

FORM V – PENTA PLANT
Environment Statement for the Financial Year ending 31st March 2024

PART A

1. Name and address of the Owner/Occupier of the Industry operation or Process : SHRI. AMIT SYNGLE
 MANAGING DIRECTOR AND CEO
 ASIAN PAINTS LIMITED
 PENTA DIVISION
 B5 - B10 SIPCOT INDUSTRIAL COMPLEX
 CUDDALORE 607005.
2. Industry/Category Primary (STC Code) : Red / Large
 Secondary (STC Code) :
3. Production Capacity : **Consented Quantity:**
 PENTAERYTHRITOL 730 MT/MONTH
 SODIUM FORMATE 480 MT/MONTH
 FORMALDEHYDE 675 MT/MONTH
4. Year of establishment : 1986
5. Date of the last environmental Statement submitted. : 26.05.2023

PART-B
WATER AND RAW MATERIAL CONSUMPTION

Water Consumption Cu.M/day : 449
 Process Cu.M/day : 386.55
 Domestic Cu.M/day : 62.45

Name of products	Process water consumption per product output	
	During the previous (2022-23) financial year MT (<i>Fresh water considered</i>)	During the current (2023-24) financial year (<i>Fresh water consumption /MT</i>)
Pentaerythritol *	0	0
Sodium Formate	0	0
Formaldehyde (100%)	1.7	0.392

*Water is received along with raw materials.

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2. Raw Material Consumption:

Name of Raw Material	Name of products	Consumption of Raw Material per unit of output (Tons/Ton)	
		During the previous financial year (2022-23)	During the current financial year (2023-24)
a. FORMALDEHYDE (100%)	PENTAERYTHRITOL AND SODIUM FORMATE	1.098	1.102
b. ACETALDEHYDE		0.376	0.378
c. CAUSTIC LYE (100%)		0.365	0.369
d. METHANOL		1.275	1.204

PART- C

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

Pollutants		Concentrations of pollutants in discharges in MT/ year	Percentage of variation from prescribed standards with reasons
a. WATER	TDS	42.41 (MT/ year)	NIL
b. AIR	SPM SO2 NOx	0.65 (MT/ year) 0.01 (MT / year) 0.04 (MT/ year)	NIL

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**PART- D
Hazardous Wastes**

(As specified under Hazardous Wastes/Management and Handling Rules, 1989) as amended in 2000

Hazardous Wastes	Total quantity in (Ltrs)	
	During the previous financial year (2022 -23)	During the current financial year (2023 - 24)
a. From Process Used System oil Other Spent oil Spent Carbon. Distillation residue From Pollution Control Facilities <i>From ETP/MEE/ATFD</i>	400 Liters 215 Liters 5540 Kgs 26.160 MT 167.56 MT	0 Litres 0 Litres 810 Kgs 0 171.97 MT

**PART-E
Solid Wastes**

	Total quantity	
	During the previous financial year (MT) (2022-23)	During the current financial year (MT) (2023-24)
a. From Process / Ash from Boiler*	NA	NA
b. From Pollution control facilities from ETP	NIL	NIL
c. i. Quantity recycled or reutilized+ with in the unit.	NIL	NIL
ii. Sold	NIL	NIL
iii Disposed / Ash from Boiler	NA	NA

- **Details are given in Form V of CPP**
- *NA – refers to not applicable.*

PART-F

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

Sl. No.	PARAMETERS	USED OILS	WASTE OIL
1	Color (Hazan units.)	Brown	Dark Brown
2	Water %	BDL(DL:0.05%)	0.28%
3	Density (g/cc)	0.8656 kg/l	0.8650 kg/l
4	Total halogens (ppm)	15	16
5	Chromium as cr (ppm)	ND	0.1
6	Nickel as Ni (ppm)	ND	0.3
7	Cadmium as cd (ppm)	< 2.5	3.2
8	Lead as Pb (ppm)	1.4	0.9
9	Arsenic as As (ppm)	ND	ND
10	PAH (ppm)	0.18	0.20
11	PCB (ppm)	BDL(D.L 2.0 ppm)	BDL(D.L 2.0 ppm)

Used and Spent Oils are not disposed in this financial year.

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PART G

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

Water consumption

Financial year	Water consumption	Reason
2023-24	1,76,101 KL	Water conservation measures are implemented.
2022-23	2,18,122 KL	

Production details

Financial year	Pentaerythritol in MT	Sodium Formate in MT	Formaldehyde in MT	Reason
2023-24	6756	4215	6012	demand based production done.
2022-23	8671	5253	7796	

The following activities were celebrated in the last year to improve awareness and participation:

- Mission Life directions were encouraged and propagated by distribution of pamphlets to public, Schools. List of activities organised include the following:
- Seed from household are collected and made to saplings.
- Models of roof water collection is made and presented to school children.
- Painting competition on water conservation was conducted and prizes were distributed.
- World Earth Day
- World Environment Day
- Effluent treatment plant infrastructure is improved by providing Diffused aeration in Effluent Treatment Plant.

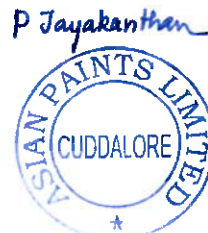
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- Commissioning of screw press to handle Bio sludge slurry and Filter press to handle lime sludge is under progress.
- Eco club activities are conducted every month and report of activities were submitted to JCEE, Cuddalore.
- 1500 tree saplings were planted in our factory premises (comprising of Penta & CPP)for the FY 2023-2024.
- No. of trees planted beyond the fence include 1000 nos.
- The effluent generation is being periodically monitored on shift-wise basis and appropriate action is taken to reduce the effluent generation from source itself.
- The Effluent Treatment Plant is being operated as per the established operating procedure and the performance is being monitored closely to ensure consistent COD & BOD reduction across aeration system.
- The Sewage Treatment plant was successfully operated for achieving the sewage standards and the treated water is used for gardening purpose.
- Recovered water from the Zero Liquid Discharge system is used in our Cooling tower.
- Water treatment plant performance is maintained at average output between regeneration of 1250 KL.
- The ambient air and various emission discharge points of boiler stack and process stacks are being monitored at regular intervals by engaging external laboratory and Advanced environmental lab, TNPCB. The quality of the emission from the emission points are well within TNPCB norms.
- The sludge generated from ETP and ATFD (ZLD unit) is being sent to Resustainability IWM Solutions, Gummidipoondi for disposal as and when required.
- Sprinkler systems is used for gardening purpose.
- Solar dryer for drying of Hazardous waste is operational.

AIR EMISSION MONITORING



- We are monitoring the ambient air quality weekly twice at two different locations. (Both up wind and Downwind directions.)
- We have been regularly monitoring boiler stack emission by engaging reputed laboratories / TNPCB's laboratory.
- We are monitoring the Ambient VOC / THC / AAQ, in different locations (Both upwind and down wind direction) once in three months and ensured that the values are well within the limit.
- One online NAAQ monitoring station is available in predominant wind direction in consultation with TNPCB officials to monitor PM_{2.5}, PM10, SO₂ & NO_x and the monitored data are uploaded to CARE AIR CENTRE, TNPCB.
- One TVOC meter is available in the process area and the monitored data is uploaded to CARE AIR CENTRE, TNPCB.
- LDAR is being carried out on a regular basis by which the VOC emissions were identified and controlled .

Details of activities carried out to maintain the ambient air quality are as follows: -

- New storage capacity for storage of Acetaldehyde is installed for improving storage condition.
- Online NAAQ monitoring station has been installed and connected with care air system.
- The Process stacks monitoring is done every quarter.
- LDAR is being carried out using MoEF approved Laboratory once in a year as per consent requirement and the leaks if any were arrested.
- Nursery is developed for Rose, Herbal plant and other native tree species.

ENVIRONMENT & SAFETY MANAGEMENT: ISO 14001 & 45001

- We have designed and implemented the Environmental Management System (EMS) as per the international standard ISO 14001& 45001. This system is being regularly audited every six months by M/s Det Norske Veritas (DNV /GL).



- Our unit is certified for ISO 9001 standards by M/S DNV/GL.
- The recommendations from the audits are implemented on a regular basis.

TRAINING OUR EMPLOYEES ON ENVIRONMENTAL ISSUES:

- Regular training programmes are being conducted for our employees to educate, train and motivate their activities in an environmental friendly/responsible manner.
- As a part of ongoing ISO 14001 and ISO 45001 activities, we have been conducting job related environmental training programmes for all our employees in various departments for developing/improving their skill levels.
- We are taking lead for spreading awareness on Environmental preservation by campaigning on environmental issues among our employees and neighbouring villagers.
- The Environment Day was celebrated in our factory every year. Detailed speech was given by environment team to the Employees regarding the importance of maintaining a healthy environment.
- Fly ash is sent to M/s TSK Fly Ash Bricks, India Fly Ash Bricks.

PART – H

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

- Rainwater collection and harvesting was done (around 200 cubic meters).
- We are continuing to use Environmentally friendly imported coal originating from Indonesia. This coal contains less Sulphur content.
- Methanol transfer line from unloading pump to storage tank was replaced to reduce fugitive emission.
- Sprinkler system is provided in Acetaldehyde storage, warehouse & coal conveyor.
- Breather valve is provided in storage tank.
- Lake delisting is done nearby village in Sedapallam (Photos enclosed)
- Additional water holding capacity of 20000 KL is generated in Sedapallam

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PART - I

Any other particulars for improving the quality of the environment.

- We are conducting characterisation of the effluent and recycling the same in the plant for various process applications.
- New Multiple Effect Evaporator setup was commissioned.
- Solar dryers in sludge drying beds for improving the drying efficiency of the sludge drying beds is performing well.
- Category-wise identification of population of trees (13500 Nos.) within the plant and 1400 trees beyond the boundary made.
- Participated in CII ESHS award giving all details of our performance in environment.
- The rainwater harvesting trenches in the boiler area was constructed for effective harvesting of rainwater.
- Environment Management Cell details:

Name		Designation	Qualification
P. Jayakanthan		Senior Production Manager	B.Tech (Chemical) & Diploma in Industrial Pollution & Control
Marimuthu		Senior Executive	M.Sc.(Chemistry),MBA.,DCPI,RBP.
Ram Siva Thangapandian.	Prasad	Safety Officer	BE (Chemical)& PG Diploma in factory safety
A Balan		Assistant Manager	B Tech Chemical Engineering.

CSR activities carried out during FY 2023-24

Details	Amount in Rs.
Health & Hygiene projects in Cuddalore	1815644
Rejuvenation of Water bodies in Cuddalore	6392861
Disaster Management	55000
Total	8263505

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