Environmental Statement for FY 2022-23

FORM-V

(See Rule 14)

Environmental Statement for the financial year ending on 31st March on or before 30th of September every year.

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 Phullokhari
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:

28th September 2022

PART - B

Water and Raw Material Consumption:

1. Water consumption m^3/ day
   - Process : 18697 m^3/day
   - Cooling : 26472 m^3/day
   - Domestic : 2919 m^3/day
   - Fire Water : 492 m^3/day

Name of products	Process water consumption per unit of product output	
	During the previous Financial Year (2021-22)	During the current Financial Year (2022-23)
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	1.23 m^3 / MT	1.62 m^3 / 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 (2021-22)	During the current Financial Year (2022-23)
Crude Oil	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	1.12 MT	1.16 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^3)	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/m3**
Oil & Grease	1.16	0.00019
BOD	57.4	0.0096
COD	451.2	0.0075
Suspended Solids	71.4	0.287
Phenols	1.2	0.0002
Sulphides	13.4	0.0022
Hg	BDL	BDL
Zn	BDL	BDL
Ni	BDL	BDL
Cu	BDL	BDL
V	BDL	BDL
Cyanide	BDL	BDL
TKN	90.4	0.0151
Ammonia	45.6	0.0076
Phosphate	6.2	0.0010
Hexavalent chromium	BDL	BDL
Total chromium	BDL	BDL
Lead	BDL	BDL
Benzene	BDL	BDL
Benzo(a)pyrene	BDL	BDL

* BDL- Below Detectable Limit

(b) Air SO_2 17500-18000 kg/day No Variation from standards

PART - D

Hazardous Wastes

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

Hazardous Waste	Total Quantity	
Type of waste generated	**During the previous Financial Year (2021-22)**	**During the current Financial Year (2022-23)**
(a) From process		
Cargo residue, washing water and sludge containing oil	85.8	59.17
Spent catalyst and molecular sieves	Nil	Nil
Used or spent oil	50.15 MT	78.85 MT
Spent catalyst	78.3 MT	495.49 MT
Contaminated cotton rags or other cleaning materials	2.0 MT	1.1 MT
Empty barrels/containers used for hazardous waste/chemicals.	14104 nos.	14199 nos.
Spent ion exchange resin containing toxic metals	Nil	26.09 MT
Spent clay containing oil	333.7 MT	178.98 MT
Chemical sludge from waste water treatment	Nil	Nil
Spent carbon or filter medium	Nil	Nil
(b) From Pollution Control Equipment		
Oily and grease skimming	11748 MT	9499 MT

(c) Recycled/Re-utilised/Disposed		
Hazardous Waste	**Total Quantity**	
Type of waste	**Quantity Disposed in Financial Year 2021-22**	**Quantity Disposed in Financial Year 2022-23**
Cargo residue, washing water and sludge containing oil	85.8	59.17
Spent catalyst and molecular sieves	Nil	Nil
Used or spent oil	50.15 MT	78.85 MT
Spent catalyst	805.3 MT (78.3 MT+ 726.942 MT Carried forward from FY 2020-21)	305.2 MT
Contaminated cotton rags or other cleaning materials	2.0 MT	1.1 MT
Empty barrels/containers used for hazardous waste/chemicals.	14104 nos.	14199 nos.
Spent ion exchange resin containing toxic	Nil	26.09 MT

metals		
Spent clay containing oil	333.7 MT	178.98 MT
Chemical sludge from waste water treatment	Nil	Nil
Spent carbon or filter medium	Nil	Nil
Oily and grease skimming	11748 MT	9499 MT

PART - E

Solid Waste

Solid Waste	**Total Quantity**	
Type of Waste	**During the previous Financial Year (in MT) (2021-22)**	**During the current Financial Year (in MT) (2022-23)**
(a) From process		
Bottom Ash	78563	71404.5
Fly Ash	168487	184475.6
(b) From Pollution Control Equipment	Nil	Nil
(c) (1) Quantity recycled within the unit		
(2) Sold		
Scrap Metal	1586.70	3050.07
Scrap Wood	1480.07	1083.31
Scrap Plastic	212.47	124.26
Scrap Glass	Nil	8
(3) Disposed		
Bottom Ash	78563	71601.9
Fly Ash	168487	183498.1

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

S. No.	Type of waste	Disposal Management
A.	**Hazardous Waste**	
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.	**Solid Waste**	
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 7452.33 MT of flare gas was recovered during FY 2022-23. The recovered flare gas is used as fuel gas in heaters/boilers.
This has resulted in reduction of fuel gas usage by 4471.39 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-