



# Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

## FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2023

### Unique Application Number

MPCB-ENVIRONMENT\_STATEMENT-0000061098

### Submitted Date

29-09-2023

## PART A

### Company Information

#### Company Name

Hindustan Petroleum Corporation Limited

#### Application UAN number

MPCB-CONSENT-0000079578

#### Address

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

#### Plot no

234/482

#### Taluka

Kurla

#### Village

Chembur

#### Capital Investment (In lakhs)

749256

#### Scale

L.S.I

#### City

Mumbai Suburban

#### Pincode

400074

#### Person Name

Satish Dinkarrao Khedekar

#### Designation

DGM - Technical

#### Telephone Number

9869740887

#### Fax Number

25542017

#### Email

sdkhedekar@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

MPCB-CONSENT-0000079578

#### Consent Issue Date

2021-09-20

#### Consent Valid Upto

2025-08-31

#### Establishment Year

1974

#### Date of last environment statement submitted

Sep 30 2022 12:00:00:000AM

#### Industry Category Primary (STC Code) & Secondary (STC Code)

### Product Information

#### Product Name

Light Distillate

#### Consent Quantity

2515800

#### Actual Quantity

2747705

#### UOM

MT/A

Middle Distillate

4142000

4335256

MT/A

Lube Oil Base Stock

450000

503722

MT/A

### By-product Information

#### By Product Name

Other Heavy Products including Refinery Fuel and Loss

#### Consent Quantity

2355000

#### Actual Quantity

2203467

#### UOM

MT/A

Sulfur

61000

37640

MT/A

## Part-B (Water & Raw Material Consumption)

### 1) Water Consumption in m3/day

Water Consumption for Process	Consent Quantity in m3/day	Actual Quantity in m3/day
Cooling	12348.00	7100.00
Domestic	90242.00	32992.00
All others	870.00	415.00
Total	1500.00	1440.00
	104960.00	41947.00

### 2) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
Trade effluent	7200	3564	CMD
Sea Cooling water blowdown	80354	23066	CMD
Domestic effluent	600	192	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
Oil Refinery (Mineral Oil or Petro Refineries)	0.6	0.3	Ton/Ton
Oil Refinery (Mineral Oil or Petro Refineries)	0.6	0.3	Ton/Ton
Oil Refinery (Mineral Oil or Petro Refineries)	0.6	0.3	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	1.09	1.08	Ton/Ton

### 4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
LSHS	765606.5	196954	MT/A
Naptha	278419.1	64315	MT/A
Fuel Gas	1716754	217337	MT/A

## Part-C

### 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	0	7.3	0	6 to 9	In Compliance
Oil & Grease	0.75	1	0	5 mg/L	In Compliance
BOD (3 days 27 C)	8.0	11	0	15 mg/L	In Compliance

Total Suspended Solids	9.9	13	0	20 mg/L	In Compliance
COD	56.7	75	0	125 mg/L	In Compliance
Phenol	0.07	0.09	0	0.35 mg/L	In Compliance
Sulphides	0	0	0	0.5 mg/L	In Compliance
CN	0	0	0	0.2 mg/L	In Compliance
Ammonia as N	0	0	0	15 mg/L	In Compliance
TKN	1.5	2	0	40 mg/L	In Compliance
Phosphate	0.8	1.1	0	3 mg/L	In Compliance
Cr (Hexavalent)	0.007	0.01	0	0.1 mg/L	In Compliance
Cr (Total)	0.03	0.05	0	2 mg/L	In Compliance
Pb	0	0	0	0.1 mg/L	In Compliance
Hg	0	0	0	0.01 mg/L	In Compliance
Zn	0.07	0.1	0	5 mg/L	In Compliance
Ni	0.15	0.2	0	1 mg/L	In Compliance
Cu	0.07	0.1	0	1 mg/L	In Compliance
V	0	0	0	0.2 mg/L	In Compliance
Benzene	0	0	0	0.1 mg/L	In Compliance
Benzo(a)-pyrene	0	0	0	0.2 mg/L	In Compliance

#### **[B] Air (Stack)**

<b>Pollutants Detail</b>	<b>Quantity of Pollutants discharged (kL/day)</b>	<b>Concentration of Pollutants discharged(Mg/NM3)</b>	<b>Percentage of variation from prescribed standards with reasons</b>	<b>Standard</b>	<b>Reason</b>
	<b>Quantity</b>	<b>Concentration</b>	<b>%variation</b>		
SPM	204	4	0	10 - 100 mg/Nm3	In Compliance
SOx	6156	74	0	50 - 1700 mg/Nm3	In Compliance
NOx	2130	45	0	350 - 450 mg/Nm3	In Compliance
CO	1628	45	0	150 - 200 mg/Nm3	In Compliance

#### **Part-D**

##### **HAZARDOUS WASTES**

###### **1) From Process**

<b>Hazardous Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
4.2 Spent catalyst	1323.68	1346.4	MT/A
4.1 Oil sludge or emulsion	58.25	0	MT/A
Other Hazardous Waste	0	15.5	MT/A

###### **2) From Pollution Control Facilities**

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

#### **Part-E**

##### **SOLID WASTES**

### 1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Metal Scrap	4566	5415	MT/A
Plastic waste	50.68	27.1	MT/A

### 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

## Part-F

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	1222.8	MT/A	Disposal to Mumbai Waste Management Limited, Talaja
4.2 Spent catalyst	67.5	MT/A	Recycle to M/s Octet Chemicals Pvt Ltd
4.2 Spent catalyst	48.8	MT/A	Recycle to M/s. Vyankatesh Metals and Alloys Pvt. Ltd.
4.2 Spent catalyst	7.3	MT/A	Recycle to M/s. Refracast Metallurgicals Pvt. Ltd.
Other Hazardous Waste	15.5	MT/A	Disposal to Mumbai Waste Management Limited, Talaja

### 2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
Metal scrap	5415	MT/A	Sold to recycler
Plastic waste	27.1	MT/A	Sold to recycler

## Part-G

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)
Water recycling after treatment	2384	0	0	0	0	0
Rain water harvesting	289	0	0	0	0	0

## Part-H

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**

Routing of GFEC off gas to Flare &amp; recovering in Flare Gas Recovery Compressor

Heat integration in Propane De-asphalting (PDA) unit

Recovery of steam condensate

**Environmental Protection Measures**    **Capital Investment (Lacks)**

Fuel Saving &amp; Emission reduction

Fuel Saving &amp; Emission reduction

Fuel saving &amp; water conservation

24

337

78

**[B] Investment Proposed for next Year****Detail of measures for Environmental Protection**

FRE furnace CIT improvement scheme

FRE VPS Column internal replacement

Installation of Ceramic Fiber Module (CFM) at FRE APS &amp; VPS

**Environmental Protection Measures**

Efficiency Improvement

Efficiency Improvement

Efficiency Improvement

**Capital Investment (Lacks)**

385

225

128

**Part-I****Any other particulars for improving the quality of the environment.****Particulars**

Tree Plantation

**Name & Designation**

Satish D Khedekar, Deputy General Manager - Technical

**UAN No:**

MPCB-ENVIRONMENT\_STATEMENT-0000061098

**Submitted On:**

29-09-2023