

FORM V

Environment Statement for the Financial Year ending 31st March 2014

PART A

1. Name and address of the Owner/Occupier of the Industry operation or Process : Shri. K.B. S ANAND,
MANAGING DIRECTOR AND CEO
ASIAN PAINTS LIMITED
PENTA DIVISION
B5 - B10 SIPCOT INDUSTRIAL COMPLEX
CUDDALORE 607 005.
2. Industry/Category Primary : Red / Large
(STC Code)
Secondary (STC Code) :
3. Production Capacity : **Consented Quantity:**
PENTA ERYTHRITOL 450 MT/MONTH
SODIUM FORMATE 275 MT/MONTH
FORMALDEHYDE 675 MT/MONTH
4. Year of establishment : 1986
5. Date of the last environmental Statement submitted : 1st August 2013.

PART-B

WATER AND RAW MATERIAL CONSUMPTION

Water Consumption Cu.M/day	:	496.48
Process Cu.M/day	:	26.51
Cooling/Boiler feed Cu.M/day	:	431.84
Domestic Cu.M/day	:	38.13

Name of products Process water consumption per product output		
	During the previous (2012-13) financial year M ³ /MT	During the current (2013-14) financial year M ³ /MT
Penta erythritol Note 1	37.345	33.558
Sodium Formate Note 1	63.587	57.529
Formaldehyde Note 1 (100%)	34.425	30.711

Note1: The water consumption shown above is net of recovered water from Zero Liquid Discharge system.



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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 (2012-13)	During the current financial year (2013-14)
a. FORMALDEHYDE (100%)	PENTAERYTHRITOL AND SODIUM FORMATE	1.085	1.093
b. ACETALDEHYDE		0.381	0.376
c. CAUSTIC LYE (100%)		0.373	0.366
d. METHANOL		1.269	1.286

PART- C

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

Pollutants	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume) * (in ppm)	Percentage of variation from prescribed standards with reasons
a. WATER	-- 3.334 0 0 0 2.050 1.733	pH 7 TDS 68 TSS 0 COD 0 BOD 0 Chlorides 42 Sulphates 35	NIL
b. AIR	18.649 82.887 18.990	SPM 32.59 SO2 146.26 NOx 33.51 Annual average value of Stack emission analysis done by TNPCCB	NIL

* Averaged values of analysis done by APL laboratory on daily basis - (Based on Water cess annexure ROA). Characteristics of water given above are recovered water from the Zero discharge system for re use.

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 (2012 - 13)	During the current financial year (2013 - 14)
a. From Process Used System oil Other Spent oil Spent Carbon. From Pollution Control Facilities <i>From ETP/MEE/ATFD</i>	863 Liters 15 Liters 0 Kgs 117.260 MT	699 Liters 10 Liters 100 Kgs 111.367 MT

PART-E

Solid Wastes

	Total quantity	
	During the previous financial year (MT) (2012-13)	During the current financial year (MT) (2013-14)
a. From Process / Ash from Boiler	1360.96 MT	1649.984 MT
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	1303.628 MT	1553.704 MT

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	0.8950 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	0.2
11	PCB (ppm)	BDL (D.L.-2.0 ppm)	BDL (D.L.-2.0 ppm)



PART G

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

- We have reduced WATER consumption per Mt. of Penicerythriol (Product) in our plant from 37,345 KL to 33.59 KL which in directly conserves the water resources.
- We have reduced the specific POWER consumption in our Plant to 1322.08 KWH PMT of Penicerythriol from 1333.19 KWH (in the year 2012-13), which indirectly reduces the emission at the power generation point.

Status of various resource conservation efforts over the last few years is given below:-

	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	% Reduction	
Specific consumption Per Tonne of PE																				
Water M ³	123	109	85	75	69	62	52	49	45	44	37	39.59	40.27	36.99	30.31	32.905	37.345	33.59	69.64	
Steam Mts	33	30	28	27	25	23	21	19	19	20	20	21.01	19.67	18.94	19.81	19.560	19.71	19.39	40.273	
Power Units KWH	2850	2694	2643	2431	2200	2090	1929	1695	1587	1554	1598	1500	1556.18	1477	1391	1363	1333.19	1322.08	53.221	
Major Raw Material Acetaldehyde Kgs	455	433	423	422	401	395	300	374	390	389	387	376	376	378	371	370.75	372.19	375.72	18.20	
Fuel Eq. Coal - Kgs.	288	280	258	237	252	260	255	269	276	279	253	245	254	270	242	229.20	246.87	237.09	14.281	
COD load Kgs/day						27	23	25	25	17	12	14	7.387	1.139						
BOD load Kgs/day						3	3	2	2	2	2	1.77	0.788	0.123	ZLD unit-	ZLD unit-	ZLD unit-	ZLD unit-	ZLD unit-	

- All specific consumption figures given above are for per ton of our product produced except for Fuel which is given in Kgs of Equivalent Coal per ton of Steam produced.

The above reduction in various resources directly reflects the improved environmental performance of our Division.

- Around 6941 tree saplings were planted in our factory premises .
- 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.
- We have connected the domestic effluent to the inlet of aeration tank in Effluent Treatment Plant which has improved performance of Effluent Treatment Plant in reducing BOD and total effluent is discharged through a single point.
- We have installed two stage Reverse osmosis plant cum Zero Discharge system to recycle the treated effluent in to our process plant and the same is being operated and maintained on daily basis. Around 95 % of the recovered water from the Zero Liquid Discharge system is used in our Cooling tower and as boiler feed water after further polished in our ION exchange water treatment plant.
- The ash storage area is properly bounded with dyke wall arrangement and an effective dust suppression system has been provided to eliminate dust emission from the area.
- Two numbers of coal storage shed of capacity 550 MT and 700 MT each, to store the same.
- Low sulphur content imported coal is being used.
- 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 TNPCB district environmental lab. The quality of the emission from the emission points are well within TNPCB norms.
- The sludge generated from ETP and ATFD (ZLD unit) is sending to TNWMA, Gummidipoondi for disposal as and when required.



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AIR EMISSION MONITORING

- We are monitoring the ambient air quality once in a week at four different locations. (Both up wind and Downwind directions.)
- We have been regularly monitoring boiler stack emission by engaging reputed laboratories / TNPCB's laboratory facility on a monthly basis.
- 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.

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

- We have installed a bag filter in our FBC Boilers and reduced the SPM level less than 50 Mg/NM³. We have also provided on line SPM, SO₂ and NO_x meters in our 16 TPH boiler chimney and monitoring the same on continuous basis.
- The entire fuel and ash handling systems in our boiler has been completely covered to avoid dust emission while handling fuel and ash.

ENVIRONMENT & SAFETY MANAGEMENT: ISO 14001: OHSAS 18001

- We have designed and implemented the Environmental Management System (EMS) as per the international standard ISO 14001. This system is being regularly audited every six months by M/s Det Norske Veritas (DNV).
- Our unit has also OHSAS 18001 standards by the same agency.
- We had successfully recertified for ISO 14001 & OHSAS 18001 standards after the audit during August 2013 which is done by DNV once in three years.

TRAINING OUR EMPLOYEES ON ENVIRONMENTAL ISSUES:

- We are conducting training programme for our employees to educate, train and motivate their activities in an environmental friendly/responsible manner.
- As a part of ongoing ISO 14001 and OHSAS 18001 activities, we have been conducting job related environmental training programmes for all our employees in various departments.
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- We are taking lead for spreading awareness on Environmental preservation by mobilising/campaigning on environmental issues among our employees and neighbouring villagers. The Environment Day was celebrated in our factory presided over by the DEE, TNPCB every year.
- Green Belt Initiative – Tree Plantation

To improve green belt in our Plant premises, we have planted 6941 tree saplings during the financial year.

PART - H

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

- We had installed online pH & Conductivity meters in the storm water drain to ensure that nothing is carried away through the rain water.
- We had installed Ambient Air quality monitoring station in the most predominant wind direction and after commissioning the parameters will be uploaded to CARE AIR CENTRE, TNPCB.
- It is planned to Connect the TVOC meter in the process area to CARE AIR CENTRE, TNPCB.
- It is planned to continuously improve the greenery in the Plant in the ensuing years.
- We are currently using Environmental friendly imported coal originating from Indonesia. This coal contains less sulphur content.

This Financial year we have planned to conduct programs & competitions for improving the awareness on Environment among school children's in the adopted Government School.

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.
- Our unit has been nominated by TNPCB, Cuddalore for the national awards for Prevention of pollution and Rajiv Gandhi environment Award for clean technology for the year 2012-2013.



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CSR activities carried out during FY 2013-14

- During FY 2013-14, we have spent Rs.15.90 lacs towards CSR activities (routine & non routine) for the high school adopted by us.
- Contributing Rs 114000/ each (for two teachers) as salary to the PTA employed teachers of the Government higher school at Karaikadu.
- Contributing Rs 60000/ towards scholarship of the first five rank holders of the Government higher school at Karaikadu was done in presence of Chief Educational Officer ,Cuddalore. (For plus one and plus two).
- Bi Monthly Electricity bill of around Rs 18000/ is paid to the Government higher school at Karaikadu.
- Painting of entire School, repairing of toilets & Bore well augmentation was done in Government higher school at Karaikadu.
- Provided Steel cupboard & tables to the Government higher school at Karaikadu.

22/12/14

