

SPEED POST

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J 13011/10/2009-IA.II(T)  
Government of India  
Ministry of Environment & Forests

BY SPEED POST

Paryavaran Bhawan  
CGO Complex, Lodi Road  
New Delhi-110 003  
Dated: December 04, 2009

To  
M/s Dhariwal Infrastructure (P) Ltd.  
1008, A-Wing Lokmat Bhawan,  
10<sup>th</sup> Floor, Nagpur ? 400 012

Sub: 2x300 MW Coal Based Thermal Power Plant in MIDC Industrial Area, at village Tadali, in Distt. Chandrapur, in Maharashtra ? reg. Environmental Clearance (reconsideration).

Sir,

The undersigned is directed to refer to letters dated 18.08.2009 and 05.10.2009 on the subject mentioned above. The Ministry of Environment & Forests has examined the application.

2. It has been noted that the proposal is for setting up a 2x300 MW Coal Based Thermal Power Plant in MIDC Industrial Area, at village Tadali, in Distt. Chandrapur, in Maharashtra. Land requirement will be 480 acres. Coal requirement will be 11040 TPD and will be sourced from SECL mines. Coal linkage has been obtained from Ministry of Coal. The coordinates of the site are latitude 20°00'30" to 20°01'20" N and longitude 79°11'50" to 79°12'35" E. Water requirement of 19.272 m cum per annum will be sourced from Wardha River which flows at a distance of 9.3 km from the plant site. Govt. of Maharashtra has accorded permission for water allocation from Wardha River. A Barrage is proposed to be constructed in Wardha River for uninterrupted water supply. There are no national parks, wildlife sanctuary, tiger & elephant reserves, heritage sites etc. within 10 km of the study area. MoU with M/s ACC for consumption of Fly Ash for its Chanda Cement Works is in place. As a contingency measure 65.2 acres of land is proposed for ash storage, which will be properly lined with HDPE. Abandoned mines are being identified within the District for disposal of bottom ash. Bhandak Reserve Forest is located at a distance of 7.8 kms away. Motaghat nallah flows at a distance of 6.2 km away in the east and Sarai Nallah at 5.0 km in South. Cost of the project will be Rs. 3054.00 Crores.

3. The project has been considered in accordance with the provisions of the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated September 14, 2006.

4. Based on the information submitted by you, as at Para 2 above and others, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA notification dated September 14, 2006, subject to the compliance of the following conditions:

- i. No further expansion in capacity shall be permitted for this Power Plant in view of the uncertainty of water in lean season.
- ii. The two radial wells shall be constructed maintaining a distance of at least 450 m between them and at least 500 m from the nearest habitations/village boundary.
- iii. Water from the radial well(s) shall be utilized only for extreme necessity during lean season and

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shall be kept only as standby arrangement during lean season.

- iv. Hydro-geological study of the area shall be reviewed annually and results submitted to the Ministry and concerned agency in the State Govt. In case adverse impact on ground water quantity and quality is observed, immediate mitigating steps to contain any adverse impact on ground water shall be undertaken.
- v. A Two Bi-Flue stacks of 275 m height shall be provided with continuous online monitoring equipments for SO<sub>x</sub>, NO<sub>x</sub> and PM. Exit velocity of flue gases shall not be less than 25 m/sec. Mercury emissions from stack shall also be monitored on periodic basis.  
*not online..*
- vi. High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm<sup>3</sup>.
- vii. Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.
- viii. Utilisation of 100% Fly Ash generated shall be made from 4<sup>th</sup> year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.
- ix. Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% fly ash utilization shall be ensured from 4th year onwards. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.
- x. Ash pond shall be lined with HDP/LDP lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.
- xi. For disposal of Bottom Ash in abandoned mines (if proposed to be undertaken) 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 project proponent shall inform the State Pollution Control Board well in advance before undertaking the activity.
- xii. Closed cycle cooling system with natural draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms.
- xiii. The treated effluents conforming to the prescribed standards only shall be discharged. Arrangements shall be made that effluents and storm water do not do not get mixed.
- xiv. A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.

- xv. Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three



months from the date of clearance and details shall be furnished.

- xvi. 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.
- xvii. 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 an accident taking place due to storage of oil.
- xviii. Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg,Cr,As,Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.
- xix. Green Belt consisting of 3 tiers of plantations 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 70 %.
- xx. First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- xxi. Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.
- xxii. Regular monitoring of ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, RSPM(PM<sub>10</sub>/PM<sub>2.5</sub>) 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.
- xxiii. A good action plan for R&R (if applicable) with package for the project affected persons be submitted and implemented as per prevalent R&R policy within three months from the date of issue of this letter.
- xxiv. An amount of Rs 12.0 Crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs 3.0 Crore 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.
- xxv. As part of 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 generating programmes. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.

- xxvi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- xxvii. 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 Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>.
- xxviii. A copy of the clearance 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, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- xxix. A separate Environment Management Cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- xxx. The proponent shall upload the status of compliance of the stipulated EC conditions, 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 the SPCB. The criteria pollutant levels namely:  $\text{SPM}$ ,  $\text{RSPM}(\text{PM}_{10}/\text{PM}_{2.5})$ ,  $\text{SO}_2$ ,  $\text{NO}_x$  (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.
- xxxi. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.
- xxxii. The environment statement for each financial year ending 31<sup>st</sup> 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 the Ministry by e-mail.
- xxxiii. The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of

Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of



## Environment and Forests

xxxiv. Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.

xxxv. Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.

xxxvi. The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.

xxxvii. Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.

5. The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.

6. The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.

7. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

8. In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

9. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.

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10. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

(LALIT KAPUR)



BY SPEED POST

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DIRECTOR

Copy to:-

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary (Environment), Forests and Environment Department Government of Maharashtra.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Maharashtra Pradesh State Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floors, Sion Matunga Scheme Road No. 6, Opp. cine Planet, Sion Circle, Sion (E), Mumbai ? 400 022
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi- 110032.
6. The Chief Conservator of Forests, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, Arera Colony, Ravishankar Nagar, Bhopal - 462016.
7. The District Collector, Chandrapur District, Govt. of Maharashtra.
8. The Director (EI), MOEF.
9. Guard file.
10. Monitoring file.

(LALIT KAPUR)  
DIRECTOR





**RP - Sanjiv Goenka  
Group**

Growing Legacies



**Dhariwal Infrastructure Limited**

CIN : U70109WB2006PLC111457  
E-mail : dhariwalinfrastructure@rp.sg.in  
Date: 26/05/2018

Ref. No.: DII/HSE/F-09/18-19/11

To,  
The APCCF (C),  
Ministry of Environment and Forest, Climate Change,  
Regional Office (WCZ) Ground Floor,  
East Wing, New Secretariat Building,  
Civil Line,  
NAGPUR - 440001 (MH)

Sub. : Half Yearly Compliance Report of the Environmental Clearance (1<sup>st</sup> October 2017 to 31<sup>st</sup> March 2018)

Ref.: MoEF, Govt. of India Environmental Clearance No. J-13011/10/2009-IA, II (T) dated 04-12-2009

Dear Sir,

We are operating 2 x 300 MW Thermal Power Plant at MIDC, Tadali Industrial Area, Chandrapur (M.S.) as per Environment Clearance under reference.

We are submitting herewith Half Yearly Compliance Report for the period from 1<sup>st</sup> October 2017 to 31<sup>st</sup> March 2018 in hard as well as soft copy (compact disc) in respect of the terms and conditions stipulated in Environmental Clearance.

We assure you of taking every feasible step towards preservation of environment.

Thanking you.

Yours faithfully,

For DHARIWAL INFRASTRUCTURE LTD.

*Biplab Kanti Kar*



**(Biplab Kanti Kar)**  
Head O & M

Encl.: As above

CC:

1. **The Incharge.**  
Central Pollution Control Board,  
Western Zonal Office, Parivesh Bhawan,  
Opp. VMC Ward Office No.10,  
Subhanpara, Vadodara,  
Gujarat-390023.

**The Regional Officer.**  
Maharashtra Pollution Control Board,  
1<sup>st</sup> Floor, Udyog Bhavan,  
Near Bus Stand, Chandrapur-442406.

2. **Member Secretary.**  
Maharashtra Pollution Control Board,  
Kalpataru Point, 4<sup>th</sup> Floor,  
Matunga Road-08, Sion-(E),  
Sion Circle,  
Mumbai-400022.

4. **The Sub Regional Officer.**  
Maharashtra Pollution Control Board,  
1<sup>st</sup> Floor, Udyog Bhavan,  
Near Bus Stand, Chandrapur-442406.

परिवेश, वन एवं जलवायु परिवर्तन विभाग  
Ministry of Environment, Forest & Climate Change  
कार्यालय (पश्चिमी मध्य क्षेत्र)  
Office (Western Zone)  
पृथ्वी खण्ड / Ground Floor, East Wing  
नए सेक्रेटरीयत भवन / New Secretariat Building  
सिविल लाईन्स / Civil Lines  
नगपुर / Nagpur-440 001

Received 28/5/18  
Jr. Clerk  
P.C. Board, Nagpur



Ref. No.: DIL/HSE/F-09/18-19/ 19

To,  
The APCCF (C),  
Ministry of Environment and Forest, Climate Change,  
Regional Office (WCZ) Ground Floor,  
East Wing, New Secretariat Building,  
Civil Line,  
NAGPUR – 440001 (MH)

Sub. : Half Yearly Compliance Report of the Environmental Clearance (1<sup>st</sup> October 17 to 31<sup>st</sup> March 2018)

Ref.: MoEF, Govt. of India Environmental Clearance No. J-13011/10/2009-IA. II (T) dated 04-12-2009


Dear Sir,

We are operating 2 x 300 MW Thermal Power Plant at MIDC, Tadali Industrial Area, Chandrapur (M.S.) as per Environment Clearance under reference.

We are submitting herewith Half Yearly Compliance Report for the period from 1<sup>st</sup> October 2017 to 31<sup>st</sup> March 2018 in hard as well as soft copy (compact disc) in respect of the terms and conditions stipulated in Environmental Clearance.

We assure you of taking every feasible step towards preservation of environment.

Thanking you,  
Yours faithfully,  
For **DHARIWAL INFRASTRUCTURE LTD.**



**(Biplab Kanti Kar)**  
Head O & M

Encl.: As above

CC:

1. **The Incharge,**  
Central Pollution Control Board,  
Western Zonal Office, Parivesh Bhawan,  
Opp. VMC Ward Office No.10,  
Subhanpara, Vadodara,  
Gujarat-390023.
2. **Member Secretary,**  
Maharashtra Pollution Control Board,  
Kalpataru Point, 4<sup>th</sup> Floor,  
Matunga Road-08, Sion-(E),  
Sion Circle,  
Mumbai-400022.
3. **The Regional Officer,**  
Maharashtra Pollution Control Board,  
1<sup>st</sup> Floor, Udyog Bhavan,  
Near Bus Stand, Chandrapur-442406.
4. **The Sub Regional Officer,**  
Maharashtra Pollution Control Board,  
1<sup>st</sup> Floor, Udyog Bhavan,  
Near Bus Stand, Chandrapur-442406.

**Environmental Compliance Report  
for  
the Period From  
1<sup>st</sup> October 2017 to 31<sup>st</sup> March 2018**

*Of*

**M/s. DHARIWAL INFRASTRUCTURE LTD.  
Plot No. C-6, C-7 & C-8,  
Tadali Industrial Area,  
MIDC, Village – Tadali,  
Dist. - Chandrapur**

***Submitted to*  
Ministry of Environment, Forest and Climate Change  
Regional Office (WCZ), Ground Floor, East Wing  
New Secretariat Building  
Civil Line, Nagpur – 440001 (MH)**



## 1.0 PREAMBLE

Dhariwal Infrastructure Ltd has been granted MoEF Environmental Clearance for 2 x 300 MW Thermal Power Plant vide no. J-13011/10/2009-IA, II (T) dated 04-12-2009

Both Unit -1 & 2 (2 x 300 MW) of Thermal Power Plant are installed and commissioned in October 2013 and June 2014 respectively. The MPCB Consent to Operate is granted to both units for the period valid up to 31-12-2018.

All the environmental works including air pollution control systems, effluent treatment plant, sewage treatment plant, rain water harvesting pond, greenbelt development activities etc are completed. The present compliance status is given below.

## 2.0 COMPLIANCE STATUS

The conditions stipulated in MoEF Environmental Clearance are followed scrupulously. Compliance is reported hereunder for the period from 1<sup>st</sup> October 2017 to 31<sup>st</sup> March 2018 in serial order of Environmental Clearance Letter as delineated below.

Sr. No.	Conditions	Compliance
(i)	No further expansion shall be permitted for this power plant in view of the uncertainty of water in lean season.	Further expansion will not be carried out in view of the uncertainty of water in lean season.
(ii)	The two radial wells shall be constructed maintaining a distance of at least 450 m between them and at least 500 m from the nearest habitations/village boundary.	Yes, radial well is constructed away from the nearest habitation (more than 500 m )
(iii)	Water from the radial well(s) shall be utilized only for extreme necessity during lean season and shall be kept only as standby arrangement during lean season.	Water from the radial well(s) is utilized only for extreme necessity during lean season and kept only as standby arrangement during lean season.
(iv)	Hydro-geological study of the area shall be reviewed annually and results submitted to the Ministry and concerned agency in the State Govt. In case adverse impact on ground water quantity and quality is observed, immediate mitigating steps to contain any adverse impact on ground water shall be undertaken.	Hydro-geological status of the area is reviewed regularly. Ground water level measurement reports (October 2017 to March 2018) are enclosed herewith as <b>Enclosure-1</b> . There is no adverse impact on ground water quantity and quality is observed. Ground water quality in the study area is regularly analyzed and reports (October 2017 to March 2018) are enclosed herewith as <b>Enclosure -2</b>
(v)	Two Bi-Flue stacks of 275 m height shall be provided with continuous online monitoring equipments for SO <sub>x</sub> , NO <sub>x</sub> and PM. Exit velocity of flue gases shall not be less than 25 m/sec. Mercury emissions from stack shall also be monitored on periodic basis.	Yes, two Bi-Flue stacks of 275 m height are provided with continuous online monitoring equipments for SO <sub>x</sub> , NO <sub>x</sub> and PM. Mercury in outgoing emissions from stack is also being monitored on periodic basis.
(vi)	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not	Yes, High Efficiency Electrostatic Precipitator (ESP) for unit 1& 2 are commissioned and in operation. Both



	exceed 50 mg/Nm <sup>3</sup> .	ESP's are designed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> . The analysis reports of stack emission monitoring for both units are enclosed as <b>Enclosure-3</b>
(vii)	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Yes, cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas are provided and all stipulated norms are complied.
(viii)	Utilization of 100% Fly Ash generated shall be made from 4 <sup>th</sup> year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Yes, 100% Fly Ash generated is being taken by nearby cement plants for cement manufacturing.
(ix)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided 100% fly ash utilization shall be ensured from 4 <sup>th</sup> year onwards. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond No ash shall be disposed off in low lying area.	Yes, fly ash silo & handling plant for direct loading to bulkers is in operation. The condition is fully complied.
(x)	Ash pond shall be lined with HDP/LDP lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	Yes, Ash pond is lined with HDP/LDP lining such that no leachate takes place at any point of time. Adequate safety measures are also implemented to protect the ash dyke from getting breached.
(xi)	For disposal of Bottom Ash in abandoned mines (if proposed to be undertaken) 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 project proponent shall inform the State Pollution Control Board well In advance before undertaking the activity.	In the initial years bottom ash will not be disposed to abandoned mines.
(xii)	As per revised EC dated 09/09/2010 closed cycle cooling tower with Induced draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms.	Closed cycle cooling system with Induced draft cooling towers is provided. The effluents are treated as per the prescribed norms and for bottom ash handling & also for horticulture purpose. Refer <b>Enclosure-4</b>
(xiii)	The treated effluents conforming to the	The treated effluents conforming to the



	prescribed standards only shall be discharged. Arrangements shall be made that effluents and storm water do not get mixed.	prescribed standards are used for green belt development. Arrangements are made such that effluents and storm water do not get mixed.
(xiv)	A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.	Sewage treatment plant is provided and the treated sewage is used for raising greenbelt/plantation.
(xv)	Rainwater harvesting should be adopted Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.	Rain water harvesting pond is developed and through natural drains, rain water is regularly collected.
(xvi)	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.	Provision of adequate safety measures in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season is made. Water sprinkler have been provided around coal stock yard and are kept in regular operation.
(xvii)	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 an accident taking place due to storage of oil.	Facilities for storage of auxiliary liquid fuel such as LDO and HSD are provided in the plant areas are under approval of DOE.  Disaster Management Plan is prepared to meet any eventuality in case of an accident may be taken place due to storage of oil.
(xviii)	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	Regular monitoring of ground water level is done at piezometers and surrounding wells. It is observed that there is no adverse impact in the area.  The ground water quality in the study area is also regularly analyzed for heavy metals and reports are submitted.
(xix)	Green Belt consisting of 3 tiers of plantations 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	As on date about 1,07,500 trees are existing.  The major existing trees (50,500) are Akeshiya, Imli, Karanj, Mahaneem, Neem, Nilgiri, Peltocofram, Sisam and Casia, casurina, Eucalyptus etc.



	2500 per ha with survival rate not less than 70 %.	The other existing trees (57,500) are Aapta, Amla, Anjeer, Areka Palm, Aerial Palm, Arjun, Ashoka, Bargad, Badam, Banana, Boganvel, Chikku, Coconut, Flower tree, Fucus benjamina, Goldan Bambu, Green Bambu, Gulmohar, Jambhul Jaswant, Kadam, Kanher, Kawat, Mahagani, Mango, Mogra Mosambi, Nimbu, Pipal, Rain Tree, Red Rose, Royal Palm, Ornamental Plants, Saru, Simal, Spindal Palm, Silver oke, Swastik, Vel (Kourav & Pandava), Vidya, X-mas tree, Yellow Bell, Bakul, Papaya, Sitaphal, Bel, Shahtut, Anar, Sevga, Amrud, Ber, Kher etc. .
(xx)	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Construction phase is over. First Aid and sanitation arrangements for the drivers and other contract workers are available. Regular first aid training is given to drivers & contract workers.
(xxi)	Noise level emanating 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/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and any hearing loss including shifting to non noisy/less noisy areas.	Noise level emanating from turbines is controlled such that the noise in the work zone is limited to 75 dB (A). For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. are provided. Workers engaged in noisy areas such as turbine area, air compressors etc. are periodically examined & maintaining audiometric record and any hearing loss including shifting to non noisy/less noisy areas. The ambient noise quality results for are enclosed herewith as <b>Enclosure-5</b> .
(xxii)	Regular monitoring of ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , RSPM (PM <sub>10</sub> /PM <sub>2.5</sub> ) 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 the Ministry. The data shall also be put on the website of the company.	Yes, regular ambient air quality monitoring at six locations is carried out and reports (October 2017 to March 2018) are enclosed herewith as <b>Enclosure -6</b> . Data are kept on website.
(xxiii)	A good action plan for R&R (if	Not Applicable.



	applicable) with package for the project affected persons be submitted and implemented as per prevalent R&R policy within three months from the date of issue of this letter.	
(xxiv)	An amount of Rs. 12.0 Crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs. 3.0 Crore per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within month along with road map for implementation.	Road map is worked out for implementation of CSR activities. A partnership along with Zila Parishad, Chandrapur & UNICEF for improving water & sanitation facilities in ten Grampanchayat, Schools and Anganwadis is done and work is under progress. Please refer <b>Enclosure-7</b>
(xxv)	As par of 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 generating programs. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.	A need based survey is carried out by Social Action for Rural Development (SARDA) in nearby areas to assess the social and economic status of the people based on which a comprehensive document is prepared to deal with need based CSR activities. The implementation of following CSR activities undertaken in the aforesaid period. 1.Training on Health & Sanitation in nearby nine no. of villages. 2.Swachh Bharat Abhiyan in Nine villages. 3.Training to Adolescent girls 4.Training to villagers of nine villages for Digital villages. 5.Agriculture Projects in nearby villages. 6.Educational Programs in nearby villages. 7.Training to six nos. of SHG(Self Help Groups) for self employment. Please refer <b>Enclosure-7</b>
(xxvi)	Provision shall be made for the housing of construction labors 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 this form of temporary structures to be removed after the completion of the	Yes, Construction phase is already completed and demolition of temporary structures of construction phase is under progress.

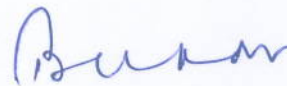
	project.	
(xxvii)	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>	Yes, it is already complied.
(xxviii)	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, from 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.	Yes, it is complied.
(xxix)	A separate Environment Management Cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Yes, separate Environment Management Cell with qualified staff is set up for implementation & maintaining the stipulated environmental safeguards.
(xxx)	The proponent shall upload the status of compliance of the stipulated EC conditions, 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 the SPCB. The criteria pollutant levels namely: SPM, RSPM (PM <sub>10</sub> /PM <sub>2.5</sub> ), SO <sub>2</sub> , NO <sub>x</sub> (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	Yes, it is complied. Status of compliance has been uploaded on company's website, i.e. <a href="http://www.dilenergy.co.in">www.dilenergy.co.in</a> Reports are already sent to Regional office of MoEF, the respective Zonal office of CPCB and the SPCB. The criteria pollutant levels namely: SPM, RSPM (PM <sub>10</sub> /PM <sub>2.5</sub> ), SO <sub>2</sub> , and NO <sub>x</sub> (ambient levels are displayed at the main gate of the company in the public domain.
(xxxi)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Yes, six monthly reports are regularly submitted since beginning about the status of compliance of the stipulated EC conditions including results of monitored to the respective Regional office of MoEF, the respective Zonal office of CPCB and the SPCB.



(xxxii)	The environment statement for each financial /year ending 31 <sup>st</sup> 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 the Ministry by e-mail.	Yes, Environment Statement for financial /year ending 31 <sup>st</sup> March 2018 is complied and submitted to MPCB. Acknowledged letter copy is enclosed herewith as <b>Enclosure -9</b> . Copy of the same has been uploaded on company's website, i.e. <a href="http://www.dilenergy.co.in">www.dilenergy.co.in</a> .
(xxxiii)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.	Yes, six monthly reports are regularly submitted since beginning about the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests Regional office, Central Pollution Control Board and State Pollution Control Board. Copy of the same has been uploaded on company's website, i.e. <a href="http://www.dilenergy.co.in">www.dilenergy.co.in</a> .
	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will upload the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.	Yes, will be complied time to time. Compliance status has been uploaded on company's website, i.e. <a href="http://www.dilenergy.co.in">www.dilenergy.co.in</a> .
(xxxiv)	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure	Yes, separate funds are allocated for implementation of environmental protection measures. Total Expenses from 1 <sup>st</sup> April.17 to 31 <sup>st</sup> March 2018 were <b>489.5 lakhs</b> for Environment control measures.

	should be reported to the Ministry.	
(xxxv)	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.	Plant is in running condition.COD for unit #1 was on dated 11 Feb. 2014 & for unit #2 was 02th Aug. 2014. Information has been given to the authorities.
(xxxvi)	Full cooperation shall be extended to the Scientists/Officers from the Ministry/Regional Office of the Ministry at Bhopal/CPCB/SPCB who would be monitoring the compliance of environmental status.	Agreed.

Yours faithfully,  
For **DHARIWAL INFRASTRUCTURE LTD.**



**(Biplab Kanti Kar)**  
Head O & M

Encl. : As above



## ENCLOSURE – 1

### GROUND WATER LEVEL STATUS

November - 2017

Sr. No. of Villages	Village Name	Details of Locations	Field Code No.	Date of Measurement	Internal Diameter in mtr. (m)	Total Depth from measuring point in mtr. (depth in mbmp)	Static Water Level from Measuring Point in mtr. (level in mbmp)	Measuring Point i.e. MP distance above ground level in mtr. (magl)	Water Level below ground level (level in mbmp - magl = mbgl)
1.	Village- Pandharkwada	Dugwell of Shri Pandari Zitiraji Wadai Farm	DIL 1	18-11-2016	2.55	9.5	6.2	0.8	5.4
2.	Village- Sonegaon	Grampanchayat Dugwell, Near Hanuman Mandir	DIL 2	18-11-2016	4.10	9.8	3.2	0.8	2.4
3.	Village- Sonegaon	Borewell of Shri Kundlik Vishwanath Urkuade,	DIL 3	18-11-2016	0.16	80.0	13.2	0.1	13.1
4.	Village- Yerur	Dugwell of Shri Ravindra Pandurangji Balki	DIL 4	18-11-2016	6.0	9.5	3.9	0.1	3.8
5.	Village- Wandhari	Dugwell of Shri Anandrao Vitoba Kawarash Farm	DIL 5	18-11-2016	5.0	10.3	4.2	0.2	4.0

6.	Village- Yerur	Grampanchayat Dugwell near Primary School	DIL 6	18-11-2016	4.95	11.0	4.3	0.7	3.6
7.	Village- Ghodpeth	Dugwell of Shiv Mandir	DIL 7	18-11-2016	4.50	9.0	2.5	0.6	1.9
8.	Village- Tadali	Grampanchayat Dugwell Near Z. P. Primary School	DIL 8	18-11-2016	3.65	12.35	2.9	0.8	2.1
9.	Village- Morwa	Dugwell near Jagnath Baba Mandir	DIL 9	18-11-2016	2.40	14.80	1.6	0.8	0.8
10.	Village- Mursa	Grampanchayat Dugwell near Z.P. Primary School	DIL 10	18-11-2016	7.0	10.8	6.1	4.4	1.7
11.	MIDC, Tadali	Piezometer Well No.5 near Chimney Area	DIL 11	18-11-2016	0.1	15.0	8.1	0.2	7.9
12.	MIDC, Tadali	Piezometer Well No.4 behind Site Office near Cooling Tower, DIL	DIL 12	18-11-2016	0.1	15.0	9	0.1	8.9
13	Village- Wadhwa	Intake Well	DIL 12	18-11-2016	11.0	21.8	14.5	2.20	12.3

Note: All the above Ground Water Level Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.



# January – 2018

Sr. No. of Villages	Village Name	Details of Locations	Field Code No.	Date of Measurement	Internal Diameter in mtr. (m)	Total Depth from measuring point in mtr.(depth in mbmp)	Static Water Level from Measuring Point in mtr.(level in mbmp)	Measuring Point i.e. MP distance above ground level in mtr. (magl)	Water Level below ground level (level in mbmp - magl) = mbgl)
1.	Village- Pandharkwada	Dugwell of Shri Pandari Zitiraji Wadai Farm	DIL 1	21-01-2018	2.55	9.5	7.80	0.8	7.0
2.	Village- Sonegaon	Grampanchayat Dugwell.Near Hanuman Mandir	DIL 2	21-01-2018	4.10	9.8	6.20	0.8	5.4
3.	Village- Sonegaon	Borewell of Shri Kundlik Vishwanath Urkude.	DIL 3	21-01-2018	0.16	80.0	18.10	0.1	18.0
4.	Village- Yerur	Dugwell of Shri Ravindra Pandurangji Balki	DIL 4	21-01-2018	6.0	9.5	8.70	0.1	8.60
5.	Village- Wandhari	Dugwell of Shri Anandrao Vithoba Kavarashe Farm	DIL 5	21-01-2018	5.0	10.3	6.10	0.2	5.90
6.	Village- Yerur	Grampanchayat Dugwell near Primary School	DIL 6	21-01-2018	4.95	11.0	8.20	0.7	7.50
7.	Village- Ghodpeth	Dugwell of Shiv Mandir	DIL 7	21-01-2018	4.50	9.0	6.80	0.6	6.20
8.	Village- Tadali	Grampanchayat Dugwell Near Z. P. Primary School	DIL 8	21-01-2018	3.65	12.35	4.10	0.8	3.30
9.	Village- Morwa	Dugwell near Jagnath Baba Mandir	DIL 9	21-01-2018	2.40	14.80	6.20	0.8	5.40

Sr. No. of Villages	Village Name	Details of Locations	Field Code No.	Date of Measurement	Internal Diameter in mtr. (m)	Total Depth from measuring point in mtr. (depth in mbmp)	Static Water Level from Measuring Point in mtr. (level in mbmp)	Measuring Point i.e. MP distance above ground level in mtr. (magl)	Water Level below ground level (level in mbmp - magl = mbgl)
10.	Village- Mursa	Grampanchayat, Dugwell near Z.P. Primary School	DIL 10	21-01-2018	7.0	10.8	8.10	4.4	3.70
11.	MIDC, Tadali	Piezometer Well No.5 near Chimney Area	DIL 11	21-01-2018	0.1	15.0	9.80	0.2	9.60
12.	MIDC, Tadali	Piezometer Well No.4 behind Site Office near Cooling Tower, DIL	DIL 12	21-01-2018	0.1	15.0	10.10	0.1	10.0
13	Village- Wadha	Intake Well	DIL 12	21-01-2018	11.0	21.8	14.80	2.20	12.6

Note: All the above Ground Water Level Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.



## ENCLOSURE -2

### WATER QUALITY STATUS

Sr. No.	Parameters	Acceptable / Permissible Limit (IS 10500: 2012 )	Concentration Location					
			Dugwell Pandari Farm, Pandharkawda )	Water Zitiraji Village- (Mr. Wadai Village- Sonagaon)	Borewell Panchayat Hanuman Mandir, Village- Sonagaon)	Water Borewell Kundlik Urkude Village- Sonagaon)	Water (Mr. Vishwanath Farm, Village- Ravindra Pandurang Bulki Farm, Village- Yerur)	(Mr. Bulki)
			17-11-2017	17-11-2017	17-11-2017	17-11-2017	17-11-2017	
1.	Colour, Hazen units	5/15	<5.0	<5.0	<5.0	<5.0	<5.0	
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	
3.	pH value	6.5 to 8.5	7.53	7.47	7.59	7.59	7.99	
4.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	
5.	Turbidity, NTU	1/5	<0.1	1.10	<0.1	<0.1	0.55	
6.	Total dissolved solids, mg/l	500/2000	1006.0	822.0	548.0	548.0	750.0	
7.	Boron (as B) mg/l	0.5/1.0	0.18	0.05	0.023	0.023	0.05	
8.	Calcium (as Ca) mg/l	75/200	193.6	44.0	37.6	37.6	35.2	
9.	Chloride (as Cl), mg/l	250/1000	390.9	47.5	13.4	13.4	16.3	
10.	Copper (as Cu), mg/l	0.05/1.5	0.010	<0.006	<0.006	<0.006	<0.006	
11.	Fluoride ( as F), mg/l	1.0/1.5	0.17	0.38	0.46	0.46	0.61	
12.	Free Residual Chlorine, mg/l	0.2/1.0	<0.1	<0.1	<0.1	<0.1	<0.1	

13	Iron (as Fe), mg/l	0.3	0.082	0.06	0.02	0.03
14	Magnesium (as Mg), mg/l	30/100	97.2	37.5	33.6	24.8
15	Manganese (as Mn), mg/l	0.1/0.3	<0.003	0.02	0.006	<0.006
16	Nitrate (as NO <sub>3</sub> ), mg/l	45	3.93	1.12	0.53	0.85
17	Sulphate (as SO <sub>4</sub> ), mg/l	200/400	233.9	68.4	27.5	59.2
18	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l	200/600	331.6	326.5	290.8	367.3
19	Total Hardness (as CaCO <sub>3</sub> ), mg/l	300/600	1064.0	264.0	280	190.0
20	Zinc (as Zn), mg/l	5/15	0.065	0.092	<0.03	0.08
21	Lead (as Pb), mg/l	0.01	<0.01	<0.01	<0.01	<0.01
22	Mercury (as Hg), mg/l	0.05	<0.001	<0.001	<0.001	<0.001
23	Total Arsenic (as As), mg/l	0.01	0.02	<0.01	<0.01	<0.01
24	Total Chromium (as Cr), mg/l	0.05	0.015	0.005	0.039	0.019
25.	Total Coliform Bacteria, (CFU /100 ml)	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
26.	Thermotolerant Coliform Bacteria/E. Coli (CFU /100 ml)	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Note: All the above Ground Water Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.



Sr. No.	Parameters	Acceptable Permissible Limit (IS 10500: 2012 )	Concentration			
			Location			
			Dugwell Water of Hanuman Mandir , Village- Wandhri	Dugwell Water ( Near Jagnath Baba Mandir, Morwa )	Dugwell Water (Shiv Mandir , Village – Ghodpeth)	Dugwell Water (Grampanchayat Dugwell Near Zp Primary School, Village – Tadali)
			17-11-2017	17-11-2017	17-11-2017	17-11-2017
1.	Colour, Hazen units	5/15	<5.0	<5.0	<5.0	<5.0
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3.	pH value	6.5 to 8.5	7.43	7.61	7.61	7.76
4.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5.	Turbidity, NTU	1/5	0.27	0.18	<0.1	0.34
6.	Total dissolved solids, mg/l	500/2000	1828.0	756.0	694.0	1304.0
7.	Boron (as B) mg/l	0.5/1.0	0.08	0.032	0.026	0.064
8.	Calcium (as Ca) ,mg/l	75/200	56.8	99.2	40.8	55.2
9.	Chloride (as Cl), mg/l	250/1000	135.1	44.5	16.3	129.2
10.	Copper (as Cu), mg/l	0.05/1.5	0.008	0.009	<0.006	<0.006
11.	Fluoride (as F), mg/l	1.0/1.5	0.59	0.28	0.53	0.408
12.	Free Residual Chlorine, mg/l	0.2/1.0	<0.1	<0.1	<0.1	<0.1

13	Iron (as Fe), mg/l	0.3	0.17	0.07	0.034	0.063
14	Magnesium (as Mg), mg/l	30/100	96.4	13.6	46.3	95.9
15	Manganese (as Mn), mg/l	0.1/0.3	0.01	<0.003	<0.003	<0.003
16	Nitrate (as NO <sub>3</sub> ), mg/l	45	1.74	0.74	0.86	1.31
17	Sulphate (as SO <sub>4</sub> ), mg/l	200/400	189.3	46.4	134.8	107.2
18	Total Alkalinity (as CaCO <sub>3</sub> ) mg/l	200/600	489.8	357.1	270.4	311.2
19	Total Hardness (as CaCO <sub>3</sub> ) mg/l	300/600	538.0	304.0	292.0	532.0
20	Zinc (as Zn) mg/l	5/15	0.072	0.054	0.054	0.062
21	Lead (as Pb) mg/l	0.01	<0.01	<0.01	<0.01	<0.01
22	Mercury (as Hg) mg/l	0.05	<0.001	<0.001	<0.001	<0.001
23	Total Arsenic (as As) mg/l	0.01	<0.01	<0.01	<0.01	<0.01
24	Total Chromium (as Cr) mg/l	0.05	0.02	0.009	0.014	0.006
25.	Total Coliform Bacteria, (CFU /100 ml)	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
26.	Thermotolerant Coliform Bacteria/E. Coli (CFU /100 ml)	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Note: All the above Ground Water Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.



Sr. No.	Parameters	Acceptable / Permissible Limit (IS 10500: 2012 )	Ground Water from Intake Well near Wadha Village
			17-11-2017
1.	Colour, Hazen units	5/15	<5.0
2.	Odour	Agreeable	Agreeable
3.	pH value	6.5 to 8.5	8.16
4.	Taste	Agreeable	Agreeable
5.	Turbidity, NTU	1/5	0.83
6.	Total dissolved solids, mg/l	500/2000	442.0
7.	Boron (as B) mg/l	0.5/1.0	<0.02
8.	Calcium (as Ca) ,mg/l	75/200	35.2
9.	Chloride (as Cl), mg/l	250/1000	26.2
10.	Copper (as Cu), mg/l	0.05/1.5	<0.006
11.	Fluoride (as F), mg/l	1.0/1.5	0.18
12.	Free Residual Chlorine, mg/l	0.2/1.0	<0.1
13.	Iron (as Fe), mg/l	0.3	<0.02
14.	Magnesium (as Mg), mg/l	30/100	21.9
15.	Manganese (as Mn), mg/l	0.1/0.3	<0.006
16.	Nitrate (as NO3), mg/l	45	0.33
17.	Sulphate (as SO4), mg/l	200/400	55.6
18.	Total Alkalinity (as CaCO3) mg/l	200/600	158.2
19.	Total Hardness (as CaCO3) mg/l	300/600	178.0
20.	Zinc (as Zn) mg/l	5/15	0.082
21.	Lead (as Pb) mg/l	0.01	<0.01
22.	Mercury (as Hg) mg/l	0.05	<0.001
23.	Total Arsenic (as As) mg/l	0.01	<0.01
24.	Total Chromium (as Cr) mg/l	0.05	0.007
25.	Total Coliform Bacteria, (CFU /100 ml)	Shall not be Detectable	Not Detected
26.	Thermotolerant Coliform Bacteria/E. Coli (CFU /100 ml)	Shall not be Detectable	Not Detected
<b>Note: All the above Ground Water Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.</b>			



Sr. No.	Parameters	Acceptable / Permissible Limit (IS 10500: 2012 )	Concentration Location			
			Dugwell Water (Mr. Pandari Zitraji Wadai Farm, Village- Pandharkawda )	Borewell Water (Gram Panchayat Borewell near Hanuman Mandir, Village- Sonagaon)	Borewell Water (Mr. Kundlik Vishwanath Urkude Farm, Village- Sonagaon)	Dugwell Water (Mr. Ravindra Pandurang Bulki Farm, Village- Yerur)
1.	Colour, Hazen units	5/15	21-01-2018 <5.0	21-01-2018 <5.0	21-01-2018 <5.0	21-01-2018 <5.0
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3.	pH value	6.5 to 8.5	7.26	7.20	7.12	7.71
4.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5.	Turbidity, NTU	1/5	<0.1	1.02	0.27	0.18
6.	Total dissolved solids, mg/l	500/2000	1907.2	1964.0	1997.0	994.0
7.	Boron (as B) mg/l	0.5/1.0	0.36	0.068	0.077	0.066
8.	Calcium (as Ca) mg/l	75/200	154.0	114.7	95.6	33.5
9.	Chloride (as Cl), mg/l	250/1000	419.9	180.9	28.9	14.9
10.	Copper (as Cu), mg/l	0.05/1.5	0.023	0.016	0.018	0.010
11.	Fluoride ( as F), mg/l	1.0/1.5	0.302	0.584	1.24	1.34
12.	Free Residual Chlorine, mg/l	0.2/1.0	<0.1	<0.1	<0.1	<0.1



13	Iron (as Fe), mg/l	0.3	0.18	0.12	0.18	0.037
14	Magnesium (as Mg), mg/l	30/100	139.7	58.2	71.8	19.4
15	Manganese (as Mn), mg/l	0.1/0.3	0.025	0.016	0.018	0.008
16	Nitrate (as NO <sub>3</sub> ), mg/l	45	8.10	7.70	7.44	1.51
17	Sulphate (as SO <sub>4</sub> ), mg/l	200/400	306.7	174.9	223.5	54.7
18	Total Alkalinity (as CaCO <sub>3</sub> ) mg/l	200/600	325.0	310.0	490.0	380.0
19	Total Hardness (as CaCO <sub>3</sub> ) mg/l	300/600	525.7	525.9	533.9	163.3
20	Zinc (as Zn) mg/l	5/15	0.098	0.08	0.10	0.096
21	Lead (as Pb) mg/l	0.01	0.01	<0.01	<0.01	<0.01
22	Mercury (as Hg) mg/l	0.05	0.003	<0.001	<0.001	<0.001
23	Total Arsenic (as As) mg/l	0.01	0.035	<0.01	<0.01	<0.01
24	Total Chromium (as Cr) mg/l	0.05	0.038	0.018	0.032	0.022
25	Total Coliform Bacteria, (CFU /100 ml)	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
26	Thermotolerant Coliform Bacteria/E. Coli (CFU /100 ml)	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Note: All the above Ground Water Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.

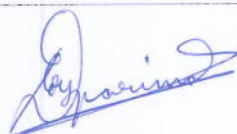
Sr. No.	Parameters	Acceptable Permissible Limit (IS 10500: 2012 )	Concentration			
			Location			Dugwell Water (Grampanchayat Dugwell Near Z/P Primary School, Village – Tadali)
			Dugwell Water of Hanuman Mandir , Village- Wandhri	Dugwell Water ( Near Jagnath Baba Mandir, Morwa )	Dugwell Water (Shiv Mandir , Village – Ghodpeth)	
			21-01-2018	21-01-2018	21-01-2018	21-01-2018
1.	Colour, Hazen units	5/15	<5.0	<5.0	<5.0	<5.0
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3.	pH value	6.5 to 8.5	7.16	7.52	7.39	7.64
4.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5.	Turbidity, NTU	1/5	0.16	<0.1	<0.1	1.97
6.	Total dissolved solids, mg/l	500/2000	1985.0	958.0	1232.0	1919.0
7.	Boron (as B) mg/l	0.5/1.0	0.12	0.038	0.040	0.077
8.	Calcium (as Ca) mg/l	75/200	111.5	48.6	79.7	76.5
9.	Chloride (as Cl <sup>-</sup> ), mg/l	250/1000	143.9	31.5	15.9	202.9
10.	Copper (as Cu), mg/l	0.05/1.5	0.015	0.016	0.011	0.014
11.	Fluoride (as F <sup>-</sup> ), mg/l	1.0/1.5	1.44	0.542	1.16	0.404
12.	Free Residual Chlorine, mg/l	0.2/1.0	<0.1	<0.1	<0.1	<0.1



13	Iron (as Fe), mg/l	0.3	0.20	0.13	0.052	0.088
14	Magnesium (as Mg), mg/l	30/100	61.6	32.0	27.6	29.6
15	Manganese (as Mn), mg/l	0.1/0.3	0.018	0.012	0.012	0.011
16	Nitrate (as NO <sub>3</sub> ), mg/l	45	5.45	1.76	2.99	<0.2
17	Sulphate (as SO <sub>4</sub> ), mg/l	200/400	209.3	34.5	184.3	310.7
18	Total Alkalinity (as CaCO <sub>3</sub> ) mg/l	200/600	460.0	325.0	295.0	260.0
19	Total Hardness (as CaCO <sub>3</sub> ) mg/l	300/600	531.9	252.9	312.7	312.7
20	Zinc (as Zn) mg/l	5/15	0.15	0.62	0.062	0.074
21	Lead (as Pb) mg/l	0.01	<0.01	<0.01	<0.01	<0.01
22	Mercury (as Hg) mg/l	0.05	<0.001	<0.001	<0.001	<0.001
23	Total Arsenic (as As) mg/l	0.01	<0.01	<0.01	<0.01	<0.01
24	Total Chromium (as Cr) mg/l	0.05	0.026	0.025	0.016	0.015
25.	Total Coliform Bacteria, (CFU /100 ml)	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
26.	Thermotolerant Coliform Bacteria/E. Coli (CFU /100 ml)	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Note: All the above Ground Water Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.

Sr. No.	Parameters	Acceptable / Permissible Limit (IS 10500: 2012 )	Ground Water from Intake Well near Wadha Village
			21-01-2018
1.	Colour, Hazen units	5/15	<5.0
2.	Odour	Agreeable	Agreeable
3.	pH value	6.5 to 8.5	7.86
4.	Taste	Agreeable	Agreeable
5.	Turbidity, NTU	1/5	0.96
6.	Total dissolved solids, mg/l	500/2000	589.0
7.	Boron (as B) mg/l	0.5/1.0	0.031
8.	Calcium (as Ca) ,mg/l	75/200	32.7
9.	Chloride (as Cl), mg/l	250/1000	28.5
10.	Copper (as Cu), mg/l	0.05/1.5	0.012
11.	Fluoride (as F), mg/l	1.0/1.5	0.308
12.	Free Residual Chlorine, mg/l	0.2/1.0	<0.1
13.	Iron (as Fe), mg/l	0.3	0.045
14.	Magnesium (as Mg), mg/l	30/100	23.8
15.	Manganese (as Mn), mg/l	0.1/0.3	0.010
16.	Nitrate (as NO <sub>3</sub> ), mg/l	45	<0.2
17.	Sulphate (as SO <sub>4</sub> ), mg/l	200/400	63.7
18.	Total Alkalinity (as CaCO <sub>3</sub> ) mg/l	200/600	150.0
19.	Total Hardness (as CaCO <sub>3</sub> ) mg/l	300/600	179.3
20.	Zinc (as Zn) mg/l	5/15	0.062
21.	Lead (as Pb) mg/l	0.01	<0.01
22.	Mercury (as Hg) mg/l	0.05	<0.001
23.	Total Arsenic (as As) mg/l	0.01	<0.01
24.	Total Chromium (as Cr) mg/l	0.05	0.015
25.	Total Coliform Bacteria, (CFU /100 ml)	Shall not be Detectable	Not Detected
26.	Thermotolerant Coliform Bacteria/E. Coli (CFU /100 ml)	Shall not be Detectable	Not Detected
Note: All the above Ground Water Quality Analysis were done by MOEF Approved 3 <sup>rd</sup> party M/s Earth care Pvt. Ltd.			





# ENCLOSURE - 3

## STACK EMISSION QUALITY STATUS

Sr. No	Parameters	CONCENTRATION					
		October-2017		November-2017	December- 2017	January- 2018	
		TPP Unit I	TPP Unit II	TPP Unit II	TPP Unit II	TPP Unit II	D.G. Set No.1 1500 KVA (Left Bank)
1.	Total Particulate Matter, mg/Nm <sup>3</sup>	29.9	25.5	34.9	10.2	16.8	D.G. Set No.2 1500 KVA (Left Bank)
2.	Sulphur Dioxide as SO <sub>2</sub> , mg/ Nm <sup>3</sup>	562.3	583.0	563.9	1125.2	1189.9	
3.	Sulphur Dioxide as SO <sub>2</sub> , Kg/Hr	468.1	554.4	627.1	1078.2	1435.9	0.47
4.	Oxides of Nitrogen as NO <sub>2</sub> , mg/Nm <sup>3</sup>	267.4	280.4	254.3	275.5	355.0	156.3
5.	Oxides of Nitrogen as NO <sub>2</sub> , ppm	142.1	149.0	135.2	146.4	188.7	83.1
6	Mercury as Hg, mg/Nm <sup>3</sup>	0.010	0.011	0.009	0.012	0.015	0.006

Note: All the above Stack Emission Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.

Sr. No.	Parameters	CONCENTRATION			
		D.G. Set No.1 1500 KVA (Right Bank)	D.G. Set No.2 1500 KVA (Right Bank)	February-2018 TPP Unit II	March-2018 TPP Unit II
1.	Total Particulate Matter, mg/Nm <sup>3</sup>	41.2	21.9	17.4	29.1
2.	Sulphur Oxides as SO <sub>2</sub> , mg/ Nm <sup>3</sup>	192.9	187.2	1207.1	1382.1
3.	Sulphur Oxides as SO <sub>2</sub> , Kg/Hr	0.46	0.405	1364.3	1520.1
4.	Oxides of Nitrogen as NO <sub>2</sub> , mg/Nm <sup>3</sup>	144.8	164.0	366.9	335.0
5.	Oxides of Nitrogen as NO <sub>x</sub> , ppm	76.9	87.2	195.0	178.1
6.	Mercury as Hg, mg/Nm <sup>3</sup>	0.004	0.003	0.013	0.014
Note: All the above Stack Emission Quality Analysis were done by MOEF Approved 3 <sup>rd</sup> party M/s Earth care Pvt. Ltd.					



ENCLOSURE - 4

EFFLUENT QUALITY STATUS

Effluent Quality Monitoring report - OCT.17 to MARCH.18									
MONTH	Parameter	NORMS	OCT.17	NOV.17	DEC.17	JAN.18	FEB.18	MARCH.18	
OCT.17 to MARCH .18	PH	5.5 to 9.0	8.19	7.7	7.85	7.28	7.55	7.65	
	Total Suspended Solid	100 mg/l	14.8	5.7	3.6	14.00	18.00	9	
	Oil & Grease	10 mg/l	NIL	0.12	<0.02	<0.2	<0.2	<0.2	
	Biochemical Oxygen Demand (3 days/27°C)	30 mg/l	2	2.8	2.5	<2.0	<2.0	<2.0	
	Chemical Oxygen demand	250 mg/l	44.2	48.4	44	15.90	28.10	43.80	
	Total Dissolved Solid	2100 mg/l	1284	748	1326	850.00	892.00	1520.00	
Note: The Effluent Quality monitoring done MOEF approved 3rd party M/s Earth care Pvt. Ltd.									

**Effluent Quality Monitoring report -OCT.17 to MARCH.18**

Sl.No.	Parameter	Norms						OCT.17	NOV.17	DEC.17	JAN.18	FEB.18	MARCH.18
								unit - II	unit - II	unit - II	unit - II	unit - II	unit - II
1	PH	5.5 - 9.0	Condensor cooling Water					7.50	7.46	7.92	7.45	7.57	7.82
2	Temp.	<5°C higher than Intake water						3.40	2.30	3.2	3.60	4.00	4.00
3	Free Available Chlorine	0.5 mg/l						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

**Note:** Effluent Quality monitoring done by MoEF approved 3rd party M/s Earth care Pvt. Ltd.



Effluent Quality Monitoring report - OCT.17 to MARCH.18									
Sl.No.	Parameter	Norms	OCT.17 unit - II	NOV.17 unit - II	DEC.17 unit - II	JAN.18 unit - II	FEB.18 unit - II	MARCH.18 unit - II	
1	Total Suspended solid	100 mg/l	8.0	7.40	8.40	8.80	7.00	14.0	
2	Oil & Grease	10 mg/l	NIL	0.09	0.05	<0.2	<0.2	<0.2	
3	Copper(Total)	1 mg/l	0.036	0.022	0.027	0.03	0.06	0.08	
4	Iron(Total),mg/l	1 mg/l	0.075	0.035	0.046	0.09	0.09	0.09	
Note: The Effluent Quality monitoring done by MoEFF approved M/s Earth care Pvt. Ltd.									



**Effluent Quality Monitoring-Cooling Tower Blow down report From OCT.17 to MARCH.18**

Sl.No.	Parameter	Norms	OCT.17	NOV.17	DEC.17	JAN.18	FEB.18	MARCH.18
			unit - ll	unit - ll	unit - ll	unit - ll	unit - ll	unit - ll
1	Free Available chlorine	0.5 mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2	Zinc	1 mg/l	0.31	0.08	0.09	0.11	0.16	0.07
3	Chromium (Total)	0.2 mg/l	0.14	0.06	0.05	0.08	0.09	0.04
4	Phosphate	5 mg/l	0.86	0.32	0.29	0.22	0.91	0.07
Note: The Effluent Quality Monitoring done by MoEF approved 3rd Party M/s Earth care Pvt. Ltd.								





Effluent Quality Monitoring-Ash Pond report From OCT.17 to MARCH.18									
Sl.No.	Parameter	unit	OCT.17	NOV.17	DEC.17	JAN.18	FEB.18	MARCH.18	
			unit - ll	unit - ll	unit - ll	unit - ll	unit - ll	unit - ll	
1.00	PH	mg/l	8.95	8.98	8.90	8.40	8.34	8.41	
2.00	Oil & grease	mg/l	NIL	0.08	0.09	<0.2	<0.2	<0.2	
3.00	TSS	mg/l	5.60	5.40	5.20	4.40	7.00	8.8	
Note: Effluent Quality Monitoring done by MoEF approved 3rd Party M/s Earth care Pvt. Ltd.									



Effluent Quality Monitoring-STP Treated effluent report From OCT.17 to MARCH.18									
Sl.No.	Parameter	Norms	Unit	OCT.17	NOV.17	DEC.17	JAN.18	FEB.18	MARCH.18
1	PH	5.5 to 9.0		8.3	7.3	7.18	7.02	7.11	7.71
2	Total Suspended Solids (TSS)	100	mg/L	6	7.3	5.6	<2.0	5.00	4.40
3	BOD	100	mg/L	7.4	10.5	6.4	3.60	<2.0	4.90
Note: Effluent Quality Monitoring done by MoEF approved 3rd Party M/s Earth care Pvt. Ltd.									





# ENCLOSURE – 5

## AMBIENT NOISE QUALITY STATUS

Parameters	Location	VIP Gate( Near AAOMS Cabin - 01)		ETP (near AAQMS Cabin -02 & RWII Pond )		Old Switch Yard (Near AAQMS Cabin-03)	
		During Day Time	During Night Time	During Day Time	During Night Time	During Day Time	During Night Time
Noise Level in dB (A)	October-2017	61.9	55.1	61.3	54.6	60.6	58.1
	November-2017	59.8	53.9	57.7	53.5	56.8	53.4
	December-2017	60.8	54.9	60.0	53.2	58.0	52.9
	January-2018	57.6	50.8	63.1	50.2	57.5	48.8
	February-2018	58.7	50.5	61.0	54.1	59.8	53.4
	March-2018	61.5	55.5	64.8	54.8	62.2	53.2
Norms		75	70	75	70	75	70
Note: All the above Ambient Noise Quality Analysis were done by MOEF Approved 3 <sup>rd</sup> party M/s Earth care Pvt. Ltd.							

**ENCLOSURE – 6**  
**AMBIENT AIR QUALITY STATUS**

1.0 Location: - VIP Gate (near AAQMS Cabin-01)

Sr. No.	Parameters	Norms	Concentration					
			October - 2017	November - 2017	December - 2017	January - 2018	February - 2018	March - 2018
1.	Sulphur Dioxide ( SO <sub>2</sub> ) µg/m <sup>3</sup>	80	9.2	8.89	10.7	9.4	6.54	6.9
2.	Nitrogen Dioxide (NO <sub>2</sub> ) µg/m <sup>3</sup>	80	18.2	14.8	22.7	19.3	17.6	22.4
3.	Particulate Matter of size less than 10 µm ( PM <sub>10</sub> ) µg/m <sup>3</sup>	100	41.5	57.9	49.6	53.4	46.8	52.8
4.	Particulate Matter of size less than 2.5 µm (PM <sub>2.5</sub> )µg/m <sup>3</sup>	60	22.9	27.6	22.1	26.6	20.7	22.9
5.	Ozone (O <sub>3</sub> ) (µg/m <sup>3</sup> )	100	12.9	21.8	21.6	20.5	20.8	20.6
6.	Lead (Pb) (µg/m <sup>3</sup> )	0.5	0.08	0.1	0.07	0.081	0.082	0.11
7.	Carbon Monoxide (CO) (mg/m <sup>3</sup> )	2	0.11	0.74	0.5	0.55	0.34	0.53
8.	Ammonia (NH <sub>3</sub> ) (µg/m <sup>3</sup> )	100	8	12.3	14.1	22.7	21.2	23.1
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) (µg/m <sup>3</sup> )	5	3.7	3.9	3.5	3.69	3.82	3.93
10.	Benzo(a) Pyrene (BaP) (ng/m <sup>3</sup> )	1	0.78	0.82	0.73	<1.0	0.72	0.87
11.	Arsenic (As) (ng/m <sup>3</sup> )	6	3.6	3.92	3.62	3.73	3.93	4.37
12.	Nickel (Ni) (ng/m <sup>3</sup> )	20	4.8	5.44	5.22	6.14	5.59	10.7

Note: All the above Ambient Air Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.

**Note: All the above Ambient Air Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.**

2.0 Location: - ETP (Near AAQMS Cabin-02 & RWII Pond )

Sr. No	Parameters	Norms	Concentration					
			October-2017	November-2017	December-2017	January – 2018	February-2018	March-2018
1.	Sulphur Dioxide ( SO <sub>2</sub> ) µg/m <sup>3</sup>	80	8.8	8.15	12.8	7.8	6.07	8.1
2.	Nitrogen Dioxide (NO <sub>2</sub> ) µg/m <sup>3</sup>	80	16.3	16.4	26.7	12.4	16.3	15.5
3.	Particulate Matter of size less than 10 µm (PM <sub>10</sub> ) µg/m <sup>3</sup>	100	49.3	53.3	58.2	59.9	50	54.9
4.	Particulate Matter of size less than 2.5 µm (PM <sub>2.5</sub> ) µg/m <sup>3</sup>	60	21.2	26.5	27.2	31.6	30.7	33
5.	Ozone (O <sub>3</sub> ) (µg/m <sup>3</sup> )	100	9.3	20.6	21.5	20.5	20.8	20.5
6.	Lead (Pb) (µg/m <sup>3</sup> )	0.5	0.06	0.08	0.09	0.11	0.06	0.09
7.	Carbon Monoxide (CO) (mg/m <sup>3</sup> )	2	0.1	0.45	0.75	0.87	0.25	0.46
8.	Ammonia (NH <sub>3</sub> ) (µg/m <sup>3</sup> )	100	11.2	8.24	9.9	22.5	21.5	20.1
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) (µg/m <sup>3</sup> )	5	3.86	3.85	3.98	3.95	3.89	3.82
10.	Benzo(a) Pyrene (BaP) (ng/m <sup>3</sup> )	1	0.72	0.83	0.7	<0.1	0.71	0.69
11.	Arsenic (As) (ng/m <sup>3</sup> )	6	2.97	3.46	3.53	4.67	3.96	3.8
12.	Nickel (Ni) (ng/m <sup>3</sup> )	20	4.12	6.28	5.19	8.18	7.3	6.25

Note: All the above Ambient Air Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd

Note: All the above Ambient Air Quality Analysis were done by MOEF Approved 3<sup>rd</sup> party M/s Earth care Pvt. Ltd.



3.0 Location: - Old Switch Yard (Near AAQMS Cabin-03)

Sr. No.	Parameters	Norms	Concentration					
			October - 2017	November- 2017	December - 2017	January- 2018	February- 2018	March- 2018
1.	Sulphur Dioxide ( SO <sub>2</sub> ) µg/m <sup>3</sup>	80	7.5	9.27	12.4	10.6	6.38	8.2
2.	Nitrogen Dioxide (NO <sub>2</sub> ) µg/m <sup>3</sup>	80	13.2	10.8	26.1	12.4	15.5	17.3
3.	Particulate Matter of size less than 10 µm ( PM <sub>10</sub> ) µg/m <sup>3</sup>	100	48.3	40.8	57.7	59.5	51.4	55.3
4.	Particulate Matter of size less than 2.5 µm (PM <sub>2.5</sub> )µg/m <sup>3</sup>	60	19	19.2	25.5	28.6	28.6	30.6
5.	Ozone (O <sub>3</sub> ) (µg/m <sup>3</sup> )	100	10.4	20.2	23.3	20.3	20.8	20.8
6.	Lead (Pb) (µg/m <sup>3</sup> )	0.5	0.06	0.05	0.12	0.08	0.065	0.12
7.	Carbon Monoxide (CO) (mg/m <sup>3</sup> )	2	0.08	0.36	1.1	0.93	0.38	0.58
8.	Ammonia (NH <sub>3</sub> ) (µg/m <sup>3</sup> )	100	7.7	10.3	8.2	21.8	22.9	24.5
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) (µg/m <sup>3</sup> )	5	3.4	3.5	3.86	3.73	3.81	4.32
10.	Benzo(a) Pyrene (BaP) (ng/m <sup>3</sup> )	1	0.6	0.64	0.89	<1.0	0.82	0.97
11.	Arsenic (As) (ng/m <sup>3</sup> )	6	2.82	2.79	4.37	3.87	3.82	4.47
12.	Nickel (Ni) (ng/m <sup>3</sup> )	20	3.82	3.65	8.31	7.18	6.15	11.5
Note: All the above Ambient Air Quality Analysis were done by MOEF Approved 3 <sup>rd</sup> party M/s Earth care Pvt. Ltd								

4.0 Location: - Mr. Maroti Shankar Roge house Village-Sonegaon

Sr. No.	Parameters	Norms	Concentration					
			October - 2017	November- 2017	December- 2017	January- 2018	February- 2018	March- 2018
1.	Sulphur Dioxide ( SO <sub>2</sub> ) µg/m <sup>3</sup>	80	8.40	8.19	10.3	9.80	6.27	7.20
2.	Nitrogen Dioxide (NO <sub>2</sub> ) µg/m <sup>3</sup>	80	14.7	16.7	22.5	18.6	9.17	16.3
3.	Particulate Matter of size less than 10 µm ( PM <sub>10</sub> ) µg/m <sup>3</sup>	100	50.4	59.7	57.3	34.1	31.9	43.9
4.	Particulate Matter of size less than 2.5 µm (PM <sub>2.5</sub> ) µg/m <sup>3</sup>	60	21.6	32.7	28.4	23.0	14.7	20.5
5.	Ozone (O <sub>3</sub> ) (µg/m <sup>3</sup> )	100	9.30	15.3	20.5	21.5	21.2	21.1
6.	Lead (Pb) (µg/m <sup>3</sup> )	0.5	0.07	0.09	0.11	0.04	0.04	0.06
7.	Carbon Monoxide (CO) (mg/m <sup>3</sup> )	2	0.04	0.76	0.82	0.53	0.17	0.23
8.	Ammonia (NH <sub>3</sub> ) (µg/m <sup>3</sup> )	100	8.70	10.7	12.3	20.7	23.6	23.3
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) (µg/m <sup>3</sup> )	5	3.83	4.61	4.50	3.38	3.49	3.37
10.	Benzo(a) Pyrene (BaP) (ng/m <sup>3</sup> )	1	0.73	0.87	0.68	<1.0	0.59	0.55
11.	Arsenic (As) (ng/m <sup>3</sup> )	6	2.75	3.67	3.79	2.84	2.54	2.58
12.	Nickel (Ni) (ng/m <sup>3</sup> )	20	3.90	8.49	7.81	3.52	3.47	3.45
Note: All the above Ambient Air Quality Analysis were done by MOEF Approved 3 <sup>rd</sup> party M/s Earth care Pvt. Ltd.								



5.0 Location: - Terrace of Shri Bapurao Pimpalkar House, Village - Wandhri

Sr. No.	Parameters	Norms	Concentration					
			October-2017	November-2017	December-2017	January-2018	February-2018	March -2018
1.	Sulphur Dioxide ( SO <sub>2</sub> ) µg/m <sup>3</sup>	80	6.80	7.81	11.1	10.9	6.35	6.28
2.	Nitrogen Dioxide (NO <sub>2</sub> ) µg/m <sup>3</sup>	80	10.2	14.5	25.4	9.09	8.83	14.3
3.	Particulate Matter of size less than 10 µm ( PM <sub>10</sub> ) µg/m <sup>3</sup>	100	40.8	51.5	57.9	36.3	38.1	36.6
4.	Particulate Matter of size less than 2.5 µm (PM <sub>2.5</sub> )µg/m <sup>3</sup>	60	18.0	28.8	29.7	17.4	18.9	23.1
5.	Ozone (O <sub>3</sub> ) (µg/m <sup>3</sup> )	100	7.70	15.6	21.4	0.13	20.8	20.8
6.	Lead (Pb) (µg/m <sup>3</sup> )	0.5	0.03	0.06	0.11	0.15	0.05	0.06
7.	Carbon Monoxide (CO) (mg/m <sup>3</sup> )	2	0.02	0.24	1.05	0.18	0.18	0.27
8.	Ammonia (NH <sub>3</sub> ) (µg/m <sup>3</sup> )	100	6.20	8.41	14.7	3.72	21.7	21.2
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) (µg/m <sup>3</sup> )	5	3.26	3.47	5.12	1.16	3.73	3.37
10.	Benzo(a) Pyrene (BaP) (ng/m <sup>3</sup> )	1	0.51	0.56	0.75	<0.5	0.59	0.54
11.	Arsenic (As) (ng/m <sup>3</sup> )	6	2.81	2.93	4.86	2.48	2.81	3.66
12.	Nickel (Ni) (ng/m <sup>3</sup> )	20	3.63	3.83	8.88	6.35	3.89	5.03
Note: All the above Ambient Air Quality Analysis were done by MOEF Approved 3 <sup>rd</sup> party M/s Earth care Pvt. Ltd.								



6.0 Location: - Terrace of Gram Panchayat, Village- Yerur

Sr. No.	Parameters	Norms	Concentration					
			October - 2017	November- 2017	December - 2017	January- 2018	February- 2018	March - 2018
1.	Sulphur Dioxide ( SO <sub>2</sub> ) µg/m <sup>3</sup>	80	7.70	8.88	9.64	9.60	6.84	7.10
2.	Nitrogen Dioxide (NO <sub>2</sub> ) µg/m <sup>3</sup>	80	12.8	15.8	25.6	26.7	10.6	17.2
3.	Particulate Matter of size less than 10 µm ( PM <sub>10</sub> ) µg/m <sup>3</sup>	100	43.7	43.5	51.4	51.6	55.5	41.1
4.	Particulate Matter of size less than 2.5 µm (PM <sub>2.5</sub> ) µg/m <sup>3</sup>	60	19.5	24.1	22.5	25.1	21.9	16.6
5.	Ozone (O <sub>3</sub> ) (µg/m <sup>3</sup> )	100	6.30	13.3	21.2	0.77	21.2	20.1
6.	Lead (Pb) (µg/m <sup>3</sup> )	0.5	0.04	0.05	0.08	0.21	0.06	0.04
7.	Carbon Monoxide (CO) (mg/m <sup>3</sup> )	2	0.03	0.36	0.56	0.22	0.25	0.26
8.	Ammonia (NH <sub>3</sub> ) (µg/m <sup>3</sup> )	100	8.40	6.56	12.4	7.56	23.8	22.5
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) (µg/m <sup>3</sup> )	5	3.25	3.62	3.78	1.44	3.92	3.21
10.	Benzo(a) Pyrene (BaP) (ng/m <sup>3</sup> )	1	0.61	0.67	0.56	0.58	0.74	0.45
11.	Arsenic (As) (ng/m <sup>3</sup> )	6	2.55	2.80	3.48	3.10	3.10	3.60
12.	Nickel (Ni) (ng/m <sup>3</sup> )	20	3.37	5.17	5.88	7.37	5.33	4.87
Note: All the above Ambient Air Quality Analysis were done by MOEF Approved 3 <sup>rd</sup> party M/s Earth care Pvt. Ltd.								

**Enclosure-7**

**DHARIWAL INFRASTRUCTURE LIMITED,**

Tadali, Dist. Chandrapur

**5 Years Consolidated Report on  
Corporate Social Responsibility  
Year 2012 to 2018**

### **Broad CSR Initiatives**

- 1) Swachh Bharat Abhiyan (Health, Sanitation & Drinking Water)
- 2) Digital Village Program
- 3) Skill Development
- 4) SHG Promotion and adolescent girls program
- 5) Education promotion
- 6) Agricultural / Irrigation Development
- 7) Village Infrastructure Development
- 8) Environmental Improvement



## **Swachh Bharat Abhiyan Program**

### **Objectives**

- To promote safe sanitation & clean environment as way of life in rural areas
- To incentivize Panchayat Raj Institutions (PRIs) to make the villagers Open Defecation Free(ODF) and to promote Solid and Liquid Waste Management(SLWM)
- To sustain the initiative of clean environment.
- To encourage organization to play a catalytic role in social mobilization in the implementation of Swachh Bharat Abhiyan

### **The Progress made so far under Swachh Bharat Abhiyan**

- 978 Construction of Toilets have completed.
- Construction of Sanitation handwash facilities completed in ZP schools & Anganwadis & Grampanchayat Offices in Morva and Pandharkawda.
- Water Filters provided in Anganwadis
- Dustbins, Compost beds, soak pits, Drainage Cleaning, Repaired and addition of Street lights
- Plantation with tree gaurds in 10 villages.
- Painting School, Anganwadi, Schools, public places.
- Provided Drinking water pipe line in Pandharkawda & Wadha.
- Organized Rally, Pathanitaka, Gram Swachhta Abhiyan, Home to Home mobilization, Exposure visit ,Nirmal Gram Workshop ,Gramsabha & concern dept Meeting for Sanitation.
- Six villages Have got ODF certificate From GOVT
- Meetings held with Sarpanch and villagers for mobilizing participation.
- Provided garbage van ,soak pit, Compost bed, dust bin in Pandharkawda ,Sonegaon Dhanora, Morawa,Anturla,Shenagon.
- Exposure visit organized for Pandharkawada GP members to CSV Wardha & Takali Ketu for understanding safe sanitation & toilets construction.
- Home visits conducted to mobilize people's participation and contribution to construction of toilets along with GP secretary & GP Members.
- Meeting with District Magistrate & CEO & BDO for sanitation & toilets construction.
- Inauguration programme organized at Dhanora on starting Toilet Construction program.

## **Digital Village Program**

### **Objective**

- Selected Pandharkawda for the digital village program
- 100% coverage with the inclusion of cashless transactions, usage of online wallets and provision of free Wi-Fi.
- Mobile Banking, SMS Banking, Missed Call Alerts, Internet Banking, Debit Card etc. would be enabled for all households in the villages
- Villagers would be issued with RuPay debit card and they would be covered under RuPay Insurance Scheme
- Reduction of gap between rural and urban India, by bringing financially excluded people under the fold of banking.
- Based on the success of this initiative, DIL will plan for scaling up to more villages

### **Activity**

- 100% Bank account opened for villagers in Pandharkawda Village .
- 90 % villagers have their Adhar linked with bank account.
- 120 villagers were installed with cash less app for financial transaction such as BHIM ,PYTM ,MAHABANK, RUPAY, PHON PE etc.
- organized 3 Cashless training for villagers.
- Survey
- Conducted classes for 55 to 65 elders.

### **Output**

- 120 villagers are using apps for cashless transaction.
- 80% Villagers have paid electricity bill through online payment.
- Pandharkawada is selected for SMART village competition from Chandrapur Dist.
- Now 100 % villagers have their bank account.
- 50% villagers are using ATM.

## **Education Program**

### **Objective**

Ensure all students in classes 1st - 8th are able to perform at least 50% score in their class exams.

### **Activity**

- Started 21 L2R , R2L classes in 8 villages 398 students have enrolled.
- 8 libraries are running successfully from last three years , 750 children have enrolled
- Conducted summer camp in 8 villages and 1519 students participated
- Organized 2 training for staff and Balsakhi.
- Organized Pustakwala program in 8 villages .
- Organized Sports and cultural program and food festival in Tadali for 8 villages students.
- Organized study tour in Hemalkasa
- Organized drawing competition in 8 villages .
- Organized constitution day .

### **Output**

- 92 % students can read , write and speak basic math and language.
- Students attendance increased in the school .
- 78 % students progress have improved in their exams.(According to School Report Card)

## **Agriculture Program**

### **Objective**

- 2 farmers clubs in Yerur & Sonegaon are able to access all supports from NABARD & Agriculture department
- Develop the Intake area into a Agriculture Demostration Farm for Farmers Training.

### **Activity**

- Started RML kisan call services for 42 farmers.
- Conducted five training for the farmers club such as fertilizer, pesticides, seeds, soil testing , cotton etc
- conducted exposure visit in Agriculture Melava at Nagpur.
- Started Kiosk at Soneagon.
- Maintenance of 150 Oranges plants in Intake well, Wadha. Planted 105 orange ,10 guava , 250 Nilgiri , marigold, lady finger , bins, fenugreek, coriander, brindle ,chilies and water melon and mangoes.



- Provide 80 tree guards and plants to the villages
- Preparation of land for farming.

### **Output**

- Linkage farmer club with Nabard and ATMA .
- Farmer club have been collecting Rs 100, Rs 200 each respectively from Yerur and Sonegaon every month.
- They are doing vegetables cultivation in their farm. intake well area have developed for demo plot.
- Last year 148 old orange plants produced orange next year.
- Developed organic watermelon demo plot for farmer club as well as orange , vermin compost.

## **Self Help Group Program**

### **Objective**

- SHG members practice savings and credit
- SHGs have Bank linkages and have their Bank Accounts.
- SHG will start small business.

### **Activity**

- Meeting with SHG group.
- 6 New SHG group formed
- Conducted 6 days staff training
- Organized woman cultural and sport program at Morwa

### **Out put**

- 6 SHG group have opened account in bank.
- 2 SHG will start business noodle machine and disposer machine in shenagaon and Tadali.

## **Adolescent Girls Program**

### **Objective**

- Adolescent Girls of class VIII to XII in one school are access to safe and hygienic sanitary napkins.
- To create awareness of adolescence girls during their period.

**Activity**

- Organized 4 HB camp in four villages.
- 6 SHG have formed in five villages .
- Installation of Sanitary Napkin Vending Machine in Indira Gandhi School and New English high School

**Output**

- Now 85 % girls use sanitary napkin pad.
- Girls have started SHG groups.
- Started sanitary napkin vending machine in 2 school at Pandharkawda.

**Skill Development Program**

- Mobilization meeting for hospitality training
- 9 students have selected for hospitality training
- Training have been completed from 20<sup>th</sup> July 2017 at Ralegaon.
- 9 students are placed in star hotels .
- Organizing Training on Beautician & Tailoring at Pandharkawada.
- 80 women participated in the training centre from 5 villages.
- Students Exam is over .
- 80 Students Covered from 2 batch.
- Provide certificate provide by NSDC.
- Some student Started their own business .
- Started SHG from Trainees.
- They will start their Group business.

**Village Infrastructure Development**

- Renovation Police station Ghugus (Beds ,Pillow, Bed sheet ,Dining, Mattress) .
- Help Cultural Program to ASHA NGO.
- Help sport (Cricket & Kabbadi) at Pandharkawada & Morava.
- Help guru Pornima & Provide Furniture at Wada.
- Help for Rashtra Sant Tukodoji Maharaj Program At Pandharkawada & Wada.

- Help for Personality Development program In Bamani.
- Help for the damp construction in the Wada.
- Provide AC & Water Cooler & Water filter at Christ Hospital.
- Provide AC & Water Cooler & Water filter at Mount Carmel School.
- Help for the Durga Pujan & Ganpati Pujan.
- Help For operation poor Children.
- Help For flood affected people.
- Provide the furniture at Wada.
- School Toilet, Panchayat Toilets. Painting Anganwadi, Drain cleaning, Eco friendly toilets Constructed at 5 Villages.
- Constructed Office Dysp Chandrapur.
- Constructed Grampanchayat building & wall compound in Sonegaon.
- Constructed 1.3 KM road in Wada .
- Repairs 2 KM road in Wada to Pandharkawada village.
- Drain Cleaning ,Dustbin and school painting at Morava
- 238 mtrs water Pipe line in Wada.
- Constructed wall compound in temple in Pandharkawada.
- Repairing of bus stop shelter in Wada.
- Constructed floor in Grampanchayat Dhanora.
- Reconstructed playing Ground in Yerur.
- Providing street light in 10 villages.
- Provide Tree guard 10 Villages & road surrounding plantation.

### **Expenditure**

- Total Expenditure for the period from April 2017 to March 2018 for all CSR activities was Rs. 32 Lakhs.
- Total Expenditure for all CSR activities till date was Rs. 271 Lakhs.



**ENCLOSURE –8**  
**Monitoring the Implementation of Environmental Safeguards**  
**Ministry of Environment & Forests**  
**Regional Office (W), Nagpur**

Monitoring Report		
PART- I		
DATA SHEET		
<b>Ref No.</b>	DIL/HSE/F-09/18-19	<b>Date :</b> 26/05/2018
1.	Project type : River-valley/Mining / Industry/Thermal/Nuclear/other (specify)	: Thermal Power Plant
2.	Name of the project	: M/s. Dhariwal Infrastructure Ltd. Plot No. C-6, C-7 & C-8, Tadali Industrial Area, MIDC, Village – Tadali, Dist. - Chandrapur
3.	Clearance letter (s)/OM no and date	: J-13011/10/2009-IA. II (T) dated 04 -12-2009
4.	Location	
	a. District (s)	: Chandrapur
	b. State(s)	: Maharashtra
	c. Latitude/Longitude	: Latitude : 20°00'30" to 20°01'20" North Longitude 79°11'50" to 79°12'35" East
5.	Address for correspondence	
	a. Address of Concerned Project Chief Engineer (with pin code & telephone/telex/fax numbers)	: Shri. Rabi Chowdhury, Managing Director M/s. Dhariwal Infrastructure Ltd. Plot No. C-6, C-7 & C-8, Tadali Industrial Area, MIDC, Village – Tadali, Dist. – Chandrapur, PIN - 442406 Phone No. 07172-645911-13 Fax No.- 07172-237992
	b. Address of Executive Project Engineer/Manager (with pin code/fax numbers)	: Shri. Gautam Ghoshal Vice President M/s. Dhariwal Infrastructure Ltd. Plot No. C-6, C-7 & C-8, Tadali Industrial Area, MIDC, Village – Tadali, Dist. – Chandrapur PIN - 442406 Phone No. 07172-645911-13 Fax No.- 07172-237992
6.	Salient features	
	a. of the project	: Please refer <b>Annexure-1</b>
	b. of the environmental management plans	:
7.	Break up of the project area	
	a. submergence area : forest & non-forest	: Not applicable since the Unit is set up in MIDC Industrial Area

	b.	Others	:	Total project area : 480 Acres Area earmarked for green belt development is 138 Acres	
8.	Break up of the project affected population with enumeration of those losing houses/dwelling units only agricultural land only, both dwelling units & agricultural land & landless laborers/artisan (Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out give details and years of survey)		:	Not applicable since the Unit is set up in MIDC Industrial Area	
9.	Financial details				
	a.	Project cost as originally planned and subsequent revised estimates and the year of price reference	:	Total project cost originally planned was Rs. 3054 Crores. The gross capital incurred as on date is Rs. 3958 Crores.	
	b.	Allocation made for environmental management plans with item wise and year wise break-up		Rs. 489.5 Lakhs.	
Sr.No.	Particular			Capital Cost Incurred for April 2017 to March 2018 (Rs. In Lakhs)	Recurring Cost Incurred for April 2017 to March 2018 (Rs. In Lakhs)
	1	Air Pollution Control		88.20	163.44
	2	Water Pollution Control			4.18
	3	Noise Pollution Control			
	4	Environment Monitoring and Management		5.22	89.72
	5	Reclamation borrow/mined area			
	6	Occupational Health			60.79
	7	Green Belt and Land Environment		1.66	44.18
	8	Others (Pl. Specify) Socio-economic Environment			32.16
	Total			95.095	394.50
	c.	Benefit cost ratio/Internal rate of Return and the year of assessment	:	The construction work is started in the financial year 2010-11 and Plant is commissioned in two phases in October 2013 and July 2014.	
	d.	Whether (c) includes the cost of environmental management as shown in the above	:	Yes	
	e	Actual expenditure incurred on the project so far	:	Rs. 3958 Crores	
	f.	Actual expenditure incurred on the environmental management plans from April 2017 to March 2018.	:	Capital Cost : Rs. 95.095 Lakhs Recurring Cost : Rs. 394.50 Lakhs Total : Rs. 489.5 Lakhs	
10	Forest land requirement				



	a.	The status of approval for diversion of forest land for non-forestry use	: Not applicable, since the Unit is located in MIDC Industrial Area, Tadali, Chandrapur.
	b.	The status of clearing felling	: Not applicable
	c.	The status of compensatory afforestation, if any	: Not applicable
	d.	Comments on the viability & sustainability of compensatory afforestation programme in the light actual field experience so far	: Not applicable
11		The status of clear felling in non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information	: Not applicable
12		Status of construction	
	a.	Date of commencement (Actual and/or planned)	: June 2010
	b.	Date of completion (Actual and/of planned)	: July 2014
13		Reasons for the delay if the project is yet to start	: Work is completed.
14		Dates of site visits	
	a	The dates on which the project was monitored by the Regional Office on previous occasions, if any.	: Nil
	b.	Date of site visit for this monitoring report.	: --
15		Details of correspondence with project authorities for obtaining action plans/information on status of compliance to safeguards other than the routine letters for logistic support for site visits.	: DIL is regularly submitting Half Yearly Compliance Reports since April 2010.
		(The first monitoring report may contain the details of all the letters issued so far, but the later reports may cover only the letters issued subsequently.)	

For **DHARIWAL INFRASTRUCTURE LTD.**



**(Biplab Kanti Kar)**  
Head O & M



## ANNEXURE-1

### SALIENT FEATURES

#### 1.0 Salient Features of the Project

- ❖ It is a coal based Thermal Power Plant (TPP) of capacity @ 2 x 300 MW. The requirement of coal is 3.0 Million TPA and full fledged coal handling plant is installed in the Unit.
- ❖ Auxiliary fuel, LDO is stored in 2 X 1000 m<sup>3</sup> storage capacity tank.
- ❖ Total fresh water requirement is 19.272 Million KL Per Annum and it is fulfilled from Wardha River.
- ❖ Rail infrastructure & Road network is adequately available.
- ❖ The 400 KV Sub-Station - Chandrapur is located at 7.0 km towards East direction and connected for power evacuation.
- ❖ The ash handling system comprising dry extraction by pneumatic conveying system has been provided, Ash bund of adequate capacity is also provided. Ash disposal as per Fly Ash Notification Nov. 2008 is in progress.
- ❖ The operation of 2 x 300 MW TPP is started with all pollution control systems.

#### 2.0 Salient Features of Environment Management Plan

The adequate pollution control measures with latest pollution control system are installed in the Plant.

The EMP has been prepared to further mitigate the impacts, if any, on environment due to the Unit and to ensure that the study area will be well conserved during construction and operation phase of the TPP.

##### 2.1.1 Construction Phase

- ❖ Constuction Phase is over in year 2014 and Plant (both Unit-1 and Unit-2) was commissioned on October 2013 and June 2014 respectively.

##### 2.1.2 Operation Phase

###### 2.1.2.1 Land Environment

The EMP for land environment is to scientifically utilize the capabilities of different plant species for attenuation of particulate and noise. Further, afforestation programme & green belt development programme is in progress on priority.

- ❖ The tree species selected for plantation are as per the CPCB Guidelines.
- ❖ Tree species are selected considering tolerance to specific conditions or alternatively wide adaptability to eco-physiological conditions.
- ❖ Fly ash is directly supplied to cement plants.
- ❖ Bottom ash is disposed at ash bund.
- ❖ Abandoned quarries/mines in the region will be studied for filling and leveling by bed ash as well as for green belt development.
- ❖ Generation of used/spent oil is insignificant and its disposal will be carried out scientifically.

#### **21.2.2 Air Environment**

Generation of ambient air quality data helps to develop sustainable environment. Following measures are carried out for further environmental improvements:

- ❖ A system is developed for the regular check up and efficient maintenance of all the pollution control arrangements.
- ❖ Truck/wagon unloading operations are regularly supervised to reduce fugitive emissions.
- ❖ A green belt around the plant site and plantation within the plant premises especially around the possible sources of fugitive emissions is carried out
- ❖ Water sprinkling on roads is carried out to prevent dust pollution.
- ❖ Water Sprinklers are provided in Coal yard and sprinkling is done to prevent dust pollution.

#### **2.1.2.3 Noise Environment**

- ❖ The operator's cabins and control rooms are properly acoustically insulated with special doors and observation windows.
- ❖ Noise attenuating devices like ear plug and ear muffs are provided to protect the workers from high noise levels.
- ❖ Walls and ceilings are lined with sound absorbing materials, wherever required.
- ❖ The vent valves are equipped with silencers.

#### **2.1.2.4 Water Environment**

- ❖ The water conservation scheme is implemented in different sections/ operations so as to reduce water requirements.
- ❖ Regular monitoring and quantification of water requirement at various operations/sections is carried out.
- ❖ Rain water harvesting is carried out.
- ❖ All the pipeline/taps leakage is promptly attended to.

#### **2.1.2.5 Socio-Economic Environment**

Environmental Management Plan (EMP) is prepared considering the impacts which have manifested as a result of the ongoing activities i.e. existing socio-economic profile in the study area. The details are given below

- ❖ Though there is limited direct employment required in the TPP, still the local people are given opportunities for indirect jobs and business in the project.
- ❖ All workers, labours & staff are provided with personal protective appliances (PPEs) and safety gadgets.
- ❖ Social welfare programmes with reference to health, education, water conservation, income generation are organized in the nearby villages.
- ❖ For all the social welfare activities to be undertaken by the authorities, collaboration and consultation is sought with the local administration, grampanchayat, block development office, NGOs etc. for better co-ordination.
- ❖ Rest rooms, canteen, drinking water etc near the work place are provided for contract labours as well as transporters.



28/09/2017

MPCB Web Portal



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Industries

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## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2017

## Part A

## Company Information

* Company Name	* Application UAN number		
Dhariwal Infrastructure Limited	MPCB-CONSENT 0000009208		
* Address			
Dhariwal Infrastructure Limited			
* Plot Number	* Taluka	* Village	
C-6, C-7 & C-8	Tadali Industrial area MIDC	Tadali	
* Capital Investment (In lakhs)	* Scale		
393811	LSI		
* City	* Pincode		
Chandrapur	442406		
* Person Name	* Designation		
Devendra Tripathi	Manager-HSE		
* Telephone Number	* Fax Number	* Email	
9561112004	07172237992	devendra.tripathi@rp-sg.in	
* Region	* Industry Category	* Industry Type	
SRO - Chandrapur	Red	R48 Thermal Power Plants	
* Last Environmental statement submitted online	* Consent Number	* Consent Issue Date	
<input type="radio"/> No <input checked="" type="radio"/> Yes	BO/RO(Chandrapur)/CAC-CELL/CAC-1703001440	21.03.2017	
* Consent Valid Upto			
31.12.2018			

Save Draft

## Product Information

* Product Name	* Consent Quantity	* Actual Quantity	* UOM
Electricity generation	5256000	369154	Mwh
Add More			

## By-product Information

* By Product Name	* Consent Quantity	* Actual Quantity	* UOM
0	0	0	Kg





## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2017

## Part B

Step A

## 1) Water Consumption in m3/day

Sr. no	Water Consumption for	Consent Quantity in m3/day	Actual Quantity in m3/day
1	Process	5280	95.1
2	Cooling	49440	10283.7
3	Domestic	40	36.4
4	All others	0	0
	Total	54760	10415.2

## 1) Effluent Generation in CMD / MLD

* Particulars	* Consent Quantity	* Actual Quantity	* UOM
Trade Effluent	7776	148.6	CMD
Domestic Effluent	32	28	CMD
<a href="#">Add More</a> <div>Save Draft</div>			

## 2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

* Name of Products (Production)	* During the Previous financial Year	* During the current Financial year	* UOM
Power Generation	3.3	2.42	KI
<a href="#">Add More</a>			

## 3) Raw Material Consumption (Consumption of raw material per unit of product)

* Name of Raw Materials	* During the Previous financial Year	* During the current Financial year	* UOM
Coal	0.6643	0.6555564	Kg
LDO	0.000001206	0.0001193	KI
Hydrochloric Acid	0.0001143	0.0000440	Kg
Caustic Lye	0.00005086	0.0000235	Kg
Sulphuric Acid	0.00034	0.0002813	Kg

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Sodium hypochlorite	0.000242	0.0002107	Kg
Alum	0.0000642	0.0000502	Kg
Lime	0.000023	0.0000034	Kg
<a href="#">Add More</a>			

#### 4) Fuel Consumption

* Fuel Name	* Consent quantity	* Actual Quantity	* UOM
Coal	4029600	1010683.8	MT/A
LDO	4066	183.912	KL/A
<a href="#">Add More</a>			
<a href="#">Proceed to Part C</a>			

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## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2017

### Part C

Step B Step A

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

#### [A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day or Kg/day)	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour	Percentage of variation from prescribed standards with reasons		
	Quantity	Concentration	% variation	Standard	Reason
TDS	188	1406	0	2100	0
Add More					

#### [B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day or Kg/day)	Concentration of Pollutants discharged(Mg/NM3)	Percentage of variation from prescribed standards with reasons		
	Quantity	Concentration	% variation	Standard	Reason
TPM	289.47	17.7	0	50	0
Add More					

Proceed to Part D





## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2017

### Part D

[Step C](#) [Step B](#) [Step A](#)

#### HAZARDOUS WASTES

[As specified under Hazardous Waste (Management Handling & Transboundary Movement Rules, 2008)]

##### 1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
5.1 Used /spent oil ▼	4.2	14.28	MT/A ▼
34.2 Toxic metal-containing resin ▼	0	0	MT/A ▼
33.3 Discarded containers / barrels ▼	0	0	Nos./Y ▼
33.3 Discarded containers / barrels ▼	0	0	Nos./Y ▼

[Add More](#)

##### 2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
34.4 Chemical sludge, oil and grease ▼	0	0	MT/A ▼

[Add More](#)

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[Proceed to Part E](#)



## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2017

Part E  
SOLID WASTES

Step D Step C Step B Step A

## 1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
FLY ASH	72385	307803.57	MT/A
BOTTOM ASH	10310	33358.19	MT/A
<a href="#">Add More</a>			

## 2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
BIOLOGICAL SLUDGE	0	0	MT/A
<a href="#">Add More</a>			

## 3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
NA	0	0	MT/A
<a href="#">Add More</a>			
<a href="#">Proceed to Part F</a>			

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## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2017

## Part F

Step E Step D Step C Step B Step A

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

## 1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
5.1 Used /spent oil ▼	14.28	MT/A ▼	Well below the norms
34.2 Toxic metal-containing resin ▼	0	MT/A ▼	0
34.4 Chemical sludge, oil and grease ▼	0	MT/A ▼	0
33.3 Discarded containers / barrels ▼	0	Nos./Y ▼	0

[Add More](#)

## 2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
FLY ASH	307803.57	MT/A ▼	NA
BOTTOM ASH	33358.19	MT/A ▼	NA

[Add More](#)[Proceed to Part G](#)





## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2017

## Part G

[Step F](#) [Step E](#) [Step D](#) [Step C](#) [Step B](#) [Step A](#)

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
After commission	0	0	0	0	0	0

[Add More](#)[Proceed to Part H](#)[Save Draft](#)



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## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2017

### Part H

[Step G](#) [Step F](#) [Step E](#) [Step D](#) [Step C](#) [Step B](#) [Step A](#)

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution

#### [A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
Expenditure made on Air pollution, water pollution	Expenditure made on Air pollution, water pollution	386
<a href="#">Add More</a>		

#### [B] Investment Proposed for next Year

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
Expenditure proposed on Air pollution, water pollution	Expenditure proposed for on Air pollution, water pollution	444.59
<a href="#">Add More</a>		
<a href="#">Proceed to Part I</a>		



## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2017

## Part I

Step H Step G Step F Step E Step D Step C Step B Step A

Any other particulars in respect of environmental protection and abatement of pollution

## Particulars

Factory has already implemented all the necessary pollution control measures. Green belt development programme is a regular features.

## Name &amp; Designation

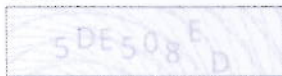
DEVENDRA PRASAD TRIPATHI, MANAGER HSE

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Kindly attach Latest Consent copy No file chosen

Analysis report(Water &amp; Air &amp; Hazardous Waste) of the current year.(Analysis report from recognized laboratory by MoEF)

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