

MB POWER (MADHYA PRADESH) LIMITED

Corporate Office: 239, Okhla Industrial Estate, Phase-III, New Delhi- 110020
Tel: +91 11 47624100 Fax: +91 11 47624229

MBPMPL/APR/ENV/2019-20/

Date: 01/06/2019

To,

The Additional Principal Chief Conservator of Forest,
Ministry of Environment, Forest and climate Change,
Kendriya Paryavaran Bhavan, Link Road-3,
Ravi Shankar nagar, Bhopal (M.P.) – 462016.

Sub.: Submission of half yearly EC compliance report for our 2 X 600 MW thermal power plant located at Anupur in Madhya Pradesh.

Ref.: 1. Environment clearance letter no. J-13012/99/2008-IA. II (T) GOI MoEF & CC, dated 28/05/10
2. Corrigendum to Environmental clearance letter no. J-13012/99/2008-IA. II (T) GOI MoEF & CC, dated 01/09/10

Dear Sir,

This has to the above mentioned letter granting us environmental clearance for our 2x 600 MW Thermal Power project at Anuppur, Madhya Pradesh. Please find attached herewith the compliance report of Environmental clearance with annexure [for the period Dec-18 to May-19] for your kind perusal please.

List of annexure

Sr. No.	Annexure	Description
A	Annexure - A	EC compliance status of condition
01	Annex.-1	Hg/Stack emission monitoring report by third party
02	Annex.-2	Ambient Air Quality monitoring report.
03	Annex.-3	Ground water test report
04	Annex.-4	Surface water test report
05	Annex.-5	Ash utilization report
06	Annex.-6	Ash test report
07	Annex.-7	Ground water test report near ash pond
08	Annex. -8	Details of communities for two adopted villages
09	Annex.-9	Report on TDP(Tribal Development Plan)
10	Annex.-10	Ground water/Drinking water test report of villages
11	Annex.-11	Comprehensive report on CSR intervention

(1)


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We hope you will find the above in order and in line with your requirement.

Thanking you.

For- MB Power (Madhya Pradesh) Ltd.



Authorized Signatory
MB POWER (MP) Limited

CC to : Authorised Signatory

1. The Director
Ministry of Environment, Forest and climate Change,
Indira Paryavaran bhavan,
Jor Bag Road New Delhi-110003
2. Zonal officer
Zonal Office, Central pollution control Board Bhopal
Shahkar Bhavan, North TT Nagar
Madhya Pradesh
3. Member Secretary
Madhya Pradesh Pollution Control Board
Bhopal Madhya Pradesh
4. Regional Officer,
Regional Office MPPCB
Budhar Road Gortara, Shahdol (M.P.)



(2)

HALF YEARLY EC COMPLIANCE REPORT MAY-2019

Ref.: Letter No. J-13012/99/2008-IA. II (T), GOI, MoEF&CC on dated 28/05/2010

SPECIFIC CONDITION

SN	Condition	Status as on May 2019
i	<p>Environment clearance is subject to the condition that no forest land involved in the thermal power project area as well as in the coal mine from which coal is to be sourced.</p> <p>As per corrigendum dated 01.09.2010, above condition (i) shall now be replaced by the following; "Environmental clearance is subject to obtaining clearance under Forest (Conservation) Act, 1980 for diversion of 93.6 acres of forest land."</p>	<p>Complied.</p> <p>Forest Clearance for diversion of 93.6 acres of forest land obtained.</p>
ii	<p>Company shall pay compensation for acquisition of private land and displacement of homestead as per the Central/State Government norms. The compensation to be paid to the land loser and displacement of the families shall not be less than norms/package as per the policy on National Resettlement & Rehabilitation Rules, 2007. Action Plan for R & R with package for the project affected shall be submitted within three month from the date of issue of this letter.</p>	<p>Complied.</p> <p>Compensation for acquisition of private land and displacement of homestead has been paid as per the Central/State Government norms.</p> <p>Compensation paid to the land loser and displacement of the families was more than norms/package as per the policy on National Resettlement & Rehabilitation Rules, 2007.</p>
iii	<p>Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5% and 34% respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made to MoEF for suitable amendment to Environmental clearance condition wherever necessary.</p>	<p>This plant is located within 500 km distance from the source of coal (SECL). Coal is sourced from coal mines, all are located in SECL within 500 km distance of the power plant. Ash <34% is therefore not applicable to this project as per MOEF Notification No... DL 33004/99, (GSR)02E, dated 02/01/2014, However, coal is being used having ash content below 34%. Sulphur content of the coal, used in the plant is always less than 0.5%.</p>
iv	<p>A bi-flue stack of 275 m height shall be provided with continuous online monitoring equipment for SO_x, NO_x and particulate matter, exit velocity of flues gases shall not be less then 22 m/sec. Mercury emission from stack may also monitored on periodic basis.</p>	<p>Complied.</p> <p>Bi- flu Stack of 275 m height provided. Online (Continuous) monitoring equipment for SO₂, NO_x, and Particulate Matter installed in both flues/stacks. Exit velocity of flue gases is kept >22 m/s. Mercury monitoring is done</p>



		periodically Copy of the test report is attached as Annexure - 1.
v	Provision of installation of FGD shall be provided for future use. High efficiency electrostatic precipitator(ESP) shall be installed to ensure that the particulate emission does not exceed 50 mg/Nm ³ . Adequate dust extraction system such as cyclone/Bag filter and water spray system in dusty area such as in a coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Provision of installation of FGD kept in the layout plan ESPs with 99.9% efficiency to ensure PM emission < 50mg/Nm ³ have been installed. Monitoring values of stack emission found between 25 to 45 mg/Nm ³ Dust extraction system and water spray provided in CHP and Ash Handling area, transfer points and other dusty areas have been provided.
vi	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of the monitored data on their website and shall upload 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 level namely; SPM, RSPM, (PM _{2.5} , PM ₁₀), SO ₂ , NO _X (ambient levels as well as Stack emission) shall be displayed at a convenient location near the main gate of the company in the public domain.	Status of compliance of the stipulated environment clearance conditions and results of the monitored data are being sent to the regional office of MOEFCC Bhopal, Zonal Office of the CPCB Bhopal and the SPCB Bhopal and same is uploaded on company's website on six monthly basis. Pollutant levels are displayed at a convenient location near main gate of the company. Copies of Ambient Air Quality monitoring are attached as Annexure - 2.
vii	Detailed hydro-geological study shall be conducted and submitted within six months from an institute/organization of repute to assess impact on surface water regime. Specific mitigation measure shall be spelt out and action plan for implementation of the same shall be provided .It shall be ensured that the area drainage is not disturbed due to the proposed power plant. Hydro-geological study of the area shall be also reviewed annually and result submitted to the ministry and concerned agency in the state Govt. in case adverse impact on ground water quantity and quality is observed at any stage, immediate mitigating steps to contain any adverse impact on ground water shall be under taken.	The detailed hydro-geological study has been conducted and report of same has been submitted vide letter no. MBPMPL/ENV/APR/2011-12/138 dated 01/12/2011. Area drainage report has already been submitted to Mo EF&CC. The Hydro-geological study is being reviewed annually. No significant impact on water quality is seen. Pre and post monsoon ground water level and quality was observed and no significant changes observed. Copy of Review of hydrogeological study will be submitted soon.



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viii	Source of water for meeting the requirement during lean season shall be specified and submitted to the Regional Office of the Ministry within the three months.	Complied.
ix	No ground water shall be extracted for use in operation in the power plant even in lean season.	No ground water is extracted for use in power plant operation.
x	COC of 5.0 shall be adopted. The treated effluent conforming to the prescribed standards only shall be re-circulated and reused within the plant. There shall be no discharge outside the company boundary except during monsoon. Arrangement shall be made that the effluent and storm water do not do get mixed. A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising green belt/plantation.	COC 5.0 adopted. Treated effluent conforming to the prescribed standards is recirculated and reused in ash handling, CHP, etc. There is no discharge from the plant, except during monsoon. Storm water drains are separate from effluent drains. STP installed for treatment of sewage water and treated water is reused for green belt/plantation/ greenery development.
xi	Regular monitoring of ground water level shall be carried out by establishing a network of existing well and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and record maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	Piezometers installed (8 Nos.) and ground water level is seen on monthly basis and water quality is tested on six monthly basis. Records of monitoring being maintained. Baseline data has been submitted in the month of Feb 2011 vide letter no 153/MBPMPL/ ENV/ 2011 dated 07.02.2011. Water quality test results being submitted to Regional office of MOEFCC, Zonal Office of the CPCB and the SPCB. There is no change in water quality w.r.t to the baseline. Ground water test reports are attached as Annexure-3.
xii	Monitoring of surface water quantity shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	Surface water quality of Son river is tested on six monthly basis. Record maintained and submitted to MOEFCC regularly. We monitor the ground water for essential parameter and heavy metals also regularly. Records maintained and submitted to Ministry. Surface water test reports are attached as Annexure-4.



xiii	Measures for rain water harvesting shall be undertaken. 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. Rainwater harvesting structures installed, in consultation with CGWB.
xiv	Additional soil for leveling of the proposed site shall be generated within the site (to the extent possible) so that natural drainage system of the area is protected and improved.	Complied.
xv	Utilization of 100% Fly ash generated shall be made from 4th Year of operation of the plant. Implementation of status shall be reported to the Regional office of this ministry from time to time.	Complied. Fly ash from the plant is used for cement making by Prism Cement, Satna Cement, KJS Cement, Mahihar Cement, Reliance Maihar and ACC Ltd. Flyash is also used by the 4 brick manufactures and 1 cement sheet manufacture. The status of flyash utilization being submitted monthly to ROMPPCB. A summary of the fly ash generation and utilization from April-2018 to March-2019 is attached as Annexure 5 .
xvi	Fly ash shall be collected in dry form and storage facilities (silo) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry. Mercury and other heavy metal (As, Hg, Cr, Pb, etc) shall be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in the low lying area.	Dry fly ash collection system and storage as silos installed. Balance unutilized ash is disposed off in the ash pond through lean slurry disposal system (when not used 100%). Heavy metals and Hg are tested periodically in bottom ash and ash pond effluents. Copy of Ash test Report is attached as Annexure-6 .
xvii	Ash pond shall be lined with HDP/LDP lining or any other suitable impermeable media so that no leachate takes place at any point of time. Adequate safety measure shall also be implemented to protect the ash dyke from getting breached.	Complied. 08 Nos piezometers are installed within the plant premises. Out of 08, three piezometers are located at ash pond area. Groundwater around the ash pond is monitored regularly using piezometers installed around the ash pond. Reports are attached as Annexure-7 .



xviii	For disposal of bottom ash in abandoned mines (if proposed to be under taken), it shall be ensured that the bottom and sides of the mined out areas are adequately lined with clay before Bottom ash is filled up. The proposed proponent shall inform the State Pollution Control Board well in advance before undertaking the activity.	Application has been submitted to SECL on 08 th March 2017, 02 nd Feb 2018 and 24 th May 2019 for allocation of abandoned mine at Kotma. SECL has not allotted any mines till date.
xix	Green Belt consisting of 3 tiers of plantation of native species around plant and at least 100 m width shall be raised. Wherever 100 m width is not feasible a 50 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with survival rate not less than 75%.	Greenbelt development (50-100 m wide) done on the 33% earmarked land area. 2500 trees planted per hectare land area. About 1.92 lakh trees have been planted. Survival rate is about 80%.
xx	Two nearest villages shall be adopted and basic amenities like development of roads, drinking water supply, primary health center, primary school, etc. shall be developed in co-ordination with the district administration.	Villages Laharpur (Murra) & Guwari has been adopted. 17 hand pumps were constructed for drinking water supply; CC roads constructed nearby villages, MBBS doctor deployed for the villagers health checkup, monthly health camp being organized nearby villages. Details of community welfare activities is attached as Annexure 8 .
xxi	For tribal families affected directly or indirectly by the proposed project, specific scheme for up-liftment of their sustainable livelihood shall be prepared with time bound implementation and in-built monitoring program. This shall be submitted within the six months to the ministry.	TDP Scheme duly approved by DM has already been submitted to MoEFCC, vide letter no MBPMPL/ENV/APR/2011-12 Dec 2012. Following activities has been incorporated in TDP:- <ol style="list-style-type: none"> 1. Farm based activity. 2. NTFP based livelihood promotion. 3. Vegetable promotion 4. Off farm and non-farm activity. 5. Land and water activity. 6. Livelihood support program (animal health camp, common infrastructure development for animal health care.) 7. Plantation (fruit bearing trees). 8. Plantation (Lac host plant). Report on TDP as on March 2019 has been attached as Annexure-9 .
xxii	The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for providing fluoride free potable drinking water supply in the near by villages and schools shall be undertaken in a time bound manner.	17 Nos. hand pumps are installed in project affected villages. Drinking water sample being tested six monthly by third part. Fluoride in the water is well within the permissible limit. Copy of Ground water/Drinking water reports are attached as Annexure-10 .



xxiii	An amount of Rs. 5.0 Crores shall be specially earmarked for development activities for tribal of the nearby villages. Specific scheme for upliftment of tribal families mentioning sustainable livelihood schemes shall be submitted to the ministry within three months with time bound implementation and in-built monitoring programme. The above amount shall be over and above the fund earmarked for CSR activities.	Specific scheme for upliftment of tribal families and their sustainable livelihood and income generating activities is already prepared and covered in point No.xxi.
xxiv	Further an amount of Rs. 22.80 Crores shall be earmarked as one time capital cost for CSR programme as committed by the project proponent vide its letter dated 23.03.2010. Subsequently a recurring expenditure of Rs. 4.6 Crores per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month along with road map for implementation.	Comprehensive report on CSR intervention is attached as Annexure-11 .
xxv	While identifying CSR programme the company shall conduct need based assessment for the nearby villages to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generation programmes. This will be in addition to vocational training for individuals to take up self-employment and jobs.	CSR activities carried out mainly in five different verticals i.e. livelihood, Health, education, youth development and infrastructure development. CSR report as on March 2019 has been attached (Annexure-11).
xxvi	Local employable youth shall be trained in skills relevant to the project for eventual employment in the project itself. The action taken report and details thereof to this effect shall be submitted to the Regional Office of the Ministry and the State Govt. Dept. concerned from time to time.	52 Local employable youths were enrolled for ITI training program for skill up gradation, After successful completion training program the trainees have been provided regular employment opportunity and deployed in plant as per the requirement and usefulness. Total 210 youths are employed.



xxvii	It shall be ensured that in-built monitoring mechanism for the 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.	Annual social audit being done through nearest govt. agency which cover all the CSR activities. Copy of social audit report will be submitted later.
<u>GENERAL CONDITION</u>		
i	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires 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 to the Regional Office of the Ministry	We have taken adequate safety measures to minimize spontaneous fire in coal yard and incorporated in on site emergency plan duly approved by Director Health & Safety. Copy of the same has already submitted to Regional Office Bhopal and MOEF&CC Delhi on 04.12.2015.
ii	Storage facilities for auxiliary liquid fuel such as LDO and /HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur, Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of and accident taking place due to storage or oil.	Complied.
iii	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Complied.
iv	Noise levels emanation from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dB(A) for people working in the high noise area, requisite personal protective equipment like earplugs/earmuffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric records and for treatment for any hearing loss including shifting to non-noisy/less noisy areas.	Acoustic enclosures have been provided to keep noise in the work zone much below the limit.



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v	Regular monitoring of ground level concentration of SO ₂ , NO _x , PM _{2.5} & PM ₁₀ and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	Complied.
vi	Provision shall be made for the housing of construction labour (as applicable) 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.	Complied.
vii	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 locality concerned 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 of Environment and Forest at http://envfor.nic.in	Complied.
viii	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any form whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Complied.



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EMTRC CONSULTANTS PRIVATE LIMITED



EMTRC Lab: Recognized by Ministry of Environment, Forests & Climate Change, Govt. of India

NABL Accredited Laboratory ISO/IEC 17025:2005 (TC-7376)

Regd. Office: (For Correspondence) Tower 5/ 102(FF), CWG Village, NH-24, Near Akshardham Temple, Delhi-110092

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CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

Annexure -1

TEST REPORT

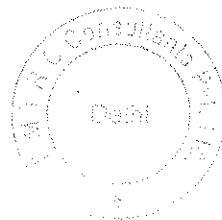
Dated: 25.02.2019

Report No. : EMTRC/756/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Stack Emission Monitoring (2-Flues)
Name of Unit : Flue of Unit 1 and Flue of Unit 2
Date of Sampling : 18-02-2019
Sample Collected By : Staff of EMTRC Lab

STACK EMISSION TEST RESULTS

	Test Method	Stack Emission	
		Unit-1 (660MW)	Unit-2 (660MW)
Date of Monitoring		18-02-2019	18-02-2019
Power Generation at the time of Monitoring		424 MW	433 MW
1 Stack Height from Ground, m	-	275	275
2 Stack diameter, m	IS-11255-P-1-2009	6.2	6.2
3 Barometric Pressure, mmHg	USEPA-2	754	754
4 Flue Gas Temp °C	IS-11255-P-1-2009	125	126
5 Velocity, m/s	IS-11255-P-1-2009	18.6	18.8
6 Volumetric Flow Rate, Nm ³ /sec	IS-11255-P-1-2009	417	421
7 Coal Flow, TPH	-	298	304
8 Air Flow, TPH	-	1656	1811
9 PM, mg/Nm ³	IS-11255-P-1-2009	36	40
10 PM mg/Nm ³ at 6% O ₂ , on dry basis	-	41	47
11 SO ₂ , mg/Nm ³	IS-11255-P-2-2009	996	1019
12 SO ₂ mg/Nm ³ at 6% O ₂ , on dry basis	-	1140	1194
13 NO _x , mg/Nm ³	IS-11255-P-7-2009	460	490
14 NO _x mg/Nm ³ at 6% O ₂ , on dry basis	-	527	574
15 CO, mg/Nm ³	IS-13270- 1992	<1.0	<1.0
16 O ₂ , %	IS-13270- 1992	7.9	8.2
17 CO ₂ , %	IS-13270- 1992	11.3	11.0

MUKESH KUMAR
Authorized Signatory



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NABL Accredited Laboratory ISO/IEC 17025:2005 (TC-7376)
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Phone: 9810032481, 011-21211228, E-mail: emtrcjk@gmail.com, Website: www.emtrc.com
CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

Annexure-2

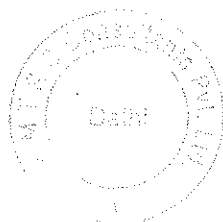
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/757/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : 24-hours Ambient Air Quality
Type of Sample : Ambient Air
Sampling Location : Material Gate near Administration Building
Sample Collected by : Scientist of EMTRC

	Parameter	Unit	Location	
			RESULTS	National Standard (GSR 826 (E) 16-11-2009)
Date of Monitoring			18.02.2019	
1	PM ₁₀	µg/m ³	78	100 (24-hours average)
2	PM _{2.5}	µg/m ³	40	60 (24-hours average)
3	Sulphur dioxide (SO ₂)	µg/m ³	9.2	80 (24-hours average)
4	Nitrogen dioxide (NO ₂)	µg/m ³	14.8	80 (24-hours average)
5	Carbon Monoxide (CO)	mg/m ³	0.24	4 (1-hours average)
6	Ozone (O ₃)	µg/m ³	22	180 (1-hours average)
7	Benzene	µg/m ³	<0.5 (BDL)	05 (Annual average)
8	Benzo(a)Pyrene	ng/m ³	<0.1 (BDL)	01 (Annual average)
9	Arsenic (As)	ng/m ³	<0.5 (BDL)	06 (Annual average)
10	Nickel (Ni)	ng/m ³	2.5	20 (Annual average)
11	Lead (Pb)	µg/m ³	0.12	1 (24-hours average)
12	Ammonia (NH ₃)	µg/m ³	16	400 (24-hours average)

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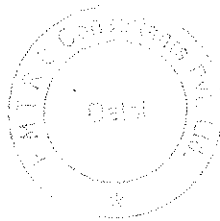
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/758/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : 24-hours Ambient Air Quality
Type of Sample : Ambient Air
Sampling Location : ROC Building
Sample Collected by : Scientist of EMTRC

	Parameter	Unit	Location	
			RESULTS	National Standard (GSR 826 (E) 16-11-2009)
Date of Monitoring			18.02.2019	
1	PM ₁₀	µg/m ³	80	100 (24-hours average)
2	PM _{2.5}	µg/m ³	42	60 (24-hours average)
3	Sulphur dioxide (SO ₂)	µg/m ³	8.5	80 (24-hours average)
4	Nitrogen dioxide (NO ₂)	µg/m ³	13.8	80 (24-hours average)
5	Carbon Monoxide (CO)	mg/m ³	0.18	4 (1-hours average)
6	Ozone (O ₃)	µg/m ³	20	180 (1-hours average)
7	Benzene	µg/m ³	<0.5 (BDL)	05 (Annual average)
8	Benzo(a)Pyrene	ng/m ³	<0.1 (BDL)	01 (Annual average)
9	Arsenic (As)	ng/m ³	<0.5 (BDL)	06 (Annual average)
10	Nickel (Ni)	ng/m ³	2.8	20 (Annual average)
11	Lead (Pb)	µg/m ³	0.06	1 (24-hours average)
12	Ammonia (NH ₃)	µg/m ³	14	400 (24-hours average)

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NABL Accredited Laboratory ISO/IEC 17025:2005 (TC-7376)

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Phone: 9810032481, 011-21211228, E-mail: emtrckm@gmail.com, Website: www.emtrc.com

CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N



Annexure-3

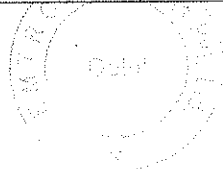
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/744/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water / Piezometer-1
Sampling Location : Near Staff Colony
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.12	6.5 – 8.5
4	Conductivity	µmhos/cm	API IA-2510	430	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	310	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	110	600
8	Calcium as Ca	mg/l	APHA-4500B	28	75
9	Magnesium as Mg	mg/l	APHA-4500B	9.7	30
10	Chlorides as Cl	mg/l	APHA-4500B	18	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	5.8	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	12.2	400
14	Fluoride as F	mg/l	APHA-4500D	0.74	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.05	0.3
16	Copper as Cu	mg/l	APHA-3111B	0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.45	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

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Phone: 9810032481, 011-21211228, E-mail: emtrcjkm@gmail.com, Website: www.emtrc.com

CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/745/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water / Piezometer-2
Sampling Location : Near Site Office
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.14	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	510	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	370	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	190	600
8	Calcium as Ca	mg/l	APHA-4500B	48	75
9	Magnesium as Mg	mg/l	APHA-4500B	12.2	30
10	Chlorides as Cl	mg/l	APHA-4500B	15	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	4.5	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	17.2	400
14	Fluoride as F	mg/l	APHA-4500D	0.78	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.08	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.65	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

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Phone: 9810032481,011-21211228, E-mail: emtrcjk@gmail.com, Website: www.emtrc.com

CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

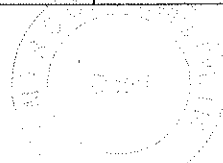
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/747/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water / Piezometer-3
Sampling Location : Near Water Reservoir
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.06	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	410	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	310	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	140	600
8	Calcium as Ca	mg/l	APHA-4500B	32	75
9	Magnesium as Mg	mg/l	APHA-4500B	14.6	30
10	Chlorides as Cl	mg/l	APHA-4500B	25	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	4.5	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	15.8	400
14	Fluoride as F	mg/l	APHA-4500D	0.75	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.05	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.74	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

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Phone: 9810032481, 011-21211228, E-mail: emtrcjk@gmail.com, Website: www.emtrc.com

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TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/748/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water / (Piezometer-4)
Sampling Location : Near Watch Tower (DM Plant)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.36	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	430	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	320	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	120	600
8	Calcium as Ca	mg/l	APHA-4500B	24	75
9	Magnesium as Mg	mg/l	APHA-4500B	14.6	30
10	Chlorides as Cl	mg/l	APHA-4500B	22	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	4.2	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	14.5	400
14	Fluoride as F	mg/l	APHA-4500D	0.72	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.05	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.72	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil


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CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/749/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water /(Piezometer-5)
Sampling Location : Near Tower Line-ROC (Ash Pond Area)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.13	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	450	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	330	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	200	600
8	Calcium as Ca	mg/l	APHA-4500B	52	75
9	Magnesium as Mg	mg/l	APHA-4500B	17	30
10	Chlorides as Cl	mg/l	APHA-4500B	32	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	6.8	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	24.5	400
14	Fluoride as F	mg/l	APHA-4500D	0.88	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.06	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	1.02	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

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ENVIRONMENT MONITORING TRAINING & RESEARCH CENTRE

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CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

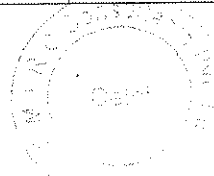
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/746/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water / Piezometer-6
Sampling Location : Near Fuel Oil Pump House (Ash pond Area)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.39	6.5 – 8.5
4	Conductivity	umhos/cm	APHA-2510	590	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	430	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	210	600
8	Calcium as Ca	mg/l	APHA-4500B	52	75
9	Magnesium as Mg	mg/l	APHA-4500B	19.4	30
10	Chlorides as Cl	mg/l	APHA-4500B	30	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	4.2	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	22.4	400
14	Fluoride as F	mg/l	APHA-4500D	0.82	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.06	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.82	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

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CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

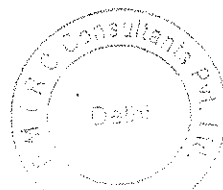
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/750/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
Nature of Sampling : Grab Sample
Type of Sample : Ground Water / Piezometer-7
Sampling Location : Near Coal Yard (Ash Pond Area)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	6.96	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	610	-
5	Turbidity	NTU	APHA-2030B	2	5
6	Total Dissolved Solids	mg/l	APHA-2540B	420	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	210	600
8	Calcium as Ca	mg/l	APHA-4500B	60	75
9	Magnesium as Mg	mg/l	APHA-4500B	14.6	30
10	Chlorides as Cl	mg/l	APHA-4500B	20	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	4.5	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	21.6	400
14	Fluoride as F	mg/l	APHA-4500D	0.82	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.05	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.94	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil


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CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N



TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/751/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water / Piezometer-8
Sampling Location : Near Security Barrack
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.45	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	510	-
5	Turbidity	NTU	APHA-2030B	2	5
6	Total Dissolved Solids	mg/l	APHA-2540B	380	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	170	600
8	Calcium as Ca	mg/l	APHA-4500B	36	75
9	Magnesium as Mg	mg/l	APHA-4500B	19.4	30
10	Chlorides as Cl	mg/l	APHA-4500B	12	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	5.8	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	15.2	400
14	Fluoride as F	mg/l	APHA-4500D	0.78	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.05	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.84	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

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Phone: 9810032481, 011 21211228, email: emtrcjk@gmail.com, website: www.emtrc.com

TEST REPORT

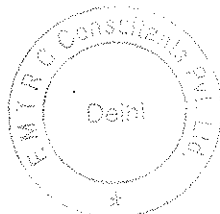
Date: 19-03-2019

Report No. : EMTRC/893/2019
 Issued To : MB POWER (Madhya Pradesh) Limited
 Jaithari, Anuppur, Madhya Pradesh-484224
 No. of Pages : 1 of 1
 WO / PO No : 2001302291 Date: 19.06.2018
 Type of Sample : Surface Water
 Sampling Location : Son River (Downstream)
 Sampling Procedure : Grab Sampling
 Sample Collected & Brought to Lab by : EMTRC Staff

Annexure-4

Parameters	Unit	Test Methods	RESULTS			Limit IS:10500:2012
			16-01-2019	08-02-2019	11-03-2019	
Date of Sampling						
1 pH	-	APHA-4500	7.28	7.31	7.27	6.5 - 8.5
2 Temperature	°C	APHA-4500	17	18	18	-
3 Dissolved Oxygen	mg/l	APHA-4500C	5.6	5.2	5.0	-
4 Conductivity	µmhos/cm	APHA-2510	250	280	310	-
5 Suspended solids	mg/l	APHA-2540D	14	15	14	-
6 Total Dissolved Solids	mg/l	APHA-2540B	190	210	226	2000
7 Total Alkalinity	mg/l	APHA-2320B	94	98	98	600
8 Total Hardness as CaCO ₃	mg/l	APHA-2340C	84	90	92	600
9 Calcium as Ca	mg/l	APHA-4500B	29	32	32	7.5
10 Magnesium as Mg	mg/l	APHA-4500B	2.9	2.4	2.9	30
11 Chlorides as Cl	mg/l	APHA-4500B	10	12	14	1000
12 Nitrates as NO ₃	mg/l	APHA-4500	3.5	3.8	3.6	45
13 Phenolic compound	mg/l	APHA-5230D	<0.001	<0.001	<0.001	0.002
14 Sulphate as SO ₄	mg/l	APHA-4500E	4.8	5.8	6.2	400
15 BOD, 3 days 27°C	mg/l	APHA-5210B	4.0	3.8	4.2	-
16 COD	mg/l	APHA-5220C	18	16	20	-
17 Sodium as Na	mg/l	APHA-3500B	18	20	18	-
18 Potassium as K	mg/l	APHA-3500B	0.16	0.15	0.14	-
19 Total Silica	mg/l	APHA-4500C	7.0	7.5	7.2	-
20 Fluoride as F	mg/l	APHA-4500D	0.68	0.70	0.70	1.5
21 Iron as Fe	mg/l	APHA-3111B	0.05	0.05	0.06	0.3
22 Copper as Cu	mg/l	APHA-3111B	<0.02	<0.02	<0.02	1.5
23 Lead as Pb	mg/l	APHA-3111B	<0.01	<0.01	<0.01	0.01
24 Hexavalent Chromium as Cr ⁺⁶	mg/l	APHA-3500B	<0.05	<0.05	<0.05	-
25 Zinc as Zn	mg/l	APHA-3111B	0.15	0.16	0.15	15
26 Chromium	mg/l	APHA-3111B	<0.05	<0.05	<0.05	0.05
27 Oil & Grease	mg/l	APHA-5520D	Nil	Nil	Nil	0.03
28 Cadmium as Cd	mg/l	APHA-3111B	<0.01	<0.01	<0.01	0.003
29 Mercury as Hg	mg/l	APHA-3111B	<0.001	<0.001	<0.001	0.001
30 Arsenic as As	mg/l	APHA-3111B	<0.001	<0.001	<0.001	0.05
31 Selenium as Se	mg/l	APHA-3111B	<0.01	<0.01	<0.01	0.01
32 Total coliform	MPN/100ml	APHA-9230B	430	445	465	Nil


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EMTRC Lab: F-66, Road-2, UPSIDC Industrial Area, Masuri Gulawthi Road, Ghaziabad (UP) 201009

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Phone: 9810032481, 011 21211228, email: emtrcjk@gmail.com, website: www.emtrc.com

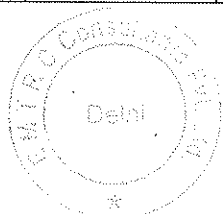
TEST REPORT

Date: 19-03-2019

Report No. : EMTRC/894/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
WO / PO No : 2001302291 Date: 19.06.2018
Type of Sample : Surface Water
Sampling Location : Tipan River Near Jaithari Village
Sampling Procedure : Grab Sampling
Sample Collected & Brought to Lab by : EMTRC Staff

Parameters	Unit	Test Methods	RESULTS			Limit IS:10500:2012	
			16-01-2019	08-02-2019	11-03-2019		
Date of Sampling				16-01-2019	08-02-2019	11-03-2019	
1	pH	-	APHA-4500	7.19	7.28	7.22	6.5 – 8.5
2	Temperature	°C	APHA-4500	17	18	18	-
3	Dissolved Oxygen	mg/l	APHA-4500C	5.4	5.0	5.2	-
4	Conductivity	µmhos/cm	APHA-2510	340	370	380	-
5	Suspended solids	mg/l	APHA-2540D	15	16	16	-
6	Total Dissolved Solids	mg/l	APHA-2540B	245	270	276	2000
7	Total Alkalinity	mg/l	APHA-2320B	140	148	144	600
8	Total Hardness as CaCO ₃	mg/l	APHA-2340C	120	130	132	600
9	Calcium as Ca	mg/l	APHA-4500B	40	44	46	75
10	Magnesium as Mg	mg/l	APHA-4500B	4.8	4.8	3.9	30
11	Chlorides as Cl	mg/l	APHA-4500B	22	25	25	1000
12	Nitrates as NO ₃	mg/l	APHA-4500	4.2	4.8	4.5	45
13	Phenolic compound	mg/l	APHA-5230D	<0.001	<0.001	<0.001	0.002
14	Sulphate as SO ₄	mg/l	APHA-4500E	11.5	12.5	11.5	400
15	BOD, 3 days 27°C	mg/l	APHA-5210B	4.8	5.2	4.9	-
16	COD	mg/l	APHA-5220C	22	24	24	-
17	Sodium as Na	mg/l	APHA-3500B	28	32	35	-
18	Potassium as K	mg/l	APHA-3500B	0.22	0.28	0.28	-
19	Total Silica	mg/l	APHA-4500C	7.6	7.8	7.5	-
20	Fluoride as F	mg/l	APHA-4500D	0.76	0.78	0.78	1.5
21	Iron as Fe	mg/l	APHA-3111B	0.06	0.05	0.06	0.3
22	Copper as Cu	mg/l	APHA-3111B	<0.02	<0.02	<0.02	1.5
23	Lead as Pb	mg/l	APHA-3111B	<0.01	<0.01	<0.01	0.01
24	Hexavalent Chromium as Cr ⁺⁶	mg/l	APHA-3500B	<0.05	<0.05	<0.05	-
25	Zinc as Zn	mg/l	APHA-3111B	0.18	0.20	0.19	15
26	Chromium	mg/l	APHA-3111B	<0.05	<0.05	<0.05	0.05
27	Oil & Grease	mg/l	APHA-5520D	Nil	Nil	Nil	0.03
28	Cadmium as Cd	mg/l	APHA-3111B	<0.01	<0.01	<0.01	0.003
29	Mercury as Hg	mg/l	APHA-3111B	<0.001	<0.001	<0.001	0.001
30	Arsenic as As	mg/l	APHA-3111B	<0.001	<0.001	<0.001	0.05
31	Selenium as Se	mg/l	APHA-3111B	<0.01	<0.01	<0.01	0.01
32	Total coliform	MPN/100ml	APHA-9230B	530	548	536	Nil

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Ash generation and utilization year 2018-19

Mode of utilization	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Total	Utilization
	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	%
Cement Plant	45115	45535	45990	87430	76720	64085	11594	36680	66465	78540	83560	107235	748949.00	45.78
EVEREST -Roof sheet	2205	2765	2380	1085	1120	1330	245	595	420	1435	2160	1800	17540.00	1.07
Dilip builtcon - Road	245	70	105	350	175	35	35	35	35	0	0	0	1085.00	0.07
Miscil. Brick works works	385	665	735	1225	385	1610	560	665	910	1365	1160	1400	11065.00	0.68
Ash dyke Raising	98340	36565	0	0	0	0	0	0	0	0	0	0	134905.00	8.25
Civil concreting	0	90	0	150	405	40		180	0	40	0	0	905.00	0.06
Land reclamation	1152	65840	119256	56115	53220	50850	109413	101873	35000	67692	33500	27598	721509.00	44.10
Total Utilization	147442	151530	168466	146355	132025	117950	121847	140028	102830	149072	120380	138033	1635958.00	
Total Ash generation	133846	142860	127674	160058	129717	117154	121847	140028	104359	139872	120583	139877	1577875.30	
% utilization	110	106	132	91	102	101	100	100	99	107	100	98.68	103.68	100.00

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Phone: 9810032481, 011-21211228, E-mail: emtrcjk@gmail.com, Website: www.emtrc.com

CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1Z1, PAN: AABCE0945N

Annexure-6

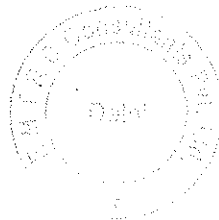
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/754/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Wastewater - Grab
Type of Sample : Ash Water Recirculating System (Pond Outlet)
Sampling Location : Ash Pond, MBPMPL
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	Results	Standard (CPCB Document Number: PCLS/02/2010 :Sixth Edition)
1	pH	-	APHA-4500	7.26	6.5 – 8.5
2	Total Suspended Solids	mg/l	APHA-2540D	40	100
3	Oil and Grease	mg/l	APHA-4500D	1.2	20
4	Total Dissolved Solids	mg/l	APHA-2540B	460	-


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CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

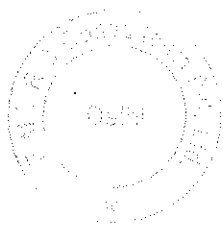
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/764/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Wastewater - Grab
Type of Sample : Ash Water Recirculating System (Pond Outlet)
Sampling Location : Ash Pond, MBPMPL
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Method	RESULTS
1	Iron as Fe	mg/l	APHA-3111B	0.25
2	Copper as Cu	mg/l	APHA-3111B	0.16
3	Cadmium as Cd	mg/l	APHA-3111B	<0.01
4	Total Chromium as Cr	mg/l	APHA-3111B	0.22
5	Lead as Pb	mg/l	APHA-3111B	0.04
6	Arsenic as As	mg/l	APHA-3114	<0.025
7	Mercury as Hg	mg/l	APHA-3112	<0.01
8	Manganese as Mn	mg/l	APHA-3111B	0.28
9	Zinc as Zn	mg/l	APHA-3111B	2.45


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Phone: 9810032481,011-21211228, E-mail: emtrcjk@gmail.com, Website: www.emtrc.com
CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1Z1, PAN: AABCE0945N


TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/766/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab
Type of Sample : Bottom Ash
Sampling Location : From Boiler
Date of Sample Collection : 18-02-2019
Sample Collected by : MBPMPL and handed over to Scientist of EMTRC at site

RESULTS

	Parameter	Unit	Test Result
1	Lead	µg/g	18.6
2	Cadmium	µg/g	0.72
3	Chromium	µg/g	11.5
4	Manganese	µg/g	42.4
5	Zinc	µg/g	94.2
6	Cobalt	µg/g	9.5
7	Copper	µg/g	24.2
8	Nickel	µg/g	19.2
9	Mercury	µg/g	0.32
10	Arsenic	µg/g	0.70


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CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1Z1, PAN: AABCE0945N


TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/765/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab
Type of Sample : Fly Ash
Sampling Location : From ESP Hopper
Date of Sample Collection : 18-02-2019
Sample Collected by : MBPMPL and handed over to Scientist of EMTRC at site

RESULTS

	Parameter	Unit	Test Result
1	Lead	µg/g	16.8
2	Cadmium	µg/g	0.68
3	Chromium	µg/g	10.8
4	Manganese	µg/g	40.6
5	Zinc	µg/g	88.4
6	Cobalt	µg/g	8.6
7	Copper	µg/g	22.6
8	Nickel	µg/g	15.8
9	Mercury	µg/g	0.28
10	Arsenic	µg/g	0.65


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CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N



Annexure - 7

TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/749/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water /(Piezometer-5)
Sampling Location : Near Tower Line-ROC (Ash Pond Area)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.13	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	450	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	330	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	200	600
8	Calcium as Ca	mg/l	APHA-4500B	52	75
9	Magnesium as Mg	mg/l	APHA-4500B	17	30
10	Chlorides as Cl	mg/l	APHA-4500B	32	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	6.8	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	24.5	400
14	Fluoride as F	mg/l	APHA-4500D	0.88	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.06	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	1.02	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

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ENVIRONMENT MONITORING TRAINING & RESEARCH CENTRE

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Phone: 9810032481, 011-21211228, E-mail: emtrcjkm@gmail.com, Website: www.emtrc.com

CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N



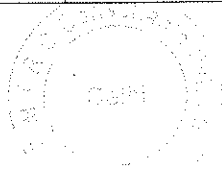
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/746/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water / Piezometer-6
Sampling Location : Near Fuel Oil Pump House (Ash pond Area)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.39	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	590	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	430	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	210	600
8	Calcium as Ca	mg/l	APHA-4500B	52	75
9	Magnesium as Mg	mg/l	APHA-4500B	19.4	30
10	Chlorides as Cl	mg/l	APHA-4500B	30	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	4.2	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	22.4	400
14	Fluoride as F	mg/l	APHA-4500D	0.82	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.06	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.82	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil


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Phone: 9810032481, 011-21211228, E-mail: emtrcjk@gmail.com, Website: www.emtrc.com
CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

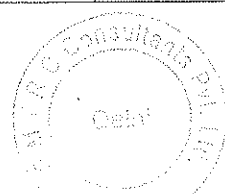
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/750/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradhesh-484224
Nature of Sampling : Grab Sample
Type of Sample : Ground Water / Piezometer-7
Sampling Location : Near Coal Yard (Ash Pond Area)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	6.96	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	610	-
5	Turbidity	NTU	APHA-2030B	2	5
6	Total Dissolved Solids	mg/l	APHA-2540B	420	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	210	600
8	Calcium as Ca	mg/l	APHA-4500B	60	75
9	Magnesium as Mg	mg/l	APHA-4500B	14.6	30
10	Chlorides as Cl	mg/l	APHA-4500B	20	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	4.5	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	21.6	400
14	Fluoride as F	mg/l	APHA-4500D	0.82	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.05	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.94	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil


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DETAILS OF COMMUNITY WELFARE ACTIVITIES FOR TWO ADOPTED VILLAGES

Sr.	Items	Status
I	Education	
a	Renovation of School building and support class	<ul style="list-style-type: none"> • New building of primary school, boundary wall, kitchen shed and toilet at village Laharpur (Murra) completed. • Construction of new shed and boundary wall at village Guwari completed. • Electrification & electrical equipment's in Govt Primary School Guwari & Laharpur (Murra). • Provided furniture & teaching materials in govt. Primary School Laharpur (Murra) & Guwari. • Transfer of library at village Laharpur (Murra) to old primary school Laharpur (Murra) completed. • Recruitment of teachers for support classes at Guwari & Laharpur (Murra) completed. • Support class started in Laharpur (Murra), Guwari. • Provided two support teachers in Govt. School in Laharpur (Murra) and Guwari. • Study materials provided to 144 students from Laharpur (Murra) and Guwari.
b	Bal Bharti Public School	<ul style="list-style-type: none"> • Construction of Building for Bal Bharti Public School. • Furniture & Equipments for Mont 1, II and Class 1st to 8th. • Smart Class • Science & Math Lab. • Up gradation of Computer Lab • Up gradation of Library • Music Instruments • Garden Development • Sports Activities: - Volleyball & table tennis provided for students. • Development of ground for swing. • 10 nos bicycle provided. • Free coaching class conducted for students from Khatedar.
c	Distribution of School Uniform and Study material.	<ul style="list-style-type: none"> • Provided shoes and shocks to all students of two adopted schools at Guwari and Laharpur (Murra). • Provided School Uniform for both season winter & summer to students studding in Bal Bharti Public School from Khatedar ward.

		<ul style="list-style-type: none"> • Provided Study material & Books to students studying in Bal Bharti Public School from Khatedar ward.
d	Up gradation of ITI building	<ul style="list-style-type: none"> • Development of 02 Nos Play Ground (Cricket & Badminton) • Up gradation of Building.
e	Training for ITI and other professional institutions	<ul style="list-style-type: none"> • Total 34 candidates have been trained in different trade at ITI Jaithari i.e. Electrical, COPA, Fitter & welder • Financial Assistance @Rs.500/month per students has been paid. • Rs.1000/month/student has been paid to ITI Jaithari for raw material expenses. • All 34 candidates appeared in examination conducted SCVT MP and passed out. • For these 34 ITI candidates one year "On the job" Training Programme has been designed and implemented since 25th December, 2012 • During one year "On the Job Training Programme" they are getting stipend Rs.3500 PM. • One welding Machine provided for welder trade candidates. • Tool Kits provided to all ITI candidates. • PPE provided to all ITI candidates. • Sports activities organized between Candidates. • Organized the final assessment (Theory & Practical) for ITI Candidates. • 06 month Advance Training Programme organized for 51 Passed out Candidates at Bangalore. • During Training Rs.6200/- honorarium is being paid.
f	Scholarship and other facilities to students	<p>Scholarship released to 363 students</p> <p>a. Laharpur 137+128=265</p> <p>b. Guwari 226+241=467</p>
g	Rural sport and community events	<ul style="list-style-type: none"> • Participated and provided financial support to Durga Pujan Committees in Laharpur (Murra) and Guwari. • Participated and provided financial support for Bhandara during Durga Puja. • Organized a cricket tournament in Laharpur (Murra) during CSR week in Dec-13 and provided cricket kit and winner trophy to winner team.
h	TALEEM,DLP, Vocational training program	<ul style="list-style-type: none"> • Support school in Murra and Guwari (primary level) • Digital literacy program for Murra and Guwari students • Summer camps organized for Murra and Guwari students • Dropout mainstreaming program in Model school



		<p>Murra</p> <ul style="list-style-type: none"> • Talented students were felicitated under Talent felicitation program. • Youth development program in Murra and Guwari • Vocation training (Sewing) in Murra and Guwari • Click abroad program was organized including children from Murra and Guwari
2	Community Health	
a	Medical Care	<ul style="list-style-type: none"> • Community health services continue in both the villages. • <i>Kishori Balika and Mahila Swashthya Shivir</i> organised under CSR week at Murra and Guwari. 101 women and adolescent girls benefitted in Laharpur (Murra) and 129 from Guwari
b	Ambulance, Staff, Nurse and Doctor	<ul style="list-style-type: none"> • Two ambulances (one ultra modern Ambulance) purchased for providing health services and emergency referral services. • Doctor and paramedical staff are available to provide the OPD services on regular basis. • Special health camps
c	Up gradation of drinking water and supply facilities in surrounding villages.	<ul style="list-style-type: none"> • Total hand pumps installed -14 as per following details- a.Laharpur-10 b.Guwari-4 • Repair of hand pumps carried out regularly as and when required.
d	Up gradation of sanitation/ drainage facilities in surrounding villages.	<ul style="list-style-type: none"> • 6 Bathrooms constructed near hand pumps in adopted villages. • 10 platforms constructed near hand pumps.
e	Home visit	<ul style="list-style-type: none"> • Anti-natal care and post-natal care • Drop out cases linkage with government health agencies • Identifying mal nutrition cases and linking with govt. agencies
f	Group health meetings	<ul style="list-style-type: none"> • Awareness and sensitization on adolescence health care • Awareness and sensitization on MCH and general health care
g	PAHAL program	<ul style="list-style-type: none"> • Production of low cost sanitary pad and distribution • Around 10 SHG members have been engaged in production of pads

h	Drishti Project	<ul style="list-style-type: none"> 160 out of 464 population have been screened
3	Livelihoods	
a.	Agriculture based activity	<ul style="list-style-type: none"> Paddy, Wheat, Chickpea, Pigeon pea, Maize, Linseed, Lentil, vegetables with registered families in Laharpur Murra and Guwari Fruit bearing trees distributed to registered families in Guwari and Laharpur Murra
b.	Off-farm and non-farm activities	<ul style="list-style-type: none"> Vermicomposting done with HDP materials Back yard poultry done with providing help in construction of one mother unit in each village Better quality buck breeds were distributed among group of registered families for breed enhancement of local goat breed Better quality doe breeds were distributed among individual registered families for promoting goat rearing Oyster Mushroom promotion with registered families in each villages
c.	Institution development (SHG promotion)	<ul style="list-style-type: none"> 9 SHG and 3 SHG have promoted in Laharpur and Guwari village Small businesses have been promoted in some of those SHGs. Back yard poultry is being promoted through SHGs
d.	Land and water development	<ul style="list-style-type: none"> Pond de-silting done in Laharpur (Murra) and Guwari Drinking water facility installed in Guwari
e.	Livestock Vaccination	<ul style="list-style-type: none"> Livestock vaccination was done for HS and BQ in animal from Murra and Guwari
3	Check dams, pond deepening and other water and soil conservation measures	<ul style="list-style-type: none"> Soak pit near hand pumps- 10 completed. Deepening of 2 ponds at village Laharpur and Guwari completed. Planted 250 saplings in and around the periphery of the plant area.
4	Construction of Community Centers, shelters and Gardens	<ul style="list-style-type: none"> Constructed community stage (Choupal) in villages Guwari and Laharpur (Murra).
5	Solar Panels in Model Village Laharpur & Guwari	<ul style="list-style-type: none"> 12 Solar Panels in Guwari 08 Solar Panel in Laharpur (Murra)
6	Construction and up gradation of village Road	<ul style="list-style-type: none"> CC road of village Laharpur (Murra) (850 meters) and Guwari (650 meters) is completed. Shoulder Repairing Jaithari Chowk to Culvert near Gate no-01 by CC Completed. Shoulder Repairing Culvert near Gate no-01 to Laharpur Crossing by Murrum completed. Potholes Culvert near Gate no-01 to Laharpur Crossing to Amganwa completed.



7	Financial Assistance to vulnerable population – Widow and Physically challenged @500/months	Name of Village	Widow	PCP
		Laharpur	15	06
		Guwari	17	17
		Total	32	23

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TDP Report as on 31st March 2019

Corporate Social Responsibility at Moserbaer Power (MP) Limited is geared towards enhancing the relationship of company with its various stakeholders and provides best developmental opportunities. Its initiatives are geared towards addressing the needs and challenges of sustainable livelihoods, better health, education and youth development. For us CSR is a way towards conducting business that achieves an integration of social economic and environmental imperatives at the same time addressing stakeholder expectations. Understanding our developing country context community development is a major segment of our CSR framework and the Moser Baer Trust has been established as a dedicated vehicle to manifest our community development interventions.

Livelihood (SAFAL):

Under our rural agriculture and allied activity based livelihoods promotion theme we are looking to reach out to nearly 20,000 families by the end of 2019. SAFAL envisages at improving the relationship people have with the resources around to ensure food security and additional cash-flow. The team has special focus on the intervention on the existing livelihood pattern particular for the tribal population and has designed interventions for primitive tribe group (PTG) and particularly vulnerable tribe group (PVTG). It consists of a basket of intervention.

Major intervention under SAFAL:

- Productivity enhancement (on farm activity) through improved agricultural practices.
- Additional cash income through cash crop intervention (off farm activity).
- Backyard poultry intervention.
- NTFP Based Livelihood.
- Breed improvement program in goat.
- Land development & Natural Resources Management.

Distribution of Tribal and non-tribal beneficiaries under livelihood programs



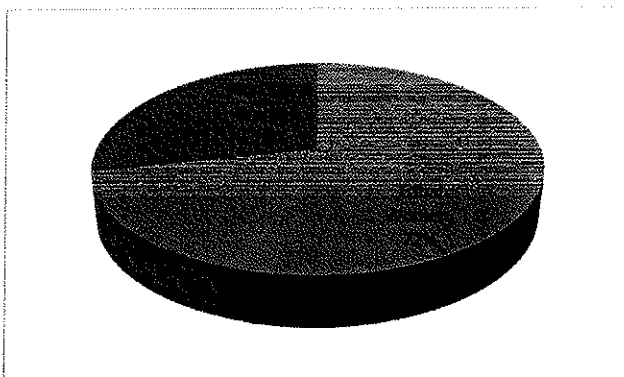
Details of tribal beneficiaries under livelihood programs

Interventions	Tribal Families (Cumulative till Oct. 2018)	Tribal Families (2018-19)
Paddy	5931	1169
Wheat	3087	267
Pulses	1283	49
Vegetable	956	143
Lac	650	34
Back Yard Poultry	2280	778
Fruit bearing Plantation	350	NA
Mushroom	148	42
Land and Water program	244	NA
Fishery	19	NA
Maize	393	NA
Breed enhancement program in Goat	199	NA
Linseed	139	NA
Total Families (tribal Families)	15679	2482

Engagement of PVTG (2018-19)

Total 26 Baiga families (PVTG) from two villages have been associated with different activities such as Back Yard Poultry, SHG (12 families), Vegetable (3), Maize (11), Turmeric (1), Bamboo craft (5), paddy (1)

Distribution of Tribal and non-tribal women under SHG programs supporting livelihoods



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Phone: 9810032481, 011-21211228, E-mail: emtrckm@gmail.com, Website: www.emtrc.com

CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

Annexure-10

TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/741/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water
Sampling Location : Jaithari (Hand Pump)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	7.16	6.5 – 8.5
4	Conductivity	umhos/cm	APHA-2510	720	-
5	Turbidity	NTU	APHA-2030B	2	5
6	Total Dissolved Solids	mg/l	APHA-2540B	530	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	240	600
8	Calcium as Ca	mg/l	APHA-4500B	64	75
9	Magnesium as Mg	mg/l	APHA-4500B	21.9	30
10	Chlorides as Cl	mg/l	APHA-4500B	60	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	7.8	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	40	400
14	Fluoride as F	mg/l	APHA-4500D	0.85	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.08	0.3
16	Copper as Cu	mg/l	APHA-3111B	0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.58	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

MUKESH KUMAR
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ENVIRONMENT MONITORING TRAINING & RESEARCH CENTRE

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NABL Accredited Laboratory ISO/IEC 17025:2005 (TC-7376)

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Phone: 9810032481,011-21211228, E-mail: emtrcjk@gmail.com, Website: www.emtrc.com

CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1Z1, PAN: AABCE0945N



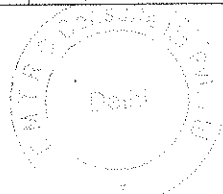
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/740/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water
Sampling Location : Guwari Village near Temple (Hand Pump)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	6.82	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	650	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	480	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	230	600
8	Calcium as Ca	mg/l	APHA-4500B	60	75
9	Magnesium as Mg	mg/l	APHA-4500B	19.4	30
10	Chlorides as Cl	mg/l	APHA-4500B	45	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	7.2	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	40	400
14	Fluoride as F	mg/l	APHA-4500D	1.18	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.08	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.001	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.52	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.001	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

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CIN: U51909DL2002PTC114840, GSTN: 07AABCE0945N1ZI, PAN: AABCE0945N

TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/742/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water
Sampling Location : Laharpur Village (Hand Pump)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	6.85	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	310	-
5	Turbidity	NTU	APHA-2030B	1	5
6	Total Dissolved Solids	mg/l	APHA-2540B	220	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	90	600
8	Calcium as Ca	mg/l	APHA-4500B	32	75
9	Magnesium as Mg	mg/l	APHA-4500B	2.4	30
10	Chlorides as Cl	mg/l	APHA-4500B	24	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	4.5	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	12.8	400
14	Fluoride as F	mg/l	APHA-4500D	1.25	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.18	0.3
16	Copper as Cu	mg/l	APHA-3111B	0.04	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.45	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

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ENVIRONMENT MONITORING TRAINING & RESEARCH CENTRE

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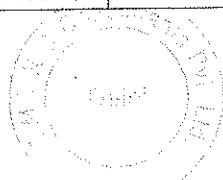
TEST REPORT

Dated: 25.02.2019

Report No. : EMTRC/743/2019
Issued To : MB POWER (Madhya Pradesh) Limited
Jaithari, Anuppur, Madhya Pradesh-484224
No. of Pages : 1 of 1
Nature of Sampling : Grab Sample
Type of Sample : Ground Water
Sampling Location : Amgaon Village (Hand Pump)
Date of Sample Collection : 18-02-2019
Sample Collected by : Scientist of EMTRC

	Parameters	Unit	Test Methods	RESULTS	Prescribed Limit IS:10500:2012
1	Colour	Hazen Unit	APHA-2120B	Colourless	15
2	Odour	-	APHA-2150B	Unobjectionable	Unobjectionable
3	pH	-	APHA-4500	6.80	6.5 – 8.5
4	Conductivity	µmhos/cm	APHA-2510	370	-
5	Turbidity	NTU	APHA-2030B	2	5
6	Total Dissolved Solids	mg/l	APHA-2540B	290	2000
7	Total Hardness as CaCO ₃	mg/l	APHA-2340C	120	600
8	Calcium as Ca	mg/l	APHA-4500B	32	75
9	Magnesium as Mg	mg/l	APHA-4500B	9.7	30
10	Chlorides as Cl	mg/l	APHA-4500B	28	1000
11	Nitrates as NO ₃	mg/l	APHA-4500	4.8	45
12	Phenolic compound	mg/l	APHA-5230D	<0.001	0.002
13	Sulphate as SO ₄	mg/l	APHA-4500E	13.2	400
14	Fluoride as F	mg/l	APHA-4500D	0.95	1.5
15	Iron as Fe	mg/l	APHA-3111B	0.06	0.3
16	Copper as Cu	mg/l	APHA-3111B	<0.02	1.5
17	Lead as Pb	mg/l	APHA-3111B	<0.01	0.01
18	Manganese as Mn	mg/l	APHA-3111B	<0.05	0.3
19	Zinc as Zn	mg/l	APHA-3111B	0.32	15
20	Chromium	mg/l	APHA-3111B	<0.05	0.05
21	Nickel as Ni	mg/l	APHA-3111B	<0.01	0.05
22	Oil & Grease	mg/l	APHA-5520D	Nil	0.03
23	Cadmium as Cd	mg/l	APHA-3111B	<0.01	0.003
24	Mercury as Hg	mg/l	APHA-3111B	<0.001	0.001
25	Arsenic as As	mg/l	APHA-3111B	<0.001	0.05
26	Selenium as Se	mg/l	APHA-3111B	<0.01	0.01
27	Cyanide as CN	mg/l	APHA-4500E	<0.01	0.05
28	Total coliform	MPN/100ml	APHA-9230B	Nil	Nil

MUKESH KUMAR
Authorized Signatory



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COMPREHENSIVE REPORT ON
CSR INTERVENTION
(FROM APRIL 2010 TO MARCH 2019)

MB Power (Madhya Pradesh) Limited

CSR Report as on March 2019

Corporate Social Responsibility at Moserbaer Power (MP) Limited (MBPMPL) is geared towards enhancing the relationship of company with its various stakeholders and provides best developmental opportunities. Its initiatives are geared towards addressing the needs and challenges of sustainable livelihoods, better health, education and youth development. For us CSR is a way towards conducting business that achieves an integration of social economic and environmental imperatives at the same time addressing stakeholder expectations. Understanding our developing country context community development is a major segment of our CSR framework and the Moser Baer Trust has been established as a dedicated vehicle to manifest our community development interventions.

1. Sustainable Livelihoods and Women empowerment

MBPMPL's focus towards ensuring food sufficiency and sustainable livelihoods by promoting farm and non-farm based livelihood activities has met with lot of success. Named SAFAL, so far the program has reached out to many families in Anuppur through our multiple livelihood enhancement programs like improved paddy wheat and chickpea cultivation, vegetable cultivation, rejuvenation of the lac sector and backyard poultry which has consistently been supported by land and water intervention for the last 4 years.

Beneficiaries Details under Sustainable Livelihoods

Interventions	Beneficiaries till March 2019 (Cumulative)	Families (2018-19)
Paddy	10432	1872
Wheat	6616	598
Pulses	2251	49
Vegetable	1421	197
Lac	744	34
Back Yard Poultry	2660	929
Fruit bearing Plantation	536	NA

Mushroom	199	60
Land and Water initiatives	1225	NA
Fishery	30	NA

2. Education and Capacity building

In the area of education its program, TALEEM has provided quality education to primary and middle school students through its support class intervention and managed to mainstream and support through drop out mainstreaming program to children. The program also works with parents through parent teacher groups and the administrative system so that a child gets all the support she/he requires in their journey to attain education. Additionally, Digital Literacy Program (DLP) has benefitted 3355 students. Under vocational training (Basic and advance sewing courses) so far about 1118 beneficiaries have been benefitted.

Beneficiaries Details under Education and Capacity building

Interventions	Beneficiaries till March 2019	
	(Cumulative)	Beneficiaries 2018-19
Support class	1886	409
Drop out main streaming	292	35
DLP (Basic, Tally and Photoshop)	3355	525
Vocational Training	1118	417
Summer camp	2291	264
Bridge course	221	NA
Activity Based Learning	110	NA
NDLM certification	270	NA

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Weekly school intervention	1185	NA
Mini Science center	2	2

3. Community health and Sanitation: programs cover the entire gamut of emergency ambulatory services, outreach clinics, health camps to consistent health messaging with beneficiary groups in contiguous 40 villages covering about 40000 populations. The milestones are many, the journey is challenging but the rewards of development entice the Hindustan Power to continue with its relentless march. Total 175 units collected through Blood donation camp on 1st of Dec. 2018 and 155 units was collected in April 2018

Beneficiary details under Community health and Sanitation as on 31st Oct. 2018:

Particular	Lives (Cumulative)	Lives (2018-19)
Daily OPD	51456	7376
Special Health Camp	2837	683
School Health Camp	2611	851
Mother and Child care	5500 families	5500 families
PAHAL	4126 packets	3335
Drishti Project	1266	1266

4. Youth development: Youth and adolescents are a major stakeholder in ensuring sustainability of all development interventions. The journey of exploring the self in the context of the family the society and its challenges till finally one is empowered to take his or her own decisions, analyses situations from a rational perspective is the essence of yUDAI. The youngsters undergo a year-long nurturing process with trained professionals where various models are used to introduce and imbibe life skills in the youth including sports, theatre, and exposure visits etc.

Beneficiaries Details under youth development as on 31st Oct 2018:

Interventions	Till Oct. 2018 (Cumulative)	2018-19
Regular yUDAI	551	142
Short term yUDAI	371	NA
CLICK abroad	26	NA
Samarthya Center enrollments	30	30

CSR Infrastructure development initiatives at a glance:

S.N.	Activity	Venue/Location	Brief detail
1	Installation of Drinking water facility	Village Guwari	Bore well, submersible pump, water tank with three outlets for population in one hamlet in 2017-18.
2	Drinking Water facilities with RO & Cooler for.	Five locations (Kanya Vidyalaya, Jaithari, Excellence School, Jaithari, School for special children, Anuppur, CHC Jaithari & District Hospital, Anuppur).	Under the CSR initiative, the team has installed potable drinking water with RO cum Cooler facility at the places of necessity and from where maximum population across society could be benefitted.
3	Installation of High Mast Light.	Five locations (all in Jaithari and those too public places).	Again the belief and objective is to reach & benefit the maximum population across society.
4	Garden & Children's Park.	At Jaithari. 1st phase & 2nd phase of the Work has been completed (Land Scrapping and plantation, gate, grass pitching and decoration work completed)	Objective is to create a space for recreation for the community at large and especially for the children.

5	Benches and Desks at primary school.	260 pairs of benches and desks have been provided in Five schools (Primary school, Takhuli, Pador, Rohillakachhar, Amgawan, Model School Jaithari).	In majority of school particularly the primary level school, children have to sit on the floor. The team has planned to help these schools in providing proper sitting arrangements for these small children. Adding to it, these benches & desks are made up of scrap wood that is basically a liability and comes with machine as packing materials. The team has used these waste materials to create wealth for the school.
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Other Infrastructure work details

1	Education	a. Establishment of Bal Bharti Public School
		b. Govt. Primary School Building Construction
		c. Govt. Primary School renovation & Up-gradation
		d. Construction of Kitchen Shed
		e. Providing Furniture, Electrical Equipment etc.
2	Health	a. Renovation of Govt. Community Health Centre
		b. Provided Hospital Furniture
		c. Provided Hospital Equipment
3	Civil Infrastructure	a. Village Road Construction
		b. PMGSY Road Construction
		c. Choupal Construction
		d. Pond Deepening
		e. Hand Pump Installation
		f. Renovation at Religious Place
		g. Low cost toilet Construction
		h. Construction of Community Bathrooms
4	Energy Conservation Program	a. Installation of Solar Panels
		b. CFL Street Light at District Headquarter.
		c. Provided CFL on partial contribution to villagers

5	Upgradation of Govt. ITI	a. Renovation
		b. Provided Equipment & Training tools
		c. Provided Genset
		d. Playground Development and Provided Sports Items
6	Play Ground Development at Tribal Block Rajendragram.	Renovation work at Maa Sharda Kanya Vidya Peeth Pondki
7	Construction of Toilet complex at Jaithari under Jan Bhagidari Program	
8	Low Cost Toilets constructed at Laharpur (Murra Tola) for Project Affected Displaced Khatedars under "Maryada Abhiyan".	