

TSPL/ ENV/ MoEF&CC/ NOV-2023/04

Date: 15.11.2023

To,
The Additional Director(s),
Ministry of Environment, Forests & Climate Change,
Govt. of India, Northern Regional Office,
Bays No.24-25, Sector 31-A,
Dakshin Marg,
Chandigarh-160030.

Sub: - Submission of Half Yearly Environmental Clearance Compliance Report of 1980 MW (3X660 MW) Talwandi Sabo Power Limited, Village Banwala, Mansa-Talwandi Sabo Road, District-Mansa, Punjab.

Ref:-

1. Environmental Clearance No. J-13011/24/2008-IA.II (T) dt.11/07/2008 and amended on 25/03/2010 & 17/06/2010.
2. MoEF Office Memorandum No. J-11013/41/2006-IA. II (I) dt. 06/04/2011.
3. Extension of validity period of Environment Clearance No. J-13011/24/2008-IA. II (T) dated 30/09/2013.
4. MoEF notification G.S.R.02 (E) dated 2/1/2014.
5. MoEF&CC Office Memorandum F.No.22-13/2019-IA.III dated 28/08/2019

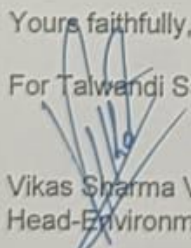
Dear Sir,

This has reference to the above cited subject. Please find enclosed herewith Half Yearly Environmental Clearance Compliance Report of 1980 MW (3X660 MW) Talwandi Sabo Power Limited, Village Banwala, Mansa-Talwandi Sabo Road, District-Mansa, Punjab for the period of April, 2023 to September, 2023.

Thanking you and assuring you our best attention always.

Yours faithfully,

For Talwandi Sabo Power Limited,


Vikas Sharma Vashisht
Head-Environment



Encl: As above

Cc:-

1. The Director, MoEF&CC, New Delhi.
2. The Member Secretary, CPCB, New Delhi.
3. The Environmental Engineer, PPCB, Bathinda.

TALWANDI SABO POWER LIMITED

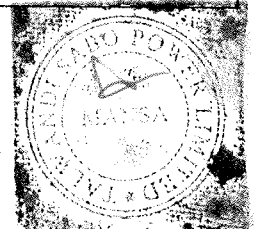
Site Cum Regd. Office: Village Banwala, Mansa - Talwandi Sabo Road, Distt. Mansa, Punjab - 151302 INDIA
Tel. 91-1659-2480000 | Telefax: 01659-248083 | website: www.tsplindia.co

CIN No. U40101PB2007PLC031035

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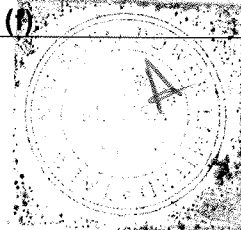
Compliance status of the conditions stipulated in Environmental Clearance of 1980 MW (3x660 MW) Talwandi Sabo Power Limited and additional conditions stipulated in Office Memorandums No. J-11013/41/2006-IA. II (I) & F.No.22-13/2019-IA.III dated 06/04/2011 & 28/08/2019 for the period of April, 2023 to September, 2023.

3	Conditions	Compliance Status
(i)	The total land requirement for the project shall be restricted to 2105 acres	Noted.
(ii)	Requisite quantity of coal for the ultimate capacity shall be obtained before commissioning the project	Noted.
(iii)	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5% and 34% respectively	Complied as Sulphur contents in the coal does not exceed 0.5% and as per MOEF&CC notification dated 21.05.2020, exemption has been provided for the requirement of 34% ash content in coal to be used in the Project. Annexure-1
(iv)	(As amended vide MoEF letter No. J-13011/24/2008-IA. II (T) dt. 17/06/2010) A Tri-flu stack of 275 m height shall be provided with continuous online monitoring equipments for SOx, NOx and particulate. Exit velocity of the flue gases shall not be less than 25m/sec	Complied. Exit velocity of flue gases has taken care in design and condition noted.
(v)	High efficiency Electrostatic Precipitator (ESP) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm ³	Complied. Stack emission monitoring test reports of NABL accredited and MoEF&CC recognized laboratory for the period of April-23 to September-2023 are enclosed as Annexure-2 (a) to Annexure-2 (f) .
(vi)	Space provision shall be kept for retrofitting of FGD, If required at a later date	Complied.
(vii)	Adequate dust extraction system such as cyclone/bag filters and water spray system in dusty areas such as coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided	Complied.
(viii)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Fly ash shall be used in a phased manner as per provision of the notification on Fly Ash Utilization issued by Ministry in September 1999 and its amendment. By the end of 9 th year full fly ash utilization should be ensured. Unutilized fly ash shall be disposed off in the ash pond in the form of High Concentration slurry and the bottom ash in	Fly ash is being used as per the provisions of the prevalent notifications issued by MOEF&CC. Fly ash generation and utilization report is being submitted to PPCB (monthly) and CEA (half-yearly), CPCB & MoEF&CC (annually) Regional Office, Chandigarh regularly. Copy of report attached at Annexure- 3 (a) to 3(h) .



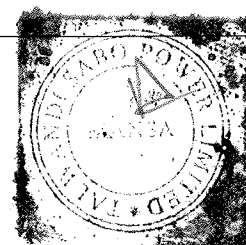
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	conventional slurry mode.	
(ix)	Ash pond shall be lined with HDPE lining. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached	Complied.
(x)	Closed cycle cooling system with cooling towers shall be provided. COC of at least 5 shall be adopted and the effluents shall be treated as per the prescribed norms	Complied. Cooling tower blow down is being treated in Zero Discharge Unit and the treated water is being recycled for cooling tower make-up.
(xi)	The treated effluent conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangement shall be made that effluents and storm water do not get mixed.	Complied.
(xii)	A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation	Complied.
(xiii)	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 months from the date of clearance and details shall be furnished.	Complied.
(xiv)	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fire in coal yard especially during summer season. Copy of these measures with full details along with location plant lay out shall be submitted to the ministry as well to the regional office of the ministry at Chandigarh.	Complied. Details already submitted vide letter no. TSPL/MoEF/139 dated 18/7/2013 to MoEF&CC and its Regional office, Chandigarh.
(xv)	Storage facilities for liquid fuel such as LDO and HFO/LSHS shall be made in the plant area where risk in minimum to the storage facilities. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in DMP.	Complied. Mock drills are being conducted regularly at Fuel Oil Storage area. Latest Mock drill had conducted on 23-05-2023 during April - 2023 to September-2023 period are enclosed as Annexure- 4 .
(xvi)	Regular monitoring of ground water in and around ash pond area shall be carried out, records maintained and six-monthly reports shall be furnished to the Regional office of this Ministry	Complied. Ground water monitoring is being carried out in and around ash pond area. Test reports from NABL accredited and MoEF&CC recognized laboratory are enclosed as Annexure-5 (a) to Annexure-5 (f) .



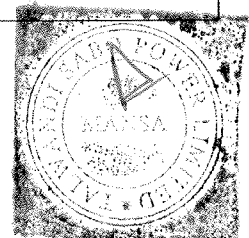
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(xvii)	A green belt of adequate width and density shall be developed around the plant periphery covering about 1/3 of the project area preferably with local species	Complied.
(xviii)	Activities under CSR shall be enhanced with proper financial allocation. Details of these activities shall be submitted to the Regional office of the Ministry, SPCB and the Ministry	Complied. CSR activities with financial allocation implemented during the period of April 2023 to September 2023 is enclosed as Annexure-6 .
(xix)	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase	Complied.
(xx)	<p>Leq of Noise levels emanating from turbines shall be limited to 75 dBA.</p> <p>For people working in the high noise area, requisite personal protective equipment like earplug/ ear muff etc shall be provided.</p> <p>Workers engaged in noisy areas 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.</p>	<p>Turbines have been provided with acoustic enclosure and installed inside enclosed building.</p> <p>Complied.</p> <p>Complied. Audiometric test is being conducted to workers engaged in noisy areas on six monthly basis and record is being maintained. There was no report of any hearing loss.</p>
(xxi)	<p>Regular monitoring of ground level concentration of SO₂, NO_x, SPM, RSPM shall be carried out in the impact zone and record maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately.</p> <p>The location of the monitoring station and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the regional office of this ministry.</p>	<p>Complied.</p> <p>Complied. Ambient Air Quality monitoring reports from MoEF&CC recognized and NABL accredited laboratory for the period of April 2023 to September 2023 are enclosed as Annexure-7 (a) to Annexure-7 (f).</p>
(xxii)	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locally concerned within seven days from the date of this clearance letter, informing that the project has been accorded environment clearance and copies of clearance letter are available with State Pollution Control Board/Committee and may also be seen at Website of the Ministry of	Complied.



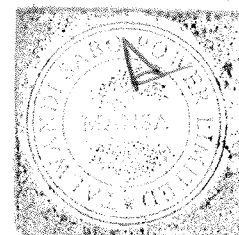
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	Environment and Forests at http://envfor.nic.in	
(xxiii)	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Complied. Copy of Constitution of Environment Management Cell is attached as Annexure- '8' .
(xxiv)	Half yearly report on the status of implementation of the stipulated condition and environmental safeguards shall be submitted to this Ministry/Regional Office/CPCB/SPCB	Periodically submitting to MoEF/ PPCB/ CPCB (copy of Previous letter is attached at Annexure – '9' and continue to comply the same in future also.
(xxv)	Regional office of the Ministry of Environment & Forest located at Chandigarh will monitor the implementation of the stipulated conditions. A complete set of documents including Environment Impact Assessment report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring	Noted. Complied. Copies of EIA and DPR submitted vide letter no. TSPL/ MOEF/ 111 dated 16/6/2009 to Regional Office, Chandigarh.
(xxvi)	Separate funds shall be allocated for implementation of environment protection measures along with item-wise break up. These costs shall be included as part of the project cost. The fund earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	Complied. Details of actual project expenditure with item-wise break up has already submitted vide letter no. TSPL/ ENV/ 02/ MoEF&CC/ 155 dated 24/5/2018. Complied. Year-wise expenditure incurred on Environmental protection measures during operational phase is submitting regularly. Expenditure incurred on Environmental protection measures during operational phase for the FY 2023-24 H1 (April 23 to Sept 23) is enclosed as Annexure- '10' .
(xxvii)	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and date of land development work and commissioning of plant	1) Date of site approval from Govt. of Punjab- 25.08.2009 2) Date of financial closure- 26.09.2009 3) Date of commencement of land development work (Leveling and site grading)- 27.02.2010. 4) Consent to operate under Water & Air Acts from PPCB – 31.03.2014. 5) Commissioning of First unit (Unit- 2)- 05.07.2014, Second unit (Unit-3)- 25.11.2015 and Third unit (Unit-1) – 25.08.16.



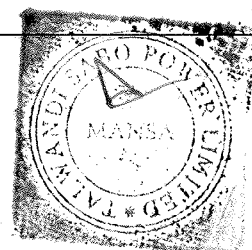
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(xxviii)	Full cooperation shall be extended to the Scientist / Officers from the Ministry/Regional Office of the Ministry at Chandigarh/ the CPCB/the SPCB who would be monitoring the compliance of environmental status.	Noted.
Additional Conditions vide Office Order No J-13011/24/2008-IA.II(T) dated 25/03/2010		Compliance Status
(xxix)	The project proponent shall upload the status of compliance of the conditions stipulated in environment clearance issued vide this Ministry's letter of even no dated 11.07.2008, in its website and updated periodically and also simultaneously send the same by e-mail to the Regional Office of the Ministry of Environment and Forests	Complied and continue to comply the same in future also.
(xxx)	Criteria pollutants levels including NOx, RSPM (PM ₁₀ & PM _{2.5}), Sox (from Stack & ambient air) shall be regularly monitored and results displayed in your website and also at the main gate of the power plant	Complied and continue to comply the same in future also
Additional Conditions vide letter No J-13011/ 24/ 2008-IA.II(T) dated 30/09/2013		Compliance Status
(xxxii)	Scheme for harnessing solar power within the premises of the plant (particularly at available roof tops) shall be critically examined and status of implementation shall be submitted.	Complied. Status of implementation has already submitted vide letter no. TSPL/ ENV/ 02/ MoEF&CC/ 151 dated 28/11/2017.
(xxxiii)	Waste Water generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB/CPCB and no effluent, under any circumstances whatsoever, should be discharged into low lying area or into estuary.	Complied.
(xxxiiii)	A long-term study on radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	Complied. Reputed institute i.e. Central Institute of Mining and Fuel Research (CIMFR) had been engaged for long term study of radioactivity and heavy metals in coal & fly ash. Copy of report attached at Annexure- '11' .



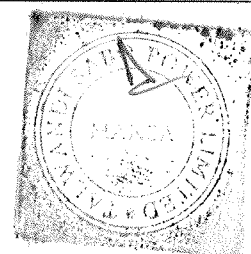
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(xxxiv)	It shall be ensured that in-built monitoring mechanism for the CSR schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time.	Complied. In built monitoring mechanism for CSR schemes already in place. Social audit for the FY-2022-23 got done from reputed government institute i.e. Central University of Punjab. Copy of report attached at Annexure- '12' .
(xxxv)	The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	Integrated HSE policy has been formulated & identified and designated responsible at all levels of its hierarchy for ensuring adherence to the policy and compliance with conditions stipulated in Environment clearance and other applicable environmental laws and regulations.
4	The Ministry of Environment and Forest reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry, MOEF may impose additional environmental conditions or modify the existing ones, if necessary.	Noted
5	The environmental clearance accorded shall be valid for a period of 5 years to start of production operations by the power plant.	Complied. All units i.e. 3x660 MW are in operational.
6	In case 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 would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules 1989 and its amendments, The Public Liability Insurance Act, 1991 and its amendments	Noted
8	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997	Noted



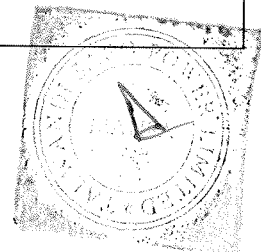
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Additional Conditions (as per MoEF Office Memorandum No.J.11013/41/2006-IA.II (I) dated 06/04/2011)		Compliance Status
(i)	Continuous monitoring of stack emissions as well as ambient air quality (as per notified standards) shall be carried out and continuous records maintained. Based on the monitored data, necessary corrective measures as may be required from time to time shall be taken to ensure that the levels are within permissible limits. The results of monitoring shall also be submitted to the respective Regional Office of MoEF regularly. Besides, the results of monitoring will also be put on the website of the company in the public domain.	Complied. TSPL has 4 CAAQMS station and OCEMS for 3 boiler stacks which have real time connectivity with PPCB and CPCB servers. Also, EC compliance report including reports for monitoring of stack emissions and that it is displayed on website. screenshot for TSPL website is attached at Annexure – '13'
(ii)	The six-monthly monitoring report as well as the monitored data on various parameters as stipulated in the environment clearance conditions shall be put on the website of the company and also regularly updated. The monitored data shall also be submitted to respective State Pollution Control Board/UTPCCs and the Regional Office of MoEF.	Periodically submitting to MoEF/ PPCB/ CPCB (copy of Previous letter is attached at Annexure – '9' and screenshot for TSPL website is attached at Annexure – '13' and continue to comply the same in future also.
(iii)	The ambient air quality data as well as the stack emission data will also be displayed in public domain at some prominent place near the main gate of the company and updated in real time.	Complied and continue to comply the same in future also.
MoEF&CC Office Memorandum No. L-11011/ 17/ 2014-IA.I (T) dated 25/09/2014		Compliance Status
(i)	The Thermal Power Plants attracting the said Notification shall submit its compliance to the Ministry's Regional Office and SPCB concerned along with the compliance reports of the environmental safeguards stipulated in the ECs and Consents	Complied and continue to comply the same in future also.
MoEF&CC Office Memorandum F.No.22-13/2019-IA.III dated 28/08/2019		Compliance Status



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(i)	The guidelines prepared by CPCB for disposal of fly ash for reclamation of low-lying areas and in stowing/backfilling of abandoned mines / quarries shall be followed during Disposal of ash in abandoned or working mines, as annexed.	Not applicable
(ii)	There Should at least be clearance of 500 m of safe distance be maintained from River and water body in case of ash disposal in abandoned mines to prevent embankment failures and fly ash flowing into the nearby water body.	Not applicable
(iii)	The top layer of the fly ash disposal area in the abandoned mines shall be kept moist during disposal.	Not applicable
(iv)	Top layer of the disposal area should have 70 cm overburden or gravels / stones and then 30 cm sweet soil cover. Subsequently, the vegetation shall be raised on the soil cover.	Not applicable
(v)	Bioaccumulation and bio-magnification test shall be conducted on surrounding flora and fauna (tree leaves, vegetation, crop yields and cattle population) during pre-monsoon and post monsoon to find out any trace metals as caped through groundwater or runoff.	Noted.
(vi)	Surface runoff and supernatant water, in any case shall not be let into the surrounding areas. It shall be collected by providing adequate drains around the mine. The Supernatant water along with surface runoff shall be treated and re-used for mixing ash and plant operations.	Not applicable
(vii)	To the extent possible, only decanted water from mine, make up water from treated effluents such as cooling tower blow down and treated sewage water shall be used for making ash slurry.	Complied. In power plant, cooling tower blow down is being used for making ash slurry.
(viii)	Fly ash to be used as soil conditioner in agriculture need and to be applied in controlled manner to limit excessive application so as to prevent soil degradation. The optimize proportion of as to applied	Noted



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	which is to be certified by the state Agricultural Universities / Colleges based on the soil testing.	
(ix)	Approval from DGMS shall be obtained before disposing the ash in the mine voids.	Not applicable
(x)	Technology for conversion of fly ash into coarse granules for stowing in the underground mines to be explored.	Noted
(xi)	All the power plant should install different silos for dry collection of fly ash.	Complied. 3 Nos. separate Silos provided for dry fly ash collection.
(xii)	Records pertaining to details of month-wise Quantity of fly ash disposed and water consumption along with nature/source of water shall be maintained and submitted to ministry / regional office annually.	Complied. Details of quantity of fly ash disposed has already submitted to MoEF&CC, Regional Office, Chandigarh, CPCB and PPCB vide letter number TSPL/ENV/F&W/MoEF &CC/APRIL-2023/01 dated 27.04.2023 Annexure – '14' Colling tower blowdown is the source of water for fly ash disposal.
(xiii)	Before starting the disposal of ash into mine voids, the NOC / Permission from the mine owner is to be obtained in case the mine closure activities are not completed or state government in case the mine has been the handed over to the state Govt. after its closure. A copy of such NOC/Permission is to be Submitted to the ministry and its Regional Offices	Not applicable

