

Ref: GKEL/MOEF&CC/2018-19/6649

Date: 25.05.2019

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To

The Director

Eastern Regional Office

Ministry of Environment, Forests & Climate Change, Govt. of India
A/3, Chandrasekharapur, Bhubaneswar, Odisha - 751023

Sub: Submission of 23rd Half Yearly EC Compliance Status Report of 1050 (3x350) MW, TPP at Village Kamalanga, Dhenkanal District, Odisha.

Ref: Env. Clearance vides your letter No. J-13011/64/2007-IA.II (T) dt.5th February'2008

Dear Sir,

With reference to the subject referred above, we are pleased to submit the 23rd Half Yearly EC Compliance Status Report of our 1050 (3x350) MW Thermal Power Plant at village Kamalanga, Dhenkanal District, Odisha, for your kind perusal please.

Kindly acknowledge receipt of the same.

Thanking You,

Yours Sincerely,
for GMR Kamalanga Energy Limited,



Ramesh R. Pai
Chief Operating Officer

Encl. – As above

Copy for kind information to:

- 1) Director, MoEF&CC, GOI, New Delhi
- 2) Regional Director, CPCB Zonal Office, Kolkata
- 3) Member Secretary, SPCB - Odisha, Bhubaneswar
- 4) Regional Officer, SPCB - Odisha, Hakimpada, Angul



GMR Kamalanga Energy Limited, Dhenkanal, Odisha

Dated: 25th May 2019

Environmental Clearance Compliance Status Report

(EC-Phase-I (3x350MW) Vide Letter No. J_13011/64/2007-IA.II(T) dtd. 5th Feb 2008)

Sl. No.	CONDITIONS	Compliance Status (period from Oct'18 – March -19)
1	The total land requirement shall not exceed 1050 Acres for all the activities / facilities of the power project. <i>Revised Land requirement of the project is 1158.57 Acres as per the MoEF &CC, New Delhi vide amendment letter dated 11.01.2019.</i>	Presently 1158.57 Acres of land is in use.
2	It shall be ensured that the project boundary is at least 500 m away from HFL of the river in conformity with the guideline in this regard.	Complied. The distance of Brahmani River from the plant boundary is > 1.5KM
3	The plant heat rate of around 2300 kcal/kwh shall be achieved and the coal consumption shall not exceed 660 tph.	Annual Plant heat rate is 2231kcl/kwh Avg. heat rate of last six months – 2327 kcl/kwh Avg. Coal Consumption – 608.17tph
4	Ash and Sulphur contents in the coal to be used in the project shall not exceed 34% and 0.5 % respectively.	Ash and Sulphur content of fired coal are as below during compliance period <ul style="list-style-type: none"> • Ash content – 37.44% • Sulphur content- 0.46%
5	A multi-flue stack of 275 m height with exit velocity of not less than 21 m/s shall be provided with continuous online monitoring system.	Complied Velocity is being maintained as specified.
6	High efficiency Electrostatic precipitators (ESPs)with efficiency not less than 99.9% shall be installed so as to ensure that particulate emissions do not exceed 50 mg/Nm3.	Complied, The values of particulate emissions are found within the prescribed standard.
7	Appropriate mitigation measures shall be adopted to reduce the emissions of SO ₂ . It shall be ensured that at no point of time the ground level concentration of SO ₂ in the impact zone exceeds the prescribed limit. The proponent shall now itself also provide space for installation of FGD or other suitable measures, if required at a later stage.	<ul style="list-style-type: none"> ➤ Being complied, ➤ GLC of SO₂ in impact zone was found within the prescribed limit. Monitoring report is being submitted quarterly ➤ Space provided for FGD.
8	Water requirement shall not exceed 37 cusecs. No ground water shall be extracted for the project at any stage including during construction.	Complied. Water from river Brahmani is being used for operational activity, as per the approval.
9	COC of not less than 5 shall be adopted.	Complied The avg. COC of last six months is 5.62
10	Closed circuit cooling system with induced draft cooling towers shall be provided.	Complied
11	Waste water generated shall be recycled and reused in the plant premises. There shall be no discharge of waste water outside the plant boundary except during monsoon.	Complied.
12	For controlling fugitive dust, regular sprinkling of water in the coal handling area and other vulnerable areas of the plant shall be ensured.	Being complied. Regular water spraying being done on dust vulnerable areas.



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13	The project authorities should adhere to the provisions stipulated in the fly ash notification of September, 1999 and as amended in August, 2003 in regard to fly ash utilization. Fly ash shall be collected in dry form. Balance fly ash shall be disposed off in the ash pond through HCSD mode and bottom ash through medium slurry mode.	Noted & Being complied. Dry fly ash collection facilities and HCSD system is in place. Ash generation & utilisation status for the year 2018-19 are as follow: - ➤ Total ash generated = 1786716.48 MT. ➤ Total Ash utilisation = 1788724.90 MT ➤ % of Utilisation = 100.11 Annual return submitted vide letter no.6632 dated 18.04.2019.
14	The ash pond shall be lined with impervious lining to avoid any leaching into ground water. The ash dyke shall be so designed and strengthened to ensure guard against breaching. Adequate safety measures shall also be taken so that pond ash does not become air borne to cause air pollution in the surrounding areas.	Complied.
15	R & R plan for land oustees and homestead oustees shall be prepared in consultation with the state Revenue Authorities prepared before starting work on the project and implemented simultaneously with the start of development / construction work on the project. A copy of the R&R plan shall also be submitted to this ministry within three months of the issue of this letter.	R&R Plan is not applicable to our project as there are no land oustees from the project area.
16	The District collector / Revenue Divisional commissioner shall be informed regarding R&R and all other benefits to be provided by the project proponent and their effective implementation shall be overseen by the District authorities.	Being Complied. Rehabilitation & periphery development Advisory committee (RPDAC) is overseeing this implementation.
17	Rain water harvesting should be adopted. Central Ground water Authority/Board shall be consulted for finalization of appropriate rain water harvesting technology within a period of three month from the date of clearance.	Rain water harvesting system is in operation. We have submitted the rain water harvesting plan to CGWA.
18	Regular monitoring of ground water quality including heavy metals shall be undertaken around ash dyke the project area to ascertain the change, if any water quality due to leaching of contaminants from ash disposal area.	Complied.
19	A greenbelt shall be developed all along the plant and ash pond boundary covering total area of at least 320 acres.	➤ Green belt with Indigenous species is being developed in phase wise. We have planted around 3,49,309 saplings till March-19 (including 40350 saplings in 2018-19) in around plant & township premises, avenue plantation along the Railway line & approach Road to cover land area of 335 Acres. ➤ In 2018-19, 800 Nos. of sapling were planted in the premises of Swapneswar Temple & village Budhapank and 250 saplings were planted in the Mangalpur High School & Manpur Primary School. ➤ Survival rate is around 85%. ➤ In addition to this, we have also developed avenue plantation and green belt in Dhenkanal & Kapilas area as required by District Administration.
20	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Complied



21	An alternate Goucher land shall be developed in the identified 65 acres of land for use of the villagers for grazing of their cattle's. The District Authorities and the villagers shall be informed of the same for its effective utilization.	Complied, 65.19 acres of land has already been surrendered to Govt. of Odisha as alternative Goucher land.
22	Leq of noise level should be limited to 75dBA and regular maintenance of equipment be undertaken for people working in the high noise areas, Personal Protection devices should be provided.	Noise level is being maintained. The average max. and min. noise levels at boundary are as follows: - <ul style="list-style-type: none"> • Day time noise levels- 68.4dBA max. and 52.8dBA min. • Night time noise levels- 66.8dBA max. and 50.1dBA min. • Required PPE's is being provided to the people engaged in noisy areas. Poster /wall paintings are also displayed for creating awareness.
23	Regular monitoring of the ambient air quality shall be carried out in the impact zone and records maintained. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Quarterly reports shall be submitted to Regional office of this Ministry.	AAQ is being monitored regularly by MoEF&CC accredited laboratory and records maintained. Copies of the reports are being submitted quarterly.
24	The project proponent should advertise in at least two local newspapers widely circulated in the region around the project ,one of which should be in the vernacular language of the locality concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the SPCB/ Committee and may also be seen website of the MoEF in the http://envfor.nic.in	Complied.
25	A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.	Environmental monitoring team is in place.
26	Half yearly report on the status of implementation of the conditions and environmental safeguards should be submitted to this ministry, the Regional officer, CPCB & SPCB.	Being Complied.
27	Regional officer of Ministry of environment and forests located at Bhubaneswar will monitor the implementation of the stipulated conditions. A complete set of documents including Environment Management plan and the additional information/clarifications submitted subsequently should be forwarded to Regional office for their use during monitoring.	Submitted Vide our letter ref: GEL/KTPP/BLR/MOEF/08/104 Dated 23 rd may 2008.
28	Separate fund should be allocated for implementation of environmental protection measures along with item – wise break. These cost should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to ministry.	<ul style="list-style-type: none"> ➤ Capital investment till March' 2019 (Rs. in Lakhs) = 39298.64/- ➤ Recurring Investment FY 2018-19 (Rs. in Lakhs) 3149.53/-
29	Full cooperation should be extended to the scientists/ officers from the Ministry and its Regional office at Bhubaneswar/the CPCB/the SPCB during monitoring of the project.	Agreed. Being extended.



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