



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

Environmental Audit Report for the financial Year ending the 31st March 2018

Company Information

Company Name

Deepak Fertilisers and Petrochemicals Corporation Limited

Application UAN number

0000023473

Address

Plot K-1 to K-8, MIDC Industrial Area, Taloja,

Plot no

Plot K-1 to K-8, MIDC Industrial Area,

Taluka

Panvel

Village

Pale Khurd

Capital Investment (In lakhs)

244628

Scale

Large

City

Panvel

Pincode

410208

Person Name

Deepak Pande

Designation

Senior General Manager - EHS

Telephone Number

2267684221

Fax Number

2227411401

Email

deepak.pande@dfpcl.com

Region

SRO-Taloja

Industry Category

Red

Industry Type

R25 Basic chemicals and electro chemicals and its derivatives including manufacturing of acid

Last Environmental statement submitted online

yes

Consent Number

BO/CAC-Cell/UAN No.
0000013159/7thCAC/1702000537-A

Consent Issue Date

01-09-2017

Consent Valid Upto

30-09-2020

Product Information

Product Name

Product Name	Consent Quantity	Actual Quantity	UOM
Ammonia	140400	112027	MT/A
Weak Nitric Acid (WNA)	445500	396010	MT/A
Methanol	99996	44406	MT/A
Concentrated Nitric Acid (CNA)	129600	129600	MT/A
Multiple grade NPK fertiliser	600000	564279	MT/A
"Tech. Gr. Ammonium Nitrate" plus Ammonium Nitrate Melt	444000	392435	MT/A
Liquid Carbon Dioxide (CO2)	72000	53708	MT/A
Iso Propyl Alcohol (IPA)	70200	58257	MT/A
Iso Propyl Alcohol (For drum filling operation)	15000	14074	MT/A
Di Iso Propyl Ether (DIPE for drum filling operation)	15000	2982	MT/A
Bentonite Sulphur Pastilles	25000	21979	MT/A

By-product Information

By Product Name	Consent Quantity	Actual Quantity	UOM
Propane	33000	11729	MT/A
Calcium Phosphate	210	77	MT/A
Crude DIPE	1440	0	MT/A
Hydrogen gas	960	135	MT/A
Crude IPA/NPA Mixture	1080	145	MT/A

1) Water Consumption in m3/day

Water Consumption for Process	Consent Quantity in m3/day	Actual Quantity in m3/day
Cooling	18813	12271
Domestic	172	130
All others	0	0
Total	21355	13911

1) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
Daily Qty of treated effluent (Plot K-1 & K-8 ETP) - Consented Quantity is including Sewage	4131.78	3199	CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
Ammonia	7.855	7.6	Ton/Ton
Weak Nitric Acid (WNA)	3.077	2.64	Ton/Ton
Methanol	9.175	6.5	Ton/Ton
Concentrated Nitric Acid (CNA)	1.6	1.7	Ton/Ton
"Tech. Gr. Ammonium Nitrate" plus Ammonium Nitrate Melt	0.574	0.23	Ton/Ton
Multiple Grade NPK fertilizer	0.476	0.39	Ton/Ton
Liquid Carbon Dioxide (CO2)	1.102	0.68	Ton/Ton
Iso Propyl Alcohol (IPA)	14.298	13.16	Ton/Ton
Bentonite Sulphur pastilles	0	0.092	Ton/Ton

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
Natural gas for Ammonia (SM3/MT)	1038.86	1010.58	Ton/Ton
Natural gas for Methanol (SM3/MT)	924.47	844.3	Ton/Ton
Ammonia for WNA	0.291	0.291	Ton/Ton
WNA for CNA	0.997	0.995	Ton/Ton
RGP for IPA	1.169	0.974	Ton/Ton
Ammonia for "Tech. Gr. Ammonium Nitrate" plus Ammonium Nitrate Melt	0.217	0.216	Ton/Ton
WNA for "Tech. Gr. Ammonium Nitrate" plus Ammonium Nitrate Melt	0.802	0.801	Ton/Ton
Ammonia for Multiple grade NPK fertilizer	0.192	0.155	Ton/Ton

WNA for Multiple grade NPK fertilizer	0.424	0.155	Ton/Ton
Phosphoric Acid for Multiple grade NPK fertilizer	0.243	0.255	Ton/Ton
Sulphuric Acid for Multiple grade NPK fertilizer	0.063	0.053	Ton/Ton
Sulphur for Bentonite Sulphur pastilles	0.919	0.922	Ton/Ton
Bentonite for Bentonite Sulphur pastilles	0.096	0.096	Ton/Ton

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
Natural Gas	182377.47	170586	MT/A
HSD (High Speed Diesel) at Plot K-1 & K-8	5110	51.452	KL/A

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

[A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged (Mg/Lit) Except PH,Temp,Colour	Percentage of variation from prescribed standards with reasons	Standard	Reason
	Quantity	Concentration	%variation		
pH	3199	7.95	0	6.0 to 8.5	NA
Suspended Solids	247	77	0	100 ppm	NA
Biological Oxygen Demand (BOD)	147	46	0	100 ppm	NA
Chemical Oxygen Demand (COD)	433	135	0	250 ppm	NA
Oil & Grease	3.1	0.97	0	10 ppm	NA
Total Dissolved Solids (TDS)	4450	1391	0	2100 ppm	NA

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged (Mg/NM3)	Percentage of variation from prescribed standards with reasons	Standard	Reason
	Quantity	Concentration	%variation		
1. Ammonia Primary Reformer (SO2)	11.11	6.4	0	-	NA
1. Ammonia Primary Reformer (NOx)	15.48	11.97	0	50 ppm	NA
1. Ammonia Primary Reformer (NH3)	0.261	31.75	0	50 ppm	NA
2. Boiler A/B (NOx)	8.85	7.6	0	50 ppm	NA
3. Methanol Primary Reformer (NOx)	0	0	0	50 ppm	NA
4. CNA Plant (NOx)	0.03	9.38	0	50 ppm	NA
5. WNA-1 Plant (NOx)	0.0004	-	0	3 Kg/MT of WNA	NA
6. WNA-II Plant (NOx)	0.0002	-	0	3 Kg/MT of WNA	NA
7. WNA-III Plant (NOx)	0.000413	-	0	3 Kg/MT of WNA	NA
8. WNA-IV Plant (NOx)	0.000275	-	0	3 Kg/MT of WNA	NA
9. ANP Prilling Tower (TPM)	123.01	36.99	0	150 mg/NM3	NA
9. ANP Prilling Tower (NOx)	73.76	11.9	0	50 ppm	NA
9. ANP Prilling Tower (NH3)	0.387	25.23	0	50 ppm	NA
10. LDAN Prilling Tower (TPM)	85.45	28.9	0	100 mg/NM3	NA

10. LDAN Prilling Tower (NOx)	67.85	13.88	0	50 ppm	NA
10. LDAN Prilling Tower (NH3)	0.435	28.47	0	50 ppm	NA
11. ANP Cyclone Separator (TPM)	46.46	34.2	0	150 mg/Nm3	NA
11. ANP Cyclone Separator (NOx)	21.09	8.25	0	50 ppm	NA
11. ANP Cyclone Separator (NH3)	0.496	32.25	0	50 ppm	NA
12. ANP Vacuum Pump (TPM)	0.15	23.75	0	150 mg/Nm3	NA
12. ANP Vacuum Pump (NOx)	0.11	9.05	0	50 ppm	NA
12. ANP Vacuum Pump (NH3)	0.477	31.5	0	50 ppm	NA
13. LDAN Venturi Scrubber (TPM)	27.02	25.63	0	100 mg/Nm3	NA
13. LDAN Venturi Scrubber (NOx)	16.37	8.25	0	50 ppm	NA
13. LDAN Venturi Scrubber (NH3)	0.347	22.58	0	50 ppm	NA
14. Boiler - C (NOx)	0	0	0	-	NA
15. Boiler D (NOx)	7.88	8.5	0	50 ppm	NA
15. Boiler - D (SO2)	0	0	0	-	NA
16. CES-A Engine Exhaust Boiler (NOx)	17.94	12.1	0	50 ppm	NA
16. CES-A Engine Exhaust Boiler (SO2)	0	0	0	-	NA
17. CES-B Engine Exhaust Boiler (NOx)	14.49	10.4	0	50 ppm	NA
17. CES-B Engine Exhaust Boiler (SO2)	0	0	0	-	NA
18. CO2 Liquifier (CO2)	0.49	60	0	-	NA
19. CO2 Stripper (CO2)	0.18	22.7	0	-	NA
20. CO2 Combined (CO2)	0.16	18.9	0	-	NA
21 & 22 HRSG-1 (NOx)	5.55	9.25	0	50 ppm	NA
21 & 22 HRSG-1 (SO2)	0	0	0	-	NA
23 & 24 HRSG-2 (NOx)	7.27	10.4	0	50 ppm	NA
23 & 24 HRSG-2 (SO2)	0	0	0	-	NA
25 & 26 HRSG-3 (NOx)	24.57	14	0	50 ppm	NA
25 & 26 HRSG-3 (SOx)	0	0	0	-	NA
27 & 28 HRSG-4 (NOx)	25.35	13.7	0	50 ppm	NA
27 & 28 HRSG-4 (SOx)	0	0	0	-	NA
29 & 30 HRSG-5 (NOx)	6.02	9.5	0	50 ppm	NA
29 & 30 HRSG-5 (SOx)	0	0	0	-	NA
31. G P Vent (TPM)	3.35	32.45	0	100 mg/Nm3	NA
31. G P Vent (NOx)	2.26	10.95	0	50 ppm	NA
32. 780 Weak Nitric Acid Plant (NOx-Kg/MT of WNA)	0.00012	-	0	3 Kg/MT of WNA	NA
32. 780 Weak Nitric Acid Plant(NH3 Kg/Hr)	1.01	19.3	0	3 Kg/Hr	NA
33. 600 TPD LDAN Prilling Tower (TPM)	66.11	34.5	0	100 mg/NM3	NA
33. 600 TPD LDAN Prilling Tower (NOx)	57.5	12.3	0	50 ppm	NA
33. 600 TPD LDAN Prilling Tower (NH3)	22.64	17	0	50 ppm	NA
34. 300 TPD HDAN Scrubber (TPM)	22.99	14	0	100 mg/ Nm3	NA

34. 300 TPD HDAN Scrubber (NOx)	35.98	11.7	0	50 ppm	NA
34. 300 TPD HDAN Scrubber (NH3)	22.26	19.5	0	50 ppm	NA
35. 300 TPD HDAN Prilling Tower (TPM)	24.84	15.5	0	100 mg/Nm3	NA
35. 300 TPD HDAN Prilling Tower (NOx)	39.21	13	0	50 ppm	NA
35. 300 TPD HDAN Prilling Tower (NH3)	22.86	20.5	0	50 ppm	NA
36 & 37. 40 & 15 TPH Boiler (SOx)	0	0	0	-	NA
36 & 37. 40 & 15 TPH Boiler (NOx)	47.81	14.2	0	50 ppm	NA
38. Pastillator (TPM)	0.11	12.5	0	100 mg/Nm3	NA
38. Pastillator (SOx)	0.22	6.5	0	50 ppm	NA
39. Batch and feed Tank (TPM)	0.044	11.2	0	100 mg/Nm3	NA
39. Batch and feed Tank (SOx)	0.21	7.4	0	-	NA
46. NPK Process Stacks - 02 Nos) (TPM)	79.43	12.65	0	150 mg/Nm3	NA
46. NPK Process Stacks - 02 Nos) (NOx)	101	8.6	0	50 ppm	NA
46. NPK Process Stacks - 02 Nos) (NH3)	0.22	12.5	0	50 ppm	NA

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
5.1 Used /spent oil	52.75	84.8	KL/A
5.2 Wastes/residue containing oil	0.16	0.208	MT/A
18.1 Spent catalyst	46.42	13.77	MT/A
31.1 Residues and wastes*	11.78	19.47	MT/A
33. Disposal of barrels / containers used for handling of hazardous wastes / chemical	0	54	Nos./Y
30.2 Chemical sludge from waste water treatment	0	308.32	MT/A

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	MT/A

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Ash due to coal and lime treatment	0	3624.81	MT/A

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
NA	0	0	MT/A

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	MT/A

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

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
5.1 Used /spent oil	84.8	KL/A	NA
5.2 Wastes/residue containing oil	0.208	MT/A	NA
18.1 Spent catalyst	13.77	MT/A	NA
31.1 Residues and wastes*	19.47	MT/A	NA
33.3 Discarded containers / barrels / liner	54	Nos./Y	NA
30.2 Chemical sludge from waste water treatment	308.32	MT/A	NA

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
Ash due to coal and lime treatment	3624.81	MT/A	NA

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

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
RO plant	600	NA	NA	NA	1300	NA

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

[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
Plantation of 32072 Saplings for Green Belt Development on MIDC road,inside plant and degraded forest land	Tree Plantation	48
AMC for Online Emission & Effluent Quality Monitoring System	Operating AMC Cost for Continuous Monitoring of Emission & Effluent Quality Parameters.	3.90

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
Plantation of 5000 Saplings in the premises & MIDC	Tree Plantation	5.0
Online real time monitoring system up gradation	Online monitoring of pollutants	1320

Any other particulars in respect of environmental protection and abatement of pollution.

Particulars

NA

Name & Designation

Deepak Pande - Senior General Manager (EHS)