

Reference: Nayara CPP/32631/ENV/EC Compliance of 780 MW/2025/1356 7<sup>th</sup> May 2025

#### To,

The Deputy Director General of Forest (Central) Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Gandhinagar A wing- 407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhi Nagar-382010

**Subject:** Environmental Clearance (EC) compliance report of M/s Nayara Energy Limited, Captive Power Plant 780 MW at Khambhalia, District - Devbhumi Dwarka, Gujarat, for period from 1<sup>st</sup> October 2024 to 31<sup>st</sup> March 2025.

Reference: 1) Environmental Clearance No.J-110011/320/2006-IA-II (I) dated September 16, 2008.

#### Dear Sir,

This has reference to the Environmental Clearance (EC) issued by Ministry of Environment, Forests & Climate Change, Government of India vide letter referred above. As per General Condition No. B (VIII) of the Environmental Clearance, we hereby submit our six monthly compliance status report for the period 1<sup>st</sup> October 2024 to 31<sup>st</sup> March 2025 along with relevant annexures for your kind perusal and record please.

Thanking you,

Yours truly,

For, Nayara Energy Ltd. (CPP)

**Authorized Signatory** 

Enclosure: EC Compliance Report with Annexures

#### Copy to:

- 1. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhinagar-382 010
- 2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, New Delhi 110 032
- 3. Regional Officer, Gujarat Pollution Control Board, Rameshwar Nagar, Jamnagar 361 008

Registered Office:

Khambhalia, Post Box No.24, Dist. Devbhumi Dwarka, Gujarat 361 305, India T +91 2833 661444 | F +91 2833 662929 Nayara Energy Limited (Formerly Essar Oil Limited) 5<sup>th</sup> Floor, Jet Airways Godrej BKC, Plot No. C-68, G Block, Bandra Kurla Complex, Bandra East, Mumbai 400051, India

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## EC COMPLIANCE REPORT AS ON 31<sup>st</sup> March 2025

## Ref: MOEF clearance No. J-110011/320/2006-IA-II (I) dated September 16, 2008

# Compliance Report for 780 MW (Installed 77 MW + 220 MW) for period 1<sup>st</sup> October 2024 to 31<sup>st</sup> March 2025

Sr.No.	CONDITIONS	Compliance Status 780 MW (Installed 77 MW + 220 MW)							
31.110.	CONDITIONS		<u>780 MV</u>	V (Installed	77 MW + 2	<u>20 MW)</u>			
	Specific Conditions			Complian	ce Status				
I	The gaseous emissions (SO <sub>2</sub> , NOx,) from various power plant units shall conform to the standards prescribed by	Dx,) from various power Plant is operational only during emergency since 2012-1. ant units shall conform to whenever the plant is operational.							
	the concerned State Pollution Control Board. All the measures detailed in	<u>Boiler 2</u>	Fuel	PM (mg/ Nm3)	SO2 (mg/ Nm3)	NOx (mg/ Nm3)	CO (mg/ Nm3)		
		Nov'24	FG	BDL	45	21	BDL		
	the Environment Management	Jan'25	FO	4	845	193	3		
	Plan (EMP) and response to the public hearing shall be	CC&A Limit	FG	10	50	350	150		
	taken to control the stack emissions from the proposed	CC&A Limit	FO	100	1700	450	200		
	power plant for ensuring that the ambient air quality around the power plant complex	Boiler 3	Fuel	PM (mg/ Nm3)	SO2 (mg/ Nm3)	NOx (mg/ Nm3)	CO (mg/ Nm3)		
	maintained with in prescribed	Feb'25	FG	2	3	25	44		
	limits under the EPA, 1986.	CC&A Limit	FG	10	50	350	150		
		inside the r summary provided in The follow - Low NOx - Low sulph - Stack heig MW Power - Ambient	refinery of the <b>Annex</b> ing are in burners bur fuel ght of 10 r Plant ro air qual	y monitoring campus by th average an <b>ure - 1</b> . mplemented to minimize is being used 00 m & 65 m espectively. ity with resp monitored,	hird party c mbient ain NOx emiss I in power p are provide pect to PM	on weekly t monitor P: ions. olants. ed for 77 M 10, PM2.5, S	wice and ing data IW & 220 502, NO2,		



Sr.No.	CONDITIONS		Complian	ce Status					
51.100.	CONDITIONS	<u>780</u>	MW (Installed	77 MW + 220 N	1W)				
II	The gas generated from the 60MMTPA unit refinery process units and natural gas shall be used as fuel for the power project. In case of non- availability of gas, Liquid Fuel (LF), Light Cycle Oil (LCO), Clarified Slurry Oil (CSO) and High Speed Diesel (HSD) shall also be used.								
≡	Adequate stack heights to meet the emission standards shall be provided with continuous online monitoring system installed. The instruments used for ambient air quality monitoring shall be calibrated regularly. The monitoring protocol shall ensure continuous monitoring of all the parameters.	The stack heigh for 220 MW po Continuous onl are installed. Ambient air qu regularly.	wer plant is pro ine monitoring	vided. facility for PM					
IV	The total SO₂ emissions shall not exceed 10.49 tones / day.	The fuel gas and fuel oil based power plant is being operate only during emergency requirement since 2012-12 Considering the above, SO2 emission is negligible.MonthNov'24Jan'25Feb'25SO2 T/Day0.161.570.01							
V	Low No <sub>x</sub> burners shall be provided for control of NOx emissions.	Low NOx burn plants.	ers have been	provided in all	boilers of the				



Sr.No.		Compliance Status									
51.100.	CONDITIONS	780 MW (Installed 77 MW + 220 MW)									
VI	Closed Cycle Cooling system with cycles of concentration of at least 1.3 shall be provided. The sea water shall be used for cooling purpose.	(CPP) is maintaining CO	ooling purpose. NAYARA ENERGY LTD. C as per the given condition. Monthly inimum COC is tabulated below. Average COC 1.42 1.34 1.35 1.37 1.38 1.33								
		Average	1.36								
VII	The effluent generation shall not exceed 140m <sup>3</sup> /hr. The effluent after treatment shall be recycled for process or other internal use. The combined cooling tower blow down shall be discharged into the sea through a well- designed diffuser at a location identified by National Institute of Oceanography. The return quantity of sea water is 3900 m3/hr.	Average1.36The boiler blowdown generation is 0.2 m³/day & 0.0083 m³/hr.Boiler blow down generated from the power plant is used for cooling tower make up.Cooling Tower blow down is being discharged through the existing sea water return pipeline of M/s Nayara Energy Ltd. (Formerly known as Essar Oil Ltd.) at the location identified by NIO (National Institute of Oceanography).The return quantity of sea water is 427 m3/hr for FY 2024-25.									
VIII	Adequate safety measures shall be provided to limit the impact within the limits of the plant, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warming.	Complied with. All the required safety measures are in place.									
IX	Regular mock drills for the On- site emergency management plan shall be carried out as per the Manufacture, storage and Import of Hazardous Chemical s Rules, 1989.	nent per and A Regular mock drills for the On-site emergency managemen plan carried out as per the Manufacture, storage and Impor									



Sr.No.	CONDITIONS	Compliance Status
51.110.	CONDITIONS	780 MW (Installed 77 MW + 220 MW)
Х	Regular monitoring of relevant parameters for the underground water in the surrounding areas will be undertaken and the results will be submitted to the relevant States pollution Control Boards.	Regular monitoring of ground water is being carried out in surrounding village, The copies of ground water monitoring reports carried out in last six months is attached here as <u>Annexure – 2</u> .
XI	The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals rules, 1989 as amended in 2000 for handling of hazardous chemicals. Necessary approvals from Chief controller of explosives must be obtained before commissioning of the power project.	Provisions made in Manufacture, Storage and Import of Hazardous Chemicals rules, 1989 as amended in 2000 for handling of hazardous chemicals are strictly complied. PESO approval from Chief controller of explosives has been obtained.
XII	No solid waste will be generated. Used oil (40 KLPA) to be generated from the power project shall be disposed off as per CPCB guidelines.	Plant is operational only during emergency since 2012-13. If used oil generated, it will be sent to authorized registered recyclers only.



Sr.No.	CONDITIONS	Compliance Status
51.110.		780 MW (Installed 77 MW + 220 MW)
XIII	The Company shall harvest surface as well as rainwater from the rooftops of the buildings proposed power project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Captive Power Plant and Nayara Energy Limited (Formerly known as Essar Oil Ltd.) refinery are located within same premises, where there is common rainwater harvesting system as per catchment area identified. Rainwater collected from CPP area is routed through storm water channels to Rainwater Harvesting Pond situated in refinery for storage & recharge of ground water.
XIV	Green belt shall be raised in 33% of plant area in consultation with the DFO. Selection of plant species shall be as per the CPCB guidelines.	The CPP and Nayara Energy Limited (Formerly known as Essar Oil Ltd.) refinery are in same premises. The green belt of the CPP is covered under the M/s Nayara Energy Limited green belt.
XV	Occupational Health Surveillance of the workers shall be done on regular basis and records be maintained as per the Factories Act.	Annual medical checkup is being carried out and records are maintained as per the provision of the Factories Act, 1948.
XVI	All the recommendations made in the EIA / EMP and Risk Assessment Reports in respect of environmental management and risk mitigation measures relating to power plant shall be implemented.	Recommendations made in the EIA / EMP and Risk assessment are implemented to safeguard the environment.



Sr.No.	CONDITIONS	Compliance Status
51.100.	CONDITIONS	<u>780 MW (Installed 77 MW + 220 MW)</u>
XVII	The company shall undertake all relevant measures, as indicated during the public Hearing for improving the Socio-economic conditions of the surrounding area. CSR activities will be undertaken by involving local village and administration.	Captive Power Plant of Nayara Energy Ltd. is committed to maintain the highest standards of CSR in its business activities and aims to make a difference to the communities around. Company has taken all relevant measures, as indicated during the public Hearing for improving the Socio-economic conditions of the surrounding area. Details of CSR activities is attached here with as <u>Annexure – 3</u>
	General Conditions	Compliance Status
1	The project authorities must strictly adhere to the stipulations made by the concerned State pollution Control Board (SPCB) and the State Government.	M/s. NAYARA ENERGY LTD. (CPP) is strictly adhering to the stipulations made by the Gujarat State Pollution Control Board (GPCB) and the Gujarat Government.
11	No further expansion or modifications in the power plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Noted.



Sr.No.	CONDITIONS	Compliance Status
51.110.	CONDITIONS	780 MW (Installed 77 MW + 220 MW)
111	At no time, the emissions should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved.	Noted & Complied with.
IV	Regular monitoring shall be carried out for relevant parameters for both surface and ground water.	To monitor the quality of ground water in surrounding villages, six monthly sampling & analysis is carried out. The copies of ground water monitoring reports carried out recently is attached here as <u>Annexure – 2</u> .
V	The overall noise levels in and around the plant area shall be limited within the prescribed standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Ambient Noise Monitoring is being carried out monthly in the surrounding of plant area, report of the same is enclosed in <u>Annexure - 4</u> .



Sr No	CONDITIONS	Compliance Status
Sr.No.	CONDITIONS	780 MW (Installed 77 MW + 220 MW)
VI	Authorization from the State Pollution Control Board must be obtained for collection / treatment /storage /disposal of Hazardous wastes.	Consolidated Consent & Authorization No AWH- 138375 with letter no. GPCB/DWA/CCA-496(5)/ID-32631/829947 dated 18.11.2024 has been obtained from GPCB for storage and disposal of Hazardous waste.
VII	The project authorities will provide RS. 272.00 Crores to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. Adequate funds for recurring expenditure shall also be provided. The funds so provided shall not be diverted for any other purposes.	The required amount to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government has been spent. Adequate funds for recurring expenditure has been provided.
VIII	The stipulated conditions will be monitored by the concerned Regional Office of this Ministry / Central pollution Control Board/State Pollution Control Board. A six monthly compliance report and the monitored data shall be submitted to them regularly. It will also be displayed on the website of the Company.	Six monthly compliance report and the monitored data are being submitted to the concerned Regional Office of Ministry of Environment Forest & Climate Change / Central pollution Control Board/ Gujarat Pollution Control Board regularly Last EC compliance report for the period Apr'24 to Sep'24 has been submitted to MoEF & CC office vide letter no: Nayara Nayara CPP/32631/ENV/EC Compliance of 780 MW/2024/1321, dated. 18.11.2024.
IX	The date of financial Closure and final approval of the project by the concerned authorities and the date of commencing the land development work as well as the commissioning of the project will be informed to the	Date of financial closure and commissioning of plant was communicated with the concern authorities.



Sr.No.	CONDITIONS	Compliance Status
	Ministry and its regional Office.	<u>780 MW (Installed 77 MW + 220 MW)</u>
x	Proper Housekeeping and adequate occupational health program shall be taken up. Regular Occupational Health Surveillance program for the relevant diseases shall be carried out and the records shall be maintained properly.	Proper Housekeeping and occupational health program has been taken up & carried out regularly. Records of Regular Occupational Health Surveillance program are maintained.
XI	A separate environment management cell with full fledge laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	Environment Cell is in place since inception of the company and headed by qualified person.
6	Ministry may revoke or suspend the clearance, if implementation of the above conditions is not satisfactory.	Noted.
7	The Ministry reserves right to stipulate additional environmental conditions if found necessary. The company will implement these conditions in a time bound manner.	Noted.



Sr.No.	CONDITIONS	Compliance Status
Sr.100.	CONDITIONS	780 MW (Installed 77 MW + 220 MW)
8	Any appeal against this environmental clearance shall lie with the National Appellate Authority, if preferred, within a period of 30 days as prescribed under section 11 of the National Environment Appellate Authority Act, 1997.	Noted.
9	The above stipulations would be enforced among others under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous wastes (Management, Handling and Transboundary Movement) Rules, 2008 and its amendments.	Noted.



# Annexure – I Ambient Air Quality Monitoring

## Period: Oct'2024 to Mar'2025

Particulars/ Parameters	Unit	GPCB CC&A Limit	La	bor Ga	ate	Refi	nery M Gate	<i>l</i> lain	At	93 Ga	ite	Main Flare COT				Coal Storage Yard				
			Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
PM <sub>10</sub>	µg/m³	100 (TWA 24 hrs)	52	88	75	54	84	69	54	86	72	54	88	68	51	84	72	64	88	76
PM <sub>2.5</sub>	µg/m³	60 (TWA 24 hrs)	16	32	23	15	31	21	14	28	21	16	28	22	14	28	22	16	32	22
Sulphur Dioxide (SO <sub>2</sub> )	µg/m³	80 (TWA 24 hrs)	11	20	15	12	19	15	11	19	15	12	20	16	12	20	16	12	23	16
Nitrogen Oxides (NO <sub>2</sub> )	µg/m³	80 (TWA 24 hrs)	15	22	19	15	23	19	15	23	19	15	24	19	15	26	20	16	25	20
Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	2 (TWA 8 hrs)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	µg/m³	5 (TWA Annual)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a) – Pyrene	ng/m³	1 (TWA Annual)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TWA	Time Weighted Average
BDL	Below Detection Limit
PM10	Particulate Matter of size less than 10 micron
PM2.5	Particulate Matter of size less than 2.5 micron



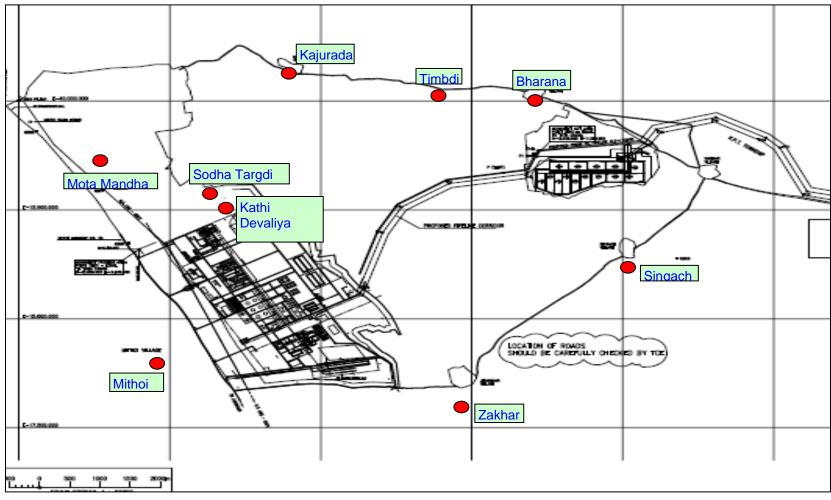
### Monitoring Results of Ground Water Quality of Surrounding Villages

Parameters	Unit	Vadinar	Timbdi	Bharana	Mithoi	Kathi Devaliya	Zakhar	Singach	Kajurada	Sodha Taragadi
рH		7.81	7.95	8.08	8.04	7.98	7.59	7.21	7.39	8.52
TDS	ppm	860	2460	309	588	698	1670	1720	5200	155
Chloride	ppm	180	783	52	109	128	473	498	2190	31
Sulphate	ppm	74	187	38	68	64	322	296	390	11
T-Hardness	ppm	392	1230	198	335	335	704	1140	2440	102
Ca-Hardness	ppm	178	682	119	198	167	394	703	1460	55
Mg-Hardness	ppm	214	548	79	137	168	310	437	980	47
O&G	ppm	<4	<4	<4	<4	<4	<4	<4	<4	<4

#### Parameters analyzed

\* Well water samples collected and analyzed in December, 2024





Location of Villages

# Annexure - III



### CSR Activities by M/s NAYARA ENERGY LTD. (CPP).

M/s NAYARA ENERGY LTD. (CPP) is committed to maintaining the highest standards of CSR in its business activities and aims to make a difference to the communities around. M/s NAYARA ENERGY LTD. (CPP) collaborates with key stakeholders, especially the local administration and institutions to facilitate development with initiatives in education, livelihoods, women's empowerment and health. The interventions are in line with the UN Sustainable Development Goals (SDGs) and the provisions under the Companies' Act, 2013.

Project	Beneficiaries & Remarks	Amount in Cr		
Financial support for Fodder to 12 Gaushalas	5542 cattle	0.49		
Drinking Water Supply through water tankers to 7 villages	23229 persons	0.75		
Rural Development Projects (Small Grants / Infrastructure Development)	-	0.09		
Total	in Cr	1.32		

#### CSR Activities carried out in Apr'24 to Sep'24 are as under:

# Annexure - IV Noise Monitoring Results



Period: Oct'24 to Mar'25

Frequency of monitoring: Monthly

Locations	Noise Level, dB(A) during Day Time 06:00 am to 10:00 pm			Noise Level, dB(A) during Night Time 10:00 pm to 06:00 am		
	Min	Max	Average	Min	Max	Average
Ambient Station at Port A Camp	47.0	49.0	48.0	45.2	47.2	45.9
Ambient Station at Labour Gate	49.6	51.0	50.3	47.8	48.8	48.3
Ambient Station at West side of Main Flare1	48.2	50.0	49.0	46.0	47.6	46.9
Nr. Batching Plant	47.6	49.6	48.7	45.6	47.4	46.6
Ambient Station at 93 Gate	47.4	49.4	48.3	45.2	46.8	46.1
Storm water drain outlet	50.0	51.4	50.5	47.8	49.0	48.5
Ambient Station at Refinery Main Gate	48.0	51.0	49.3	46.4	49.2	47.5
Petrol Pump (Near Delhi Darbar)	50.8	52.0	51.6	48.6	50.2	49.5
Ambient Station at Pet Coke Rail Loading Yard	46.0	48.0	47.2	43.6	46.0	45.1
Ambient Air Quality standards in terms of Noise for industrial area	75 dB (A)			70 dB (A)		