

TC/ENV/2016-17/ 1714

27th Sep-16

THE DISTRICT ENVIRONMENTAL ENGINEER,
TAMILNADU POLLUTION CONTROL BOARD,
SIPCOT COMPLEX, KUDIKADU
CUDDALORE -607 005

Dear Sir,

Sub: Submission of Environment statement for Synthetic organic chemical Plant for the year 2015-16 -
Reg.
Ref: Environment (Protection) Amendment Rules 1993.

With reference to the above, please find enclosed the "Environment Statement", in Form V for Synthetic organic chemical Plant for the year 2015-16

We bring to your kind notice that We have operated the synthetic organic chemicals plant only at 6.75 % of capacity due to market constraint and other reasons.

As can be seen from the report, it may please be noted that company has taken various measures incurring capital and recurring expenditure for abatement/prevention of pollution, Conservation of energy, conservation of natural resources, plantation of trees, extension of fire hydrant system etc. resulting in improvement of ecology and environment inspite of the various constraints encountered in establishing the operation due to market scenerio

Thanking you,

Yours faithfully,
For TANFAC INDUSTRIES LTD

(Dr.L.RAVICHANDRAN)
GEN.MANAGER (R&D AND ENV)
Encl:a a

cc to: The Member Secretary,
Tamilnadu Pollution Control Board,
100 Anna Salai, Guindy, Chennai 600 032

FORM V
ENVIRONMENT STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31ST
MARCH 2016

PART-A

1. Name and address of the : **LALIT NAIK**
owner /occupier of the : BUSINESS HEAD
Industry operation or : TANFAC INDUSTRIES LTD.,
process : 14. SIPCOT INDUSTRIAL COMPLEX
CUDDALORE 607 005.
2. Industry category :
Primary - STC Code : (Large scale Industry)
Secondary - SIC code : Category - red
3. Production capacity : MT/Month

S.No.	Products	MT / Month
1	4-Isobutyl Acetophenone	417.00
2	3-Phenoxy 4-Fluoro benzaldehyde	0
3	4,4-Difluoro benzophenone	0
4	Para bromo fluorobenzene	0
5	Meta bromo anizole	0
S.No.	By-Products	MT / Month
1	Acetic Acid	172.80
2	Aluminium Chloride solution	0
3	HCl solution	0
4	Ortho bromo fluorobenzene	0
5	Spent Sulphuric Acid	0

4. Year of establishment : 2010
5. Date of last environmental: 28th Sep 15
statement submitted :

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PART-B

WATER AND RAW MATERIAL CONSUMPTION

i. Water consumption (M3/day) (combined for all the plants)

Process : 1.4 M3/day for soc plants)

Cooling : 35

Domestic : 3.0

Name of Products	Process water consumption per product output (M3/MT)	
	During the previous financial year	During the current financial year
Products		
4-Isobutyl Acetophenone	38	36.97
3-Phenoxy 4-Fluoro benzaldehyde	Nil	0
4,4-Difluoro benzophenone	Nil	0
Para bromo fluorobenzene	Nil	0
Meta bromo anizole	Nil	0

c) **Raw material consumption**

Sl. No.	Name of the raw material	Name of products	Consumption of raw materials per unit of output (MT/MT)	
			Previous financial year	Current financial year
1	Iso butyl benzene	IBAP	0.891	0.946
2	Acetic Anhydride	IBAP	0.906	0.826
3	HYdrofluoric acid	IBAP	0.17	0.18
4	Para fluoro benzene	3phenoxy 4 fluoro benzaldehyde	nil	0
5	Aluminium chloride	-Do-	nil	0
6	Bromine	-Do-	nil	0
7	Chlorine	-Do-	nil	0
8	Dichloro ethane	-Do-	nil	0
9	Toluene	-Do-	nil	0
10	Mono Ehtylene glycol	-Do-	nil	0
11	Potassium hydroxide	-Do-	nil	0
12	Bromine	MBA	nil	0
13	Nitro benzene	MBA	nil	0
14	Sodium methoxide	MBA	nil	0

Again efforts have been made to reduce the consumption norms of all materials.

S.No.	Production	MT
1	4-Isobutyl Acetophenone	336.78
2	3-Phenoxy 4-Fluoro benzaldehyde	0
3	4,4-Difluoro benzophenone	0
4	Para bromo fluorobenzene	0
5	Meta bromo anizole	0
	Raw Materials	
1	Iso Butyl Benzene	318.86
2	Acetic Anhydride	278.51
3	Hydrofluoric acid	60.91
4	Acetic acid	132
5	Other raw materials	0

PART C

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

POLLUTANTS	Qty. of pollutants discharges mass /day (KG/Day)	Concentrations of pollutants discharges mass /volume mg/Ltr	% of variation for prescribed std
a) Water – 1.40 M3/day (synthetic organic chemicals plant)			
pH	6.22	6.22	Nil
BOD	0.002	2.0	Nil
COD	0.011	8.0	Nil
TSS	0.002	2	Nil
TDS	0.436	312	Nil
CHLORIDES	0.105	75	Nil
SULPHATES	0.011	8	Nil
FLUORIDE	Nil	Nil	Nil
OIL/GREASE	<MDL	<MDL	Nil
AMMONICAL NITROGEN	0.001	1.12	Nil
PHENOLIC COMPOUNDS	<MDL	<MDL	Nil
SULPHIDE	<MDL	<MDL	Nil
TKN	0.002	1.68	Nil

Water :-

It is observed from the above data that there is no deviation in any parameters and meeting the standards of TNPCB.

Air :-

All the values of SPM, SO₂, NoX and fluorine in the ambient air are well within the limits of ambient air quality standards.

**PART-D
HAZARDOUS WASTES (Synthetic organic plants)**

Sl.No.	Description	Previous Year	Current Year
I	From Process		
	d) Distillation residue e) Spent catalyst f) Spent carbon	1.55 Nil Nil	3.53 Nil Nil
II	From Poll.Con.facilities a) Lime sludge b) Evaporator Solids	1.86 MT 0.30 MT	3.04 0.645

**PART-E
SOLID WASTE**

S.NO.	DESCRIPTION	TOTAL QUANTITY (IN MT)	
		PREVIOUS FINANCIAL YEAR	CURRENT FINANCIAL YEAR
A	From Process	Nil	Nil
B	From Pollution Control facility (lime sludge)	1.86	3.04
C	1.Qty. recycled or re-utilized within the unit/sold	Nil	Nil
	2.Disposed-		
	1)Distillation residue	3.0	3.15
	2)Evaporator solids	0.45	0.45
	3)ETP sludge	7.79	7.35

PART - F

CHARACTERISTICS OF HAZARDOUS WASTE

A) ETP SLUDGE :-

Loss on drying : 25.00%

Analysis on dry basis

Fluorine as 'F' : 25.00%

Total calcium : 46.50%

There has been no major change in the characteristics of Hazardous waste.

DISPOSAL METHOD

As a part of ISO 14001 Certified Company we have taken serious efforts to reuse our lime sludge in Cement Industries.

PART G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION

We have with us the benefit of most modern sophisticated DCS control techniques and also measuring instruments to control the process effectively. Emissions are minimised by APC measures such as condensers, vent condensers with chilled brine circulation system and further controlled through packed and venture scrubbers.

The influent waters, which are generated in the plants, are treated by adequately designed Effluent Treatment Plant with multiple effect evaporator. Further, out of 60 acres of land we own, 35 % are being utilized for developing green belt in and around the Factory area. Greenery and the number of trees vegetation, which have been grown in our factory areas we have taken all specific steps to see that while production is maintained continuously, the resources are also maintained in healthy condition. We always believe that the natural resources can be controlled through effective monitoring and reduction of consumption norms.

PART - H

ADDITIONAL MEASURES/INVESTMENT PROPOSAL FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT OF POLLUTION, PREVENTION OF POLLUTION

1) We have provided online software systems for continuous monitoring of air and water parameters by 24X7 respectively.

2) We have installed multiple effect evaporator at ETP is operating efficiently and treated water used for process.

3) We are member of TNWML in order to dispose the waste generated from our process. We have disposed Distillation residue, Evaporator solids and Lime sludge to TSD, Gummidipoondi.

4) Installation of De super heater system in IBAP plant: Reduction of Power consumption by reducing refrigeration load by change over from chilled brine to Cooling water. Targeted Energy and steam consumption achieved

PART - I

Any other particulars for improving the quality of the environment Subsequent to the Environmental Management System Certification ISO 14001, the company is conducting periodic Environmental audit internally as well as by authorized external agency. Improvements are carried-out based on the audits. Company is practicing world class manufacturing system for sustainability of environment. As the project is new, the company has identified environment aspects so as to continuously update and monitor the activities which cause impact to the environment.

Sl. No.	NAME OF THE PROGRAMME	OBJECTIVES	STATUS
1	Training on ETP process	To be conversant with ETP operation	Continuous
2	Tree plantation	Conservation of environment	Planted 500 saplings at our premises in the current year. Planned for planting 300 saplings in FY 16-17
3	Sewage treatment plant	To treat the sewage generated from domestic use	Treated sewage is being used for gardening development
4	Installation of desuper heater system for reduction of power consumption	To reduce power and steam consumption by installing desuperheater and connecting cooling water to reaction system	Implemented, Targeted steam and energy consumption reduction achieved