The Chief Conservator of Forests,
Ministry of Environment & Forests
Regional office (WZ), Kendriya Paryavaran Bhawan
E-5, Arera Colony, Link Road-3
Ravishankar Nagar
BHOPAL – 462 016 (M.P)

Sub: Compliance status of various conditions of the Environmental Clearance granted by MoEF vide letter No. J-13011/28/92-1AII(T) dated 23.04.1996 and additional conditions stipulated vide letter No. J-130 12/45/05-1A II (T) dated 05.08.2009 for coal based Jaypee Bina Thermal Power Plant (2x250 MW) at Village Sirchopi, Tehsil Bina, Dist. Sagar (M.P)

Dear Sir,

We are pleased to submit half yearly Compliance report to conditions laid down in Environmental Clearance with supporting documents/ annexures /photographs in respect of Jaypee Bina Thermal Power Plant for the period October 2013 –March 2014.

Thanking you.

Yours faithfully,

For JAYPEE BINA THERMAL POWER PLANT

DR B J PRASAD
Sr. G M (ENVIRONMENT & SAFETY)

Encl: As above

Copy to: 1. The Additional Director & Zonal Officer
Central Pollution Control Board, Shankar Bhawan, 3rd floor, North TT Nagar,
BHOPAL – 462 003

2. The Chairman,
MP Pollution Control Board, Paryavaran Parisar, E-5,Arera Colony
BHOPAL – 462 016

3. The Regional Officer,
M.P. Pollution Control Board,
Deen Dayal Nagar, Housing Board Colony,
SAGAR (M.P.)

**S.N.** | **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\textsuperscript{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. | 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 9\textsuperscript{th} year as proposed. Use of coal should be restricted to 8100 tonnes/day. | Condition of use of washed coal was waived off vide MoEF letter no J-13011/28/92-IA-II (T) dated 15.10.1997. Copy attached as Annexure-1. Following efforts have been made to abide by MoEF notification No.2804[E] dated 3\textsuperscript{rd} November, 2009 for fly ash utilization in phased manner and full utilization after 4 years:-

(i) A fly ash brick/block manufacturing unit has been installed, having capacity of 45Lac/pa bricks. The photograph of Fly Ash brick manufacturing unit is attached as Annexure-2.

(ii) MOU's have been signed with following industries/enterprises for supply of Fly Ash:

(a) M/s. Heidelberg Cement India Limited (Diamond Cements) to supply 1000MT/per day fly ash for utilization in cement.

(b) M/s Shree Traders, Mandideep for supply of 300 MT per day Fly Ash for trading to bricks manufacturer and cement plant.

(c) M/s Panna Lal Ahirwar, Khurai for supply of 50 MT per month of Fly Ash for manufacture of bricks.

(d) M/s Richhariya Industries, Sagar for supply of 100 MT per month of Fly Ash for manufacture of bricks.

(e) M/s Cenosphere India Pvt Ltd, Kolkata.

Following companies are also taking fly ash for utilization in cement manufacturing and MOU's are likely to be signed shortly for bulk supply of fly ash with these companies:

(f) Ultra Tech, Khor, Neemach (M.P.)

(g) Birla Corporation Ltd., Chittorgarh (Rajasthan)

(h) ACC Ltd., Bundi, Lakheri, (Rajasthan)
A closed cycle circulating water system with cooling towers should be incorporated in the project design and only make up water should be drawn.

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 385 m and within the river banks to avoid acquisition of additional land.

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

Land requirement should be restricted to 850 Ha with following break up;

a) Power plant - 330 ha (262 ha for plant plus 68 ha for green belt)
b) Ash disposal - 380 ha (306 ha ash pond plus 74 ha green belt)
c) Township - 115 ha
d) Rail, road, pipeline etc - 25 ha


Closed circuit Natural Draft Cooling towers have been provided and only makeup water is drawn. Photograph of cooling tower is attached as Annexure-4.

The barrage has been designed to restrict the pondage to 385.75m and pondage is limited within the river banks.

Four no's of Continuous Ambient Air Quality Monitoring stations have been installed in consultation with SPCB. The AAQ data are within the prescribed limits. Dedicated network for sharing the data with MPPCB & CPCB are under development. Photograph of AAQM is attached as Annexure-5. Monitoring result of Ambient Air Quality is attached as Annexure-6.

MoEF vide letter no. J.13011/28/92-IA-II dated 4-12-1996 restricted the land requirement to 726 ha (Annexure-7) with following break up:

Power plant Area - 260 ha
Ash Pond Area - 326 ha
Other Area - 115 ha
Pipeline etc. - 25 ha
Total - 726 ha
7. 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.

8. 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.

9. Noise level should be maintained within 85 d B (A) by proper maintenance of equipments and isolation etc. for people working in generator hall, ear plugs should be provided.

10. For easy access of the areas on northern side of plant, a corridor should be maintained between plant and proposed ash disposal area.

An effluent treatment plant (ETP) along with guard pond has been provided to treat the effluents and to recycle the treated effluent in the plant use.

Annexure-8. The ETP consists of:

(a) Collection cum equalization sump : 1680 M³
(b) Flash mixer cum flocculation tank : 22.5 M³
(c) Tube settler chambers(2Nos.): 316.88 M³ each
(d) Guard pond(2Nos.) : 600 M³ each

Effluents from various sections such as SSF back wash, recycled water from ash pond, service water, neutralized effluent from DM plant, boiler blow down are brought to the ETP. Arrangement for Acid / Alkali dosing is provided for neutralizing the treated effluent before recycling for various uses. The effluent is treated to conform to the prescribed norms of CPCB/MPPCB.

A hospital with two doctors is already established for medical support to local people and employees.

A Hindi medium school is also running for education of children of local people and employees.

To the extent possible, local people have been employed for various activities in the plant. Necessary training is given to them before inducting them. To provide easy access for skill enhancement of the local people, an ITI has been constructed and academic session will start in the current year. A polytechnic school is also proposed under CSR activities.

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.

All equipments have been designed and fitted with adequate noise control measures so as to keep the noise level below 85 d B(A).

Personal protective equipments like ear plug/ear muff are provided to workers who work in noisy area.

It has been 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.

12. For controlling NOX emission, low NOX burners and steam injection system should be provided.

13. Project authorities must create sufficient in house capability (Environmental Cell) supported by full-fledged laboratory to monitor and implement environment related issues.

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.

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.

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Compliance Conditions</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A sewage treatment plant shall be provided and the treated sewage shall be used for raising green belt/plantation</td>
<td>A sewage treatment plant (STP) of 1000KLD is in Operation. The STP comprises of: • Screen Bar, • Equalization tank, • Aeration tank, • Secondary clarifier and chlorination system. The treated sewage water is used for green belt development/plantation and sprinkling. The sludge of STP is used as manure in Greenbelt Development. Adequate safety measures such as water sprinklers have been provided in coal yard to check/minimize spontaneous fires in coal.</td>
</tr>
<tr>
<td>2.</td>
<td>Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season.</td>
<td>Approval for storage of liquid fuel from Chief Controller of Explosive, Nagpur has already been obtained vide letter no P/IIP/M P/15/2848(PZ71672) dtd 13.03.2012. Copy enclosed as Annexure-13. The liquid fuel is sourced from Govt. owned agencies like IOCL/HPCL/BPCL etc. to ensure sulfur content within permissible limits of 0.5%. Disaster Management plan has been prepared which has been approved by Directorate, Industrial Health and Safety, MP, Indore vide letter no 15/32/B-2/MHC/VI/12/4201 dated 27.07.2012. Copy of the approval of On-Site Emergency Plan and Disaster Measure is attached as Annexure-14. This plan will take care of any eventuality in case of an accident.</td>
</tr>
<tr>
<td>3.</td>
<td>Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS shall be made in the plant area in consultation with the deptt 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.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Adequate funds shall be allocated for undertaking CSR activities.</td>
<td>A Separate fund has already been allocated for undertaking CSR activities. Fund allocation for various CSR activities is as below: • One time expenditure: Rs 35 Crores. • Recurring expenses is met from annual budget as per requirement.</td>
</tr>
</tbody>
</table>
5. First aid and sanitation arrangement shall be made for the drivers and other contract workers 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, creche etc. the housing may be in the form of temporary structures to be removed after the completion of the project.

7. A copy of the compliance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / 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.

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
d Regional Office of MOKF, Zonal Office CPCB at Bhopal and

Following CSR activities have been implemented for the benefits of surrounding villagers:
(a) Senior secondary school and Hospital.
(b) ITI
(c) Renovation of 16 KM approach road.
(d) Deepening of Kanera Canal
(e) Various community welfare activities such as medical camps, family planning camps, temple and school renovation etc.
(f) Funds have been allocated for setting up Polytechnic, women/adult education, Forty bedded Hospital, Sanitation, Community center etc.
(g) 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.

One full fledged Hospital with doctors & other paramedical facilities has been set up for the employees including drivers & contract workers. Sanitation facilities for contract workers and drivers have been provided. Facilities for housing construction labours within the site with necessary arrangements such as Annapurna (Community Mess), drinking water connection, toilets and power connection etc. have been provided. Further, medical facilities including doctor and paramedical staff have been provided for the workers. Since both the units of the plant have been commissioned, the number of construction labour has been reduced substantially and only skeleton construction labours are working in the premises.

Already Complied.

The status of Compliance of stipulated EC conditions including result of monitor data is uploaded on company’s website.

The previous six monthly Compliance status of Environmental Clearance was sent to the Regional Office of MoEF, Zonal Office CPCB at Bhopal 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.

9. 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.

10. 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.


The criteria pollutants (ambient levels as well as stack emissions) are being monitored. Arrangements have been made for display of AAQ data near main gate in the public domain.

Environment Statement for the financial year April 2012 - March 2013 has been submitted in Form-V on 25/09/2013 to MPPCB, Bhopal. It shall be uploaded on website of the company along with EC compliance report and shall also be sent to the Regional office of MoEF by e-mail.

The financial closure has already been achieved in November 2009. Consent to establish has been granted by MPPCB vide letter no 64/TS/MPPCB/2011 dtd 3rd January 2011. 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.

Application for renewal of Consent Water and Air Acts has been submitted to MPPCB on 04.01.2014. Consent is awaited.
OFFICE MEMORANDUM

Subject: 2 x 289 MW Bina Thermal Power Project (Phase-I), Madhya Pradesh by M/s Bina Power Supply Company Ltd.

Reference is invited to this Ministry's Office Memorandum of even number dated 23rd April, 1996 and 4th December, 1996 regarding the above mentioned subject.

2. In view of our Notification No. 560 (E) dated 19th September, 1997 regarding use of beneficiated coal for power projects, there is no need to use beneficiated coal in the proposed Bina Thermal Power Project as it is only 665 kms from the linked mine. As such, condition No. (ii) of our O.M. dated 23rd April, 1996 may be read as under:

(ii) Fly ash generated to the tune of 0.828 MT/day should be utilised in Pal-G-Cement, brick making etc. Full utilisation should be ensured by the end of 9th year as proposed. Use of coal should be restricted to 8100 tonnes/day.

3. Other conditions will remain unchanged.

Shri R. Vaidyanathan,
Joint Executive President,
Bina Power Supply Company Ltd.,
E-7/726, Arera Colony,
Bhopal - 462 016 (M.P.).

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi.
FLY ASH BASED BRICK MANUFACTURING PLANT
Copy to:
B.P. 77, Greater Noida, Uttar Pradesh, India.

Subject: 2 x 250 MW Amritsar Thermal Power Project (Phase-I), Madhya Pradesh

November 12, 1992

LOHIA ROAD, NEW DELHI - 1100

Fax: 4865078

MINISTRY OF ENVIRONMENT &

GOVERNMENT OF INDIA

PARAVARAN BHAVAN, CGO, CON

NEW DELHI

Paravaran : Paravaran

Telex: 4865078

Letter: 4865078

NEW DELHI

Telex: 051173 (UNIV)

Telephone: 4865078

B.P. 77, Greater Noida, Uttar Pradesh, India.

Subject is invited to the Ministry's Office for memorandum of even number

2.

1. In para (II), the figure 8100 contracts/day may be read as 9000 contracts/day.

2. Forwarded via October 1989 on the above subject.

CONCERNING

FILE: 7/1992

ANNEXURES

1.

The Chairman, Central Pollution Control Board, East Arjun Nagar, Delhi-11002.

2.

The Chairman, Central Pollution Control Board, East Arjun Nagar, Delhi-11002.

3.

The Chairman, Central Pollution Control Board, East Arjun Nagar, Delhi-11002.

4.

The Principal Office, Shyam Nagar, New Delhi, E-5, Aruna.

5.

The Chairman, M.P. Pollution Control Board, East Arjun Nagar, Delhi-11002.

6.

Central Pollution Control Board, East Arjun Nagar, Delhi-11002.

7.

New Delhi, Central Electricity Authority, R.K Puram, Sector B, New Delhi, N. Delhi.
ANNEXURE- 4

NATURAL DRAFT COOLING TOWER
ANNEXURE- 5

AMBIENT AIR QUALITY MONITORING EQUIPMENT
Jaypee Bina Thermal Power Plant
CAAQMS-1 (Near ATM)

Date - 28.02.2014

Chart Title

- PM2.5 ug/m3
- PM10 ug/m3
- SO2 ug/m3
- NOX ug/m3
- NO2 ug/h
- NO ug/m3

CO mg/m3

Time

Time
Subject: Bina Thermal Power Project Stage-I (2 x 289 MW) by M/s Bina Power Supply Company Limited, M.P.

The undersigned is directed to refer to letter No.BPSC/DO/RV/96 dated 29th October, 1996 from M/s Bina Power Supply Company Limited regarding the above mentioned project.

2. The request for environmental clearance for the enhanced capacity of 2 x 289 MW as against the approved proposal of 2 x 250 MW has been examined and considering that the pollution load due to the enhanced capacity will be within the permissible limits, we have no objection to the installation of two units of 289 MW capacity each subject to the following conditions:

i) All the conditions stipulated vide our letter of even number dated 23rd April, 1996 should be strictly implemented.

ii) The land requirement should be restricted to 726 ha with the following breakup.

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Plant Area</td>
<td>260</td>
</tr>
<tr>
<td>Ash Pond Area</td>
<td>326</td>
</tr>
<tr>
<td>Other Area</td>
<td>115</td>
</tr>
<tr>
<td>Pipeline etc.</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>726</strong></td>
</tr>
</tbody>
</table>
iii) Water consumption should be reduced from 4030 M3/hr to 3000 m3/hr. The pondage, therefore across Betwa river should also be reduced.

iv) Project activities should restrict coal consumption to 7824 tonnes/day.

3. It should be ensured that there is no further change in the project profile/design for Stage-I.

Shri R. Vaidyanathan,
Joint Executive President,
Bina Power Supply Company Ltd.,
UCO Bank Building,
Parliament Street,
New Delhi-110001.

copy to:
1. Secretary, Ministry of Power, Shram Shakti Bhavan, Rafi Marg, New Delhi.
2. Chairman, Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal.
4. CCF(Central), Regional Office, Bhopal.
5. Guard file.

(Nalini Bhat)
Additional Director
ANNEXURE- 8

EFFLUENT TREATMENT PLANT
ANNEXURE - 9

HDPE LINING AND CONCRETING OF ASH POND
ANNEXURE- 10

ONLINE STACK MONITORING EQUIPMENT
Organogram of the Environment Management Cell

Sr. G.M. (Environment)

Horticulture Officer (Plantation)

Assistant G.M. (Chemistry Lab & Env. Lab.)

Ash Utilisation Cell

Engineer (Instrumentation)

Sr. Manager (Env. Lab)

Chemist

Water, Waste Water, Manual Ambient Air Quality Monitoring and Stack Emission Monitoring

1. Continuous Ambient Air Quality Monitoring Equipments (CAAQM)
2. Online Flue Gas Analyzer Equipments
Annexure

Jaypee Bina Thermal Power Plant
(A Unit of Jaiprakash Power Venture Limited)
Village – Sirchopi Tehsil – Bina
District Sagar (M.P.)

List of Environmental Instruments:

1. pH Meter
2. Conductivity Meter
3. Turbidity Meter
4. Flame photo Meter
5. COD Digester
6. BOD Incubator
7. High Volume Sampler (APM-430)
8. Respirable Dust Sampler (APM-460 BL)
10. Barometer
11. Maximum-Minimum Thermometer
12. Electronic Balance
M/s. Bina Power Supply Company Limited
Bina Thermal Power Station, Village Sirchopi, Sub Post Office Agasod,
P.O. Bina - 470 113, Tehsil Bina, District - SAGAR, PIN - 470113
State - Madhya Pradesh

Subject: Petroleum Class “C” Installation at Bina Thermal Power Station, Village Sirchopi, Sub Post Office Agasod, Tehsil Bina, District - SAGAR, State - Madhya Pradesh

Licence No. P/HQ/MIP15/2848(P/271672) dated 13/3/2012 for the storage of the following kind and quantities of Petroleum at the subject installation is forwarded herewith.

<table>
<thead>
<tr>
<th>Description of Petroleum</th>
<th>Quantity licensed in K.L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Class A in bulk</td>
<td>Nil</td>
</tr>
<tr>
<td>Petroleum Class A, otherwise than in bulk</td>
<td>Nil</td>
</tr>
<tr>
<td>Petroleum Class B in bulk</td>
<td>Nil</td>
</tr>
<tr>
<td>Petroleum Class B, otherwise than in bulk</td>
<td>Nil</td>
</tr>
<tr>
<td>Petroleum Class C in bulk</td>
<td>2800 Kilotonnes (KL)</td>
</tr>
<tr>
<td>Petroleum Class C, otherwise than in bulk</td>
<td>2800 Kilotonnes (KL)</td>
</tr>
</tbody>
</table>

Please follow the procedure strictly as laid down in Rule 149 of the Petroleum Rules, 2002 and submit complete documents for further renewal of the licence, to the Chief Controller of Explosives, Central Circle office, Agra so as to reach on or before the date on which licence expires i.e 31/12/2013.

(You are faithfully)

Yours faithfully,

T.R. Thomas
Chief Controller of Explosives

District Magistrate, Sagar (Madhya Pradesh) with reference to his N.O.C. No. 616-C/Ann Lee/11 dated 20/9/2011

For more information regarding status, fees and other details please visit our website http://peso.gov.in
ON-SITE EMERGENCY PLAN & DETAILED DISASTER CONTROL MEASURES
(As per Section 41-B (4) of the Factories Act, 1948)

NOTIFIED FINAL AND UPDATED FOR
SUBJECT TO STIPULATION MENTIONED
IN MEMO NO. 1/18.6.2012 DATED

JAYPEE BINA THERMAL POWER PLANT
(A Division of Jaiprakash Power Ventures Limited)
Village- Sirchopi,
Sub Post Office- Agasod, Post Box No.1,
Post Office- Bina,
District- Sagar (MP) 470 113

Date: 25.06.2012

Signature
(Occupier)