



# GUJARAT STATE ELECTRICITY CORPORATION LIMITED

Sikka Thermal Power Station, At PO Sikka, Dist Jamnagar – 361141. Ph. 91-288-2344106  
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CIN: U40100GJ1993SGC019988

No. CE / STPS / SE [Operation] / EFF-R-32 / XGN ID 16969 / 121

Date: 20/04/2022

To, **(BY: - RPAD)**  
The Regional Officer  
Ministry of Environment, Forest & Climate Change  
Integrated Regional Office  
A Wing, Room No. 407 & 409  
Aranya Bhavan, Near CH-3 Circle, Sector 10-A,  
**Gandhinagar - 382010**  
Email id- iro.gandhingr-mefcc@gov.in

**Subject:** 2 x 250 MW Imported Coal Based TPP Extension Unit 3&4 at Sikka,  
Jamnagar by GSECL – Environmental Clearance – Regarding.

**Ref.No.:** MoEF EC no. J-13011/2/2003.IA-II (T) dated 24/05/2005.

Respected Sir,

With reference to above subject matter, the compliance report to the Environment Clearance conditions in the prescribed format from Gujarat State Electricity Corporation Limited, Sikka Thermal Power Station is as under.

Sr. No.	Point	Compliance As on 31 <sup>st</sup> March 2022
01.	The conditions stipulated by Gujarat Pollution Control Board vide their letter No: PC/NOC/JMN-16(4)/30535 dated 7 <sup>th</sup> October 2002 shall be strictly implemented.	The Project proposal considers all aspects covered by NOC of G.P.C.B. as follows: 1. Necessary agreement for Narmada water & Sasoi dam water had been carried out to overcome water requirement of Plant and Colony. 2. Stack, Ambient Norms and Effluent Norms had been met & shall be ensured. 3. All applicable EP Act and Water cess Act Norms had been met & shall be ensured.
02.	Regularization of land area of the existing plant shall be obtained under the Forest [Conservation] Act 1980 and Wildlife [Projection] Act, 1972 and its amendments before starting work on this project.	This land has been regularized vide MoEF order no. 8-116/2006-FC dtd.28/06/2010.
03.	The Project Authority shall surrender 6 ha of land, presently under the possession of Gujarat Electricity Board to the State Government.	Land allotted vide O.O. No. JMR/4/200/93/ dated 10/02/1993. But STPS has requested collector to cancel this land, as this land has been falling in CRZ area (vide letter No. 1584 dated 04/02/2005).  Possession of this land was not taken due to falling in CRZ area.
04.	Expansion of the project shall not be carried out in CRZ area except for setting up of raw water intake pump house.	No unauthorized construction activities are falling under the CRZ area.

Sr. No.	Point	Compliance As on 31 <sup>st</sup> March 2022
05.	The coal to be used shall not have more than 14-16% Ash content and 0.8% Sulphur content.	The coal being used having an Ash content lower than 14-16 % and sulphur content lower than 0.8% and shall be ensured.
06.	Copy of confirmed coal linkage with fuel analysis report shall be submitted to the Ministry within a period of six months from the date of clearance.	Procurement order for long term supply of imported coal is issued vide letter no. GSECL / Fuel / LT / Imp Coal / Sikka / CIF / Adani / 884, dated 28/10/2014 & same had been submitted.
07.	Two stacks of 220 m each shall be provided with continuous online monitoring system. Exit velocity of 20 m/sec shall be maintained from these stacks.	MOEF has issued amendment for single multi-flue stack of 220m height as per the application vide GPCB letter no. PC/JMN-16/24813 dated 04/08/2003.  The stacks have been constructed with continuous online monitoring system.
08.	Electrostatic Precipitators [ESPs] having efficiency of not less than 99.9% be installed so as to ensure that SPM emissions do not exceed 100 mg/Nm <sup>3</sup> .	The ESP's have been installed for both units having efficiency not less than 99.9%.
09.	Fly Ash shall not be dumped into the existing Ash pond and Ash generated shall be collected in silos for further utilization. Ash generated shall be used in a phased manner as per the provisions of the notification on Fly Ash Utilization issued by the Ministry in September 1999 and its amendments. By the end of 9 <sup>th</sup> year of commissioning of the plant, 100% fly Ash utilization shall be ensured.	There are 2 dry Ash & 2 wet (pest) Ash silo constructed.  Ash generated is used in such a manner that, Fly Ash notification is being complied.  Ash utilization for the last year 2021-22 is 978.86 % for the GSECL, Sikka TPS.
10.	The Ash Pond for the expansion project shall not be located in CRZ area as proposed in the approved CZMP map for the project forwarded by the state Government vide their letter no. Env-10-2002-217-P dated 22.09.2004 to MoF. The new location for the ash pond outside CRZ shall be decided in consultation with the MoEF.	Diversion of 96.5 ha of forest land for the Ash Dyke Pond, Hot Water Channel and Cold Water Intake Channel in favour of GSECL at Sikka village approved vide MoEF order no. 8-116/2006-FC dtd.28/06/2010.
11.	Surface water requirement shall not exceed 5260 m <sup>3</sup> /day. A dedicated RO system shall be installed. Wastewater shall not be discharged into the eco-sensitive area and Marine Park/Sanctuary area, which are in the vicinity of the project.	Surface water requirement has been not exceeding 5260 m <sup>3</sup> /day.  A R.O. system is already installed.  Waste water from the plant is not discharge into the eco-sensitive area & Marine Park / sanctuary area.

Sr. No.	Point	Compliance As on 31 <sup>st</sup> March 2022
12.	Rainwater harvesting shall be adopted. Central Groundwater Authority Board shall be consulted for finalization of appropriate water harvesting technology within a period of three months from the date of clearance.	: Rain water Harvesting System had been adopted in colony.
13.	Regular monitoring of water quality including heavy metals shall be undertaken around Ash dyke and the project area to ascertain that there is no leaching of contaminants from the Ash disposal area.	: Regular water quality including heavy metals is being monitored once in a month or two month and shall be ensured.
14.	Noise level in the work zone shall not exceed 75 dB (A). Requisite Personal Protection Equipment including earplugs shall be provided to the persons working in the high noise area.	: Noise level in the work zone has been not exceeding 75 dB (A) and PPEs are being provided to employees working in the high noise area.
15.	Greenbelt of 10-15 m along the plant boundary shall be developed covering an area of 14 ha.	: Greenbelt of 14 ha area developed.
16.	Regular monitoring of the air quality shall be carried out in and around the power plant and records shall be maintained. Six monthly monitoring reports shall be submitted to this Ministry.	: Air quality monitoring around the plant has carried out and same was reported to GPCB & CPCB every month.  Monthly report data from Oct'2021 to March'2022 is attached herewith.
17.	For controlling fugitive dust, regular sprinkling of water in vulnerable areas of the plant shall be ensured.	: Being Implemented.
18.	The project proponent shall advertise at least in two local newspapers widely circulated in the region around the project one of which should be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letter is available with the State Pollution Control Board/Committee and at Website of the Ministry of Environment and Forests at <a href="http://envior.nic.in">http://envior.nic.in</a> .	: It is already published.
19.	A separate environment-monitoring cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	: Separate Environment Cell is already formed at STPS with SE (Operation), EE(Effi.), Chief Chemist, EE(Civil) and DE(Environment) as its members to look after implementation of the stipulated environmental safeguard.

Sr. No.	Point	Compliance As on 31 <sup>st</sup> March 2022
		This team is directly working under the control of power station Chief. Moreover, Corporate Office Environment Cell also provides necessary guidance.
20.	Half yearly reports on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/Regional office/CPCB/SPCB.	: Six monthly reports from Oct'2021 to March'2022 are submitted herewith.
21.	Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. Complete set of documents including Environmental Impact Assessment Report and Environment Management Plan etc. shall be forwarded to the Regional Office for their use during monitoring.	: Already submitted.
22.	Funds shall be allocated separately for each action point for implementation of environmental protection measures by the project authorities. This cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for any other purposes and year-wise expenditure shall be reported to the Ministry.	: Agreed, Recurring Expenditure on Environmental Management for the year 2021-22 is submitted herewith.
23.	Full cooperation shall be extended to the Scientists / Officers from the Ministry / Regional Office of the Ministry at Bhopal / CPCB / SPCB during monitoring of the project.	: Will be provided.

**Recurring Expenditure on Environmental Management**  
For the year 2021-22 (April 2021-March 2022)

Sr. No.	Expenses on	Total	Remarks, if any
		Amount Rs.	
1	Salaries & Wages of staff of Env. Cell	1611051	
2	Payment to Contractors for monthly monitoring	230132	
3	Fees / Payments to Environment Auditors	105586	
4	Consent / Audit / Other Fees to GPCB	10000	
5	Payment to GPCB for sampling and analysis	14900	
6	In-house sampling and analysis cost	0	
7	Payment of Water Cess to GPCB	0	

Sr. No.	Expenses on	Total	Remarks, if any
		Amount Rs.	
8	Maintenance costs for Ash Handling	42000000	Including Silo & Slurry System
9	Purchase / Maintenance of Equipments for Environment laboratory	5582	
10	Gardening and Plantation	1249004	
11	Ash Dyke construction, area grading, maintenance of bunds	0	
12	Maintenance of ESPs and spares apart from electric power consumption	2736356	
13	Misc. Civil Works for Environment	71167	
14	Maintenance of On-line Monitors	2409569	
15	Attending of Coal Mill / Pipe leakages and Duct leakages	248200	
16	Maintenance of Neutralising Pits / Cost of chemicals used	51084	
17	Maintenance cost of water spraying, DSS / DES / control of fugitive dust	445064	
18	Maintenance of SILOs	0	
19	Expenses / Maintenance of ETP	0	
20	Expenses / Maintenance of STP	541454	
21	Participation in Environment related Seminars / Conferences / Training programme / World Environment Day	9968	
22	Waste Oil, Resin and Battery management	0	
23	Bio-medical wastes management	143745	
	<b>GRAND TOTAL (Recurring ) Rs.--</b>	<b>51882862</b>	
In addition to above, the Capital expenditure done for Environment Upgradation is as under.			
1	R&M of Ash handling Plant	0	
2	Capital expenditure on Dry Fog D.S.S.	0	
3	Shed for Waste oil	0	
4	R&M of ESP for Microprocessor controls	0	
5	Online System (Flue Gas / Effluent)	212400	
	<b>Total Capital Expenditure</b>	<b>212400</b>	

### Ambient Air Quality monitoring data for Oct'2021 to March'2022

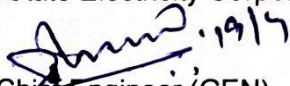
Month	PM10 $\mu\text{g}/\text{m}^3$ GPCB limit 100			PM2.5 $\mu\text{g}/\text{m}^3$ GPCB limit 60			SO <sub>2</sub> $\mu\text{g}/\text{m}^3$ GPCB limit 80			NO <sub>2</sub> $\mu\text{g}/\text{m}^3$ GPCB limit 80		
	Main Gate	Service Building	Market Colony	Main Gate	Service Building	Market Colony	Main Gate	Service Building	Market Colony	Main Gate	Service Building	Market Colony
Apr-21	59.67	61.97	58.33	26.66	29.99	28.33	12.71	10.59	19.49	16.55	15.46	22.4
May-21	66.04	72.2	63.74	33.74	35.83	29.99	10.4	12.3	21.28	15.24	18.07	25.41
Jun-21	70.4	65.87	60.96	35.41	33.74	28.33	14.17	12.13	16.17	19.05	18.01	22.72
Jul-21	77.18	70.3	65.13	39.16	37.49	31.66	18.02	14.13	18.25	15.24	20.89	25.41
Aug-21	74.76	68.54	67.79	35.53	33.98	28.74	20.17	16.52	19.69	14.05	18.31	23.85
Sep-21	78.47	71.65	64.75	38.33	35.41	26.66	17.04	14.91	16.67	13.07	21.68	26.84
Average	<b>71.09</b>	<b>68.42</b>	<b>63.45</b>	<b>34.81</b>	<b>34.41</b>	<b>28.95</b>	<b>15.42</b>	<b>13.43</b>	<b>18.59</b>	<b>15.53</b>	<b>18.74</b>	<b>24.44</b>

Month	PM10 $\mu\text{g}/\text{m}^3$ GPCB limit 100			PM2.5 $\mu\text{g}/\text{m}^3$ GPCB limit 60			SO2 $\mu\text{g}/\text{m}^3$ GPCB limit 80			NO2 $\mu\text{g}/\text{m}^3$ GPCB limit 80		
	Panchvati Market	Jogwad Village	Mungani Village	Panchvati Market	Jogwad Village	Mungani Village	Panchvati Market	Jogwad Village	Mungani Village	Panchvati Market	Jogwad Village	Mungani Village
Apr-21	79.96	54.43	66.44	37.49	25.83	33.33	22.6	6.4	<5	25.24	11.36	8.84
May-21	65.12	58.47	70.83	30.41	28.33	35.41	18.44	9.46	<5	22.23	14.61	10.16
Jun-21	73.38	52.61	64.88	36.24	22.08	31.24	20.16	5.74	<5	26.48	9.85	8.47
Jul-21	83.2	57.5	67.77	38.33	27.08	34.58	22.29	9.47	<5	29.92	12.42	12.7
Aug-21	79.04	61.14	69.9	33.33	24.33	36.24	19.69	7.34	<5	28.2	15.87	15.73
Sep-21	83.07	58.24	66.82	39.58	23.33	33.33	17.78	9.63	6.67	25.81	18.87	15.38
Average	77.30	57.07	67.77	35.90	25.16	34.02	20.16	8.01	6.67	26.31	13.83	11.88

This is for information and further needful please.

Thanking you,

Yours faithfully,  
For, Gujarat State Electricity Corporation Ltd.,

  
Chief Engineer (GEN)  
GSECL, Sikka TPS

**Copy to:**

- (1) The Member Secretary,  
Gujarat Pollution Control Board,  
Paryawaran Bhavan, Sector 10A,  
Gandhinagar- 382010
- (2) The Regional Director,  
Central Pollution Control Board,  
Parivesh Bhawan, Aatmajyoti Ashram Rd,  
Opp. VMC Ward Office No. 10, Subhanpura,  
Vadodara 390023
- (3) The Regional Officer,  
Gujarat Pollution Control Board,  
Sardar Patel Bhavan, Rameshwarnagar,  
Jamnagar – 361008
- (4) The CE (P & P), GSECL, CO, Vadodara.
- (5) The CE (GEN), GSECL, CO, Vadodara.
- (6) The CE (Civil), GSECL, CO, Vadodara.
- (7) The SE (Project), GSECL, Sikka TPS.
- (8) The SE (Civil), GSECL, Sikka TPS.

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