

JAYPEE BINA THERMAL POWER PLANT

A DIVISION OF JAIPRAKASH POWER VENTURES LIMITED

By: Regd.Post & E-Mail

Ref: JBTPP/ENV/EC Compl./Oct.21-Mar.22/2022/ 1057

Date 10/05/2022

The Chief Conservation of Forest,
Ministry of Environment & Forests
Regional Office (WZ), Kendriya Paryavaran Bhawan
E-5, Arera Colony, Link Road-3, Ravishankar Nagar
BHOPAL (MP) 462 016

Sub.: Submission of Compliance Repod for the period of October,2021-March,2022 regarding various conditions of the Environmental Clearance granted by MoEF vide letter No. J.13011/28/92-IA.II (T)dated 23.04.1996 and additional conditions stipulated vide letter No. J-13012/45/08-IA-II (T) dated 05.08.2009 for coal based Jaypee Bina Thermal Power Plant (2x250 MW) at Rajiv Nagar, near village Sirchopi, Tehsil Bina, Distt. Sagar (MP)

Respected Sir/Madam,

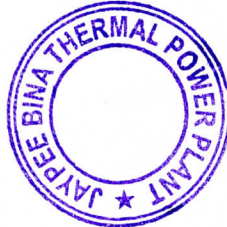
With reference to the cited subject, we are pleased to submit Half Yearly Compliances Report to conditions laid in the above Environmental Clearance for the period of October 2021-March 2022.

Kindly acknowledge the receipt

Thanking you.

Yours faithfully,
For **Jaypee Bina Thermal Power Plant**
(A Division of Jaiprakash Power Ventures Limited)


Maj. Gen. S.K. Panigrahi VSM (Retd.)
(Unit Head)



Encl: a/a

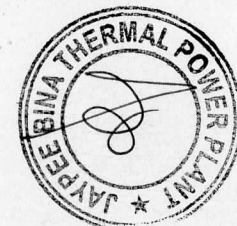
Copy to:

1. The Additional Director & Zonal Office
Central Pollution Control Board
Shakar Bhawan 3rd floor, North TT Nagar,
BHOPAL (MP)-462 003
2. The Chairman,
MP Pollution Control Board,
Paryavaran Parisar, E-5, Arera Colony
BHOPAL (MP)-462 016
3. The Regional Officer,
MP Pollution Control Board,
Deen Dayal Nagar, Housing Board Colony,
SAGAR (MP)-470 001

Bina Office : Rajiv Nagar, Sub Post Office-Agasod, Post Office - Bina - 470 113
Tehsil Bina, Distt. Sagar (M.P.) Ph. : +91 (7580) 277101-03 Fax : +91 (7580) 277200
Corp. Office : 'JA House', 63, Basant Lok, Vasant Vihar, New Delhi - 110 057 (India)
Ph. : +91 (11) 49828500 Fax : +91 (11) 26145389
Regd. Office : Complex of Jaypee Nigrie Super Thermal Power Plant, Nigrie Tehsil Sarai,
Distt. Singrauli 486669, (M.P.) Ph. : +91 (7801) 286021-39 Fax : +91 (7801) 286020
E-mail : jpv.investor@jalindia.co.in, Website : www.jpmpowerventures.com
CIN : L40101MP1994PLC042920

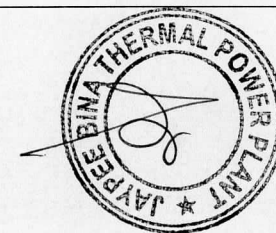
Name of the Project	:	Jaypee Bina Thermal Power Plant, Bina (A Division of Jaiprakash Power Ventures Limited)	Project Code: 17049
Clearance Letter No	:	Environmental Clearance (EC) No.J.13011/28/92-IA.II (T) dated 23.04.1996	
Period of Compliance Report	:	OCTOBER, 2021 to MARCH 2022	

SN	Compliance Conditions	Status
1.	All the conditions stipulated by the Madhya Pradesh Pollution Control Board vide letter No 19980/TS/EZ/Sagar/MPPCB/95 dated 16 th October, 1995 and No 4209 /TS/EZ/MPPCB dated 14.03.96 should be strictly implemented.	All the conditions stipulated by MPPCB have been complied.
2.	<p>Only washed coal with ash content not exceeding 30% should be used, Fly ash generated to the tune of 0.828 MT/day should be utilized in Fal-G-Cement, brick making etc. Full utilization should be ensured by end of 9th year as proposed. Use of coal should be restricted to 8100 tonnes /day.</p> <p><u>The Condition of use of washed coal was waived off vide MOEF letter no J-13011/28/92-IA-II (T) dated 15.10.1997.</u></p> <p><u>Consumption of coal is less than permissible limit of 9000 MT/Day (This condition has been revised by MOEF vide letter no J-13011/28/97-IA-II (T) dated 17.11.1997)</u></p>	<p>Following actions have been made to abide by MoEF notification No.2804(E) dated 3rd November, 2009 & its amendment for fly ash utilization in phased manner and full utilization after 4 years:-</p> <ol style="list-style-type: none"> 1. Fly ash is being sent to Companies/Industries/Enterprises for utilization in cement manufacturing and manufacturing of fly ash bricks/blocks. The following Companies/ Industries/ Enterprises are taking fly ash for utilization in cement manufacturing and manufacturing of fly ash bricks/ blocks: (i) M/s. Heidelberg Cement India Limited (Diamond Cements), Damoh (MP) - fly ash taking for utilization in cement. (ii) M/s Shree Traders, Mandideep (MP) – fly ash taking for supply to bricks manufacturer and cement plants. (iii) M/s Richhariya Industries, Sagar (MP) – fly ash taking for manufacture of bricks. (iv) Ultra Tech (Vikram Cement), Khor, Neemach (MP) - fly ash taking for

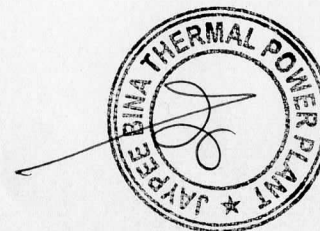


utilization in cement.

- (v) ACC Ltd., Bundi, Lakheri, (Rajasthan) - fly ash taking for utilization in cement.
- (vi) Wonder Cement Ltd., Chittorgarh (Rajasthan) - fly ash taking for utilization in cement.
- (vii) Khatri Bricks Industries, Sagar (MP) – fly ash taking for manufacture of bricks.
- (viii) Jagati Con Bricks, Sagar (MP) – fly ash taking for manufacture of bricks.
- (ix) Dks precast concrete sagar (M.P) - fly ash taking for manufacture of bricks.
- (x) Saloni Entp Ganj Basoda (MP)- fly ash taking for manufacture of bricks.
- (xi) Rudra Industry Bina (MP) - fly ash taking for manufacture of bricks.
- (xii) Shiv Shakti Indore (MP) - fly ash taking for manufacture of bricks.
- (xiii) Heidelberg Cement Jhansi (U.P) - fly ash taking for utilization in cement.
- (xiv) India Cement Banswara (Raj) - fly ash taking for utilization in cement.
- (xv) Ambuja Cement (Raj) - fly ash taking for utilization in cement.
- (xvi) Vikram Cement Khor Neemuch (MP) - fly ash taking for utilization in cement.
- (xvii) Narayan Singh Thakur Jodh Bina (MP) - fly ash taking for manufacture of bricks.



		<p>2. For use/utilization of Fly Ash & Pond Ash in Road/Flyover embankments construction activities as per the MoEF&CC Notification dated 14.09.1999, 27.08.2003, 03.11.2009, 25.01.2016 and also a letter No.24028/14/2018-H dated 27.08.2018 of Ministry of Road Transport & Highways, S&R(P&B) Section, Transport Bhavan, New Delhi, we have requested to respective Govt. Authorities vide our various letters to Collector of Sagar (MP) vide letter dated 27.11.2013, 18.09.2018 & 28.08.2020 / Managing Director of MP Road Development Corporation Limited, Bhopal vide letter dated 25.12.2013, 17.09.2018 & 28.08.2020 / Project Director of NHAI, Sagar (MP) vide letter dated 28.08.2020 and Chief Engineer (Sagar Zone) of PWD, Sagar (MP) vide letter dated 28.08.2020 along with the copy of the above letters to Chairman of MPPCB, Bhopal (MP) for use/utilization of Fly Ash & Pond Ash in Road/Flyover embankments construction activities comes their under.</p> <p>3. Pond Ash is also issued to nearby interested parties as and when required.</p> <p>4. Pond Ash is proposed to be used for development of low lying areas within the acquired land boundary.</p> <p>5. There are no abandoned Mines in the radius of 300 Km from our TPP, but we are trying to identify of abandoned stone quarries in the radius of 300 Km from our TPP for filling of Fly Ash and Pond Ash.</p> <p>6. Fly ash weekly & monthly data is also uploaded at https://map.ntpc.co.in/asha</p>
3.	A closed cycle circulating water system with cooling towers should be incorporated in the project design and only make up water should be drawn.	Closed circuit Natural Draft Cooling towers have been provided and only makeup water is drawn.
4.	A barrage proposed across Betwa river from where a 4 km long pipe will be drawn be so designed as to restrict the pondage to 385m and within the river banks to avoid acquisition of additional land.	The barrage design has been restricted to 385m and pondage is limited within the river banks.



5. Continuous stack monitoring equipment for SPM, SO₂ and NO_x should be provided and data collected should be regularly analyzed for ascertaining the pollution levels within prescribed standards.

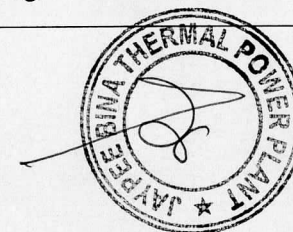
1. The average emission monitoring data of Stacks (2 no's) are given below:-

Parameter	Unit	Stack-1 (Unit -1)	Stack-2 (unit-2)	Standard limit
Particulate Matter	mg/nm ³	48.59	46.58	50
SO ₂	mg/nm ³	1482.59	U/M	600
NO _x	mg/nm ³	396.48	U/M	450

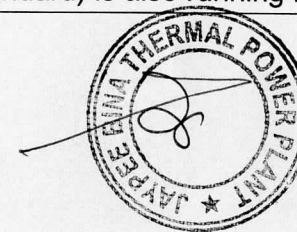
"The average monitoring data of CAAQMS for reporting period are given below":-

Levels	PM-10	PM-2.5	SO ₂	NO _x	CO
	ug/m ³	ug/m ³	ug/m ³	ug/m ³	mg/m ³
Min	28.95	26.54	7.84	12.56	0.12
Max	98.59	48.75	20.15	22.63	1.52
Avg	52.48	38.95	14.52	18.54	1.18

2. Stack and CAAQMS data is also transmitted to CPCB as well as MPPCB through online continuously.
3. PTZ (Pan Tilt Zoom) surveillance Cameras have been installed at Stack, ETP, & STP and data is also transmitted to MPPCB through online continuously.



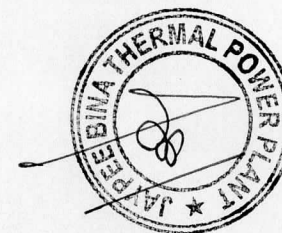
6.	<p>Land requirement should be restricted to 850 Ha with following break up;</p> <p>a) Power plant - 330 ha (262 ha for plant plus 68 ha for green belt)</p> <p>b) Ash disposal - 380 ha (306 ha ash pond plus 74 ha green belt)</p> <p>c) Township - 115 ha</p> <p>d) Rail , road , pipeline etc – 25 ha</p>	<p>MoEF vide letter no.J.13011/28/92-IA.II. dated 4-12-1996 restricted the land requirement to 726 ha with following break up :</p> <table><tr><td>Power plant Area</td><td>- 260 ha</td></tr><tr><td>Ash Pond Area</td><td>- 326 ha</td></tr><tr><td>Other Area</td><td>- 115 ha</td></tr><tr><td>Pipeline etc.</td><td>- 25 ha</td></tr><tr><td>Total</td><td>726 ha</td></tr></table>	Power plant Area	- 260 ha	Ash Pond Area	- 326 ha	Other Area	- 115 ha	Pipeline etc.	- 25 ha	Total	726 ha
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Total	726 ha											
7.	<p>Guard pond with two sections each of 3960 M3 capacity should be created for collection and treatment of effluents from various plant activities before its discharge to Betwa river as per the standards laid down by central pollution control board / Madhya Pradesh Pollution Control Board.</p>	<p>An Effluent Treatment Plant (ETP) along with guard pond has been commissioned to treat the effluents.</p> <p>Two sections of Guard ponds having capacity of 600 M³ each have been constructed.</p> <p>Effluents from various sections such as Bottom ash over flow, SSF back wash, Oil-water separator, recycled water from ash pond, neutralized effluent from DM plant, boiler blow down is brought to the ETP. Arrangement for Acid / Alkali dosing is provided for neutralizing the treated effluent, if required before recycling for various uses. The effluent is treated to conform to the prescribed norms of CPCB/MPPCB.</p> <p>The treated effluent is recycled in the plant for reuse.</p>										
8.	<p>For Socio-economic upliftment of local and affected person's facilities such as hospital, school etc. should be created at project site. Adequate employment facilities should be provided to affected people and if need be, training should be imparted to them in suitable fields.</p>	<p>The following facilities have been provided:-</p> <p>(i) A Hospital with two doctors is already established for medical support to local people and employees.</p> <p>(ii) The plant is already participating in Sanjeevani Project of the state government for healthcare of malnourished children in the age group of 05 months to 05 years of 30 villages around the plant site in Bina Tehsil.</p> <p>(iii) A Hindi & English by lingual school (10+2 standard) is also running for education</p>										



		<p>of children of local people and employees.</p> <p>(iv) Company ITI has been constructed and academic session has started in the year 2014 with Trade of Electrician and Sewing Technology. Fitter trade also started w.e.f Aug-2016.</p> <p>(v) To the extent possible, local people have been employed for various activities in the plant. Necessary training has been given to them.</p> <p>(vi) For session 2020-21 and 2021-22 training is being imported to 12 Nos. trainees of Electrician Trade and 4 Nos. of Fitter Trade.</p> <p>(vii) Other facilities provided to nearby villagers such as providing fire fighting services with Fire Tender, distribution of sweets in nearby schools on the occasion of Independence & Republic Day and contributing in nearby villages Cricket Tournament and Social Activities.</p>
9.	Noise level should be maintained within 85 dB (A) by proper maintenance of equipments and isolation etc. for people working in generator hall, ear plugs should be provided.	<p>All equipments have been designed and fitted with adequate noise control measures so as to keep the noise level below 85 dB(A).</p> <p>Personal protective equipments like ear plug/ear muff are provided to workers who work in noisy area.</p>
10.	For easy access of the areas on northern side of plant, a corridor should be maintained between plant and proposed ash disposal area.	Already complied.
11.	Continuous monitoring of ground water should be undertaken in consultation with central ground water board. Data collection should be analyzed for ascertaining if leaching through ash pond is taking place affecting the water quality. Continuous monitoring of flue gases should also be ensured.	Ground water Monitoring has been done through MPPCB, Sagar. The ash pond has been lined with impervious HDPE liner and has been concreted to ensure that there is no leaching. Continuous stack emission monitoring equipments have been installed.
12.	For controlling NOX emission, low NOX burners and steam injection system should be provided.	Secondary over fire air burner have been provided to reduce NOx emission level.
13.	Project authorities must create sufficient in house capability (Environmental Cell) supported by full-fledged laboratory to monitor and implement environment related issues.	Project has established a separate Environmental Management Cell with qualified and experienced executives. A full-fledged laboratory has been set-up to monitor the Environmental parameters.



14.	Adequate financial provision, item wise and year wise, must be made for implementation of above stipulated conditions. Detail on these aspects should be submitted to the ministry by 31st May 1996.	<p>Rs.265.98 crores have been provided for implementation of environmental protection measures such as ESP, ETP, dust separation and extraction system, ash effluent recycling system, on line stack monitoring and continuous AAQ monitoring equipments, plantation, etc as per details given below:</p> <table><tr><th><u>Environment protection systems</u></th><th><u>Cost(Rs Crores)</u></th></tr><tr><td>ESP</td><td>100.00</td></tr><tr><td>Online Stack Monitoring system for PM 2.5,PM10,SO2,CO,NOX</td><td>35.00</td></tr><tr><td>Ash handling system</td><td>37.00</td></tr><tr><td>Effluent & Sewage treatment</td><td>12.50</td></tr><tr><td>Dust suppression in coal yard</td><td>0.23</td></tr><tr><td>Ash Pond</td><td>80.00</td></tr><tr><td>AAQ Monitoring Systems</td><td>0.25</td></tr><tr><td>Green belt plantation</td><td>1.00</td></tr><tr><td>Total</td><td>265.98</td></tr></table> <p>Recurring expenditure towards environmental protection measures has been included in the Operational & Maintenance budget of the plant.</p>	<u>Environment protection systems</u>	<u>Cost(Rs Crores)</u>	ESP	100.00	Online Stack Monitoring system for PM 2.5,PM10,SO2,CO,NOX	35.00	Ash handling system	37.00	Effluent & Sewage treatment	12.50	Dust suppression in coal yard	0.23	Ash Pond	80.00	AAQ Monitoring Systems	0.25	Green belt plantation	1.00	Total	265.98
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Ash Pond	80.00																					
AAQ Monitoring Systems	0.25																					
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Total	265.98																					
15.	Full co-operation should be extended to Scientists/Officials from Regional Office Of Ministry at Bhopal who would be monitoring the compliance of environmental measures by providing environmental data, plans and related documents requested from time to time.	Full co-operation is extended to the visiting officials.																				



Name of the Project
:
Jaypee Bina Thermal Power Plant, Bina
(A Division of Jaiprakash Power Ventures Limited)

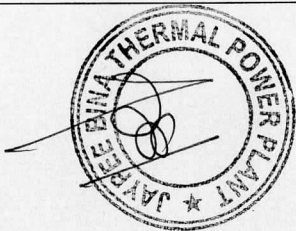
Project Code: 17049

Clearance Letter No
:
Environmental Clearance (EC) No. J-13012/45/08-IA-II (T) dated 05.08.2009

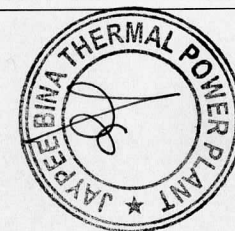
Period of Compliance Report
:
OCTOBER, 2021 to MARCH 2022

Additional Conditions:

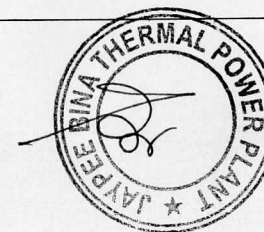
SN	Compliance Conditions	Status
1.	A sewage treatment plant shall be provided and the treated sewage shall be used for raising green belt / plantation	<p>A sewage treatment plant (STP) of 1000 KLD is in Operation. The STP comprises of Screen Bar, Equalization tank, Aeration tank & Secondary clarifier and chlorination system.</p> <p>The treated sewage water is used for green belt development / plantation within the plant premises.</p> <p>The sludge of STP is used as manure in Greenbelt Development.</p>
2.	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season.	Adequate safety measures such as water sprinklers have been provided in coal yard to check / minimize spontaneous fires in coal yard.
3.	Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS shall be made in the plant area in consultation with the dep't of Explosive, Nagpur. Sulphur content in the liquid fuel shall not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	<p>Approval for storage of liquid fuel from Chief Controller of Explosive, Nagpur has already been obtained vide letter no P/HQ/MP/15/2848(P271672) dtd 13.03.2012. This has been renewed and is valid up to 31.12.2023.</p> <p>The liquid fuel is sourced from Govt. owned agencies like IOCL/HPCL/BPCL etc. to ensure sulfur content within permissible limits of 0.5%.</p> <p>Disaster Management plan has been prepared which has been approved by Directorate, Industrial Health and Safety, MP, Indore vide letter no OSEP NO.RE09101811510477 dated 05.09.2020. This plan will take care of any eventuality in case of any accident.</p>



4	Adequate funds shall be allocated for undertaking CSR activities.	<p>A Separate fund has already been allocated for undertaking CSR activities. Fund allocation for various CSR activities is as below:</p> <p>(a) One time expenditure : Rs 35 Crores</p> <p>(b) Recurring expenses is met from annual budget as per requirement.</p> <p>Following CSR activities have been implemented for the benefits of surrounding area:</p> <p>(i) Senior secondary school and Hospital.</p> <p>(ii) ITI to provide hands on technical training in various trades</p> <p>(iii) Constructed 20 Km. of Govt. public road from Ambedkar Chowk, Bina to village Bamhori Durjan (near plant)</p> <p>(iv) Constructed 7 Km. Road for Hinnod villagers from village Hinnod to Betwa River (near village Hinnod)</p> <p>(v) Renovation, Modification & Extension of Betwa River Ghat at Hinnod village.</p> <p>(vi) Deepening of Kanera Canal.</p> <p>(vii) Various community welfare activities such as medical camps, family planning camps, temple and school renovation etc.</p> <p>(viii) Funds have been allocated for setting up Polytechnic, women/ adult education, forty bedded Hospital, Sanitation, Community center etc.</p> <p>(ix) The plant is participating in Sanjeevani Project of the state government for healthcare of malnourished children in the age group of 05 months to 05 years of 30 villages around the plant site in Bina Tehsil.</p> <p>(x) Constructed 150mtr. CC Road in the Adiwasi area of Jodh village.</p>
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		(xi) Providing fire fighting services with Fire Tender, distribution of sweets in nearby schools on the occasion of Independence & Republic Day and contributing in Jodh village Cricket Tournament.
5.	First aid and sanitation arrangement shall be made for the drivers and other contract workers during construction phase.	All requisite facilities for contract workers and drivers were provided during construction phase.
6.	Provision shall be made for the 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, crèche etc. the housing may be in the form of temporary structures to be removed after the completion of the project.	Construction is over since both the units of the plant have been commissioned. Very few construction labours are working in the premises, who have been provided with all requisite facilities.
7.	A copy of the compliance letter shall be sent by the proponent to concerned Panchayat , Zila Parisad / Municipal Corporation, Urban local Body and the Local NGO, If any from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Already Complied.
8.	The proponent shall upload the status of compliance of the stipulated EC condition, 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 CPCB and SPCB. The criteria pollutant levels namely; SPM, RSPM, SO2 and NOX (ambient levels as well as stack emissions) shall be monitored and displayed at a convenient location near main gate of the company in the public domain.	<p>The previous six monthly Compliance report of Environmental Clearance has been sent to the Regional Office of MoEF, Zonal Office CPCB at Bhopal and MPPCB vide letter no. <i>JBTPP/ENV/EC Compl./April,21-Sep. 21/2021/573</i> Date 12.11.2021. It has also been uploaded on Company website.</p> <p>Four no's of Continuous Ambient Air Quality Monitoring stations have been established in consultation with SPCB. Display arrangement of criteria pollutants near main gate of the company in the public domain has been made.</p> <p>Stack and CAAQMS data is also transmitted to CPCB as well as MPPCB through online continuously.</p> <p>PTZ (Pan Tilt Zoom) surveillance Cameras have been installed at Stack, ETP, & STP which is under observation.</p>



9.	<p>The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned 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.</p>	<p>Environment Statement for the financial year April 2020 - March 2021 has been sent to the Member Secretary, MPPCB, Bhopal and RO MPPCB, Sagar vide letter no.:JBTPP/MPPCB/Env.Stmt. Form-V/2020-21/2021/090 Date 23.04.2021.</p> <p>It has also been uploaded on company's website along with compliance of EC conditions.</p>
10.	<p>The project authorities shall inform the Regional Office as well as Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and dates of start of land development work and commissioning of plant.</p>	<p>The financial closure has already been achieved in November 2009.</p> <p>Consent to establish has been granted by MPPCB vide letter no 64/TS/MPPCB/2011 dtd 3rd January 2011.</p> <p>Two units (2x250 MW) have been commissioned after obtaining Consent for Operation by MPPCB, vide letter No.1818/TS/MPPCB/2013 dated 04.03.2013 under Air Act,1981 and 1816/TS/MPPCB/2013 dated 04.03.2013 under Water Act,1974.</p> <p>The Consents under Water and Air Acts have been renewed by MPPCB through Online on 01.02.2022 which is valid up to 31.03.2023.</p>

