



BPCL/MPPCB/Consents/2024/13

Date: 30/08/2024

To,
Member Secretary,
M.P. Pollution Control Board,
E-5, Arera Colony, Paryavaran Parisar,
BHOPAL – 462 016 (MP)

SUB: Submission of Form-V for the year 2023-24 under Environmental (Protection) Rules, 1986.

REF: 1. Consent No: AW-58847 dated 05/09/2023
2. Hazardous waste authorization No AWH-60739 dated 22/07/2024

Dear Sir,

With reference to the above, please find enclosed herewith the Environmental Statement in the prescribed Form-V for the period from 1st April, 2023 to 31st March, 2024 as required under "The Environment (Protection) Rules, 1986.

Thanking You,

Yours Faithfully,
For Bharat Petroleum Corporation Limited,

(Anil T Medhe)

Dy. General Manager – Health, Safety & Environment

Encl: as above

Copy to: Regional Office, M.P. Pollution Control Board, Sagar.

FORM V**ENVIRONMENTAL STATEMENT for the financial year ending March 31, 2024****PART-A**

(i) Name and Address:

Anil T Medhe
Dy. General Manager
Bharat Petroleum Corporation Limited,
Administrative Building, Refinery Complex
Post BPCL Residential Complex, Bina - 470124
Dist. Sagar (MP), India

(ii) Industry Category:

Petroleum Refinery

(iii) Production Capacity:

7.8 Million Metric Tons per annum of Crude
Processing (installed capacity)

(iv) Year of Establishment:

Commissioned on 30th June 2011(v) Date of last Environmental Statement: 6th July 2023

Report submitted

PART – B**WATER AND RAW MATERIAL CONSUMPTION**

(i) Water Consumption

S. No	Water Consumption	2022-23 (m ³ / day)	2023-24 (m ³ / day)
1	Process	2301	2377
2	Cooling	19512	18873
3	Domestic	2089	2224

S. No	Name of Products	Process water consumption in m ³ /ton of crude processed	
		2022-23	2023-24
1	LPG	0.101	0.114
2	Naphtha		
3	MS BS IV		
4	MS BS VI		
5	SKO		
6	ATF		
7	HSD BS IV		
8	HSD BS VI		
9	Sulphur		
10	Pet coke		

(ii) Raw Material Consumption

Name of Raw Materials	Name of Products	Consumption of raw material per unit of output	
		2022-23	2023-24
Crude Oil	LPG	1.08	1.06
	Naphtha		
	MS BS IV		
	MS BS VI		
	SKO		
	ATF		
	HSD BS IV		
	HSD BS VI		
	Sulphur		
	Pet coke		

PART-C

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

WATER**a) Treated Industrial Effluent:**

S. No	Pollutants	Quantity of pollution discharged (Kg/day)		Concentrations of pollutants in discharges (mg/Liter) except pH		Percentage of variation from prescribed standards with reasons
		Actual	Limit	Actual	Limit	
1	pH	-	-	7.45	6-8.5	100% Compliance
2	Oil & Grease	6.2	36.84	<1	5	
3	BOD ₃ at 27 ⁰	64.7	110.52	10.33	15	
4	COD	282	921	45.42	125	
5	TSS	56.14	147.36	9	20	
6	Phenols	0.12	2.578	<0.02	0.35	
7	Sulfides	3.10	3.68	<0.5	0.5	

PART-E**Solid Wastes**

Solid Wastes	Total Quantity (kg)	
	2022-2023	2023-2024
a) From Process	Nil	Nil
b) From Pollution Control Facilities	136944000	111192000
c) 1. Quantity recycled or re-utilized within the unit	Nil	Nil
2. Sold	136944000	111192000
3. Disposed	Nil	Nil

PART-F

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

During the year 2023-24, the following hazardous and solid waste are generated. All the generated hazardous wastes are collected, transported and sold to authorized recyclers as per the Hazardous and Other Wastes (Management & Handling) Rules, 2016

1. Spent Catalyst of 272.97MT (including drum weight) was generated from process units.
2. Oily sludge of 204.4MT was recycled through Delayed Coker Unit.
3. Slop & used oil generated from the units and oil recovered from the Effluent treatment plant was recycled and processed along with crude oil in refinery.
4. Approximately 1,11,192 MT of fly-ash was generated, and 1,11,192 MT of fly-ash was sold and utilized by industries for manufacturing of fly-ash based bricks, cement manufacturing and construction of roads & flyover.

- Implementation of Real Time Emission Monitoring Systems – Additional analyzers such as Particulate Matter (PM) and Carbon Monoxide (CO) are installed in all the stacks in refinery for emission monitoring.
- Implementation of Real Time Effluent Monitoring Systems – Additional analyzers such as Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), pH and Suspended Solids (SS) are installed to monitor the quality of treated effluent.
- Extension of existing gray water network of around 3Km for reusing of treated water for greenbelt and lawns within refinery.
- Reuse of Storm water for fire water purpose thereby reducing the usage of Raw water.
- Ash Water Recycling System (AWRS) for recycling of water from Ash Storage yard
- Procurement of floating oil skimmer for collection of oil spill if any.
- Installation of two additional CRWS tanks at ETP for collection and use of contaminated rainwater.
- Reusing of treated water from ETP in coke cutting at DCU.

PART-H

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

- Memorandum of Understanding (MoU) was signed with Forest Department, Madhya Pradesh for development of greenbelt in 90ha Forest Land.
- Procurement of High-Volume Sampler for manual monitoring of ambient air quality as per National Ambient Air Quality Standards.
- Procurement of Integrated Sound pressure level meter for measuring sound levels as per the Noise Pollution (Regulation & Control) Rules 2000.
- Procurement of Flue Gas analyzer for flue gas monitoring from the stacks.
- Procurement of water quality monitoring equipment for water quality analysis like pH, TDS etc.,
- Procurement of Stack monitoring kit for manual monitoring of the emissions from Stacks
- Procurement of Ultrasonic Leak Detector for detecting the Hydrocarbon leakages in the refinery.
- Procurement of portable VOC & Benzene monitor for VOC and Benzene leakage identification and control of fugitive emissions and for resource conservation.
- Procurement of portable cyclone incinerator for in-house incineration of hazardous material if any.
- Construction of an additional permanent shed for coal storage for dust control.
- Construction of Permanent Sulphur Storage Yard.
- Regular Leak Detection and Repair program (LDAR) for identification and control of fugitive emissions and for resource conservation.
- Monitoring of Oily sludge from the Effluent Treatment Plant regularly
- Construction of new pet coke yard with drainage system provided for collection of pet coke fines.
- Construction of Vermi-Composting facility for converting food waste to organic manure.

also provided with tree guards. The school students, teachers and children supported this initiative with their active participation.

- 200,000 Nos of trees are already planted in surrounding villages and Bina.
- Being an organization that has always been committed to the cause of a better environment in the global perspective, the World Environment Day was celebrated with huge participation from all direct, indirect employees and township residents. In line with the theme, the focus was mainly on tree plantation drive in an effort to green the premises. Apart from tree plantation, many other awareness programs were conducted, like slogan, online quiz & awareness broadcasts were launched on the eve of World Environment Day 2020, with fixing of posters with tips to spread awareness as per the theme among surrounding community, township residents and employees.
- BR organized a workshop on the benefits of fly ash as a material for brick making for promotion of brick plants in this region.
- BR published the availability of fly ash on local newspapers for encouraging the users and information on availability of fly ash
- Scheme implemented for reusing of Bearing Cooling Water (BCW) Return in RO-DM plant for reduction of fresh water consumption.
- Implementation of RWH system and recharge pit at cluster C1 & A2 in the residential township.
- During the year, under 'Project URVI', a water conservation initiative such as construction of a check dams, dugout ponds, fields, bunding and soil conservation jobs were completed in nearby villages
- During the year 2023-24, 5,000 no's of plantation carried out with in refinery as gap filling.