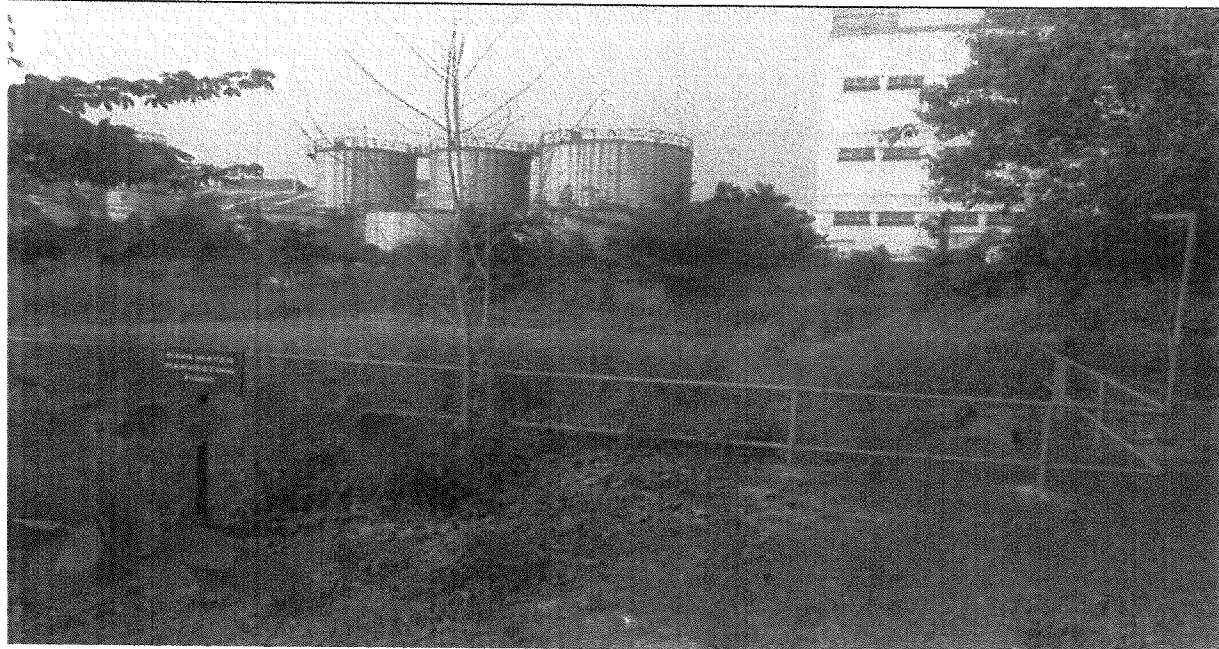
Nearly 300 Nos of trees were planted in the company boundaries

We have planted 150 Nos of trees in private land in about 9190sqm land which is adjacent to our entrance from Minjur highway road

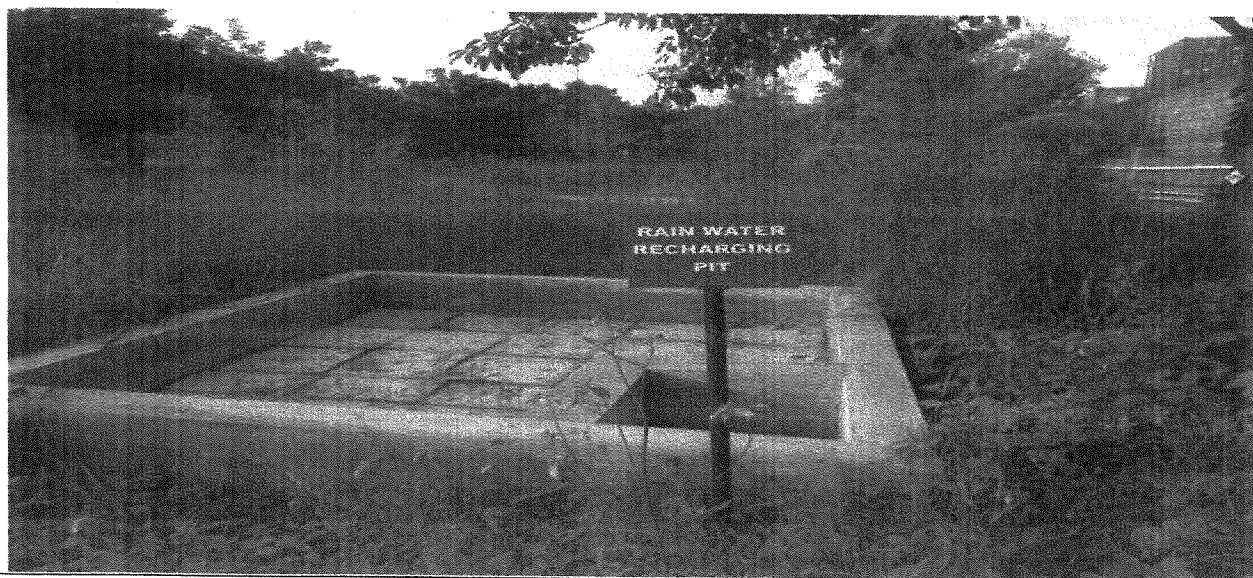


Rainwater Harvesting Measures

Rain Water harvesting Tanks have been constructed at the plant for collection of rain water during winter season and recharge of ground water. Rain Water harvesting which increases the ground water level in and around the premises.



Name : Rain water harvesting pond (RWHP-01)	Area : Plant North East Corner
Size : 28 X 28 X 2.3 m (LBD)	Capacity : 1800 m ³
Purpose : Recharging & Reuse for Greenbelt	

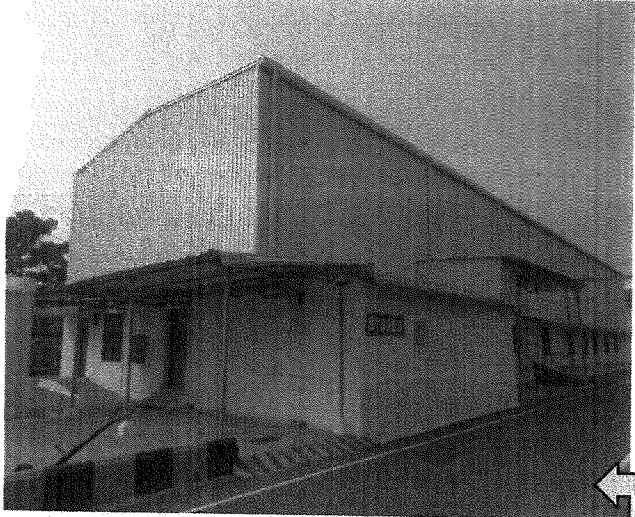
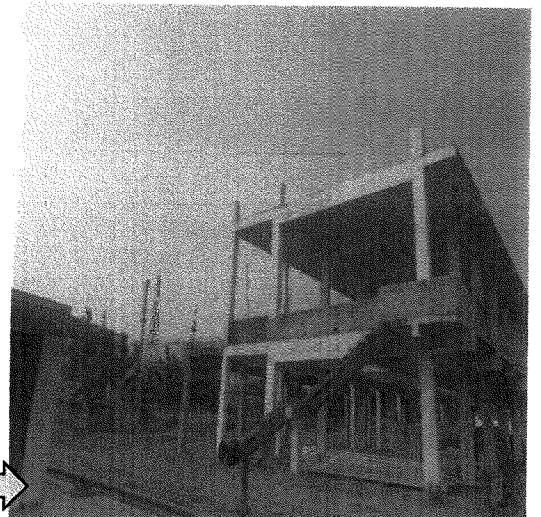



Name : Rain water Recharging Pit (RWHP-02)	Area : Behind Admin Block - North Bay
Size : 2.4 X 3 X 2.5 m (LBD)	Capacity : 23 m ³ /hr (Peak hour harvesting)
Purpose : Recharging of ground water	

PART H

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

1. Additional New Rainwater recharging tank has been constructed at the RM stores area to recharging the rainwater to ground water.

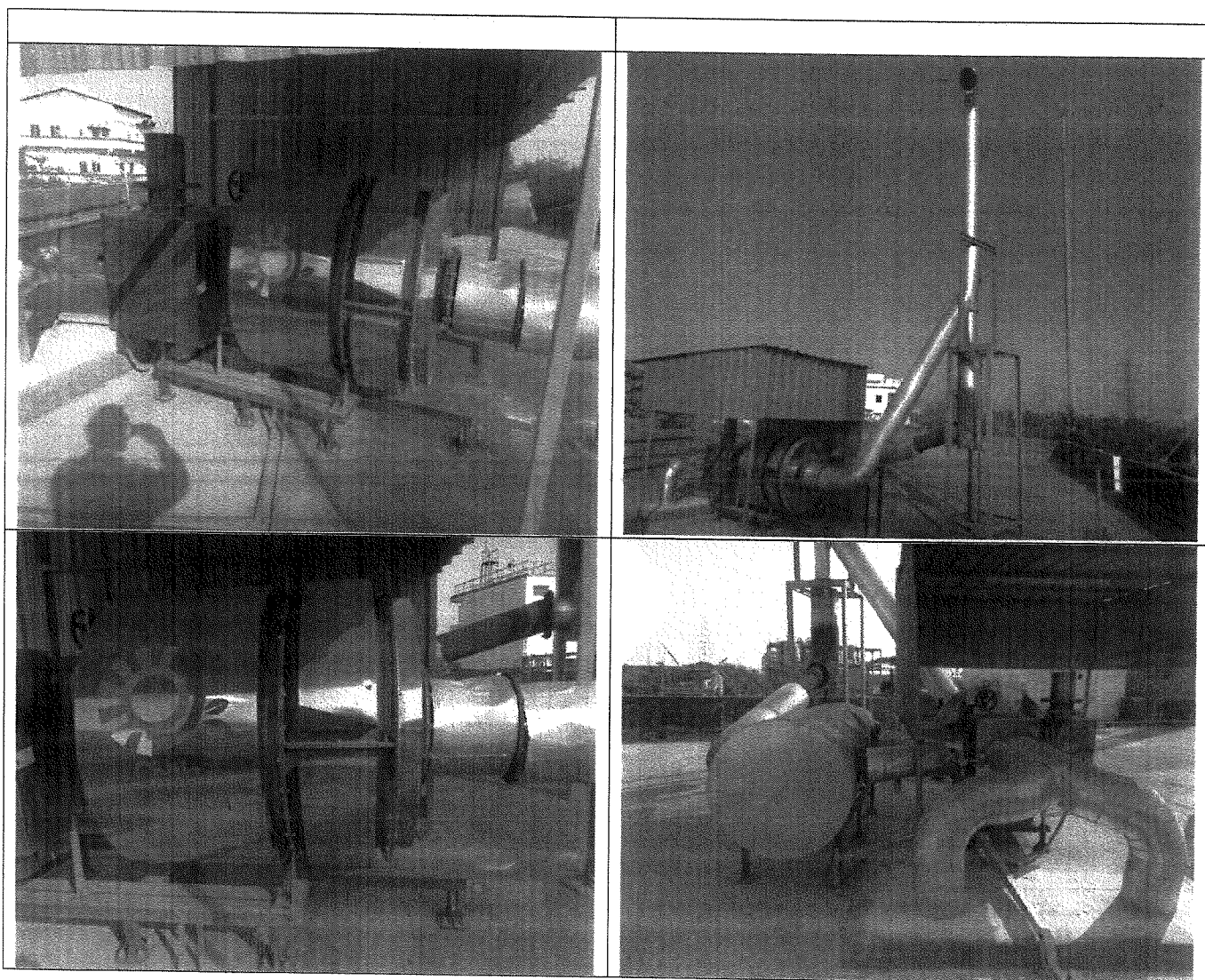
RM store roof area	Proposed QC Block
	
	
<p> Name : Rain water Recharging Pit (RWHP-03) Area : Behind RM stores Size : 2.4 X 3 X 2.5 m (LBD) Capacity :37 m³/hr (Peak hour harvesting) Purpose : Recharging of ground water </p>	

2. Reduction of PM Emission in Diesel Generator 1010 KVA

Retrofit installation done for our 1010 KVA DG with approved retrofit emission control device/equipment with at least 70% Particulate matter reduction efficiency supplied by M/s. CHAKR INNOVATION PVT LIMITED with the projected cost of **INR 22.50Lacs**

Benefit:

We achieved 73% PM emission reduction in our 1010 KVA DG and found, before retrofit PM emission in our DG is 71.6 mg/Nm³, after the retrofit it has brought down to 19.3 mg/Nm³.



3. Awareness Programme on Single use plastics (SUP) and usage of SUP alternatives conducted in our industry premises and also awareness banners are displayed. Pamphlets distributed to employees, Contractors, canteen staffs, Drivers, nearby shops, hotels & to general public.
4. As awareness program, slogans on Pollution control, environmental protection, Tree Plantation and energy conservation displayed at the prominent.

PART I

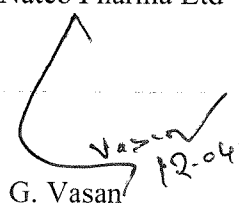
Miscellaneous

Any other particulars for improving the quality of the environment

1. The total extent of land available within the unit premises is 105704 Sq.meters, in that company has developed 49325 Sq.mtrs (46.66 %) of green belt. In that, Greenbelt has developed & maintained in 10285 Sq.mt in Open Space Reservation (OSR) Land. The following steps were taken by the unit to maintain the green belt area
 - Trees are planted in our Existing Lawn area to improve & to extend the greenbelt area.
 - Additional 150 trees are developed in about 9190 Sqm between our main entrance gate to plant.
 - Nearly 300 No's of trees are planted in the boundaries of the unit
2. LDAR study done for by our unit through NABL accredited Lab (M/s. GLENS Innovations Lab) & reports are found satisfactory
3. The compliance of EC conditions with third party audit conducted by (m/s. GLENS Innovations Lab) & reports are found satisfactory. Copy of report attached. Added, compliance of EC conditions audited every year by 3rd party (DNV GL) during our EMS audit under ISO 14001:2015
4. The Sewage generated at all the location of the unit directed to the newly commissioned STP plant, after treating the water in STP, STP outlet water sent to ETP for further treatment with RO system & reusing it cooling tower make up
5. To ensure the Zero Liquid Discharge System (ZLDS) we have provided EMFM at various locations and one CCTV provided in RO plant final discharge point & maintaining the daily log books

The industry is being monitored continuously Fugitive Emissions and Volatile Organic Compounds (VOC's) in the process scrubbers by NABL approved laboratory.

For Natco Pharma Ltd


G. Vasanth
(AVP-Operations)

12-04-2022

CONSOLIDATED RO PERMEATE WATER ANALYSIS REPORT (ROA) FOR CURRENT FINANCIAL YEAR

2021-2022

S.no	Parameters	Unit	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	June 2021	July 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022
1	pH	-	6.52	SNT	7.60	7.51	6.62	SNT	7.92	7.95	8.33	7.86	7.94	7.84	U/A	U/A	U/A
2	Total Suspended Solids	mg/L	4	SNT	4	4	4	SNT	4	4	4	4	4	4	U/A	U/A	U/A
3	Total Dissolved Solids	mg/L	92	SNT	132	132	28	SNT	28	42	96	48	36	36	U/A	U/A	U/A
4	Chlorides	mg/L	51	SNT	74	67	12	SNT	16	21	54	24	18	15	U/A	U/A	U/A
5	Sulphates	mg/L	1	SNT	4	10	<1	SNT	<1	<1	1	<1	<1	<1	U/A	U/A	U/A
6	Oil and Grease	mg/L	<1	SNT	NA	NA	NA	SNT	NA	NA	NA	NA	NA	NA	U/A	U/A	U/A
7	BOD for 3 Days at 27°C	mg/L	2	SNT	2	2	2	SNT	2	2	2	2	2	2	U/A	U/A	U/A
8	COD	mg/L	8	SNT	8	8	8	SNT	8	8	8	8	8	8	U/A	U/A	U/A
9	Phosphate	mg/L	<0.15	SNT	<0.15	<0.15	<0.15	SNT	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	U/A	U/A	U/A
10	Cyanide	mg/L	<0.005	SNT	<0.005	<0.005	<0.005	SNT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	U/A	U/A	U/A
11	Phenolic Compounds	mg/L	<0.005	SNT	<0.005	<0.005	<0.005	SNT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	U/A	U/A	U/A
12	Sulphide	mg/L	<1	SNT	<1	<1	<1	SNT	<1	<1	<1	<1	<1	<1	U/A	U/A	U/A
13	Hexavalent chromium	mg/L	<0.01	SNT	<0.01	<0.01	<0.01	SNT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	U/A	U/A	U/A
14	Lead	mg/L	<0.0015	SNT	<0.0015	<0.0015	<0.015	SNT	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	U/A	U/A	U/A
15	Mercury	mg/L	NA	SNT	NA	NA	NA	SNT	NA	NA	NA	NA	NA	NA	NA	NA	U/A

NA - Not Analysed FNA - Facility Not Available SNT - Sample Not Taken by PCB

Prepared by

MS

(3.7.2027 Subbarao)