Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

Environmental Audit Report for the financial Year ending the 31st March 2020

Unique Application Number
MPCB-ENVIRONMENT_STATEMENT-0000030809

Submitted Date
12-11-2020

Company Information

Company Name
Hindustan Petroleum Corporation Limited

Application UAN number
CR15120000434

Address
Mumbai Refinery, B. D. Patil Marg, Mahul

Plot no
-

Taluka
Kurla

Village
Mahul

Capital Investment (In lakhs)
749256.34

Scale
Large Scale Industry

City
Mumbai

Pincode
400074

Person Name
VIJAY S AGASHE

Designation
Executive Director - HPCL, Mumbai Refinery

Telephone Number
02225077001, 02225545061

Fax Number
02225542008

Email
vijaysa@hpcl.in

Region
SRO-Mumbai III

Industry Category
Red

Industry Type
R56 Oil Refinery (mineral Oil or Petro Refineries)

Last Environmental statement submitted online
yes

Consent Number
BO/CAC-Cell/EIC No MU-5684-14/14th CAC /6298

Consent Issue Date
12/05/2016

Consent Valid Upto
31/08/2020

Product Information

Product Name	***Consent Quantity***	***Actual Quantity***	***UOM***
Light Distillates (LPG/LAN/HAN/Reg. gasoline/premium Gasoline)	1968000	2266821	MT/A
Middle Distillates (ATF/SKO/HSD/LTO)	3313000	3476495	MT/A
Lube Oil Base Stock	331000	478128	MT/A

By-product Information

By Product Name	***Consent Quantity***	***Actual Quantity***	***UOM***
Other heavy products	2288000	1771561	MT/A
Elemental Sulphur	26000	30378	MT/A

1) Water Consumption in m3/day

Water Consumption for	***Consent Quantity in m3/day***	***Actual Quantity in m3/day***
Process	9660	5589
Cooling	90242	31676
Domestic	870	380

All others	1500	1440
Total	102272	39085

1) Effluent Generation in CMD / MLD

Particulars	***Consent Quantity***	***Actual Quantity***	***UOM***
Effluent from Process	7200	2904	CMD
Sea cooling water effluent (blow down)	80354	20800	CMD
Sewage effluent from the factory	600	168	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***
Light Distillates	0.26	0.25	Ton/Ton
Middle Distillates	0.26	0.25	Ton/Ton
Lube Oil Base Stock	0.26	0.25	Ton/Ton
Other heavy products including refinery fuel loss	0.26	0.25	Ton/Ton
Elemental Sulphur	0.26	0.25	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***
Crude Oil	1.08	1.08	Ton/Ton

4) Fuel Consumption

Fuel Name	***Consent quantity***	***Actual Quantity***	***UOM***
Fuel Oil	325008	109646	MT/A
Refinery Gas/Natural Gas	411750	323971	MT/A
Liquid Naptha	230580	7577	MT/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***		
	Quantity	***Concentration***	***%variation***	***Standard***	***Reason***
pH	0	7.6	0	6 -8.5	Complied
Oil & Grease	1.8	2	0	5	Complied
Suspended Solids	11.2	12.5	0	20	Complied
BOD (3 days 27 Deg C)	9.8	10.9	0	15	Complied
COD	75.5	84	0	125	Complied
Phenol	0	Below Detectable Limit	0	0.35	Complied
Sulphides	0	Below Detectable Limit	0	0.5	Complied
CN	0	Below Detectable Limit	0	0.2	Complied
Ammonia as Nitrogen (N)	2.7	3	0	15	Complied
TKN	16.3	18	0	40	Complied

P	0	Below Detectable Limit	0	3	Complied
Cr (Hexavalent)	0	Below Detectable Limit	0	0.1	Complied
Cr (Total)	0	Below Detectable Limit	0	2	Complied
Pb	0	Below Detectable Limit	0	0.1	Complied
Hg	0	Below Detectable Limit	0	0.01	Complied
Zn	0	Below Detectable Limit	0	5	Complied
Ni	0	Below Detectable Limit	0	1	Complied
Cu	0	Below Detectable Limit	0	1	Complied
V	0	Below Detectable Limit	0	0.2	Complied
benzene	0	Below Detectable Limit	0	0.1	Complied
Benzo(a)-pyrene	0	Below Detectable Limit	0	0.2	Complied

[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***		
	Quantity	***Concentration***	***%variation***	***Standard***	***Reason***
SPM	255	6.6	0	150 mg/Nm3	Complied
SOx	3668	97.9	0	12.6 TPD	Complied
NOx	6490	172.3	0	6.5 TPD	Complied
CO	1892	50.2	0	150 mg/Nm3	Complied

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	***Total During Previous Financial year***	***Total During Current Financial year***	***UOM***
4.2 Spent catalyst	2054.5	2199.2	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***
Metal Scrap	4938	3469	MT/A
Plastic Waste	64710	58760	Kg/Annum
Metal containers	4524	5479	Nos./Y
Plastic containers	216	959	Nos./Y

2) From Pollution Control Facilities

Non Hazardous Waste Type	***Total During Previous Financial year***	***Total During Current Financial year***	***UOM***
N.A.	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
4.2 Spent catalyst	367.7	MT/A	To authorised recycler - M/s Rubamin
4.2 Spent catalyst	82.7	MT/A	To authorised recycler - M/s Refracast
4.2 Spent catalyst	1748.8	MT/A	Disposed to CHWTSDF (MWML, Taloja)
0	.	MT/A	.
0	.	MT/A	.

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
Metal Scrap	3469	MT/A	Sold to recycler
Plastic Waste	58760	Kg/Annum	Sold to recycler
Metal Container	5479	Nos./Y	Sold to recycler
Plastic Container	959	Nos./Y	Sold to recycler
Scrap equipments	0	Nos./Y	-

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)
-	-	-	-	-	-	-

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)
Provision of Air filters on Air line on old BH to Cryogenic Nitrogen plant and supplying excess air nitrogen plant to old boiler house air	Efficiency Improvement	60
Enhanced H/C flare gas recovery by optimizing the Flare Gas Recovery Compressor suction pressure.	Efficiency Improvement	0
Power recovery through backpressure steam turbine generator.	Efficiency Improvement	16
SEU I Furnace efficiency improvement	Efficiency Improvement	13
Ceramic coating in HGU Reformer	Efficiency Improvement	20

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
-	-	-

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

Particulars

-

Name & Designation

Ashok Kumar, Deputy General Manager, Technical Department