

Ref. No: EPGL/ENV/2024/EC Compliance/141

Date: 13.05.2024

The Director,
Ministry of Environment & Forests
Regional Office, Kendriya Paryavaran Bhavan,
E-5, Area Colony, Ravi Shankar Nagar, Link Road No. 3
BHOPAL – 462 016

Essar Power Gujarat Limited

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Subject: Environmental Clearances compliance report for period October 2023 to March
2024

Ref No.: J-13011/16/2008-IA-II (T) dated July 17, 2009

Dear Sir,

As per condition no xxx of the above referred Environmental Clearance (EC), please find enclosed compliance report for period from October 2022 to March 2024 of the EC granted to Essar Power Gujarat Limited by Ministry of Environment & Forests under EPA (1986). Also enclosed are relevant Annexure in support of the compliance report for your perusal and record please. A soft copy of the same is being sent as per the Gazette Notification SO 5845(E) dated 26.11.2018 for your record and perusal.

Thanking You,

Yours faithfully, For, Essar Power Gujarat Limited

Mr. Debashis Pal (Head-HSEF)

Enclosures: a/a Copy to:

Regional Officer, Central Pollution Control Board Parivesh Bhavan, Opp. VMC Ward Office No. 10. Subhanpura Vadodara-390 023

Member Secretary Gujarat Pollution Control Board Paryavaran Bhavan, Sector 10 A, Gandhinagar-382010 The Principal Chief Conservator of Forests and Chief Wildlife Warden, Block No – 14/1, Old Sachivalaya Gandhinagar, Gujarat.

Chief Conservator of Forests, Marine National Park, Ganjiwada, Jamnagar Regional Officer Gujarat Pollution Control Board, Sardar Patel Bhavan, Rameshwar Nagar, Jamnagar-361008

Integrated Regional Office, Room No 407, Aranya Bhawan, Near CH-3 Circle, Sector 10A, Gandhinagar, Gujarat – 382010; Telephone no: 079-23255067 Email: iro.gandhingr-

Environmental Clearances compliance status report for period October 2023 to March 2024

(ENVIRONMENTAL CLEARANCE VIDE LETTER NO.: J-13011/16/2008-IA. II(T) DATED JULY 17, 2009)

(ENVIRONMENTAL CLEARANCE VIDE LETTER NO.: J-13011/16/2008-1/1: II(1) E-12-12-12-12-12-12-12-12-12-12-12-12-12-		
Conditio n No.	O dikion	Present Status
	Prior CRZ clearance for the activities/ facilities to be located in the CRZ area shall be obtained from the Competent Authority before start of the work on the project.	In view of the information furnished the condition is considered complied.
3-ii	Prior clearance for diversion of 4.60 ha of forest land under Forest (Conservation) Act, 1980 from Competent under Forest (Conservation) Act, 1980 from Conservation (Conservation) Act, 1980 f	Ltd, the group company which has developed the port with due permissions and clearances (Annexure 3.2). In view of the compliance status provided the condition is considered complied.
3-iii	under the Wildlife (Protection) Act, 1972 from the Competent Authority.	In view of the information provided and the documents furnished, the condition is considered complied.
3-iv	Environmental clearance is subject to final order the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.	As per the directive of honourable SUPREME COURT OF INDIA (Annexure 3.4a), 2x600 MN power project and EBTSL are out of eco sensitive zone and as per the certificate C/24/LAND/survey/587/ 2013-14 dated 10/10/2013 and C/LAND/Survey/371/2012-14 dated 10/09/2013 from the Chief Conservator of Forest Annexure 3.4b). In view of the above information provided, the condition is considered complied. Plant area is well within 253 ha. (existing facilities is confined within approx 176 ha). Please
3-v	Total land requirement for all activites of the project shall not exceed 253 ha.	



onditio	Condition	Present Status
n No.	A conservation plan for the protection / conservation of endangered flora and fauna, if any, shall be prepared in consultation with Director, Marine National Park /Sanctuary and Wildlife Department of the State before the	A conservation plan has been prepared by CCF, MNP much before the start of the construction of the project which covers the entire area and is available with MNP/MS authority (Annexure 3.6). All Industries have contributed towards preparation of the plan and is available with MNP, Jamnagar Authority. The new plan has been prepared by Chief Conservator of Forest and has submitted to Principal Chief Conservator of Forests, Gandhinagar. In view of the details provided, the condition is considered complied.
3-vii	Park/ Sanctuary, it is necessary to obtain a cell with an Ecologist, a Marine Biologist and Wildlife Expert. The cell will be headed by the Ecologist. The function of this cell will be assess and monitor the status of the ecology of Marine Park/Sanctuary and mangroves in the area and also to create/strengthen the corridors for the Wildlife so that the Wildlife is conserved. Further an Advisory committee consisting of an Expert from NIO, representative of University of Baroda and the Ecologist of Conservation cell should be constituted. The Ecologist of Conservation Cell will be the Member Secretory and the Expert from NIO will be the Chairman of the committee. The committee should meet at least twice a year. The committee should be reconstituted once in a three years. The function of the committee is to advice the conservation cell. The fund for the same would be met with by the power proponents.	January 2024 and the MoM of the same are attached herewith as Annexure 3.7a. The action plan of the MoM recommendations are also attached herewith in Annexure 3.7b. In light of the information provided and the documents referred, the condition is considered complied.
3-viii	Sulphur and Ash contents in the imported coal to be used in the project shall not exceed 1.00% and 10% respectively. In case of variation of coal quality, a fresh reference shall be made to MOEF for suitable amendments to environmental clerance conditions wherever necessary.	Imported coal being socioes to the reference in Annexure 3.8. In view of the details provided, the condition is considered complied.



	Condition	Present Status
	continuous online monitoring equipments for SOx, NOx and Particulate matter. Exit velocity of flue gases shall not be less than 25 m/sec.	A bi-flue stack of 275 m has been provided (Annexure 3.9a). CEMS is in place for both the units and is also connected with CPCB/SPCB server for real time display (Annexure 3.9b). Exit velocity report of the flue gas at full load is being maintained more than 25 m/sec.
		In light of the documents provided and the information furnished, the said condition is considered complied. ESP of 98.8% efficiency is installed (Annexure 3.10a). Particulate emission is well below the
3-x	installed to ensure that particulate emission does not exceed 50 mg /Nm ³ .	In view of the documents provided with reference to the stipulated condition, the condition is considered complied.
3-xi	Space provision shall be kept for retrofitting of FGD with Mercury removal system, if required at a later date.	Mercury removal system (Annexure 3.11). Technical one from two ventures are awaiting approval from MoP for the final placing the order for FGD. FGD installation shall facilitate use of wider variety of commercially viable coal.
3-xii	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as coal handling & ash handling points; transfer areas and other vulnerable dusty areas shall be provided.	In light of the information provided, the condition is considered complied. Bag filters have been provided in Ash handling Silos (Annexure 3.12a & 3.12b), Adequate Dust Extraction and Dust Supression system with cyclones, bag filters and water spray system has been provided in coal handling, ash handling areas, transfer points and other vulnerable areas (Please refer Annexure 3.12c for more details). In light of the documents provided, the condition is considered complied.

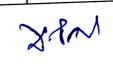


NIX.

	Condition	Present Status
	(silos) shall be provided. Too he hy ash utilized fly ash achieved from day one. In emergency unutilized fly ash and bottom ash shall be disposed off in the ash pond. Mercury and other heavy metals (As, Pb, Cr etc.) shall be monitored in fly ash and bottom ash and in the effluents emanating from ash pond.	Three dry Fly ash silos has been provided each of 1000 MT capacity. 100% Fly ash utilization has been achieved from day one. Please note that we have linked with Ash users for the manufacturing Cement for the 100% supply of ash being generated in power plant. Arrangement has been made to dispose off fly ash in ash pond in case of emergency and during maintenance of ESP to dispose Ash ladden water (Annexure 3.13b). Mercury and other heavy metals (As, Pb, Cr etc) are being monitored in Fly ash and Bottom ash on regular basis (Annexure 3.13c) No effluent is emanating from the ash pond as 100% utilization is achieved. MoEF approved laboratory has been contracted to monitor the Mercury and other heavy metals (As, Pb, Cr etc) in wastewater as well as pizometric wells around the ash pond (Annexure 3.13d). In view of the documents provided and the interpretation of the same with reference to
	Lining Adoquate	the compliance condition, the condition is considered compliance.
3-xiv	Ash pond shall be lined with impervious lining. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	
		In light of the document referred, the said condition to contain the provided with designed
3-xv	Closed cycle cooling system with Induced Cooling Towers shall be provided. COC of 1.3 to be adopted. The effluent shall be treated as per the prescribed norms.	The Efluent is being treated as per the prescribed norms (Annexure 3.15b). With reference to the documents provided, the condition is considered complied.
3-xvi	The treated effluents confirming to the prescribed standards only shall be discharged from cold water side in the sea. The temperature of discharged effluents shall not exceed 5°C over and above the ambient water	The treated effluent is being monitored continuously as per the requirement by MoEF approved the treated effluent is being maintained and being submitted to SPCB on regular interval laboratory and records are being maintained and being submitted to SPCB on regular interval. The temperature of discharged effluents shall not exceeding 5°C over and above the ambien water temperature (Annexure 3.15a & 3.15c)
	temperature of sea. The temperature of the discharged water shall be monitored continuously and records maintained.	In light of the information provided, the condition is considered complied. STP is provided (Annexure 3.17a) and all treated wastewater is being used in Green Belt of a standard as Annexure 3.17b.
3-xvii	A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.	the Plant. The results of the treated water is attached as Annexure 3.17b. In light of the documents provided, the condition is considered complied.



Conditio n No.	Condition	Present Status Rainwater harvesting is adopted (Annexure 3.18a).
	Groundwater Authority/Board shall be consulted for the finalization of the appropriate rain water harvesting technology within a period of three months from the date	Rain water harvesting study was under taken and the report (state of the submitted vide letter no. EPGL/ENV/Compliance/2010/144, dated 01.12.2010. In view of the information provided, the condition is considered complied.
3-xix	area to check/minimize spontaneous fire in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as Regional Office of the Ministry at Bhopal.	(Annexure 3.19a) along with two fire tender available 2 for the form these two fully equipped fire team one at plant area and other at coal stock yard is available in all shifts. Location of the plant Layout is attached as Annexure 3.19b. In light of the documents and information provided, the said condition is considered complied.
3-xx	Storage facilities for the auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area where risk is minimum to the storage facilities. Disaster Management Plan to be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on same, modifications required, if any shall be incorporated in DMP. Sulphur content in the liquid fuel will not exceed 0.5%.	where risk is minimum (Annexure 3.20a). Energeticy in reparts to place (Annexure 3.20b). Regular mock drill is being carried out based on the EMP (Annexure 3.20c). Liquid fuel is just a start up fuel and not a primary fuel and Sulphur content is less than 0.5% (Annexure 3.20d). In light of the information provided and the documents attached by P.A. the condition is considered complied.
3-xxi	Provision shall be made for housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structure to be removed after the completion of the project.	was removed after the completion of the construction phase.



Conditio		Present Status
n No.	Regular monitoring of ground water in and around ash pond area including heavy metals (Hg,Cr,As,Pb) shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry. The Data so obtained should be compared with the baseline data so as to ensure that groundwater quality is not adversely affected due to the project.	Though 100% fly ash utilization has been achieved from day one. Monitoring of groundwater around ash pond including for heavy metals (Hg, Cr, As, Pb) is being done through MoEF approved lab on six monthly interval and report being submitted on regular basis (Annexure 3.22a). The data obtained are compared with earlier results revealed that the groundwater quality is not adversely affected (Annexure 3.22b). Hydrogeological study of the core zone and buffer zone area within 10 km radius of the site was conducted in pre and post monsoon period. The data revealed seawater ingression at various depth contour due to the fractured rocks and more freashwater yield (Annexure 3.22c).
3-xxiii	A green belt of adequate width and density shall be developed around the plant periphery covering 1/3 of the project area preferably with local species.	In light of the documents provided and the results obtained, the condition is considered complied. Green belt has been developed covering 1/3 of the operating plant area (Annexure 3.23a) with local as well as wind breaking species (Annexure 3.23b) as per the EIA. Local Forest department was also consulted for the local species preference for the area. In view of the information furnished and documents provided, the condition is considered complied.
3-xxiv	First aid and sanitation arrangements shall be made for the drivers & other contract workers during construction phase.	First aid boxes are provided at Admin building and various places in plant as well as fully functional OHC along with sanitation facilities are provided for all the workers during consruction as well as operation phase (Annexure 3.24). In view of the information provided, the condition is considered complied.
3-xxv	Noise level emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy area such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.	provided with ear plugs (Annexure 3.25b). All the workers engaged in noisy area are initially as well as periodically examined and their audimetric records are maintaned at OHC (Annexure 3.25c). The results till date revealed no noise induced hearing loss.



onditio	Condition	Present Status
n No.	Regular monitoring of ambient ground level concentration of SO ₂ , NOx, Hg, SPM and RSPM shall be carried out in the impact zone and records maintained. If at any stage these found to exceed the prescribed limits, necessary	Regular monitoiring of AAQ is being done as per CPCB guideline. The values are well within the permissible limits (Annexure 3.26a). Monitoring of the ambient air done in impact zone and comparison with the historical data made (Annexure 3.26b). Location of the monitoring stations were decided in consultation with GPCB. Frequency of the monitoring is as per CPCB guideline. Monitoring data are displayed on company website at https://www.essar.com/compliance/regulatory-2/#1509347056963-997369aa-3249 In light of the documents submitted and information furnished the condition is considered complied.
3-xxvii	The project proponent shall adverise in at least two local newspapers widely circulated in the region around the project, one of which sahll be in the vernacular language of the locality / office of Municipal Corporation/Gram Panchayat concerned and on the company's web site within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also seen at the Website of the Ministry of Environment and Forests at	Advertised in local news paper (Annexure 3.27) and also available on company website. Copies of the Environmental Clearance is available with GPCB and can also be seen on MoEF as well as company website (https://www.essar.com/compliance/regulatory-2/#1509347056963-997369aa-3249). In view of the information provided, the condition is considered complied.
3-xxviii	any, received while processing the proposal. The clearance letter shall also be put on the website of the	to view of the information provided the condition is considered complied.
3-xxix	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated	A separate environment management cell with qualified staff is set up for the implementatio of the stipulated environmental safeguards (Annexure 3.29). In view of the document provided and information furnished, the condition is considered complied.



Conditio n No.	Condition	Present Status
3-ххх	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	EC compliance report is being sent by email to RO, MoEF, Bhopal (Please refer Annexure 3.30). Last submitted copy of the same is available on company web site for ready reference https://www.essar.com/compliance/regulatory-2/#1509347056963-997369aa-3249. In view of the document provided and information furnished, the condition is considered complied.
3-xxxi	Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. A complete set of dcouments including Environmental Impact Assessment Reports and Environmental Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same fromtime to time at least six monthly basis. Criteria pollutants levels (Stack & ambient levels of SPM,Sox & NOx) will be displayed at the main gate of the power plant or at any other convenient locations for information of public and	Complete compliance report is uploaded on reguar basis at https://www.essar.com/compliance/regulatory-2/#1509347056963-997369aa-3249
3-xxxii	The proponent shall upload the status of compliance of EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of the CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO2, NOx (arhibient levels as well as stack emissions) shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Compliance status report of the EC conditions is uploaded on company website at https://www.essar.com/compliance/regulatory-2/#1509347056963-997369aa-3249 and also being sent to RO, MoEF, Bhopal periodically. The criteria pollutants are being monitored by CEMS as well as by MoEF approved laboratory and the data being submitted to GPCB on regular basis. The Criteria pollutants is being displayed at the main gate of the company (Please refer Annexure 3.9) In view of the documents provided and information furnished, the condition is considered complied.





	Condition	Present Status
3-xxxiii	State Pollution Control Board as prescribed under the Environment (Protection) Rules,1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Form-V is being submitted to Gujarat Pollution Control Board regularly (Annexure 3.33) Same is displayed at company website along with EC compliance report. In view of the document provided and information furnished, the condition is considered complied.
3-xxxiv	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	Separate budget is available for environmental protection measures. Also this was included in the project cost. Expenditure towards environmental protection is given in Annexure 3.34. In view of the document provided and information furnished, the condition is considered complied. Financial Closure (Annexure 3.35a)
3-xxxv	The project authorities shall inform the Regional Office as well as the Ministry regarding the date that cial closure and final approval of the projection interests the authorities and the dates of start of land developments work and commissioning of plant.	Approval from GPCB for establishment of the Project (Affricative 5.333) Commissioning of the project is Unit 1 - 1st April 2012 & Unit 2 is 15th June 2012 In view of the documents provided and information furnished, the condition is
3-xxxvi	monitoring the compliance of environmental status.	
4	The Ministry of Environment & Forests reserves the right to revoke the clearance if conditions stipulated are not impermented to the satisfaction of the Ministry. MoEF may impose additional environmental conditions or modify the existing ones, if necessary.	Noted & agreed to.
5	The environmental clearance accorded shall be valid for a period of 5 years to start of production operations by the power plant.	Noted & agreed to.



Conditio	Condition	Present Status
6	In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.	Noted.
7	The above stipulations should be enforced among others under the Water(Prevention and Control of Pollution)	Noted & agreed to
8	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section of the National Environment Appellate Act, 1997	110tour

Date: 13.05.2024

Debashis Pal
(Authorized Signatory)