

Reference No. **Nayara CPP/ENV/32631/Env statement/2020/972**

August 6, 2020

To,
The Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhawan,
Sector – 10 A,
Gandhinagar – 382010

Subject: Submission of Environment Statement (FORM – V) for financial year 2019-20

Dear Sir,

As per provision of Rule – 14 of the Environment (Protection) Amendment Rules 1986, please find enclosed herewith Environmental Statement in Form – V for the financial year 2019-20.

This is for your information and record please.

Thanking you,

Yours faithfully,

For, **Nayara Energy Ltd. (Captive Power Plant),**



P. R. Dixit
(Head – HSEF)

Enclosure: Form V: Environment Statement FY 2019-20

Copy to: Regional Officer, Gujarat Pollution Control Board, Sardar Patel Comm. Center,
Rameshwar Nagar, Jamnagar – 381 008.

FORM – V

(See Rule 14)*

Date: 6th August 2020

From:

M/s Nayara Energy Ltd. (Captive Power Plant),
(Refinery Division)
40 km on Jamnagar-Okha Highway
Post Box No: 24,
Khambhaliya Post,
Devbhumi Dwarka – 361 305

To,

The Member Secretary
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector-10 A,
GANDHINAGAR - 382 010.

Environmental Statement for the financial year ending 31st March – 2020

PART – A

- (i) Name and address of the owner/
Occupier of the industry operation : Prasad K Panicker
Director & Head of Refinery
M/s Nayara Energy Ltd. (Captive Power Plant)
Post Box No: 24, Post Khambhaliya
Devbhumi Dwarka – 361 305.
- (ii) Industry
Primary – (STC Code) Secondary – (SIC Code) : ---
- (iii) Production Capacity Units : 600 MW (Total)
- (iv) Year of Establishment : May 2008
- (v) Date of the last Environmental
Statement submitted : 27th June 2019

*Submission of Environmental Statement is in accordance with the provisions of Rule-14 of the Environment (Protection) Amendment Rules, 1993 of the Environment (Protection) Act, 1986 (29 of 1986) published vide Notification dated 22/04/1993 G.S.R. 386 (E) in the Gazette of India-Extraordinary-Part – II Section 3 Subsection (i), No.155 dated 28-04-1993 by the Ministry of Environment and Forests, Government of India; read with the Notification dated 13-3-1993 G. S. R. 329 (E), of the Gazette of India – Extraordinary Part – II Section – 3 subsection (i) No.120 dated 13-3-1993

“Every person carrying on an industry, operation or process requiring consent under Section-25 of the Water (Prevention & Control of Pollution) Act, 1974 (6 of 1974) or under Section-21 of the Air (Prevention & Control of Pollution) Act, 1981 (14 of 1981) or both or authorization under the Hazardous Wastes (Management and Handling) Rules, 1989 published under the Environment (Protection) Act, 1986 (29 of 1986) shall submit an Environmental Statement for the financial year ending the 31st March in Form V to the concerned State Pollution Control Board on or before the Thirtieth day of September every year, beginning 1993.”

PART – B

Water and Raw Material Consumption:

(1) Water Consumption (M³/day) : (Period: Apr'19 to Mar'20)

Process: 32,817 M³/day - Source: The water is supplied by the DM plant being operated and owned by M/s Nayara Energy Ltd.

Cooling: 25,710 M³/day – Source: Sea water

Domestic: This water comes from desalination plant run by M/s Nayara Energy Ltd., the quantity of this water is considered in Environment Statement of M/s Nayara Energy Ltd.

Name of Products	Process water consumption per unit of product output (Process Water (m ³) / Power Generation MWh)	
	During the previous Financial year (2018 - 19)	During the current financial year (2019 – 20)
	(1)	(2)
Power	7.67 m ³ /MWh	7.53 m ³ /MWh

2. Raw material consumption:

Name of raw Material	Name of Product	Consumption of raw material per unit of output (Kcal/KWH)	
		During the previous Financial year (2018 - 19)	During the current financial year (2019 - 20)
Fuel (Furnace Oil + coal)	Power	1354	1386

PART – C

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

(1) EFFLUENT: FINAL OUTLET OF ETP:

- Boiler blow down goes to cooling tower make up for reutilization of water.
- Domestic sewage goes to STP & treated water is utilized in the green belt area.

(2) STACK EMISSIONS:

Pollutants		Results	GPCB standards	Unit	Percentage of variation from prescribed standards
Boiler 4	PM	30	50	mg/Nm ³	-40 %
	SO ₂	100	600	mg/Nm ³	-83 %
	NO _x	72	300	mg/Nm ³	-76 %
Boiler 5	PM	30	50	mg/Nm ³	-40 %
	SO ₂	106	600	mg/Nm ³	-82 %
	NO _x	71	300	mg/Nm ³	-76 %

Note: 77 MW Power plant and 220 MW power plant were not in operation.

PART – D

HAZARDOUS WASTES

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

Total Quantity Generation

Hazardous Waste	During the previous Financial year (2018 - 19)	During the current financial year (2019 - 20)
(a) Used Oil	13.10 MT	14.71 MT
(b) Discarded Containers / Barrels / used Liners used for Hazardous Wastes /Chemicals.	2272.25 Kg	5725 kg

Total Quantity Disposal

Hazardous Waste	During the previous Financial year (2018-19)	During the current financial year (2019-20)
(a) Used Oil	10.24 MT	5.42 MT
(b) Discarded Containers / Barrels / used Liners used for Hazardous Wastes /Chemicals.	1417.25 Kg	4544 kg

PART – E
SOLID WASTE

	Total Quantity Generation & Disposed	
	During the previous Financial year (2018-19)	During the current Financial year (2019-20)
a. From Process:	0	0
b. From Pollution control Facilities: Fly Ash from ESP	87650 MT	90473 MT
c. 1) Quantity recycled or reutilized	0	0
2) Sold to authorized recycler/ user	0	0
3) Disposed to TSDF	0	0
4) Sent to Cement Manufacturer	87650 MT	90473 MT

PART – F

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

- Storage & Disposal Practices: Hazardous wastes are collected and temporarily stored in Hazardous Waste Sheds located in premises of Nayara Energy Ltd.

Sr. No.	Description of Hazardous waste	Category	Method of Storage	Disposal
1.	Used Oil (Liquid)	5.1	The waste is packed in closed MS drums of 200 Kg. drums and drums are stored in the designated Hazardous Waste Shed having Reinforced Cement concrete (RCC) floor.	Sent to authorized recyclers.
2.	Discarded containers / Barrels /Liners used for Hazardous waste / chemicals	33.3	Storage in the designated Hazardous Waste Shed having Reinforced Cement concrete (RCC) floor.	Sold to authorize actual users.

PART – G

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

- Pollution control measures adopted to control the pollution are as given below:
 - ❖ Highly efficient Electro-Static Precipitator (ESP) installed as Air Pollution control Measures
 - ❖ Use of Low sulfur fuel and efficient flue gas dispersion through 220 m stack height
 - ❖ Provided low NO_x burners in boilers to minimize NO_x formation
 - ❖ Regular monitoring of stack emissions & ambient air quality are carried out by third party.
 - ❖ Boiler blow down reutilized as make up water in cooling tower.
 - ❖ Domestic sewage water treated in STP & treated water utilized for green belt.
 - ❖ Coal dust collection & suppression systems are installed for coal conveyor belt.
 - ❖ Pressure type Pneumatic System is adopted for evacuation & transportation of fly ash from ESP hoppers to Fly ash silos.
- The impact of these measures on conservation of natural resources:
 - ❖ Water consumption is reduced due to reutilization of boiler blow down & treated water utilization in Green belt.
 - ❖ Raw material consumption reduced due to fly ash utilization in the cement industries.

PART – H

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

- Continuous Emission Monitoring System has been hooked up with CPCB server.
- Low ash & low sulphur Indonesian coal is utilized for the coal fired Boilers.

PART – I

Any other particulars for improving the quality of the environment:

- Installation of water-less urinals to minimize domestic water utilization.
- Rain water harvesting has been carried out to improve ground water level.

Date: 06.08.2020

Authorized Signatory


Name : P. R. Dixit
Designation : Head HSEF
Address : Nayara Energy Ltd., Post Box No: 24, Khambhaliya
Post, Devbhumi Dwarka 361 305.