



Date: 30<sup>th</sup> September, 2024

Ref: HMEL-TS-40-ENV 1171

To,

Environmental Engineer,  
Punjab Pollution Control Board  
3<sup>rd</sup> Floor, Room No: 406E,  
District Administrative Building,  
Bathinda- Regional Office,  
Bathinda.

**Subject:** Environmental Statement for the financial year ending 31<sup>st</sup> March 2024.

Dear Sir,

Enclosed please find the Environmental Statement for 2023-24 as per "The Environment (Protection) Rules, 1986".

Thanking you,

Very truly yours

Jatinder Kumar  
(DM –TechnicalServices)

**Encl:** 1. Environmental Statement **Form-V**.

**Cc:** Ministry of Environment, Forest & Climate Change, Northern Regional Office, Bays No. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160 030.

Received  
30/9/24

## Environmental Statement for FY 2023-24

### FORM-V (See Rule 14)

Environmental Statement for the financial year ending on 31<sup>st</sup> March 2024.

#### PART - A

- (i) Name and address of the owner/ occupier of the industry operation or process:

Mr. Prabh Das,  
MD & CEO,

HQ Address:

HPCL-Mittal Energy Limited  
INOX Towers, Plot No., - 17, Sector 16A,  
NOIDA-201301, (U.P), INDIA

Plant Address:

HPCL-Mittal Energy Limited  
Guru Gobind Singh Refinery  
Village Phullokhar  
Taluka: Talwandi Saboo  
District Bathinda – 151301, PUNJAB,  
INDIA.

- (ii) Industry category Primary: (STC Code) Secondary-(SIC Code):

**SIC Code 2911: Petroleum Refinery.**

- (iii) Production capacity- Units:

**11.25 MMTPA (Crude processing capacity)**

- (iv) Year of establishment:

**April 2012**

- (v) Date of the last environmental statement submitted:

**26<sup>th</sup> September 2023**

**PART - B**

**Water and Raw Material Consumption:**

1. Water consumption m<sup>3</sup>/ day
  - Process : 26641.8 m<sup>3</sup>/day
  - Cooling : 52559.9 m<sup>3</sup>/day
  - Domestic : 2987.9 m<sup>3</sup>/day
  - Fire Water : 1445.5 m<sup>3</sup>/day

Name of products	Process water consumption per unit of product output	
	During the previous Financial Year (2022-23)	During the current Financial Year (2023-24)
1. LPG 2. Naphtha 3. Hexane 4. MS 5. SKO 6. ATF 7. Motor Turpentine Oil 8. HSD 9. Polypropylene 10. Bitumen 11. Pet Coke 12. Sulphur 13. Benzene 14. LSFO 15. PP 16. HDPE 17. LLDPE/HDPE	0.62 m <sup>3</sup> / MT	0.85 m <sup>3</sup> / MT

2. Raw Material Consumption:

Name of raw materials	Name of products	Consumption of raw material per unit of output	
		During the previous Financial Year (2022-23)	During the current Financial Year (2023-24)
(Crude Oil+ Naptha+ Natural Gas)	1. LPG 2. Naphtha 3. Hexane 4. MS 5. SKO 6. ATF 7. Motor Turpentine Oil 8. HSD 9. Polypropylene 10. Bitumen 11. Pet Coke 12. Sulphur 13. Benzene 14. LSFO 15. PP 16. HDPE 17. LLDPE/HDPE	1.16 MT	1.17 MT

**PART - C**

Pollution discharged to environment/ unit of output.

(Parameter as specified in the consent issued)

Pollution	Quantity of pollutants Discharged (Mass/ day) (kg/day)	Concentration of pollutants in discharges (Mass/ volume) (kg/m <sup>3</sup> )	Percentage of variation from prescribed standards with reasons
—			

(a) Water- Treated Water from ETP is recycled / reused inside the refinery.

Pollutant	Pollutant in kg/day	Pollutant in kg/m <sup>3</sup>
Oil & Grease	87.4	0.0180
BOD	118.7	0.0245
COD	300.5	0.0620
Suspended Solids	80.8	0.0167
Phenols	0.9	0.0002

Sulphides	1.5	0.0003
Hg	BDL	BDL
Zn	BDL	BDL
Ni	BDL	BDL
Cu	BDL	BDL
V	BDL	BDL
Cyanide	BDL	BDL
TKN	2.09	0.0004
Ammonia	35.25	0.0073
Phosphate	10.64	0.0022
Hexavalent chromium	10.22	0.0021
Total chromium	BDL	0.0004
Lead	BDL	BDL
Benzene	BDL	BDL
Benzo(a)pyrene	BDL	BDL

Water- Treated Water from ETP is recycled / reused inside the Petrochemical complex:

Pollutant	Pollutant in kg/day	Pollutant in kg/m3
Oil & Grease	5.1	0.0018
BOD	BDL	BDL
COD	197.3	0.0706
Suspended Solids	42.3	0.0151
Phenols	0.7	0.0002
Sulphides	0.5	0.0002
Hg	BDL	BDL
Zn	BDL	BDL
Ni	BDL	BDL
Cu	BDL	BDL
V	BDL	BDL
Cyanide	BDL	BDL
TKN	1.03	0.0004
Ammonia	21.00	0.0075
Phosphate	5.21	0.0019
Hexavalent chromium	BDL	0.0021
Total chromium	BDL	BDL
Lead	BDL	BDL
Benzene	BDL	BDL
Benzo(a)pyrene	BDL	BDL

\* BDL- Below Detectable Limit

(b) Air SO<sub>2</sub> 17000-18000 kg/day

No Variation from standards

PART - D

**Hazardous Wastes**

[As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016]

<b>Hazardous Waste</b>	<b>Total Quantity</b>	
<b>Type of waste generated</b>	<b>During the previous Financial Year (2022-23)</b>	<b>During the current Financial Year (2023-24)</b>
<b>(a) From process</b>		
Cargo residue, washing water and sludge containing oil	59.17	Nil
Spent catalyst and molecular sieves	Nil	9.14 MT
Used or spent oil	78.85 MT	132.87 MT
Spent catalyst	495.49 MT	827.52MT
Contaminated cotton rags or other cleaning materials	1.1 MT	0.5 MT
Empty barrels/containers used for hazardous waste/chemicals.	14199 nos.	16995 nos.
Spent ion exchange resin containing toxic metals	26.09 MT	19.45 MT
Spent clay containing oil	178.98 MT	645.89 MT
Chemical sludge from waste water treatment	Nil	Nil
Spent carbon or filter medium	Nil	Nil
<b>(b) From Pollution Control Equipment</b>		
Oily and grease skimming	9499 MT	7169MT

<b>(c) Recycled/Re-utilised/Disposed</b>	<b>Total Quantity</b>	
<b>Hazardous Waste</b>	<b>Quantity Disposed in Financial Year 2022-23</b>	<b>Quantity Disposed in Financial Year 2023-24</b>
<b>Type of waste</b>		
Cargo residue, washing water and sludge containing oil	59.17	Nil
Spent catalyst and molecular sieves	Nil	9.14
Used or spent oil	78.85 MT	132.87 MT
Spent catalyst	305.2 MT	1017.81 MT
Contaminated cotton rags or other cleaning materials	1.1 MT	0.5 MT

Empty barrels/containers used for hazardous waste/chemicals.	14199 nos.	16995nos.
Spent ion exchange resin containing toxic metals	26.09 MT	19.45 MT
Spent clay containing oil	178.98 MT	645.89 MT
Chemical sludge from waste water treatment	Nil	Nil
Spent carbon or filter medium	Nil	Nil
Oily and grease skimming	9499 MT	7169 MT

**PART - E**

**Solid Waste**

Solid Waste  Type of Waste	Total Quantity	
	During the previous Financial Year (in MT) (2022-23)	During the current Financial Year (in MT) (2023-24)
<b>(a) From process</b>		
Bottom Ash	71404.5	68868.9
Fly Ash	184475.6	169791.0
<b>(b) From Pollution Control Equipment</b>	Nil	Nil
<b>(c) (1) Quantity recycled within the unit</b>		
<b>(2) Sold</b>		
Scrap Metal	3050.07	1464.33
Scrap Wood	1083.31	273.96
Scrap Plastic	124.26	809.31
Scrap Glass	8	Nil
<b>(3) Disposed</b>		
Bottom Ash	71601.9	68676.6
Fly Ash	183498.1	169338.34

**PART - F**

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

**Disposed Quantity**

<b>S. No.</b>	<b>Type of waste</b>	<b>Disposal Management</b>
<b>A.</b>	<b>Hazardous Waste</b>	
1	Cargo residue, washing water and sludge containing oil	Disposed to SPCB registered recycler or Co-processing at Cement Industry.
2	Oily and grease skimming	Re-processed in DCU / Disposed in captive SLF
3	Used or spent oil	Disposed to SPCB registered recycler.
4	Spent catalyst	Disposed to SPCB registered recycler.
5	Contaminated cotton rags or other cleaning material	Used in firefighting training or Co-processing at Cement Industry
6	Empty barrels/containers used for hazardous waste/chemicals.	Drums returned to supplier or Disposed to SPCB registered recycler
7	Spent ion exchange resin containing toxic metals	Disposal in captive SLF or Co-processing at Cement Industry
8	Spent clay containing oil	Co-processed in cement industry
9	Chemical sludge from waste water treatment	Disposal in captive SLF or Co-processing at Cement Industry
10	Spent catalyst and Molecular sieve	Disposed to SPCB registered recycler
11	Spent carbon and Filter medium	Disposal in captive SLF or Co-processing at Cement Industry
<b>B.</b>	<b>Solid Waste</b>	
1	Scrap Metal	Disposed to recyclers
2	Scrap Wood	Disposed to recyclers
3	Scrap Plastic	Disposed to recyclers
4	Scrap Glass	Disposed to recyclers
5	Bottom Ash	Co-processed at Cement Industry or brick manufacturing industry
6	Fly Ash	



### **PART - G**

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

The following pollution abatement measures taken on conservation of natural resources have been implemented:

Flare Gas Recovery System (FGRS) has been installed for recovery of flare gas. Around 7568.9 MT of flare gas was recovered during FY 2023-24. The recovered flare gas is used as fuel gas in heaters/boilers.

This has resulted in reduction of fuel gas usage by 4541.39 MT.

### **PART - H**

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

Green belt has been developed as per the latest amended EC obtained from MoEF&CC dated 07th December, 2021.

### **PART - I**

#### **Any other particulars for improving the quality of the environment.**

-NIL-